SCHOOL OF PUBLIC HEALTH

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STIGMA AND DISCRIMINATION AGAINST PEOPLE LIVING WITH HIV AND AIDS IN THE JAMAN NORTH DISTRICT OF BRONG AHAFO REGION

BY

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

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DECLARATION

I hereby declare that apart from specific references which have duly been acknowledged, this research proposal is my own work put together.

…… ……

ELFREDA ANGANGMWINE ABUDU **DATE**
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(SUPERVISOR)

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DEDICATION

This Dissertation is dedicated to the memory of my Late Aunt **Perpetua Darimoah Mornah** (1952- 2013) with love. I cannot return her love and kindness except to say that I have my all life and my achievements dedicated to her. I remember your pure love and care for me and you will forever remain in my heart and the rest of the family.

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ABSTRACT

Introduction: HIV and AIDS related stigmatization and discrimination has severe consequences on HIV and AIDS prevention and interventions, People Living with HIV and AIDS and the spread of the HIV.

Objectives: This research aims at determining the level of stigma and discrimination and comprehensive HIV and AIDS Knowledge in the Jaman North District of the Brong Ahafo Region. The study also aims at determining the factors associated with of Stigma and discrimination.

Methodology: An analytical cross-sectional study was conducted on three hundred and eighty-four (384) respondents in the Jaman North district of the Brong Ahafo Region. Respondents included males (191) and females (193) above the age of seventeen (17) years in four communities of the district namely Sampa, Goka, Duadaso No.2 and Suma Ahenkro.

A multistage and systematic random sampling technique was employed to carry out this research. Due to financial and time constraints four (4) communities in the district were selected. Each of the four communities was divided into four clusters. One cluster was randomly selected and the number of houses listed. Based on the sample size allocated to this community a systematic random approach was used to select houses with not more than two respondents per household.

A structured questionnaire based on the USAID tool for measuring stigma and discrimination was modified to obtain information about knowledge on HIV, stigmatizing and discriminatory attitudes. An HIV and AIDS stigma and discriminatory index was then constructed and used to determine the level of stigmatization and discrimination in the district. All ethical issues were strictly adhered to, to ensure confidentiality and anonymity of respondents.

Conclusion: The study showed a high level of stigma and discrimination in the Jaman North district (95%) and low knowledge on HIV and AIDS (18%).Females (98.45%) were found to have more stigmatizing and discriminatory attitudes towards PLHIV than males(92.15%) .This therefore, requires that more efforts be made to educate people in the district about HIV and AIDS and reduce stigma and discrimination.

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DEFINITION OF TERMS

AIDS: - is a disease in which the immune system breaks down. People who have AIDS are likely to develop serious infections and cancers. These infections, called "opportunistic infections" are not usually seen in people whose immune system is intact.

HIV: - AIDS is caused by a virus known as Human Immunodeficiency Virus (HIV). This virus is what destroys the immune system. HIV can also invade the central nervous system causing severe neurological problems.

Stigma: - The concept of stigma is the process of perceiving a characteristic of another, as deviant from the social expectations that are held by the majority. Classic social psychological theory provides a useful framework in which to examine the foundation and expression of stigma. Stigma has been defined as a trait that is deeply disreputable to an individual or a group of people

Discrimination: - Discrimination (or enacted stigma) is the negative acts that result from stigma and that serve to devalue and reduce the life chances of the stigmatized.

Perceived stigma: - Perceived stigma arises when a person as a result of his/her situation, attribute, disease or association with a particular group imagine fear of societal attitudes and potential discrimination.

Enacted stigma: - Enacted stigma, refers to the real experience of discrimination.

Witchcraft: - Is a mystical and innate power which can be used by its possessor to harm other people.

LIST OF ACRONYMS

AIDS -	Acquired Immune Deficiency Syndrome
ARVs -	Antiretroviral
CSWs -	Commercial Sex Workers
DHMT-	District Heath Management Team
DHS-	Demographic and Health Survey
DK -	Don‘t Know
DMHIS -	District Mutual Health Insurance Scheme
FGD –	Focus Group Discussion
GDHS -	Ghana Demographic Health Survey
HIV -	Human Immune Virus
IEC -	Information Education and Communication
JNDA -	Jaman North District Assembly
MICS -	Multiple Indicator Cluster Survey
MPH -	Master of Public Health
PLHIV-	People living with HIV and AIDS
TB -	Tuberculosis
USAID -	United States Agency for International Development
VCT-	Voluntary Testing and Counselling

CHAPTER ONE

1.0 Background

For more than two decades, HIV-related stigmatization, discrimination and denial have characterized the pandemic and presented a major challenge to the effectiveness of prevention, care and treatment programs. (Malcolm et al. 1998). Stigma is "an attribute that is deeply discrediting" and results in the reduction of a person or group "from a whole and usual Person to a tainted, discounted one" (Goffman, 1963).

According to Adeokun et al. (2006) Discrimination is the social response to the negative value attached to the stigma an individual may carry and as a result rights and privileges to which an individual or group are entitled to are withdrawn.

History provides an abundance of examples of prejudice and discrimination directed toward persons with certain types of sickness. Even after the germ theory of disease was accepted, negative attitudes towards certain type of sicknesses such as leprosy, tuberculosis and cholera still lingered. For example, some persons with syphilis were "innocent"; others were not. And physicians were reluctant to treat patients with syphilis, considering them immoral and hence unworthy to be treated. (Valdiserri 2002). AIDS stigma and discrimination exist worldwide, although they manifest themselves differently across countries, communities, religious groups and individuals.

HIV and AIDS is a highly stigmatized health condition and people living with HIV and AIDS (PLHIV) are more likely to be discriminated against than patients with most other health conditions (Deacon et al. 2007). People who suffer from tuberculosis, weight loss, or certain types of cancer may be rightly or wrongly suspected of being infected with HIV (Adeokun et al. 2006).

There are two basic types of stigma; felt or perceived stigma and enacted stigma. Perceived stigma arises when a person as a result of his/her situation, attribute, disease or association with a particular group imagine fear of societal attitudes and potential discrimination.

Enacted stigma however, refers to the real experience of discrimination. (Letamo 2003). Agents of stigma, have been identified by both in the literature and study data, to include the individual who may self-stigmatize, family members, work colleagues and community members (Fife et al. 2000).

A study by Li et al. (2007) revealed that health professionals had negative biases against acquired immunodeficiency syndrome (AIDS) patients and reported much less willingness to interact with AIDS patients than hepatitis B patients. Perceived risk of infection at work was also negatively associated with willingness to interact with patients with HIV and AIDS, but relationships varied by profession.

Studies from different parts of the world reveal that there are three main immediately actionable causes of HIV-related stigma in health facilities: lack of awareness among health workers of what stigma looks like and why it is damaging; fear of casual contact stemming from incomplete knowledge about HIV transmission; and the association of HIV with improper or immoral behavior. (Nyblade et al. 2009).

The effects of stigma and discrimination are numerous and have negative impact on heath interventions in all parts of the world. Several researches have shown that, stigma prevents people from getting tested for HIV, prevents adequate access to health care for HIV positive people and also results in inhumane treatment of HIV positive people damaging the personal integrity of HIV positive people. Stigma and discrimination has shown to increase vulnerability of those at risk of contracting HIV e.g. female sex workers, injectable drug users

and the gay community because it makes it difficult to reach these groups with preventive measures.

1.1 Problem Statement

Although stigma is considered one of the greatest challenges to addressing the HIV epidemic, data that accurately describes and quantifies stigma is often not available to program implementers and policy-makers. This type of data is not only important for determining the efficacy of specific stigma reduction interventions, but also crucial to understanding the effect stigma may have on the success of prevention and treatment programs.

In Ghana attitudes which approve of discriminatory practices against HIV infected people are wide spread among the general population with female sex-workers being less stigmatized compared to men having sex with men (Khonde et al. (2011).

Currently there is little data on the district prevalence of stigma and discrimination in Ghana even though there is anecdotal evidence of the situation in the country. According to the Ghana Multiple Indicator Cluster Survey (MICS 2011), only 6% and 15% of women and men respectively expressed accepting attitudes towards PLHIVs. The situation is worse in rural areas (5% women and 9% men), among people with no education (2% women and 5% men), and among the poorest (3% women and 7% men). A greater number of both men and women not wanting to buy fresh vegetables from PLHIVs, or not wanting them to be allowed to teach in schools. The DHS 2008 shows that only 32% of women and 43% of men would buy fresh food from a shopkeeper living with HIV while 62% of women and 66% of men reported that an HIV positive teacher should be allowed to continue teaching. The percentage expressing accepting attitudes on all four measures of stigma and discrimination is just 11% of women and 19% of men aged 15-49. HIV related stigma hinders access to HIV services and consequently contributes to further new HIV infections.

These reports however, do not report district prevalence of stigma and discrimination in all parts of the country. There is little information on the magnitude of the pandemic in all parts of the country. Jaman North district is one of such district with no information on stigma and discrimination level. The district recorded 6.3% and 5.5% HIV prevalence in the years 2004 and 2005 when the national prevalence was 3.1% and 2.7% respectively. The current HIV prevalence for the district is 1.7%.

This research therefore seeks to measure the prevalence and determinants of stigma and discrimination against PLHIV in the Jaman North district.

1.2 HIV and AIDS situation in the district

Available statistics from the District and Regional Health Directorates at Sampa and Sunyani indicate that since 2001, the HIV prevalence rate in the District has always remained above the 5% epidemic rate. The prevalence rates for the years 2001, 2002, 2003, 2004 and 2005 respectively stood at 8.8%, 6.9%, 5.5%, 6.3% and 6.5%.

The 2013 HIV prevalence in the district stood at 1.7% (DHMT records 2013).

The factors driving HIV and AIDS in the district include but not limited to the following;

- Proximity to La Cote d'Ivoire which has higher HIV prevalence rate and the engagement of the two sister countries in cross border activities. High level of poverty (unemployment and underemployment)
- Lack of good parental care and increasing single parenthood.
- The seasonal booming cashew industry leading to emergence of long distance drivers, loading boys and seasonal commercial sex workers (prostitutes).
- High level of superstition and denial about the existence of the disease.
- Peer group influence.

- High rate of seasonal migration to Sefwi (Western Region) to either carter for cocoa farms or practice learned trade where the migrants leave behind their spouses and regular partners for months.
- High rate of illiteracy.
- Increased wake-keeping and entertainment.

1.3 Research Objectives

1.3.1Main Objective:

- To determine the level of stigma and discrimination against people living with HIV and AIDS in the Jaman North district.

1.3.2 Specific Objectives:

- To determine the prevalence of stigma and discrimination in the Jaman North district.
- To determine factors associated with stigma and discrimination in the district.
- To assess the level of comprehensive knowledge about HIV and AIDS in the district.

1.4 Research Questions

1. What is the prevalence of stigma and discrimination against people living with HIV and AIDS in the Jaman North District of the Brong Ahafo Region?

2. What factors are associated with stigma and discrimination in the Jaman North District?

3. What is the level of comprehensive Knowledge about HIV and AIDS in the Jaman North district?

1.5 Conceptual Framework

The conceptual framework below illustrates the context in which HIV and AIDS-related stigma and discrimination occurs thus the society, communities, individual families and households. The combination of these determines the nature and degree of stigma experienced by an individual person living with HIV and AIDS. Self- stigma, or stigma internalized by people living with HIV and AIDS, is also evident. The factors that cause stigma and discrimination are embedded in the social, cultural, political and economic environment.

The nature and degree of stigma and discrimination is determined by key factors such as the stage of the disease (those in more advanced stages experiencing greater stigma) and gender. On the whole women were more adversely affected by the experience of stigma than men. According to Hong et al. (2004), media also plays a negative impact by reinforcing, rather than challenging, the prevailing fears, misapprehensions and stereotypes that fuel and exacerbate HIV and AIDS related stigma and discrimination.

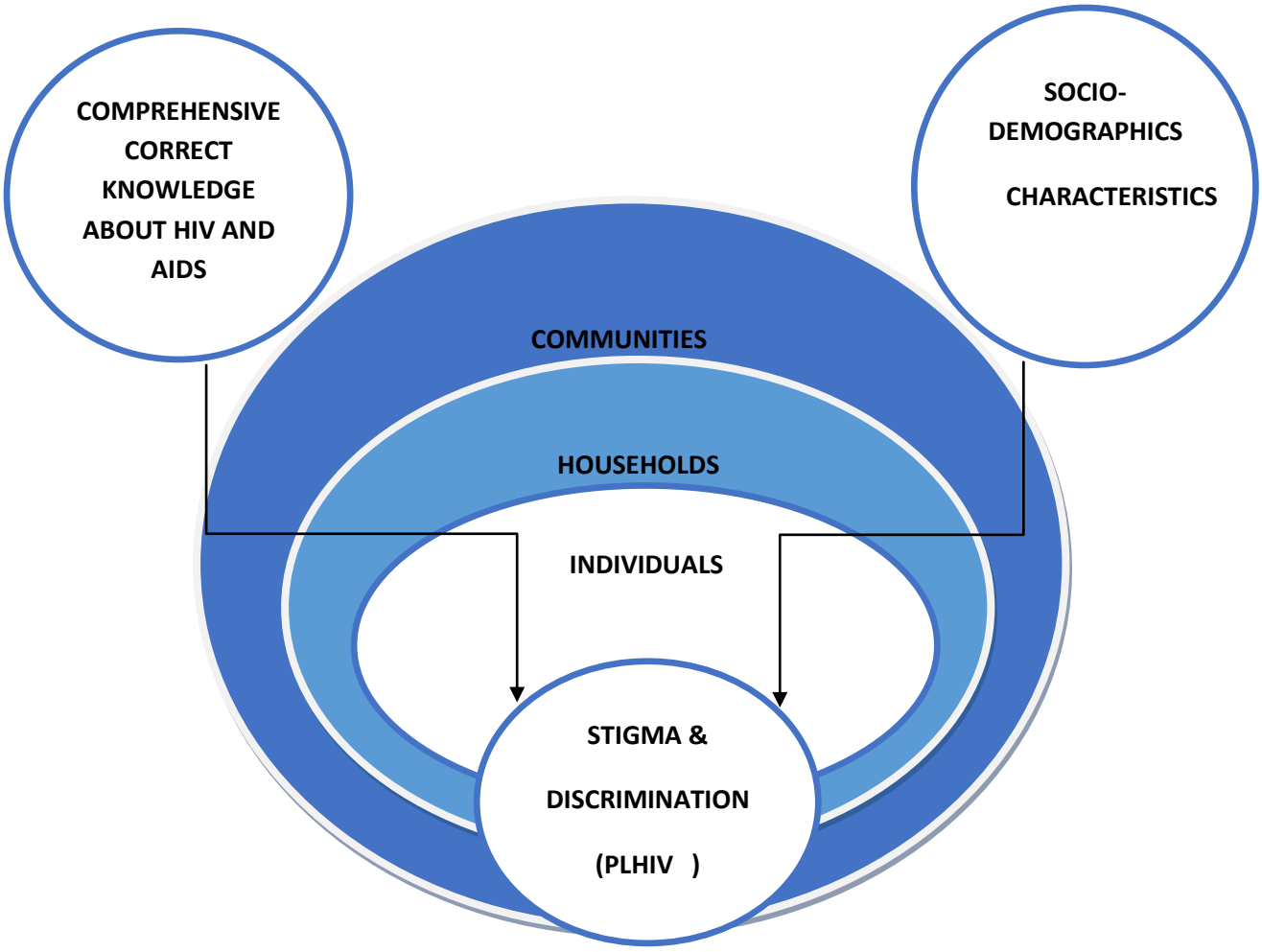

Figure 1.1: **Conceptual framework**

1.6 Justification

Available statistics from the District and Regional Health Directorates at Sampa and Sunyani indicate that since 2001, the HIV prevalence rate in the District has always remained above the 5% epidemic rate. The prevalence rates for the years 2001, 2002, 2003, 2004 and 2005 respectively stood at 8.8%, 6.9%, 5.5%, 6.3% and 6.5% respectively.

The HIV prevalence rate in Ghana is currently 1.9% with the Jaman North district alone contributing 1.7 %. Brong Ahafo as a region has a prevalence rate of 2.1 % higher than the

national prevalence. Evidence suggest that stigma fuels the HIV infection in most African countries.

According to the Jaman North district health Directorte (2014) and Hope for future Generations (2014), efforts to form a support group of people living with HIV and AIDS has yielded no results. Support groups usually bring together PLHIV to encourage and support themselves and access treatment and care. This, health workers and NGO workers has attributed to stigma and discrimination. Furthermore, there exist little or no research on the prevalence of stigma and discrimination and their determinants in the district. This research therefore sought to gather information from the general population in the district on their attitudes towards people living with HIV and AIDS.

This will help in documenting the level of stigma and discrimination against people living with HIV and AIDS in the Jaman North District of the Brong Ahafo Region. The findings will also help in comparing the stigma situation of people living with HIV in the district to other parts of the country.

The findings of the research may provide basis for policy changes and programmatic interventions and shape the design of programmatic interventions so that they consider the issue of HIV-related stigma and discrimination within their content.

More importantly, this study will add to already existing knowledge about the prevalence and determinants of HIV and AIDS stigma and discrimination and form the basis for further research in the district and the country as a whole.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter discusses and reviews relevant prior literature on stigma and discrimination in general, its effects and determinants. This will cover scholarly works done by others on the subject from published literature and other research papers. Some areas covered in this chapter include HIV and AIDS Stigma and denial, Stigma and discrimination and HIV programs, forms of HIV stigma and discrimination, HIV stigma and discrimination and gender and the determinants of stigma and discrimination.

2.1 Stigma and Discrimination

In his book *Stigma: Notes on the Management of Spoiled Identity*, Erving Goffman described stigma as "an attribute that is deeply discrediting within a particular social interaction." According to Goffman, a person who is stigmatized is "reduced in our minds from a whole and usual person to a tainted, discounted one." HIV according to Brown et al (2001), is far more heavily stigmatized than other STIs or hepatitis B or C, which share many modes of transmission and has many roots, including association of the disease with marginalized groups, such as homosexuals, drug injectors and sex workers, and with inappropriate behavior or wrongdoing, such as promiscuity.

Discrimination also known as enacted stigma is defined as “when, in the absence of objective justification, a distinction is made against a person that results in that person being treated unfairly and unjustly on the basis of belonging or being perceived to belong, to a particular group”.(Parker et al. 2002).

2.2 HIV and AIDS stigma and denial

According to Bond (1998)**,** the relationship between witchcraft, HIV and AIDS and stigma is complex. AIDS is seen as self-inflicted and can be prevented whereas witchcraft cannot be prevented or controlled.

In a related study by Bond et al. (2002) , to evaluate the extent of perceived and enacted HIV and AIDS-related stigma in a rural setting in Zambia. Some respondents in focused groups and key informant interviews believed, HIV-related signs and symptoms were attributed to traditional diseases and/or witchcraft. For some (especially the elderly generation) witchcraft is a genuine belief, for others their expressed belief in witchcraft is a form of denial in the afflicted and affected.

One reason for this denial is avoiding stigma associated with HIV and AIDS, as reflected in the following quotation by a male participants: "*Relatives are frightened of being isolated by society so they say their relative is bewitched or has normal, common TB"*.

A traditional healer explained that People who are "bewitched" receive greater acceptance, better treatment, and can be open about their condition. They receive sympathy and understanding.

In the same study, the ex-ward counsellor explained, People here rarely accept that they are suffering from AIDS even if they have the symptoms. They think they are bewitched. It is easier to be bewitched since AIDS comes through misbehavior […with AIDS] your secret is exposed and you in turn are exposed to negativity.

The study concluded that Stigma was perceived as highly pervasive, in the church, at home, and in the hospital and everywhere.

Even though the study revealed the presence of perceived and enacted stigma and how tradition and witchcraft play a role in stigmatization and discrimination, it did not tell the level of stigmatization in the community and therefore did not tell how widespread the situation is in rural Zambia in terms of figures.

Monico et al. (2001) in a related study analyze the different forms of HIV and AIDS related stigma and discrimination in Uganda, found that lay and culturally determined beliefs based on witchcraft would also appear to have a significant effect on people‘s ability to take in information messages about HIV and to change their behavior and attitudes accordingly. Traditional cultural beliefs within communities about the existence of witch-craft and curses also affect how people understand messages about HIV transmission and respond to someone who has AIDS. One community leader in Kampala District noted, *“At first people thought that the disease was a result of witchcraft after that person had done something.”* A woman who had had HIV for ten years was told by her sister-in-law that she should take another test and that her husband had died as a result of witchcraft rather than AIDS-related conditions. Her sister-in-law‘s assertion was grounded on the belief that it was not possible to live for ten years with HIV, and that death was imminent following a diagnosis‘‘

In their analysis it was clear that traditional beliefs has a positive influence on the people‘s belief about the mode of transmission of the Virus. However, they did not quantify the level of stigma and discrimination in Uganda.

2.3 Stigma and discrimination and HIV programs

Voluntary HIV testing coupled with appropriate counselling is believed to be quite effective for the prevention of HIV infection. However, studies have shown that stigma and discrimination pose a barrier to Voluntary HIV testing.

According to the Ghana Demographic Health Survey (2008), widespread stigma and discrimination in a population can adversely affect people's willingness to be tested for HIV as well as their adherence to antiretroviral therapy. Reduction of stigma and discrimination in a population is, thus, an important impetus to the success of programs targeting HIV and AIDS prevention and control. Most studies have attempted to find the effect of stigmatization and discrimination on HIV testing and counselling, but for the most part these analyses do not quantify how much of the situation is prevalent in their respective study areas.

In Ghana, according to Koku (2011), even though various HIV prevention and treatment programs have been implemented since 2003, desire for and uptake of HIV testing is still low, owing largely to HIV-related stigma.

In Guizhou province China, Ma et al. (2007) conducted a comparative study on the levels of acceptance of and barriers to voluntary counselling and testing (VCT) among adults in two different counties of China one in which the China CARES project was operating and the other in which it was not.

The use of VCT was related to occupation, age, transportation difficulties, health status, ethnicity, and high-risk behaviors. All participants were interviewed, and then given a coupon for free VCT after the interview. Participants were paid for returning the coupon within 2 months, whether tested or not. The uptake of VCT was measured within 2 months after the interview. They found that the levels of HIV and AIDS knowledge and acceptability of VCT among the adults in both counties were low. Although 459 participants (43.5%) expressed an

intent to use the VCT services, only 193 (16.5%) actually visited the VCT facilities, and only 42 (3.7%) actually took an HIV test within 2 months after the interview. The main barriers to HIV testing was identified as perceiving oneself as low risk, fear of unsolicited disclosure, and fear of stigma and discrimination that would result from taking the test.

The University of Limpopo in a study at the Limpopo Province, Polokwane, South Africa finds that, fear of stigmatization was found to be an important barrier to HIV testing and has negative consequences for AIDS prevention and treatment. Seventy-Two (72) students, were divided over 10 focused groups to identify psychosocial correlates of HIV voluntary counselling and testing (VCT), with an emphasis on the association between fears of AIDS related stigma and willingness to have an HIV test. The study recommended that Interventions to reduce HIV-related stigma were needed in order to foster voluntary HIV counselling and testing in South Africa (Meiberg 2008).

2.4 Forms of HIV stigma and discrimination

Two types of HIV and AIDS related stigma exit; perceived and enacted stigma but these may take several forms and different context. Ulasi, et al. (2009) carried out a cross-sectional survey of 104 adults from the four sub-districts in Kumasi to assess HIV and AIDS-related stigma and discrimination of people living with HIV and AIDS (PLHIV).

Four factors were found to predict stigma among family and community members; employment-based discrimination, screening and identification of HIV positive status, revelation of HIV status and social contact. Regression analysis showed that participants with higher educational attainment were more likely to favor policies denying employment to PLHIV. Muslims were more likely than Christians to agree with identifying PLHIV and more

likely to advocate revealing HIV sero-status. Males were more likely to favor revealing HIV status and employed persons were more likely to have social contact with PLHIV.

For their study to assess HIV and AIDS-related discrimination stigmatization and denial in Kampala and Mbarara districts, Monico et al. (2001) employed use of various groups and techniques such as individual interviews, focus group discussions and observation. Respondents reported rejection and isolation by family members especially husbands, in laws and parents. They reported that health workers paid less attention to PLHIV in the belief that they were going to die anyway. There was also evidence of private practitioners charging PLHIV more than other clients.

The study also found that many religious leaders both Christians and Muslims clearly regarded PLHIV as promiscuous wrong doers and as a result most people infected by the HIV felt they could not attend religious services.

Other forms workplace related stigma and discrimination were reported. Some companies tested prospective employees prior to offering those appointments; others were said to require workers to take an HIV antibody test before sending them on what were considered to be expensive training courses. Still other companies were said to test workers opportunistically, assigning lighter jobs to those who tested positive. A few companies reportedly paired people with HIV and AIDS with deputies‖ who could take over when the affected person became ill. At the community level it was reported that people who were friends with people with HIV had a tendency to keep their distance in case they too were thought to have AIDS, gossip and finger-pointing were also related to HIV status.

From the study, stigma and discrimination were identified in the households, community workplace and healthcare centers but we do not know what percentage of stigma and discrimination is attributable to the population in Kampala and Mbarara.

In 2006, the University of California San Francisco, study revealed that stigma can be expressed in a variety of ways, including: 1) ostracism, rejection and avoidance of people living with AIDS; 2) discrimination against people living with AIDS by their families, health care professionals, communities and governments; 3) mandatory HIV testing of individuals without prior informed consent or confidentiality protections; 4) quarantine of persons who are HIV infected; and 5) violence against persons who are perceived to have AIDS, be infected with HIV or belong to "high risk" groups. But there was no measure of the level of stigmatization and discrimination in the US though the study finds that stigma affects HIV prevention and treatment.

2.5 Determinants of HIV and AIDS stigma and discrimination

Several reports has shown that AIDS was considered invariably fatal around 1988. The impression was that HIV infection was the result of deviant and stigmatized behavior such as homosexual practices, sex work, and drug use as well as sex outside marriage and promiscuity. The identification of already stigmatized groups as high-risk increased their vulnerability to stigmatization and discrimination (Adekun et al. 2006).

Many studies have analyzed the determinants of stigma and discrimination and have come out with varying factors accounting for stigma and discrimination, although, again, there is no measure of the level of stigma and discrimination in those study areas.

Hong et al. (2004) in Vietnam finds the most important causes of stigma to be people's fear of casual transmission and moral judgments and assumptions made about the lives and lifestyles of those affected. These underlying causes appear to be reinforced by some media portrayals and IEC campaigns about HIV and people living with HIV that promote negative

and fearful images heightening people's fears and uncertainties, rather than exposing them for consideration and debate.

Zou et al. (2009) used a self-administered survey, where questionnaires were distributed to a convenience sample of parishioners (n = 438) attending Catholic, Lutheran, and Pentecostal churches in both urban and rural areas in Tanzania. The survey included questions about religious beliefs, opinions about HIV, and knowledge and attitudes about ARVs.
Respondents believed that HIV is a punishment from God or that people with HIV have not followed the Word of God.

Two more studies in Ghana and Nigeria with somehow similar findings about the determinants of stigma and discrimination also did not provide quantitative evidence of the situations in both countries. In Ghana, Tenkorang et al. (2013) finds men and women with relatively high knowledge about HIV and AIDS to have low stigmatizing and discriminatory attitudes whiles people with more myths about HIV transmission had high stigma and discriminatory attitudes.

The 2008 Ghana Demographic and Health Survey shows that only 32 percent of women and 43 percent of men would buy fresh food from a shopkeeper with the AIDS virus, while 62 percent of women and 66 percent of men said that an HIV-positive teacher should be allowed to continue teaching. The percentage expressing accepting attitudes on all four measures is just 11 percent for women and 19 percent for men age 15-49 years.

To assess the level of stigma, GDHS respondents who had heard of AIDS were asked if they would be willing to care for a family member with AIDS virus in their home, if they would buy fresh vegetables from a shopkeeper who has the AIDS virus, if they thought a female

teacher who has the AIDS virus but is not sick should be allowed to continue teaching, and if they would not want to keep secret that a family member has the AIDS virus.

Both women and men tended to express more positive attitudes about caring for a family member with the AIDS virus in the respondent‘s home than buying vegetables from a shopkeeper with AIDS, allowing an HIV-positive teacher to continue teaching, or keeping secret a relative‘s HIV-positive status.

In Nigeria (Letamo 2005) surveyed of a total of 1,103 health workers to assess their attitudes towards PLHIV. The results indicated that there was lack of protective materials and other materials needed to treat and prevent the spread of HIV, even though this was documented in several health facilities and reported by professionals themselves to authorities. From the study it could be deduced that a lack of commitment by Government to HIV and AIDS interventions contributes to discriminatory behavior among health professionals. Nine percent of professionals reported refusing to care for a patient with HIV and AIDS, and 9% reported that they refused a patient with HIV and AIDS admission to hospital. Two-thirds reported observing other health professionals refusing to care for a patient with HIV and AIDS, and 43% observed others refusing a patient with HIV and AIDS admission to hospital.

2.6 Stigma and discrimination and gender

Gender stereotypes are evident in people‘s attitudes and behaviors toward people living with HIV and AIDS. (Hong et al. 2004). In India factors such as caste, ethnic group, poverty and social perspective present strong layers of stigma for women. HIV places yet another layer of stigma on women which prevents women from being diagnosed, accessing services and receiving family and community support (O‘Connor et al. 2011).

A study was carried out in to explore how gender differentially affects the stigma experiences of people living with HIV (PLHIV) in Swaziland. Thirty-seven semi structured, face-to-face interviews were conducted with PLHIV (14 men and 23 women) in Swaziland between 2004 and 2006. The results of the study indicated that amount and characteristics of felt and enacted stigma and social support differed based on gender, as women often experienced more felt and enacted stigma than men, and had less definite financial or emotional support (Shamos 2009).

In a related publication which seeks to provide detailed information on HIV-related stigmatization in Ghana revealed that attitudes which approve of discriminatory practices against HIV-infected people are widespread and receive high levels of support among the general population with female sex-workers being less stigmatized compared to men having sex with men (Khonde 2011).

Findings from a study conducted by Hong et al. (2004) also suggest that men who are living with HIV and AIDS seem to be more easily accepted than women. This is mainly because "social evils" committed by women are simply not tolerated. It is evident from all four (4) studies that Gender stereotypes, cultural and societal norms increases the level of stigmatization and discrimination among women than HIV positive men but the level of stigmatization with respect to Gender was not quantified in all the four (4) studies.

the review of literature above suggest a widespread of stigma and discrimination , the determinants, forms and gender in relation to HIV and AIDS stigma and discrimination as reported by the various researches carried out. However, little or no information in terms of the quantification of the level of Stigmatization and Discrimination have been reported in these studies hence the need to determine the level of stigmatization and discrimination in the Jaman North district with a high but decreasing prevalence of HIV and AIDS.

CHAPTER THREE

METHODS

3.0 Introduction

This chapter outlines and discusses the research methods used in the study. It examines the research design, the sampling techniques adopted, the data collection instruments employed, the study area, the sampling method, quality control issues, ethical considerations and an overview of the methods used in data analysis.

3.1 Type of study:

The study is an analytical cross- sectional study. The study measured the prevalence of stigma and discrimination as the outcome variable as well as the factors (knowledge about HIV and AIDS, and socio-demographics) associated with this social phenomenon.

3.2 Study location/ Area:

The Jaman North District is one of the twenty – two (22) Administrative Districts of the Brong Ahafo Region of Ghana. It is located between latitude 7`40‖ N and 8`27‖ N and latitude 72` 30‖ W. The District is located on the Western part of the Brong Ahafo Region and to the North Western fringes of the neighboring Cote d'Ivoiré. It shares boundaries with Tain District to the North through to the Eastern of the District, Jaman South District to the South West and Berekum District to the South East.

The District has one constituency known as Jaman North Constituency with Sampa as the District Capital. Other major towns in the District are Suma Ahenkro, Duadaso No 2, Goka, Duadaso No1, Asiri etc. The District has seven (7) Town/Area Councils namely; Sampa, Suma, Kwatwoma, Asiri/Jankufa, Goka, Nafana East and West. The District has a land size of about 640 square Kilometers. Sampa, the District Capital is located about 119 Kilometers

from Sunyani, the regional capital of Brong Ahafo and 540 Kilometers from Accra, the national capital.

The population of the District was about 78, 129 in 2000 with respective male and female population of 37, 904 (48.51%) and 40, 22 (51.49%). The growth rate of the District is about 2.9% with fertility rate estimated to be 6.2%. At an annual rate of 2.9%, the current population of the District is estimated to be 103,984. Similarly, the populations of the various towns and villages are expected to increase by the same rate. The District has a significant number of its population being children and the youth who are mostly dependents as they are either too young to be working or are in school or learning a trade. The age dependency ratio is 1:1:1.

The economy of the District is dominated by Agriculture. It employs more than 70% of the active labor force and thus serves as a major source of livelihood for majority of the people in the District. The major sectors of agriculture in the District are crop farming and livestock rearing. Other major economic activities of the District are commerce and service sectors and also offer employment to about 18% and 12% respectively.

In 2010 the District had 75 Kindergarten Schools (KGS) made up of fifty four (54) public and 21 private, whiles primary schools are sixty eight (68) in number made up of fifty (54) public and fourteen (14) private. For the Junior High Schools, the total number of schools in the District during the period of reporting was forty six (46) and also made up of thirty eight (38) public and eight (8) private schools.

With regards to Senior High Schools, there are three (3) public and two (2) private schools. Vocational Intuitions are two (2) in number. Enrolments for the schools during the period under review were as follows: Kindergarten – 6,115; Primary -13,386; Junior High School 5,025; School – 2,445. The teacher population in the District is nine hundred and thirty four (934). Out of the nine hundred and thirty four (934) teachers, only three hundred and forty (340) (36.4%) are trained leaving as many as five hundred and ninety four (594) (63.6%) untrained. This gives pupils/teacher ratio in the District as 29: 1 whilst the pupil/ trained teacher ratio is 79:1.

During the period under consideration the District had one (1) hospital at Sampa, one (1) Health Centre at Goka, two (2) community clinics at Buni and Bonakire, ten (10) rural clinics at Suma Ahenkro, Seketia, Asiri, Asuokor, Kokoa, Mayera, Morle/Amanfoso, Adadiem, Kokosua No 1 and Duadaso. There are two (2) private clinics at Sampa and Goka and two (2) medical laboratories at Sampa.

The medical sector had manpower level of thirty five (35). This is made up of one (1) Medical Officer, one (1) Medical Assistant, on (1) Pharmacist, Fifteen (15) Nurses, six (6) Midwives, on (1) Laboratory Technician and ten (10) Ward Assistants/Aids.

The District generally has good coverage of portable water supply which stands at about 78.12% as compared to the national and regional coverage of 57.57% and 53.51% respectively. However a number of settlements that have attained status of towns still depend on boreholes often leading to pressure and frequent breakdowns and temporarily water shortages in such communities. The coverage for sanitation is around 32%. This abysmal performance can be attributed to lack of commitment of the District Assembly and its development partners to the issues of hygiene and sanitation.

The District has total road network of about 330 kilometers made up if 265 Kilometers of feeder roads and 65 Kilometers of highways. The highways are Sampa to Drobo road, Sampa to Duadaso road and Sampa to Jenini road with the rest of the roads being feeder roads. The District has a very good road network but the nature of it is very poor making transportation very uncomfortable, time consuming and costly. It is hoped that with the reconstruction of the Sampa to Drobo road and reshaping of other artery roads in the District transportation and economic activities will steadily pick-up.

The District has forty two (42) settlements out of which eleven (11) have access to electricity. They are Sampa, Seketia, Asiri, Jankufa, Goka, Asuokor-Akoata Old Drobo, Amanfoso, Morle, Koti and Suma Ahenkro. This puts the coverage rate (in terms of population) at 51.98%. The District Assembly is making effort to link Buni, Gyinankor, Kokoa, and Duadaso No. 1 and 2 to the national grid with about 90% of work already done.

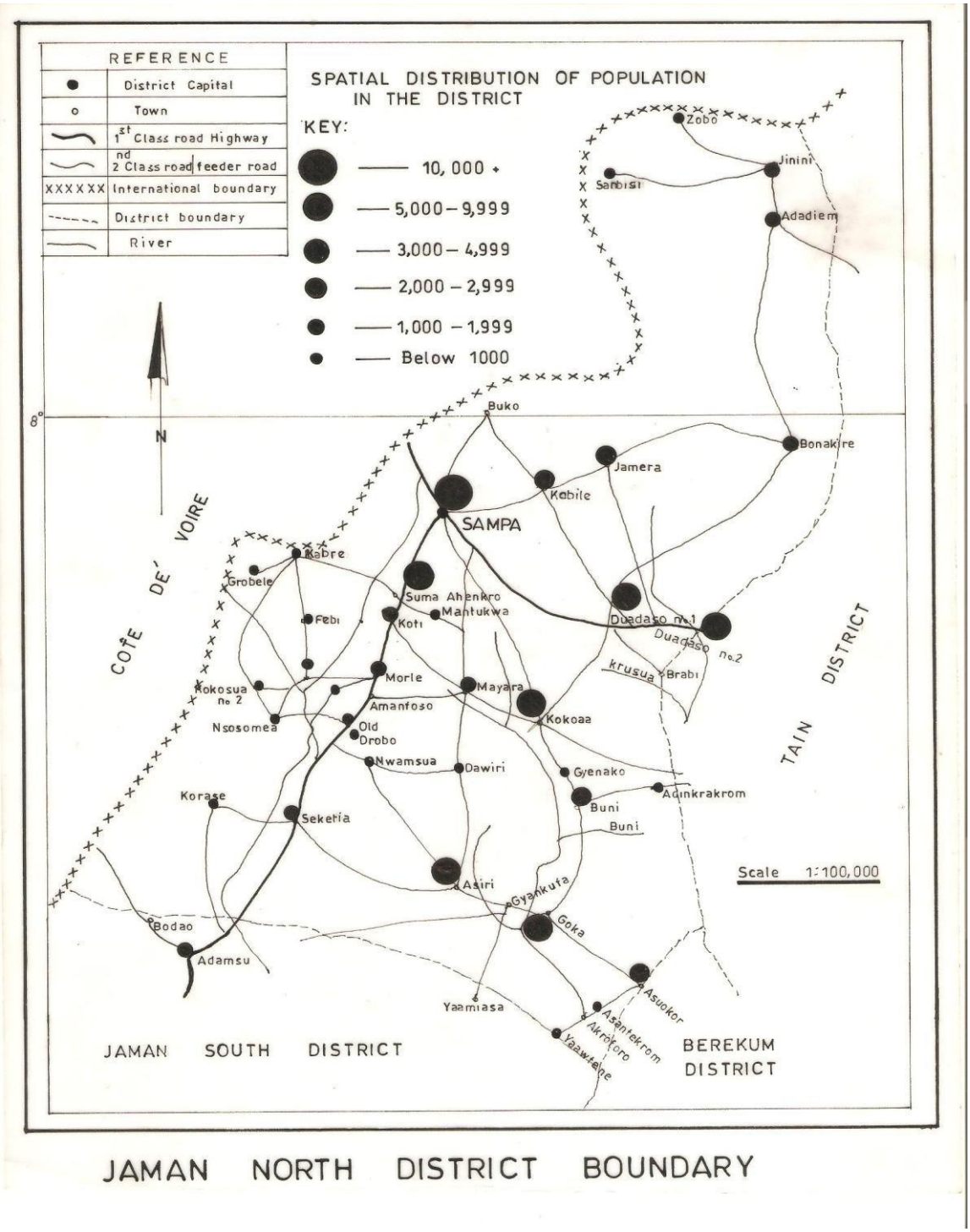

Figure 2.1: Map of Jaman North District

3.3 Outcome / Dependent variable

The level of stigmatization and discrimination was measured as outcome variable using series of attitude questions that were administered at the household level. A dichotomous dependent variable was generated that captured whether community members stigmatized or discriminated against individuals who have HIV and AIDS or not**.**

3.4 Independent Variables

Independent variables include age, gender, religion, socio-economic status and the knowledge about HIV and AIDS.

3.5 Study Population

The study was conducted in the Jaman North district. Respondents include males and females in the district. For the purposes of ethics respondents were from the ages of eighteen (18) years and above.

3.6 Sampling

3.6.1 Sample size calculation

The formula below **(Cochran1963; 75)** was used to estimate the sample size of study subjects.

$No = Z^2pq/e^2$

No = Sample size

Z= 1.96, the normal deviation at the required 95% confidence level

P= 0.5

m= 0.05= margin of error or level of precision

(Assume p= 0.5 maximum variability)

No=384

3.7 Sampling procedure/ Method

A multistage and systematic random sampling technique was employed to carry out this research. Multistage Sampling is a sampling strategy (e.g., gathering participants for a study) used when conducting studies involving a very large population. The entire population is divided into naturally-occurring clusters and sub-clusters, from which the researcher randomly selects the sample.The process of systematic sampling typically involves first selecting a fixed starting point in the larger population and then obtaining subsequent observations by using a constant interval between samples taken.

Due to financial and time constraints four (4) communities in the district were selected. These communities namely Sampa, Duadaso no.2, Suma Ahenkro and Goka by the 2000 population census had over 5000 inhabitants and were considered towns. By proportionate sampling 144, 87, 80 and 73 respondents were selected from Sampa ,Duadaso No.2, Suma Ahenkro and Goka respectively to make up the total sample size of 384. Each of the four communities were divided into four clusters. One cluster was randomly selected and the number of houses listed. Based on the sample size that was allocated to each community a systematic random approach was used to select houses with not more than two respondents per household. For example the cluster randomly selected in Sampa had 120 houses. Based on two respondents per household and the sample size allocated to Sampa is (144), we divide 120 by 72. Based on that every second house was visited.

3.8 Data collection techniques/Methods and tools

Face to face individual interviews were used to collect data from respondents on the level of HIV stigma and discrimination. For the purpose of this study stigma and discrimination were conceptualized as negative attitudes towards PLHIV and were measured by assessing negative attitudes towards PLHIV.A structured questionnaire was used for data collection. The questionnaire for this study was based on USAID Tool for measuring accepting attitudes towards PLHIV (stigma and discrimination) with some modifications .The respondents were fully informed as to the nature of the study and were assured of confidentiality.

Specific concepts such as stigma and discrimination were explained and definition of words provided to the respondents by the researcher and research assistants.

3.9 Quality control

To ensure the quality of the tool and data, a pilot study was conducted using convenience sampling of twenty (20) students at the school of public health. Two research assistants from the study area were trained on how to administer the research Questionnaire. They were also closely supervised during the data collection process. Before the data was entered, the questionnaires were cross examined to ensure all questions were responded to and coding was done. Data entry was done by the researcher and two research assistants and the results compared.

3.10 Data processing and analysis

Data was entered into SPSS Version 21. Tables of frequencies and corresponding percentages were generated for age, gender, occupation, religion and education using Stata. Indices on stigma and discrimination and HIV and AIDS Knowledge developed were also created**.**

Comprehensive correct knowledge about AIDS: Defined as the Percent of respondents who correctly identify all three major ways of preventing the transmission of HIV(Blood transfusion, Mother to unborn child and Sexual intercourse) and who reject three major misconceptions about HIV transmission or prevention(Witchcraft, Sharing cooking utensils and mosquito bite/bedbugs). This indicator is compiled from data collected for a set of HIV transmission and misconception questions. Only respondents who answered correctly on all six prompted questions are included in the numerator. The denominator is all respondents, regardless of whether they have ever heard of AIDS.

Numerator: The number of male/female respondents who correctly identify all three major ways of transmission of HIV and who reject three major misconceptions about HIV transmission.

Denominator: Total number of male/female respondents interviewed during survey

(Stigma and Discrimination) Accepting attitudes towards those living with HIV:

The percentage of people expressing accepting attitudes towards people with HIV. This is an indicator based on answers to a series of hypothetical questions about men and women with HIV. It reflects what people are prepared to say about how they feel or what they would do when confronted with various situations involving people living with HIV. Respondents in a general population survey are asked a series of questions about people with HIV, as follows:

If a member of your family became sick with the AIDS virus; would you be willing to care for him/her in your household?

- If you knew that a shopkeeper or food seller had the AIDS virus, would you buy food from him/her?
- If a teacher has the AIDS virus but is not sick, should he or she be allowed to continue teaching in school?
- Do you think a person with HIV should get the same, more or less health care than someone with any other chronic disease?

Numerator: The number of respondents who report an accepting or Supportive attitude on all four of the above questions

Denominator: Total number of men or women interviewed.

Chi- Square Test was used to determine association between age, gender, educational status, religion, knowledge on HIV and AIDS and HIV and AIDS stigma and discrimination.

Logistic regression and multiple logistic regression (for Crude and Adjusted odds ratios respectively) were used to determine the statistical significance of the association between HIV and AIDS stigma and discrimination, HIV and AIDS knowledge, education, gender, age, Religion and Occupation. All tests were considered significant for *P-value* < 0.05.

3.11 Ethical Considerations Issues

Ethical clearance: Written approval for the study was obtained from the Ministry of Health Ethical Review Committee (ERC), Ghana.

Privacy and confidentiality: Data collected was kept confidential in locked file cabinet and destroyed after every aspect of the research was completed. The questionnaire used in the survey was designed to help ensure confidentiality, and individual questionnaires were identified only by a unique identifying code. An appropriate boundary was created (to ensure participant confidentiality) during the interview process. Those responsible for data capturing,

cleaning and analysis were not allowed to have access to personal details of the interviewees or the informed consent forms.

Voluntary participation: Participation was voluntary, and no subject was excluded based on gender, ethnicity or socio-economic status.

Withdrawal, risk/ benefits: There was minimum or no risks in this study even though some questions may have posed discomfort to respondents. There were also no incentives but the information provided by the respondents will help improve the health of PLHIV and reduce the number of new HIV infections. This research will also assist policy makers and organizations in planning Stigma and Discrimination reduction interventions. The rights of respondents not to participate, as well as to withdraw from the study at any point, was emphasized.

Informed consent process, data storage and ownership: The interviewers ensured that all participants provided their informed consent either by signing or thumb printing on the participant Information and Informed Consent form before starting the interview. The results were communicated to all appropriate stakeholders in the Jaman North district including the District Health Service, Non- Governmental Organizations, District Assembly and the District Education Service.

Declaration of conflict of interest: The author declares no conflict of interest in this research.

Compensation: The research involved minimum or no risks to respondents even though it required a substantial amount of time from the respondents and some questions may have posed some form of discomfort to respondents. Therefore there was no compensation for research respondents.

Proposal and funding information: This research was self-funded by the researcher.

Approval from study area: Community entry was conducted in all the four communities for approval before data was collected. Approval was also sought from the District Assembly and Health Directorate.

Description of subjects involved in the study: Only participants above the ages of seventeen (17) and beyond living in the Jaman North district and in the selected households who agreed to be part of the research were interviewed.

Pre-test/Pilot study: A pilot study with a sample size of twenty (20) students from the School of Public Health was conducted before data collection was carried out in the study area. This enabled testing of the questionnaire to ensure practicability and validity of the questionnaires and results. Challenges encountered in the conduct of the pilot study were rectified before the main data collection process.

Inclusion criteria: The criteria for selecting respondents were based on whether the respondents were resident in the district. Persons living in the Jaman North District and members of the selected households who are of sound mind and above seventeen (17) years were eligible for inclusion.

Exclusion criteria: Any persons below the ages of 17 years who were not residents of the Jaman North District and not members of the selected households or who were not of sound mind were not included in this study. Those who did not also agree to be part of the study were also excluded.

CHAPTER FOUR

RESULTS

4.0 Introduction

This chapter presents result of findings of the study conducted in the Jaman North District of the Brong Ahafo Region of Ghana. The results are summarized and presented using tables and charts and interpreted in text. Data gathered from the study were entered into SPSS Version21 and quantitatively analyzed using StataVersion13.

4.1 Response rate

Responses were received from respondents in four communities in the Jaman North District; these are Sampa, Suma Ahenkro, Duadaso No.2 and Goka. A total of 384 questionnaires were administered to respondents, of which 384 were received representing an overall response rate of 100%. This was wholly due to the face-to-face administering of questionnaires.

4.2 Socio-demographic characteristics

A total of 384 respondents took part in the survey. Table 4.1 summarizes the socio-demographic characteristics of the respondents. With regards to age distribution of the respondents, about 45% of them were in the age group 18-25 years. Table 4.1 also indicates that, there were slightly more females than males.

Table 4. 1. Socio -demographic characteristics.

Characteristics	Frequency(n)	Percentage (%)
Gender		
Male	191	49.74
Female	193	50.26
Age groups		
18-25	172	44.79
26-35	120	31.25
36-45	56	14.58
45+	35	9.73
Missing value	1	0.26
Level of education		
None	23	5.99
Primary	30	7.81
JSS/JHS/Middle	57	14.84
SSS/SHS/TECH/VOC	208	54.17
Tertiary	66	17.19
Religion		
Christianity	350	91.15
Islam	33	8.59
Traditional religion	1	0.26
Ethnicity		
Nafana	216	56.26
Bono	118	30.73
Others	50	13.02
Occupation		
Self-employed	161	41.93
employee	148	38.54
Unemployed	69	17.97
Others	6	1.56

Data on occupational status shows that 42% of respondents were not employed while 39% were self-employed. (Table 4.1). A majority of respondents (91%) were Christians and 9% were Muslims. With reference to Table 4.1, 6% of respondents have never been to school while 94% have had at least primary education. The Nafana's and Bono's make up 87% of ethnic groups in the district and the remaining 13% of the respondents were from other ethnic groups.

4.3Knowledge, opinions, and attitudes about HIV and AIDS

4.3.1 HIV and AIDS knowledge

The proportion of respondents who had spontaneous comprehensive knowledge about HIV and AIDS was 4.95% and 17.97% when prompted (Table 4.2). More males (21.99%) had comprehensive knowledge on HIV and AIDS compared to women (13.99%) figure 4.1. Out of the 384 respondents only one person has never heard of HIV and AIDS whiles about 99.74 % has ever heard about HIV and AIDS.

Table 4. 2: Comprehensive HIV and AIDS knowledge

Knowledge	**Unprompted (%)**		**Prompted (%)**		**(N) (%)**
	Yes	No	Yes	No	
	4.95	95.05	17.97	82.03	383 (100.00)

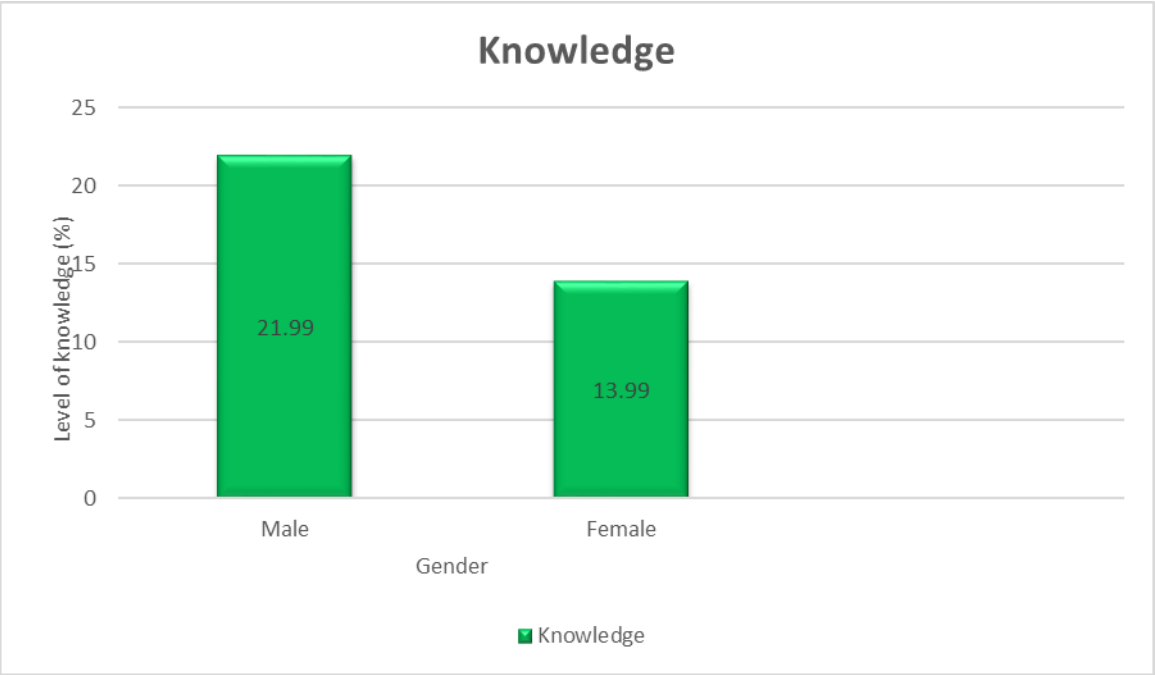

Figure 4.1: **Level of HIV and AIDS Knowledge by Gender (Spontaneous and Prompted)**

4.3.2 Beliefs and misconceptions about HIV and AIDS

We asked respondents as to whether it is possible to have a healthy look person and yet that person might have the HIV and AIDS disease. This question was aimed to further solicit more in-depth knowledge and opinions of respondents about HIV and AIDS. Results show that there were no differences in opinion between males and females 16.84% and 16.58% regarding whether it was possible for a healthy looking person to have the virus that causes AIDS (Figure 4.2). A significant number of participants 24% (figure 4.2 data not shown) were of the opinion that HIV and AIDS has a cure. With regards the distribution by gender, 25.26% of males and 22.28 % of females believe that HIV and AIDS has a cure. Figure 4.2 also shows that 39.47 and 41.97 % of males and females respectively would not eat in the same dish with PLHIV .The results also show that there are a lot of misconceptions about the mode of transmission of the HIV and AIDS virus. Figure 4.3 reports of percentages of respondents who have various misconceptions about the mode of transmission of the disease.

Some of misconceptions as shown in Figure 4.3 include Mosquito bites, witchcraft and sharing cooking/eating utensils.

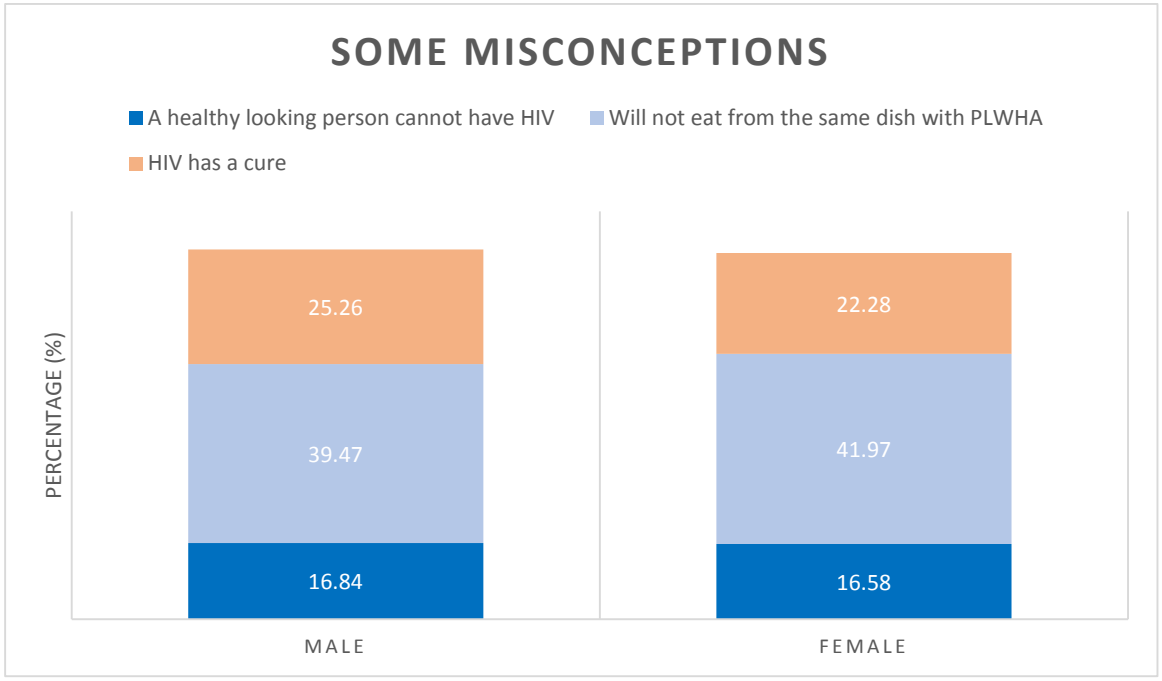

Figure 4.2: Proportion of respondents who believe in some form of misconception about HIV and AIDS

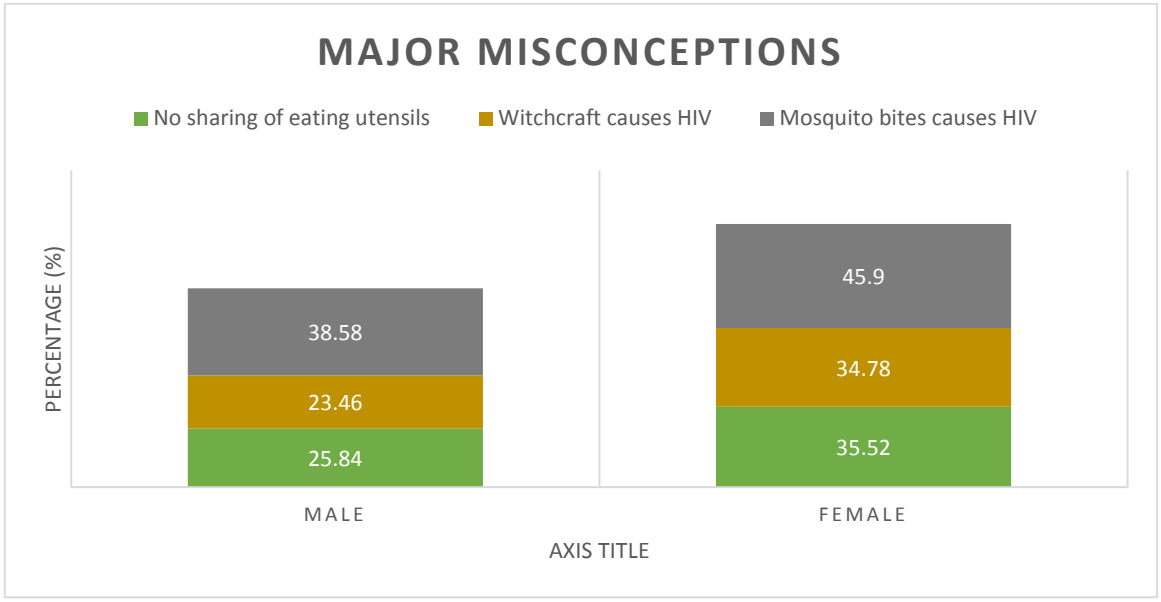

Figure 4.3: Proportion of Respondents who endorse the three main misconceptions in Ghana

4.3.3: Self-assessment of risk of HIV and AIDS

A higher percentage of the respondents rated themselves as having either a low chance or no chance at all of getting AIDS or the virus that causes AIDS 33 % and 40% respectively . The main reasons for their rating were mainly due to condom use, having one sexual partner and avoiding sex with commercial sex workers (CSWs). From figure 4.6,38 % of respondents in the age group 26-35 rated themselves as having a high chance of getting HIV and AIDS while 1% of all respondents said they already had AIDS.

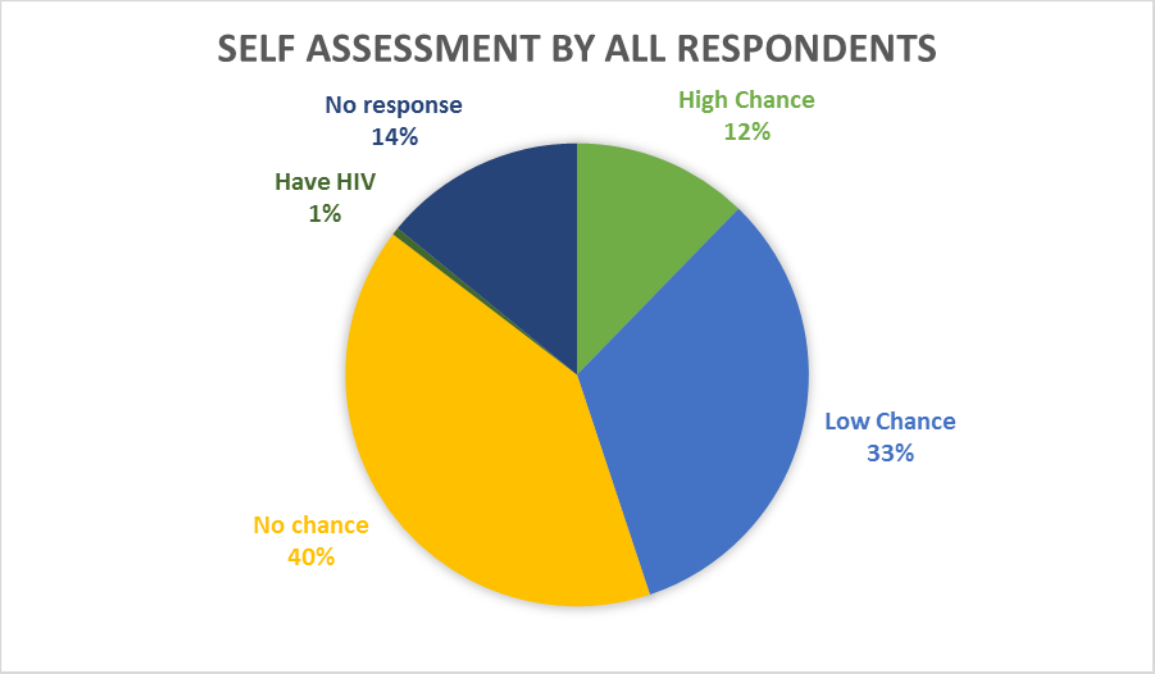

Figure 4.4: **Self-assessment of risk of getting HIV by all respondents**

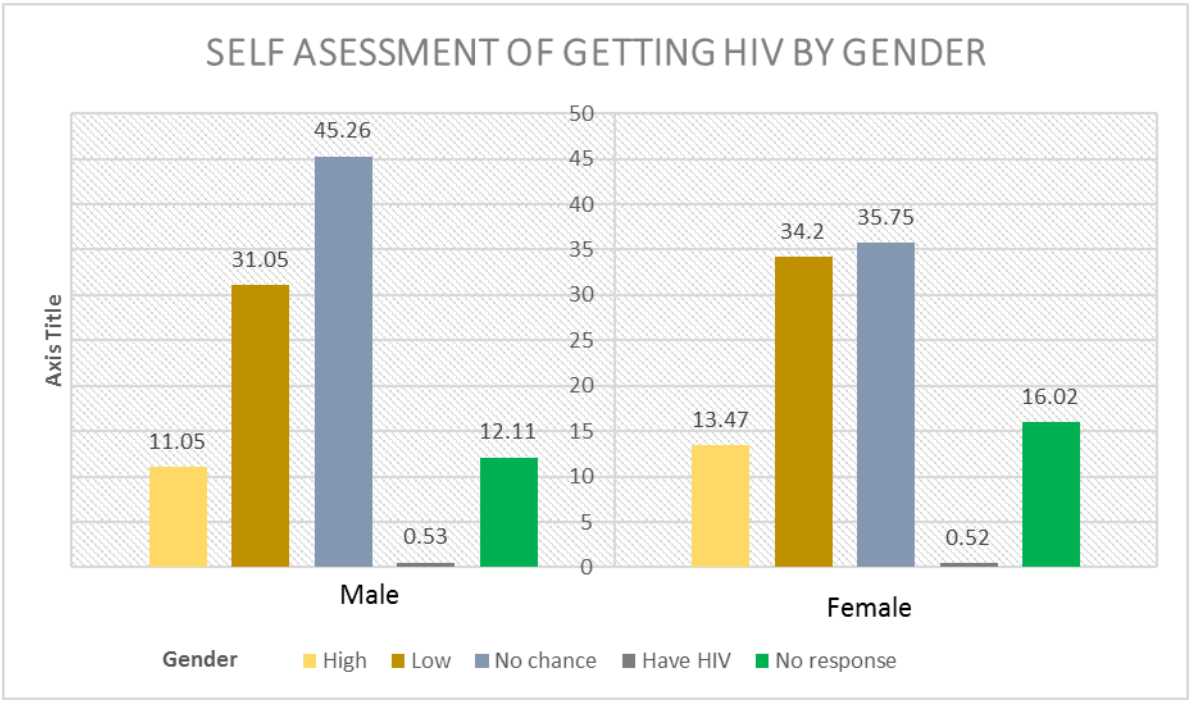

Figure 4.5: Self-assessment of risk of getting HIV and AIDS by gender

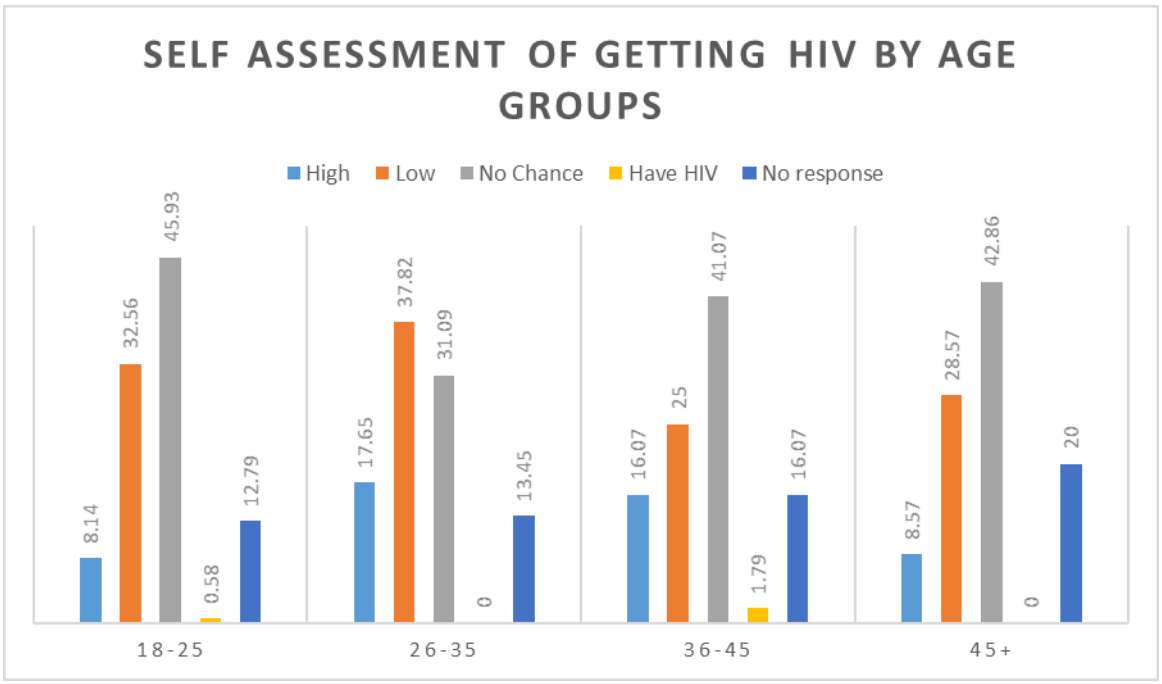

Figure 4.6: Self-assessment of risk of getting HIV and AIDS by age groups

4.4 Stigma and discrimination

4.4.1 Prevalence of stigma and discrimination

The following four questions were used to determine the level of stigma in the district; If you knew that a shopkeeper or food seller had the AIDS virus, would you buy food from them?, If a teacher has the AIDS virus but is not sick, should he or she be allowed to continue teaching in school? And do you think a person with HIV should get the same, more or less health care than someone with any other chronic disease?

The prevalence of stigma and discrimination among respondents was 95 % (Table 4.3). More females were found to have stigmatizing and discriminatory attitudes than men (Figure 4.3). Respondents within the age group 18-25 were also found to have a high level of stigma and discriminating attitudes compared to the other age groups (Figure 4.7) below.

Table 4. 3: Prevalence of stigma and discrimination

Stigma and discrimination	N (%)	Male n (%)	Female n (%)
	315 (95.31)	176(92.15)	190(98.45)
Accepting attitude	18 (4.69)	15(7.85)	3(1.55)

4.4.2 Responses to Components of stigma and discrimination

Table 4.4 below shows the main questions and the various responses to each by gender that were used to assess the level of stigma and discrimination.

Most respondents were willing to care for a family member who has HIV and AIDS at the time of the study. A slightly higher majority of women than men said a female teacher with HIV and AIDS should be allowed to teach. A higher percentage 74% of male and 80 % female respondent were not willing to buy food from a shopkeeper or food seller who has

HIV and AIDS. Table 4.4 also shows that majority of respondents were of the opinion that PLHIVs should be given more health care than someone with some other serious illness.

Table 4.4: Distribution of components of HIV and AIDS stigma and discrimination by gender.

Components of stigma and discrimination	Male (n) (%)	Female (n) (%)
Care for a male relative		
Yes	164 (86)	164 (85)
No	23 (14)	23 (15)
Care for female relative		
Yes	160 (84)	169 (88)
No	27 (16)	17 (12)
Female teacher with HIV and AIDS		
Yes	143 (75)	150 (77.72)
No	43 (25)	32 (22.28)
Buying food from food seller with HIV and AIDS		
Yes	46 (24)	34 (17.62)
No	142 (76)	154 (82.39)
Provision of health care		
More Healthcare	116 (61.05)	103 (53.37)
Equal Healthcare	63 (33.16)	69 (35.75)
Less healthcare	3 (1.58)	5 (2.59)
Don't know	8 (4.21)	16 (8.29)
Stigma and discrimination		
Yes	176 (92.15)	190 (98.45)
No	15 (7.85)	3 (1.55)

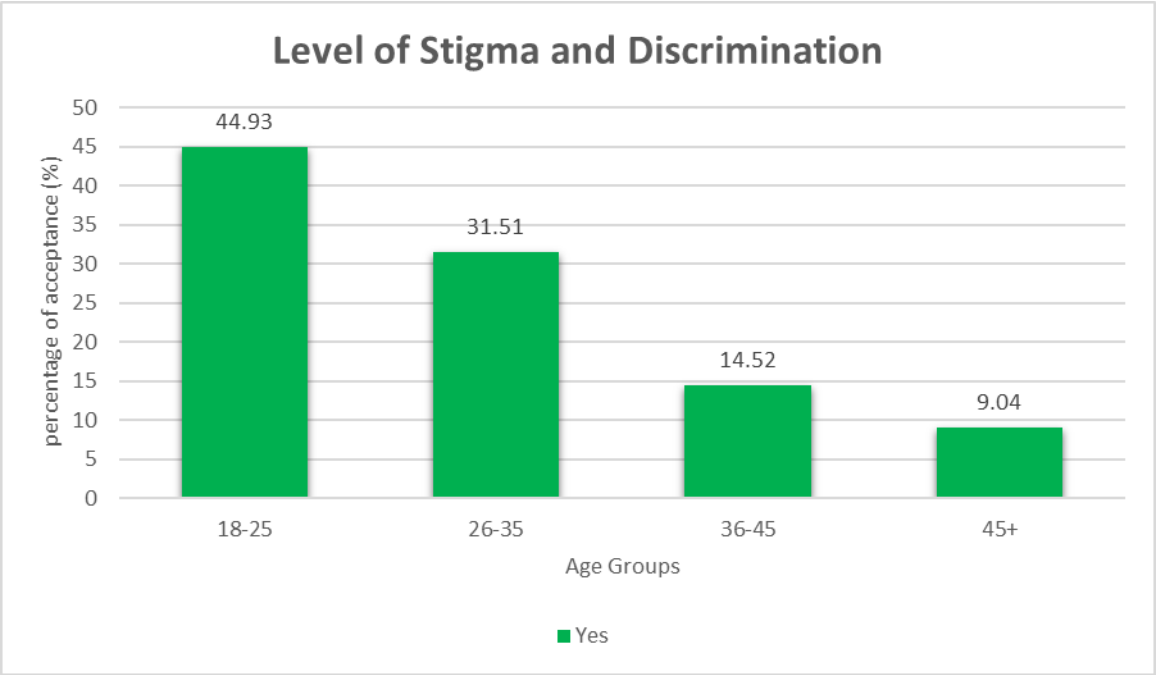

Figure 4.7: **Level of HIV and AIDS stigma and discrimination by age groups**

4.5 Association between socio-demographic characteristics and knowledge about HIV and AIDS.

A chi square test was conducted to determine the association between socio-demographic characteristics and having HIV and AIDS knowledge.

From Table 4.5, it can be seen that level of education, occupation, gender and stigma and discrimination are significantly associated with having comprehensive knowledge about HIV and AIDS. There was no association seen among the other demographic characteristics and having comprehensive knowledge about HIV and AIDS.

Only about 30% of respondents who were unemployed had comprehensive knowledge about HIV and AIDS while 40% of respondents who were employed had comprehensive knowledge about HIV and AIDS. A small proportion of respondents 4.48% who had primary education had comprehensive knowledge about HIV and AIDS (data shown in table 4.5)

while 37% of respondents with tertiary education had comprehensive knowledge about HIV and AIDS.

Table 4. 5: Association between socio-demographic characteristics with knowledge about HIV and AIDS.

Characteristics	Comprehensive knowledge (%)	$\chi 2$	P-value
Gender			
Male	42 (21.99)		
Female	27 (13.99)	4.17	**0.041**
Occupation			
Self -employed	21 (30.88)		
Employee	27 (39.71)		
Unemployed	19 (27.94)		
Others	1 (1.47)		
		26.8	**P<0.001**
Level of education			
Primary	3(4.48)		
JSS/JHS/Middle	10(14.93)		
SSS/SHS/TECH/VOC	29(43.28)		
Tertiary	25(37.31)	20.72	**P<0.001**
Religion			
Christianity	66 (95.65)		
Islam	3 (4.35)		
Traditional religion	0 (0.00)	2.17	0.338
Age groups 18-			
25	24 (34.78)		
26-35	29 (42.03)		
36-45	9 (13.04)	5.23	0.156
45+	7 (1014)		
Stigma			
Yes	69(100.00)		
No	(0.00)	4.14	**0.042**

4.6 Association between socio-demographic characteristics and HIV and AIDS stigma and discrimination.

A chi square test was conducted to determine the association between socio-demographic characteristics and HIV and AIDS stigma and discrimination.

There was no association seen among age, occupational status, ethnicity, and religion and stigma and discrimination. However there was a significant association between gender and stigma and discrimination as shown by table 4.6 below.

Table 4.6: Association between socio-demographic characteristics and HIV and AIDS stigma and discrimination.

Characteristics	Stigma and discrimination	$\chi 2$	P-value
Gender			
Male	176 (92.15)		
Female	190 (98.45)	8.53	**0.004**
Age groups 18-25	164 (44.93)		
26-35	120 (31.33)		
36-45	56 (14.62)		
45+	35(9.14)	0.21	0.976
Level of education			
Primary	29 (8.41)		
JSS/JHS/Middle	55 (15.94)		
SSS/SHS/TECH/VOC	197 (57.10)		
Tertiary	64 (18.55)	0.87	0.833
Religion			
Christianity	333 (90.98)		
Islam	32 (8.74)		
Traditional religion	1 (0.27)	0.27	0.872
Occupation			
Self-employed	140 (38.36)		
Employee	66 (18.08)		
Unemployed	154 (42. 19)		
Others	5 (1.37	0.47	0.924

4.7 Regression Analysis

Bivariate and multivariate analysis were conducted in order to determine the statistical significance between stigma and discrimination, comprehensive HIV and AIDS knowledge and socio-demographic characteristics as shown in tables 4.7 and 4.8

The results of the bivariate analysis indicated that female respondents were 0.58 less likely to have comprehensive knowledge about HIV and AIDS compared to male respondents. [p= 0.043, CI= 0.34-0.98]. Respondents between the ages 26-35 years were 1.97 times more likely to have comprehensive knowledge than respondents 18-25 years [p= 0.027,CI=1.083.58], whiles respondents with tertiary education were 5.49 times more likely to have comprehensive knowledge on HIV and AIDS compared to those with primary education[p=0.01, CI=1. 51-19.98]. Also employees at the time of the study were 3.89 times likely to have comprehensive knowledge about HIV and AIDS than self-employed respondents [p<0.001, CI= 1.99-7.59].Females had 5.4 times the odds of stigmatizing and discriminating against PLHIV than males [p=0.01, CI= 1.54-18.96].

The multivariate analysis also indicated that females were 7.91 times more likely to stigmatize and discriminate against PLHIV than males [p=0.01, CI=1.66-37.75]. Females were also 0.54 times less likely to have comprehensive knowledge about HIV and AIDS compared to males [p=0.071, CI=0.28-1.05]. Employees were 3.75 times likely to have comprehensive knowledge about HIV and AIDS compared to self- employed respondents [p=0.013. CI=1.32-10.75].

Table 4.7. Bivariate and multivariate analysis of the association between socio-demographic characteristics and HIV and AIDS stigma and discrimination

Variables	Crude OR	P -Value	95% CI	Adjusted OR	P-Value	95% CI
Gender						
Male	Ref					
Female	5.4	**0.01**	1.54-18.96	7.91	**0.01**	1.66-37.75
Age groups						
18-25	Ref					
26-35	1.12	0.844	0.36 -3.52	0.43	0.281	0.92-2.00
36-45	0.86	0.831	0.22 - 3.37	0.72	0.744	0.10-5.15
45+	0.8	0.79	0.16 3.96	0.89	0.924	0.08-10.18
Level of education						
Primary	Ref					
JSS/JHS/Middle	0.95	0.966	0.08 -10.90	2.69	0.512	0.14-52.13
SSS/SHS/TECH/VOC	0.62	0.65	.077-4.96	1.02	0.989	0.10-10.70
Tertiary	1.1	0.937	0.10 -12.66	0.93	0.965	0.03-28.51
Religion						
Christianity	Ref					
Islam	1.63	0.639	0.21-12.68	1		
Traditional religion	1			1		
Occupation						
Self-employed	Ref					
Employee	1.26	0.741	0.32 - 4.89	0.96	0.973	0.66-13.84
Unemployed	1.26	0.666	0.44 -3.56	0.67	0.575	0.17-2.72
Others	1			1		
Knowledge						
No	Ref					
Yes	1			1		

Table 4. 8. Bivariate and multivariate analysis of the association between socio-demographic characteristics and comprehensive knowledge about HIV and AIDS

Variables	Crude OR	P -Value	95% CI	Adjusted OR	P-Value	95% CI
Gender						
Male	Ref					
Female	0.58	**0.043**	0.34-0.98	0.54	**0.071**	0.28-1.05
Age groups						
18-25	Ref					
26-35	1.97	**0.027**	1.08-3.58	1.08	0.869	0.45-2.57
36-45	1.18	0.696	0.51-2.72	0.78	0.663	0.25-2.43
45+	1.54	0.364	0.61-3.92	0.60	0.525	0.13-2.86
Level of education						
Primary	Ref					
JSS/JHS/Middle school	1.91	0.354	0.48-7.57	2.38	0.304	0.46-12.41
SSS/SHS/TECH/VOC	1.46	0.556	0.42-5.12	1.59	0.567	0.32-7.81
Tertiary	5.49	**0.01**	1.51-19.98	1.28	0.789	0.21-7.99
Religion						
Christianity	Ref					
Islam	0.43	0.174	0.13-1.45	0.44	0.438	0.05-3.52
Traditional religion	1			1		
Occupation						
Self-employed	Ref					
employee	3.89	**0.00**	1.99-7.59	3.76	**0.013**	1.32-10.75
Unemployed	0.81	0.533	0.42-1.57	0.78	0.573	0.33-1.86
Others	1.51	0.718	0.16-14.19	1		

CHAPTER FIVE

DISCUSSION

5.0 Introduction

This chapter presents a thorough discussion of the findings from the study. It explains the meaning and importance of the findings and relate the findings to those of similar studies as well as the limitations and importance of this study to PLHIV and HIV and AIDS interventions in the district.

5.1 Major findings

Results from the study shows a high prevalence of stigma and discrimination (95%) and low knowledge about of HIV and AIDS transmission and misconceptions in the district (18%) even though 99% of them have heard about HIV and AIDS. More females (98.45.09%) than males (92.15%) were found to have stigmatizing and discriminatory attitude towards PLHIVs.

Stigmatizing and discriminatory attitudes were found to be decreasing with age of respondents with highest level of stigma and discrimination among the age groups 18-25 years (45%) and lowest among the age group 45years and above (9%).

Comprehensive Knowledge on HIV and AIDS was also found to be associated with gender [p=0.071, AOR=0.54 and occupational status p=0.013, AOR=3.76. Males (21.99%) had a high level of knowledge on HIV and AIDS than females (13.99%).

The results shows 16.71 % of all respondents believed a healthy looking person cannot have the virus that causes AIDS whiles 39.47% and 41.97% of males and females respectively were unwilling to eat from the same dish with someone with HIV. Some 24% of all respondents also believed that HIV and AIDS has a cure.

Over 80% of all respondents were willing to care for a family member with HIV or AIDS, however only 24% and 18% of males and females respectively were willing to buy food from a shop keeper or food seller with HIV or AIDS.

The high prevalence of stigma and discrimination in the district is an indication of inadequate HIV and AIDS education and high level of misconceptions in the district .Also the results shows a high level of stigma and discrimination among females and young people indicating a low level of education on HIV and AIDS and high level of misconceptions among females and young people in the district.

These findings are very important because high level of stigma and discrimination could impede HIV and AIDS interventions in the district and make life unbearable for PLHIV. Low knowledge on HIV and HIV could also lead to an increase in new HIV infections in the district especially among women and young people in the district since the results show a high level of stigma among them. Those with secondary and tertiary education had a better understanding of HIV and AIDS 43% and 37% respectively .This is an indication that education could lead to improvement of knowledge on HIV and HIV and hence a reduction in stigma and discrimination.

Misconceptions about the mode of transmission and cure for HIV such as people not willing to eat from the same bowl with someone with HIV and AIDS is an indication of high level of stigma and discrimination in the town.

5.2 Prevalence of stigma and discrimination

Prevalence of accepting attitude in the District from the study was 5% of all respondents and 8% and 2% of males and females between the ages of 18- 65 years had accepting attitude towards PLHIVs based on the following four questions asked: 1) would you care for a family member sick with AIDS?; 2) would you buy food from a shopkeeper or food seller who has

HIV?; 3) do you think that a female teacher who is HIV positive should be allowed to teach in school?; and 4) should people who have AIDS or the virus that causes AIDS be given more health care, equal health care or less health care than people with other serious diseases?. These findings are consistent with MICS 2011 findings.

According to the Ghana Multiple Indicator Cluster Survey (MICS 2011), only 6% and 15% of women and men respectively expressed accepting attitudes towards PLHIVs based on all the four questions asked. The questions were: 1) would you care for a family member sick with AIDS?; 2) would you buy fresh vegetables from a vendor who was HIV positive?; 3) do you think that a female teacher who is HIV positive should be allowed to teach in school?; and 4) would you want to keep the HIV status of a family member a secret?.

The DHS further indicated that accepting attitude was low in rural areas (5% women and 9% men), and among people with no education (2% women and 5% men), and among the poorest (3% women and 7% men).

There were similar findings from the Ghana DHS 2008 which indicates that 11% of women and 19% of men aged 15-49 years had accepting attitudes on all four measures of stigma and discrimination.

From the study 24% of males and 18% of women would buy food from a shopkeeper or shopkeeper living with HIV while 77% of women and75 % of men reported that an HIV positive teacher should be allowed to continue teaching.

The Ghana DHS 2008 revealed that only 43% of men and 32% of women would buy fresh food from a shopkeeper living with HIV while 62% of women and 66% of men reported that an HIV positive teacher should be allowed to continue teaching.

These findings were not very different from the findings from the Nigerian DHS which revealed that 12% of women and 13 % of men had accepting attitudes from the following

four questions asked: would you care for a family member with HIV or AIDS? Would you buy fresh vegetables from a shopkeeper with HIV? Would you allow an HIV-positive female teacher to continue teaching? And would you want to keep secret the HIV-positive status of a family member?

A study in Gabon among young people 12-24 years however indicated a high level of accepting attitudes. According to the study 55.7% of respondents had positive attitude towards people living with HIV and AIDS. However, only 45.3% of the respondents were willingness to study in a school with HIV positive friends and 39.3% of the respondents reported that they can attend a school with HIV positive teachers .(Christiane et al 2014)

5.3 Comprehensive knowledge on HIV and AIDS

The total percentage of all respondents who had comprehensive knowledge was 18% while the percentage of males and females who had comprehensive knowledge about HIV was 21.99% and 13.99% respectively; thus those who were able to identify the main ways of HIV transmission (blood transfusion, mother to unborn child and sexual intercourse) and reject three major misconceptions about HIV transmission (witchcraft, sharing utensils and mosquito bites). There was a significant association between gender, being employed and having comprehensive knowledge about HIV and AIDS.

A high percentage of respondents reported that HIV can be transmitted through blood transfusion 94%, mother to unborn child 77%and sexual intercourse 98%.

The MICS 2011 however reports that, only 34% and 39% of women and men respectively have comprehensive knowledge about HIV transmission.

In a study conducted by Oppong et al. (2013) to determine HIV and AIDS Knowledge among undergraduate university students in Ghana, students could identify the various modes of HIV

transmission and preventive measures; they were less knowledgeable about the causative agent of AIDS. The result also revealed that more females were more knowledgeable than males. The later part of the findings from this study were however inconsistent with findings from the study, MICS 2011 and GHDS 2008 which found males to be more knowledgeable than females.

The Nigerian DHS report shows that 26% of women and 37 % of men have comprehensive knowledge about AIDS. That is, they know that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chances of getting HIV, they know that a healthy-looking person can have the AIDS virus, and they reject the two most common local misconceptions about HIV transmission or prevention.

Among young people 12-24 years in Gabon, 55.7% of them indicated that HIV can be transmitted through sexual intercourse, 48.3% from mother to child and 44.7% through blood transfusions .(Christiane et al 2014).

5.4 Determinants of stigma and discrimination

Several studies have indicated that lack of knowledge on HIV and AIDS is a major contributor to stigma and discrimination against people leaving with HIV and AIDS.

However results from the logistic regression [OR= 5.4, p=0.009] and multiple regression [AOR=7.91, p=0.01] analysis indicates that stigma and discrimination was found to be associated only with gender.

Maman et al. (2009) conducted a baseline survey in five high prevalence settings namely Tanzania, South Africa (Soweto and Vulindlela), Zimbabwe, Thailand and observed that factors that contribute to HIV stigma and discrimination include fear of transmission, fear of suffering and death, and the burden of caring for PLHIV.

Chiao et al. (2008) using 2003 DHS data from Kenya, found that males were more likely than females to have higher social acceptance attitudes toward PLHIV. Respondents, who were older, had higher education, had high knowledge of AIDS had greater accepting attitude towards PLHIV.

Tenkorang et al. (2013) also examined the factors that contribute to stigma and discrimination and found that Ghanaian men and women with relatively high knowledge about HIV and AIDS had low stigmatizing and discriminatory attitudes (b = –0.097, $P< 0.01$; b = –0.083, $P< 0.01$), whiles, respondents who had more misconceptions about HIV transmission had high stigma and discriminatory attitudes.

5.5 Beliefs about HIV and AIDS

Misconceptions about HIV and AIDS transmission result in discrimination and stigmatization. Ninety nine percent of all respondents in the study have heard about HIV and AIDS while 24% of all respondents believe that HIV has a cure. About 16.84% of males and 16.58% of females believe a healthy looking person cannot have HIV and AIDS.

In Ghana Witchcraft is a major misconception about the transmission of HIV and AIDS. From the study 23.46% of males and 34.78% of females believe that HIV can be transmitted through witchcraft, 38.58% and 45.90 % of females believe mosquitoes bites can cause HIV while 25.84% and 35.52 % of males and females respectively believe sharing eating utensils can lead to HIV transmission.

The GDHS 2008 also shows that 98 % of women and 99 %of men have heard about AIDS, 82 percent of women and 86 percent of men know that a healthy-looking person can have the AIDS virus, 60 percent of men and 48 percent of women correctly believe that the AIDS virus cannot be transmitted by supernatural means, and 78 percent of men and 74 percent of

women know that the AIDS virus cannot be contracted by sharing food with a person who has AIDS.

Tenkorang et al. (2013) observed that majority of Ghanaians endorsed at least a single myth about HIV transmission, highest among women (65%) than men 58.9%.

Also the Nigerian DHS shows that 67 % women and 66 % of men believe that AIDS virus cannot be transmitted by mosquito bites, and 64 % of women and 66 %of men say that the AIDS virus cannot be transmitted by supernatural means. 75% of women and 78 % of men correctly believe that a person cannot contract HIV by sharing food with someone who has AIDS.

To determine people‘s beliefs about HIV and AIDS, Christiane et al (2014) reported that only 59% of the participants believed that shaking hands‘‘ with PLHIV spread HIV. Almost half of respondents incorrectly believed that HIV could be transmitted by eating from the same plate, drinking from the same glass, wearing the same clothes and sharing the same toilet with PLHIV.

5.6 Importance of findings

Stigma and discrimination are of concern to AIDS programs for two main reasons: they can make life unbearable for those who live with the disease and they affect prevention and care efforts resulting in increased new HIV and AIDS infections.

These findings are very important for improving life and health of PLHIVs and improving HIV and AIDS interventions in the district. The study shows the need for increase education especially in the area of HIV and AIDS and increase female education as well as other sensitization efforts to reduce stigma and discrimination in the district.

5.7 Limitations of the Study

Some of the limitations of this study include external validity or the generalizability of the study to the entire population of the district since only 4 communities were purposefully selected to participate in the study. In addition, there are difficulties in interpreting indicators based on hypothetical questions.

There is no clear relationship between attitudes and behavior in this context. What people actually do in the face of something as frightening as AIDS may well differ from what they say they would do.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.0 Introduction

This chapter presents a conclusion of findings and inferences from the study to determine the level of stigma and discrimination in the Jaman North District of the Brong Ahafo Region. It goes further to make recommendations to enhance the knowledge of the people in the district on HIV and AIDS and reduce the level of stigma and discrimination against people living with HIV and AIDS.

6.1 Conclusion

In conclusion, the study shows that there is a knowledge deficit in terms of HIV and AIDS. Only 5% of respondents had spontaneous comprehensive knowledge about HIV and AIDS while 18% had comprehensive knowledge when prompted. A low proportion of women (13.99%) had comprehensive knowledge about HIV and AIDS compared to 21.99 % of men who had comprehensive knowledge about HIV and AIDS. The prevalence of stigma and discrimination was about (95%) and 5% of all respondents had accepting attitudes towards people living with HIV and AIDS. More women (98.45%) were found to have more stigmatizing attitudes compared to men. 92.15% of men.

The study showed a significant relationship between stigma and discrimination towards PLHIV and gender .Females were 7 times more likely to stigmatize and discriminate against PLHIV than males [p= 0.01, CI= 1.66-37.75]. However no significant relationship existed between stigma and discrimination against PLHIV and having comprehensive knowledge about HIV and AIDS and other demographic characteristics. Gender and occupational status (being employed) were found to be associated with having correct comprehensive Knowledge.

Females were 0.54 times less likely to have comprehensive knowledge about HIV and AIDS compared to males [p= 0.071, CI=0.28-1.05]. Employees were also 3.76 times more likely to have comprehensive knowledge about HIV and AIDS compared to self-employed respondents. This means that a low educational level could be a constraint to reducing stigma and discrimination against PLHIVs in the district.

6.2 Recommendations

Findings from the study revealed a deficit in comprehensive knowledge about HIV and AIDS and a high level of negative attitudes towards PLHIV. As a result of the study, the following recommendations are suggested;

- Stigma and discrimination will continue to exist so long as societies as a whole have a poor understanding of HIV and AIDS and the pain and suffering caused by negative attitudes and discriminatory practices. There is the need to step up health education in the Jaman North district by the Ghana health service, schools, media and non-governmental organizations.
- The Ghana Health Service, Media, Non-Governmental organizations as well as teachers should help in addressing fears and misconceptions about HIV transmission at the school level stigma and discrimination was found to be very high among respondent‘s ages 18-25 years.
- The Use of media, including advertising campaigns, entertainment designed to educate as well as to amuse (“edutainment”), and integration of non-stigmatizing messages into radio stations in the district will help reduce HIV and AIDS stigma and discrimination in the district.

- There should be Engagement with religious and community leaders, by Non-Governmental Organizations and other stakeholders in reducing stigma and discrimination in the district.
- There is also the need to improve upon education in the district especially female education to enhance a better understanding of HIV and AIDS issues in the district.
- Further qualitative researches should be conducted in the district to determine why people are unwilling to eat or buy from someone with HIV.

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APPENDICES

Appendix A: Consent Form for Study Participants

PROJECT TITLE: Stigma and Discrimination against Persons Living With HIV and AIDS in Jaman

North District of Brong Ahafo Region

NAME OF INSTITUTION: School of Public Health, University of Ghana, Legon.

BACKGROUND OF INTERVIEWER:

My name is……..from (I am a student who is here) or (I am helping a student) to collect data purely for academic work for a DEGREE IN MASTERS IN PUBLIC HEALTH.

PROCEDURE: Information required from you for this study includes socio-demographic information such as age; gender, occupation, and educational status and your knowledge on HIV and AIDS prevention, transmission diagnosis and how you feel about PLHIV. Data collection is through the administration of a structured questionnaire. . The interview will take about 30 minutes.

RISKS AND BENEFITS: There are minimum or no risks if you take part in this study. There are also no incentives but the information you provide will help improve the health of PLHIV and reduce the number of new HIV infections. This research will also assist policy makers and organizations in policy formulation and provide knowledge on HIV and AIDS Stigma and Discrimination reduction interventions.

RIGHT TO REFUSE: Your consent to participate in this study is voluntary and you can withdraw from this study at any time. You also have the right to refuse to answer any question during the interview process.

ANONYMITY AND CONFIDENTIALITY: You are assured of strict anonymity and confidentiality on any information you give. All the information we obtain will remain strictly Confidential and your answers will never be shared with anyone other than our Project Team.

If you have any further enquiries or questions about the study, you may contact the researcher, **Elfreda Abudu A.** on phone number: **020 7716 221/0547514835** or email: elfreda.abudu@yahoo.com

YOUR RIGHTS AS A PARTICIPANT: This research has been reviewed and approved by the Ethical Review Committee of the Ghana Health Service. If you have any questions about your rights as a research participant you can contact the ERB Office between the hours of 9am – 4pm on Monday to Friday through **0507041223 (Miss Hannah Frimpong).**

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any question I have asked have been answered to my satisfaction. I consent voluntarily to participate as a subject in this study and understand that I have the right to withdraw from the study at any time without in any way

Signature or Thumb print of Participant: ……..

Date: ……..

Thank you for agreeing to participate.

I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

Name of Researcher: …….

Signature of Researcher: ……

Appendix B: Questionnaire

<table>
<tr><td colspan="2">STIGMA AND DISCRIMINATION AGAINST PERSONS LIVING WITH HIV AND AIDS IN JAMAN NORTH DISTRICT OF BRONG AHAFO REGION.</td></tr>
<tr><td colspan="2">This questionnaire is to be administered to all respondents age 18 through 65 years.
Fill in one form for each eligible Respondent.</td></tr>
<tr><td>001.Region---------- 002.District----------

003.Sub-district----------
004.House Number----------</td><td>005.Questionnaire Identification Number |___|___|___|

006. Gender…….</td></tr>
<tr><td>007.Interviewer Name----------</td><td>008. Day / Month / Year of interview:
___ ___ ___ 2015</td></tr>
</table>

Now I would like to talk to you more about yourself and your Knowledge on HIV AND AIDS. This interview will take about 30 minutes. Again, all the information we obtain will remain strictly **Confidential** and your answers will never be shared with anyone other than our Project Team.

MAY I START NOW?

Section 1 Socio-demographic characteristics

No.	Questions and filters	Coding categories	Skip to
Q009	In what month and year were you born?	Date of birth Month__ __ DK month.....8 Year __ __ __ __ DK year…….8	
Q010	How old are you? **PROBE: HOW OLD WERE YOU AT YOUR LAST BIRTHDAY?** **COMPARE AND CORRECT Q009** **AND/OR Q010 IF INCONSISTENT**	Age (in completed years) __ __ __ _	
Q011	Have you ever attended school?	Yes ..... 1 No..... 2	▶
Q012	What is the highest level of school you attended?	Primary .....1 Middle/JSS/JHS .....2 Secondary/SSS/SHS/TECH/VOC.....3 Tertiary.....4	
Q013	What is your religion?	Christianity……1 Islam……..2 Traditional……..3 Others……4	
Q014	To what ethnic group do you belong?	Nafana……1 Bono……2 Other ethnic group (*specify*) …….. 0	
Q015	What is your occupation i.e. what kind of work do you mainly do?	Self-employed…….1 Employee…..2 Unemployed…..3 Others…..4	

Section 2 Knowledge, opinions, and attitudes about HIV AND AIDS

No.	Questions and filters	Coding categories	Skip to
Q016	Have you ever heard of AIDS or HIV (the virus that causes AIDS)?	Yes……..……..1 No…….…..……2	
Q017	What is your source of information on AIDS or HIV?	Family members……..1 Teachers……2 Friends.....……3 Health workers……..4 Mass media……5 Others(specify)……..0	
Q018	Does AIDS have a cure?	Yes, it has a cure……1 No, it does not have a cure…..…….2	
Q019	Do you know someone who has the AIDS virus or who has AIDS?	Yes……..1 No…….2	
Q020	Do you know someone died of AIDS?	Yes……..1 No…….2	
Q021	**How can a person get the virus that causes AIDS?** **[PROBE FULLY.** **FIRST RECORD ALL MENTIONED, THEN PROMPT** **THE RESPONDENT TO**		

	Spontaneous	**Prompted**		
	Yes	Yes	No	Don't Know
Sexual Intercourse	1	2	3	4
Blood transfusion	1	2	3	4
Mother to unborn child	1	2	3	4

	TELL YOU IF THE WAYS NOT MENTIONED ARE WAYS OF GETTING THE VIRUS THAT CAUSES AIDS OR NOT]	Sharing toilets	1	2	3	4	
		Sharing sharp objects like razors	1	2	3	4	
		Sharing needles	1	2	3	4	
		Sharing eating utensils	1	2	3	4	
		Mosquito bites/bed bugs	1	2	3	4	
		Witchcraft	1	2	3	4	
		Kissing	1	2	3	4	
		Hugging	1	2	3	4	
		Others specify[ ]…0					
Q022	**Is it possible that a healthy-looking person has the virus that causes AIDS**?	Yes……1 No……..2 Don‘t know……4					
Q023	**How does one know if he/she has the HIV virus?**	**Going for the HIV test**	**1**	**2**	**3**	**4**	
		Showing symptoms of HIV	**1**	**2**	**3**	**4**	
		Others Specify [ ]…0					

No.	Questions and filters	Coding categories				Skip to
Q024	What can a person do to avoid getting the virus that causes AIDS? **[PROBE FULLY.** **FIRST RECORD ALL MENTIONED, THEN PROMPT THE RESPONDENT TO TELL YOU IF THOSE NOT MENTIONED ARE WAYS TO AVOID GETTING THE VIRUS THAT CAUSES AIDS OR NOT]**		**Spontaneous**	**Prompted**		
			Yes	Yes	No	Don't Know
		Staying with one Faithful uninfected partner	1	2	3	4
		Using condoms every time	1	2	3	4
		Abstaining from sex	1	2	3	4
		Delaying the onset of sexual intercourse	1	2	3	4
		Avoiding sex with CSWs	1	2	3	4
		Reducing number of sexual partners	1	2	3	4
		Avoiding sex with people who have many sexual partners	1	2	3	4
		Avoid sharing of sharp objects like needles, razors	1	2	3	4
		Praying to God	1	2	3	4
		Going for check-ups	1	2	3	4
		Using antibiotics	1	2	3	4
		Seek protection from a traditional healer	1	2	3	4
		Nothing	1	2	3	4
		Others specify [ ]…0				

Q025	Would you rate your chances of getting AIDS (or the virus that causes AIDS) as high, low or no chance at all?	High……..1 → **Go to 26** Low……..2 → **Go to 27** No risk at all……..3 → **Go to 27** Already have AIDS…….....4 No response…….9			
Q026	Why do you think you have a high chance of getting AIDS (or the virus that causes AIDS)? **[DO NOT READ OUT OPTIONS; PROBE FULLY** **MULTIPLE CODES POSSIBLE;]**		Yes	N	
		Share sharp objects……..	1	2	
		Do not use condoms…….	1	2	
		I have more than one sex partner…	1	2	
		Sex with sex workers……...1	1	2	
		My Spouse/partners has other partners	1	2	
		Had blood transfusions……	1	2	
		Have had injections……	1	2	
		Others specify[ ]…0			
Q027	Why do you think you have a low chance or no chance at all of getting AIDS (or the virus that causes AIDS)? **[DO NOT READ OUT OPTIONS; PROBE FULLY** **MULTIPLE CODES POSSIBLE;]**		Yes	No	
		I abstain from sex	1	2	
		I use condoms	1	2	
		I trust my partner	1	2	
		I have a limited number of sex partners	1	2	
		I have only one sex partner	1	2	
		I avoid sex with sex workers	1	2	

		Spouse/partners has no other partner	1	2	
		I ensure safe blood transfusion	1	2	
		I ensure injection with sterile needles	1	2	
		I seek protection from a traditional healer	1	2	
		God will protect me/It is not my destiny	1	2	
		Others specify [ ]….0			

Section 3: Stigma and Discrimination

No.	Questions and filters	Coding categories	Skip to
Q028	Would you be willing to eat from the same dish with a person you knew had the virus that causes AIDS? 33	Yes ……. 1 No ……. 2 Don‘t know …….. 4	
Q029	If a male relative of yours became ill with AIDS, would you be willing to care for him/her in your household?	Yes …… 1 No …… 2 Don‘t know……. 4	
Q030	If a student has the virus that causes AIDS but is not sick, should he or she be allowed to continue attending school?	Yes …….. 1 No…… 2 Don‘t know…….. 4	
Q031	If a female relative of yours becomes ill with AIDS, would you be willing to care for her in your household?	Yes ……. 1 No ……. 2 Don‘t know ……. 4	
Q032	If a female teacher has the virus that causes AIDS but is not sick, should she be allowed to continue teaching in school?	Yes ……. 1 No ……. 2 Don‘t know ……. 4	
Q033	If you knew a shopkeeper or food seller who had the virus that causes AIDS, would you buy food from him/her?	Yes ……. 1 No ……. 2 Don‘t know …… 4	
Q034	If a member of your family became ill with the virus that causes AIDS, would you want it to remain a secret or not?	I would want it to remain secret ……. 1 I would not want it to remain secret …….. 2 Don‘t know ……. 4	
Q035	If a colleague in your work place has the virus that causes AIDS but is not sick, should he or she be allowed to continue working with you?	Yes, should be allowed to work ……. 1 No, should not be allowed to work …….. 2 Don‘t know ……. 4	
Q036	If a child has the virus that causes AIDS should he or she be allowed to attend school with other children?	Yes, should be allowed to attend school…. 1 No, should not be allowed to attend school…….. 2 Don‘t know ……. 4	
Q037	Should people who have AIDS (or the virus that causes AIDS) be given more health care, equal health care or less health care than people with other serious	More health care ……. 1 Equal health care …….. 2 Less health care ……. 3 Don‘t Know…….4	

	diseases?		