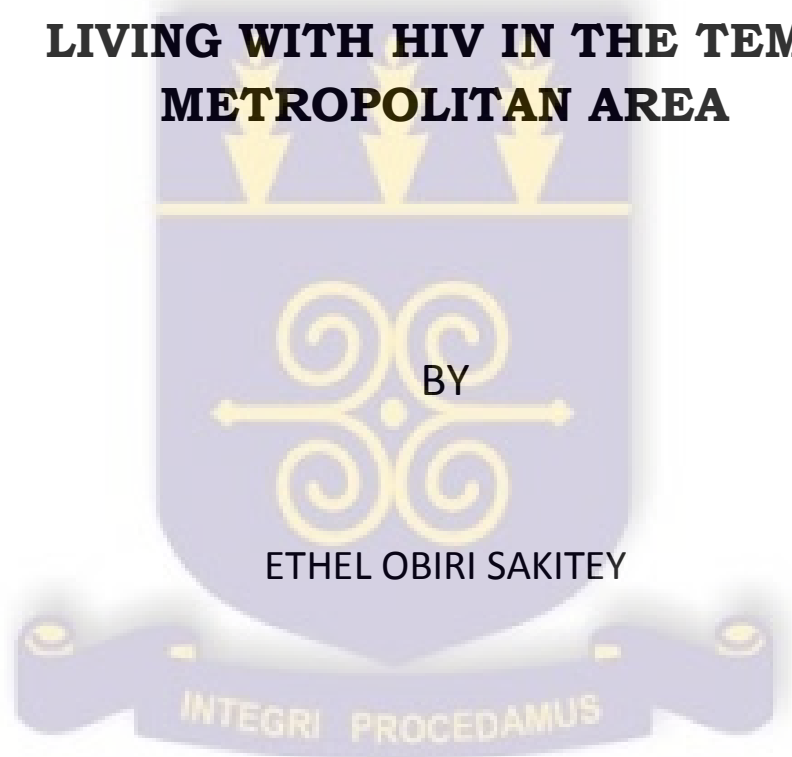


**FACTORS ASSOCIATED WITH
DISCLOSURE OF HIV STATUS WITHIN
RELATIONSHIPS: THE CASE OF PERSONS
LIVING WITH HIV IN THE TEMA
METROPOLITAN AREA**



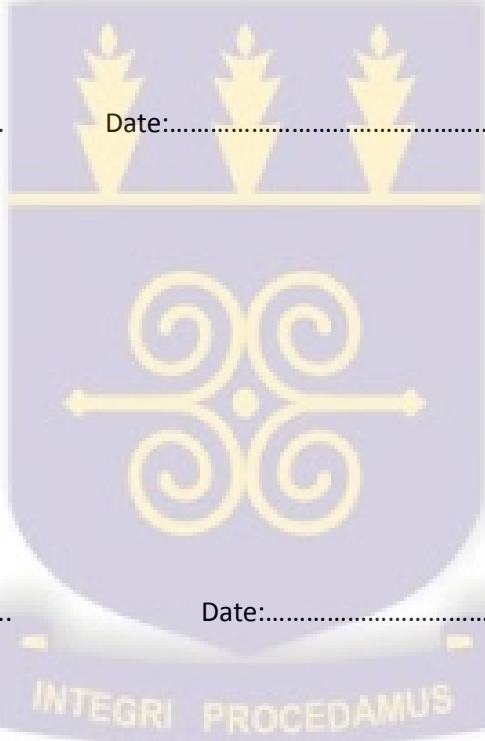
THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA,
LEGON IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE
AWARD OF M.PHIL PUBLIC HEALTH DEGREE

JUNE 2010

DECLARATION

I, ETHEL O. SAKITEY author of this dissertation do hereby declare that except for the duly acknowledged citations and ideas, this thesis is an original work, produced by me from research undertaken with supervision.

This work has never on any previous occasion been submitted in part or whole to any institution or Board for the award of any degree.



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Academic Supervisors

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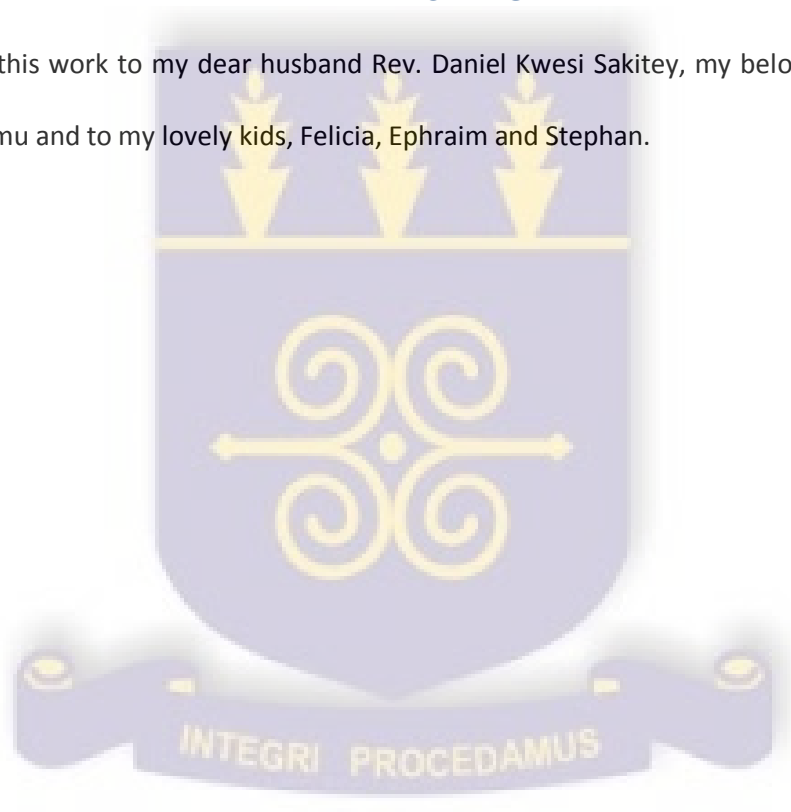
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..... Date:.....

Dr. Akosua Darkwah

DEDICATION

I dedicate this work to my dear husband Rev. Daniel Kwesi Sakitey, my beloved brother Fidelis Edem Anumu and to my lovely kids, Felicia, Ephraim and Stephan.



ABSTRACT

This study is a survey which examines and clarifies the determinants of disclosure of HIV status among individuals who are known to be aware of their sero-positive status. Although the African region has a high HIV prevalence there is a dearth of research on the complex process of disclosure of HIV infection in most African nations including Ghana. Addressing issues of non-disclosure and increased risky behavior is a crucial mechanism to help stop the spread of HIV and reduce new HIV infections in Ghana, this study therefore is relevant as it explores and unearths key issues associated with disclosing a positive sero status.

Data was collected from 155 respondents in four HIV support associations within the Tema Metropolitan Area of the Greater Accra Region through a multi staged sampling technique. Data was collected by both quantitative and qualitative methods, using questionnaires, FGDs and in depth interviews.

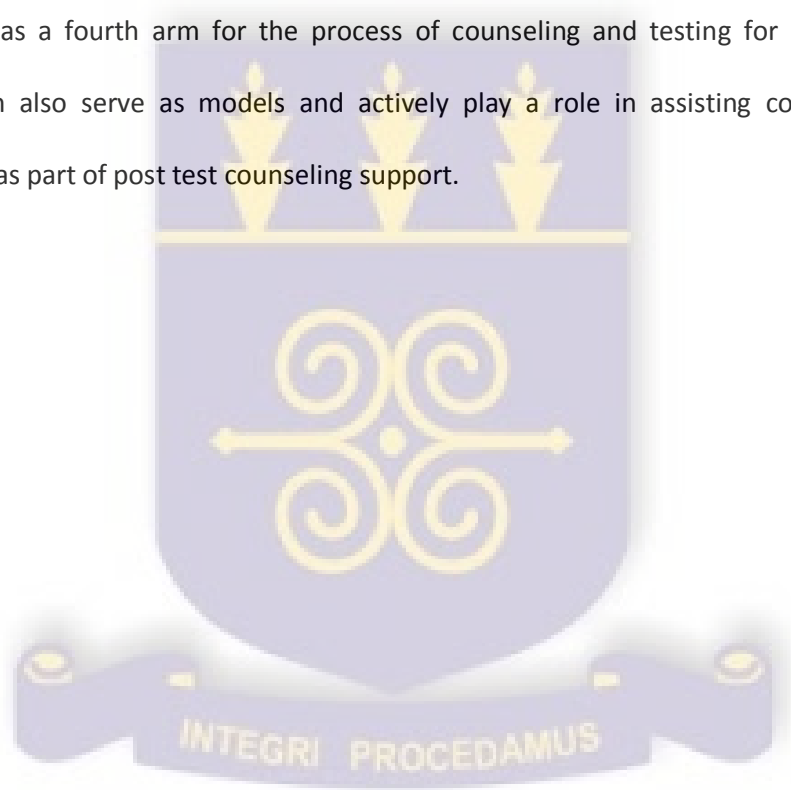
Disclosure rates among PLHIV were high, as two-thirds of the PLHIV had disclosed their HIV status to a relation. PLHIV most likely to disclose were females aged 25-34 years, married individuals, employed individuals, individuals who had received secondary education and those who had known their HIV status for at least six months to one year. Those less likely to disclose were males, persons aged 15-24 years, separated, divorced or single PLHIVs, unemployed, Christians (among both males and females Pentecostals were least likely to disclose), those with basic education and PLHIV who had known their status for a year or more.

It is important to note however, that none of these characteristics were statistically associated with disclosure. Interestingly, perceived fear of stigmatization and discrimination affected disclosure decisions however PLHIVs who actually disclosed did not feel stigmatized by relations after disclosing their positive sero status.

As to who among family relations is most likely to be a disclosure recipient, sexual partners were mentioned as most likely to receive news of a partner's positive sero status. This is followed by parents especially mother and aunts, siblings, other family members.

Some recommendations made are that prevention workers in Ghana must incorporate the promotion of a sense of individual responsibility and duty to others with regard to disclosure.

Another recommendation is that the National AIDS Control Programme considers safe disclosure as a fourth arm for the process of counseling and testing for HIV where trained PLHIVs can also serve as models and actively play a role in assisting colleagues with safe disclosure as part of post test counseling support.



ACKNOWLEDGEMENTS

I thank the Almighty God who gave me the courage and the inner strength to go through this programme and in putting together this document.

“For I can do all things through Christ who strengthens me” (Phil. 4:19)

I wish to acknowledge the immense contribution, assistance and support of my academic supervisors Dr. Edith Tetteh who was just like a mother to me and Dr. Akosua Darkwah who in spite of her busy schedule always made time for me. I am grateful for the guidance provided right from the inception of the proposal development through the stages of data collection and the write up of this research work.

I am grateful to Mr. Kwame Boateng the HIV focal person for the Tema metropolitan area, to all leaders of HIV Support Associations, PLHIVs and health providers in Tema who spared their time to interact with me during the data collection stage of this project.

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To my course mates, friends, my family, in-laws and my dear brother Fidelis thank you so much, may God reward you all for your financial and emotional support given me during the course of this research work.

Last but not the least, to Madam Elizabeth Awini, Mr Seth Afagbedzi, and Mr. Franklin Asuo for your assistance in the analysis of the data, that has helped me in producing this research work.

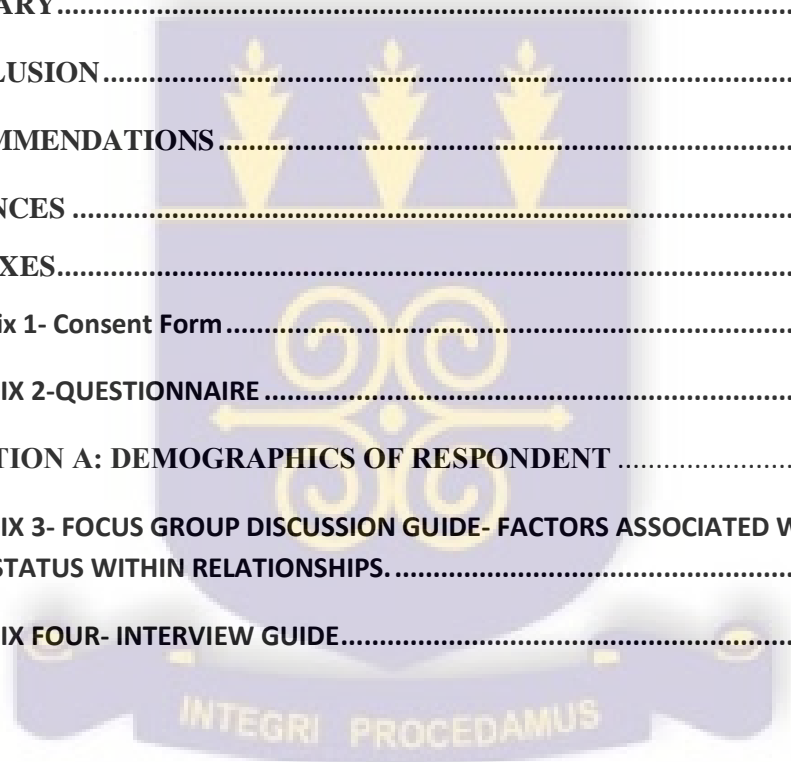


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LIST OF ABBREVIATIONS & ACRONYMS

AED	Academy for Educational Development
AIDS	Acquired Immune Deficiency Syndrome
ARRM	AIDS Risk Reduction Model
ART	Anti-Retroviral Therapy
ARV	Anti-Retrovirals
CAPS	Centre for AIDS Prevention Studies
CICT	Client –Initiated Counseling and Testing
CT	Counseling and Testing
CDC	Centre for Disease Control
FIDA	International Federation of Women Lawyers
FCH	Family and Community Health
FGD	Focus Group Discussion
GAC	Ghana AIDS Commission
GDHS	Ghana Demographic Health Survey
GSHRDC	Gender Studies and Human Rights Documentation Centre

GWH Department of Gender and Women's Health

HIV Human Immuno-Deficiency Virus

HBM Health Belief Model

IDI In depth Interview

MLHIV Men Living With HIV

NACP National AIDS Control Programme

MSM Men who have sex with men

PICT Provider Initiated Counseling and Testing

PLHIV Persons Living With HIV

PLWHA Person living with HIV and AIDS

PMTCT Prevention from Mother to Child Transmission

STI Sexually Transmitted Infections

SES Socio-Economic Status

SHARP Strengthening HIV and AIDS Response Partnerships

TMA Tema Metropolitan Assembly

UNAIDS Joint United Nations Programme on HIV/AIDS

WLHIV Women Living With HIV

WHO World Health Organization

CHAPTER ONE: INTRODUCTION

1.1 Background

Human immune-deficiency virus (HIV) is one of the most pressing public health issues of the 21st century. As at 2008, 33 million people are reported to be infected with HIV/AIDS worldwide; the majority of this figure live in sub-Saharan Africa. Although Africa is inhabited by just over 14.7% of the world's population, it is estimated to have more than 88% of the people living with HIV and 92% of all AIDS deaths in 2007. UNAIDS(2008). The HIV prevalence rate of Ghana declined from 1.9% in 2007 to 1.7 in 2008, indicating a stabilizing condition. According to the 2009-2015 National HIV Prevalence & AIDS Estimates Report, the estimated adult national HIV prevalence in 2009 rose again to 1.9%, with an estimated 267,069 persons made up of 112,457 males and 154,612 females living with HIV and AIDS. There were 22,177 new infections and 20,313 AIDS deaths. Again, according to the 2009 HIV Sentinel Survey (HSS) report, the median HIV prevalence for 2009 is 2.9%. The 2009 increase in HIV prevalence by 0.2% confirms Ghana's epidemic as not fully stabilized despite a linear trend that portrays declining prevalence. The number of persons living with HIV and AIDS would continue to increase due to the combined effects of population growth and an increasing number of HIV infected persons that are living on Anti Retroviral Therapy (ART).

Safe disclosure of one's HIV positive status is critical for scaling up treatment. HIV status disclosure is an adjunct to effective treatment, as the treatment program strongly encourages clients to enlist the help of a "treatment monitor" to accompany them to appointments and help keep adherence to their medication regimen. To access ARVs at Fevers Units and ART centres in Ghana, PLHIVs are required to disclose their statuses to at least one significant person

within their network (close relation) bring him or her along for adherence counselling and ultimately act as a treatment monitor for the PLHIV while he/she takes the ARVs. The fact that more PLHIVs are getting on ART is a good trend, however, this has implications for disclosure of HIV status to especially significant others within the social network of the individual living with HIV. With advances in the treatment of HIV using anti-retrovirals, there has been a sharp decrease in the number of persons dying from AIDS-related illnesses. Persons living with HIV are focusing more on how to maintain close relationships and to initiate new relationships with others. With available treatment the next level of need for PLHIVs is to maintain or initiate new relationships including marriage. In Africa generally, marriage unlike the Western world is a family affair, thus families marry and not individuals. The African notion of family is characterized by interconnectedness, thus the family in Africa could be likened to a web. What affects one part of the network affects all. Disclosing one's HIV status is therefore not an easy task. Saying I have HIV is like the whole family saying they have HIV, thus the intense stigma and discrimination against PLHIVs.

The need to maintain family relationships also stems from the African religious and socio-cultural perspectives. Mbiti (1969) therefore noted "The African is notoriously religious" For the African; there is no separation between the sacred and the circular. In other words, what happens in the physical realm is inextricably linked to the spiritual. This is why people would even describe HIV/AIDS as a curse from the gods; should the gods mark a particular family with HIV/AIDS it is associated with neglect, rejection and broken relationships, thus the difficulty in disclosing ones status.

In spite of these difficulties, one important public health recommendation for people with HIV is to tell others about their diagnosis especially to their sexual partners; this is a major component of the public health response to the HIV epidemic.

Disclosure of one's HIV positive status to sex partners has been found to lower infection rates as persons may be motivated to engage in or adopt safer sex practices. Sturdevant et al (2001). It has also been proposed that non-disclosure may play a central role in HIV transmission De Rosa & Marks (1998) and is associated with greater risk taking with respect to sexual behaviours.

Family members or intimate partners who learn about a relative or partner with HIV may react initially with shock, disbelief and distress about the diagnosis. The news may bring individuals closer together, it may worsen relationships, or it may have no apparent effect on current relationships. The impact of HIV disclosure on strengthening or weakening relationships is likely to depend on the quality of pre-existing family or couple relationships. There may be overt tensions and family arguments about a wide range of issues including who should know about the diagnosis, whether the person with HIV should be allowed near children in the family and whether s/he should speak in public about the HIV diagnosis. Greene & Faulkner (2002).

Couples in committed relationships may see their relationships break apart or be severely tested if, as a consequence of HIV disclosure, a partner feels betrayed by the other. One additional negative consequence for couples is the possibility of violence. Generally, preventing as well as controlling HIV infections depends on successfully implementing strategies used in preventing new infections and in the treatment of infected individuals.

Voluntary HIV counselling and testing is one strategy that enables first of all healthy individuals to remain uninfected and those infected to plan their future and to prevent HIV transmission to

others. This is why the recent “Know Your Status Campaign” led by the National AIDS Control Programme (NACP) and the Ghana Health Service (GHS) cannot be overemphasized. The other important strategy that is critical to preventing new infections among the general populace is disclosure of one’s HIV status especially to sexual partners. The relationship between disclosure, sexual risk behaviors and potential transmission of HIV varies. Studies by Parsons et al (2005), found that increased disclosure is associated with reduced sexual risk behavior. Studies by Simoni and Pantalone (2004), have also shown that disclosure does not always alter risk taking behaviors. Even with disclosure, unsafe sex sometimes occurs. Some people engage in safer sex behaviors without any discussion of HIV status. Thus, there is the need to examine disclosure within the context of HIV transmission. This study therefore examines the social and behavioral factors associated with disclosure of HIV status within relationships of PLHIV.

1.2 Concept and Definition of HIV Status Disclosure

Disclosure refers to the situation where an individual voluntarily shares information about his/her HIV status with other people. The individual makes a choice to tell another person(s) about his or her HIV positive status. It may be partial or full disclosure. Partial disclosure means the individual only discloses to certain people about their HIV status, for instance a spouse, relative, counselor or friend while full disclosure is where the PLHIV publicly reveals his/her HIV status to a person or organization, support group or media.

In a report of a national study commissioned by the Gender Studies and Human Rights Documentation Centre (GSHRDC, 2006) to investigate the gender norms, domestic violence and women's vulnerability to HIV and AIDS; four kinds of status disclosure among women living with HIV and AIDS were identified. The first kind named **covert disclosure** refers to the situations where women's poor health, particularly their weight loss or the death of their husbands lead members of the community to suspect that they are living with the virus. The second kind is **third party disclosure** which is the term used to refer to officials in religious or health institutions who abuse their powers and broadcast the status of women living with HIV and AIDS to the wider community.

In these two situations, the women in question when confronted can choose to deny the 'rumour' if they are not yet ready to share their status with members of their family or larger community. **Imposed disclosure** is the third kind of disclosure and it refers to the situation where as part of a treatment regimen, women living with HIV and AIDS are mandated to bring a family member along to the hospital for their various medications. The fourth kind, **self**

disclosure refers to the situation where women choose when and with whom to share their status. In Ghana, HIV status disclosure especially to sexual partners is one issue that has not been adequately tackled in terms of HIV prevention efforts. For the purposes of this study disclosure refers to divulging ones HIV positive diagnosis to significant others within the individuals family network. This includes intimate/sexual partners, parents, children, brothers/sisters, uncles/aunts and other extended family members. Non Disclosure of HIV status refers to inability to divulge ones HIV positive diagnosis to significant others within the individual's family network especially sexual partners.

1.3 Statement of the Problem

Most studies examining disclosure have been conducted in Western contexts. There is a dearth of research on the complex process of disclosure of HIV infection in sub-Saharan African nations, especially when the prevalence rates in the region is so high compared to rates in other regions (Norman et al, 2007).

Disclosure rates are lower in developing countries than the developed. Studies by Maman et al (2001), have revealed that a larger proportion of individuals from the developing world reported that they did not share their HIV test results with anyone as compared to HIV positive individuals in the developed world.

In sub-Saharan Africa, the rates are even lower as shown by the Department of Gender and Women's Health (GWH), (2004) in a paper review prepared by Maman and Medley. Studies from sub-Saharan Africa (one from Burkina Faso, two from Kenya, three from Rwanda, five from

Tanzania and one from a multi-country study in Kenya, Tobago and Tanzania) showed that disclosure rates were as low as 16.7%.

In Ghana, a survey by Appiah and Anie (2005) found that out of 101 persons living with HIV and AIDS only 9% had disclosed their status to other people. A whopping 91% did not disclose their status even to sexual partners. In another formative research conducted in Ghana in 2005 by AED/SHARP, among 102 PLHIV delegates from ten regions of Ghana attending a national conference, only 30% had actually informed their partner of their HIV status. Fewer than half of those already on ARV therapy had disclosed their status. Sixty nine percent of respondents reported they had discussed ways to prevent HIV transmission with their partner. When asked why they thought that PLHIVs might not want to disclose their status to partners, 72% of respondents thought women feared being divorced and 55% thought men feared divorce and neglect.

Anecdotal evidence as captured in the Public Agenda September 5, 2003 edition gives us some more insight into factors that affect HIV status disclosure.

Diagnosed with HIV three years ago, Kabuki is determined not to let her sexual partner know. "He has lived with me for many years but has not bothered to perform the marriage rites. He thinks he is taking me for a ride. Why should I tell him?" she asks. Thirty-five-year-old Kabuki, who hails from one of Ghana's HIV endemic areas, says she is afraid her partner will abandon her as has been the case of many other women who were brave enough to reveal their status.

"I need his assistance more now than ever. I need to buy drugs every now and then and if I don't get money from him, I have nowhere else to go to," she says. What makes the matter even more disturbing for Kabuki is that the man has already found himself another lover, one who she says is bent on snatching him from her. "For the mean time, I think we can share," she says. If only the new lover knew what she was really getting. But Kabuki has no regrets. "It serves her right," she says.

But it is not only Kabuki who is hiding her HIV status from her partner. Most of the women who live in her town Agormanya, in the Eastern Region of Ghana, are keeping their status secret.

Non disclosure of HIV status has the potential of exposing a number of Ghanaians to HIV and other sexually transmitted infections. A comprehensive approach to HIV prevention requires that HIV positive people take protective and preventive measures since they may be at risk of both infecting their sexual partners, children, other members of their households or re-infecting themselves with different strains of the virus. All over the world, the shame and stigma associated with the epidemic has silenced open discussion, both of its causes and of appropriate responses. This has caused those infected with HIV and affected by the disease to feel guilty and ashamed, unable to express their views and fearful about consequences of disclosure and therefore many PLHIVs have entered into sexual relationships with individuals who are not aware of their status.

Furthermore, since the introduction of HIV treatment such as Anti-retroviral (ARVs) and Highly Active Anti-retroviral Therapy (HAART) in Ghana in 2003 many individuals living with HIV using Anti-retroviral Therapy ART are living longer with delayed or perhaps even no progression to AIDS and this may change the way they process disclosure decisions. With the success of ART, many individuals with HIV are healthier and more physically active than they were previously (Bartlett & Gallant, 2001; Kelly et al., 1998; Sowell, Phillips, & Grier, 1998; Trainor & Ezer, 2000). Anti-retroviral therapy may make it easier for persons with HIV to withhold information about the diagnosis from persons outside the family network, especially if they appear to be in good health.

Given that most HIV cases in Ghana are contracted through heterosexual contact, information on sexual behaviour is important in designing and monitoring intervention programmes to control the spread of HIV. GDHS (2008)

As increasing number of Ghanaians test positive for HIV an understanding of the disclosure process is essential to effective public policy and programming. Describing and analyzing the decision making process before disclosure of HIV infection, as well as the event itself within social and behavioural context, is an essential step in designing effective interventions that will facilitate increases in disclosure rates among PLHIVs. This study is therefore interested in investigating factors affecting disclosure of HIV status especially among PLHIVs in Ghana. The issue of disclosure if not openly discussed, researched into and tackled can lead to an unprecedented increase in the incidence of HIV infections.

1.4 Justification for the Study

The Ghana AIDS Commission (GAC) and the National AIDS Control Programme (NACP) in partnership with Non Governmental Organizations (NGOs) have made strides over the years in reducing the prevalence of HIV among the general populace and this has led to the gains made so far in terms of the continuous reduction in the HIV prevalence rate. This includes the decentralization of ART centres in district hospitals, national campaigns by NACP to intensify HIV counseling and testing, continued support to PLHIVs. This success needs to be sustained or better still further improved. This is why it is important to identify gaps that are likely to act as open doors to an unprecedented increase in the incidence of new HIV cases.

Safe disclosure of one's HIV positive status especially to sexual partners is one issue that needs to be emphasized as a fourth arm of the process for Client-initiated counseling and testing (CICT) which is also known as voluntary counseling and testing. Apart from pre-test counseling, testing, post-test counseling, disclosure counseling must be added as a fourth arm due to the public health benefits inherent in disclosure. In fact one of the key components of CICT is the exploration of disclosure plans with sexual partner, family member and the exploration of potential support from family and friends, condom use, including condom demonstrations. Again, the national guidelines for the prevention of mother to child transmission of HIV (2008) stipulates that women who test positive shall be provided with follow up counseling and support and encouraged to disclose test results to their partners and families to ensure access to PMTCT treatment services as well as psychosocial and community support. However, post test support in terms of implementing disclosure plans, assisting clients to negotiate condom use among sexually active HIV positive clients has not been emphasized strongly. HIV positive clients are left to deal with disclosure on their own, thus some PLHIVs have either exposed their sexual partners to new infections or to re-infection to new HIV strains. From a public health perspective, it is important to understand to whom PLHIV disclose their HIV positive status, when this is done and how this is accomplished successfully. Knowing how PLHIV accomplish this task can substantially benefit professionals as they strive to develop requisite disclosure skills. The identification of successful strategies can inform HIV prevention efforts so that important interventions can be developed and tailored to the needs of this high risk population.

Effective implementation of a national response to HIV and AIDS depends on the quality of information made available to stakeholders implementing prevention, treatment, care and support activities aimed at reducing transmission and mitigating the impact of the epidemic. As

far as the National Strategic Framework 2006-2010 (NSF II) is concerned findings of this study will directly and indirectly promote four out of the seven key intervention areas:

1. *Policy, Advocacy and Enabling Environment*
2. *Prevention and Behavioural Change Communication*
3. *Treatment, care and support*
4. *Research, surveillance, monitoring and evaluation.*

The determinants of the spread of the HIV/AIDS epidemic including positive sero status disclosure especially to sexual partners as well as responses required to avert new infections and mitigate the impacts of HIV/AIDS are complex. This complexity reinforces the critical importance of high quality research as a tool for filling gaps in knowledge, identifying intervention priorities and improving the policy and legal environment.

At present there is extremely limited information available to couples about reproductive decisions when one or both of them have been diagnosed with HIV infection. With new ART treatments, more PLHIVs are choosing to have children, this leads to questions such as whether the couples make these decisions together knowing each other's HIV status.

Furthermore since the association of non-disclosure of HIV status and increased risky behaviour is a crucial mechanism to help stop the spread of HIV, this study will help to unearth and explore both protective and risky behaviours that are likely to lead to PLHIV transmitting the infections to significant others.

Again studies in other parts of the world have identified reasons for non disclosure and have subsequently developed systems that will help individuals to disclose their status and encourage

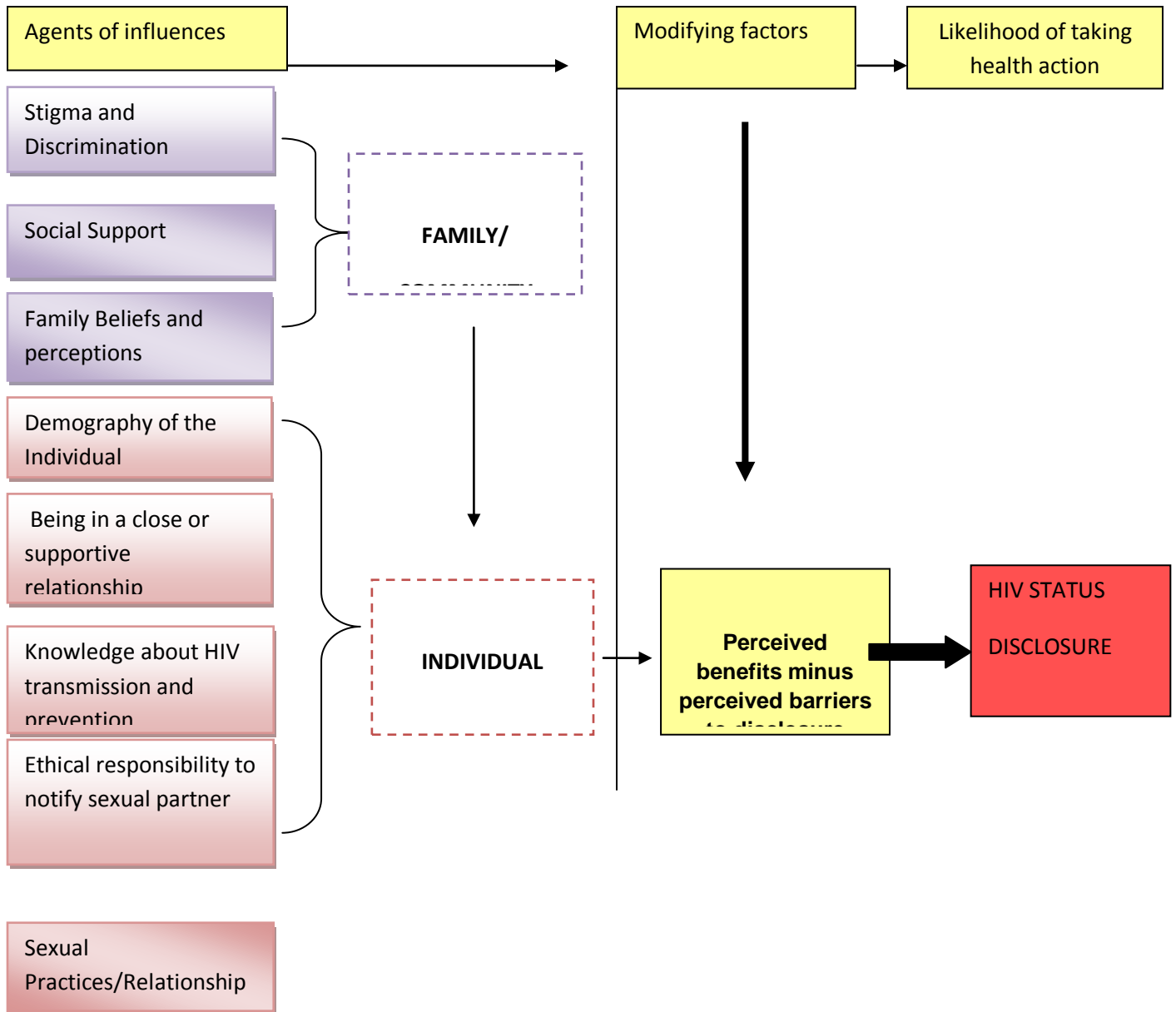
their partners to test. We cannot generalize results of similar studies in Ghana considering our unique social, cultural, religious, patriarchal environment and family systems; we therefore also need to identify the social and behavioural factors associated with disclosure of HIV status among Ghanaian PLHIV. The choice of Tema Metropolitan Area as the research site for this study is due to the fact that Tema has a prevalence rate of 2.0% which is slightly higher than the national prevalence thus the area is made up of people with high sero positive status. Secondly, persons living in the area come from various ethnic and socio-cultural backgrounds; there are Akans, Ewes, Krobos, Hausas, Gas, Guans among others who have permanently settled in the various communities within the metropolis. Thirdly, the nature of the population will be important elements in helping the researcher acquire a wide range of varied responses and a fair representation of responses. We need to develop specific strategies and tools that will aid in promoting HIV partner disclosure.

Findings of this study will provide a basis for developing specific tools and skills needed in promoting HIV status disclosure within interpersonal relationships.

1.5 Conceptual Framework

This study is conceptualized by the Health Belief Model (HBM)

Fig 1.0: An application of the Health Belief Model



Application of Health Belief model by Janz & Becker, 1994

HEALTH BEHAVIOUR AND HEALTH EDUCATION, Theory, Research and Practice. Third Edition.

Health Belief Model (HBM)

The Health Belief Model (HBM) is a psychological model that attempts to explain and predict health behaviours by focusing on the attitudes and beliefs of individuals. The HBM was developed in the 1950s as part of an effort by social psychologists in the United States Public Health Service to explain the lack of public participation in health screening and prevention programs. Since then, the HBM has been adapted to explore a variety of long and short-term health behaviours, including sexual risk behaviours and the transmission of HIV/AIDS. The key variables of the HBM are as follows (Rosenstock, Strecher and Becker, 1994):

Perceived Threat: Consists of two parts: perceived susceptibility and perceived severity of a health condition.

Perceived Susceptibility: One's subjective perception of the risk of contracting a health condition,

Perceived Severity: Feelings concerning the seriousness of contracting an illness or of leaving it untreated (including evaluations of both medical and clinical consequences and possible social consequences).

Perceived Benefits: The believed effectiveness of strategies designed to reduce the threat of illness.

Perceived Barriers: The potential negative consequences that may result from taking particular health actions including physical, psychological and financial demands.

Cues to Action: Events, either bodily (e.g., physical symptoms of a health condition) or environmental (e.g., counseling services) that motivate people to take action.

Other Variables: Diverse demographic, socio-psychological, and structural variables that affect an individual's perceptions and thus indirectly influence health-related behaviour.

Self-Efficacy: The belief in being able to successfully execute the behaviour required to produce the desired outcomes. (This concept was introduced by Bandura in 1977)

Implications of HBM for HIV Status Disclosure

As to whether an individual living with HIV will disclose his or her positive status to significant others depends on influencing agents within his or her family environment. There are both social and behavioural factors that are likely to affect an individual's decision to disclose or not disclose one's HIV status. Social factors in the family network such as stigma and discrimination, social support, beliefs and perceptions within the family, the demography of the individual as well as the kind of relationship that exists between the PLHIV and the family are likely to affect disclosure decisions. Again, behavioural factors such as PLHIV's knowledge about HIV transmission and prevention methods, attitudes concerning partner notification and sexual practices (risky or protective) can also influence disclosure. However, for any of these factors to influence the individual, his or her decision to disclose can be modified by factors such as perceived threat, perceived benefits, and perceived barriers among other variables of the HBM.

For instance if a PLHIV perceives that disclosing his or her HIV status to sexual partners can lead to emotionally close and supportive relationships then there is the likelihood of disclosure, the likelihood of adopting protective behaviours and ultimately decrease transmission of HIV.

Again if PLHIV perceives that disclosing his or her positive sero status would lead to increased opportunities for social support from family members, improved access to necessary medical care including antiretroviral treatment and increased opportunities to plan for the future then disclosure of status can take place without problems. On the other hand if there are perceived barriers such as stigmatization, discrimination, loss of economic and social support, blame, abandonment, physical and emotional abuse and disruption of family relationships, then there

is the unlikelihood of disclosure which can result in the adoption of risky behaviours such as unprotected sexual intercourse and subsequently infecting the other partner. Generally, if one's perception of benefits of HIV status disclosure outweighs perceived barriers then disclosing a sero positive status to especially sexual partners and significant others can be achieved.

1.6 Research Objectives

1.6.1 General Objective

To investigate the dynamics of social and behavioural factors associated with the disclosure of a positive HIV status within relationships of PLHIVs.

1.6.2 Specific Objectives

1. Determine the prevalence rates for disclosure and non disclosure among PLHIVs.
2. Identify reasons for disclosure and non-disclosure of HIV status by PLHIVs.
3. Identify socio-demographic factors that influence disclosure of one's positive HIV status.
4. Determine relations most likely to be chosen as HIV disclosure recipients.
5. Examine partner risk reduction and sexual practices of PLHIVs who have disclosed their status and those who have not yet disclosed their positive statuses.

1.7 Hypotheses

HYPOTHESIS 1

H₀: There is no association between stigmatization and non-disclosure of one's HIV status.

H₁: There is an association between stigmatization and non-disclosure of one's HIV status.

HYPOTHESIS 2

H₀: There is no relationship between sexual partner's knowledge about PLHIV's positive sero status and condom use.

H₁: There is a relationship between sexual partner's knowledge about PLHIV's positive sero status and condom use.

1.8 Definition of Key Terminologies

It is considered important to make clear the meaning of the following concepts/variables as used in this research.

1. **PLHIV**-Persons (aged 15-65) years living with HIV

2. **HIV Status Disclosure-** divulging ones HIV positive diagnosis to significant others within the individuals family network, this includes, intimate/sexual partners, parents, brothers/sisters, uncles/aunts and other extended family members.
3. **Non Disclosure of HIV status-** inability to divulge ones HIV positive diagnosis to significant others within the individuals family network especially sexual partners.
4. **Socio-demographic factors-** includes the sex, age, employment status, ethnicity, religion, educational level, marital status, length of time in marriage/relationship and length of time knowing HIV positive status
5. **Disclosure recipients-** persons within the family network likely to be chosen by PLHIVs to disclose a sero-positive status.
6. **Partner Risk Reduction-** Anything done by either a PLHIV or his/her partner in order to reduce HIV transmission
7. **Sero-positive status-** an individual's HIV positive diagnosis
8. **Stigmatization-** describing people as bad or immoral because they are living with HIV.
9. **Discrimination-** attitudes and behaviours that harm others or deny PLHIVs services or entitlements on the grounds that they are living with HIV.
10. **Protective behaviours-**refers to any anal , vaginal or oral sex with a condom
11. **HIV transmission risk behaviours-** engaging in unprotected sexual activity and other activities that expose other people to HIV infection.

CHAPTER TWO LITERATURE REVIEW

2.1 Literature Review

This chapter presents empirical evidence of how different researchers have discussed the influence of certain variables on HIV status disclosure among PLHIVs globally, in Africa and in Ghana.

PREVALENCE RATES OF DISCLOSURE

According to a World Health Organization report (2004) the rates of disclosure among studies from the developing world were notably lower than rates reported from the developed world. Lowest rates of disclosure of (16.7%-32%) were reported in sub-Saharan Africa (Reiser, 2002).

In the formative research conducted in Ghana in 2005 by AED/SHARP, only 30% had actually informed their partner of their HIV status. Again, in the report of a national study commissioned by the Gender Studies and Human Rights Documentation Centre (GSHRDC, 2006), 19% of respondents had not shared their status with anybody else, this includes twelve married women, six of whom lived with their marital partners.

In another study by Olley et al; (2004) HIV sero status disclosure and its relationship to risky sexual behaviours was examined among sexually active individuals and results show that 78% had not disclosed their HIV sero status to their sexual partners, 46% also had no knowledge of their sexual partner's sero status. Compared to those who disclosed their sero status, those who

did not disclose were more likely to be male and to have not used a condom during their last sexual encounter.

REASONS FOR DISCLOSURE AND NON DISCLOSURE

As for the complexity of disclosing one's HIV positive status, several studies have been conducted on factors affecting disclosure and to date, the main factors that have been identified by Derlega et al (2002); Holt et al., (1998); Parsons, et al (2004); Serovich & Mosack, (2003) and Wolitski, et al (2003) include ethical responsibility i.e. (it is the right thing to do to protect others), re-affirmation of self, increased social support, catharsis, desire to educate others , seeking help, desire to test someone's reaction, being in a close or supportive relationship and a mechanism for dealing with the disease.

However, in Carr & Grambling, (2004); Derlega et al.; (2002) Garbach et al. (2004) and Serovich & Mosack (2003) stigma, need for privacy and fear of rejection by sexual partners were factors that prevented disclosure. Other factors that negatively affects disclosure were threats to personal well-being, potential loss of income, substance use, difficulty in communicating, denial, low viral load, type of sex, location of sexual encounter, legal reprisal (fear of arrest), and condom use (no need to disclose)

Personal characteristics may also influence disclosure decisions. According to Michaud et al (2009), youth's hesitation about disclosure appeared to be closely tied to their perceptions of society's views toward HIV-positive individuals. Specifically, the fear that members of their social network would look unfavorably upon them kept youth from disclosing their status.

A Ugandan study by King et al. (2008), noted that being married, having attended HIV services for more than two years and having knowledge of partner's sero status were all factors that increased disclosure. Other motivators to disclose include a desire to reduce further transmission, to increase access to support services and to prevent vertical transmission. Eighty seven percent of respondents reported that it was easy to disclose. Alternately, the same study noted that fear of abandonment and a history of abuse inhibited disclosure. Another study with older adults cited Erikson's developmental phase of generativity. Generativity, or concern for others, arises as a motivator to disclose as these individuals with HIV want to see their HIV status affect the 'greater good. (Emlet 2008). A different African study involving 39 focus groups in five countries found factors such as a need to break the silence, seeking understanding from others and a request for prayers motivated disclosure. Greeff et al (2008).

Disclosure of HIV status is important because it permits partners to be included in the decision-making process in either allowing or not allowing unsafe behaviour to occur.

Antelman et al.(2001), further reported factors that motivate people to disclose to partners, family and friends, these include a sense of ethical responsibility, failing health, social support, minimizing stress associated with non-disclosure, and disclosure as a way to facilitate HIV preventive behaviour while on the other hand the most common barriers to disclosure include fear of abandonment, fear of rejection/discrimination, fear of violence, and fear of upsetting family members. The study by AED/SHARP (2005), mentioned fear of divorce as the main reason for non-disclosure and low levels of partner disclosure had profound negative consequences for safer sex negotiation, prevention of new infections and treatment adherence.

To further emphasize the key barriers to disclosure, a WHO paper review (2004) revealed that women reported fear of abandonment and loss of economic support as major barriers to disclosing HIV status to sexual partners. In these settings where resources were extremely scarce and women's access to resources was independent of their partner and uncommon, it is not surprising that fear of losing instrumental support from a partner was a major consideration when deciding whether to share results or not.

However the study by Antelman et al. (2001), conducted in Tanzania did not support the hypothesis that women who are more economically dependent on their partner are less likely to disclose. They found that women of lower socio-economic status (SES) were more likely to disclose.

In a related study by FIDA- Ghana's (2007), study results showed that respondents who refused to do any disclosures were those who were alone when the news about their infection was announced to them. Also such people were observed to be both meaningfully employed and feared to lose their jobs in the event of disclosure, or were dependent upon others (such as their husbands) and feared losing their support if they disclosed their status. The FIDA-Ghana study found very little disclosure of sero positive status among women.

The study discovered that disclosure was so difficult for some respondents that in some cases, when they were required to present someone to support them in taking the ART's, they presented other women living with HIV (WLHIV) they had met and befriended in their association meetings.

SOCIO-DEMOGRAPHIC FACTORS THAT INFLUENCE DISCLOSURE

Disclosure itself can be of various types and the decision to disclose can be influenced by a wide range of factors including demographic characteristics of the individual such as ethnicity, degree of symptomatology, apprehensions about the societal reactions to disclosure, perceived benefits of disclosure and several psychosocial characteristics.

Again, people may choose not to disclose their HIV status to their partner or family because the HIV status may be associated with revelations of sexuality or infidelity. Social unacceptability may also play an important role. Armistead et al. (1999) found that among African-American women, the stage of disease was predictive of disclosure to fathers and friends, but not to sexual partners. A challenging issue for many people is the timing of disclosure. If it's not done relatively early, it can become more difficult as time goes on, and can cause significant disruption to an ongoing relationship if the disclosed-to partner feels betrayed due to the lack of an earlier disclosure. Again, Owoaje et al. (2008), found disclosure to be higher among those who had been diagnosed positive for more than one year (96.0%, $p=0.025$). Age and educational status were not significantly associated with disclosure. However, factors such as marital status and duration of diagnosis affected disclosure significantly.

In another study by Heyward et al. (1993), women with higher education were more likely to disclose their HIV results to their sexual partners than women who were illiterate. Gender was also found to be one of the associated factors of HIV status disclosure. However, studies conducted by Rakwar (1999) in South Africa revealed that males were found to disclose their result more often to partners than females.

DISCLOSING HIV STATUS TO RELATIONS

All individuals who have learned about their HIV status have been faced with an important decision regarding whom they should share this information with. (Holt et al.(1998); Levy et al. (1999). HIV as a chronic disease creates a strain on the family system and relatives are often caretakers. Nukunya (2001), explains that family to the African and therefore the Ghanaian is a social arrangement in which an individual has extensive reciprocal duties, obligations and responsibilities to relations outside his /her immediate (nuclear) family. Should an individual test positive for HIV, he or she feels obliged to share results with the family. Subsequently, it becomes the responsibility of the family to provide care and support. The African Society is characterized by the prevalence of the idea of the community. The whole existence from birth to death is organically embodied in a series of associations and life appears to have its full value only in those close ties. There is a profound sense of interdependence, from the extended family to the entire community. In a very real sense, everybody is interrelated, and this includes continuing relationships between the living and the departed.

According to Adewuya (2007), within an African family framework, individuals are not 'themselves' first and only second placed within the community. The individual is primarily connected to others psychically, spiritually and physically, and secondarily a 'for-her/himself'

individual. Even in one's individuality, one is never truly separated from his or her fundamental communal connections and therefore an understanding of the impact of social relationships on health status, health behaviours and health decision making contributes to the design of effective interventions for promoting health. (Israel 1982; House 1981). Research shows that it is important to separate family members in terms of the different roles they play in the life of someone with HIV. The relational ties that people have with one another influence their decision to disclose. When there is a weak relational tie, recipients may be less willing to keep the information about the positive sero status of their respective relations confidential. Petroni (2002).

In GSHRDC (2006), 101 named one or both parents as being the most supportive of them since the disclosure of their status. 63 respondents named their mothers as most supportive, while 8 named fathers and 30 stated both parents. In the same study siblings were thought of as sources of greater emotional support who would not betray the women's trust and spread news about their status.

In another study by FIDA, Ghana, those who made disclosures present very interesting analysis. Thirty respondents (21%) of the total of 146 infected respondents made the initial disclosures of their status to their sisters; followed by 28 or 19%, to their mothers. This was followed by 24 or 16% who made disclosures to their husbands.

Thus HIV has ramifications for relationships and daily lives of those infected and affected by the disease. Disclosure to significant others can help increase support for HIV positive persons. Cairns G. (2006), in his paper stated that people may use disclosure as a way to limit their partners to only persons of the same status, be it HIV positive or HIV negative (sometimes

known as sero sorting). The success of sero sorting as a prevention strategy depends upon honest and accurate disclosure on the part of any two sexual partners. Zea et al. (2005), studied Latino gay HIV positive men, they found that disclosure was related to greater quality of social support, greater self-esteem, lower levels of depression, the initiation of, and adherence to HIV treatment and medications. In another instance it could sometimes result in rejection, discrimination or violence.

Secrets and lies therefore within families have ramifications for dynamics and interactions, including conflict, domestic violence, risk taking behaviour, availability of social supports, and custody planning, among other things. Pequegnat (2001).

When discussing hypothetical positive test results, one study conducted in South Africa shows that 69% of those interviewed anticipated it being easy to discuss with partners and 61% thought it would be easy to disclose to family members. Abdool (2008).

Disclosure to neighbours was considered by these respondents to be the most difficult.

A study from the UK found that White, gay men living with HIV were more likely to have disclosed to a parent than heterosexual Black and African individuals, and all groups addressed were more likely to have disclosed to their mothers than their fathers. Elford (2008). Several studies document that older people with HIV are less likely to disclose to family members, neighbours or church members. Disclosing to certain persons can be more of a burden than a benefit. In one study, HIV positive injection drug users who disclosed their status experienced increased intimacy with partners and reaffirmation of their sense of self. Parsons et al (2004).

King et al. (2008), also found that men were more likely to disclose to brothers and sex partners while women were more likely to disclose to their sisters. Kalichman et al. (2003), found that

friends were disclosed to most often and perceived as more supportive than family members, and mothers and sisters were disclosed to more often than fathers and brothers and perceived as more supportive than other family members. In Greene & Faulkner (2002), adult siblings received more disclosure about the nature of their brother or sister's HIV status because they were more in-tune with generational life choices and may have been privy to intimate information in the past. In addition, siblings may not respond by passing judgment in the same way that parents might. Disclosure to a parent, on the one hand may mean the risk of causing hurt or an angry response. Again, a parent may also feel the child's choices or behaviour reflects poorly on them, but a sibling is less likely to feel this way. The reaction of family members about the news that one of their own had been infected with the virus was no different from the respondents themselves, emotions ranged from anger and sadness to disbelief/denial.

According to the 2008 GDHS about three-quarters of women and men say they are willing to take care of a family member with HIV, and about half say they would not want to keep secret that a family member was HIV-positive. In Taraphdar et al. (2007) 87.5% of HIV positive respondents reported positive outcomes following disclosure, that is kindness, understanding and acceptance. More importantly, disclosure was not associated with break-up of marriages. Negative outcomes included blame, abandonment, violence, anger, stigma and depression. Only one in six women (16.6%) reported negative outcomes following disclosure of sero-status as compared to three in 26 males (11.5%).

In a descriptive cross sectional survey conducted by Owoaje & Duro-Nina (2008), among 300 HIV positive consenting women attending the ARV clinic at the University College Hospital, Ibadan, Nigeria, majority (91.7%) had disclosed their status to at least one person. Disclosure was most commonly made to siblings (55.3%), husbands/ partners (50.7%) and parents (41.7%). Widows

were more likely to disclose than single women. Those who were currently married were more likely to disclose to their husbands/partners (80.3%), while the widowed (72.6%), separated/divorced (62.5%) and single (59.5%) were more likely to inform their siblings.

PARTNER RISK REDUCTION AND SAFER SEXUAL PRACTICES

In examining sexual practices associated with PLHIVs it is important to note that one major issue confronting individuals and couples who are sexually active is the need to practice safer sex behaviours such as using condoms, choosing specific sexual behaviours and avoiding sharing razors, tooth brushes among others. Definitions of safer sex vary widely, for instance not using condoms alone may not be defined as risky, and there are also questions about the level of risk for oral sex. Scully & Porter (2000). The Centre for Disease Control (CDC) in 2003 began an HIV prevention initiative (Advancing HIV Prevention) in which the HIV prevention focus changed from targeting HIV negative persons to targeting HIV positive persons and their sexual partners regarding HIV transmission. This initiative placed the onus on HIV positive persons to disclose their sero status prior to sexual encounters, with the hope of preventing HIV transmission by promoting safer sex through discussion and use of condoms. Condom is the most effective to prevent the sexual transmission of HIV and other Sexually Transmitted Infections (STIs) (Ahmed et al., 2001; Davis & Weller, 1999; Holmes et al., 2004; Pinkerton & Abramson, 1997). It is also a contraceptive method if it is correctly used. But Africans are still reluctant to use it, especially within the couple: less than 3% of married couples use condom on a regular basis (Ali et al., 2004; Allen et al., 2003). The low rates of consistent condom use within African couples had

been reported in previous study reports. (Bauni &Obonyo (2003); Muhwava (2004); Cleland et al. (2006).

Most cases of sexual transmission of HIV occur within stable relationships in high HIV prevalence African settings (Tabi et al., 2003). Condom is usually perceived as a means of prevention for risky sexual behaviours: men or women are more easily using condoms with occasional sexual partners than with their spouse or husband (ONU, 2002).

Although some women living with HIV/AIDS practice safe sex, many also engage in risky sex, with roughly one-third having reported unprotected sex with their male partners (Aidala et al. 2006; Golden et al. 2007; Wilson et al. 2004).

Prevention programs for Women Living with HIV (WLHIV) can play an integral role in helping women adopt safer and healthier sex lives to protect their partners from acquiring HIV, protect themselves from acquiring sexually transmitted infections (STIs) or other strains of HIV/AIDS, and obtain emotional support as they cope with difficult intimacy or sexual concerns (Collins et al. 2000; Kalichman 2004). Safer sex behaviours are important to prevent uninfected partners from contracting HIV, yet safer sex also protects the infected partner who is especially vulnerable to contracting additional strains of HIV or other sexually transmitted diseases. Thus HIV disclosure serves a dual function to protect both the self and the other. The GDHS 2008 results show that while the proportion of women who engage in higher-risk sexual intercourse has increased slightly from 21 percent in the 2003 GDHS to 23 percent in 2008 GDHS, the proportion using condoms during last higher-risk sexual intercourse has declined from 28 percent in the 2003 GDHS to 25 percent in the 2008 GDHS. As with women, the proportion of men who engage in higher-risk sexual intercourse has increased slightly from 38 percent in the

2003 GDHS to 42 percent in 2008 GDHS. However, the proportion that used a condom at last higher-risk sexual intercourse has not changed (45 percent in both 2003 and 2008).

Simbayi et al (2006) also conducted anonymous surveys for 413 HIV-positive men and 641 HIV-positive women sampled from HIV/AIDS services. Among 903 (85%) participants who were currently sexually active, 378 (42%) had sex with a person to whom they had not disclosed their HIV status in the previous 3 months. Participants who had not disclosed their HIV status to their sex partners were considerably more likely to have multiple partners, HIV-negative partners, partners of unknown HIV status and unprotected intercourse with non-concordant sex partners.

For infected youth who engage in sexual relationships, disclosure may influence decisions regarding condom use. Although one study, Sturdevant et al (2001), with HIV-positive youth found that disclosure of HIV status was positively associated with condom use, studies by Rice et al. (2006), revealed that a few youth believed that sex without a condom was acceptable as long as they had disclosed their status. HIV-positive youth assumed that disclosure of their status shifted the burden of possible infection and need for protection to their sexual partners.

Disclosure of HIV status is critical to promoting effective condom negotiation and other behaviours to prevent transmission, as well as to ensuring adherence of those on treatment. A report on the Global AIDS Epidemic (2008), states that prevention efforts should become more strategically focused on sexual partnerships, especially those that increase the risk of exposure. HIV positive persons who have thought through a disclosure plan and have a consistent strategy for managing disclosure are less likely to engage in risky sexual behaviors than those who do not disclose or have inconsistent disclosure strategies. In the study by Parsons et al (2005), many

HIV positive persons who disclosed their status found that it reduces anxiety about transmission, so sex can be much more comfortable and relaxed.

Despite campaigns of many varieties that have encouraged harm-reduction approaches to safer sex, including discussions regarding HIV status, many people with HIV have sex, protected and unprotected, without disclosing. A recent US study found that many people do disclose, but do not do so until after the sex act Niccolai (2006). In terms of casual sexual encounters, disclosure is difficult to predict. An American study (Raj 2006) documented that multiple sex partners in the past six months and paying or trading for sex decreased the likelihood of disclosure, although only men had paid or traded for sex.

A South African survey also revealed that the 42% of participants who had had sex without disclosure were more likely to have multiple partners, HIV negative partners, partners of unknown HIV status and unprotected sex with discordant sex partners.

Recent studies have estimated that in several sub-Saharan African countries, approximately two-thirds of infected couples are sero discordant couples. De Walque (2007). Developing effective HIV prevention interventions that target sero discordant couples could potentially contribute to reducing HIV transmission in many countries. Moreover, provision of services to sero discordant couples to help them manage their status is an essential component of comprehensive HIV responses.

There are sero-discordant heterosexual couples in Ghana. The GDHS 2003 and 2008 found out that about 60% of HIV-positive individuals identified are in sero-discordant relationships. The uninfected partner runs the chance of getting infected if the infected partner fails to disclose his or her status. However, if someone discloses to a partner about the HIV infection then both

know about it and thereby prevent the risk of transmitting the disease to a partner through unprotected sex. Therefore, there is need to target discordant couples to negotiate and practise safe sex in order to remain discordant. According to Centre for AIDS Prevention Studies (CAPS) and the AIDS Research Institute, University of California, San Francisco (2007), HIV disclosure and non disclosure can have numerous effects for couples in which one is sero discordant or both sero-concordant partners are HIV positive. Thus HIV disclosure puts the information on the table so that both partners are aware of HIV- related risks associated with sexual relations. According to Pagonis et al. (2002), HIV disclosure may not be sufficient by itself to guarantee the use of condoms for many couples. Greene et al (2003), notes that in some relationships, one partner who knows the HIV diagnosis of his partner knowingly engages in unprotected sex, even at the risk of becoming infected and after being asked to use condoms. Despite several studies have shown little association between disclosure and condom use, it is worthwhile for individuals with HIV to disclose to sexual partners.

According to the Centre for AIDS Prevention Studies (2007), there is debate around whether partners have a right to know if their partner is HIV+, in order to be able to make fully informed decisions about what sexual behaviour to engage in. Some HIV+ persons believe that if they only have protected sex, there is no need for disclosure, especially with casual partners, and that encouraging disclosure only serves to further stigmatize HIV+ persons.

In Ghana, the 1992 Constitution which is the supreme law of the land provides in clause (2) of article 18 that

“No person shall be subjected to interference with the privacy of his ... correspondence or **communication** except in accordance with law as may be necessary in a free and democratic society.”

This according to Odartey Mills (2007) means that a person living with HIV and AIDS has the right to insist on the non-disclosure of his HIV/AIDS status to persons he does not want the information to reach. In fact the evidence decree also gives the informant the right to sue the person he or she has confided in (that is the receiver) to compel him not to disclose the information or any part thereof without the informant's consent. This applies to persons living with HIV or AIDS too.

The Domestic Violence Act, 2007(Act 732) of the Republic of Ghana on the other hand specifically Section 1 b (ii) defines sexual abuse which is a criminal offence as

“namely the forceful engagement of another person in a sexual contact which includes sexual contact that abuses, humiliates or degrades the other person or otherwise violates another person's sexual integrity **or sexual contact by a person aware of being infected with human immunodeficiency virus (HIV) or any other sexually transmitted disease with another person without that other person being given prior information of the infection**”.

In other words if a person is aware of his or her sero positive status yet goes ahead to have unprotected sexual intercourse with another person without disclosing his or her HIV diagnosis that individual has according to Act 732 committed sexual abuse and is therefore liable for prosecution.

These laws make the issue of HIV disclosure even more complex. While one law permits privacy and the right not to disclose; the other makes non-disclosure criminal. These issues can be even more complicated by complex gender role norms and local laws that make it a crime for a person to engage in certain risk behaviours without disclosing their HIV status. In a study by Klitzman (1999), participants described how condoms are a “great substitute for talking”. Some individuals with HIV choose not to disclose but to insist on safer sex. Sobo (1997); Vazquez-

Pacheco, (2000). In this way, they fulfill their sense of moral responsibility to protect the partner and themselves. In addition, they are able to maintain impermeable privacy boundaries around their HIV status.

There is therefore the need to investigate the relationship between HIV disclosure, sexual risk behaviours and potential transmission of the virus within interpersonal relationships.

Public health messages have traditionally urged disclosure to all sexual partners. In reality, some HIV positive persons may choose not to disclose due to fears of rejection or harm, feelings of shame, desires to maintain secrecy, feelings that with safer sex there is no need for disclosure. In a study by Moneyham et al (1996) women used safer sex behaviours but did not necessarily disclose their infection, mostly out of concern that disclosing would end their relationships.

HIV status disclosure has been challenged as an acceptable public health practice or legally-imposed duty, at least as it relates to a disease like HIV and AIDS, which is deeply private, socially stigmatizing, and medically incurable. Serovich and Mosack (2003), stated that men reported that duty (i.e., the Responsibility factor) was a paramount issue in deciding to disclose their diagnosis to a casual sexual partner. Those who disclosed believed their intended partner had the right to know. These men held the conviction that disclosure is the responsible thing to do to protect others. This raises important issues for secondary prevention efforts. Programs to date have typically focused on increasing condom usage and enhancing safer sex negotiation skills. Although, these are undoubtedly important factors, prevention workers must also incorporate the promotion of a sense of individual responsibility and duty to others and community as an important consideration for disclosure. Perhaps messages could be designed that put the focus on others' needs or rights rather than on the benefits that disclosure might

have for one's own well-being. Responsibility is not about "spreading the word" to others but about an individual believing that it is not right to jeopardize the health of others.

To emphasize the association between HIV non disclosure and potential sexual partner exposure to HIV infection, research indicates that up to one third of individuals diagnosed with HIV infection continue to have unprotected sex, at times without informing partners who may be of negative or unknown sero status. UNAIDS (2002); Rutledge & Abel (2005). A major component of preventive efforts directed at HIV-infected individuals involves encouraging them to disclose their HIV sero status to their sexual partners. Underlying the attempt to encourage HIV-sero positive individuals to reveal their sero status to their sexual partners is the assumption that disclosure will increase the safety of subsequent sexual activity with informed partners. Derlega et al (2003), therefore emphasized that it is necessary to disclose an HIV diagnosis to remain safe. As Norman et al (2007), explained further that it is reasonable to assume that a couple's diligence in using condoms consistently and correctly would be enhanced by one partner's disclosure of positive sero-status.

Crepaz & Marks (2003) and Klitzman et al (2007) in their studies have also shown however that disclosure doesn't always alter risk taking behaviours. Even with disclosure, unsafe sex sometimes occurs. Some people engage in safer sex behaviours without any discussion of HIV status. HIV positive persons who have thought through a disclosure plan and have a consistent strategy for managing disclosure are less likely to engage in risky sexual behaviours than those who do not disclose or have inconsistent disclosure strategies. There is considerable interest in finding strategies to encourage disclosure in Sub Saharan Africa including Ghana because of the fact that majority of infected persons live on this continent. As much as public health practitioners are encouraging Ghanaians to test for HIV, disclosure must also be encouraged as

non-disclosure of sero- positive status has a potential of eroding gains made in controlling the HIV pandemic in Ghana.

It is from this depth that the literature reviewed leads us into the next chapter of the study, which offers the theoretical and practical methods necessary to guide the study, realize the objectives and to answer the research questions at the heart of the inquiry.

CHAPTER THREE

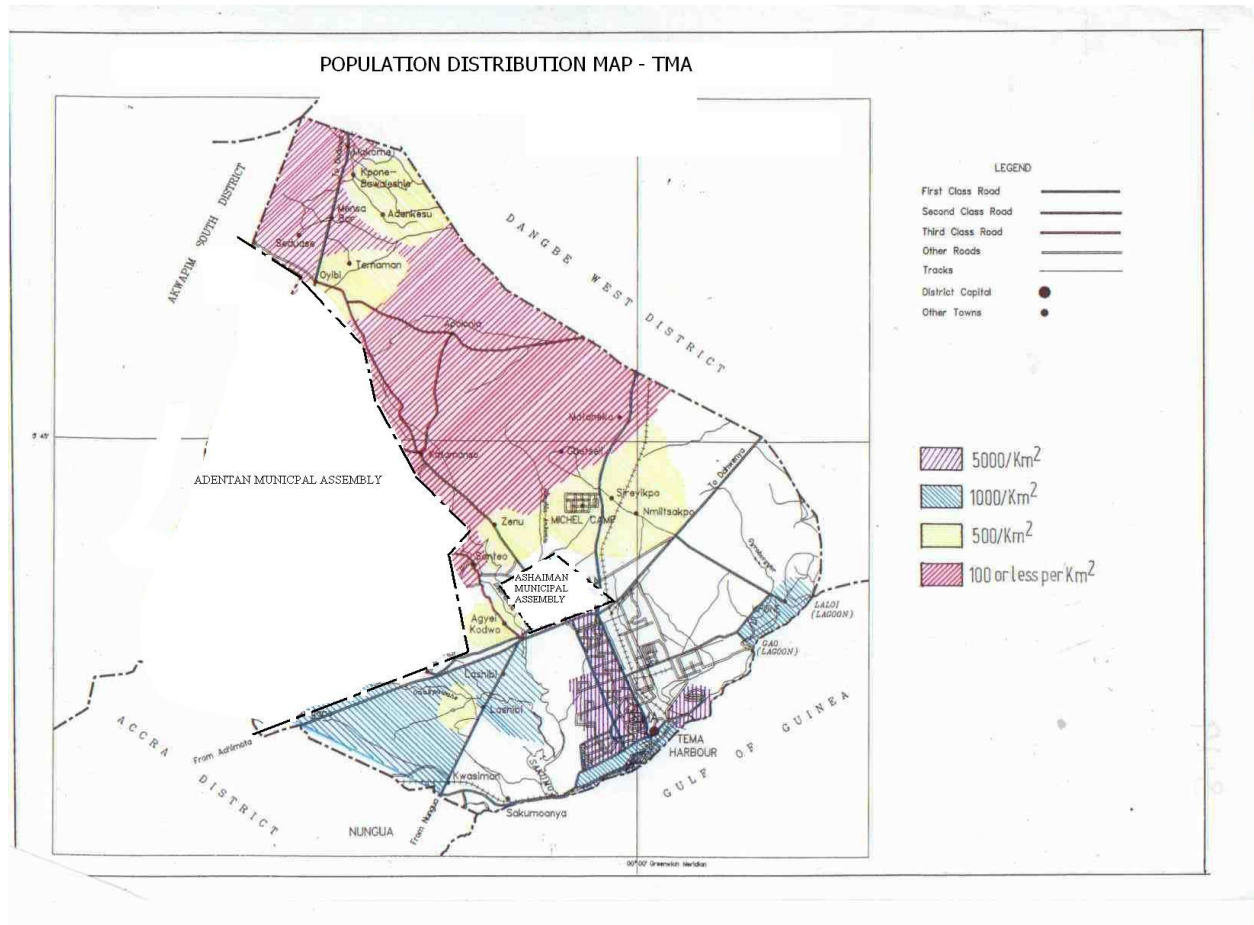
METHODS

3.1 Study Area

The study location is the Tema Metropolitan Area in the Greater Accra region. Tema serves as the administrative capital of the Tema metropolis, a coastal city situated 30 kilometres east of Accra and an industrial area.

Location and Size

Tema Metropolitan Assembly (TMA) is a coastal district which shares boundaries on the North East with the Dangme West District Assembly (DWDA), Southwest by Ledzokuku Krowor Municipal Assembly, North West by Adentan Municipal Assembly and the Ga East Municipal Assembly (GEMA), North by the Akuapim South District Assembly and the South by the Gulf of Guinea. The Ashaiman Municipal Assembly is in-lock district within the TMA. The Metropolis covers an area of about 396km² and lies within the coastal savannah zone. Some communities within the metropolis include Katamanso, Appolonia, Kubekro No. 1 & 2, Lashibi, Baatsonaa, Klagon, Gbetsile, Martey-deen, Kpone Bawaleshie, Seduase, Kpoi, Sakumono, Manhean and the Tema township.



Population

With a growth rate of 2.6%, the current population size could be estimated at 387, 045 and expected to reach 418, 444 by the end of the planning period (2013). The 2000 census report estimated that out of a total population of 298,432 in the Tema Metropolis, 49% were males and 51% were females. This indicates a female-male ratio of 0.98. Currently, there is no age

distribution data for the Tema Metropolis. The only available data for which inferences could be made is that of the Tema Municipality which was compiled in 2000. The current metropolitan situation is expected to have reduced slightly since Ashaiman had a large population which is also quite youthful. The census report however indicated that over 40% of the population in the then municipality was in the 16-35 years age group, in contrast to 32% of the nation's population in the same age group. This situation which is not very different from what currently exist in the metropolis is largely because the metropolis hosts the industrial nerve centre of the country. It is therefore a recipient of a large number of migrants. The data also indicates that 62.6% of the population falls within the economically active group. This is an important asset to drive the economy of the metropolis, especially if they are provided with the necessary skills and employment. In the absence of these measures however, there is the possibility that majority of the youth might resort to crime and other dubious forms of employment as a coping mechanism.

Traditional Set Up

Tema was created out of a cluster of small fishing villages. History has it that Torman, as it was originally called, was founded by a migrating people called the '*Kpeshies*' who were Gas. They brought along with them seeds of gourd plant which they planted at their new-found site. The seeds thrived very well producing lots of gourds and the area became known for its gourds and became Torman, which means a (town of gourds) which stood at where the defunct Meridian Hotel is located. Tema was relocated to its present location at Tema Manhean in 1961 when the Tema Harbour was constructed.

Ethnic diversity

The Metropolis is a traditional home of the Ga-Dangme. However, because it is a popular destination of migrants, several ethnic groups can be found here. Three groups dominate: these are Akan, Ga-Dangme and Ewe. Other fairly well represented groups are the Mole-Dagbani and the Guans. Tema is also home to a number of foreigners which has resulted in inter- marriages. Since the ethnic backgrounds are diverse there is no room for conflicts hence people live in peace and harmony which promote development.

Diversity fosters interethnic tolerance and social solidarity. As people of other ethnic origin and racial backgrounds have more contact they overcome their initial hesitation and ignorance and come to trust one another more. Thus it reduces ethnocentrism.

Health

The health of the people in the metropolis is essential for the development of the metropolis since people must be in good health for effective productivity. Thus a good number of facilities and human resources exist to meet this need. The metropolis can boast of both public and private health facilities. This is spread across the entire metropolis due to their functions and the

range of services they provide. It is however important to state that the private sector has a wide coverage in the provision of health facilities that complements the public sector in the delivery of good health care. Though this is not bad in the economic sense, it has a tendency of social injustice and social disparity as most of these private health facilities are located within Tema Township. Tema is also privileged to have sixteen (16) industrial health facilities that cater for the industrial workers within the metropolis.

The table below shows the number and type of Health facilities both in the public and private sectors as well as industrial health facilities in the Metropolis.

Health Facilities in Tema Metropolis

Type of Facility	Public	Private	Industrial
Hospital	1	16	-
Polyclinic	1	-	-
Health Center	2	-	-
Clinic	1	27	16
CHPS	2	-	-
Maternity	1	3	0
Outreach point	59	-	-

Data Source: Metro. Health Directorate

Situation of HIV and AIDS in the Tema Metropolitan Assembly (TMA)

Tema Metropolis has one General Hospital (Tema), 3 Health Centers, 7 Community Clinics both public and private. It has a Metropolitan AIDS Committee (MAC) made up of the Metropolitan Chief Executive, Metropolitan Co-ordinating Director, Heads of Departments, and representatives from recognized bodies including the Christian, Moslem and Traditional Councils and the HIV Focal Person. Since its inception the MAC has been very instrumental in organizing the following HIV programmes periodically:

- Educational campaigns,
- Supporting PLWHIV & OVCs,
- Sensitization Workshops,
- Counseling and Testing
- Capacity Building Workshops for Implementing Partners
- Sensitization of Industrial Workers,
- Preparation of Work Place Policies
- Disbursement of MSHAP Funds to Implementing Partners on behalf of the Ghana AIDS Commission.

Between 1992 and 2008, TMA recorded cumulative HIV cases of 1,361 (34% males, 66% females). Most cases were between 20- 45 age group. The HIV prevalence has been fluctuating but seems to have stabilized in recent times hence in 2005 HIV prevalence was 2.7% , in 2006

it increased to 3.6%, then in 2007 prevalence was 2.2%, 2008 and 2009 recorded 2.0% prevalence. According to the TMA, in 2007 out of 741 individuals who were counseled and tested for HIV, 370 persons (49.9%) tested positive for HIV. In 2008, 612 persons received CT and 177 tested positive for HIV. Indices of ill-health (morbidity and mortality) are often used to measure the health status of a community. Thus, although malaria continues to be the leading cause of morbidity in the metropolis, available information indicates that it has not been the major cause of mortality. The Human Development Report (2004) indicates that since 2002 the leading cause of death in the Tema Metropolis as a whole has been HIV and AIDS.

According to the Metropolitan Health Directorate, HIV infection was the leading cause of all deaths in the metropolis in 2007; in 2008 it was the third cause of death among the general population. The situation calls for the intensification of HIV and AIDS activities in the metropolis. One major factor contributing to this development is the fact that, as an industrial hub of the country, Tema continues to receive migrants from different locations and countries. It has been realized that most of these aliens highly patronize activities of commercial sex workers and have contributed immensely to the booming sex trade in the Tema, thus creating a breeding ground for the spread of the menace.

Majority of persons who test positive are linked up to HIV support associations within the metropolis. There are five main support associations within Tema, these include Tema AIDS Support Association, Positive Minded Foundation, Solace Club Foundation, Alpha Joy Association and FAHOCA Association.

Anecdotal reports from PLHIV Associations in the Tema Metropolitan Area reveals that positive members on ART are engaging in unprotected sexual intercourse with partners who are not

aware of their sero-positive status, most PLHIVs thanks to Anti-retrovirals are no longer being attacked frequently by opportunistic infections. As such, they are looking healthier and are therefore less likely to share their positive results with partners thus exposing themselves to re-infection as well as exposing others to infection.

Maternity Homes in the Metropolis

There are four (4) private maternity homes in the metropolis, all of which can be located within Tema Township. The other communities such as Ajei Kojo, Santeo, Kubekro, Katamanso, do not have these homes and therefore rely on the government and traditional facilities for these services; otherwise, they have to travel to communities that have access to these facilities. This is because, they are not economically attractive for the private doctor investors and also the environmental conditions do not constitute good markets.

Apart from these private maternity homes, other facilities such as hospitals and clinics offer these services. Currently, maternal mortality rate stands at 235/100,000 births. This has significantly reduced compared to previous years; in 2007 and 2008 maternal mortality rates were 300/100,000 and 267/100,000 births respectively. This could be attributed to the free maternal care by the government. It could be lower than the 235/100,000 births as it does not reflect the real situation on the ground because people from outside the metropolis e.g. Ashaiman access these health facilities. Even though the situation does not reflect the true picture on the ground it is far better than the national maternal mortality rate of 451/100,000. It can be said that the Tema metropolis is working hard to achieve the millennium development goal of reducing maternal mortality ratio by three quarters by 2015.

Employment/ Unemployment

One of the key characteristics to show whether an area is developing economically is the employment status of its inhabitants. It is widely held that, the more people are employed, the better the economy of the area. The pattern of employment in the Tema Metropolis is quite different from the general pattern of employment in the country. In 2000 for instance, approximately 50% of the economically active population aged 15 years and above was employed in the services sector. Within the services there is a concentration of employment in wholesale and retail trade. It is the sector where most women in employment are to be found. The number of women employed in wholesale and retail trade outnumbers the men (i.e. about 40% for women and 18% for men (Source: Human Development Report for 2004 and Ghana Statistical Service, 2000 Population and Housing Census) and this situation has not changed much since then.

Governance

The Tema Metropolitan Assembly serves as the main governing body of the whole metropolis. It has the Metropolitan Chief Executive as its Head with a Metropolitan Co-ordinating Director who co-ordinates the day to day affairs of all the sectional units/departments and decentralized departments. With regards to HIV/AIDS activities, there is a Monitoring and Evaluation Focal person who together with the Metropolitan HIV/AIDS Committee monitors and co-ordinate the implementation of all HIV/AIDS response activities, including that of NGOs, CBOs and FBOs.

3.2 Study Design

The study is a descriptive cross-sectional survey which seeks to investigate the dynamics of social and behavioral factors associated with disclosure and non-disclosure of HIV Status among PLHIVs in the Tema Metropolitan Area of the Greater Accra Region.

Both qualitative and quantitative techniques for data collection were used in the study.

3.3 Data Collection Tools

Quantitative data

Quantitative data was collected using structured questionnaires. Individuals who agreed to participate answered a face-to-face questionnaire (43 closed-ended questions) administered by a trained interviewer. The questionnaire which had already been pre-tested included

demographic information of participants, for those in sexual relationships, how long they were in those relationships, duration of knowledge about their HIV status, circumstances that led to HIV testing, disclosure information including reasons for disclosing or not disclosing, who are the most likely disclosure recipients', reaction of recipients', HIV risk reduction and sexual practices of study participants.

Qualitative data

Qualitative data was collected using focus group discussion (FGDs) guides and in-depth interview guides. Three FGDs were conducted prior to the survey to validate and inform the design of the questionnaire. Three trained Research Assistants (RAs) and the Principal Investigator (PI) conducted the interviews with members of HIV support associations. Interviews which lasted 45 minutes to 1 hour were audio-taped. Interviewees received refreshment as incentives. In order to maintain anonymity, participants were requested not to use their real names in the discussions but instead, self selected fictitious names, which they wrote on name badges. Also, they were informed that names and any other identifying information on the tapes would not be transcribed and that the tapes would be erased or destroyed after data analysis. Interview guides were used in collecting data from focal persons in the Ghana AIDS Commission, National AIDS Control Programme, AED/SHARP Health service providers at the Fevers unit of the Tema General hospital, leaders of PLHIV support associations.

3.4 Data Collection Technique

For the purposes of triangulation, the following techniques were used:

- Interviewer administered questionnaires
- Personal interviews

Interviewer administered questionnaires

The structured questionnaires were developed based on the conceptual framework and organized into sections that focused on the key objectives of this study. Trained interviewers administered the questions to PLHIVs. The questionnaires also captured some basic information on respondents' basic demographic data such as age, sex, religion, ethnicity, marital status among others.

Personal interviews

In-depth interviews in the form of personal Interviews were conducted for Public health experts, service providers and resource persons. The researcher personally conducted interviews with key stakeholders from the Ghana AIDS Commission, National AIDS Control Programme, AED/SHARP because they facilitate the development and implementation of

policies. Health service providers at the Fevers unit of the Tema General hospital, leaders of PLHIV support associations who provide HIV services to PLHIVs understand them better when it comes to issues of status disclosure. Close relations of PLHIVs were also engaged in face- to-face conversations with the intent of exploring issues and their opinions on the subject disclosure, stigma and discrimination and assess the impact of social support and social networks on disclosure and non disclosure of a positive sero status.

3.5 Study Population

The study population consisted of persons living with HIV within the Tema Metropolitan Area.

3.6 Sample Size Determination

Using Epi Info Version 3.4.1, 2007 stat cal, the total study population of 1,361 (TMA, 2008) with a prevalence rate of 2.0% and a worst acceptable rate of 5%. These were the various parameters used in generating a minimum required sample size yield of 79 at 95% confidence level. For the purposes of non-response and withdrawal from the study, 12% of the Epi info generated sample size yielded is added to the initial sample size which is approximated to 88 prospective respondents. Therefore a minimum sample size of 88 participants was required for this study. However to improve study results the sample was increased by 70%.This resulted in a total sample size of 150 respondents.

3.7 Sampling

Quantitative Study

1. A multi-staged sampling technique was used in identifying persons living with HIV. Although there are five major HIV support associations in Tema, study participants were selected from four HIV support associations within TMA namely Positive Minded Foundation, (POMFA) The AIDS Support Association (TASA), ALPHA JOY Foundation and Tema Solace Club Association. Members of FAHOCA Association could not participate in the study because of challenges with meeting dates and locating venue for meetings.

First level- Purposive sampling of PLHIVs: To select from the sample frame, the list of all PLHIVs who had registered with support associations was obtained with the assistance of the Focal person for HIV and leaders of PLHIV associations in the Tema Metropolitan area.

Second level- Stratified sampling: The list of participants was stratified based on gender characteristics, so as to obtain views from both male and female PLHIVs. Within the study population (persons living with HIV within the Tema Metropolitan Area), 66% were females and 34% males.

Third level- Random and quota sampling: Within each support association, the names of female and male members were folded and a quota was randomly selected from each sub group. In POMFA [$n = 40$, (30 females, 10 males) 25.8 percent], TASA [$n = 46$, (30 females, 16 males) 29.7

percent], Alpha Joy Foundation [$n = 40$, (30 females, 10 males) 25.8 percent] and Tema Solace Club Association [$n=29$, (19 females, 10 males) 18.7 percent.]

In total 155 PLHIVs made up of 109 females and 46 males constituting 70% female and 30% male PLHIVs. The procedures involved in the study were explained to participants, and those who consented were enlisted to participate in the study.

Qualitative study

Three Focus Group Discussions (FDGs) were conducted to explore issues related to HIV status disclosure among PLHIV. Between 5-7 respondents aged 24-45 years were purposively selected out of convenience for the FGD. One FGD was conducted with female participants ($n =7$); another was with a male group ($n =7$); and a third session organized for a mixed group ($n =5$). To gain a more in-depth understanding of the experiences of PLHIVs in relation to disclosure, the researcher conducted semi-structured interviews with a subsample ($n = 10$) of participants. This methodology allowed participants to share and compare personal knowledge, beliefs, experiences, and feelings about disclosure of their HIV positive status with other participants who had similar experiences (Krueger & Casey, 2000; Morgan, 1988, 1993; Steward & Shamdasani, 1990). Focus groups also allowed the researchers to clarify participants' responses regarding their experiences and opinions concerning disclosure of their HIV positive status.

3.8 Sources of Data

Data was generated from both primary and secondary sources. Primary sources were data from PLHIVs who participated in the survey. Secondary sources were desk top review of literature (including books, district health annual reports, journals etcetera) and personal communication with key stakeholders involved in HIV and AIDS work.

3.9 Recruitment and Training of Data Collectors

Three experienced research assistants who had had previous training, experiences and skills in data collection on issues related to health were recruited from selected non-governmental organizations and trained for data collection. The principal investigator doubled as supervisor and interviewer for the in-depth interviews with key stakeholders. During the one-day training, both the interviewers and supervisor were introduced to the data collection tools and were allowed to make alterations to the data collection tools.

Role plays were carried out in vernacular for all interviewers to appreciate the substance of the research instrument.

3.10 Pre-Testing of Research Instruments

After training, trained research assistants proceeded to pre-test the data collection tools in the Ledzokuku Krowor Municipality with members of the Foundation for Women and Children (PLHIV support association) to assess the acceptability, appropriateness and suitability of the questions posed. The pre-test exercise provided the opportunity and ample time for necessary instruments review on potential field difficulties or ambiguous questions before actual data collection began. Based on the nature of responses provided, some questions were modified in order to elicit responses that would answer research

questions. Whilst on the field collecting data, daily checks were done on data collected for internal consistency, correctness and appropriateness.

3.11 Data Quality Control Measures

To ensure data quality, due consideration was given to research objectives in designing the instruments. Thus, questionnaires and interview guides that reflected and captured the needed information for the various objectives were developed.

Research assistants were recruited and trained as well as pre-testing of instruments. The supervisor also doubled as field editor and helped minimize human errors by periodically checking research instruments for consistency. For reliability purposes, some completed questionnaires were picked at random and re-administered by the field supervisor to the same respondents. Data editing and verification were run before data entry into the computer to ensure that errors were minimized before analysis. The FGD's were transcribed verbatim on daily basis and coded. Comparison was made with the hand written notes taken during the interviews and FGD's and necessary gaps were filled.

3.12 Data Analysis

Quantitative Data

Quantitative data collated from the field was coded and entered manually on to the computer using the Statistical Package for Social Scientist Version 16.0. A variable view was created using the variables and associating these variables with labels.

The questionnaires were again checked for completeness and errors before entering the data. Pre-coded quantitative data was processed and analyzed using SPSS software version 16.0 and STATA version 10.0. Frequencies for all the variables was run to ensure cleaning of data. Demographic data was presented in frequencies and then cross tabulated with other key variables to better understand the relationships between variables. Results were equally generated from SPSS and Excel 2007.

Other categorical data (both nominal and ordinal) was analyzed by analysis of variance, linear and logistic regression based on study objectives as well as questionnaire sections. For tests of inference logistic regressions were used in either rejecting or failing to reject null hypothesis. Tests were conducted at 95% level of significance.

Qualitative Data

The researcher transcribed the audio-taped interviews verbatim and edited the transcripts to remove identifiers. The transcripts were read thoroughly multiple times in order to become acquainted with the data and to develop key themes to guide analyses. Charmaz (2006). Verbatim transcriptions were organized and analyzed using Nvivo version 7.0 software.

3.13 Ethical consideration

Ethical Clearance was first sought from the Ghana Health Service Ethical Review Committee. Permission and introductory letters were submitted to the Tema Metropolitan Chief Executive and the HIV Focal person. Leaders of PLWHA Support Associations were informed of the study and formally written to consent to participate. Verbal and written consent was also obtained from persons living with HIV who participated in the study. Those who were not literate were made to thumbprint consent forms as evidence of their willingness without harassment, coercion or duress to participate in the research. Participants for Focus Group Discussions joined at their own volition and could withdraw from participation with no restriction.

3.14 Utility of the Study

- ✦ Results would be presented to the National Technical Working Groups on MARPS and PLHIV and the Counselling, Care and Support Division of the National AIDS Control Program.
- ✦ Results would also be presented Metropolitan AIDS Committee in Tema, and the HIV support associations within the Tema Metropolitan Area, in order that recommendations of this research is incorporated in strategies and the implementation of projects and programs targeted at positive prevention.
- ✦ Findings would also be published to add to the body of literature.

3.15 Limitations of the Study

The limitations of this study can be viewed from two levels

A. Process of selecting research sample

- ✦ Study participants within HIV support associations self selected themselves to be in these groups; this could affect generalization of the results.
- ✦ It was an uphill task drawing a representative study sample from the sample frame as most support groups had majority of members to be women; although the PI wanted an equal number of females and males to participate in this study. The situation however reflects the general situation of PLHIVs in the Tema Metropolitan Area. (According to the TMA, as at 2008 there were 464 males (34%) and 897 females constituting (66%) of the general population of persons living with HIV). The data analyses were therefore stratified by gender; in other to control for biases.
- ✦ Although the PI sought to undertake the study in all five registered HIV support associations in TMA, members of FAHOCA Association could not participate in the study because of challenges with meeting dates and locating venue for meetings.

B Conducting the research

- ✦ Due to the sensitive nature of the subject matter, denial and falsification bias concerning behavior unrelated to HIV disclosure could compromise the study. Some issues (sexual practices) were very confidential and personal thus some respondents tried to keep certain information which was also relevant to this study. Although responses from study participants were reliable, the PI could not vouch for the validity of data provided. Field assistants usually probed further in order to assess personal information. The researcher at some points had to stop the interviews in order to counsel respondents on some challenges faced with disclosing sexual information before true information was provided.

CHAPTER FOUR: RESEARCH FINDINGS

RESULTS

This chapter provides detailed information on the findings of the survey based on background data of respondents and study objectives. The study analyzed both qualitative and quantitative data. This cross sectional survey sampled a total number of 155 PLHIVs as research participants. The presentation of the research findings is based on the study objectives and it includes socio-demographic characteristics of respondents, Prevalence rates for disclosure and non disclosure among PLHIVs, Reasons for disclosure and non-disclosure of HIV status by PLHIVs, Socio-demographic factors associated with disclosure of one's positive HIV status, Relations most likely to be chosen as HIV disclosure recipients, Partner risk reduction and sexual practices associated with PLHIVs and the assistance required to promote disclosure to especially sexual partners.

Table 4.1 SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

PERCENTAGE DISTRIBUTION OF SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS		
	<u>%=100</u>	<u>N=(155)</u>
Back ground Characteristics	%	(n)
Sex		
Female	70.3	(109)
Male	29.7	(46)
Age (years)		
15-24	3.8	(6)
25-34	27.7	(43)
35-44	37.5	(58)
45-54	18.1	(28)
55-64	12.9	(23)
Level of Education		
None	20	(31)
Basic (Primary/JSS)	19.4	(30)
Secondary	55.5	(86)
Tertiary	5.2	(8)
Occupation		
Employed	66.5	(103)
Unemployed	33.5	(52)
Religion		
Christian	87.7	(136)
Muslim	9.0	(14)
Traditional	2.6	(4)
No Religion	0.7	(1)

Marital status		
Married	40.0	(62)
Cohabiting	10.3	(16)
Regular sexual partner	12.3	(19)
Casual sexual partner	4.5	(7)
Separated	3.2	(5)
Divorced	7.0	(11)
Widowed	16.1	(25)
Single	6.5	(10)
Ethnicity		
Akan	33	(51)
Ga/Dangme	38.7	(60)
Ewe	18.1	(28)
Guan	0.6	(1)
Dagombas, Grushis/Frafra/ Builsa's	9.6	(15)

Table 4.1 presents the socio-demographic characteristics of respondents. Seventy percent (70%) of target respondents were females while approximately 30% were males. Majority of respondents (37.5%) were aged 35-44 years, this is closely followed by the 25-34 age cohort who constituted 27.7% of the entire sample. Respondents within the 45-54 and 55-64 years were 18.1% and 12.9% of the sample respectively. The 15-24 year cohorts had the least respondents constituting 3.8% of the total sample.

More than half of PLHIVs (55.5%) received either middle school, junior and senior secondary school education, 20% had no formal education, 19% received primary education and a few (5.2%) have gone through tertiary education such as university, polytechnic and training college.

With respect to the religion of respondents, 87.7% were Christians, (approx. 37% were Catholics, Presbyterians, and Methodist among others, 30% were Pentecostals, 20%

Charismatics). Nine percent (9%) were Muslims, 2.6% were traditionalists and 1 individual (0.7%) had no religion.

Forty percent were married, 10% were cohabiting and 12% had a regular sexual partner. Slightly over a quarter (26.3%) were separated, divorced or widowed and 10 PLHIVs constituting 6.5% were currently single.

The Ga/Dangme were the largest ethnic group represented, with 38.7% respondents belonging to this group, followed by the Akans who accounted for 33% percent of the sample and the Ewes made up 18.1 percent of the sample. Dagombas, Grushis, Frafras and Builsas were 9.6% of the total sample.

Table 4.2 CIRCUMSTANCES THAT FACILITATED HIV TESTING; REASONS AND TIMING OF DISCLOSURE

CIRCUMSTANCES THAT FACILITATED HIV TESTING AMONG PLHIV		
CIRCUMSTANCE	FEMALE	MALE
Fell ill and went to the hospital	67.0%	80.4%
Pregnant, fell ill and went to the hospital	12.8%	0%
Voluntary testing	8.3%	13.0%
Went with spouse	3.7%	4.3%
Through partner's illness/death	8.2%	2.2%

PREVALENCE RATES FOR DISCLOSURE AND NON-DISCLOSURE		
DISCLOSURE OF HIV STATUS	FEMALE	MALE
Yes	73.4%	63.0%
No	26.6%	37.0%
REASONS FOR DISCLOSING ONES HIV STATUS		
REASONS FOR DISCLOSURE	FEMALE	MALE
Social and Emotional Support	22.5%	27.6%
Commitment to Relationship	23.8%	41.4%
Financial Problems	13.8%	6.9%
Improved access to necessary medical care	23.8%	3.4%
So sexual partner can access HIV Testing and counseling	11.2%	17.2%
Risk reduction with partner	1.2%	0%
Fear of death	3.8%	3.4%
REASONS FOR NON-DISCLOSURE OF ONES HIV STATUS		
REASONS FOR NON-DISCLOSURE	FEMALE	MALE
Fear of stigmatization and discrimination	51.7%	64.7%
Fear of Divorce and Neglect	20.7%	5.9%
Fear of being accused of promiscuity	10.4%	5.9%
Disgrace to the family	17.2%	23.5%
TIMING FOR DISCLOSING ONE'S POSITIVE SERO STATUS		
TIMING OF DISCLOSURE		
Immediately after diagnosis	81%	
When opportunistic infections begin to occur	6%	

When you require a monitor in order to access ARVs	12%
When you get terminally ill with AIDS	1%
BEST TIME TO DISCLOSE ONE'S HIV STATUS	
Immediately after diagnosis	82.89%
When opportunistic infections begin to occur	6.58%
When one requires a monitor in order to access ARVs	3.95%
When one gets terminally ill with AIDS	1.97%
Don't know	4.61%

Data was collected on the circumstances that led PLHIVs to take an HIV test. Majority of respondents (67% of women and 80.4% of men) got to know about their positive sero status through diagnostic provider initiated counseling and testing, this is where counseling and testing services are offered clients who show signs and symptoms that are consistent with HIV related disease or AIDS to aid clinical management. Only 9 women (8.3%) and 6 men (13%) got to know their positive status through voluntary counseling and testing. Less than five percent of the sample (3.7% women and 4.3% men) went with their spouses to take the test. Fourteen women (12.8%) again knew only through routine antenatal care. Nine women (8.2%) and a male respondent (2.2%) knew after their partners died of AIDS or were ill of AIDS.

Out of 155 PLHIVs interviewed 109 (70.3%) had disclosed while 46 individuals (29.7%) did not tell anyone about their status. In an interview with a focal person¹ at the Ghana AIDS Commission (GAC), he narrated the situation of a female PLHIV who had been ejected from a rented apartment because she could not pay her bills, she had no support from the family, as at the time he was speaking to me, this lady had found a young man she was cohabiting with. She stated categorically to the focal person, there was no way she would disclose her status to this young man. This is one out of the many positive individuals who are unable to disclose their positive sero status to a sexual partner; sexual partners are therefore exposed to HIV infection day in day out.

Coupled with low uptake of CT services, the situation with incidence of new HIV infections might exacerbate if nothing is done about disclosure. Thus the focal person at GAC did not mince words when he stated that, “For public health reasons, it is important that persons who test positive for HIV should be able to disclose their diagnosis to especially sexual partners in order to prevent new infections”.

Females were however much more likely to disclose their status than male respondents; ten percent more of the women had disclosed their status than the men in this study.

Data was collected on the reasons why PLHIVs disclosed their positive HIV status. Respondents who said they had personally disclosed their statuses were asked reasons why they disclosed

¹ Focal person interviewed at the Ghana AIDS Commission is Cosmos Ohene-Adjei (Technical Services Division, Ghana AIDS Commission).

their positive sero status. The study findings reveal that for 19 women in each case, commitment to family relations (23.8%) and the need to access medical care including antiretroviral treatment (23.8%) were the main reasons mentioned as reasons why they disclosed their status. Eighteen women (22.5%) stated perceived emotional and social support, followed by eleven women (13.8%) who disclosed because they faced financial problems. Nine (11.2%) disclosed so their sexual partners can also go and test, for three (3.8%) women it was fear of death, only one women disclosed in order to discuss HIV risk reduction with her sexual partner.

Among male respondents, the main reason for disclosing (41.4%) was their commitment to family relations, this is followed by perceived social and emotional support (27.6%). For 5 men (17.2%) it was in order that partners accessed counseling and testing. No male disclosed in order to discuss risk reduction with partner. This is also evident in the qualitative study. As indicated by a 41 year old Ga-Dangme man:

“I live together with my wife so I need to inform her. When I am bed ridden she will take care of me so she must know about it”.

The reason for disclosing was not to ensure that the wife is not infected/or re-infected rather it was to secure care when he becomes bedridden.

Two males (6.9%) disclosed their status for financial support and 1 male (3.4%) disclosed because of fear of death.

For PLHIVs who had not disclosed their status, data was collected on the reasons why they had not disclosed their status to any relation. Eleven men living with HIV (64.7%), did not disclose for fear of being stigmatized or discriminated against, 23.5% did not disclose because they did not want to disgrace the family, they did not want any disruption in family relationship due to their positive status 5.9% in each case feared divorce/neglect and feared being accused of promiscuity.

Fifteen women living with HIV (51.7%) did not disclose due to fear of stigmatization and discrimination,²The focal person at NACP confirms that the main barrier to disclosure is stigma and discrimination. According to her until we deal with the stigma, disclosure will be very difficult for PLHIV.

A 35 year old Ewe FGD respondent also confirmed this perspective:

“I know a friend’s sister who also got infected with HIV. I watched while she was ill because the family knew about her status, they maltreated her so much. When she finally died, the family insisted that the body be buried quickly. She was buried like an animal; I felt so bad about it. Because of this experience, I do not have any motivation to disclose to anybody”.

² Focal person at NACP is Mrs. Etta Forson-Addo (Head of Counseling, Care and Support Unit.)

In an interview with a Senior Nursing Officer at the Fevers Unit of the Tema General Hospital she commented:

“People are not able to disclose for the fear of stigma, the fear that people might inform others about their status. Sometime ago I had a client who was requested to come with a relative who could serve as a monitor but he said he didn’t have anybody so I asked, “How can you live in this world without a relation”? I counseled him several times and he told me that he had some siblings but he was afraid to disclose to them for fear that they might disclose to other family members. Finally he had to bring in a friend to serve as a monitor because he feared his family members cannot keep secrets. Three out of every ten would not want anybody to know about their status”.

In the FGD conducted with both male and female PLHIV the research assistant asked what participants think is the main reason why people do not disclose their status.

A forty one year old, Ga-Dangme man had this to say

“I think what they experience in their homes prevent them from disclosing their status. Some also think if they disclose their status they will receive some form of assistance but it rather brings problems”

To probe the nature of experiences referred to by this respondent, respondents narrated their experiences outlined below as reasons why they would not disclose their statuses to any relation:

A 39 year old Kwawu woman noted.

“Please, when I see the way they talk about it on television, and the reaction of my mother, I would not like to disclose it. She believes those who contract the disease are immoral”

Finally, a 36 year old Fante woman

“Though I have not disclosed my status to anybody, I know they suspect I may be living with HIV, even though I have not told them they have evicted me from the house upon mere suspicion. I am homeless and jobless, living at the mercy of my parents. So what do you think will happen to me if I told them their suspicion was true”?

Six women living with HIV (WLHIV) (21%) feared they may be divorced or neglected if they disclose their status, for five WLHIVs (17.2%) the reason was not to disrupt the family relationship or to disgrace the family, 10% feared being accused of promiscuity. Therefore while stigma and discrimination is the most important reason for both men and women, disgrace to family is the second for men while fear of divorce is the second most important for women. In other words, women have very little faith in their husbands sticking by them through thick and thin compared to their husbands.

Data was also collected on the timing of disclosure, respondents were simply asked when they actually disclosed their HIV positive status and for 81% of respondents, disclosure was undertaken soon after receiving HIV positive results, only 12% disclosed when they required treatment monitors, and 5% when opportunistic infections began to occur, 1% disclosed when they became terminally ill with AIDS.

For the majority of respondents (83%) the best time to disclose one’s status was immediately after the diagnosis. Similar responses were given during the IDIs with Public Health experts and FGDs.

A leader of a PLHIV association shared a similar opinion in noting,

The best time to disclose one’s status is immediately after diagnosis. Sometimes too it differs from person to person so you have to study the nature of your partner; how does he/she react to issue? How does his/her temper rise with issue. And for disclosure, we are told that you have to educate the person before. Don’t just wake up and then disclose. If I know how you are, I have to educate you before I disclose my status so that you would not be afraid of me or stigmatize me or run away or point fingers at me.

Table 4.3: SOCIO-DEMOGRAPHIC FACTORS ASSOCIATED WITH DISCLOSURE OF ONES POSITIVE HIV STATUS

Socio-demographic factor	N	Std Deviation	F	CI (95%)		P-value
Age of Respondent			(4,150)=1.060			0.378
15-24	6	0.54772		0.9252	2.0748	
25-34	43	0.41163		1.0826	1.3360	
35-44	57	0.48149		1.2231	1.4786	
45-54	29	0.43549		1.0757	1.4070	
55-64	20	0.48936		1.1210	1.5790	
Level of Education			(3,151)= 0.279			0.841
None	31	0.44480		1.0949	1.4212	
Tertiary	8	0.46291		0.8630	1.6370	
Basic	103	0.46891		1.2287	1.4120	
Secondary	13	0.43853		.9658	1.4958	

Employment Status			(1,153)= .081			0.777
Unemployed	58	0.46668		1.1876	1.4331	
Employed	97	0.45549		1.1969	1.3805	
Religion			(2,152)= 0.132			0.877
Christian	136	0.45733		1.2166	1.3717	
Muslim	14	0.46881		1.0150	1.5564	
Traditional	5	0.54772		.7199	2.0801	
Marital Status			(7,147) =1.070			0.386
Married	62	.48237		1.2323	1.4773	
Cohabiting	16	.34157		.9430	1.3070	
Have a regular/steady sexual partner	19	.37463		.9773	1.3385	
Have a casual sexual relationships	7	.53452		.9342	1.9229	
Separated	5	.44721		.6447	1.7553	
Divorced	11	.40452		.9101	1.4536	
Widowed	25	.48990		1.1578	1.5622	
Single	10	.51640		1.0306	1.7694	
Length of time living with HIV			(4,150) =0.604			0.660
A week to six months	9	.50000		.9490	1.7177	
6 months to 1 year	40	.43853		1.1098	1.3902	
1 year to 3 years	27	.49210		1.1757	1.5650	
3 years to six years	76	.46245		1.1970	1.4083	
6 years +	3	.00000		1.0000	1.0000	

As a third objective, the study sought to investigate which socio-demographic factors were associated with disclosure. The results of a linear logistic regression analysis conducted at 95% confidence interval showed that none of the socio-demographic characteristics including age of respondent, level of education, employment status, religion, marital status and length of time knowing HIV positive status was associated with disclosure of one's HIV positive status. This is statistically indicated by p-values which ranged from (p=0.378-0.877) as well as the variance ratios (F) with their respective degrees of freedom.

Table 4.4: DISCLOSURE AND RELATIONSHIP WITH THE FAMILY NETWORK

RELATIONS MOST LIKELY TO BE CHOSEN AS HIV DISCLOSURE RECIPIENTS	
RELATIONS OF PLHIV	PERCENTAGES
Parents	31.2%
Other family members	8.3%
Siblings	20.2%
Children	5.5%
Sexual partner	34.9%
IMMEDIATE REACTION TO THE NEWS OF A RELATION TESTING POSITIVE FOR HIV	
IMMEDIATE REACTION OF PERSONS AWARE OF HIV POSITIVE STATUS	PERCENTAGES
Informed other family members	7.34%
Quarreled and accused of promiscuity	12.84%
Avoided sharing common household items	6.42%

Immediate ejection	3.67%	
Accepted and encouraged me	61.47%	
Did not believe	5.50%	
Did not complain since he kept falling ill very often	0.92%	
Wept	1.83%	
OUTCOME OF THE DISCLOSURE		
OUTCOME	PERCENTAGES	
Divorce/Separation	7.3%	
Stigmatization/Discrimination	23.1%	
Encouraged and supported me	62.3%	
Family indifferent towards me	7.3%	
MOST SUPPORTIVE RELATIONS		
RELATIONS	FEMALE	MALE
Fathers/Uncles	8.7 %	0%
Mothers/Aunts	26.3%	37.8%
Sibling	23.8%	23.9%
Sexual partner	20%	34.9%
Children	17.4%	0%
Other family members	3.8%	3.4%
FORM OF SUPPORT RECEIVED BY PLHIV FROM MOST SUPPORTIVE RELATIONS		
FORM OF SUPPORT	PERCENTAGES	
Emotional support	19%	

Financial support	53%	
Provided me room and boarding	4%	
Did not share information about my positive status with other people	20%	
Continuous counseling support	4%	
MOST JUDGMENTAL RELATIONS		
RELATION	FEMALE	MALE
Fathers/Uncle	4.9%	3.45%
Mothers/Aunts	6.3%	3.35%
Sibling	15%	13.8%
Sexual partner	12.5%	38%
None	61.3%	41.4%

The study also sought to identify relations most likely to be chosen as HIV disclosure recipients. Table 4.4 above shows that the most likely person a PLHIV would disclose his or her status to, is one's sexual partner. Slightly more than a third of the respondents (35%) disclosed to their sexual partners. A 32 year old Frafra woman had this to say in relation to the most likely disclosure recipient:

“As for me I think it is important to disclose to people you are close to. I had a boy friend who did not know about my status but he began to question me about my continuous taking of drugs at a particular time. Initially I told him the medicine is to stop cough, he also took a few pills to stop his cough but then I realized that I would be taking this drug for the rest of my life so I could not keep this information from him, so I finally disclosed it to him and he understood and accepted me”.

A little less than a third of the sample (31%) disclosed to parents. However, with parents, mothers/aunts were more likely to be told than fathers and uncles. Twenty-two PLHIVs (20.2%) had disclosed their status to siblings. Disclosure to other family members within the extended family and children, were minimal as disclosure rates recorded only 8.3% to 5.5% respectively.

Respondents who had actually disclosed their positive statuses were asked about the immediate reactions of these relations when they disclosed their positive statuses to them. For 61.5% (constituting 67 respondents) the reaction was acceptance and encouragement, 12.8 % (14 respondents) were accused of promiscuity, 7.3% (8 respondents) stated that relations quickly spread the news to other relations without the consent of respondents. For six percent (7 respondents) relations avoided the sharing of common household items. For 5.5% (8 respondents) did not believe what was said by PLHIVs because they looked too good to be sick. 4% (4 respondents) in each case experienced immediate ejection; others (2 respondents) wept bitterly because the news of a positive HIV status already meant death. Here what was interesting to note was that the fear of being accused of promiscuity was quite real while the fear of stigma/discrimination was not substantiated by what actually happened.

In respect of observed change in reaction or attitude since PLHIV disclosed their statuses or since relations became aware of their positive statuses, more than half (62.3 %) still received encouragement and support from relations, 23% experienced different forms of stigmatization and discrimination, 7.3 % had ended up divorced while for 7.3% families were indifferent towards them. In an interview with a 65 year old male parent of one PLHIV who had disclosed his status, the researcher asked about the initial reactions and outcomes of the disclosure. This was the father's response:

“Initially, it was very difficult for me, what we feared most had happened to us, the problem was we were so much afraid of contracting the virus, but he was our son, we only accepted the situation but with fear later on our son came back and educated us thoroughly on HIV, now we are relieved, what I am happy about now is he says he is going to get married soon and have a baby”.

With respect to relationships of PLHIVs, respondents were asked to mention their most supportive relations since they disclosed their statuses. For slightly more than a quarter of the women living with HIV (26.3%), mothers and aunts (26.3%) were the most supportive followed closely by siblings who 23.8% identified as the most supportive.

For a fifth of the respondents, sexual partners/husbands were the most supportive followed closely by children who were identified by 17.4% of the respondents. Less than a tenth of the sample (8.7%) identified fathers /uncles 8.7% as most supportive and other family members featured as most supportive for only 3.8% of the sample.

Men had a more limited range of people who had been most supportive. For men living with HIV (MLHIV) mothers and aunts (37.8%) once again were mentioned as the most supportive. Unlike women for whom siblings were much more likely to be supportive than sexual partners, the reverse was true for men living with the virus. For slightly more than a third of them (34.9%), sexual partners/wives were the most supportive while for a little more than a fifth (23.9%), siblings were the most supportive. For MLHIV children, fathers and uncles were not mentioned at all as supportive relations.

The study also collected data on the form of support PLHIV received from supportive relations, 53% received financial support in order to access medical care including ARVs, 20% mentioned that their relations after becoming aware about their positive status did not share that private

information with other people and for the PLHIV this respect of their privacy was a major form of support. Nineteen percent provided emotional support (showing love and care) and 4% in each case provided room and boarding and continuous counseling support to PLHIVs. A 38 year old male PLHIV leader of one of the support associations had this to say in a personal interview:

“My self and many others have benefitted a lot. When I disclosed my status to my wife and she became aware of my status, disclosing helped the two of us to prevent re-infection, because formerly we were having sex without a condom but now that she knows that I have the disease we use condom any time we have sexual intercourse. If she does not know my status she would not be happy when I use condom. So one, it helps us to even plan the future, and even prevent the unborn baby from getting infected with the virus”.

Among female respondents who had disclosed their positive sero status, the main benefit mentioned by forty percent of female respondents was access to medical care including ARV. This is followed by twenty percent who said there were no benefits to disclosure. For (16.2%) each, perceived opportunities for social support and opportunities to discuss risk reduction with sexual partner was a benefit to disclosure.

In an interview with the former ³Senior Programs Officer for the AED/SHARP project she stated:

“I can cite examples of some of the people who have been able to disclose; they always say that they have a weight or some load on them in terms of always carrying a burden. The minute they are able to disclose, sometimes through counseling, you know when they are going to adhere to ARVs.....you need to bring a monitor, it starts the disclosure process. But when they are able to disclose they feel very light and they are now able to go about their duties and they think that once people know, they are more supported because someone who was able to disclose at home now gets the support of her children and they are even the adherent monitors.

³ Senior Programs Officer is Nana Fosua Clement, of AED/SHARP, now with the Family Health International.

I know a couple who were also able to disclose to each other I realized that their love is now much stronger because each one knows and they are able to share a lot of things. We try to use especially couples who have been able to disclose to each other as examples during meetings so that they can share their experiences about how they were able to do it”.

These findings also show, however, that in terms of benefits of disclosure women appear not to have benefitted much from disclosure, this is highlighted by female respondents in the FGD conducted for only females.

A 38 year old, married Asante lady stated:

“I told my husband but I regret telling him because he has virtually told everyone in my area about my status. I sell meat pie and no one would buy from me because they know about my status. Sometimes I feel like throwing myself into the sea; I shouldn’t have told my husband in the first place”.

More than half, 66% (103 respondents) said no body was judgmental after disclosing their positive sero status. Forty-nine females constituting 61.3% stated that since they disclosed their positive statuses no one has been judgmental; twelve respondents (15%) mentioned siblings and 10 respondents representing (12.5%) said their sexual partners/husbands were judgmental. Five women (6.3%) said their mothers/aunts were judgmental, the least mentioned were fathers/uncles and in-laws. Twelve males (41.4%) also indicated no relation was judgmental; however 11 males (38%) said their sexual partners or wives were judgmental. Four males (13.8%) said their brothers or sisters were judgmental. 1 male respondent in each case mentioned in-laws and fathers and uncles as being judgmental. Far more women experienced judgmental attitudes from others compared to the men.

Table: 4.5: KNOWLEDGE OF HIV MODES OF TRANSMISSION

KNOWLEDGE ABOUT HIV TRANSMISSION	SEX OF RESPONDENT	
	FEMALE	MALE
Through unprotected sex (sex without a condom)	58.5%	64.4%
Through oral sex/kissing	20.8%	17.7%
By sharing sharp objects	17.9%	15.6%
By sharing household items	2.8%	2.2%
TOTAL	100% (106)	100% (45)

Source: Author's Field Data

Approximately, fifty-nine percent, more than half of female respondents mentioned unprotected sex (sex without a condom) as a means of transmitting HIV. Twenty-two respondents (20.8%) mentioned kissing and oral sex means of transmitting HIV, nineteen WLHIV (17.9%) stated sharing of sharp objects and three respondents (approximately 3% said sharing of sharp objects. For MLHIV (64.4%) believe sex without a condom was the main means of transmitting HIV. This is followed by approximately (18%) who mentioned oral sex and kissing, and about (16%) for sharing sharps. With males only one respondent (2.2%) mentioned sharing of household items as a way by which HIV can be transmitted.

Table: 4.6 PLHIV's SEXUAL PARTNERS HIV STATUS AND PARTNERS KNOWLEDGE OF PLHIV STATUS

PLHIV SEXUAL PARTNER'S HIV STATUS	SEX OF RESPONDENT		
	FEMALE % (N)	MALE % (N)	TOTAL % (N)
<i>HIV POSITIVE</i>	21.3%	43.5%	27.8%
<i>HIV NEGATIVE</i>	21.3%	23.1%	21.8%
<i>DON'T KNOW</i>	57.4%	33.4%	50.4%
TOTAL	100%	100%	100%
SEXUAL PARTNERS KNOWLEDGE OF PLHIV STATUS	FEMALE % (N)	MALE % (N)	TOTAL % (N)
<i>YES</i>	62.5%	77.5%	67.2%
<i>NO</i>	37.5%	22.5%	32.8%
TOTAL	100%	100%	100%

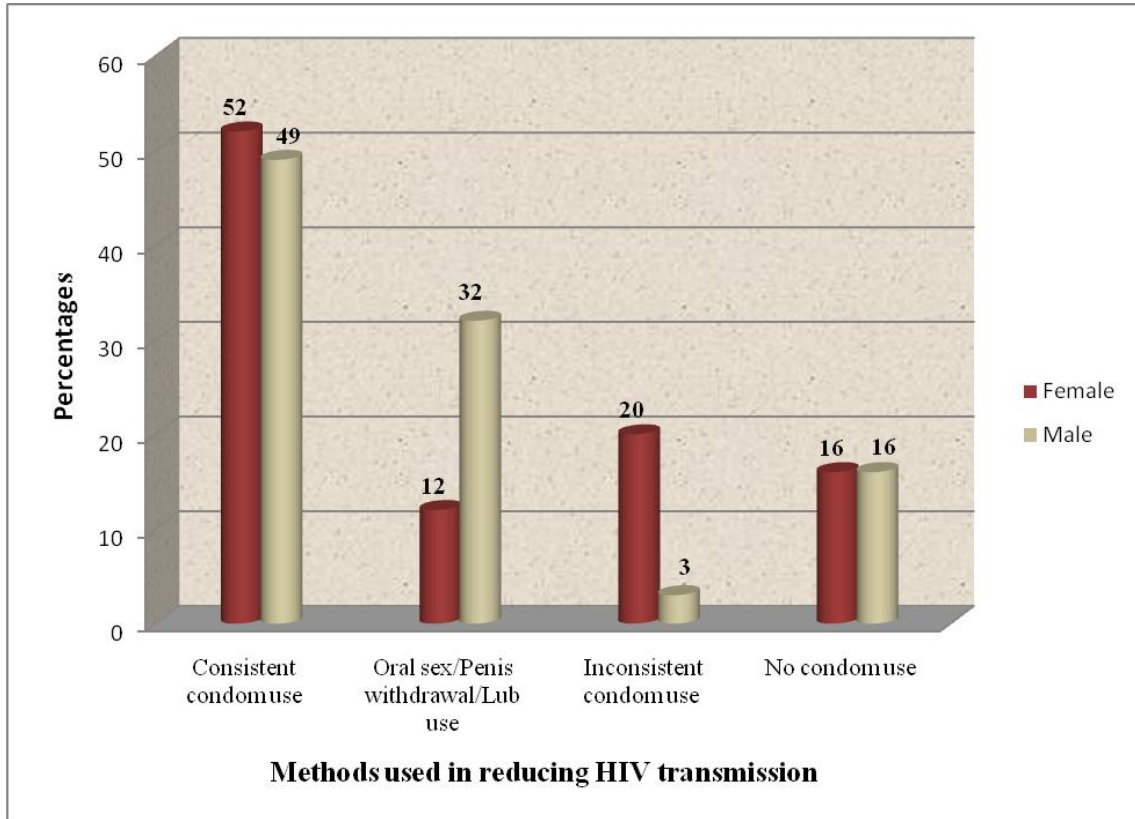
Source: Author's Field Data.

The study also assessed PLHIV's knowledge of the sexual partners HIV status, among female respondents (21.3%) said they knew their sexual partners were also positive, twenty other female respondents (21.3%) said their partners/husbands were HIV negative and more than half (57.5%) did not know the HIV status of their sexual partners. Seventeen males (43.6%) said they

knew their sexual partners/wives were also positive, nine male respondents (23.1%) had negative partners and thirteen respondents (33.4%) did not know the HIV status of their partners. Again, far more women are unlikely to know status of sexual partner than men. Again, respondents were asked if their sexual partners were aware of their positive HIV sero status. Fifty-five women living with HIV (WLHIV) constituting (62.5%) said their sexual partners were aware/knew they were HIV positive, thirty-three respondents (37.5%) said their sexual partners/boyfriends/husbands were not aware about their positive HIV status. Thirty one male respondents (77.5%) said their girlfriends/sexual partners/wives were aware they were HIV positive, however, 22.5% nine respondents) said their partners were not aware. Men living with HIV (MLHIV) were therefore more aware about statuses of their sexual partners than women were. It is also important to note that about 29 PLHIVs (22%) interviewed were in discordant relationships. As indicated by a 45 year old Asante man through tears:

“I was also ill, I came here (Tema General Hospital) and was asked to test, then I tested positive, but till date my wife is negative, I made her test in three different hospitals but she is still negative in fact am so confused. She might think am very promiscuous but let me tell you I have been very very faithful to her, where did I get this from”?

Fig: 4.1: WHAT PLHIVs DO TO REDUCE HIV TRANSMISSION?



Source: Author's Field Data

In examining the sexual behaviours of PLHIV in line with protection against infection and re-infection, Thirty nine females (52%) said they used condoms correctly and consistently during every sexual encounter. Twenty percent (15 respondents) reported they used condoms but inconsistently. Sixteen percent did nothing to prevent HIV transmission in other words they had unprotected sex “raw sex”.

Twelve percent withdrew penis during ejaculation, had unpenetrative sex, avoided oral sex, washed vagina/penis after sex or used lubricant creams or jellies without a condom.

Among male respondents 49% (18 respondents) said they used condoms regularly. Thirteen male respondents (32%) either withdrew penis during ejaculation, had unpenetrative sex, avoided oral sex, washed vagina/penis after sex or used lubricant creams or jellies without a condom. Sixteen percent did nothing and one respondent (3%) used condom but not regularly.

In an interview with a 34 year old female leader of one of the Support Associations, she commented on one of these unsafe methods of used by PLHIV to reduce transmission.

They call it “we are brushing inside”, we should know that the HIV virus is in the semen and not the sperm and it is the semen that comes first so the time of brushing and so forth, you have already given the virus. So that when I want to release, then I pull it out, already HIV is gone. So, we do not encourage withdrawal methods, otherwise those who are using condoms would also stop and start practicing withdrawal which is not advisable.”

Table 4.7: METHOD OF PROTECTION USED AND KNOWLEDGE OF SEXUAL PARTNERS HIV STATUS

METHOD OF PROTECTION AGAINST HIV INFECTION DURING SEX	KNOWLEDGE OF SEXUAL PARTNERS HIV STATUS			
	<i>HIV positive</i> % (n)	<i>HIV negative</i> % (n)	<i>Do not know about sexual partners HIV status</i>	<i>Total</i>

			% (n)	
Used Condoms Consistently	47.4%	22.8%	29.8%	100%
Used Condoms Sometimes	26.7%	13.3%	60%	100%
Did not use condoms at all	16.7%	25%	58.3%	100%
Total	34.3%	22.2%	43.5%	100%

Source: Author's Field Data

The study findings show that among those who used condoms consistently about 47% know their partners HIV status is positive, 23% knew their partner were negative in other words they were in sero discordant relationships , 30% did not know the status of their sexual partners, however they were protecting their partners from infection.

However, among those who used condoms inconsistently, 27% had HIV positive sexual partners, 13% had HIV negative partners and 60% did not know their partners HIV status. For PLHIVs who either used unsafe methods or did not use condoms at all, 17% had HIV positive partners, 25% had HIV negative partners and 58% did not know the HIV statuses of their partners. It critical to note that more than half of respondents within the categories of inconsistent condom use and no use of condoms were either exposing themselves to re-infection or exposing sexual partners to new infections. During the FGD with women a 33 year old Krobo woman stated:

“Even though my partner is aware of my status and has tested negative, yet he wouldn’t use condom we often fight about the issue of condom use, but he would still not use it”

Another 36 year old Fante woman noted:

“My partner said he is fed up with the use of condoms. He would not go for check-up too”.

(Referring to CT services)

According to one Senior Nursing Officer at the Tema General Hospital, health providers encourage and help HIV clients understand that whether they like it or not they have to use the condoms because of the infection. She commented further

“Nowadays we have couples where one is positive and the other negative and so we ensure that they understand the reasons why they have to use the condom. Some persons who test negative refuse to have sex with their positive partners and go out to look for boyfriends/girlfriends and we tell them; that beautiful lady or gentleman you meet outside may infect you so irrespective of the situation, one has to use condom. We also teach them how to wear the condom so that it does not get torn during the act”.

In spite of efforts made by leaders of these associations and health providers, some PLHIV still do not adhere to condom use, as noted by 25 year old Krobo lady,

“If he uses condom, he does not ejaculate so we have unprotected sex and when he is about to discharge, he withdraws the penis, sometimes we also wash our genitals immediately after the act”.

Table: 4.8: METHOD OF PROTECTION USED AND PARTNERS KNOWLEDGE OF PLHIVs STATUS

METHOD OF PROTECTION AGAINST HIV INFECTION DURING SEX	PARTNERS KNOWLEDGE OF PLHIV'S STATUS		
	YES	NO	TOTAL
	% (n)	% (n)	% (n)
Used Condoms Consistently	78.9%	21.1%	100% (57)
Used Condoms Sometimes	60%	40%	100%(15)
Did not use condoms at all	61.1%	38.9%	100% (37)
TOTAL	70.3%	29.6%	100% (109)

Source: Author's Field Data

The study findings also reveal that 77 PLHIVs (70.3%) knew their partners were positive, however approximately 30% (32 PLHIVs) interviewed said their sexual partners did not know about the positive status. The question then is how are these individuals protecting both themselves from re-infection or reducing the transmission of HIV to their sexual partners? The study results show that among those who use condoms consistently approximately 79% of sexual partners knew PLHIVs were HIV positive, 21% did know the status of PLHIVs but condoms were used consistently. For PLHIVs who used condoms, but inconsistently 60% of sexual partners knew of their positive sero status but 40% of sexual partners did know that their partners were PLHIVs. Finally, for the category who did not use any form of protection "raw sex" or the use of unsafe methods such as withdrawing penis during ejaculation, using

lubricants/creams/jellies without a condom and washing vagina /penis immediately after sex 61% said their sexual partners knew of their positive status, however they still engaged either in unprotected sex or were using methods they thought were effective in reducing HIV transmission from PLHIVs to themselves, or re-infecting PLHIVs. Thirty nine percent among this same category said their sexual partners did not know they were HIV positive, in other words PLHIVs had not been able to disclose their statuses to them (sexual partners).

Table: 4.9: SEXUAL PARTNERS AGREEMENT TO CONDOM USE

Sexual partners agreement to consistent condom use	Sex of Respondent		
	Female % and count within sex	Male % and count within sex	Total
Yes	43.3%	68.3%	51.1%
No	56.7%	31.7%	48.9%
Total	100%	100%	100%

Source: Author's Field Data

Source: Author's Field Data

With respect to condom use, male respondents were far more likely to get consent from their partners than female respondents. While slightly more than of the females (56.7%) found their

requests for condom use falling on deaf ears, the same was true for less than a third (31.7%) of male respondents. Experiences of PLHIV, leaders of PLHIV and service providers during personal in depth interviews give a deeper understanding about partners' refusal to use condoms: A 34 year old Krobo lady shared her experience.

“For me, I requested but the man did not understand me. Later on he agreed through the intervention of a friend. But then when we went for the test, he run away while I was being tested. When I came home and asked him his reason for running away, he responded that he was afraid of the test. Ever since, I made sure he uses condom whenever we have sex. Interestingly, when we were about to have sex, he tears the tip of the condom. So when I was tested positive, I had no doubt he intentionally infected me with the disease. I have told him several times to go and test but he has refused to test. The men are stubborn, you know”?

A male leader of one the support associations also noted in an interview.

Partners' refusal to use condoms is one of our biggest challenges. We have that challenge in our support group so much, mostly it is the women who come out to say that their sexual partners refuse to use condom. Some understand but others too whatever you tell them if they say no, you have no option; because he is your husband, you cannot divorce him too, so you only allow him. It's difficult, we have tried all means. Sometimes I go to homes and talk to those men, I use myself as an example but they would tell you they don't enjoy sex with the condoms.

Again, the Head of Counseling Care and Support Unit at NACP further noted,

The problem is with negotiation for condom use. During counseling sessions, clients go through an individual risk assessment, then this is followed by education on the modes of HIV spread, a risk reduction plan is then developed and many clients easily opt for condom use even though some have never used condoms before.

Table 4.10 IMPACT OF DISCLOSURE ON SEXUAL RELATIONSHIPS

IMPACT OF DISCLOSURE	SEX OF RESPONDENT	
	FEMALE	MALE
<i>Ceased having sex</i>	40.3% (39)	19.5%(8)
<i>Boredom of using condom all the time</i>	25.8%(25)	31.7%(13)
<i>Inability to enjoy sex</i>	23.7%(23)	34.1%(14)
<i>Reduce frequency of having sex</i>	6.1%(6)	12.1%(5)
<i>Enjoys sex normally</i>	4.1%(4)	2.4%(1)
Total	100% (97)	100% (41)

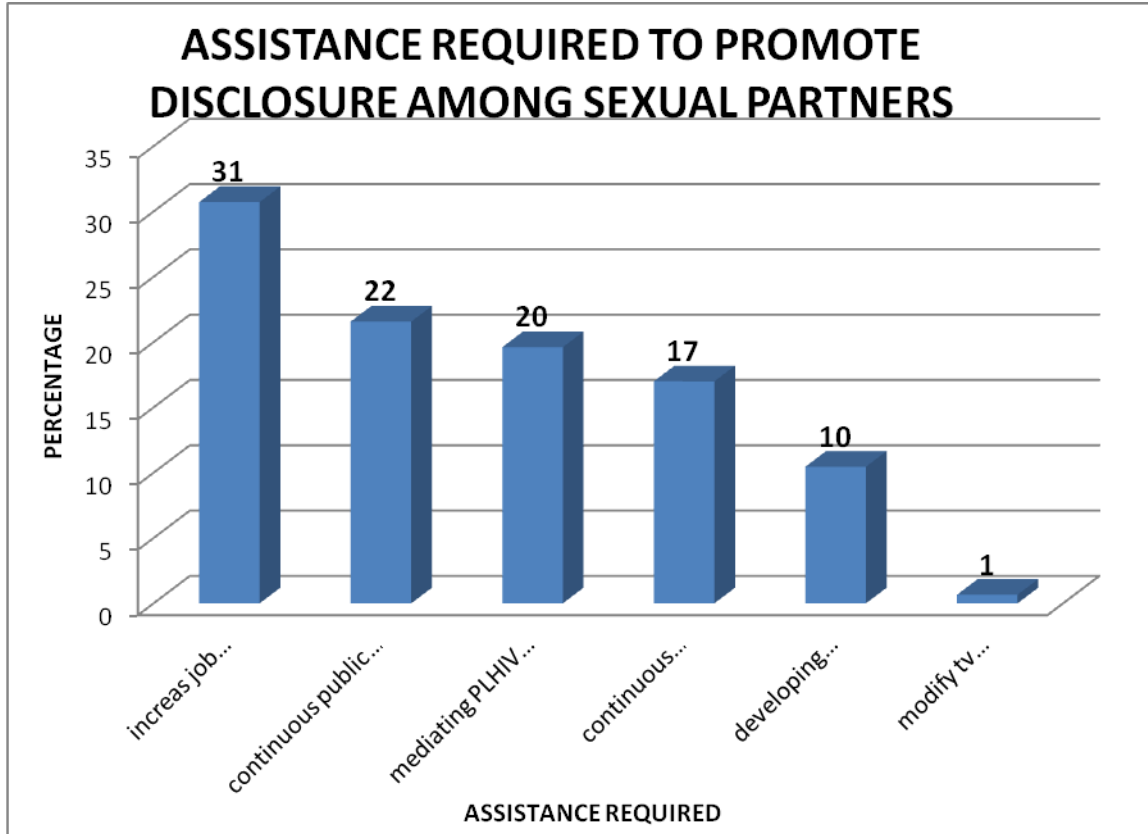
Source: Author's Field Data

As part of the impact experienced by PLHIVs after disclosing their HIV status on sexual relationships, twice as many women as men had stopped having sex altogether. Thirty nine WLHIV(40.3%) have stopped having sex, about 25.8% have become bored of using condoms all the time, approximately 24% no longer enjoy sex, for 6% the frequency of having sex with their partners had reduced. Only 4% said they enjoyed sex normally.

For male respondents their major negative impact of disclosure on their sexual life is their inability to enjoy sex at least fourteen respondents (34%) said they no longer enjoyed sex since

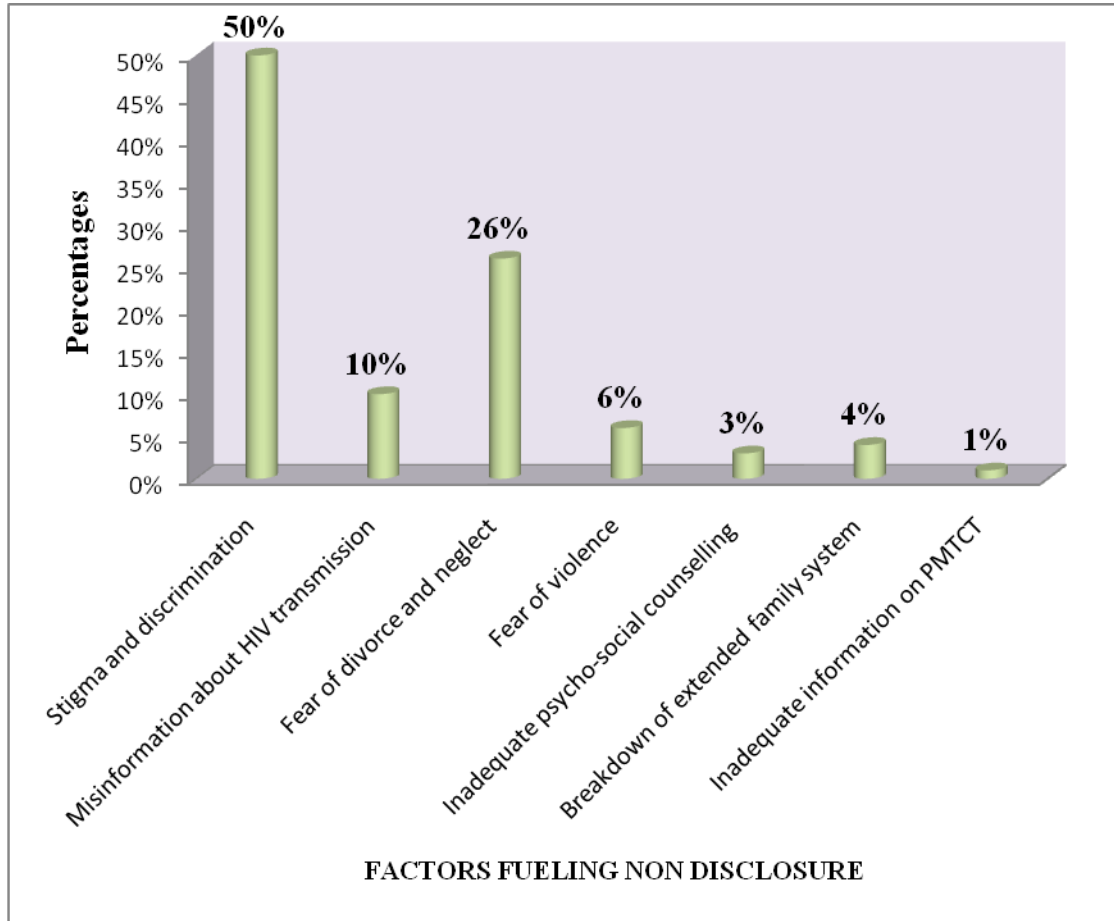
their partners got to know about their positive HIV status. This is followed by thirteen respondents (approximately 32%) who were bored using condoms all the time, twenty percent (9 respondents) said they have ceased having sex, only one male respondent reported he still enjoyed sex normally after disclosing his positive status.

Fig. 4.2: ASSISTANCE REQUIRED TO PROMOTE DISCLOSURE AMONG SEXUAL PARTNERS



Data was also collected on the type of assistance required by PLHIVs to promote disclosure especially among sexual partners, results show that 31% of PLHIVs recommended an increase in job opportunities, 22% mentioned continuous public education on stigma reduction, 20% suggested the use of mediating PLHIVs to act as peer counselors especially when it has to do with disclosure, 17% said continuous counseling was most appropriate, 10% recommended the development of protective policies against neglect and divorce and only one percent was worried about the type of visuals (skeletons) used for television adverts/programmes.

Fig 4.3: FACTORS FUELING NON-DISCLOSURE OF A POSITIVE SERO STATUS



Source: Author's Field Data

HYPOTHESIS 1

H₀: There is no association between stigmatization and non-disclosure of one's HIV status.

H₁: There is an association between stigmatization and non-disclosure of one's HIV status.

The study hypothesized that stigma and discrimination were the main factors fueling non-disclosure of one’s positive sero status. In other words persons who believed that stigma is a major factor were less likely to disclose their positive statuses than those who thought there were other factors affecting non-disclosure other than stigma and discrimination.

Table 4.11: BIVARIATE REGRESSION ANALYSIS STIGMA/DISCRIMINATION AND DISCLOSURE

Factor	Crude Odds Ratio	CI	P-value	Adjusted Odds Ratio	CI**	P-value**
Stigma						
Yes	1	-	-	-	-	-
No	2.08	1.029- 4.239	0.041	2.05	1.010-4.187	0.047
Sex						
Female	1	-	-	-	-	-
Male	0.62	0.296-1.288	0.199	0.64	0.302-1.334	0.234

Source: Author’s Field Data

A bivariate regression analysis between stigma and discrimination and disclosure was conducted to show that those who stated that stigma is not the main factor fueling disclosure of a positive status were 2.08 times more likely to disclose their positive statuses than those who think stigma is a factor (OR = 2.08, 95% CI = 1.03, 4.24). The results was adjusted for sex, however

stigma and discrimination still had a significant interaction with disclosure of one's positive status. (Adjusted OR=2.05, 95% CI=1.01-4.19).

A 25 year old female Muslim could not have put it better when she shared in the FGD with only females that :

“Before I got infected, I used to eat with my sister from the same plate and bathe together but since she got to know of my status, she does not eat with me again and when she gives me food she prevails upon me to empty the plate since nobody would eat the leftover. So I regret telling her about my status”.

It is important to note however that with respect to sex of PLHIV in the model, males were 38% less likely to disclose their positive status than females.

HYPOTHESIS 2

H₀: There is no relationship between sexual partner's knowledge about PLHIV's positive sero status and condom use.

H₁: There is a relationship between sexual partner's knowledge about PLHIV's positive sero status and condom use.

Table 4.12 BIVARIATE REGRESSION ANALYSIS- SEXUAL PARTNERS KNOWLEDGE OF PLHIVS STATUS AND CONDOM USE

Factor	Crude Odds Ratio	CI (95%)	P-value
Sexual Partners knowledge			
Yes	1	-	-
No	0.38	0.159-0.901	0.028

Factor	Adjusted Odds Ratio	CI**	P-value**
Partners knowledge			
Yes	1	-	-
No	0.49	0.188- 1.264	0.139
Sex			
Female	1	-	-
Male	0.64	0.275-1.512	0.313
Marital Status			
Married	1	-	-
Cohabiting	0.29	0.084-1.043	0.058
Has a regular/steady sexual partner	0.57	0.181-1.784	0.334
Has casual sexual relationships	0.49	0.094-2.491	0.387

Separated	0.31	0.025-3.699	0.352
Widowed	0.44	0.086-2.203	0.315

The study also hypothesized that PLHIVs whose sexual partners were aware of their HIV status were more likely to use condoms, than those who were not aware of their positive sero status. This hypothesis was partially supported as the bivariate regression analysis revealed that sexual partners who did not know of PLHIVs status were 62% less likely to use condoms than those who knew about PLHIVs status. (OR=0.49, 95% CI=0.159, 0.901) $p=0.028$. However when the model was adjusted for sex and marital status, there was no longer a significant interaction between knowledge of PLHIVs status by sexual partners and condom use. Being male, (OR = 0.64, 95% CI =0.275,1.512), cohabiting (OR=0.29,95% CI=0.084,1.043) having a regular/steady sexual partner (OR=0.57,95% CI=0.181,1.784), Having casual sexual relationships (OR=0.49,95% CI=0.094-2.491) Separated (OR=0.31,95% CI=0.025,3.699) or widowed (OR=0.44,95% CI=0.086-2.203) were not significantly associated with condom use.

CHAPTER FIVE DISCUSSION

5.0 INTRODUCTION

In most developing countries including Ghana, those working to prevent HIV and AIDS are faced with many challenges due to problems associated with behavioural change.

As far as public health is concerned disclosure of HIV status is critical to promoting behaviours that are likely to prevent transmission, as well as to ensure adherence of those on treatment. Most studies examining disclosure have been conducted in Western contexts. There is a dearth of research on the complex process of disclosure of HIV infection in sub-Saharan African nations; there are very few studies from Ghana that attempts to identify the determinants of HIV disclosure. Disclosure is fundamental to the management of HIV infection; it has become an entry criterion for many treatment programs in resource constrained settings and it is critical in terms of adherence to complex treatment regimens. Persons living with HIV have sometimes skipped doses of their prescribed medications because they cannot take them without being observed by others. Although there are clear benefits to increased rates of disclosure of HIV infection at the individual and community levels, levels of disclosure remain low, especially in developing countries including Ghana.

A dominant explanation for non-disclosure is the role of stigma. Stigma is a social construction that affects the lives and experiences of individuals living with HIV infection, as well as their sexual partners, families, and friends. Disclosure of HIV infection can be an extremely difficult process because it makes one vulnerable to perceived stigma of friends, family and community. Stigma makes HIV-positive individuals reluctant to become identified to seek appropriate care,

which ultimately results in a lack of access to other important sources of family and social support.

Community benefits such as the reduced incidence of HIV infection and reductions in stigma and discrimination cannot be realized without disclosure by HIV positive individuals. Disclosure can enable the activation of family and community support networks and reduce morbidity through better psycho-social management of the illness.

Several findings in this study have public health implications. Comparably, disclosure rates have improved based on results of previous studies and the outcomes of a positive status disclosure is suggestive of the fact that stigma in the study population is reducing. Although there may be other explanations to this trend the major factors that facilitate the disclosure of a positive HIV status is perceived emotional support from close relations and commitment to relationships within the social network. The main barrier to disclosure is stigma and discrimination. This study chronicles factors and issues associated disclosure of a positive HIV status within relationships of 155 PLHIV attending monthly HIV support meetings in the Tema Metropolitan Area.

SOCIAL FACTORS ASSOCIATED WITH THE DISCLOSURE OF A POSITIVE HIV STATUS

5.1 PREVALENCE RATES FOR DISCLOSURE AND NON DISCLOSURE AMONG PLHIV

Compared to studies by AED/SHARP (2005), and GSHRDC (2006), disclosure rates among this study sample were quite high (70.3%). This may have resulted from the fact that respondents were members of HIV support associations who have been educated and trained on the benefits of disclosure. Again, a number of members were already accessing ART at the time of this study, which presupposes they may have identified and disclosed to at least one member of the family. This finding is also in consonant with De Rosa and Marks (1998), who found in their study that higher rates of HIV positive disclosure were reported by persons who attended support groups and also received post-test counseling.

Among female respondents, 80 individuals (73.4%) had disclosed their statuses to one or more relations. Among males 29 respondents (63%) had told at least one close relation within the family network. Therefore, women appear to be more likely to disclose a positive status than men. The finding was however, opposed to the studies by Olley et al (2004) and FIDA Ghana (2007), who found out that those likely to disclose were males. This study also found out that with respect to disclosure to sexual partners males were more likely to disclose to sexual partners than women. Twenty five female PLHIV (31.2%) had disclosed to their sexual partners/husbands while thirteen males constituting (44.8%) had done the same. So although women disclosed more, men had disclosed more to sexual partners/wives than women did. Studies conducted by Rakwar et al (1999), in South Africa corroborates this finding. They also revealed that males were found to disclose their result more often to partners than females.

5.2 REASONS FOR DISCLOSURE AND NON-DISCLOSURE OF HIV STATUS BY PLHIV

Understanding the impact of social relationships on health status, health behaviours and health decision making contributes to the design of effective interventions for promoting health. Israel (1982); House (1981). Study findings reveal that commitment to family relations/sexual

relationships was a paramount reason for disclosing ones status. Both women (23.8%) and men (41.4%) mentioned commitment to relationships as the primary reason for disclosing their positive statuses. This finding agrees with Derlega et al. (2002) who also revealed that being in a close or supportive relationship and the need to maintain this relationship was a key factor to disclosing one's HIV positive status.

For both men and women the reason for disclosure was not based on ethical/moral responsibility of PLHIVs to protect others against HIV infection, but rather on personal benefits such as keeping to an existing relationship so that they would not lose the emotional or supportive relationship or gain social support.

Out of sixty-seven females in sexual relationships only 9 disclosed so their partners will also go and test and only one disclosed in order to discuss risk reduction with partners.

For males, out of 36 men in sexual relationships only 5 disclosed so sexual partner can access CT, no man disclosed in order to discuss risk reduction. Partners access to CT services, discussing risk reduction with sexual partner were least mentioned as reasons for disclosing. This is not too good for public health as far as reducing new HIV infections is concerned. In the study by King et al (2008) motivators to disclose included a desire to reduce further transmission and to prevent vertical transmission. Another study with older adults cited Erikson's developmental phase of generativity or concern for others, as a motivator to disclose, these individuals with HIV therefore want to see their HIV status affect the 'greater good'. Emlet (2008).

For both men and women the main barrier to disclosure was the fear of being stigmatized or being discriminated at. Carr and Grambling (2004), Derlega (2002) and Antelman (2001) also found out that stigma and fear of rejection by sexual partners were factors that prevented

PLHIVs from disclosing the positive HIV status. Even among young PLHIVs, the main factor that inhibited disclosure as indicated by Michaud et al. (2009) is the fear that members of the family would look unfavorably upon them.

The issue with family relationships was still important to especially male respondents, causing disruption/disgrace to the family was the second most important reason for non disclosure of a positive status for men. This could be explained by the position (head of the family) men are supposed to occupy within the family set up in a typical African society. For WLHIV the second major barrier preventing them from disclosing especially to sexual partners is the fear of divorce and neglect. This finding confirms World Health Organization's WHO (2004) evaluation report where women reported that fear of abandonment and loss of economic support were major barriers to disclosing HIV status to sexual partners. Again, this finding corroborates the study by AED/SHARP (2005), which mentioned fear of divorce as the main reason for non-disclosure among women living with HIV.

5.3 BARRIERS AND BENEFITS OF DISCLOSURE

The study hypothesized that stigma was the major factor fueling non disclosure among PLHIV. Table 4.11 shows that those who said stigma was not the main factor fueling disclosure of a positive status were 2.08 times more likely to disclose their positive statuses than those who think stigma is a factor (OR = 2.08, 95% CI = 1.03, 4.24). Even after results were adjusted for sex, however stigma and discrimination still had a significant interaction with disclosure of ones positive status. (Adjusted OR=2.05, 95% CI=1.01-4.19). This finding is in agreement with

Fernández et al (2000), who noted that people are in a constant dilemma about disclosure on one hand, because they may find enhanced social support; but on the other hand, they run the risk of being stigmatized. Fife and Wright (2000) also found that persons with HIV, compared to those living with cancer, suffered more social rejection, financial insecurity, internalized shame and social isolation due to their condition. Unlike other diseases, such as cancer, HIV is less likely to be disclosed, probably because of fear of the associated stigma, discrimination, and isolation. Even those who had disclosed their status regretted after experiencing stigma and discrimination.

In spite of these challenges, an HIV positive status disclosure offers a number of important benefits to the infected individual and to the general public. At the family level, resources in the form of social support can act as positive influencing agents which can promote disclosure of ones positive sero status. On the other hand negative barriers such as stigma, discrimination and denial can negatively affect disclosure decisions within the family network of the individual living with HIV.

5.4 SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS MOST LIKELY TO DISCLOSE AN HIV POSITIVE STATUS

Sex of Respondent: Findings of this study points to the fact that proportionally more women than men in this study of sample of 155 PLHIV shared their HIV test results with relations within the family network. Although stigma affects both men and women the study findings reveal that men are even more affected by stigma and discrimination than females. In a typical patriarchal

society men are viewed as the heads of households and therefore breaking the news of a positive sero status may disrupt family relationships, in terms of economic security. Men and boys within the Ghanaian family system are not supposed to show weakness in any form, hence boys in their upbringing for instance, are not supposed to express their weaknesses. This is evident in some Ghanaian adages, the famous Akan adage "*Barima nsu*" literally meaning "*A man does not cry*", explains reasons why disclosure is even more difficult for men within the Ghanaian setting. Nonetheless, although females also have challenges disclosing their HIV status they are more likely to disclose due to the need to access treatment in order to stay healthy to continue with their care giving roles irrespective of their age or marital status. Women may be more concerned about a partner's wellbeing rather than the response or possible devaluation and exclusion of others due to a positive status disclosure. There may be other pressing societal or personal issues women experience that may impact disclosure to family relations. However in relation to the health belief model, women's perceived benefits of disclosure exceed the perceived barriers and this makes it easier for women to disclose to persons within their family network.

Age: According to the 2009 HIV Sentinel Survey Report, the highest HIV prevalence was recorded within the 40-44year group (4.0%) and the least among the 15-19 age cohorts (1.9%). Generally, male PLHIV who are likely to disclose their status are slightly older (35-44years) than women (25-34 years).

In order to know the exact link between disclosure and aging, findings revealed that, those who decide to tell do so irrespective of age ($p=0.378$, $F=(4,150)$ 1.060). These findings are also

consistent with studies by Owoaje et al (2008) where age is not significantly associated with disclosure.

Marriage: Disclosure among couples is important as far as discussing risk reduction methods and ultimately reducing HIV transmission is concerned. Findings of this study supports the Ugandan study by King et al (2008), who noted that being married and, having attended HIV services for more than two years increased disclosure. For married couples, the desire to keep to the relationship promotes disclosure. For partners between whom there is emotional attachment, the threat of disclosure is that it could dissolve the relationship or generate resentment.

In the study by Reiser, (2002), disclosure rates to current and/or steady partners was 49% percent which is considerably lower than the average rate reported from studies conducted in developed world (79%). This study revealed far lower disclosure (28.3%) rate within six months of diagnosis among married couples.

Occupation: Majority of respondents were employed; it is interesting to note that before respondents got to know their status, many more were employed. However, after learning about their positive HIV status, some stopped working for fear of stigma and discrimination.

A 45 year old Akyem man noted in the FGD that a colleague confided in him that when he disclosed his status to his boss in a production firm, immediately the boss asked him to do recording and hardly spoke to him again. According to him it is not advisable to go talking about ones HIV status at the workplace, you will lose your job the next moment. If you disclose to

someone, he/she would no longer show love toward you. From the experiences, it is notable that even the private sector environment is not free from stigmatization and discrimination and therefore even outside the family, PLHIV find no place to express their fears, worries and pain.

Ninety-seven PLHIV (62.6%) were in some form of employment while fifty-eight (37.4%) were unemployed. The employed were more likely to disclose (63.3%) than the unemployed (36.7%) although this is not statistically significant [F (1,153) .081, p=0.777]. The unemployed were less likely to disclose their HIV status for fear of losing social support as compared to the employed. In line with this when respondents were asked what could be done to promote disclosure, over one-third (31%) mentioned the need to increase jobs. In several parts of the developing world, unemployment, unstable jobs, widespread poverty and growing economic hardships are among the most important reasons couples give for having multiple partners which increases the likelihood of HIV infection (International Migration and HIV/AIDS, 2004). This study therefore suggests that HIV status disclosure may similarly link with unemployment in Ghana though other factors may contribute to it.

Ethnicity: Ethnicity is an important social factor that affects how individuals experience and disclose an HIV diagnosis. Ethnic differences can increase or decrease the difficulties associated with disclosure. Generally, almost all ethnic groups in the country were represented by the respondents within the study sample, this is because Tema metropolitan area is made up of persons with various ethnic and socio-cultural backgrounds; there are Akans, Krobos, Hausas, Gas, Guans etcetera, who have permanently settled in the various communities within the metropolis. Although the Ga/Dangme was the largest ethnic group within the study sample,

with 38.7% respondents belonging to this group, disclosure was found to be higher among females who are Akans (24.1%) while among males Krobos were more likely to disclose than any other ethnic group.

Religion: In terms of religion, study respondents were made up of Christians, Muslims and people who believe in African Traditional Religion (ATR). Preau et al (2008), show that among PLHIV, disclosure of one's HIV-positive status is associated with the place of religion in one's life, and that religious engagement does not seem to help individuals to disclose their sero positivity. In this study, religious affiliations appeared to be less important as a determinant of positive disclosure among a study population. [F (2,152) =0.132, p>0.877]. Among Christians, Muslims and ATRs there were no significant differences in disclosure patterns (Muslims (71.4%), Christians (70.6%) and ATRs (60%). Those who made disclosures present very interesting analysis. Study findings show that among females who have disclosed their HIV status, Christians who were Charismatics were more likely to disclose (88.9%) a positive status. This is followed by Christian orthodox (75.6%) and Muslims (75.0%). The same trend is observed with male Christians who are Charismatics; they were most likely to disclose a positive sero status than any other persons with other religious affiliations. For both males (53.4%) and females (35.3%) Christian Pentecostals were the least likely to disclose a positive status.

Relationship between religious beliefs and disclosure could be explained by the bias of HIV stigma within each religious grouping as well as emphasis on piety by certain religious groupings making it more difficult for persons living with HIV within these settings to disclose their status.

The qualitative aspect of this study, showed in a personal interview with a positive charismatic pastor that once he got to know about his status he publicly disclosed his status to his family and colleague pastors. However, he experienced stigma and discrimination in the church after disclosure. Thus irrespective of the denomination, there is still the need to address stigma.

Education: Majority of respondents (66.5%) within the study sample had received basic education (Primary/JSS/Middle School). However, when it comes to disclosure, PLHIV who had received secondary education were more likely to disclose (76.9%), followed by those who had received tertiary education (75%), and those who had no formal education (74.2%), then those with basic education (68%).

Females with basic education (74%) were more likely to disclose a positive sero status. However, with males men with no formal education (80%) were more likely to disclose. In this study education is not a significant social factor for determining positive disclosure among the study population. [$F(3,151) = 0.279, p > 0.841$].

This finding is in line with findings of Owoaje et al (2008) who also found that educational status was not significantly associated with disclosure.

Length of time knowing ones HIV status: Apart from sex, age, religion, ethnicity education and marital status, another social factor that is likely to be associated with disclosure is the length of time a PLHIV has known about his/her positive status. Almost half of respondents had known their HIV status for a period of three to six years. However, with disclosure, PLHIV who had known their status for a period of between six and twelve months were more likely to disclose than those who had known for over a year. The study finding agrees to Owoaje et al. (2008) who

also found disclosure to be higher among those who had been diagnosed positive for more than one year. Length of time knowing ones HIV status was not statistically significant in determining disclosure with regards to the study sample. [F (4,150) =0.604, p>0.660].

Circumstances that facilitated HIV testing: It is interesting to note from this study circumstances that facilitated HIV testing among PLHIV. Majority of respondents (women (67%) and men (80.4%) only got to know about their positive sero status through illness. Even when the signs and symptoms were so evident, people prefer to visit prayer centres for spiritual help rather than check up on health status. A 30 year old Kwahu woman in a focus group discussion confirmed that she met a friend at a prayer camp who took her to hospital for testing and that was where she got to know about her HIV positive status.

Uptake of CT services is still generally low in Ghana. This finding corroborates findings of GDHS, 2008 that only 21 percent of women and 14 percent of men aged 15-49 have ever been tested for HIV and of those who were tested, only 17 percent of women and 12 percent of men received the results of their test. From the findings of this study and that of GDHS 2008 it appears that women are more likely to initiate discussions about the need to test than men. This was very evident in the FGD where a number of female PLHIV shared efforts made to encourage their male partners to test. However, these requests fell on deaf ears.

5.5 RELATIONS MOST LIKELY TO BE CHOSEN AS HIV DISCLOSURE RECIPIENTS

As indicated by Petronio (2002) the relational ties that people have with one another influence their decision to disclose. When there is a weak relational tie, recipients may be less willing to keep the information about the positive sero status of their respective relations confidential. In

Ghana, couples have a strong relational tie especially when couples have children, a couple without children does not constitute a family. Thus, even after a woman loses the husband, some families require that the widow is inherited by either the younger or senior brother of the deceased husband referred to as 'Widow inheritance' purposely to continue the family name of the male partner. Interestingly, slightly more than one-third of respondents (35%) within the total study sample disclosed to sexual partners. This is a good trend as indicated by Sturdevant et al.(2001) who also found that disclosure to sex partners can lower infection rates as persons may be motivated to engage in or adopt safer sex practices.

Apart from sexual partners, parents were the second most likely to be disclosed to. However, with parents, mothers/aunts were the ones most likely to hear about a child's sero positive status probably because women are known to be sympathetic. Elford (2008), confirms this in his study that most PLHIV were more likely to have disclosed to their mothers than their fathers.

The extended family and children were the least to be disclosed to probably because the extended family is quite large, including aunts, uncles, cousins, grandparents among others; should one person hear other relations are likely to hear and the news spreads fast. Furthermore, in the face of the stigma and discrimination within the larger society, very few PLHIVs would disclose to the larger family. While married PLHIV and those cohabiting were more likely to disclose to sexual partners, those with steady/casual partners were more likely to disclose to siblings and divorced persons were more likely to disclose to parents. Widowed PLHIV were most likely to disclose to other family members (extended family members) while singles disclosed to parents. Marital status is statistically a key determinant of the relations most likely to be disclosed to ($p=0.000$).

Our findings are in consonance with the Owoaje et al. (2008), study so far as marital status is concerned because they also found that currently married PLHIV were most likely to disclose to their sexual partners (80.3%). The widowed (72.6%), separated/divorced (62.5%) and single (59.5%) were more likely to inform their siblings.

King et al. (2008), also found that men were more likely to disclose to brothers and sex partners while women were more likely to disclose to their sisters. This finding however contradicts the study by Kalichman et al. (2003), who found that friends were disclosed to most often and perceived as more supportive than family members, and mothers /sisters were disclosed to more often than fathers and brothers, and perceived as more supportive than other family members.

5.6 REACTIONS OF DISCLOSURE RECIPIENTS/ SOCIAL SUPPORT ISSUES

For majority of respondents, the immediate reaction was acceptance and encouragement. This finding contradicts studies by Greene & Faulkner (2002), who found out that family members or intimate partners who learn about a relative or partner with HIV may react initially with disbelief and distress about the diagnosis. Studies by Taraphdar et al. (2007) however corroborates this study finding as majority of PLHIV in their study (87.5%) reported positive outcomes such as kindness, understanding and acceptance following disclosure.

5.7 TIMING OF DISCLOSURE

A challenging issue for many PLHIV is the timing of disclosure. Majority of respondents (83%) stated that the best time to disclose was immediately after the diagnosis. Therefore as noted by Simbayi et al. (2007), if it is not done relatively early, it can become more difficult as time goes on and can cause significant disruption to an ongoing relationship if the disclosed-to partner feels betrayed due to the lack of an earlier disclosure.

5.8 SUPPORTIVE AND JUDGEMENTAL RELATIONS

Findings of this study suggest mothers and aunts as the most supportive relations, followed fairly closely by siblings, sexual partners/husbands and then children. Fathers /Uncles and extended family members were least mentioned as supportive. With respect to sexual partners, male PLHIV found that their partners were far more supportive than female PLHIV. This finding is in consonant with the study by GSHRDC (2006), which reveals that out of 308 PLHIV respondents, 101 named one or both parents as being the most supportive of them since the disclosure of their status. Again here, 63 respondents named their mothers as most supportive, while only 8 named fathers. This study finding however does not support findings of King et al. (2008) who found that men were more likely to disclose to brothers and sex partners while women were more likely to disclose to their sisters. Kalichman et al. (2003) also who found that friends were disclosed to most often and perceived as more supportive than family members, and mothers and sisters were disclosed to more often than fathers and brothers and perceived as more supportive than other family members. The main form of support PLHIV received from

supportive relations was financial support to access medical care including ARVs. What was however striking was that the second most important form of support was not sharing ones HIV diagnosis with other people and for the PLHIV that is a major form of support as far as stigma and discrimination are concerned.

More than half, (66%) said no body was judgmental. The fact that more than half of respondents said no body was judgmental, presumes that stigma levels are reducing. It is important however to note that this is a situation within the selected HIV support associations that took part in this study. This finding however confirms findings of GDHS, 2008. In that survey, about three-fourths of both women and men (75 and 79 percent, respectively) stated they would be willing to care for a family member sick with AIDS in their home. This indicates that individuals are gradually willing to provide a supportive and caring environment for their family members who are HIV positive.

BEHAVIORAL FACTORS ASSOCIATED WITH THE DISCLOSURE OF A POSITIVE HIV STATUS

5.9 KNOWLEDGE ABOUT HIV TRANSMISSION

The results show clearly that generally both male and female PLHIV clearly know about the modes of HIV transmission. This knowledge if translated into practice should promote the adoption of safer sex methods in order to reduce new infections among the general population as well as re-infections among PLHIV.

5.10 PARTNER NOTIFICATION/ SERO DISCORDANCE

For PLHIV, sexual decisions are closely linked to knowledge of a sex partner's HIV status and disclosure of their own HIV status to sex partners. For majority of both men and women living with the HIV virus, the HIV status of their sexual partners was unknown, therefore whether infection or re-infection was taking place was unknown to them.

This situation therefore puts a lot of Ghanaians at risk of contracting new HIV infections. This finding confirms UNAIDS (2002) and Rutledge & Abel's (2005) report that emphasizes the association between HIV non disclosure and potential sexual partner exposure to HIV infection, Rutledge & Abel (2005) indicates that up to one third of individuals diagnosed with HIV infection continue to have unprotected sex, at times without informing partners who may be of negative or unknown sero status.

This finding also agrees with anecdotal findings from HIV Support Associations that some PLHIV just get into sexual relationships, get pregnant, have babies without making their partners aware of their status thereby putting their partners, themselves and their unborn babies exposed to infection and re-infections. Niccolai (2006), agrees perfectly by noting that despite campaigns of many varieties that have encouraged harm-reduction approaches to safer sex, including discussions regarding HIV status, many people with HIV have sex, protected and unprotected, without disclosing. Derlega et al (2003) therefore mentioned in her study that a major component of preventive efforts must be directed at HIV-infected individuals by encouraging them to disclose their HIV sero status to their sexual partners with the assumption that disclosure will increase the safety of subsequent sexual activity with informed partners. As Norman et al also remarked, "... it is reasonable to assume that a couple's diligence in using condoms consistently and correctly would be enhanced by one partner's disclosure of positive

sero status. However, the fact that one partner discloses does not always imply condoms would be used correctly and consistently; some sexual partners who know their sexual partners are living with HIV still refuse to use condoms. Klitzman et al (2007) have shown in their studies that disclosure doesn't always alter risk taking behaviours. Even with disclosure, unsafe sex sometimes occurs. Some people engage in safer sex behaviours without any discussion of HIV status.

This study also found out that about 29 PLHIV (22%) interviewed were in sero discordant relationships (23.1% males, 21.3% females). This is much lower than the rate of 66% recorded in several sub-Saharan African countries (De Walque 2007) and that recorded in Ghana by the GDHS 2003 and 2008 where it is confirmed that about 60% of HIV-positive individuals identified are in sero-discordant relationships. This study finding contributes to earlier findings with respect to sero-discordant heterosexual couples in Ghana. The uninfected partner runs the chance of getting infected if the infected partner fails to disclose his or her status. However, if someone discloses to a partner about the HIV infection then both know about it and thereby prevent the risk of transmitting the disease to a partner through unprotected sex. Most HIV sero discordant couples are in a dilemma, one partner feels the other has been unfaithful, some couples have accepted the situation without understanding how come they were in those relationships.

According to the Centre for AIDS Prevention Studies (CAPS) and the AIDS Research Institute (2007), HIV disclosure and non disclosure can have numerous effects for couples. Thus HIV disclosure or partner notification is critical as it puts the information on the table so that both partners are aware of HIV- related risks associated with sexual relations. The issue of disclosure and condom use is further discussed in the preceding sections.

5.11 PARTNER RISK REDUCTION METHODS/SEXUAL PRACTICES OF PLHIV

Safer sex behaviours are important to prevent uninfected partners from contracting HIV, yet safer sex also protects the infected partner who is especially vulnerable to contracting additional strains of HIV or other sexually transmitted diseases. Thus HIV disclosure serves a dual function of protecting both the self and the other. This study investigated the range of partner risk reduction methods used by PLHIV to reduce HIV infection or re-infections during sex. It was interesting to note that more than half of respondents reported correct and consistent use of condoms during every sexual encounter. Slightly less than half used condoms but inconsistently, had unprotected sex (“raw sex”) or engaged in other unsafe methods such as penis withdrawal among others. The cornerstone of prevention programs must focus on introducing PLHIV to other non penetrative sexual practices which do not expose sexual partners to new HIV infections or re-infections. In addition as HIV status disclosure has been challenged as an acceptable public health practice, a right based approach needs to be adopted to encourage safer sexual practices especially when it has to do with a disease like HIV and AIDS, which is deeply private, socially stigmatizing, and medically incurable (Serovich and Mosack, 2003).

Thus as recommended by Serovich and Mosack (2003), it is important that health promotion experts, prevention workers including HIV counsellors in Ghana must re-emphasize and incorporate the promotion of a sense of individual responsibility and duty to protect others and community as an important consideration increasing condom usage and enhancing safer sex negotiation skills as well as disclosure among PLHIV.

5.12 CONDOM USE AND DISCLOSURE

Condom use is one of the main strategies for combating the spread of HIV. Social acceptance of condom use is a key factor in determining use of condoms to prevent the sexual transmission of HIV and other STIs. GDHS (2008).

5.12.1 Condom Use and Knowledge of Sexual Partners Status

Study findings reveal that majority of PLHIV do not know the HIV statuses of their sexual partners. What is of concern are those who only use the condoms sometimes or do not use them at all. More than half of sexual partners of PLHIVs were exposed either to infection or re-infection. According to the Focal person at the Ghana AIDS Commission, the issue about difficulty in using condoms correctly and consistently especially among most at risk groups is not exclusive to PLHIVs. The GDHS, 2008 also showed that generally condom use for both men and women is less than 40% (25% for men, 34% for women), which is not too good as far as reducing new HIV infections are concerned. With the general population, petty reasons for non use of condoms include the popular “toffee in wrapper” issues. This raises an issue with quality and texture of condoms available for consistent and correct use by PLHIV as well as vulnerable groups within the general population.

5.12.2 Condom Use and Knowledge of PLHIV’S Status

As to whether sexual partners knew about PLHIV status, study findings reveal that 77 PLHIV (70.3%) knew that study participants were positive. However approximately 30% (32 PLHIV) interviewed said that sexual partners did not know about their positive status. The question

then is how are these individuals protecting both themselves from either infection or re-infection? It is difficult to understand the situation with 61% of sexual partners who knew the status of PLHIV and yet refused to protect themselves from infection or re-infection. Studies by Simoni and Pantalone (2004) confirm that disclosure does not always alter risk taking behaviours. Even with disclosure, unsafe sex sometimes occurs. As indicated in this study some people know their sexual partners are HIV positive yet they engage in unsafe sexual behaviours without any discussion of HIV status. One would wonder whether PLHIVs are not aware of the various means of HIV transmission. It is important to note that in line with the AIDS Risk Reduction Model, most PLHIV especially women living with HIV are very knowledgeable about HIV transmission methods and have been able to **label as high-risk behaviour** non use of condoms correctly and consistently. However commitment to changing high risk behavior and enactment of risk reduction has not been successful. The qualitative part of this study provides further understanding into the issue.

During the various FGDs and Interview sessions, the Principal Investigator wanted explanations to knowledge of PLHIV status and condom use: A 40 year old male PLHIV leader of PLHIV Association explained that when it comes to reducing transmission and preventing re-infection a lot of women are more careful than the men. According to him, most ladies living positively with HIV will suggest condom use very early in the relationship; it is the men who refuse to use condom. Even some members of PLHIV association report to the leaders that when they tell their sexual partners that they are HIV positive they do not believe it. They say it's an excuse to reject their proposal. Thus for him women are more careful than men when it has to do with condom use.

Tenofovir Gel (an anti-retroviral microbicide for the prevention of HIV infection in women) (Quarraisha, 2010) could fill an important HIV prevention gap, especially for women who are unable to successfully negotiate mutual monogamy or condom use. Until vaccines such as Tenofovir Gel remain very effective and safe in the years to come, prevention workers will still need to promote and encourage condom use because so far it is the only method that can prevent STI including HIV.

5.12.3 Gender and Condom Use

The researcher also investigated how gender influences refusal of condom use. Both quantitative and qualitative data show that female partners (68.3%) are far more likely to agree to the use of condoms than male partners (43.3%).

In the FGD with female PLHIV, the women were asked about what they do if their partners refuse to use condom. They noted that they “only have to do it like that”, that is without the condom. Some also noted that they withdraw the penis before ejaculation.

5.13 IMPACT OF DISCLOSURE ON SEXUAL RELATIONSHIPS

For male respondents the major negative impact of disclosure on their sexual life was their inability to enjoy sex. It is sad to note that only a small percentage of respondents (4.1% females and 2.4% males) enjoy sex normally after disclosing their status; twice as many women

(40%) as men (20%) reported that they had ceased having sex. Women therefore appear to be the most affected when it comes to the impact of disclosure on sexual life. However men are more affected when it has to do with enjoying sex with ones sexual partner. Generally, disclosure impacted negatively on the sexual relationships of PLHIV.

People who are HIV-positive do not have sufficient information on sexual and reproductive health and rights. Till date a positive HIV test is taken to mean the end of sex life. PLHIV also have the right to satisfying sex lives, to bear and raise children, and to protect themselves and their partners from unwanted pregnancies and sexually transmitted infections (STIs). Therefore condoms have to be made attractive to lifetime users to avoid boredom since benefits of its use outweighs non use.

It is critical that Public health experts, HIV/AIDS policy makers and organizations such as Ghana Social Marketing Foundation need to re-look at the issues of improving sustainable supplies of both male and female condoms according preferences; the quality of both male and female condoms including texture. Further anonymous studies is recommended to find out consumers challenges with condoms being supplied, not limited to PLHIV, but including other most at risk groups such as FSW and MSMs .

CHAPTER SIX SUMMARY, CONCLUSION AND RECOMMENDATIONS

SUMMARY

The focus of the study is to unearth factors associated with disclosure of HIV status within relationships of PLHIV. Study findings reveal that disclosure rates among the PLHIV sample was high. One hundred and nine PLHIV (70.3%) had disclosed while forty six respondents (29.7%) did not tell anyone about their status. Among those who had disclosed, at most two close relations were disclosed to.

Commitment to family relationships was the main reason for disclosing a positive sero status, commitment to a family relationship as a benefit outweighed barriers of stigma, discrimination, and neglect etcetera. For men the second most important reason for disclosing was the need for emotional and social support, while women were more concerned about access to medical care including ART. Probably for women the need for a treatment monitor urged them to disclose so they can access ARVs.

The major barrier to disclosure was stigmatization and discrimination.

As far as socio-demographic characteristics are concerned, PLHIV most likely to disclose were females, aged 25-34 years, married, employed, were Akans, Christians (disclosure highest among Charismatics), those who have received secondary education and those who have known their HIV status six months to up to a year ago. Those less likely to disclose were males, persons aged 15-24 years, separated, divorced or single PLHIVs, unemployed, Christians (among both males and females Pentecostals were least likely to disclose), those with basic education and PLHIV who have known their status a year to three years ago.

It is important to note however, that none of these characteristics were statistically associated with disclosure.

As to who among family relations is most likely to be a disclosure recipient, sexual partners were mentioned as the most likely to receive news of a partner's positive sero status. This is followed by parents especially mother and aunts, siblings, other family members then children.

In finding out about how relations took the news in other words the reactions of these relations to the news, both initial reactions as well as outcomes of those disclosures for both men and women living with HIV were acceptance and encouragement. It appears negative attitudes towards PLHWAs is reducing gradually as immediate reaction and final outcomes of disclosure was acceptance and encouragement.

As to when was the best time to disclose, both study participants, service providers, relations of PLHIV and public health experts agree that it should be immediately after the diagnosis.

Mothers and Aunts were mentioned as the most supportive relations; in terms of relations most judgmental "none" was most mentioned by PLHIV. Post-Disclosure experiences were positive, as majority of PLHIVs did not experience judgmental attitudes. Female sexual partners were however more likely to be judgmental than male partners.

Although, knowledge about modes to transmission was high, 48% females and 51% males had **exposed** their sexual partners to HIV infection or re-infection by using condoms inconsistently and using other ineffective methods such as withdrawing penis during ejaculation, washing vagina/penis after sex or used lubricant creams or jellies without a condom.

With regards to PLHIV's knowledge about sexual partners HIV status, study findings reveal that while almost similar numbers of females and males were in discordant relationships (21.3% and 23.1% respectively), far more females than males were unaware, of HIV statuses of their sexual partners (57.5% and 33.4% respectively).

With respect to condom use, 27% of HIV positive sexual partners were exposed to re-infection, 13% of those in sero discordant relations were exposed to new infection, more than half of PLHIV (60%) who did not know their partners HIV status did not ensure consistent condom use, sexual partners with unknown statuses were exposed to new infections. Among those who did not use condoms at all, 17% had HIV positive partners, 25% had HIV negative partners and 58% did not know the HIV statuses of their partners. Women appear to be more likely to agree to condom use than men. Majority of Ghanaians are still exposed to HIV new infections.

It is worth noting that sexual partners' knowledge about PLHIV's status is partially associated with condom use, other factors such as sex and marital status can also contribute to condom use.

Finally, data from this research has also showed that disclosure of a positive status impacts negatively on the sexual relationships of PLHIV. At least 40.3% of women reported to have ceased to have sex since they disclosed to their sexual partners, for men although majority still had sex, however 34% reported they no longer enjoyed sex since they told their spouses/sexual partners about their positive HIV status.

CONCLUSION

The study revealed enough evidence to conclude generally that, factors such as stigma and discrimination as well as social support within the family network play important roles in influencing the PLHIV to either disclose or not to disclose their status. Individual factors such as knowledge of HIV especially with regards to transmission did not result in taking positive health behaviours such as disclosure to sexual partners, use of condoms correctly and consistently and the avoidance of unsafe sexual practices that could lead to HIV transmission. PLHIV's perceptions and beliefs including perceptions of emotional and social support motivated PLHIVs to disclose however perceptions of stigmatization and discrimination prevented thirty percent of respondents from disclosing to any individual within the family network. The demographic characteristics of PLHIVs did not significantly affect disclosure as age, sex, education, marital status; employment, ethnicity, religion and length of time knowing one's HIV status were not statistically significant with disclosure.

The focus of the study is geared towards investigating the dynamics of social and behavioral factors associated with the disclosure of a positive HIV status within relationships of PLHIV. Disclosure and/or nondisclosure of one's HIV positive status to others are complex processes that take place within various social relationships. The study revealed that the major barrier to disclosure was stigmatization and this was statistically significant at 95% level of significance, $p=0.02$ (AOR=2.05, 95% CI=1.01-4.19).

Interestingly, those who perceived emotional and social support or perceived access to medical care including ART and were not deterred by stigmatization and discrimination rather they

experienced acceptance and encouragement as well as non-judgmental attitudes from family members.

Another interesting finding which forms part of the dynamics in human behavior is the issue of sero-discordance and condom use. In situations where individuals had tested HIV negative, sexual partners who were HIV positive, had disclosed their statuses to these negative partners, yet negative individuals in some situation refused or did not ensure the use of condoms as a prevention measure.

As public health experts or practitioners, it is important to incorporate the promotion of a sense of individual responsibility and duty to others and community as important considerations for increasing condom usage and enhancing safer sex negotiation skills as well as disclosure among PLHIV.

RECOMMENDATIONS

On the basis of the study findings the following recommendations are made:

- That the National AIDS Control Programme should consider safe disclosure as a fourth arm for the process of counseling and testing for HIV where trained PLHIVs can serve as models and actively play a role in assisting colleagues with safe disclosure as part of post test counseling support, findings from the qualitative study reveals that peer counseling can promote safe disclosure .
- That Ghana AIDS Commission should ensure that the National Strategic Framework (NSF) 111 include strategies to promote disclosure among PLHIV especially among sexual relationships of PLHIV as well as provide a guide as to how to address the issue of sero-discordance among PLHIV couples.
- That the Ghana Business Coalition against HIV and AIDS, the HIV and AIDS Programme of the International Labour Organization (ILO) and the German International Co-operation (GIZ) with support from the Ghana AIDS Commission should strengthen the development and implementation of workplace HIV policies to mitigate the impact of HIV on PLHIV employees at the workplace. These policies would first of all create an anti- stigma and discrimination environment for employees, improve disclosure and increase access to treatment services as well promote condom use to prevent exposing others from HIV infection.

- That Non-governmental organizations with support from the Ghana Health Service should ensure the promotion of sexual reproductive health and rights information and services as well as relationship counseling for PLHIV couples as this is critical in promoting correct and consistent condom use among PLHIV thereby reducing the negative impact of disclosure on sexual relationships of PLHIVs. Couples must be counselled to develop that sense of duty or responsibility to disclose in order to protect the other partner from infection or re-infection.
- That the Ghana Health Service (GHS), the Ghana AIDS Commission (GAC) and NGOs as the Ghana Social Marketing Foundation (GSMF) International should review the quality, texture and branding of condoms on the Ghanaian market. Study findings reveal that at least approximately 32% males and 26% female PLHIV are bored using condoms all the time. Probably, if condoms are made in such a way that makes it exciting to use, majority of Ghanaians including PLHIVs who are required to use condoms during every sexual encounter would enjoy the use of these products without feeling bored.
- That Health promotion and stigma reduction interventions by all stakeholders must especially target men so as to promote condom usage among couples, increase support for PLHIV, reduce stigma and discrimination and increase accepting attitudes towards PLHIV. This because within the African family system, patriarchy plays a major role in influencing the family in taking positive health actions. Once men are well sensitized they can influence other members of the family to reduce stigmatization and discrimination against PLHIV, enhance access to treatment care and support, promote disclosure and adopt safer sexual practices.

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APPENDIXES

Appendix 1- Consent Form

CONSENT TO PARTICIPATE IN A RESEARCH STUDY

Title of the Research Study

Factors Associated with HIV Status Disclosure within Relationships of PLHIV

Investigator

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Purpose and Background

This study is aimed at examining the predictors of HIV Status disclosure and non- disclosure among persons living with HIV and AIDS in the Tema-metropolitan area. The study will identify and appraise the dynamics of social and behavioral factors as well as consequences associated with the disclosure of HIV and AIDS Status within close relationships of persons living with HIV and AIDS.

Procedures

If I agree to participate in this study, the following will happen:

- 1.** I may be asked to disclose my HIV/AIDS status, my knowledge and awareness of HIV/AIDS related issues, my sexual practices or behavior and my background information such as age, ethnicity, marital status, occupation among others. The interaction would be question -answer based with discussions on HIV/AIDS.
- 2.** I am assured that this study would not in any way embarrass me by disclosing HIV/AIDS status to other persons outside this study. My sexual practice issues would receive the necessary confidentiality and would not be divulged. There is a possibility that some of the questions in the interviews may make me feel uncomfortable. I will be asked about personal things and I may feel embarrassed at times, especially with regards to my sexual relationships with significant others in my life, however this will happen rarely.

Benefits

This study is not designed to benefit me directly, however, there is some possibility that I may learn about factors affecting HIV Status disclosure. In addition, what I learn from the study may help me to better understand the socio-behavioural contexts of HIV/AIDS Disclosure.

Risks

If I do not participate there would be no penalty or loss of my rights and that of my dependants. I can stop participation or withdraw from this study anytime even after I have started. I may be affected emotionally by discussing my HIV status and relationships with the investigator.

Reimbursement

I would be served with refreshment for participating in this study.

Confidentiality

All information obtained from me during the study will be confidential. My privacy will be protected at all times. I will not be identified individually in any way as a result of my participation in this research. The data collected however, may be used as part of publications and papers related to Factors affecting HIV Status Disclosure among relationships in the Tema metropolitan area. My participation is anonymous and my identity would never be disclosed.

Right to Refuse or Withdraw

My participation in this study is completely voluntary but is extremely important for the development of education and policies on HIV. I can choose not to answer certain questions; I can take a break and continue later, I can choose to stop the interview, or even withdraw.

Consent

I have carefully read or listened to the above information and I have decided that I will participate in the study on Factors associated with HIV Status Disclosure within relationships. The researcher has explained the study to me and answered all my questions. I have full understanding of what would be asked of me and have also understood the purpose of the study.

I hereby agree to participate in the study. My signature/thumb print below also indicates that I have received a copy of this consent form and had a chance to read it / it was well explained to me.

Participant's Signature/Thumbprint_____

Date_____

Signature of Interviewer_____

If you have any further questions regarding this research, please contact the Principal Investigator, Mrs. Ethel O. Sakitey of the School of Public Health, Social and Behavioural Science Department, University of Ghana-Legon.

E-mail address:etsakitey@yahoo.co.uk

Mobile phone: 0243564013 or the faculty supervisors

1. Dr. Edith Tetteh

E-mail:eftetteh@yahoo.com

Mobile: 0242886252

2. Dr. Akosua Darkwah

Department of Sociology

E-mail: akosuadarkwah@gmail.com

Mobile: 0208141466

If you have questions about your rights as a research participant or if you have research related complaints please do not hesitate to contact Dr. Philip Baba Adongo, Head of Social and Behavioural Science Department, School of Public Health, University of Ghana, Legon

E-mail: adongophilip@yahoo.com

Mobile: 0244806015

As a participant I would be given a copy of this consent form. One copy of the form would be kept by the investigator for at least five (5) years

APPENDIX 2-QUESTIONNAIRE

SCHOOL OF PUBLIC HEALTH, UNIVERSITY OF GHANA, LEGON

**STUDY ON FACTORS ASSOCIATED WITH DISCLOSURE OF HIV STATUS
WITHIN RELATIONSHIPS: THE CASE OF PLHWA IN THE TEMA
METROPOLITAN AREA**

OCTOBER, 2009

My name is ETHEL O. SAKITEY and I'm conducting a study on **Factors associated with Disclosure of HIV status within relationships**. Your participation in this survey is completely voluntary but is extremely important for the development of education and policies on HIV. I also want to assure you that once you agree to participate any information you provide will only be used for research purposes and will be kept strictly confidential.

I am the only one who can link your answers to this sheet and I will not record your name anywhere on it. If any thing I ask you is not clear, please feel free to ask me to explain - this is not an exam and there are no correct or wrong answers. The entire interview will last between 30-45 minutes. I can continue only with your permission.

[After agreement is provided say: I want to thank you for agreeing to take part in this study!]

Identification <i>[To be filled by interviewer at the beginning of interview]</i>
--

Name of Interviewer

Interviewer Code

Date of Interview

Start timeTime Completed.....

Name of Supervisor

Supervisor Code

Office Editor's code.....

SECTION A: DEMOGRAPHICS OF RESPONDENT

Community.....

Questionnaire ID.....

NO.	QUESTIONS	VARIABLE NAME
1.	What is the sex of the respondent? (Kindly circle as appropriate) 1. Female 2. Male	<i>Sex of respondent</i>
2.	Could you please tell me your age? 1. 15-19 4. 30-34 7. 45-49 2. 20-24 5. 35-39 8. 50-54 3. 25-29 6. 40-44 9. 55-59 10. 60-65	<i>Age of respondent</i>
3.	What is your highest level of education completed? (Please tick (✓) as appropriate) 1. None 2. Koranic school 3. Primary 4. Middle/JSS 5. Vocational/Commercial	<i>Level of education</i>

<p>4.</p>	<p>6. O-Level 7. SSS 8. A-Level 9. Training College 10. Tech/Professional 11. Polytechnic 12. University 13. Postgraduate 14. Other [specify]</p> <p>What is your religious affiliation (Please tick (✓) as appropriate)</p> <p>1. Christian(Orthodox) 2. Christian (Pentecostals) 3. Christian (Charismatics) 4. Moslem 5. Traditional/Spiritualist 6. No Religion 7. Other (Specify)</p>	<p><i>Religion of respondent</i></p>
<p>5.</p>	<p>What was your occupation before being aware of your positive status?</p> <p>1. Teacher 2. Nurse 3. Trader 4. Hairdresser/barber 5. Driver 6. Tailor/Seamstress 7. Security Officer 8. Unemployed 9. Caterer 10. Fitter 11. Carpenter 12. Other [specify]</p>	<p><i>Respondents previous occupation</i></p>
	<p>What is your current occupation?</p> <p>1. Teacher 2. Nurse 3. Trader 4. Hairdresser/barber 5. Driver 6. Tailor/Seamstress</p>	<p><i>Respondents current occupation</i></p>

6.	<p>7. Security Officer 8. Unemployed 9. Caterer</p> <p>10.Fitter 11.Carpenter</p> <p>12. Other [specify]</p> <p>What is your ethnicity?</p>	
7.	<p>1. Asante 2 Akwapim 3. Fante 4 Akyim</p> <p>5. Brong 6. Ga 7. Dangme 8. Wala</p> <p>9. Ewe 10. Guan 11. Hausa 12. Krobo</p> <p>13. Dagomba 14. Mamprusi 15. Gonja 16. Mossi</p> <p>17. Grussi/Frafra 18. Dagarti 19. Kusasi</p> <p>20. Kassena-Nankani 21. Konkomba 22. Nanumba</p> <p>23. Builsa 24. Other [specify]</p> <p>Marital status</p> <p>1.Married</p> <p>2.Cohabiting</p> <p>3.Have a regular/steady sexual partner</p> <p>4.Have casual sexual relationships</p> <p>5. Separated</p> <p>6. Divorced</p> <p>7. Widowed</p> <p>8. Other (please specify).....</p>	<p><i>Ethnicity of respondent</i></p> <p><i>Marital status of respondent.</i></p>
8.		<p><i>Length of time in marriage/relation</i></p>

9.	<p>If married or in any sexual relationship, how long have you been/were you married/stayed together?</p> <p style="text-align: center;"><input type="checkbox"/></p> <p>1-3 months</p> <p style="text-align: center;"><input type="checkbox"/></p> <p>4-6 months</p> <p style="text-align: center;"><input type="checkbox"/></p> <p>7 months-one year</p> <p style="text-align: center;"><input type="checkbox"/></p> <p>1-3 years</p> <p style="text-align: center;"><input type="checkbox"/></p> <p>4+ years</p>	<i>ship</i>
<u>SECTION B: REASONS FOR DISCLOSURE AND NON DISCLOSURE</u>		
NO.	QUESTIONS	VARIABLE NAME
10.	<p>How long have you known your HIV + status?</p> <p>A week to six months.....1</p>	<i>Length of time knowing HIV+ status</i>

<p>11.</p> <p>12.</p> <p>13.</p>	<p>Six months to 1 year.....2</p> <p>One year to 3 years....3</p> <p>3 years to 6 years.....4</p> <p>Six years +.....5</p> <p>What was/were the circumstance(s) that led you to get tested for HIV?</p> <p>Feel ill and went to hospital and test was conducted....1</p> <p>Pregnant and fell ill, health personnel recommended....2</p> <p>Decided to voluntarily test to know HIV status.....3</p> <p>Relative or friend recommended that you test to know status....4</p> <p>Went with my spouse to test.....5</p> <p>Other(please specify).....6</p> <p>Have you told any body of your HIV status?</p> <p>1. Yes <input type="checkbox"/></p> <p>2. No <input type="checkbox"/></p> <p>If yes, apart, from yourself who else is aware of your HIV status? (Tick as applicable) Probe secondary sources.</p>	<p><i>Circumstances leading to HIV testing</i></p> <p><i>Disclosure of HIV status</i></p> <p><i>Person(s) aware of HIV status</i></p>
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14.	If No, skip to Q15		<i>Personal disclosure</i>																						
	<table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 50%;">Who Knows</th> <th style="width: 50%;">How Aware (1-Personally Disclosed, 2-From Secondary Sources)</th> </tr> </thead> <tbody> <tr> <td>1. Father</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>2 .Mother</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>3 .Brother</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>4. Sister</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>5. Uncle</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>6. Aunt</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>7. Husband/Sexual partner</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>8.Grand parent</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>9. Children</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>10. Other (Please specify)</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </tbody> </table>		Who Knows	How Aware (1-Personally Disclosed, 2-From Secondary Sources)	1. Father	<input type="checkbox"/>	2 .Mother	<input type="checkbox"/>	3 .Brother	<input type="checkbox"/>	4. Sister	<input type="checkbox"/>	5. Uncle	<input type="checkbox"/>	6. Aunt	<input type="checkbox"/>	7. Husband/Sexual partner	<input type="checkbox"/>	8.Grand parent	<input type="checkbox"/>	9. Children	<input type="checkbox"/>	10. Other (Please specify)	<input type="checkbox"/>	<i>Third party disclosure</i>
	Who Knows	How Aware (1-Personally Disclosed, 2-From Secondary Sources)																							
	1. Father	<input type="checkbox"/>																							
	2 .Mother	<input type="checkbox"/>																							
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	7. Husband/Sexual partner	<input type="checkbox"/>																							
	8.Grand parent	<input type="checkbox"/>																							
	9. Children	<input type="checkbox"/>																							
	10. Other (Please specify)	<input type="checkbox"/>																							
	<p>What was the immediate reaction of persons mentioned in (Q13) when they got to know you status?</p> <ol style="list-style-type: none"> 1. Informed other family members 2. Quarreled and Accused of promiscuity 3. Avoided sharing common household items 		<i>Reaction of persons aware of HIV positive status</i>																						

15.	<p>4. Immediate ejection</p> <p>5. Accepted and encouraged me</p> <p>6. Other (please specify).....</p> <p>If no, why not? (Please tick (✓) the most appropriate)</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <td style="width: 80%;">1. Fear of stigmatization/discrimination</td> <td style="width: 20%;"></td> </tr> <tr> <td>2. Fear of Divorce/Abandonment or neglect</td> <td></td> </tr> <tr> <td>3. Loss of economic support</td> <td></td> </tr> <tr> <td>4. Accused of Promiscuity</td> <td></td> </tr> <tr> <td>5. Fear of been beaten or abused emotionally</td> <td></td> </tr> <tr> <td>6. Disruption of family relationships/Disgracing the family</td> <td></td> </tr> <tr> <td>7. Other (please specify)</td> <td></td> </tr> </table>	1. Fear of stigmatization/discrimination		2. Fear of Divorce/Abandonment or neglect		3. Loss of economic support		4. Accused of Promiscuity		5. Fear of been beaten or abused emotionally		6. Disruption of family relationships/Disgracing the family		7. Other (please specify)		<i>Reason(s) for non-disclosure</i>
1. Fear of stigmatization/discrimination																
2. Fear of Divorce/Abandonment or neglect																
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5. Fear of been beaten or abused emotionally																
6. Disruption of family relationships/Disgracing the family																
7. Other (please specify)																
16.	<p>For those you personally disclosed your status to when did you do this?</p> <p>Immediately after diagnosis <input type="checkbox"/></p> <p>When opportunistic infections began to occur <input type="checkbox"/></p> <p>When you required a monitor in-order to access ARVs <input type="checkbox"/></p> <p>When you got terminally ill with AIDS <input type="checkbox"/></p> <p>If you personally disclosed your status, why did you decide to disclose your status?</p>	<i>Timing of disclosure</i>														

21.	<p>5. Continuous counselling support</p> <p>6. Other (please specify).....</p> <p>Who among your family network has been most judgmental of you since your status was discovered your status?</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="padding: 2px;">1. Father</td><td style="width: 30px; text-align: center;"><input type="checkbox"/></td></tr> <tr><td style="padding: 2px;">2. Mother</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td style="padding: 2px;">3. Brother</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td style="padding: 2px;">4. Sister</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td style="padding: 2px;">5. Uncle</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td style="padding: 2px;">6. Aunt</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td style="padding: 2px;">7. Husband/Sexual partner</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td style="padding: 2px;">8. Grand parent</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td style="padding: 2px;">9. Children</td><td style="text-align: center;"><input type="checkbox"/></td></tr> </table>	1. Father	<input type="checkbox"/>	2. Mother	<input type="checkbox"/>	3. Brother	<input type="checkbox"/>	4. Sister	<input type="checkbox"/>	5. Uncle	<input type="checkbox"/>	6. Aunt	<input type="checkbox"/>	7. Husband/Sexual partner	<input type="checkbox"/>	8. Grand parent	<input type="checkbox"/>	9. Children	<input type="checkbox"/>	<i>Most judgmental relations</i>
1. Father	<input type="checkbox"/>																			
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8. Grand parent	<input type="checkbox"/>																			
9. Children	<input type="checkbox"/>																			
22.	<p>In what ways has he/she/they been judgmental?</p> <ol style="list-style-type: none"> 1. Leaving me out of family affairs 2. Raining insults on me 3. Sharing my sero positive status with every body 	<i>Attitudes/behaviours of most judgemental relation(s)</i>																		

23.	<p>Are there any benefits of disclosing one’s HIV status?</p> <ol style="list-style-type: none"> 1. Perceived opportunities for social support 2. Improved access to necessary medical care including ART 3. Opportunities to discuss and implement HIV risk reduction with partners 4. To plan for the future of children 5. None 6. Other..... 	<i>Benefits of disclosure</i>
24.	<p>In your own view, which of the following is a major factor fuelling non-disclosure of an individual’s HIV status to especially close partners and family relations</p> <p>Stigmatization and Discrimination.....1</p> <p>Misinformation about modes of transmission..2</p> <p>Fear of divorce and neglect3</p> <p>Fear of violence.....4</p> <p>Inadequate psycho-social support and trauma counselling on the part of HIV counsellors.....5</p> <p>Gradual breakdown of extended family system..6</p> <p>Other(please specify).....7</p>	<i>Factors affecting non-disclosure of positive sero positive status</i>
25.	<p>Which of the following will serve as your greatest motivation to disclose your status?</p> <ul style="list-style-type: none"> • Duty to inform/educate others <input type="checkbox"/> 	<i>Greatest motivation to disclose one HIV positive status</i>

<p>26.</p>	<ul style="list-style-type: none"> • Emotional closeness and supportive relationship <input type="checkbox"/> • Financial security <input type="checkbox"/> • Other <input type="checkbox"/> 	
<p>27.</p>	<p>SECTION C: INTEREST IN KNOWING SEXUAL PARTNER(S) HIV STATUS</p> <p>Do you know the HIV status of your current sexual partner?</p> <ol style="list-style-type: none"> 1. HIV positive 2. HIV negative 3. I don't know 4. I don't want to say 	<p><i>Knowledge of sexual partner's HIV status</i></p> <p><i>Length of time to</i></p>

34.	<p>sexual relationship with your partner been affected generally?</p> <ol style="list-style-type: none"> 1. Inability to enjoy sex 2. Boredom of using condoms all the time 3. Partner taken a new boy/girl friend 4. Ceased having sex 5. Other (please specify)..... 	<i>Impact of positive status on sexual relationship</i>
35.	<p>By which means can HIV be passed on from one's sexual partner to the other?</p> <p>Through unprotected sex (sex without a condom)</p> <p>Through oral sex</p> <p>Kissing</p> <p>Hugging and caressing</p> <p>Sharing household items</p> <p>By sharing sharp objects</p>	<i>Knowledge of HIV transmission</i>
36.	<p>Before being aware of your HIV status, how often did you have sex with your partner?</p> <ol style="list-style-type: none"> 1. Daily 2. Once/ Twice a week 3. Once / Twice a month 4. Other (please specify)..... <p>Currently, how often did you have sex with your partner?</p>	<i>Sexual relations in past</i>
37.	<ol style="list-style-type: none"> 1. Daily 	<i>Nature of current sexual relations</i>

41.	<p>partners about their status?</p> <ol style="list-style-type: none"> 1. Mediating PLHIV peer counsellors to help with disclosure to sexual partners 2. Continuous counselling 3. Developing protective laws/policies against neglect and divorce 4. Continuous public education on stigma reduction against PLHIVs 5. Increase job opportunities for PLHIV <p>Other (specify).....</p>	
42.	<p>SECTION E: WRAP-UP</p> <p>Is there anything else you would like to add that you feel I have missed? Do you have any questions for me?</p> <p>FINISH</p>	

Thank you very much for talking to me. I appreciate the time that you have taken and your willingness to share quite personal information with me.

APPENDIX 3- FOCUS GROUP DISCUSSION GUIDE- FACTORS ASSOCIATED WITH DISCLOSURE OF HIV STATUS WITHIN RELATIONSHIPS.

My name is ETHEL O. SAKITEY and I'm conducting a study on **Factors Associated with Disclosure of HIV Status within Relationships**. Your participation in this survey is completely voluntary but is extremely important for the development of education and policies on HIV.

I also want to assure you that once you agree to participate any information you provide will only be used for research purposes and will be kept strictly confidential. I will engage you in some discussions on the issue; this will take between 30-45 minutes. I want to seek your permission to use a tape recorder in order to capture as much information as possible. Please do not mention any names in our discussion however feel free to share your experiences. What ever we discuss here remains here and nobody should take any issues out of our meeting. If any thing I ask you is not clear, please feel free to ask me to explain. - This is not an exam and there are no correct or wrong answers.

I can continue only with your permission.

[After agreement is provided say: I want to thank you for agreeing to take part in this study!]

Name of group interviewed: _____ Date: _____

Time discussion started: ----- Time ended ----- Facilitator -----

Participant summary: ----- Women -----Men

Socio-Demographic Characteristics

Ethnicity:

Religion:

Age:

Marital Status

1. What was/were the circumstance(s) that led you to get tested for HIV?
2. Has anyone told some body of their HIV status?
3. For those who have disclosed their status, what motivated you to disclose?
4. For those who have not yet disclosed their status, why not?
5. What was the immediate reaction of family relations when they got to know your status?
6. What was the outcome of your positive status disclosure?
7. Who among your relations has been most supportive to you since you knew your HIV status
8. In what ways has he/she/they been supportive?
9. Who among your family network has been most judgmental of you since your status was discovered your status?
10. In what ways has he/she/they been judgmental?
11. Are there any benefits of disclosing one's HIV status?
12. In your own view, what are the major factors fueling non-disclosure of an individual's HIV status to especially close sexual partners?
13. Do you know the HIV status of your sexual partners?
14. Are your partners aware of your status?
15. Have you ever talked about ways to prevent getting HIV with your partners or family?
16. Do partners generally agree to condom use all the time?

17. What do you do if your sexual partner disagrees to regular condom use during every sexual encounter?
18. How has your sexual relationship affected generally since you disclosed your HIV status?
19. What assistance is required to help PLHIVs (including yourself) inform close family relations and sexual partners about their status?

APPENDIX FOUR- INTERVIEW GUIDE

My name is ETHEL O. SAKITEY and I'm conducting a study on **Factors Associated with Disclosure of HIV Status within Relationships**. Your participation in this survey is completely voluntary but is extremely important for the development of education and policies on HIV.

I also want to assure you that once you agree to participate any information you provide will only be used for research purposes and will be kept strictly confidential. I will engage you in some discussions on the issue; this will take between 15-30 minutes. I want to seek your permission to use a tape recorder in order to capture as much information as possible.

I can continue only with your permission.

[After agreement is provided say: I want to thank you for agreeing to speak to me on the issue.]

1. In your estimation, what percentages of PLHIVs have disclosed their status especially to sexual partners?
2. What is motivating PLHIV to disclose their status to family relations?
3. In your own view, what are the major factors fuelling non-disclosure of an individual's HIV status to especially close sexual partners?
4. Who within the family network is most likely to receive the news of a positive HIV status?
5. What is usually the immediate reaction of family relations when they get to know about HIV positive statuses of their relations?
6. What is the outcome of a positive status disclosure?

7. Who among family relations are most supportive even after disclosure of a positive sero status?
8. In what ways are they supportive?
9. Who among the family network are usually most judgmental of PLHIV after disclosure?
10. In what ways are they judgmental?
11. Are there any benefits of disclosing one's HIV status?

12. Within sexual relationships who is more interested in knowing the other partner's HIV status? Men or women?
13. Do PLHIVs generally discuss ways to prevent partners and family members from getting HIV?
14. What do PLHIVs do to reduce HIV transmission to or from partners?
15. Are these methods effective in preventing HIV?
16. Do partners agree to condom use all the time?
17. What do you do PLHIVs do when their partners disagree to regular condom use during every sexual encounter?
18. How are sexual relationships of PLHIV affected generally after disclosure of a positive status?