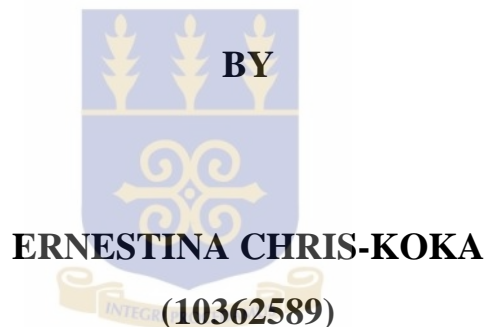


**SCHOOL OF PUBLIC HEALTH  
COLLEGE OF HEALTH SCIENCES  
UNIVERSITY OF GHANA, LEGON**

**FACTORS AFFECTING HIV COUNSELING AND TESTING AMONG  
TERTIARY STUDENTS IN THE HO MUNICIPALITY**



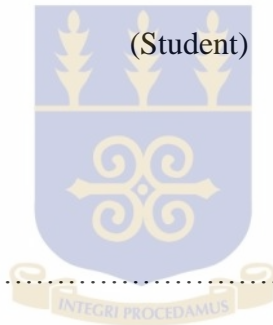
**THIS DISSERTATION IS SUBMITTED TO THE UNIVERSITY OF  
GHANA, LEGON IN PARTIAL FULFILLMENT OF THE REQUIREMENT  
FOR THE AWARD OF MASTER OF SCIENCE IN APPLIED HEALTH  
SOCIAL SCIENCE DEGREE**

**JULY 2012**

## DECLARATION

I, Ernestina Chris-Koka, declare that except for references to other people's investigation which have been duly acknowledged, this dissertation was the result of my own original fieldwork, and that this dissertation, either in part or completely has not been presented elsewhere for another degree.

.....  
Ernestina Chris-Koka  
(Student)



.....  
Dr. Phyllis Dako-Gyeke  
(Academic supervisor)

## ABSTRACT

### Background

HIV/AIDS continues to have a staggering impact on people's health and on the social and economic stability of nations. HIV Counselling and Testing is one of the key strategies in the prevention and control of HIV and AIDS worldwide. This study therefore sought to determine factors that determine the choice to test for HIV among tertiary students in the Ho municipality.

### Method

A quantitative cross-sectional study was conducted. Study population was divided into two strata (i.e. Ho polytechnic population and Ho nurses' training population) proportionately. Convenience sampling method was used to select respondents from the institutions. 358 questionnaires were administered. Data was edited, coded and statistically analyzed using SPSS16. Basic descriptive statistics was run (frequencies, percentages, and means). A bivariate analysis using binary logistic regression was done.

### Results

Findings from the study demonstrated that the choice to undergo HIV counselling is determined by several factors beyond factors that were examined in this study. There was no difference between those who have tested and those who have not tested with reference to their vulnerability to HIV, benefits of HCT, severity of HIV and barriers to HCT.

## Conclusion

Findings from the study demonstrated that the choice to undergo HIV testing is determined by factors beyond those examined in this study. There was no difference between those who have tested and those who have not tested with reference to their perceived vulnerability to HIV, benefits of HCT, severity of HIV and barriers to HCT. Again variables in the socio-demographics of the respondents did not show any impact on the choice to test for HIV.



## DEDICATION

This dissertation is dedicated to my ever-responsible parents, Mr. and Mrs. Chris-Koka and to a supportive uncle, Eric Koka.

To my parents, who's financial support over the years has brought me this far. Thank you for making it possible.

My uncle, Eric Koka, whose encouragement sustained me in times of difficulty during this programme. Thank you.



## **ACKNOWLEDGEMENT**

This dissertation was born out of the hard work of individuals to whom I will like to extend my unconditional gratitude for their contributions and efforts.

To Dr. Phyllis Dako-Gyeke, my supervisor, thank you for your guidance, encouragement, and support throughout this work.

To the Department of Social and Behavioural Sciences of the School of Public Health, University of Ghana, I say thank you for the knowledge they impacted on me.

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## LIST OF ACRONMYS

AIDS	Acquired Immunodeficiency Syndrome
BCC	Behaviour Communication Change
CITC	Client Initiated Testing and Counselling
CT	Counselling and Testing
GAC	Ghana Aids Commission
GDHS	Ghana Demographic Health Survey
GNA	Ghana News Agency
HBM	Health Believe Model
HIV	Human Immuno Virus
HND	Higher National Diploma
HTC-HIV	HIV Counselling and Testing
IE	Information Education
NACP	National AIDS Control Provider
PITC	Provider Initiated Testing and Counselling
TB	Tuberculosis

UNAIDS	United Nations Agency for International Development
UNGASS	United Nations General Assembly Special Session
USA	United States of America
WHO	World Health Organization

## CHAPTER ONE

### 1.0 Background

HIV/AIDS is one of the world's leading infectious killers, claiming more than 25 million lives over the past three decades that continues to have a staggering impact on people's health and on the social and economic stability of nations. Since the discovery of the pandemic in the early 80s more than 33 million people across the world have been infected with HIV, but close to sixty percent of them are unaware of their status (WHO, 2010). According to WHO (2010), almost 3 million new infections occur each year.

Globally over 30 million adults between the ages 15-49 are living with HIV, 16.8million women and 3.4 million children under fifteen years of age according to UNAIDS, (2010). Incidence is accelerating in Eastern Europe and Central Asia after having slowed in the early 2000s, and infections are on the rise in the Middle East and North Africa. (UNAIDS, 2010). Africa disproportionately bears the burden of the HIV/AIDS pandemic. Although only 11% of the world's population lives in Africa, roughly 67% of those living with HIV/ AIDS are in Africa (UNAIDS, 2008).

According to UNAIDS Global AIDS Epidemic Reports, in 2010 there were an estimated 22.9 million people living with HIV in sub-Saharan Africa an increased from 2009, when an estimated 22.5 million people were living with HIV. In 2010, around 1.2 million people died from AIDS in sub –Saharan Africa. HIV / AIDS have less affected West Africa, but some countries are experiencing rising HIV prevalence rates. In Cameroon HIV prevalence is now estimated at 5.3% and in Gabon it stands at 5.2%. In Nigeria,

HIV, prevalence is low (3.6%) compared to the rest of Africa. However, because of its large population (it is the most populous country in sub-Saharan Africa), this equates to around 3.3 million people living with HIV (UNAIDS, 2010).

The consequences of the AIDS epidemic are widely felt, not only in the health sector but also in education, industry, agriculture, transport, human resource and in the economy in general. In many sub-Saharan African countries, HIV/AIDS has erased decades of progress made in all these sectors as it is most prevalent amongst those aged between 15 and 45. By affecting this age group so heavily, AIDS is hitting adults in their most economically productivity years and removing the very people who could be responding to the crisis (UNAIDS, 2008). The AIDS epidemic in sub-Saharan Africa continues to devastate communities, rolling back decades of development progress (UNAIDS, 2008). The impact that AIDS has had on the economies of African countries is difficult to measure. The economies of the worst affected countries were already struggling with development challenges debt and declining trade before the epidemic started to affect the continent. Rosen (2004) acknowledges that HIV/AIDS has affected households income negative by incapacitating members to become caregivers thereby perpetuating the cycle of poverty as it is estimated that on average, HIV-related care can absorb one-third of a household's monthly income.

In all heavily affected countries, the epidemic is putting strain on the health sector. Hospitals are struggling to cope, especially in poorer African countries where there are often too few beds available. This shortage results in people being admitted only in the

later stage of illness, reducing their chances of recovery. As the epidemic develops, the demand for care for those living with HIV rises, as does the number of health care workers affected. AIDS is causing an increased demand for health services. Large numbers of healthcare professionals are being directly affected by the epidemic. Botswana, for example, lost 17% of its health care workforce due to AIDS between 1999 and 2005. A study in one region of Zambia found that 40% of midwives were HIV positive (WHO, UNAIDS, UNICEF, 2011).

The relationship between AIDS and the education sector is circular – as the epidemic worsens, the education sector is damaged, which in turn is likely to increase the incidence of HIV transmission (UNDP, 2011). There are numerous ways in which AIDS can affect education, but equally there are many ways in which education can help the fight against AIDS. Children may be removed from school to care for parents or family members, or they themselves may be living with HIV. They are numerous barriers to school attendance in Africa. Many are unable to afford school fees and other such expenses- this is particularly a problem among children who have lost their parents to AIDS, Studies have suggested that young people with little or no education may be around twice as likely to contract HIV as those who have completed primary education. The extent to which schools and other education institution are able to continue functioning will influence how well societies eventually recover from the epidemic. This in itself will have an effect on HIV prevention, as a good, basic education ranks among the most effective and cost-effective means of preventing HIV. Furthermore, Teachers who are affected by HIV/AIDS are likely to take periods off work. Those with sick families may

also take time off to attend funerals or care for sick or dying relatives, and further absenteeism may result from the psychological effects of the epidemic. (UNDP, 2011)

The first HIV /AIDS case in Ghana was detected in 1986. Although the current prevalence is low at 1.9% in 2009, it is firmly established within the whole society, and sub populations with high prevalence and risk of transmission that constitute a reservoir for sustaining the epidemic. The estimated number of persons living with HIV/AIDS in Ghana in 2009 was 267,069, made up of 154,612 females and 112,457 males giving a female: male ratio of 1: 4:1. Reports from the HIV Sentinel Survey 2010 further indicated that in the same year, there were 25,666 children living with HIV/AIDS and an estimated 3,354 children newly infected.( NACP, 2010) The annual AIDS deaths were 20,313. Reports from HIV Sentinel Survey 2010 indicated that Ghana's epidemic has been characterised by a relatively high prevalence in urban sites compared to rural sites. The gap between urban and rural median prevalence however narrowed from about 39% in 2009 to 33% in 2010. Despite the almost 30% decrease in HIV prevalence in Ghana's young population the data shows an increasing prevalence with age.

According to the 2010 HIV Sentinel Survey Report from the National AIDS Control Programme, HIV prevalence in 2010 ranged from 0.4% in Krachi and Adibo to 7.8% in Agomanya. Report from ( NACP,2011) all regions except Upper East witnessed a drop in prevalence by 40% from 2009; Fantekwa relinquished its persistent position as the rural site with highest prevalence in previous surveys whilst North Tongu moved from the least 0.7% in 2009 to the fourth highest position 1.9% in 2010, constituting 171%

increment. Agomenya is still the urban site with the highest HIV prevalence. The 2011 sentinel survey report reveals the country's current prevalence stands at 1.5 percent and that the median HIV prevalence rate for 2011 was 2.1 percent, which was a marginal rise of 2.0 percent for 2010. (NACP, 2011)

The prevalence rate of HIV in 2011 ranged from 0.0 percent in Adibo representing the rural in the Northern region 9.6 for Cape Coast for the urban in the central region. The sentinel report indicated that five regions; Central, Eastern, Greater Accra, Ashanti and Volta recorded an increase in HIV prevalence whilst Brong Ahafo prevalence remained the same and while the remaining four regions recorded a decrease from their 2010 figures.. According to the same report Central region recorded 4.7 per cent in 2011 as against 1.7 percent in 2010, Eastern region recorded 3.6 percent in 2011 as against 3.4 percent in 2010, Greater Accra recorded 3.2 percent in 2011 as against 2.6 percent in 2010, and Ashanti recorded 3.1 percent in 2011 as against 3.1 percent in 2010 whilst the Volta region recorded 2.2 percent as against 1.8 percent. A linear trend analysis of Ghana's prevalence since 2000 shows a declining epidemic despite the marginal increase observed in the 2011 prevalence (NACP, 2011).

High-risk groups in the population are sex workers, prisoners, and injecting drug users. Sex workers and their clients may act as the bridge to population for transmission to the general population. According to UNAIDS 2010, a study conducted in three prisons in Accra and Nsawam revealed high prevalence among inmates (19%), the most likely

cause of which was sex between men, followed by injecting drugs. Prevalence among officers at the prison was 8.5%.

As with many countries with high prevalence of HIV, the disease has had a significant economic impact on the country and its population at both a societal and individual level. (UNFPA, Ghana Profile, 2003)The HIV epidemic's potential impact on Ghana's economy is considerable. There are three primary ways by which disease hinders economic well-being: a reduction in life expectancy resulting in both early death and economic disability, a reduction in parental investment in children and, lastly, the overall negative effects on returns on investments in business and infrastructure. Some of these outcomes can be seen in Ghana where the negative economic and social effects of HIV run across multiple sectors including both public and private labour, the healthcare system, education, and agriculture. By 2014, 1.2 million people (25million to 23.8 million) will reduce projecting present infection rates, Ghana's population. The majority of these will be among people in their most productive ages between 15 and 49 years of age. Without intervention, HIV prevalence is likely to increase, leading to increased morbidity and mortality because of AIDS (UNFPA, Ghana Profile, 2003).

There is thus need for HIV Counselling and testing as a strategy for reduction of HIV infections (UNAIDS 2010). HIV Counselling and Testing is the process by which an individual undergoes counselling to enable him or her to make an informed choice about being tested for the human immunodeficiency virus (HIV). Different views have been expressed on the need for HIV Counselling and Testing. On one hand, some argue that

knowledge of HIV status influences people to practice safe sex behaviours, (Fiaveh, 2011b; MacPhail et al., 2009). On the other hand, some think that a positive HIV test results is a death sentence and that many people would rather not know their HIV status (Fiaveh; 2011a, Lakas et al., 2005) to this pundit people are afraid to know their HIV/AIDS status.

The declaration of commitment which resulted from the United Nations General Assembly Special Session (UNGASS) on HIV and AIDS in June 2001 highlighted the pressing need for countries to either develop or scale up voluntary counselling and testing services. It noted the participating nations' commitment to: 'by 2005, ensure that a wide range of prevention programmes is available in all countries, including expanding access to voluntary and confidential counselling and testing'. (UNAIDS, 2002)

Models of HCT services delivery in some key thematic areas such as mother- to-child prevention (MTCT), tuberculosis (TB) and youth friendly services have been sprouting up in the Southern African region over the last few years. Knowing and accepting one's HIV and status enables more informed planning for the future, including for one's dependents. Programme experiences have also shown that HCT is one of the factors that help to reduce stigma and secrecy surrounding HIV and AIDS. Government and international donors are strengthening their technical and financial support to improve quality and coverage of HCT services.( UNAIDS,2002).

## **1.1 Statement of the Problem**

The past decade has seen a rapid global scale-up of HIV Testing and Counselling (HTC) through a variety of approaches, including provider- initiated testing and counselling (PITC) as part of medical care, and client- initiated testing and counselling (CITC), often called Voluntary Counselling and Testing (VCT) (WHO, 2010).

HIV Counselling and Testing is one of the key strategies in the prevention and control of HIV/AIDS in Ghana. The potential of reducing HIV/AIDS in Ghana is undermined by the low patronage of counselling and testing. (21% of women and 14% of men) (GSS, 2010). Even among those who use HIV counselling and testing, seventeen percent (17%) of women and 12 (12%) of men returned for their results. A study conducted in the University of Ghana to determine HIV counselling, testing among men in 2011 revealed that counselling, and testing among men was 19%. Of those who tested, the major barriers to counselling and testing were due to fear of receiving an HIV positive result, non-regular use of condom. Some respondent said they did not want to know their HIV/AIDS status (Fiaveh et al, 2011).

Majority nearly ninety percent (90%) of infections in Ghana is within the age group of 15 to 49 years (NACP, 2009a).The 2011 HIV sentinel report revealed that the declining HIV prevalence in Ghana's young population witnessed over the past few years was reversed in the 2011 survey report. Prevalence among young persons aged 15-24 years, which was used as a proxy for new infections was 1.7 percent as against 1.5 percent in 2010. Similarly, according to WHO report on Global trend of the HIV and AIDS epidemic,

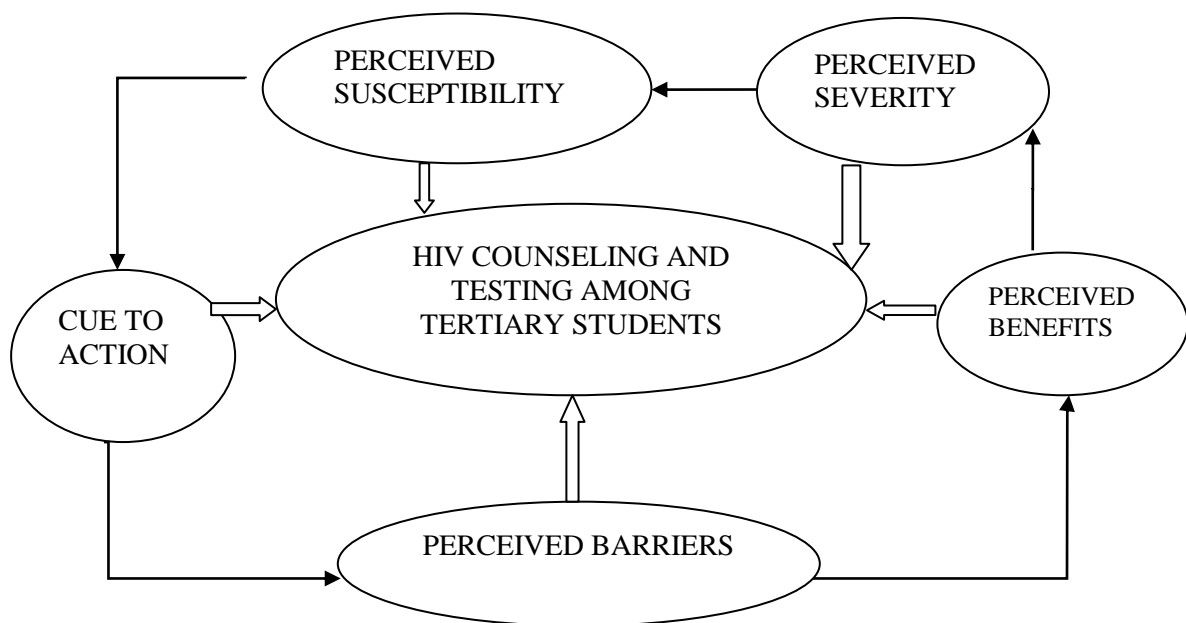
more than ninety percent (90%) of HIV is among adults 15 to 49 years, which coincides with the age group of majority of the tertiary student population in Ghana. Tertiary students within the Ho municipality fall within this age bracket and therefore will be an appropriate study population. Pointing to the facts above, it is important to carry out a research to ascertain students counselling and testing status and factors affecting it in order to help minimize the infection rate in this cohort.

## **1.2 Conceptual Framework**

The development of the conceptual framework for this study was guided by the health belief model (HBM). The model was adopted from a study done in Ethiopia to assess the perception of high school students towards voluntary counseling and testing. The study employed the six variables of the model for the study. This is a psychological model that attempts to explain and predict health behaviors. In this study HBM was used to explain the health behaviors of students regarding HIV Counseling and Testing. This is done by focusing on the attitude and belief of individuals. The HBM was first developed in the 1950s by social psychologists, Hochbaum, Rosenstock, and Kegels working in the U.S.A Public Services. This model was developed in response to the failure of a free tuberculosis (TB) screening programme in U.S.A. Since then, the HBM has been adopted to explore a variety of long and short term health behaviors, including sexual risk behaviors and the transmission. The constructs of the model which includes perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cue to action and self-efficacy was to assess the factors affecting counseling and testing of HIV among the study participants. For the purpose of this study, self-efficacy was not tested.

Five of the six constructs of the health belief model was used in this study. Perceived susceptibility will explain participants perceived level of risk of acquiring HIV. Perceived severity is a construct of HBM which was used to assess the student's perceived serious consequences of HIV infection. Again perceived benefit was used to determine if students think counseling and testing of HIV is of any benefit. The study again assessed the perceived barrier which inhibits counseling and testing of HIV. Cue to action was used to determine external event that promotes counseling and testing. These constructs was to determine the societal and individual level factors that affect HIV counseling and testing among participants.

**Figure 1: Conceptual framework of the Health Believe Model**



### 1.3 Significance of the Study

The general scare of HIV and the fact that most of its nationwide victims are between the ages of fifteen and forty-nine is a matter of concern. Since this is the most economically

productive segment of the population that is being trained to steer the country towards its growth and development, illness and death in this age group constitute an immense economic burden. The result is a huge loss of productive years and investment in education and training (Oti-Boateng, 2006). Ghana has identified counselling and testing as one of the strategies to respond to the HIV AIDS prevention and control. (GAC, 2010). CT is more than drawing and testing blood and offering a few counselling sessions. It is vital point of entry to other HIV/AIDS services, including prevention of mother-to-child transmission, prevention and clinical management of HIV related illnesses, tuberculosis control, and psychological and legal support.

Access to information on ones HIV status is a human right as well as public health measure. People have the right to know their HIV status so they can protect themselves and others from infection, improve their health care and plan for their future. CT services provide a supportive venue for learning this essential health information. This is therefore a need to make CT accessible to those who need it and to expand and render it more acceptability, innocuous, and less expensive (Oti-Boateng, 2006).

Counselling and Testing provides benefits for those who test positive as well as those who test negative. CT alleviates anxiety, increases clients perception of their vulnerability to HIV, promotes behavioural change, facilitates early referral for care and support including access to anti-retroviral therapy and assists in the reduction of stigma (Oti-Boateng, 2006). Counselling and Testing offers a health approach that can address

HIV in the broader context of people's lives, including the context of poverty and its relationship to risk practice.

The HIV rates among tertiary students in the municipality are unknown. However, majority of members of this segment of the population are youthful and belong to the Ghanaian population, which is the vulnerable group (NACP, 2009) Therefore, the findings of this study will serve as documentation, which will reflect the CT status of the students in the municipality. Findings from the study will aid in policy making and introduction of appropriate interventions towards counselling and testing among this population. This study therefore intends to increase awareness of CT and to encourage students to get to know their HIV status to enable them make inform choices about their sexual behaviours.

## CHAPTER TWO

### 2.0 LITERATURE REVIEW

#### **HIV Counselling and Testing**

HIV Counselling and testing is an integrated process in which individuals make an informed decision about undergoing an HIV test after receiving adequate counselling. The counselling is intended to help them better cope with their HIV status whether it be HIV positive or HIV negative. Since 1985 when the test became available, it was hoped that testing of individuals would always follow the principles of what the Joint United Nations Programme on HIV/AIDS (UNAIDS, 2010) and the World Health Organization (WHO) refer to as the 3Cs, that is carried out with informed and voluntary consent, accompanied by counselling, and with all aspects of the individual session and results being kept strictly confidential.

Voluntary counselling and testing involves two sessions: one prior to taking the test known as pre-test counselling and then following the HIV test when the results are given, often referred to as post test counselling.( UNAIDS, 2010). Counselling focuses on the infection HIV, the disease AIDS and the positive behavioural change. HIV Counselling and Testing became popular in many parts of Africa as a way for a person to learn their HIV status. HIV Counselling and Testing centres and counsellors often use rapid HIV test that require a drop of blood or some cells from the inside of one's to check; the tests are cheap, require minimal training and provide accurate results in about fifteen minutes.(WHO,UNAID,,2007). In 2007, WHO and UNAIDS issued guidance on providers- initiated HIV testing and counselling (PITC) in health facilities to support

increase uptake and improve access to HIV prevention, treatment and care. HIV counselling and testing (HCT) is a clinical entry point to life-sustaining care for people with HIV, a key element of treatment and essential for prevention of vertical HIV transmission. The provision of HCT has become easier, cheaper, and more effective because of the introduction of rapid HIV testing, which allows individuals to receive a test and the results in the same day. Various different strategies to increase access to HCT have been tried out. Mobile testing, where tests are performed in a vehicle that travels to different places, is more accessible for some communities. Additionally, a study has found that inviting people personally and offering them incentives such as food vouchers, can reach people who are less likely to otherwise decide to be tested. However, HCT needs to be made more widely available in most sub-Saharan African countries. Two studies from sub-Saharan Africa (Godfrey- Faussett, 2005) have shown that HCT can be an appropriate site for screening and testing people who test seropositive for active TB, and provide Tuberculosis prevention therapy (TBPT) to those without active TB.

The individual seeking testing (the client) initiates HCT as opposed to HIV testing that is initiated by a healthcare provider. Provider initiated testing and health care providers recommend counselling (PITC) to persons attending health care facilities as a standard part of medical care, usually being offered to those with symptoms or signs of illness that may indicate the presence of HIV disease. HCT emphasizes individual risk assessment and work with counsellors trained to address issues such as sexuality and allows for the development of individual risk reduction strategies. The location of HCT sometimes

referred to as client- initiated HIV testing and counselling, and is not limited to health but can be offered in a large variety of settings and situations.( UNAIDS, 2007).

HCT is a service, which can be offered and accessed at sites provided by the government/ public sector, non- governmental organizations and the private sector. (WHO, 2007). Settings can include freestanding HCT sites, integration into hospitals and through organizations. An increased role may be seen in the private sector due to the presence and use of simple, rapid HIV tests. HIV counselling is a private conversation between a counsellor and a client, enabling the individual to confront the possibility of HIV in their life, as well as cope with social pressures and personal emotions in order to make educated decisions about HIV and AIDS concerns.

HIV counselling consist of pre-test counselling (sometimes provided in a group situation) and individualized post- test counselling at the time the positive or negative results is given. It is standard that post test counselling be done only between the counsellor and the client but sometimes is offered to couples or families.( WHO,2007). The counselling is non-judgmental, supportive and provides relevant referral services, such as treatments and care, and support groups. Clients testing HIV negative are counselled in ways to remain negative, those testing HIV positive are counselled in ways to help them protect themselves from HIV re-infection and STI and how best to protect others from HIV transmission, in addition to receiving referrals for follow up care, support and treatment.

There are a number of essential elements of HCT described by UNAIDS and WHO. These include informed consent, confidentiality, and pre- and post- test counselling. Due to the impact of the result on the individual undergoing testing, including stigmatization and other negative outcomes in many communities, the voluntary nature of the testing is a critical prerequisite to informed consent. WHO (2007) outlined three critical components of informed consent; pre-test information on the purpose of testing, the treatment and support available following the result, ensuring understanding and respecting the individual's autonomy. One study in South Africa amongst peri-natal clinic attendees found that clients were informed, but felt compelled to test and thus the testing was therefore not voluntary.

Many approaches to HIV prevention and care require people to know their HIV status. The importance of HIV counselling and testing has brought about the wider promotion and development of HCT services. However, UNAIDS (2011) reported that since the majority of countries where HIV has major impact are also the poorest, and the lack of resources has meant that HCT is often still not widely available. The primary aim of HCT is preventive, that is to help people change their sexual behaviour so as to avoid transmitting HIV to sexual partners if seropositive, and to remain seronegative if negative. Therefore, many studies that try to assess the effectiveness of HCT have looked at changes in reported sexual behaviour following testing. HIV counselling and testing enables people with HIV to seek emotional, social, and medical care, and in areas of limited resources allows services to be channelled appropriately. It also enables people who test seronegative to access suitable support and services. (UNAIDS, 2001)

UNAIDS, WHO and other international agencies have long engaged in the global promotion of HCT programmes. Numerous HCT- related policy documents, implementation plans, monitoring and evaluation guidelines, training materials and evidence-based studies are readily available. These include ways countries may identify and overcome their own unique challenges during the start-up and the scale- up of HCT services. These programmes initially focused on HIV diagnosis for symptomatic persons to increase access to antiretroviral therapy or treatment (ART); however, it has become both feasible and urgent to promote utilization of services among high risk population, and the general population to support comprehensive prevention efforts.

### **Benefits of HIV Counselling and Testing**

UNAIDS in 2011 described five goals of HIV counselling and testing which are; the prevention of HIV transmission and acquisition, early and appropriate uptake of services, societal benefits and counselling for adherence. Prevention of HIV infection includes both the prevention of transmission from HIV positive to HIV negative partners as well as the prevention of mother to child transmission. Early and appropriate uptake of services targeting HIV positive persons includes access to medical care. Societal benefits include the normalization of HIV, decreasing stigma, improving awareness and the support of human rights. Lastly, counselling for adherence seeks to ensure adherence to ARV and other therapies (where available), enhance the ability to cope with side effects and offer counselling regarding adherence in PMTCT interventions.

In industrialized countries, the development of high active antiretroviral therapy has had a dramatic effect on the long-term survival of people with HIV. This has meant that there is great benefit for people with HIV to be aware of their seropositive status, and for people with HIV-associated illnesses. UNAIDS (2011) also recorded that another advantage of people knowing their HIV status is that it allows seropositive people and their families to benefit from social support services at an earlier stage. This may help them to cope with their HIV infection and to have a better quality of life.

HIV Counselling and Testing has long been a component of HIV prevention and care efforts. For over twenty years, clients-initiated HIV testing and counselling also known as VCT, has helped millions of people learn their HIV status (UNAIDS, 2008). Nevertheless, global coverage of HIV counselling and testing programmes remains low. Efforts are urgently needed to increase the provision of HIV testing through a wide range of effective and safe options as UNAIDS (2008) estimated that less than 10% of people living with HIV are aware of their HIV sero-status. This is mainly because of limited access, availability, and use of HCT services as well as stigma and discrimination towards people living with HIV/AIDS.

Global consensus exists that greater knowledge of HIV status is critical to expanding access to HIV treatment, care, and support in a timely manner, and offers people living with HIV an opportunity to receive information and tools to prevent HIV transmission to others. HIV testing needs to be strongly grounded in human rights in order to ensure that

people are able to obtain the full benefit of learning their HIV status and receive the best and most ethical care, diagnosis, and treatment in health settings. (UNAIDS, 2008)

WHO's interventions for prevention focused on key areas such as counselling and testing as an entry point to prevention and comprehensive programmes to prevent HIV/AIDS infection among infants, women, and young people. More than 95 million HIV tests were performed in 2010 in 119 low and middle-income countries (WHO, 2010). Studies indicate that overall coverage of counselling and testing is extremely poor in countries with highest prevalence. Only 5% of people with HIV/AIDS are estimated to be aware of their status sub-Saharan Africa.

In Africa, where AIDS has had its most devastating impacts and prevalence continues to rise, there is a crucial need for effective and feasible interventions for HIV risk behaviour change. Increasingly, expansion of HIV counselling and Testing (HCT) has been advocated as a central component of public health efforts to bring down HIV incidence. Although only small minorities of adults in Africa are currently aware of their HIV status, many governments hope to change this by expanding access to counselling and testing. (WHO, 2009). Evaluations of HCT in Africa to date have focused on measuring the efficacy of HCT in changing risk behaviours of study participants or clients at HCT centers, usually in environments where the services were relatively new. They have not been concerned with what is the broader question of interest: the impacts on prevention behaviour and ultimately HIV incidence in the target population.

More than 30 years into the epidemic, it is striking that nearly 80% of HIV- infected adults in sub-Saharan Africa are unaware of their HIV status and more than 90% are unaware of their partners' status (UNAIDS,2008). Nationally representative data from east Africa suggests that 40-50% of married HIV- infected individuals have an HIV- uninfected spouse and most do not know their own or their partners status and do not understand that HIV discordance can exist within couples. Because most infected people are not diagnosed, they do not benefit from HIV care and treatment, circumcision of male partners who are not infected, condom use, or other interventions with proven efficacy for reducing, HIV-transmission risk. Despite this low level of testing, less than 10% of projected prevention programmes and funding are directed towards HIV testing (UNAIDS 2008).

It is commonly believed that HIV testing is essential for diseases prevention. Indeed, spending on counselling and testing accounts for over half of the total expenditures on HIV prevention in some African countries. (UNAIDS, 2008) Despite this, there is evidence that even when testing is available most people do not take advantage of it, and there is virtually no evidence on the behavioural response to knowing ones status. In an expected utility framework, the benefits for learning HIV status are positive to the extent that people change their behaviour. Those diagnosed negative can practice safe sex to protect them from future infection, those diagnosed positive can seek treatment, and can prevent spreading the virus to children or sexual partners. Furthermore, all individuals are able to accurately plan. However, while there may be strong motivations for testing and acquiring the results for treatable diseases or STIs, these incentives may be sent for HIV

because there is no cure. Moreover, in low-income countries the access to anti-retroviral therapies is limited, further reducing the incentive to learn HIV results. (UNAIDS.2008).

The cost of testing and travels also prevent individuals from learning their HIV status although utilization rates are low even when testing services are free or low-cost. For example, while 90% of the population in Malawi reported wanting to have a free HIV test, only 9% of individuals actually reported have been tested (Malawi DHS 2008). Moreover, even when individuals choose to be tested for HIV, many do not return for their results: approximately only 65% of individuals who tested for HIV return for their results in testing canthers in Africa and the United States (Cartoux et al, 1998). It is therefore commonly suggested that psychological costs are important, perhaps crucial, barriers to testing and learning results. The psychological associated with learning HIV results can be either internal, such as having stress, worry or fear or external such as experiencing stigma or social pressures.

Underlying the emphasis on HIV testing for prevention and the large scale expenditure on testing are two rarely challenged assumptions. First many believe that knowledge of HIV status has positive effects on sexual behaviour that could prevent the spread of the disease. In particular, it is assumed that those diagnosed HIV negative will take precautions to protect themselves from infection and those diagnosed HIV positive will take precautions to protect others. Second, many believe that it is difficult to get people to learn their HIV status, due primarily to psychological or social barriers (UNAIDS, 2007).

UNAIDS has outlined aspects of these barriers including stigmatization and social rejection of those testing positive, as well as gender inequalities which could lead to the abuse of women and discrimination. Vermond and Wilson (2006) also describe the following barriers to HIV counselling: fear of adverse consequences, lack of expectation of benefits, no perception of HIV risk, cultural norms that are opposed or hostile to testing, unavailability of the HIV test, absence of guarantees of confidentiality, cost, inconvenience, personal isolation and a lack of provisions for testing couples or social support. They also propose possible intervention to circumvent these barriers: offer routine, cheap, convenient testing, offer testing as a standard public health intervention, offer testing of couples with support, offer testing in combination with other services, encourage social norms to shift towards acceptance and support of those testing positive and ensuring privacy and confidentiality.

A number of countries in the region have implemented national campaigns to encourage uptake of HIV testing, Botswana, Kenya, Uganda, Malawi and Rwanda are some of the countries that have conducted testing campaigns that increased the number of people tested in 2010. Successful experiences from many countries suggest that VCT has played an important role in reducing high risk behaviours, especially unsafe sex. (Cartoux et al, 1998) For example studies in Kenya, Rwanda, Thailand, Uganda, and Zambia demonstrated significant increases in condom use among men and reduction of sexual partners among women after accessing VCT services. Also, findings in Kenya, Tanzania, and Trinidad found that high quality, anonymous, client-centered; HIV counselling and testing helped reduce HIV risk behaviour, and is affordable and cost-effective in

developing country settings. Overall, nearly six million people aged over 15 years, received HIV counselling and testing with 469 per 100,000 individuals over 15 years receiving this in 2010, a total of 2.4 million individuals (Cartoux et al, 1998)

In South Africa, according UNAIDS (2010), the number of people receiving HIV testing and counselling has significantly increased in recent years as the result of the government national HIV testing and counselling in 2010 revealed that this was more than 65 million, this is notably less than in 2009 when nearly 7 million people received testing and counselling. Across sub Saharan Africa, it is estimated that 82 tests per 1000 people were carried out in 2010 (UNAIDS, 2011).

Many studies have shown that a significant proportion of couples in steady relationships have serodiscordant HIV test results. This highlights that married adults, particularly women with seropositive partners, are at very high risk of HIV infection. Married couples should be encouraged to go for HIV counseling together so that serodiscordant couples can be identified and counselled to help overcome the problem of sharing test results. Couples counseling and testing is aimed at enabling the couple to negotiate appropriate changes in sexual behaviour together (Aisu,2005). It also helps them plan together for their future and that of their dependents with support from their counsellor at both pre- and post test. Couples seen together can be counselled to avoid blame and prepared, prior testing, to make risk assessment and redaction plans together.

In Kenya, where nearly 500,000 untested HIV-uninfected people live with an HIV-infected partner, a multipronged strategy to expand HIV testing, which includes provider-initiated home-based and clinic-based testing with an emphasis on couples has been adopted to help unmask discordance within couples and to reduce risk interventions for non-cohabitating couples and for those with concordant HIV status. Guidelines and training for couples who seek HIV counseling and testing have been developed, emphasizing that testing should be voluntary, involve mutual disclosure, and include counsellor support to minimise negative social consequences. Such HIV counseling and testing can alleviate potential disclosure challenges and provide HIV discordant couples with counseling support to understand discordance and develop plans for risk reduction outcomes in terms of changing behaviour to prevent HIV transmission to negative partner (Aisu,2005).

### **Barriers to HIV Counselling and Testing**

Barriers to HIV testing do exist as UNAIDS has outlined aspects of these barriers including stigmatization and social rejection of those who test positive, as well as gender inequalities which could lead to the abuse of women and discrimination. Fear of adverse consequences, lack of expectation of benefits, no perception of HIV risk, Cultural norms that are opposed or hostile to testing, unavailability of the HIV test, absence of guarantees of confidentiality cost, inconvenience are also some of the barriers to testing. A study from Lusaka, Zambia, (Baggaley 2007) showed that while many people expressed worries about sharing HIV test results, with time, the majority- both men and women were able to tell someone about their status. There was no significant difference between

those testing seropositive or seronegative. Few said that they had experienced difficulties following disclosure. However, less than 50% of people with positive results were able to tell their sexual partners (Baggaley 2007). A very small percentage. (5%) of partners subsequently came for counselling and testing. Inability to discuss HIV test results with a sexual partner makes adopting safer sex practices more difficult.

A study done in Ethiopia to assess perception of high school students towards counselling and testing using the health belief model revealed that ninety-seven percent (97%) of students had heard of CT but less than one fifth of the students had undergone CT. The majority of students had heard about CT and revealed willingness to undergo CT. Those with High perceived susceptibility and barriers were not willingness to undergo CT. On the other hand, students with high-perceived benefits showed better willingness to undergo CT (Abiy et al, 2009).

In most of the tertiary institutions are situations whereby everybody is aware of HIV/AIDS. Despite high level of awareness of HIV/AIDS, the risky sexual behaviour is still ongoing (Omorie, 2002). In a research conducted on fresh students of tertiary institutions in River states in Nigeria, 57% have had sex without condom 42.1% have multiple sex partners. The study affirmed that sex is a phenomenon currently ravaging higher institutions in Nigeria as many students are engaged in premarital and heterosexual relationships on campus (Magnus & Gbakeji, 2009). A study conducted among mineworkers in South Africa showed that fear of testing positive for HIV and the

potential consequences; particularly stigmatization, disease, and death were the major barriers to CT.

The use of CT in Ghana as a whole is still minimal (GDHS, 2010). Among those who use HIV counselling and testing in Ghana, only 17% of women and 12% of men return for their results. Currently the majority of people are still unaware of their HIV status. A study conducted among men of the University of Ghana in 2011 revealed that CT use among men was 19%. Of those who used CT, 84% did so voluntarily.

## **2.1 OBJECTIVES**

### **2.1.1 Main Objective**

The objective of this study was to determine factors that affect the choice of HIV Counseling and Testing Tertiary students in the Ho Municipality.

### **2.1.2 Specific Objectives**

The specific objectives of the study included:

- Assessing students' perception and knowledge about Counselling and Testing.
- Examine factors that determine choice to test for HIV among students.

## **CHAPTER THREE**

### **3.0 METHOD**

#### **3.1 Study Design**

The study was a quantitative cross-sectional survey. A cross section of tertiary students from Ho polytechnic and the Ho Nurses training college were given structured questionnaires to complete. Convenience sampling method was used in the selection of the study participants.

#### **3.2 Study Area**

The Ho municipality was the site for this study. According to the HIV Sentinel Report, HIV prevalence in the region was one of the lowest in the country (2.2 %) in 2011 and as such, this study was intended to find out the impact of counselling and testing. The municipality is the administrative capital of the Volta region. It is the largest in the region with a population of 225,026 (GSS, 2011). The municipality has four sub districts; Tsito, Kpedze- Vane, Nyive-Shia and Abutia. Four tertiary institutions are located within the municipality namely Ho Nurses Training College, Presbyterian University College, University of Allied Health, and Ho polytechnic.

#### **3.3 Study Population**

The target population was tertiary students in the Ho municipality. The source population was students in Ho polytechnic and Ho nurses training college both located within the Nyive- Shia sub district. The polytechnic was established in 1968 as a technical

institution with the primary objective of providing pre-technical education. The institution became a polytechnic in 1986, but remained a second cycle institution. It was upgraded to a tertiary institution in 1993 and charged with the responsibility of training students in technical and vocational disciplines up to the Higher National Diploma (HND). The population of the student stood at five thousand at the time of the study. The Ho Nurses Training College is a public tertiary institution in the Ho Municipality. The activities of the institution are supervised by the Ministry of health. The University of Ghana awards a diploma in Nursing after students have completed a three year nursing training programme. The students' population stands at 420 students at the time of the study. This puts the total population for the study at 5,420.

### 3.4 Sample Size Determination

The level of confidence used was 95%  $Z_{\alpha/2}$  with a 5% margin of error ( $d=0.05$ ). Since there is no previous study conducted in this specific study population with regard to the topic, 50% CT for HIV prevalence was assumed ( $P=0.5$ ). Based on the assumptions, the actual sample size for the study was the formula:

$$N = \frac{Z^2 \alpha/2 \times P (1-P)}{d^2}$$

$$N = \frac{1.96^2 * 0.5 (1-0.5)}{0.05^2}$$

$$N = 384$$

$$N = 384/1+ (384/5420)$$

$$N = 358$$

### 3.5 Sampling Method

Study population was divided into two strata (i.e. Ho polytechnic population and Ho nurses' training population) proportionately as shown in Table 1. Convenience sampling, a non-probability sampling technique where the subjects are selected because of their convenient accessibility and proximity to the researcher was used in selecting study respondents from both strata.

**Table 1: Proportions of study population**

Institution	Population	Proportion (%)	Number to sample
Ho Polytechnic	5000	92.0	329
Nurses Training college, Ho	420	8.0	29
Total	5420	100.0	358

### 3.6 Data Collection Tool

Structured questionnaire was designed and used as a tool to collect data. It combined multiple choice questions and close ended questions arranged on a five point likert scale. The questionnaire reflected the variables in the health belief model. Questionnaire covered areas such as basic demographic characteristics of respondents, respondents' knowledge of HIV and AIDS infection, the knowledge of HIV counselling and testing, and respondent's HIV testing status.. The five point likert scale was used to assess respondents' perceived susceptibility to HIV Infection, respondents' perceived severity of HIV infection, perceived benefits of HIV infection, and perceived barriers of counselling and testing and cue to action.

### 3.7 Data Analysis

Data was edited, coded and statistically analysed using SPSS16. Basic descriptive statistics was run (frequencies, percentages, and means). A bivariate analysis using binary logistic regression was done. The variables age, sex, religion, ethnicity, and current level of students in the institution were the independent variables regressed to determine if these were predictive factors of HCT. The association between HCT (dependent variable) and independent variables (age, sex, religion, ethnicity, religion, and current level in institution) were analysed by way of logistic regression Confidence interval less than 95% for any of the variables means it is not a predictive factor of HCT. The method of analysis of the variables of Health Belief Model variables was adopted from a study conducted among high school students in Ethiopia to assess students' perception of HCT. (Abiy et al, 2009). This study used the constructs (perceived susceptibility, perceived severity, perceived benefits, perceived barriers, and cue to action) in the Health Belief Model in assessing the perception of the students in the study. The demographic characteristics of respondents were compared with HIV test status of respondents.

The mean score for those who have ever tested and those who have never tested was computed. In building the composite variables for measuring independent variables of the health belief model, responses to groups of items were aggregated and the mean score were calculated for five of the variables of HBM. In each question response options were arranged on a five point likert scale ranging from strongly agree to strongly disagree which later on were categorized into numerical scores for the analysis. Response to five items related to susceptibility of the respondent to HIV, AIDS were aggregated, and the

mean score was calculated. Those who scored below the mean value of three were categorized as having low perception of personal susceptibility of getting HIV and AIDS.

Eleven items were included to measure perceived severity and the mean score for perceived severity was calculated. Those respondents who scored below the mean value of three were categorized as having low perception towards the severity of HIV and AIDS. Five items were included to measure perceived benefits of HCT and the mean score for was calculated. Those respondents who scored below the mean value of three were categorized as having low perception of the benefits of HCT.

Eight items were included to measure perceived barriers of undergoing HCT and the mean score was calculated. Those respondents who scored above the mean value of three were categorized as having high perception of barriers. Six items were included to measure cue to action and the mean score was calculated. Respondents who scored above the mean value of three were considered as having strong knowledge of cue HCT. The data was summarized into tables and bar charts.

### **3.8 Ethical Consideration**

Ethical approval was sought from the Ghana Health Service Ethical Committee Research and Development Division of the Ghana Health Service before the commencement of the research. Permission from the tertiary institutional heads was also sought during the fieldwork. The details of the research were explained to the students for them to give informed consent. The data collected was held in confidence and personal identities of respondents were not disclosed.

## **CHAPTER FOUR**

### **4.0 RESULTS**

#### **4.1 Introduction**

The chapter presents the results of the study. A total of 358 questionnaires were administered to students of the Ho polytechnic and the Ho nurses training college, However, a total of 49(13.7%) of the questionnaires were excluded from data analysis due to incompleteness and inconsistencies. This brought the number of questionnaires analyzed to a total of 309(86.3%). The results are organized into six sections namely socio- demographic- characteristics of respondents, knowledge of HIV and AIDS infection, knowledge of testing and utilization of HIV Counseling and Testing services, analysis of theoretical variables and binary logistic regression was run for the demographic variables (sex, ethnicity, religion and level). This was done to examine the effect of these variables on HIV Counseling and Testing.

#### **4.2 Socio-demographic Characteristics of Study Population**

Seventy – eight percent of respondents were between the ages 18-25 and 22.0% were 26 years and above. Of these 30.7% were females and 69.3% were males. In terms of religion 0.6% of them belonged to the traditional African religion. The majority of the respondents (95.8%) were Christians, 1.9% were Islam, 0.3% did not belong to any religion and 1.3% belonged to other religions not stated in the questionnaire. Also, 14.2% were Akans, 72.5% of them were ewes, 6.8 % were Ga-adangbes and, 25.8% of the respondents belonged to other ethnic groups that were not stated in the questionnaire. The Majority of the respondents (93.9%) were single, 4.5% of them were married, and (1.3%)

of them were either separated or divorced. Of the total respondents, 91.6% were from the Ho polytechnic and the remaining from the Ho nurses training college as shown in table 2

1. Most of the respondents were first year students (45.3%), followed by second year students (42.1%) and the remaining 12.3% were third year students.

**Table 2: Socio-demographic characteristics of study population**  
N=309

<b>Background Variable</b>	<b>Frequency</b>	<b>Percent</b>
<b>Age</b>		
18-25	241	78.0
26 and above	68	22.0
<b>Sex</b>		
Female	95	30.7
Male	214	69.3
<b>Religion</b>		
African traditional	2	0.6
Christianity	296	95.8
Islam	6	1.9
No religion	1	0.3
Others	4	1.3
<b>Ethnicity</b>		
Akan	44	14.2
Ewe	224	72.5
Ga-adangbe	21	6.8
Others	20	0.6
<b>Marital status</b>		
Single	290	93.9
Married	14	4.5
Separated/divorce	4	1.3
Other	1	0.3
<b>Institutions of study</b>		
Ho nurses training	29	9.4
Ho polytechnic	280	90.6
<b>Current Level</b>		
First year	140	45.3
Second year	131	42.1
Third	38	12.3

### 4.3 Knowledge of HIV and AIDS Infection, Transmission and Prevention

**Table 3: Knowledge of HIV/AIDS transmission and prevention**

N= 309

Knowledge	Frequency (%)	
	Yes	No
Heard of HIV and AIDS	302 (97.7%)	7 (2.3%)
Do you know how HIV/AIDS is prevented	304 (98.4%)	5 (1.6%)
Do you know how HIV and AIDS is transmitted	299 (96.5%)	10 (3.2%)
Transmission through unprotected sex	299 (94.5%)	17(5.5%)
Transmission through infected blood transfusion	267 (86.4%)	42 (13.6%)
Transmission through fluid/blood contact	258 (83.5%)	51(16.5%)
Prevention by abstaining from sex	262( 84.8)	47(15.2%)
Prevention through use of condom	261(84%)	48(15.5%)
Prevention by having one sexual partner	235(76.1%)	74(23.9%)

Table 3 is the results on participants' knowledge on HIV and AIDS, modes of infection and transmission. A total number of 302(97.7%) had heard of HIV and AIDS. With regard to the transmission, 299(96.5%) of the respondents have knowledge on how the disease is transmitted. With reference to the modes of transmission, 292(94.5%) agreed that HIV and AIDS can be transmitted through unprotected sex, 267(86.4%) of them agreed that infected blood transfusion can be a mode of transmission of the infection. 258(83.5%) agreed that HIV and AIDS can be transmitted through contact with fluid/ blood contact of an infected person. With reference to HIV and AIDS prevention, 304(98.4%) of the respondents have knowledge on how the disease can be prevented, 262(84.8%) agreed that HIV and AIDS can be prevented through abstinence from sex, 261(84%) agreed that HIV and AIDS can be prevented through the use of condom during

sex and 235(76.1%) agreed that the disease can be prevented through having only one sexual partner.

#### **4.4 Knowledge of HCT and Utilization of Testing Services**

Table 4 shows the results on respondents' knowledge of HCT and their utilization of HIV services. 300 (97.1%) of the respondents have heard of HIV Counseling and Testing. Whilst 203(65.7%) of them have ever been tested and 106(34.3%) of them have never been tested. Also 131(64.5%) of those who have ever tested did so in less than 12 months at the time of the survey, 55(27.1%) of them had the test within the past 12/23 months ago, 17(8.4%) of them had the test 2 or more years ago. Majority (58.1 %) of the test was done in government facility 58.1% 12.8% did their test during 'know your status campaign' programme, 3.0% had the test in a mobile clinic, 0.5% respondent carried out the test in prevention of mother to child clinic (PMTTC), and 14.3% and remaining got tested in a private health facility. Majority (60.6 %) of those who have ever tested did so voluntarily, whilst 39.4% did it on medical request. More than half (177) of those who have ever tested received their test results whilst the remaining 26 never received their test result.

**Table 4: Knowledge of HCT and Utilization of Testing Services**

<b>Knowledge</b>	<b>Responses</b>	<b>Frequency (%)</b>
Ever heard of HCT N=309	No	9(2.9%)
	Yes	300(97.1%)
Ever been tested N=203	No	106(34.3%)
	Yes	203(65.7%)
Last time of testing N=203	Less than 12months	131(64.5%)
	12-23 months	55(27.1%)
	2 or more years	17(8.4 %)
Place of testing N=203	Government health facility	118(58.1%)
	Know your status campaign	26(12.8%)
	Mobile clinic	6(3.0%)
	Prevention of mother to child clinic	1(0.5%)
	Private health facility	29(14.3%)
	Others	23(11.3%)
Reason for testing N=203	medically requested	80(39.4%)
	Voluntary	123( 60.6)
Ever tested and received results N=203	No	26(12.8%)
	Yes	177(87.2%)

#### 4.5 Theoretical Variables Measuring Perceptions of HIV and AIDS and Utilization of HCT Services

**Figure 2: Means of theoretical variables measuring the perceptions of tested and non-tested respondents on HIV and AIDS and HCT**



Students' perception of their susceptibility to HIV infection was assessed and the results indicated that everybody can get HIV/AIDS. However, 59% of them did not perceive themselves as vulnerable to HIV in future. The mean score for perceived susceptibility was 2.6 for all respondents as shown in Figure 2. Those who tested were likely to have tested on medical requested not necessarily because they perceived themselves to be susceptible. More than half of the respondents had high perception of the severity of HIV and AIDS. 53.7% of the respondents agreed that HIV and AIDS is deadly. More than

50.8% of the respondents agreed that HIV/AIDS has no cure. The total mean score for perceived severity was 3.6 for both respondents who have ever tested and those who have never tested.

More than half of the respondent agreed that HCT is an effective way to prevent HIV and AIDS. 59.2% of the respondents agreed that Knowing HIV status prevents future infection. 51.1% of the respondents agreed that knowing ones' HIV and AIDS status prevents infection of others .The total mean score computed for perceived benefits of HCT was 4.0 which implies that respondents have high perception of the benefits of HIV Counseling and Testing. Majority of the respondents disagree with the perceived barriers to HIV Counseling and Testing.40.3% of the respondents disagree with the statement 'it is embarrassing for me to have my HIV status checked'. Those who have tested are likely to have done the test because they perceive HIV and AIDS to be a serious a condition. Respondents who have never tested before were less likely not to perceive HIV as a severe condition. The total mean score for perceived barriers was 2.4.

Close to half of the respondents agreed to have heard of HCT. The main source of information was through family and friends (45.6%) followed by the electronic media (44.7%). The total mean score computed for cue to action was 3.6. With regard to the means scores of respondents who have tested and those who have never tested, there is no association between the theoretical variables of the HBM as used in this study.

#### **4.6 Socio-demographic Characteristics of Tested and Non-tested**

Table 5 looks at the socio demographic characteristics of respondents in comparison with HCT status of respondents who have tested for HIV compared with respondents who have never tested for HIV. Among those who have ever tested, 157 (77.3%) were within 18 years and 25 years of age. Also, 46 (69.5%) of those who have ever tested were within 26 years and above. Among respondents who have ever tested, 141(69.5%) were males and 62(30.5%) were females. With regard to religion, respondents from the Christian religion formed the majority 192 (94.6%) of those who have tested for HIV and AIDS. With regard to respondents permanent region of residence 128 (63.1%) from the Volta region which forms the majority of the respondents have tested for HIV. 60 (29.6%) of the respondents from the Greater Accra region have tested for HIV and AIDS. With reference to the institutions, 19 (9.4%) of the respondents from the nurses training college have tested for HIV and 184(90.6%) from the polytechnic have tested for HIV. 90 (44.3%) of those who have tested were in their first year, 91 (44.8%) were in their second year, 21 (10.3%) were in their third year.

**Table 5: Socio demographic characteristics of Tested and Non- Tested Respondents**

<b>N=309</b>		
	<b>Tested</b>	<b>Non-tested</b>
<b>Age</b>		
18-25	157(77.3%)	84(79.2%)
26 and above	46(22.7%)	22(20.8%)
<b>Sex</b>		
Female	62(30.5%)	33(31.1%)
Male	141(69.5%)	73(68.9%)
<b>Religion</b>		
African traditional	2(1.0%)	0(0.0%)
Christianity	192(94.6%)	104(98.1%)
Islam	1(0.5%)	0(0.0%)
No religion	1(0.5%)	0(0.0%)
Others	4(2.0%)	0(0.0)
<b>Permanent region of residence</b>		
Ashanti	3(2.8%)	3(1.5%)
Brong Ahafo	1(0.5%)	1(0.9%)
Central	2(1.0%)	3(2.8%)
Eastern	6(3.0%)	6(5.7%)
Greater Accra	60(29.6%)	29(27.4%)
Northern	2(1.0%)	0(0.0%)
Upper East	1(0.5%)	0(0.0%)
Volta	128(63.1%)	62(58.5%)
Western	0(0.0%)	2(1.9%)
<b>Institution of Study</b>		
Nurses training college	19(9.4%)	10(9.4%)
Polytechnic	184(90.6%)	96(90.6%)
<b>Level in institution of study</b>		
First year	90(44.3%)	50(47.2%)
Second year	91(44.8%)	39(36.8%)
Third year	21(10.3%)	17(16.0%)

#### 4.7 Regression of Socio – demographic Variables on HCT

**Table 6: Predictive Factors of HCT among Tertiary Students**

PREDICTIVE FACTOR	P-VALUE	ODDS RATIO	CI ( 95% )
Age	0.67	1.14	2.05 - 0.63
Sex	0.96	1.01	1.74 - 0.59
Religion	0.13	2.30	6.79 - 0.78
Ethnicity	0.34	1.15	1.54 - 0.86
Current Level	0.71	0.94	1.34 - 065

Table 6 shows a binary logistic regression of predictive socio-demographic factors for HIV Counseling and Testing. Figures from the table indicate that age as a demographic variable did not have effect on HIV Counseling and Testing. Also sex was not a key predictive factor of HCT, This could be due to the fact that majority of the respondents were males. Religion did not play a role in determining choice to test for HIV. Again ethnicity of the respondents did not influence HCT Current level of the respondents in the institutions did not also have any effect on HIV Counseling and Testing. This indicated that the factors that determine the choice to test for HIV and AIDS cannot be predicted by these socio-demographic variables.

## CHAPTER FIVE

### 5.0 DISCUSSION

#### 5.1 Introduction

This study examined factors that affect the choice of HIV counseling and testing among tertiary students in the Ho Municipality. The study explored students' knowledge and perception on HIV and AIDS infection through the use of the variables in the health belief model. Knowledge on modes of transmission and prevention was also examined. With reference to HIV counseling and testing, the variables in the Health Belief model were used to examine students' choice to test for HIV and AIDS.

Finding from this study revealed that males have tested for HIV/ AIDS than females. This finding is not in conformity with previous research findings. This is because majority of the respondents were males. Again some previous studies revealed that there were some barriers to HIV/AIDS and these were prevented people from. (Baggaley, 2007). A study from Lusaka, Zambia showed that people were afraid to tell about their status and therefore were afraid to go for HCT. (Baggaley, 2007). Again a study conducted among miner workers in South Africa showed that testing positive and stigmatization were major barriers to HCT. However findings from this study revealed that perceived barriers such as stigmatization and fear of positive results were not the reasons for not going for HCT as was found out in some other studies. Other factors which were not included in this study could be attributed to the choices people made. Again this could be attributed to the nearly universal knowledge on HIV/AIDS among respondents. Further findings from this study again revealed that there are benefits of

HCT as was described by UNAIDS in 2011. Reports from UNAIDS in 2011 indicated that benefits from HCT included prevention of HIV transmission and acquisition, early and appropriate uptake of services, societal benefits and counseling for adherence.

The study revealed that respondents from the Nurses Training Collage have in-depth knowledge about HIV Counseling and Testing. This could be attributed to the fact that the institution is health oriented and therefore respondents have learnt extensively about HCT in their course of study.

## **5.2 Knowledge of HIV and AIDS Infection**

This study revealed that as high as 97% of the respondents have heard of HIV and AIDS. This indicates that awareness of HIV and AIDS is nearly universal. With regard to transmission, 96% of the respondents have knowledge of how HIV and AIDS is transmitted: between 83% to 94% of the respondents know that HIV and AIDS can be transmitted through unprotected sex, infected blood transfusion and fluid / blood contact with an infected person. With prevention, the study revealed that respondents have high knowledge on HIV and AIDS prevention. 98.4% of the respondents know how HIV and AIDS can be prevented. This shows there is nearly universal knowledge on modes of prevention. Between 76% and 84% of the respondents know that HIV and AIDS can be prevented through abstinence from sex, use of condom during sex and having only one sexual partner.

### **5.3 Knowledge of HCT / Testing Status of Respondents**

There is nearly a universal knowledge on HCT among respondents as 97% of respondents have heard of HCT. More than half of the respondents (65.7 %) have ever tested for HIV and AIDS. The study further revealed that 60.6% of the test carried out was voluntarily and 87.2% of those who have ever tested received their test result. This shows that there is increase awareness among students. Among those who have tested, respondents in the age group 18-25 constituted a greater percentage (77.3%). This indicated that HCT services is been patronized widely by the youth and therefore HIV and AIDS can reduce to the barest minimum among this age group. This also points to the fact that the stigma and discrimination associated with knowing ones HIV and AIDS status is gradually been minimized due to education. Among respondents who have tested, males constituted a greater percentage ( 69%). This finding is contrary to the findings from the study conducted among men in the University of Ghana on utilization of CT which stated that only 19% of men have ever tested for HIV as at the time of the study.

### **5.4 Theoretical Variables Measuring Perceptions of HIV and AIDS and Utilization of HCT services**

Using five of the constructs in the health belief model, the study revealed that respondents believe everybody get HIV and AIDS however the mean score calculated to examine their perceived susceptibility to HIV and AIDS among respondents who have ever tested and those who have never tested did not reveal any difference. This could mean that respondents who have ever tested did so not necessarily because they

perceived themselves to be vulnerable to HIV and AIDS and therefore their susceptibility to HIV and AIDS might not have likely determine their choice to test.

In terms of perceived severity of HIV and AIDS, the mean score among those who have ever tested for HIV and AIDS revealed that respondents perceived HIV to be a severe disease. This might have explained why they carried out the test. This could also be used to explain their choice to test. This could also explain why more than half of the test done was voluntary. People are likely to go for the tests if they perceive the disease to be a serious condition. However, a research done in Ethiopia among high school students to assess perception towards counseling and testing revealed that perceived susceptibility and perceived barriers were not the factors that influenced HCT. (Abiy et al, 2009).

For the perceived barriers of HCT, a mean score of 2.6 for those who have never tested indicated that they did not agree that there are barriers to HCT, thus other factors could have determined their choice not to test. Respondents who have never tested were likely to have high perception of barriers to HCT and therefore are less likely to go for the test. Also, people who have never tested were likely not to have tested because they don't feel vulnerable even though they have knowledge on the benefits of HCT.

The mean score calculated to examine the perceived benefits of HCT among respondents who have ever tested and those who have never tested did not reveal any difference. Both respondents who have ever tested and those who have never tested both perceived HCT to be beneficial to the prevention of HIV and AIDS. (Mean score=4.0).

The mean score for respondents who have ever tested also indicated that they have low perception of the benefits of HCT thus other factors might have could have determine

their choice to test. Respondents who have never tested for HIV may not have perceived themselves to be vulnerable and therefore have never tested even though they perceived HCT to be beneficial.

This study further revealed that respondents who have tested and those who have not tested both have heard of HCT through different sources. The total mean score computed for cue to action was 3.6. This indicated that there was wide spread information on HCT through varied channels, however the mean score did not demonstrate any between those who have tested and those who have not tested (tested=3.7, not tested=3.5). Since the means are close, other factors could have determined choice to test and not to test among the respondents.

Finally, findings from the study demonstrated that the choice to undergo HIV and AIDS counseling is determined by several factors beyond factors that were examined in this study. There was no difference between those who have tested and those who have not tested with reference to their perceived vulnerability to HIV, benefits of HCT, severity of HIV and barriers to HCT. Again variables in the socio-demographics of the respondents did not show any significant impact on the choice to test for HIV and AIDS. This was determined when a binary logistic regression was run for the variables sex, ethnicity, religion and current levels of the respondents. However sex as a variable was specifically tested in this study to determine its impact on the choice to test for HIV and AIDS because researches in Ghana have showed that females are infected than males. The female: male ratio is 1:4:1 (NACP, 2009).

## CHAPTER SIX

### 6.0 CONCLUSION AND RECOMMENDATION

#### 6.1 Conclusion

This study showed that majority of the students had knowledge about HIV and AIDS as disease and HCT. More than half of the respondents (65.7%) in the study have ever tested for HIV which is commendable. However there was no difference between those who have ever tested and those who have never tested with regard to their perceived susceptibility and perceived barriers. Respondents who have ever tested and those who have never tested have low perceived susceptibility to HIV and AIDS. Again those who have ever tested and those who have never tested both perceived HCT to be important in the prevention of HIV. Thus both categories of respondents have high perception of the benefits of HCT. Though majority of the respondents have ever tested, they did not perceive themselves to be susceptible to HIV and AIDS infection and thus some other factors could have determined their choice to test. With reference to those who have not tested, it can be inferred that they did not perceive themselves to be susceptible to HIV and AIDS thus universal testing may be difficult to attain if people do not see themselves to be at risk of HIV.

Findings further showed that there is wide spread information on HIV as a disease and HIV Counseling and Testing through various channels thus information on HCT is available to people.

## **6.2 Recommendations**

The recommendations made from this study are as follows:

1. Based on the findings it will be recommended that the IE/BCC programmes be strengthened, advocating everyone's susceptibility to HIV and AIDS infection. Messages on HCT should give emphasis on personal susceptibility to HIV and AIDS.
2. Although HIV testing is high among respondent which is commendable, it will be recommended that efforts be made to achieve universal testing.
3. The study found out that majority of the test done was in government facilities thus it will be recommended that other avenues for testing be brought closer to students
4. For further research, it will be recommended that concepts and variables from other behavioral theoretical frameworks be thoroughly studied to see if they impact the choice to test for HIV.

## **6.3 Limitation**

There was no access to students of other institutions due to time constrain and financial difficulty thus there were no diverse views. Again access to the target population was difficult because students were writing their end of semester exams. Students in the Nurses Training Collage have knowledge in HCT than students in the Polytechnic. This is due to the fact that the Nurses Training Collage is a health institution, therefore a comparative analysis could not be made. However, the study has provided knowledge on factors that determine the choice to test for HIV among tertiary students.

## REFERENCES

- Abiy, Mitikie (2009). Perception of High students toward Voluntary Counseling and Testing using the Health Belief Model. *Ethiop.J. Health Dev*, 23(2), Ethiopia
- Aisu T (2005). Preventive Chemotherapy for HIV-associated tuberculosis: An operational assessment at a Voluntary Counseling and Testing Centre. Uganda
- Baggley V (2007). The Demand for and impact of Learning HIV Status
- Cartoux M. Ekweme D. (1998). *Acceptability of Voluntary Counseling and Testing (VCT) and interventions to reduce mother – to –child transmission of HIV.*
- Fiaveh DY, MacPhail C (2009). Male Perspective on Condom Use: implications for STI Prevention. Saarbrucken, Germany, *Lambert Academic Publishing*, pp. 1-97
- Fiaveh D Y, Lakas HM (2011a). Male Perspective on Condom Use: Context of STI/HIV prevention in the University of Ghana Community. *Journal Public Epidemiology*. 11(1):7-27
- Food and Agriculture Organization of the United Nations (2005) *Rural Women Carry Family Burdens. Focus, AIDS- A Threat to Rural Africa*
- Ghana AIDS Commission (2010). *HIV sentinels survey report and National prevalence. AIDS estimates report.* Accra.
- Ghana Statistical Service (2009). *Ghana Demographic and Health survey*, 2008. Accra
- Ghana Statistical Service (2010) *Ghana Demographic and Health Survey*, Accra
- Ghana Statistical Service (2011) *Ghana Demographic and Health Survey*, Accra
- Godfrey -Faussett P (2005). *An HIV Testing Centre as a recruitment site for tuberculosis preventive therapy in Africa*
- Greener (2004), *The Impact of HIV/AIDS on Poverty and Inequality in the macroeconomics AIDS.*
- National AIDS Control Programme, Ghana Health Service, Ministry of Health. (2010) *HIV Sentinel Survey Report* Accra

Malawi Demographic Health Survey Report ( 2008)

Magnus OO, Gbakeji, JO (2009). Analysis of Spatial Awareness of HIV/AIDS amongst students of Tertiary Institutions in Edo State, Nigeria. *Journal of Ethno-medicine*. Vol. 3 (2) pp 153-1, 2009

National AIDS/STI Control Programme (2009). *Behavioural surveillance survey*. Ghana AIDS Commission, Accra.

Omorie G O (2002). Sexual behaviour of tertiary institution students using the PSI behavioral change framework, Abuja: Society for Family Health

Oti-Boateng P. (2006) *Report on situation analysis of university of Ghana's response to HIV/AIDS*. Kwame Nkrumah University of Science and Technology, Kumasi.

Rosen S. (2004) *The cost of HIV/AIDS to business in Southern Africa*

UNGASS, WHO, UNAIDS, (2010) *UNICEF Global HIV/AIDS Response: Epidemic update and Health sector progress towards Universal Access*

UNAIDS/WHO/UNICEF/ UNDP (2011) *HIVAIDS Response: Epidemic update and Health Sector progress towards Universal Access 2011*, Geneva Switzerland.

United Nations Agency for International Development (UNAIDS) (2002). *HIV Voluntary Counselling and Testing: a gateway to prevention and care*, Geneva,

United Nation Agency for International Development (UNAIDS) (2008) *Global Epidemic Report on HIV/AIDS*, Geneva

United Nations Agency for International Development (UNAIDS) (2010). *Global Epidemic Report on HIV/AID*, Geneva

WHO, UNAIDS. (2007) *Global Epidemic Report on HIV/AIDS*, Geneva

World Health Organization (2008). *Global Trend of HIV/AIDS Epidemic*, Geneva

World Health Organization (2009). *Global Trend of HIV/AIDS Epidemic*. Geneva

World Health Organization (2010). *Global Trend of HIV/AIDS Epidemic*, Geneva

Vermond W, Wilson C (2006). Perception of HIV testing among attending antenatal clinic in Osogbo, Nigeria. *Journal of AIDS and HIV Research* vol4(4)pp.105-112, April

## **APPENDICES**

### **Appendix 1: Consent Form**

#### **Project Title:**

Factors affecting Counselling and Testing among Tertiary students in the Ho Municipality.

Institutional Affiliation:

School of Public Health,  
College of Health Sciences  
University of Ghana  
Legon

#### **Background and Personal Introduction:**

The Principal Investigator is Ernestina Chris- Koka, currently a masters student of the School of Public Health, Legon and conducting a study on factors affecting counselling and Testing among Tertiary students in the Ho municipality. This study is for academic purposes and a requirement for the award of Master of Science Degree in Applied Health Social science Degree and supervised by Dr. Phyllis Darko-Gyeke of School of Public Health, University of Ghana, Legon.

#### **Procedure:**

Respondents will be expected to answer questions on a structured questionnaire that will be provided for them.

#### **Risks and Benefits**

There are no reasonably foreseeable harm that may arise from participating in this research while benefits that may arise include a greater contribution to the knowledge of HIV/AIDS counselling and testing and subsequent policies and interventions that may be developed in respect of the growing pandemic.

#### **Right to refuse:**

Although there are no known risks associated with the research protocols, if you feel uncomfortable you have the liberty to opt out. You are also at will to withdraw from participating if you desire to do so.

**Anonymity and confidentiality**

You are assured that the information collection will be handled with the strictest confidentiality, will not be shared with third parties not directly involved in the research and thus will be used purely for academic purposes.

Before taking consent:

Do you have any questions that you wish to ask? If yes, questions to be noted.

If you have question you wish to ask later, or anything you wish to seek clarification on regarding the research, please do not hesitate to contact the principal researcher (Ernestina Chris-Koka) on; Telephone number: 0246367246 or Email: [ernestinachriskoka@yahoo.com](mailto:ernestinachriskoka@yahoo.com) or The Academic Supervisor on [gyekenay@yahoo.com](mailto:gyekenay@yahoo.com)

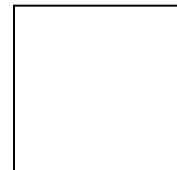
**PARTICIPANT**

I .....having been adequately informed about the purpose, procedures, potential risks and benefits of this study. I have had the opportunity to ask questions and any question I have asked have been answered to my satisfaction. I know that I can refuse to participate in this study without any loss or benefit to which I would have otherwise been entitled. Having gone through the consent form thoroughly I agree to enrol in this study.

Name of participant: .....

Signature or Right thumb print: .....

Date: .....



**Interviewer's Statement:**

I have explained the procedure to be followed in this study to the client in the language that he/she understands best and he/she has agreed to participate in the study.

Signature of interviewer.....

Date.....

**Appendix 2: Questionnaire****SECTION A****Background/ Demographic data characteristics of respondents**

**1. Age** 18-25 ( ) 26 and above ( )

**2. Sex**

Male ( )

Female ( )

**3. What is your religious affiliation?**

a. Christianity ( )

b. Islam ( )

c. African Traditional Religion ( )

d. Others (Specify).....

e. No religion ( )

**4. What is your ethnicity?**

a. Ewe ( )

b. Akan ( )

c. Ga- Adangbe ( )

d. Mamprusi ( )

e. Other (Specify).....

**5. What is your permanent region of residence?.....****6. What is your current marital status?**

a. Single ( )

b. Married ( )

c. Separated/ divorced ( )

d. Other (Specify).....

**7. Institution**

- a. Ho Polytechnic ( )
- b. Ho Nurses Training college ( )

**8. What is your current year in this institution?**

- a. First year ( )
- b. Second year ( )
- c. Third year ( )

**9. Which course are you studying?.....****SECTION B****Knowledge of HIV and AIDS Infection****10. Have you heard of an illness called HIV and AIDS?**

- a. Yes ( )
- b. No ( )

**11. Do you know how HIV and AIDS is transmitted? (Tick as many as applicable)**

- a. Unprotected sex with an HIV person ( )
- b. Infected blood transfusion ( )
- c. Fluid/ blood contact with an infected person ( )
- d. Do not know ( )

**12. How can HIV and AIDS be prevented? (Tick as many as applicable)**

- a. Abstain from sex ( )
- b. Use of condom during sex ( )
- c. Have only one sexual partner ( )
- e. Do not know ( )

**SECTION C****Knowledge/ Testing status of HIV counselling and testing**

13. Have you heard of HIV counselling and testing?

- a. Yes ( )
- b. No ( )

14. Have you ever been tested for HIV? (If Yes, answer questions 15-18)

- a. Yes ( )
- b. No ( )

15. When was the last time you were tested?

- a. Less than 12 months ago ( )
- b. 12-23 months ago ( )
- c. 2 or more years ago ( )

16. Where did you go for the test?

- a. Government Health facility ( )
- b. Private Health facility ( )
- c. Know your status Campaign ( )
- d. Mobile Clinic ( )
- e. Prevention of mother to child clinic ( )
- g. Other.....

17. Why did you test?

- a. Medically requested ( )
- b. Voluntary ( )

18. Did you go back for your results?

- a. Yes ( )
- b. No ( )

**SECTION D****MEASURING INSTRUMENT FOR HEALTH BELIEF MODEL**

Please Tick [√] the response that reflect your level of agreement or otherwise in each of the under listed statements (On a scale of 1 to 5, 5 means you strongly agree with the statement, 4 means you agree with the statement, 3 means you are undecided, 2 means you disagree, 1 means strongly disagree with the statement)

<b>Perceived Susceptibility</b>	<b>Strongly Agree (5)</b>	<b>Agree (4)</b>	<b>Undecided (3)</b>	<b>Disagree (2)</b>	<b>Strongly Disagree (1)</b>
Everybody can get HIV					
My chances of getting HIV are great					
I feel that my chances of getting the HIV in future is high					
There is a good possibility that I will get HIV					
I worry a lot about getting HIV					
Total Score(s)					
<b>Perceived Severity</b>					
<b>Questions</b>	<b>Responses[Please Tick(√)]</b>				
	<b>Strongly Agree (5)</b>	<b>Agree (4)</b>	<b>Undecided (3)</b>	<b>Disagree (2)</b>	<b>Strongly Disagree (1)</b>
The thought of HIV scares me					
I think HIV is deadly					
If I had HIV my academics and career would be endangered					
HIV has no cure					
HIV would endanger my relationship significantly					
HIV is a hopeless disease					
My feelings about myself would change if I got HIV					
I am afraid to even think about HIV					
Problems I would experience from HIV would last a long time.					

HIV would be more serious than other diseases					
Positive HIV status will negatively change my life					
Total Score(s)					
<b>Perceived Benefits</b>					
<b>Questions</b>	<b>Responses[Please Tick(√)]</b>				
	<b>Strongly Agree (5)</b>	<b>Agree (4)</b>	<b>Undecided (3)</b>	<b>Disagree (2)</b>	<b>Strongly Disagree (1)</b>
problems for me Knowing my HIV Status prevents future					
Prevents infection if tested positive					
Knowing my HIV status can help prevent getting it in future					
I would not be so anxious about HIV if I know my status					
Prevents infection of others if tested positive					
Total Score(s)					
<b>Perceived Barriers</b>					
<b>Questions</b>	<b>Responses[Please Tick(√)]</b>				
	<b>Strongly Agree (5)</b>	<b>Agree (4)</b>	<b>Undecided (3)</b>	<b>Disagree (2)</b>	<b>Strongly Disagree (1)</b>
It is embarrassing for me to have my HIV status checked					
HIV testing can be painful					
I will have to travel a long distance for the test					
My family/ friends would make fun of me if I did HIV testing					
Knowing my HIV status would require starting a new life style, which is difficult					
I am afraid I would not be able to collect the results					
Having HIV test performed by a hostile health worker					
I am afraid my HIV status may be disclosed to my friends and relatives					
Total Score(s)					

<b>Cue to Action Questions</b>	<b>Responses[Please Tick(√)]</b>				
	<b>Strongly Agree (5)</b>	<b>Agree (4)</b>	<b>Undecided (3)</b>	<b>Disagree (2)</b>	<b>Strongly Disagree (1)</b>
I heard of HCT through a health worker					
I frequently do things to improve my health					
I heard of HCT through the print media(newspaper, magazines etc)					
I heard of HCT through the radio					
I heard of HCT through family and friends					
I heard of HCT through the electronic media( TV, internet)					