

SCHOOL OF PUBLIC HEALTH

COLLEGE OF HEALTH SCIENCES

UNIVERSITY OF GHANA



**FACTORS AFFECTING THE UPTAKE OF HIV TESTING AND COUNSELLING
AMONG THE YOUTH IN THE SEFWI WIAWSO MUNICIPALITY**

BY

ERIC OSEI AMEYAW

(10599524)

**THIS DISSERTATION IS SUBMITTED TO THE SCHOOL OF PUBLIC HEALTH,
UNIVERSITY OF GHANA IN PARTIAL FULFILMENT FOR THE AWARD OF
MASTER OF PUBLIC HEALTH (MPH) DEGREE**

DECEMBER, 2018

DECLARATION

I, the undersigned, affirm that with the exception of referenced works of other people, which have been cited and duly acknowledged, this work is an output of my own initiative. This research proposal has neither in whole nor in part been presented for an award or a degree elsewhere.

.....

.....

Eric Osei Ameyaw

Date

(Student)

.....

.....

Dr. Kwabena Opoku-Mensah

Date

(Supervisor)

DEDICATION

This dissertation is dedicated to my lovely wife Linda Agyemang and children, Abena and Kwaku for their blessings and support throughout the study period.

ACKNOWLEDGEMENT

I wish to thank the Almighty God for His divine protection and guidance throughout the study. I would also like to express my profound gratitude to Dr. Kwabena Opoku Mensah, my supervisor, for his patience, guidance and understanding throughout the study.

Many thanks go to the entire staff of the School of Public Health, especially those in the department of Social and Behavioural Science (SOBS) for their encouragement and support.

I wish to thank my family for their guidance and well wishes during the pursuance of this dissertation.

Finally, my gratitude goes to all my friends at the school of public health especially Dosty for their good counsel

May God richly bless you all.

ABSTRACT

Background: As an effective vaccine and cure for HIV is absent, testing and counseling for HIV remains an essential intervention in the control of the infection. However, uptake of this service in Ghana is very low especially among the youth. This study sought to assess the factors influencing the uptake of HIV testing and counseling services among the youth in the Sefwi Wiawso Municipality. The objective of this study was to assess the factors influencing uptake of HIV testing and counselling among the youth aged 15-24 years in the Sefwi Wiawso Municipality.

Methodology: A cross sectional survey among youth groups aged between 15 and 24 was conducted using a questionnaire at Sefwi Wiawso. The study adopted simple random sampling to select participants. Data was collected on demographic profile, personal related and health system related factors that influence uptake of HIV testing and counselling.

Results: The results show that more than half of young people (51%) patronized HIV Testing and Counselling (HTC) services. But the rest (49%) noted fear of discrimination, fear of negative outcomes, fear of stigma and self-trust, as barriers to uptake of HTC. It has been found that the sex of an individual influences whether or not young people will consider taking HTC services. Again, marital status and educational status are other demographic factors that have been found to have significant impact on HTC among young people. The most important factor related to testing and counseling for HIV, was identified as knowing where the HTC services are provided.

Conclusion: The results of this research show that nearly half of the youth have never patronized HTC services due to reasons such as fear of discrimination, fear of a positive HIV

test. Also factors such as stigma, fear of positive results and discrimination were identified as barriers to HTC uptake among the youth.

TABLE OF CONTENTS

DECLARATION	i
DEDICATION	ii
ACKNOWLEDGEMENT	iii
ABSTRACT	iv
TABLE OF CONTENTS	vi
LIST OF FIGURES	ix
LIST OF TABLES	x
LIST OF ABBREVIATIONS	xi
DEFINITIONS OF TERMS AND CONCEPTS USED IN THE STUDY	xiii
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background to Study.....	1
1.2 Problem Statement	3
1.3 Research Questions	5
1.4 Objectives	5
1.4.1 Main Objective.....	5
1.4.2 Specific Objectives	5
1.5 Justification	6
1.6 Conceptual Framework.....	6
CHAPTER TWO	8
LITERATURE REVIEW	8
2.0 Proportion of HTC Services Utilization	8
2.1 Factors Associated with Uptake of HIV Testing and Counseling Services.....	10
2.1.1 Socio-demographic Factors Influencing HTC	11

2.1.2 Health System-Related Factors Influencing Uptake of HIV Testing and.....	14
2.1.3 Personal-Related Factors Influencing Uptake of HIV Testing and Counselling.....	15
2.1.4 Knowledge Factors Regarding Uptake of HIV Testing and Counselling.....	19
CHAPTER THREE.....	21
METHODS.....	21
3.1 Study Area	21
3.1.1 Population size, structure and composition	21
3.1.2 Literacy and education.....	21
3.1.3 Economic Activity Status	21
3.1.4 Employment.....	22
3.1.5 Health Facilities	22
3.2 Study Design.....	24
3.3 Study Population.....	24
3.4 Variables of the Study.....	24
3.5 Sample Size Determination.....	24
3.6 Sampling Method.....	25
3.7 Data Collection Tools	26
3.8 Data Management and Analysis	27
3.9 Quality control	27
3.10 Ethical Consideration.....	27
3.11 Expected Outcome	28
CHAPTER FOUR.....	29
RESULTS	29
4.1 Background Characteristics of Respondents	29
4.2 Proportion of Youth who ever tested for HIV	31

4.3 Socio-economic factors influencing Uptake of HIV testing and counselling among the Youth.....	32
4.4 Demographic factors influencing Uptake of HIV testing and counselling among the Youth	36
4.5 Socio-demographic Factors affecting Uptake of HIV testing and Counseling.....	38
4.6 Barriers to HIV testing.....	41
DISCUSSIONS.....	43
5.0 Introduction.....	43
5.1 Proportion of Youth that has ever tested for HIV in the Sefwi Wiawso Municipality.....	43
5.2 Factors Associated with uptake of HIV Testing and Counselling among the youth in the Sefwi Wiawso Municipality.	45
5.3 Knowledge and Awareness of the Youth of Sefwi Wiawso on HIV Testing and Counselling.	47
5.4 Barriers to HIV testing.....	48
CHAPTER SIX	50
CONCLUSIONS AND RECOMMENDATIONS.....	50
6.0 Introduction.....	50
6.1 Conclusion	50
6.2 Recommendations.....	50
6.3 Implications for Research.....	51
REFERENCES.....	52
APPENDICES	55
Appendix A: Consent Form for Participation in the Study.....	55
APPENDIX B : ASSENT FORM FOR PARTICIPANTS LESS THAN 18 YEARS.....	57
APPENDIX A :.....	59
INTERVIEW GUIDE.....	59

LIST OF FIGURES

Figure 1. Conceptual Framework of Factors affecting Uptake of HTC Adapted from (Bwambale et al, 2008) 7

Figure 2. Map of Sefwi Wiawso Showing Health Facilities 23

Source: Municipal Directorate of Health Services (2015)..... 23

Figure 1: Proportion of youth ever tested for HIV 31

Figure 2: Knowledge and awareness of HTC services 41

Figure 3: Barriers to HIV testing 41

Figure 4: Suggestions to enhance HTC services..... 42

LIST OF TABLES

Table 1: Socio-demographic Characteristics of Respondents 30

Table 2: Socio-economic factors influencing Uptake of HIV testing and counselling among the Youth..... 34

Table 3: Demographic factors influencing Uptake of HIV testing and counselling among the Youth..... 37

Table 4: Multiple Logistic Regression Analysis of Uptake of HIV Testing and Counselling 38

LIST OF ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
ART	Anti-Retroviral Therapy
CDC	Centers for Disease Control and Prevention
DHS	Demographic Health Survey
GAC	Ghana AIDS Commission
GDHS	Ghana Demographic and Health Survey
GHS	Ghana Health Service
GSS	Ghana Statistical Service
HIV	Human Immunodeficiency Virus
HTC	HIV Testing and Counselling
MHMT	Municipal Health Management Team
MOH	Ministry of Health
MPH	Master of Public Health
NACP	National AIDS Control Programme
PLWHA	People Living with HIV/AIDS
PMTCT	Prevention of Mother to Child Transmission
STDs	Sexually Transmitted Diseases
STI	Sexual Transmitted Infection
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNICEF	United Nations Children's Fund
UNFPA	United Nations Population Fund
WHO	World Health Organization

DEFINITIONS OF TERMS AND CONCEPTS USED IN THE STUDY

Confidentiality: Confidentiality is trusting individuals not to reveal secret or private information to anyone else.

Counseling: A confidential dialogue between a client and a counselor targeted at giving the client advice and support on psychological or personal matters, usually in a professional context.

HIV testing: Obtaining bodily specimen for the purpose of performing a medical test or several medical tests to determine the HIV status of a person.

HIV testing and counseling: The process by which an individual is tested for HIV and then counseled to prepare him or her emotionally for the results of the test.

Youth: The youth as used in this study refers to any person (male or female) aged 15 to 24 years

CHAPTER ONE

INTRODUCTION

1.1 Background to Study

The burden of HIV/AIDS has proved to be a great source of concern around the globe in recent past. It is also the main cause of death and threat to national development. The disease has a negative impact on economic, political, as well as social development of every country with high levels of infection (Yahaya, Jimoh, & Balogun, 2010). The most affected region in the world is Africa south of the Sahara, with approximately 25.6 million people living with HIV(UNAIDS, 2016).

People with HIV or those at risk of HIV do not have access to protection, care and treatment, and are not cured. More than half of all new HIV infections are among the youth (aged 15-24) (Millage, 2009). AIDS not only affects the health of individuals but also affects families, communities and economic growth and development. Many countries suffering from HIV are also suffering from infectious diseases and other serious problems (“Global Statistics | HIV.gov,” n.d.).

Studies show that africa has a youth dominated population (Sommers, 2011), while youth between 15 and 24 years accounted for about 40% of the total new case of HIV infection (UNAIDS, 2015). The probability of infecting young women is twice that of the young men in Sub Saharan Africa ((UNAIDS), 2018). The continuing growth of young populations in the country with a high HIV burden can lead to further transmission of epidemics except the use of strategies based on evidence aimed at youth and affordable (Asante, 2013). Even though the

annual number of AIDS-related deaths dropped by 35% during the 2005-2013 period, deaths in adolescents (10-19 years) living with HIV increased by 50% from 2005 to 2012. In this age of ART, there has been a sharp decline in deaths from AIDS. However, HIV remains the second leading cause of death among adolescents worldwide (Wood, Ballenger, & Stekler, 2014). Apparently, it was among the ten causes of death among adolescents in 2000. HIV-related deaths among adolescents have more than tripled since 2000 (“WHO | Adolescent health epidemiology,” 2014).

Evidence shows that of the 35 million people living with HIV worldwide, 19 million are unaware of their HIV status. Prevalence of HIV among young women is estimated to be three times higher than for men in sub-Saharan Africa (UNAIDS, 2014). Transmission of HIV among the youth has become a public health problem in sub-Saharan Africa. This is the leading cause of death among young people (10-24 years) in Africa and is the second leading cause of death worldwide (AVERT, 2017).

Young people aged below 25 years make up about 60% of Africa’s population (UN, 2017). Young people are still the most endangered group of individuals in the world, representing more than 5 new HIV / AIDS cases and the biggest hope of transforming the flow of AIDS, the future of the infectious disease will be affected by their actions (AVERT, 2017).

Many strategies for prevention, treatment as well as care for HIV require knowledge about the HIV status of the individual. The importance of testing and counseling for HIV (HTC) has led to more HTC service development. However, lack of access to services and resources is a challenge for teens who try to access services (WHO, 2012).

HTC is an important strategy for HIV prevention and allows young people to evaluate their behaviors and their consequences. It highlights the relevance of responsible sexual behavior as well as the consequences of reckless sexual behavior. Understanding one's HIV status is one of the surest ways of behavioral change, treatment, care, support, and tolerance. However, HIV testing is not encouraging because it is a subject of discrimination (UNAIDS, 2014). Lack of knowledge about one's status can lead to delay in seeking treatment. The course of education affects the impact of ART on protection and life, and the delay in using protections from individuals living with HIV and their partners.

1.2 Problem Statement

HIV is one of the world's major health problems of more than 35 million people worldwide. In 2016, 1 million people died all over the world because of the effects of HIV (“WHO | Alert, but not alarmed,” 2017). At present, about 36.7 million people live with HIV and millions of people have died because of AIDS (ANAIDS, 2017). Although new issues are reported in all parts of the world, nearly two-thirds occur in Africa, with 43% of new HIV issues in eastern Africa and South Africa (ANAIDS, 2017). In Ghana, there are about 290,000 people with HIV (The Joint United Nations Programme on HIV/AIDS (UNAIDS), 2017).

Inadequate uptake of HTC services among young people has been linked to various factors. Some of these factors include fear of knowing one's HIV status as well as social issues that affect service provider attitudes and behaviors (World Health Organization, 2013). However, an increase of about 50% of all HIV-related deaths among adolescents between 2005 and 2012 was due to poor HTC service, low priority to youth issues, insufficient treatment and the lack of sufficient support for youth (Johns Hopkins School of Public health, 2012).

According to (Asante, 2013), HTC is based on the premise that individuals found to be HIV negative should receive counseling in order to reduce high-risk behaviors. People who have tested for HIV should be supported to access appropriate care, support, and counseling to reduce the chance of HIV infection to other people. Access to HIV testing and counseling is considered to be an integral part of a strategy adopted by Ghana for HIV surveillance. The Government of Ghana, based on this framework, has introduced several interventions and practices to increase participation in HIV testing. Despite these interventions, HTC remains low in Ghana and the rest of the world (Asante, 2013).

HTC has a package of services including counseling before actual HIV testing as well as post-test counselling. Regardless of the result or test result, the client receives information that may turn into a behavior change if the test result is negative. Conversely, if the test result is positive, it provides opportunities for timely treatment and the opportunity to live longer. With the onset of antiretroviral therapy, people living with HIV / AIDS live a healthy life. HTC promotes a greater awareness of HIV and AIDS. It is believed that the negative test result promotes behavioral change (Abokyi et al., 2014). This is why it is important for young people to take advantage of HTC's services, as it will encourage them to develop acceptable behaviour practices for prevention of HIV infection. It has also shown that, in Ghana, the patronage of HTC by the youth is low though they are aware of the existence of HTC services according to (Abokyi et al., 2014).

So far no study has been conducted in recent years in the Sefwi Wiawso Municipality regarding the proportion of youth who have tested for HIV. This motivates the conduct of this survey to determine the proportion of youth in the municipality who have tested for HIV and the factors that influence their willingness or otherwise to use the testing and counselling services.

1.3 Research Questions

In view of the problem statement, the following research questions were asked

1. What is the knowledge and awareness of the youth of Sefwi Wiawso on HIV testing and counselling?
2. What proportion of the youth of Sefwi Wiawso has ever tested for HIV?
3. What factors influence the uptake of HIV testing and counselling services among the youth of Sefwi Wiawso?

1.4 Objectives

The following were the research objectives

1.4.1 Main Objective

The main objective was to assess factors influencing uptake of HIV testing and counselling among the youth aged 15-24 years in the Sefwi Wiawso Municipality.

1.4.2 Specific Objectives

1. To determine the knowledge and awareness of the youth of Sefwi Wiawso on HIV Testing and Counselling.
2. To determine the proportion of youth who have ever tested for HIV in the Sefwi Wiawso Municipality.
3. To assess the factors associated with uptake of HIV testing and counselling among the youth in the Sefwi Wiawso Municipality

1.5 Justification

This study provides information regarding factors that influence the uptake of HTC services among the youth in the Sefwi Wiawso Municipality. This information is expected to enable policy makers in the Ministry of Health, Ghana Health Service and their collaborating agencies to design youth friendly strategies that will help improve the uptake of HTC services among the youth. The results of this study also serve as a baseline for more vigorous research in the future regarding the gap between knowledge, attitudes and the uptake of HTC services. Also, the youth who are diagnosed early enough through HTC may receive early treatment and care that will improve their health to work to increase productivity in their various communities, pursue academic goals as well as support others in their homes since the youth remains the workforce of society.

1.6 Conceptual Framework

Factors influencing HIV/AIDS testing and counseling can be classified into social demographics, factors associated with the health system and factors related to privacy as seen in Figure 1. Social and demographic factors such as age, sex, family status, occupation, educational attainment, income and religion, this status can play a role in approving services, testing, and counseling for HIV infection. Highly educated people and those with good source of income may go for testing and counseling for HIV because they can better understand the importance of HIV testing and be able pay the cost of the test. Adults can find it easier to decide to enter the HTC service than younger people, because they may not be afraid to meet an adult who can ask a few questions.

In addition, because of the connection of HIV with social stigma, the uptake of HTC can be improved when the service is provided in anonymous and confidential manner. Most teens can

be tested for HIV if a cheaper test is available and is easily followed by a schedule. For fear of negative consequences, stigma, discrimination, fear of job loss, and fear of death from HIV, the decision to test for HIV becomes difficult for most people. The decision to take an HIV test is also determined by the fact that people are aware of the importance of the test and know where to go to get tested. Most people may want to get tested for HIV, but they do not have enough information about where to go or cannot afford the cost of the test. These factors and other factors are linked to influencing a person's voluntary decision or decision to take an HIV test.

Figure 1 below provides a summary of the different factors that affect HTC uptake.

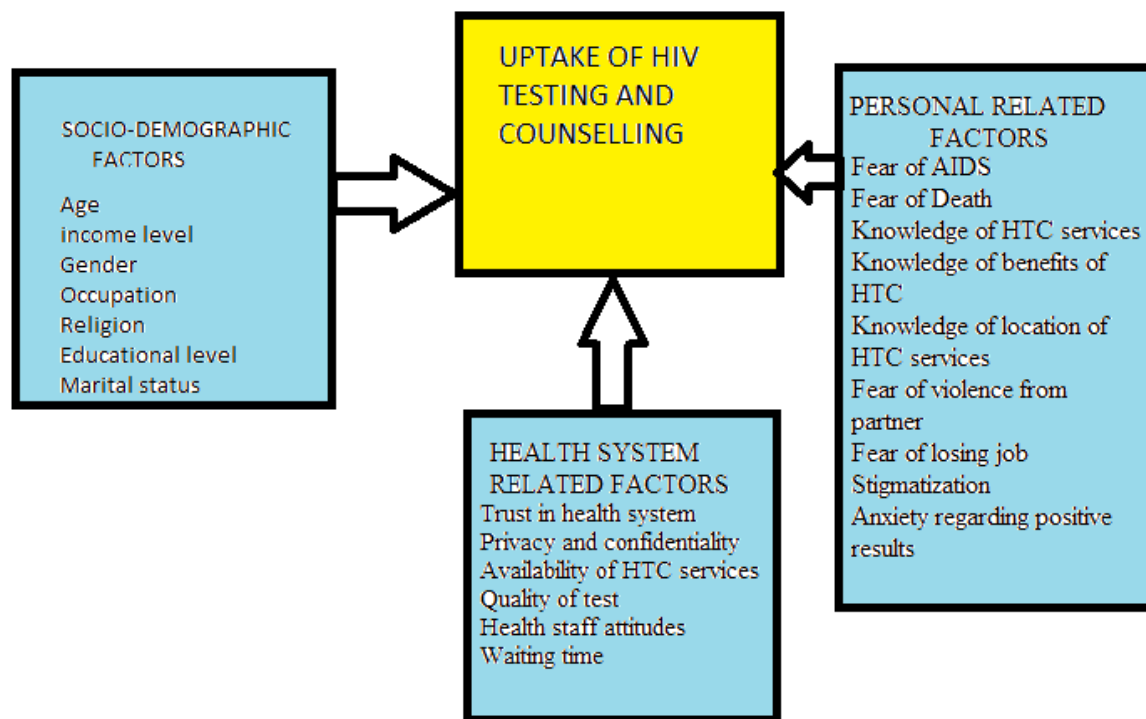


Figure 1. Conceptual Framework of Factors affecting Uptake of HTC Adapted from (Bwambale et al, 2008)

CHAPTER TWO

LITERATURE REVIEW

This chapter reviews literature on previous studies conducted on factors that influence HIV testing and counselling. The proportion of HIV testing and counselling and factors about knowledge of HIV testing and counselling, personal, socio-demographic and health system that influence uptake of HIV testing were reviewed.

2.0 Proportion of HTC Services Utilization

The provision of HIV testing and counseling (HTC) is an important part of any national program for HIV prevention. It has been found that people living with HIV and do not know their status are most likely to transmit the infection to others. Studies have reported that HTC has played an important role in identifying infected individuals and provides them the opportunity to benefit from therapeutic intervention (Menna, Ali, & Worku, 2015).

HIV testing and counseling (HTC) is still extremely important in accessing facilities for treatment and prevention of HIV infection. In addition, sexually risky behaviours, known for enhancing HIV transmission are commonly reported during teenage years but HTC presents itself as an opportune intervention to help promote healthy sexual practices. Studies have shown that young people, labeled sexually active, tend to be exposed to sexual intercourse in sub-Saharan Africa before the age of 15 hence the need to emphasize on the essence of effective HTC among this group. WHO recognizes the vulnerabilities for HIV-infected people, thus developing specific guidelines for HTC's among teenagers in 2013. The Guidelines outlined the importance of generating effective interventions to improve comparable access to HTC (Govindasamy et al., 2015).

The survey, conducted by reviewing data on the National Program for HIV / AIDS Control in Ghana between 2007 and 2010 from all HIV tests conducted in the country reported that 16 % of the total population in 2010 has ever tested for HIV. Similarly, Ghana's Demographic and Health Survey of 2008 (GDHS) shows that the proportion of women and men 15-49 years old who tested for HIV was 21% and 14% respectively.

According to Yawson (2014), some studies conducted across Africa have reported varied HIV testing and counseling (HTC) uptake by sex. The study found that women in southern Africa use HTC's service more than men, compared to countries such as Nigeria, Ethiopia, Zambia and Tanzania, where men use HTC higher than women. They found that high women's tests were consistent with earlier findings in Ghana, suggesting high readiness for HIV testing among pregnant women. The research also reports that little HIV testing among men is well known in Ghana.

Again, Yawson (2014) reported in his study on patients with HIV in Ghana that more women were getting tested for HIV in hospitals than their male counterparts. Similarly, data from the annual reports of the NACP between 2007–2010 reported that females make up 58.2% of all individuals who tested for HIV in health facilities across the country, giving a female to male ratio (F: M ratio) of 1.4. Another study conducted in a community setting in 2010, also recorded an F:M ratio of 1.4 for HIV testing. This ratio reported in the NACP annual report excluded the figures for PMTCT. The overall female to male ratio of HIV testing including PMTCT data in Ghana was found to be 2.8. The study suggests that it is important for men to use HTC in Ghana in some societies because they are the head of the family and decide to limit the resources that are useful for the prevention and care of HIV. It is important to increase male participation in HTC in an effort to fight HIV infection in Ghana (Yawson et al., 2014).

Despite a campaign to promote HIV testing and the consequent benefits of HTC services, fewer young people in Sub-Saharan Africa are reported to patronize HIV tests and counselling (Macphail et al., 2015) despite the high interest among the youth. The survey also shows that there is little information about the factors influencing HTC uptake among young people in sub-Saharan Africa. A new study by Yahaya et al. (2010) reports that the level of awareness about HIV / AIDS in Nigeria remains low and demonstrates the need to change the attitude of most Nigerians towards counseling and testing for HIV / AIDS.

According to a study by Ogaji, Oyeyemi, & Ibrahim, (2013) on awareness, willingness and use of HTC services by students of a university in south-south Nigeria, 72% of Nigerian tertiary students desired to have an HIV test; an increase from 43% observed in 2005 according to the HIV/AIDS and Reproductive Health Survey (NARHS) report. The study however reported low uptake of HTC services of 14.4% and 14.7% of females and males respectively.

The Ethiopia Demographic Health Survey (EDHS), conducted in 2005, reported that just 4% of females (aged 15-49) and 6% males (aged 15-49) were tested for HIV / AIDS. Meanwhile, the survey found that 53% of the survey participants knew where HTC service was available. Comparison of HTC uptake among rural and urban men shows that 2.6% of rural male and 21.9% urban males have been tested for HIV.

2.1 Factors Associated with Uptake of HIV Testing and Counseling Services

The factors that influence uptake of HIV Testing and Counselling are varied and can be categorized under socio-demographic factors, health system-related factors, personal-related factors and knowledge regarding.

2.1.1 Socio-demographic Factors Influencing HTC

A survey conducted by Kaai, Bullock, Burchell, & Major (2012) on the factors affecting HIV / AIDS services, testing and counseling among homosexuals in the United Kingdom and Canada identified age as a dominant demographic variable that is most commonly associated with HTC. The research also showed that there was a difference in the nature of the association. The difference was observed when comparing three surveys that reported that respondents between the ages of 40-45 were more likely to support HTC, while three other studies found respondents under the age of 25 or 30 were tested for HIV. The variation from this study was due to the sample of the tests. It was found that early studies were modeled on younger people, while the other three studies were referring to older people.

In both situations however, the results suggested that middle-aged study participants had the highest testing rates with the young and older populations recording lower rates. The study also showed other demographic factors, such as ethnicity, living in an urban area with more than one million inhabitants, earning a low income, being a female as well as having higher education had an effect on HTC uptake among heterosexuals. The researchers identified three studies that outlined marital status as a predictor of HTC uptake. According to the review study, two of the studies that found association between marital status and HTC revealed that it was more likely for single people to test for HIV compared to those married couples or those cohabitating. Their study provided a reasonable explanation that immigrants from Eastern Africa (meaning 35.7 years old) who were more likely to marry compared to two Canadian studies which had respondents who were mainly younger and single (Kaai et al., 2012).

Addis et al. (2013) examined voluntary behavioral practices concerning HIV testing among students in North-West Ethiopia and identified links between higher education, employment and

HIV testing. The study also found an important link between religion and HTC use among men living in urban areas, indicating that Muslims are less inclined to test for HIV. The study explains that the religious association may be the result of religious beliefs that can prevent HIV infection. For example, in Islam, although polygamy is more tolerant to men, divorce is easier. The study also says that Islam also prohibits the use of alcohol associated with an increased risk of sexual intercourse. Another explanation for the relationship between religion and HTC is that all Muslims are circumcised and circumcision is believed to reduce HIV transmission. The study explained that Muslim men tend to have a reduced risk of HIV infection hence less temptation to undertake an HIV test (Addis et al., 2013).

Research shows demographic factors such as gender, age, education, poverty, are under one umbrella, and economic conditions as affecting HTC attitudes. Meanwhile, other studies found that those aged 18 to 29 were more likely to be late for HTC services than their older counterparts. It is also found that poverty is related to HIV testing and counselling behavior, as demonstrated in many studies of health behaviors.

In a study conducted in Nigeria by Bwambale et al. (2008), poverty was a major barrier to seeing healthcare professionals for HTC services. The relationship between poverty behaviors and health needs was also supported in a study in Bangladesh. Other literature suggests that highly educated people are more likely to report HIV infection than those who are less educated. Kalanzi, (2013) study showed that 63% of college-educated people had HIV compared to 47% of those who had only one high school having tested for HIV. This is because of the educational potential to allow more financially-accessible people to access testing services, as well as knowledge of the nature of the prevention and suppression of the disease. The results from the study show that university students are likely to be tested for HIV compared to the general

public. The research found 62% of the university students reporting having tested for HIV compared to 49% from the general public that had tested for HIV (Kalanzi, 2013).

Once again, Kalanzi (2013) found that urban dwellers were more likely to assess HTC (60%), compared to 46% of rural dwellers. The association between an individual's geographical location and testing for HIV was again found to be highly significant by the study. The study however, attributed the association to accessibility in terms of proximity to testing facilities just as health seeking behavioral studies report. The study reported that, although the percentage of women surveyed (58%) was slightly higher than men (54%), the result of an HIV testing across gender are insignificant.

Addis et al. (2013) also found sex, religion and previous residence as having statistically significant association with level of HTC uptake. In their 2013 study conducted among university students in North west Ethiopia, Addis et al., reported that great percentage of the students who had no partners (59%) were more likely to take an HIV test than those “in-relationship” (25%) and married (16%). The study further reported a large proportion of students who have never married (66%) as likely to test for HIV in the future as compared to those “in relationship” (27%) or married (7%) students. The results of the study revealed relationship between knowing where to get tested and taking an HIV test.

Again, the study found that religion was significantly associated with conducting an HIV test ($p = 0.027$). The study further explained that respondents who were single were about six times more probable to have tested HIV relative to those who were married or in relationships. The results of the study found a significant link between knowing where the HIV test can be found,

being aged between 17-20 years, with the likelihood of testing for HIV. It was found that men are about three times more likely to test for HIV in the near future than women.

2.1.2 Health System-Related Factors Influencing Uptake of HIV Testing and Counselling

Kaai et al. (2012) reported in their study that receiving HTC as part of a medical examination (eg, the inclusion of an HIV test by providing other services that occur in a sexual health clinic or facilities) or prenatal antenatal care (male referring to pregnancy of his spouse or wife) was the most frequently reported health system-related facilitator in 33% of the reports that were reviewed. Respondents as reported in the study cited unsuitability of testing (e.g., inconvenient inaccessible, and not private) venues as hindrances to HTC uptake in 30% of the reviewed studies.

Many of these studies that have been examined showed that participants mostly from small communities avoided STI clinics because they feared their neighbours may see them and reveal their risk behavior to others (Kaai et al., 2012). The study cited a similar study, indicating a lack of trust in the health services of the aboriginal population due to the poor experiences and difficulties and those newcomers face as they visited the health care system.

According to the findings of studies by Leta, Sandøy, & Fylkesnes (2012) on factors affecting voluntary HIV counseling and testing among men in Ethiopia, studies from Sub-Saharan Africa have documented that uptake of HTC increases when provided under hospital-based, home-based and work place-based compared to clinic-based HTC. This shows that there are some hindrances of facility-related HTC use.

Tsegay, Edris, & Meseret (2013) in their study for the evaluation of voluntary counseling and testing services among students from Debre Markos University in Ethiopia showed that the availability of ART was a positive factor of HTC uptake. They reported that students who are aware that ART will be available in the HTC site were 3.12 times more likely to utilize HTC service as opposed to their counterparts who are not aware of the availability of ART in the HTC site. The research also reports that the provision of ART will greatly extend the lives of infected students and ultimately motivate students to create a positive attitude and accept the services of HTC. The survey data showed that increasing use of ART will lead to increased acceptance by students, who saw risks related to HIV/AIDS test result were 2.4 times more inclined to utilize HTC service as opposed to their counterpart (Tsegay et al., 2013).

2.1.3 Personal-Related Factors Influencing Uptake of HIV Testing and Counselling

Kaai et al. (2012) studied the factors influencing HIV testing and counseling among heterosexuals in United Kingdom and Canada, and reported that there were several factors related to privacy and HTC. The study grouped these factors into six broad categories: risk perceptions, fear of HIV-related stigma and other fears, diseases or symptoms of HIV, HTC education, mandatory or partner recommended HTC, and culture. The study identifies the most commonly-thought-out individual risk factors that act as a hurdle to HTC uptake. This factor was personal-related or privacy factors. It was reported that this was quoted in 70% of 77 studies that were examined during their study. Kaai et al.(2012) also found that perceived risk was HTC's greatest predictor by using a healthcare model.

According to Strauss, Rhodes, and George (2015), at individual level, one main conclusion that affects the patronage of HTC is the importance of HIV testing and knowledge. The study further explains that lack of knowledge can be a major barrier to HIV testing. The study also identifies

potential behaviors of young people that affect their desire and their beliefs to test for HIV. They added that those who are known to be at higher risk for unhealthy sexual behaviors may be more likely to be tested for HIV. Again, the study explained that students who had never participated in sexual activity and believed they were not infected with HIV were less inclined to be tested for HIV. However, the study found that the history of HTC as well as frequent visits to health centers for young people sustained HIV testing. This study highlights the fear of discrimination against HIV, which is a major obstacle to HTC uptake.

Concerns about privacy are also related to discrimination. Direct trust associated with HTC's healthcare provider is a key determinant of HTC acquisition. Additionally, the long-queue challenges, long trips and less work time in healthcare facilities, affect students' ability to access HTC's services. HTC cost is seen as the key determinant of an HIV test, especially among students. The study reveals that the offer of HTC without charge, the performance of HTC's mobile service, greatly facilitates HIV testing among young people (Strauss et al., 2015).

In another study, described by Kaai et al. (2012) in which researchers studied factors related to HTC uptake among heterosexual black Africans between the ages of 16 and 44 in the United Kingdom, found increased risk perception was associated with HIV testing and counseling. Other factors linked to HTC's personal-related factors reported in the study were related to experiencing symptoms, of which 44% of the studies indicated, fear of stigma associated with HIV and other forms of anxiety (eg, fear of positive HIV outcomes, positive effects on social security status, insurance, family, having children, HIV documentation in medical records and revealing risks or sexuality to a health provider), which is a major constraint to HTC's approval in 37% of studies examined.

It was also found that the background of the culture influences people's beliefs and behaviors in terms of protection from HIV, thus bringing about the low uptake of HTC, as illustrated in about 19% of studies reviewed. The study showed, for example, among Aboriginal women in Canada, that cultural norms regarding non-disclosure issues including issues of sexual nature to outsiders (eg, healthcare providers), was the main barrier to HIV testing.

Studies report that the philosophy of promoting health and preventive medicine with regards to HIV Testing and Counseling is not well understood in most African communities. Thus, assessing health care is only done when there are specific health concerns that are considered serious (Kaai et al., 2012). HIV related stigma is reported to be highly and inversely related to HTC use. Stigma was found to have significant and dangerous influence on health and HIV transmission by influencing people to delay the search for healthcare and non-disclosure of health conditions for fear of rejection or loneliness can lead to noncompliance with medical advice. According to Kaai et al. (2012), stigma and discrimination have had their effects in Ethiopia not only at the work place, at health centers, in housing, in schools, in families and in personal contacts, but also in health services, discouraging individuals from HIV testing.

A similar research done in South Africa in 2006 was cited to have found low stigma among urban adults with higher economic status and better education. Researchers report that in rural areas with small communities and little anonymity, there may be more concern about privacy, which will lead to stigmatization in the event of a positive HIV test. The disparity in HTC uptake between rural and urban areas was purportedly attributed to the perceived differences in accessing health care facilities where HIV/AIDS related information and testing are provided (Leta et al., 2012).

In a study in which Addis et al. (2013) examined the knowledge, behaviors and practices of volunteering for HIV testing and counselling among students in Ethiopia, they found that the main reason for those who never had HTC in the past was the fear of a positive HIV test result and stigma and the resultant discrimination. The authors therefore stressed on the need for more work to be done in creating awareness regarding stigma and discrimination and the possibility of living longer with the virus as long as HIV positive individuals live their lives as per physicians and counselors instructions.

The study conducted by Asante (2013) among students in Ghanaian universities found that more than 90% of students had knowledge of locations for HIV test, but just 45% had ever tested for HIV. The findings were found in line with previous research that noted that most public university students did not participate in HIV testing. The resistance of students to test for HIV was associated with anxiety, fear, stigma as well as discrimination encountered during the counseling and testing of HIV. The study reported that fear of stigma has shown to influence the youth not to practice preventive behaviours and also an increase in knowledge about HIV does not predict behavioural change.

The study revealed that more than 90 percent of the participants were unmarried (single and “in relationship”) which is a health concern, because 56 percent of men and 39 percent of women were interested in future HIV testing. Although having knowledge of where to test for HIV can greatly increase the likelihood of the test, it does not affect people's will to seek out HTC services in the future. The study reported that a lack of resources for HIV testing and consultations at private and public universities in Ghana could be a factor in the current behaviors.

2.1.4 Knowledge Factors Regarding Uptake of HIV Testing and Counselling

HTC is a process by which a person passes through a consultation that will allow him to make the decision to receive an HIV test. The decision to get tested must be entirely the choice of the individual with the assurance of confidentiality. HTC has been found to be effective in coordinating behavioral change, including both HIV prevention and care seeking behaviour. HTC plays an important role in changing unprotected sex drive and reducing HIV and STIs (Addis et al., 2013).

According to Kalichman, Eaton and Cherry (2010), practical education on HIV infection is necessary, but not enough to promote HIV testing. Knowledge about using HIV / AIDS and HTC has a positive relationship. Students with HIV knowledge are 3.69 times more likely to use HTC than people who do not know about HIV. Moreover, knowledge about HIV, knowledge about HTC and attitude towards HTC showed association with practice on HTC for HIV which indicates the relation of one with the other. Therefore, changing knowledge and attitudes will facilitate the acquisition of HTC services (Addis et al., 2013).

Gadegbeku & Saka (2013) in their study about the attitude of the youth towards HTC in Accra reported that despite the fact that HTC services have several advantages, acceptance of this service in many countries (including Ghana) especially where HIV is highly stigmatized and access to these services and support for people who test serous positive are limited. The study further revealed that although 95% of respondents knew their sero-status could be checked, only 37% had really heard about availability of HTC services. Out of the 37% who were aware of this service few (6%) had actually been to the HTC centre either to visit a friend (2%) or to check their status (4%). This indicates that the level of awareness and utilization of this service by young people surveyed is low.

Kaai et al. (2012) found that enough educated participants on HTC were more inclined to test for HIV than those with little information. The study reports that many studies have shown that respondents were tested for HIV because they wanted to start a new sexual relationship, or just out of curiosity.

From the various literature reviewed, it is clear that HTC uptake is very low especially among adolescents. Varying reasons have been attributed to this phenomenon. There is therefore the need for more work to be done to come to a general conclusion as to factors that affect this low uptake among the youth.

CHAPTER THREE

METHODS

3.1 Study Area

The study was conducted in Sefwi Wiawso Municipality. Information from sub section 3.1.1 through to 3.1.5 were obtained from (Ghana Population and housing Census, 2010)

3.1.1 Population size, structure and composition

The total population of Sefwi Wiawso is 139200 with males making up 50.1% and females constituting 49.9%. About 41.2% of the population is less than 15years. Just about 5.2% of the population are 65 years and older. The sex ratio in the urban areas is 94.2 whereas that of the rural communities is 104.1.

3.1.2 Literacy and education

The proportion of literates among persons who are 11 years or older are 71.5% with 28.5% being illiterates. Among the males, 72.1% can read and write English with 66.3% of females being able to read and write English. A large proportion of the population 3 years and above currently attending school is at the primary level (47.2%) while 1.6 percent is in post-secondary or tertiary level. Though there are more males in tertiary institutions, more female can be found in secondary schools

3.1.3 Economic Activity Status

More than 71% of the populations who are older than 15years are economically active with 28.7% being economically inactive. About 97% of the economically active population are employed with 3.2 percent being unemployed. Among the economically inactive population 58.2

percent are students, about 24.5% are performing household duties with 3.1 percent being disabled or too ill to engage in any work. About 67% of the unemployed are first time job seekers with 32.9 percent having worked before. A greater proportion of females than males are employed among people 15 –24 years in the Municipality. (Population and Housing Census 2010.)

3.1.4 Employment

Almost 67 percent of the population older than 15 years is self-employed without employees, 3.0 percent are self-employed with employees, and 13.2 percent are contributing family workers. About 12.5 percent are employees with nearly three times more males than females. There are more females who are self-employed without employees, apprentices and contributing family. The percentage of the population employed in the private informal sector is 89.0 percent. The private formal and public sector employ 5.7 percent and 4.8 percent respectively. Females are less likely than males to be in these two sectors

Male employees (7.1%) make up greater proportion compared with their female counterparts (3.8%). Females (33.3%) on the other hand are more likely than males (20.7%) to be contributing family workers. Self-employed males without employees (65.6%) are also more than their female counterparts (57.1%).

3.1.5 Health Facilities

The municipality has 35 listed health facilities. There are 3 hospitals (the District Hospital at Sefwi Wiawso, St. John of God Hospital, and Greenshield hospital). There are six 6 clinics (2 CHAG and 4 private). There are 3 Health centres, 25 CHPS compounds and 2 private maternity

homes. Only 6 out of the 35 facilities perform HTC. The various locations of the health facilities can be seen in Figure 2 below.

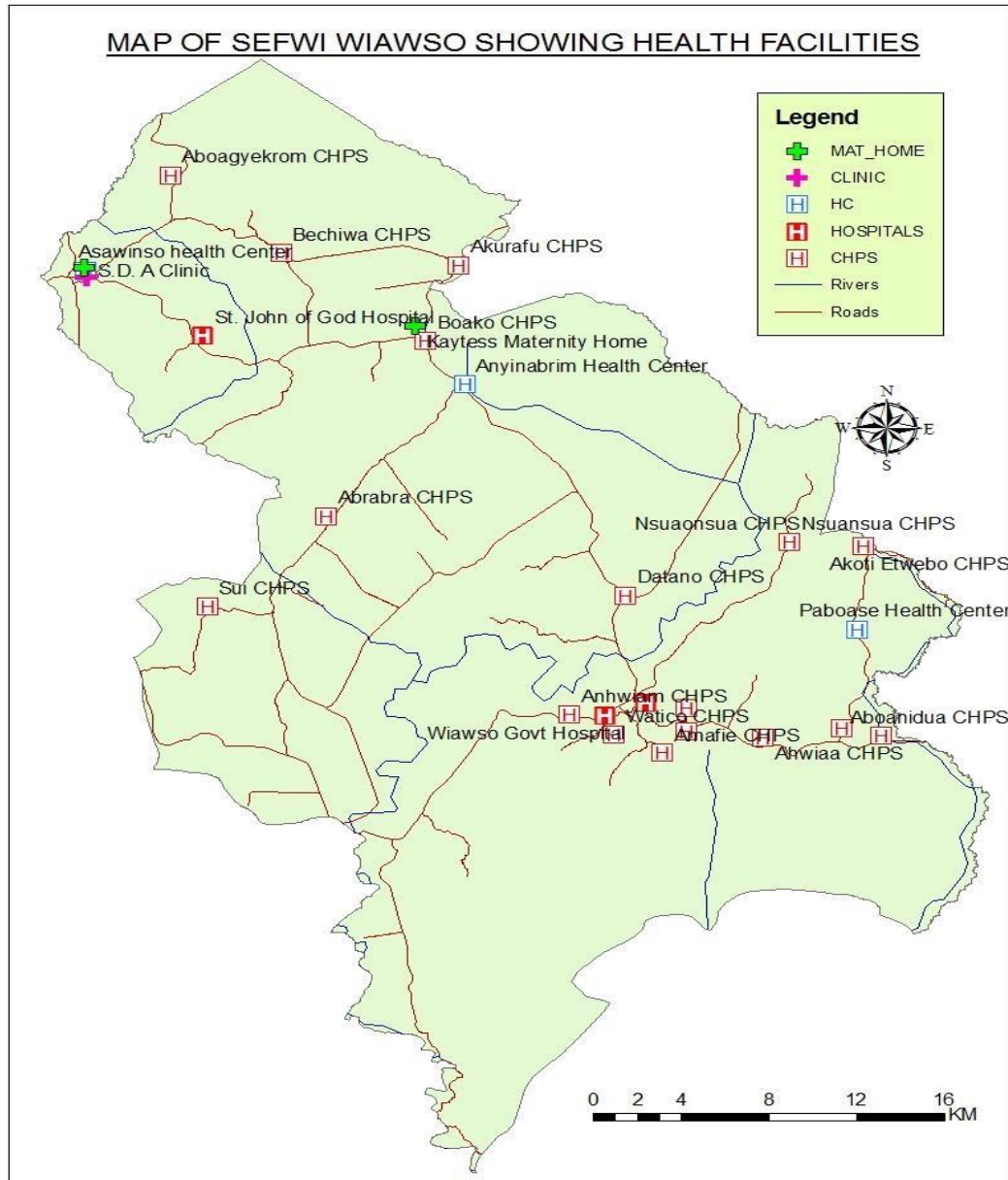


Figure 2. Map of Sefwi Wiawso Showing Health Facilities

Source: Municipal Directorate of Health Services (2015)

3.2 Study Design

A cross sectional survey was conducted on factors influencing uptake of HIV Testing and Counselling among the youth between 15 and 24 years. This design was used because it allowed both the exposure and outcome variables to be measured at the same point in time.

3.3 Study Population

The target population of this study was the youth (15-24 years) living in the Sefwi Wiawso Municipality for at least the past 6months. This population was targeted due to the perceived high risk of HIV infection among them because they are sexually active and are mostly involved in sexually risky behaviours (Govindasamy et al., 2015).

3.4 Variables of the Study

The outcome variable in this study is uptake of HIV Testing and Counseling among the youth. Other independent variables that were measured included demographic variables such as age of respondents, sex of respondents, and educational status of respondent and marital status of respondents. Also, the study measured the proportion of youth who ever tested for HIV, and factors that influence uptake of HIV testing and counselling

3.5 Sample Size Determination

Based on studies conducted in Africa and Ghana on HIV testing and counselling, the average proportion of the population that have ever tested for HIV have been estimated to be about 24%. Using a confidence interval of 95% $Z_{\alpha/2}$ with a 5% margin of error ($d=0.05$) the sample size of 309 was estimated for this study. This estimated proportion of HIV Testing and Counseling was used as a precision because there is no such study conducted in the Sefwi Wiawso Municipality. Ten percent non-response rate was used because HIV studies are sensitive and the youth

especially below 18 years may not be willing to speak to issues concerning the topic. Based on these assumptions, the actual sample size (n) for the study was 309 calculated using the formula below by Cochran

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

$$N = \frac{1.96^2 * 0.24 (1-0.24)}{0.05^2}$$

$$N = 280 + 29$$

$$N = 309$$

Where:

N = sample size

d= desired level of precision (margin of error)

p= estimated proportion of the population with attribute in question

z= z value of confidence interval found on a Z table

3.6 Sampling Method

A multi-stage sampling was used to select communities and study participants. The Municipal has seven (7) existing sub-municipals which were used as clusters. A simple random sampling technique without replacement was used to select four (4) sub-municipals out of the total seven (7) sub-municipals. All the names of the seven sub-municipals were written on pieces of paper and shuffled on a plate. Three of the sub-municipals were randomly selected without replacement. They were clustered into urban and sub-urban areas

The Wiawso sub-municipal which is the municipal capital however was purposively selected for the study due to the high population of the youth there to make up a total of four sub-municipals. The same procedure was used to select four 4 communities in each sub-municipal and the eligible youth (males and females) living in households of these communities were interviewed by consent. In each community, a central point was located and a pen thrown to select the first household for the study. The first household was selected when the ball point of the pen pointed towards the direction of the house. In each household, eligible participants were interviewed by consent. Where there was more than one eligible participant in a household, one was selected by writing “yes” and “no” on pieces of paper for them to pick and the one who picks yes was interviewed. Each household that was visited was numbered serially until the sample size is exhausted. The first household in each community was numbered as H/001 and the second household numbered H/002 until the sample size was exhausted. This procedure was repeated until the sample size was exhausted.

3.7 Data Collection Tools

A structured questionnaire was designed and used to collect the data using face-to-face interview. The questionnaire was constructed using both closed ended questions. The questions in the questionnaire were constructed to reflect the variables of the study. Questions covered demographic characteristics of respondents, respondents’ knowledge regarding HIV testing and counseling and factors that influence uptake of HIV testing and counseling. The questions were constructed in English and translated into Twi during the administration process. The tool was pretested among 20 eligible youth in the Juaboso district and some few ambiguities corrected to reflect the objectives of the study and to ensure that accurate information is provided by participants. The questions were constructed in simple English language to enable easy

translation by data collectors in the twi language. A day's training was organized for data collectors where the tool was interpreted in twi to enable them ask the right questions.

3.8 Data Management and Analysis

The data that were collected were edited manually to correct any duplications. The edited data were coded and statistically analyzed using stata software version 15. Basic descriptive statistics were performed and the results presented in frequencies and percentages using tables and charts. The relationship between variables was further analyzed using logistic regression analysis to show the strength of the association between the dependent variable and independent variables and this has also been presented in tables.

3.9 Quality control

To ensure data quality, care was taken in data collection, data handling and data management. Necessary considerations were given to the research objectives in designing the data collection instrument. Data collected each day, were checked for consistency to minimize human error.

3.10 Ethical Consideration

Ethical approval was sought from the Ghana Health Service Ethical Review Committee (GHS/RDD/ERC/Admin/18/074) before the commencement of the study. Permission was also sought from the Sefwi Wiawso Municipal Director of Health Services as well as leaders of the communities where the study was conducted. The interview was conducted on one-on-one basis in an environment that is devoid of distraction and provided privacy for the participants. The objectives of the study were explicitly explained to each participant and their informed consent sought before they answer the questions. Participants who gave their consent to participate in the study were given a consent form to sign/thumbprint before they were interviewed.

For participants below 18 years, an assent form was provided for their parents/guardians to consent by signing/thumb printing before they were interviewed. Participants were also made to understand that participation in the study was voluntary and that every participant had the right to withdraw at any time during the study. Confidentiality of data collected were ensured by using identifiers rather than names of participants and the participants were equally assured that the data collected were only used for academic purpose. The participants were assured of the safety of every information collected by ensuring that it was stored in an electronic format on different personal computers and as hard copies under key and lock in fire-proof cabinets. Apart from those involved in this study such as the data collectors and supervisor, no other party was given access to the data that were collected. The study involved only the administration of questionnaires with no risk to the participants.

Therefore, no compensation package was given to the participants. The administration of the questionnaires lasted about 30 minutes per participant and they were told before the start of each interview session. Participants in the study were provided with no material benefits from the study, however, their participation in the study helped them acquire some understanding of HIV and its transmission, the benefits of testing for and knowing their HIV status and where to get tested for HIV in the Municipality and beyond.

3.11 Expected Outcome

The research was expected to bring to light the factors that affect the uptake of HTC services among the youth. It also gathered information on the proportion of youth population that had ever tested for HIV. The information gathered would help develop strategies to increase the uptake of HTC services which will in the long run help decrease the incidence of HIV in the community

CHAPTER FOUR

RESULTS

This chapter presents the findings in relation to the objectives of the study. It begins with the demographic characteristics of respondents who participated in the study. The proportion of youth that were sampled from the population (Sefwi Wiawso municipality) who had ever been tested for HIV is also presented graphically. Other issues considered in this chapter include factors influencing uptake of HIV testing and counselling among the youth as well as barriers to HIV testing.

4.1 Background Characteristics of Respondents

Majority (56.0%) of the respondents who participated in the study were females. Among the youth who were sampled in the municipality, 50.6% of females indicated that they have ever tested for HIV while 49.4% males had also been tested for HIV (Table 1). 74.4% of the youth were between 16 and 22 years. This same age group (16 – 22 years) had the highest number of youth who had ever been tested for HIV. Majority (37.5%) of respondents were Protestants while a few number of youth were practicing other forms of religion. However, youth who are Catholics had the highest (44.3) HIV test patronization. African Traditionalists were the least category of youth to have ever been tested for HIV. There was a higher (80.9%) number of single youth than the married (19.1%). This same trend can be identified in the number of youth who had ever been tested for HIV. Majority of the youth had some form of education (either a secondary education or a post-secondary education). Youth with secondary education had the highest (51.3%) HIV test patronization rate while those with no form of education had the least

(23.4%) rate of HIV test patronization. Majority (80.6%) of the youth were students and were also the highest group of individuals who had ever been tested for HIV.

Table 1: Socio-demographic Characteristics of Respondents

Variable	Number of Respondents N = 309 (%)	Number ever tested for HIV n = 158 (%)
Sex		
Male	136 (44.0)	78 (49.4)
Female	173(56.0)	80 (50.6)
Age (years)		
Below 15	28 (9.1)	9 (5.7)
16 – 22	230 (74.4)	119 (75.3)
23 and above	51 (16.5)	30 (19.0)
Religion		
Catholic	106 (34.3)	70 (44.3)
Protestant	116 (37.5)	48 (30.4)
Muslim	57 (18.4)	30 (19.0)
African Traditional Religion	21 (6.8)	10 (6.3)
Other	9 (2.9)	–
Marital Status		
Single	250 (80.9)	120 (75.9)
Married	59 (19.1)	38 (24.1)
Educational Status		
Never attended	75 (24.3)	37 (23.4)
Secondary education	170 (55.0)	81 (51.3)
Tertiary or post-secondary education	64 (20.7)	40 (25.3)

Occupation		
Student	249 (80.6)	126 (79.7)
Farmer	7 (2.3)	5 (3.2)
Business	10 (3.2)	10 (6.3)
Professional	43 (13.9)	17 (10.8)

4.2 Proportion of Youth who ever tested for HIV

Majority (51%) of the youth indicated that they have ever gone in for HIV testing. This number is slightly higher (49%) than those respondents who had never been tested for HIV in the municipality.

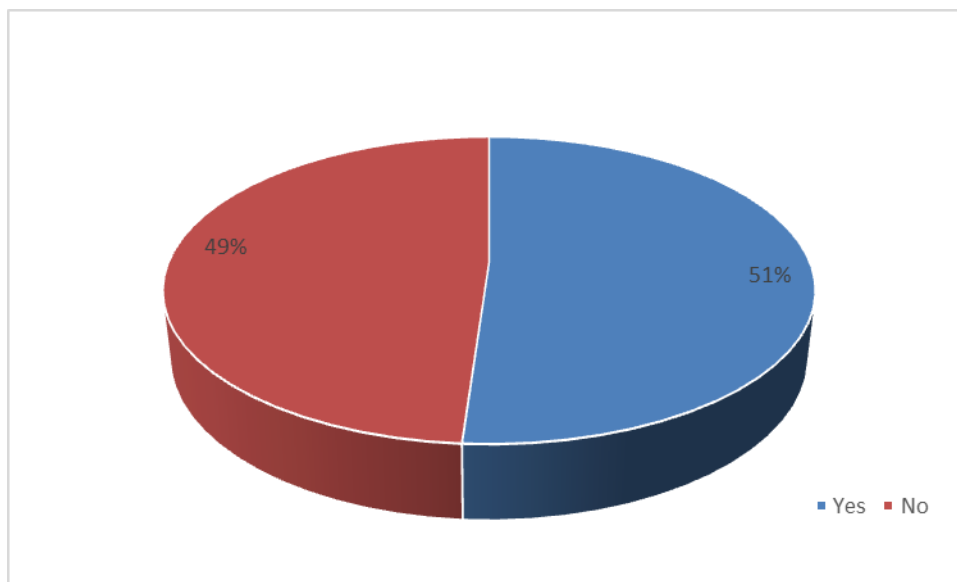


Figure 1: Proportion of youth ever tested for HIV

4.3 Socio-economic factors influencing Uptake of HIV testing and counselling among the Youth

Results on Table 2 indicate that 69.9% of respondents have ever heard of HTC services. However, 48.1% of the youth who have ever heard of HTC services had ever been tested for HIV, compared to 51.9% of the youth who had never heard of HTC services.

The hospital (50.0%) remains the highest avenue where the youth had their source of knowledge about HTC services. Other avenues of information about HTC services include friends (25.0%), private clinic/hospital (9.3%), NGO (12.5%) and other sources (3.2%). 56.3% of respondents who had their knowledge about HTC services from the hospital had ever been tested for HIV. Moreover, 9.5% of the youth who were educated about HTC services at private clinics/hospitals also indicated that they have ever been tested for HIV.

Knowledge of where HTC services are provided plays a key role in the uptake of HIV testing and counseling. Majority (79.0%) of the youth indicated that they know where to get access to HTC services in the municipality. This translates to a higher (82.9%) number of youth being tested for HIV compared to 17.1% of the youth who have no knowledge of where HTC services are provided.

The cost of accessing HTC services indicated that 79.5% of the youth were offered the service for free while others paid amounts ranging from GHC 1.00 – 10.00. Expectedly, respondents who were offered the service for free were the highest (75.9%) number of individuals to have ever tested for HIV.

Marital requirement was found to be the highest (55.0%) reason for testing for HIV among the youth. However, respondents who indicated that medical reasons accounted for their testing for HIV, were the highest (40.5%) group of people to have ever been tested for HIV.

Among respondents who have never been tested for HIV, majority (79.5) indicated that they were willing to get tested for HIV while 20.5% declined.

Voluntary counseling and testing was identified as the main (39.9%) type of HIV testing in the municipality. 44.3% of the youth who had ever been tested for HIV had availed themselves voluntarily to be counseled and tested for HIV.

Majority (67.6%) of the youth iterated that they believe that HIV testing is important while 32.4% indicated otherwise. 75.9% of those who had ever been tested for HIV knew the importance of the exercise while 24.1% do not know the relevance of testing for HIV.

Among respondents who know the importance of testing for HIV, 48.8% indicated that knowing one's status was important and 6.7% noted that testing for HIV is important to prevent HIV transmission. Other reasons given were know about HIV (4.8%), self-confidence (4.8%) and know my blood group (35.0%). Among those who have ever been tested for HIV, 40.5% know the importance of knowing their HIV status while 38.6% know the importance of getting tested to prevent HIV transmission.

Majority (63.4%) of the youth indicated that HIV testing was convenient for them. 69.6% of youth who found that HIV testing was convenient had ever been tested for HIV while 30.4% of youth who indicated that HIV testing was not convenient for them had ever been tested.

Among respondents who indicated the inconvenience of HIV testing, majority (49.6%) noted the lack of confidentiality as a major reason. Other factors such as distance from their home to the HTC service centre (31.9%), services not always available (11.5%), and lack of privacy (7.1%) were some of the reasons given for the inconvenience of the HIV testing.

Table 2: Socio-economic factors influencing Uptake of HIV testing and counselling among the Youth

Variable	Number of Respondents N = 309 (%)	Number ever tested for HIV n = 158 (%)
Ever heard about HTC		
Yes	216 (69.9)	104 (65.8)
No	93 (30.1)	54 (34.2)
If yes, source of knowledge		
Hospital	108 (50.0)	89 (56.3)
Friends	54 (25.0)	26 (16.5)
Private clinic/Hospital	20 (9.3)	15 (9.5)
NGO	27 (12.5)	28 (17.7)
Others	7 (3.2)	–
Know where HTC services are provided		
Yes	244 (79.0)	131 (82.9)
No	65 (21.0)	27 (17.1)
If yes, cost of HTC		
Free	194 (79.5)	120 (75.9)
GHC 1.00 – 5.00	16 (6.6)	38 (24.1)
GHC 6.00 – 10.00	34 (13.9)	–

Reasons for testing for HIV		
Medical reason	97 (31.4)	64 (40.5)
Marital requirement	135 (55.0)	61 (38.6)
Fear of HIV	50 (20.7)	32 (20.3)
Parental pressure	19 (6.1)	1 (0.6)
Others	8 (2.6)	–
Intention to test		
Yes	120 (79.5)	–
No	31 (20.5)	–
Type of HIV testing		
Voluntary counseling and testing	63 (39.9)	70 (44.3)
Know your Status	25 (15.8)	40 (30.4)
During pregnancy	21 (13.3)	38 (25.3)
Provider-initiated testing	14 (8.9)	15 (9.5)
Others	34 (21.5)	25 (15.8)
Importance of HIV testing		
Yes	209 (67.6)	120 (75.9)
No	100 (32.4)	38 (24.1)
If important, why		
Know your status	102 (48.8)	64 (40.5)
Prevent HIV transmission	14 (6.7)	61 (38.6)
Know about HIV	10 (4.8)	32 (20.3)
Self confidence	10 (4.8)	1 (0.6)
Know my blood group	73 (35.0)	–
Convenience of HIV testing		
Yes	196 (63.4)	110 (69.6)

No	113 (36.6)	48 (30.4)
If no, reasons for inconvenience		
Lack of confidentiality	56 (49.6)	83 (52.5)
Distance too far	36 (31.9)	22 (13.9)
Services not always available	13 (11.5)	25 (15.8)
Lack of privacy	8 (7.1)	28 (17.7)

4.4 Demographic factors influencing Uptake of HIV testing and counselling among the Youth

The demographic characteristics of respondents indicated diverse findings (Table 3). Females were more likely than males to patronize HIV testing and counseling services in the municipality. Thus sex of the individual is a significant factor in determining whether or not a youth would consider HIV testing and counseling services. None of the age was significant in the model. Moreover, none of the religions was also significant in determining the uptake of HIV and counseling among the youth. However, married individuals were more likely to consider HIV testing and counseling compared to individuals who are single. Individuals with tertiary or post-secondary education were more likely to adopt HIV testing and counseling compared with individuals with no level of education. None of the categories of occupation was however not significant in determining uptake of HTC services.

Table 3: Demographic factors influencing Uptake of HIV testing and counselling among the Youth

Variable	Odds Ratio	95% C.I	p – value
Sex			
Male	1	-	
Female	1.22	0.714 – 1.30	0.028
Age (years)			
Below 15	1	-	
16 – 22	0.79	0.409 – 1.246	0.75
23 and above	1.41	0.809 – 1.593	0.086
Religion			
Catholic	1	-	
Protestant	0.34	1.122 – 0.646	0.31
Muslim	0.75	0.503 – 0.889	0.082
African Traditional Religion	0.83	0.244 – 1.086	0.91
Other	0.51	0.311 – 0.967	0.134
Marital Status			
Single	1	-	
Married	0.93	0.081 – 1.322	0.03
Educational Status			
Never attended	1	-	
Secondary education	0.78	0.52 – 1.242	0.19
Tertiary or post-secondary education	1.42	0.846 – 1.749	0.04
Occupation			
Student	1	-	

Farmer	0.89	0.594 – 1.022	0.49
Business	0.76	0.363 – 1.404	0.07
Professional	0.98	0.759 – 1.221	0.52

4.5 Socio-demographic Factors affecting Uptake of HIV testing and Counseling

The study found that females were 1.35 times more likely than males to consider uptake of HTC services, after adjusting for covariates. Moreover, married respondents (AOR = 0.97, C.I. = 0.45 – 1.61) were less likely than single respondents to patronise HTC services. Other variables that determine uptake of HTC services include tertiary or post-secondary education, respondents aged 23 and above, convenience of HTC services, and knowledge of where HTC services are provided.

Table 4: Multiple Logistic Regression Analysis of Uptake of HIV Testing and Counselling

Variables	OR	AOR	95% C.I.	p – value
Sex				
Male	1	1	-	-
Female	1.23	1.35	0.51 – 1.58	0.022
Religion				
Catholic	1	1	-	-
Protestant	0.54	0.77	0.36 – 1.42	0.113
Muslim	0.83	0.91	0.83 – 1.63	0.228
African Traditional Religion	0.33	0.52	0.25 – 1.26	0.056
Other	0.51	0.64	0.21 – 1.08	0.593
Marital Status				
Single	1	1	-	-

Married	0.81	0.97	0.45 – 1.61	0.025
Educational Status				
Never attended	1	1	-	-
Secondary education	0.95	1.37	0.86 – 1.93	0.063
Tertiary or post-secondary education	1.08	1.45	0.82 – 2.01	0.047
Occupation				
Student	1	1	-	-
Farmer	0.59	0.72	0.53 – 0.98	0.593
Business	0.43	0.49	0.30 – 0.84	0.087
Professional	0.84	0.91	0.82 – 1.21	0.074
Age				
Below 15	1	1	-	-
16 – 22	0.57	0.96	0.29 – 1.42	0.231
23 and above	0.96	1.01	0.50 – 1.35	0.034
Convenience of Testing				
Yes	1	1	-	-
No	0.64	0.73	0.43 – 1.22	0.023
Willingness to Test for HIV				
Yes	1	1	-	-
No	0.35	0.61	0.19 – 0.97	0.125
Importance of HTC Services				
Yes	1	1	-	-
No	0.62	0.87	0.32 – 1.28	0.127
Knowledge of where HTC services are				

provided				
Yes	1	1	-	-
No	0.74	0.93	0.45 – 1.47	0.001
Convenience of Location of HTC Service				
Yes	1	1	-	-
No	0.85	0.91	0.28 – 1.33	0.322
Ever heard about HTC services				
Yes	1	1	-	-
No	0.73	0.82	0.39 – 1.64	0.093

4.5 Knowledge and Awareness of HTC Services

The study found that there was a high level of knowledge and awareness of HTC services among the youth. About 80% of the youth indicated that they know where HTC services are provided. Among those who know where access HTC services, about 48% indicated that their source of knowledge was from the hospital. Other sources of knowledge include friends and NGO (Figure 2).

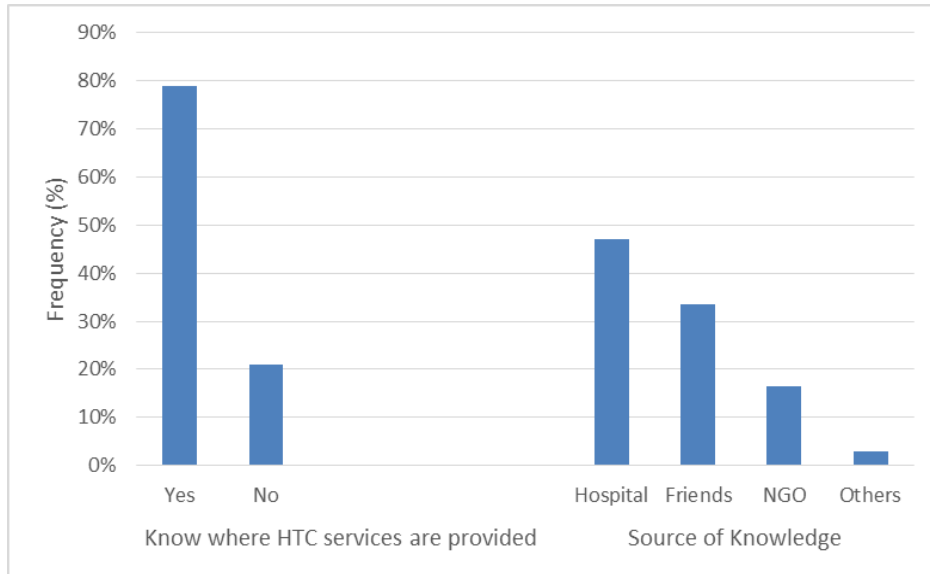


Figure 2: Knowledge and awareness of HTC services

4.6 Barriers to HIV testing

The fear of stigma is the main barrier to HIV testing in the municipality (Figure 3). Other factors that hinder HIV testing in the municipality are fear of discrimination, fear of positive results, and partner and self-trust.

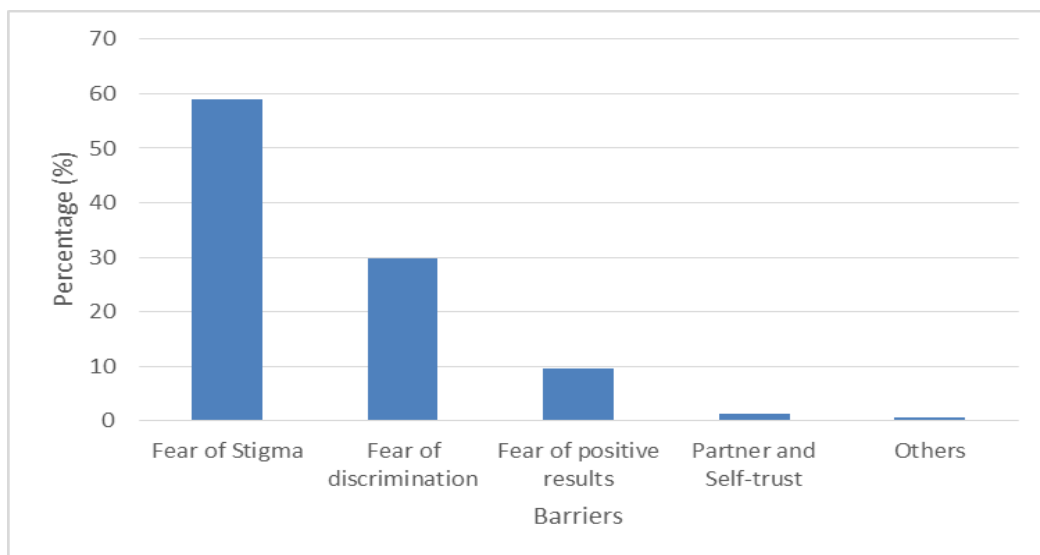


Figure 3: Barriers to HIV testing

4.7 Suggestions to enhance HTC Services

Suggestions that have been proposed by the youth to promote the uptake of HIV testing and counseling service are provision of HTC services in churches, mosques, and communities, service providers should be respectful, compassionate and humble, and a mass campaign to recommend HIV testing to people in the municipality.

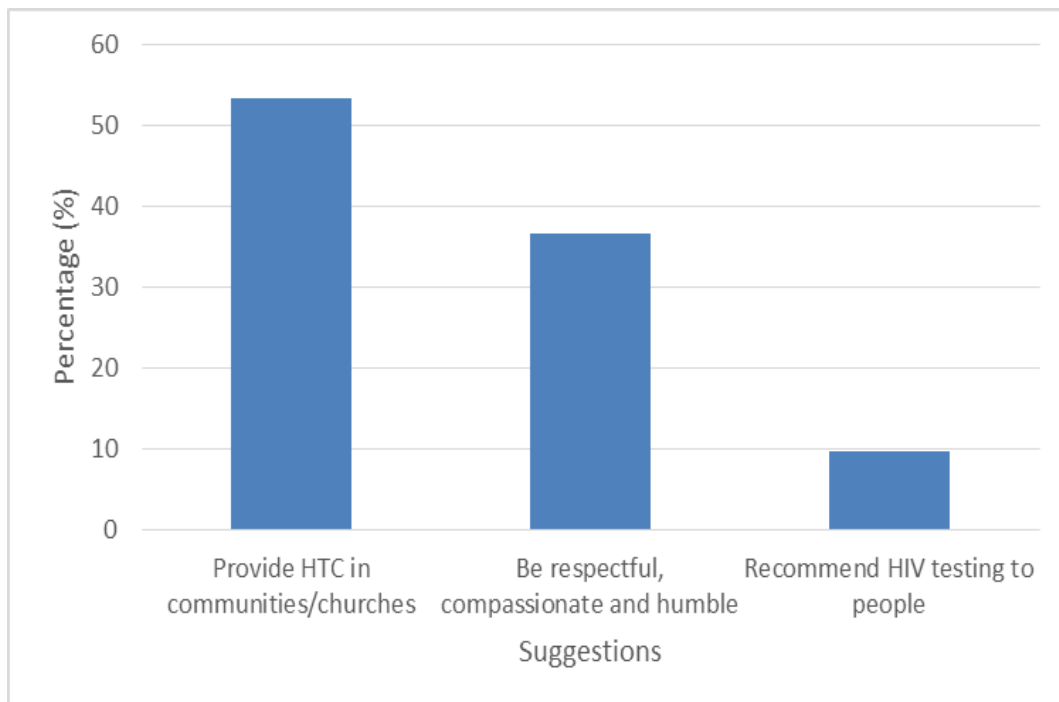


Figure 4: Suggestions to enhance HTC services

CHAPTER FIVE

DISCUSSIONS

5.0 Introduction

HIV Testing and Counseling (HTC) remain pivotal in accessing HIV treatment and prevention services. This study sought to assess the factors influencing uptake of HIV testing and counselling among the youth in Sefwi Wiawso Municipality. A cross sectional survey was conducted on factors influencing uptake of HIV Testing and Counselling among the youth between 15 and 24 years. The following discussions focus on the three specific objectives for the study

5.1 Proportion of Youth that has ever tested for HIV in the Sefwi Wiawso Municipality.

Generally, majority of the youth indicated that they had ever tested for HIV. This number is slightly higher than those respondents who had never been tested for HIV in the municipality. Findings from the study indicated also that about half of female population indicated that they have ever tested for HIV while a little below half of males had also been tested for HIV (Table 1). This finding compares with the 2008 Ghana Demographic and Health Survey (GDHS) report that indicated that the proportion of females and males aged 15-49 years that have ever tested for HIV was 21% and 14% respectively. This is an indication that females within the municipality are more likely to know their HIV status compared to their male counterparts. This finding further collaborates a study conducted by Yawson et al (2014), which found that females in Southern African countries were using HTC services more than males relative to countries such as Nigeria, Ethiopia, Zambia and Tanzania, where male utilization of HTC was higher than females. They found the high female testing to be in line with previous findings in Ghana, which

showed high readiness for HIV testing among pregnant women. Again, Yawson et al., (2014) reported in their study on HIV patients in Ghana that more females were getting tested for HIV in hospitals than their male counterparts.

The distribution of the age group of respondents indicated that respondents aged between 16 – 22 years had the highest number of youth who had ever been tested for HIV. Considering recent studies that have demonstrated that, young people who are labelled as sexually active tend to be exposed to early sex in sub-Saharan Africa (SSA) before the age of 15 years (Govindasamy et al., 2015), it is not surprising to witness majority of respondents within this age group availing themselves for HIV counseling and testing. A study conducted by Kaai, Bullock, Burchell, and Major (2012) however suggested that middle-aged respondents had the highest testing rates with the young and older populations recording lower rates.

It is also interesting to observe that whereas this study found that youth who are African Traditionalists were the least category of respondents to have ever been tested for HIV, findings from a study conducted by Addis et al. (2013) cited Muslims as being less likely to be tested for HIV. However, youth who are Catholics had the highest (44.3%) HIV test patronization rate in the municipality. This finding could be as a result of higher adherence to religious beliefs, which may protect one against the contraction of HIV.

The study also established that single youth were more likely than the married to ever been tested for HIV. In their 2013 study conducted among university students in North west Ethiopia, Addis et al., reported that a large proportion of the students who were single (59%) were more likely to take an HIV test than those “in-relationship” (25%) and married (16%).

5.2 Factors Associated with uptake of HIV Testing and Counselling among the youth in the Sefwi Wiawso Municipality.

Females were more likely than males to patronize HIV testing and counseling services in the municipality. Thus sex (p – value <0.05) of the individual is a significant factor in determining whether or not a youth would consider HIV testing and counseling services. Moreover, marital status, educational status, convenience of test, and knowledge of where HTC services are provided are all significant (p – values <0.05) in determining whether or not a youth would consider taking up HIV testing and counseling services in the municipality.

Youth with secondary education had the highest HIV test patronization rate while those with no form of education had the least rate of HIV test patronization. Moreover, majority of the youth were students and were also the highest group of individuals who had ever been tested for HIV. In a similar study conducted by Kalanzi, (2013), 63% of those with some college education had tested for HIV, compared to 47% of those with only a high school education having tested for HIV. This was attributed to the potential of education to empower people with more financial capacity to access testing services and also knowledge regarding the essence of disease prevention and control.

Ideally, knowledge about HTC services is expected to induce people to be more willing to uptake HTC services. Knowledge of where HTC services are provided plays a key role in the uptake of HIV testing and counseling. Majority of the youth indicated that they know where to get access to HTC services in the municipality. This translates to a higher number of youth being tested for HIV compared to the youth who have no knowledge of where HTC services are provided. This finding thus underscores the need for intensive education by stakeholders in the fight against

HIV in the municipality. According to Strauss, Rhodes and George (2015), one fundamental finding that influences uptake of HTC is the relevance of knowledge about testing and HIV. The study further explained that lack of knowledge can be an important barrier to HIV testing status.

The cost of accessing HTC services indicated that 79.5% of the youth were offered the service for free while others paid amounts ranging from GHC 1.00 – 10.00. Interestingly, respondents who were offered the service for free were the highest (75.9%) number of individuals to have ever tested for HIV.

Poverty was also found to be associated with HIV testing and counseling behavior just as it has been shown in several health seeking behavioral studies.

In a study conducted in Nigeria by Bwambale et al. (2008) poverty was found to be a big obstacle to seeking health care from professionals. The cost of accessing HTC services indicated that 79.5% of the youth were offered the service for free while others paid amounts ranging from GHC 1.00 – 10.00. Interestingly, respondents who were offered the service for free were the highest (75.9%) number of individuals to have ever tested for HIV.

The hospital (50.0%) remains the highest avenue where the youth had their source of knowledge about HTC services. 56.3% of respondents who had their knowledge about HTC services from the hospital had ever tested been tested for HIV. This confirms a similar study conducted in Sub-Saharan Africa by Leta et al. (2012) who indicated in their findings that uptake of HTC increases when provided under hospital-based conditions.

5.3 Knowledge and Awareness of the Youth of Sefwi Wiawso on HIV Testing and Counselling.

Majority (67.6%) of the youth iterated that they believe that HIV testing is important while 32.4% indicated otherwise. 75.9% of those who had ever been tested for HIV knew the importance of the exercise while 24.1% do not know the relevance of testing for HIV. Among respondents who know the importance of testing for HIV, 48.8% indicated that knowing one's status was important and 6.7% noted that testing for HIV is important to prevent HIV transmission. Among respondents who have never been tested for HIV, majority (79.5%) indicated that they were willing to get tested for HIV while 20.5% declined. According to a study by Ogaji, Oyeyemi and Ibrahim (2013) on awareness, willingness and use of HTC services by students of a university in south-south Nigeria, 72% of Nigerian tertiary students desired to have an HIV test; an increase from 43% observed in 2005 according to the HIV/AIDS and Reproductive Health Survey (NARHS) report. Moreover, a study by Asante (2013), among university students in Ghana found out that over 90% of the students had knowledge about where to get an HIV test however, only 45% had tested for HIV. This finding was found consistent with previous studies Asante (2013) where it was reported that majority of public university students had not taken an HIV test. This study thus reiterates the importance of knowing one's HIV status in promoting responsible lifestyles among the youth in the municipality.

Several factors interplay to influence a person's decision to voluntarily or otherwise make a decision to have an HIV test. Voluntary counseling and testing was identified as the main (39.9%) type of HIV testing in the municipality. 44.3% of the youth who had ever been tested for HIV had availed themselves voluntarily to be counseled and tested for HIV. Majority (63.4%) of the youth indicated that HIV testing was convenient for them. 69.6% of youth who found that

HIV testing was convenient had ever been tested for HIV while 30.4% of youth who indicated that HIV testing was not convenient for them had ever been tested. Among respondents who indicated the inconvenience of HIV testing, majority (49.6%) noted the lack of confidentiality as a major reason. Fear of positive results, stigmatization, discrimination, fear of losing one's job and fear of death from AIDS the decision to test for HIV becomes a difficult one for most people. This finding is consistent with Strauss et al (2015) where respondents in the study also complained about lack of confidentiality and fear of discrimination as barriers to HTC uptake. The decisions to go for an HIV test is also determined by the fact that people are knowledgeable of the importance of the test and know where to go for the test. Most people may have the intention to test for HIV but have inadequate information about where to get tested or cannot afford the cost of the test. This finding is supported by Bwambale et al (2008) which identified poverty as a major barrier to seeking HTC services.

5.4 Barriers to HIV testing

Gadegbeku and Saka (2013) in their study about the attitude of the youth towards HTC in Accra reported that despite the fact that HTC services have several advantages, acceptance of this service in many countries (including Ghana) especially where HIV is highly stigmatized and access to these services and support for people who test positive are limited. The fear of stigma was found to be the main barrier to HIV testing in the municipality. Other factors that hinder HIV testing in the municipality are fear of discrimination, fear of positive results, and partner and self-trust.

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 HTC, severity of HIV and barriers to HTC.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.0 Introduction

This chapter presents the conclusions drawn from the study and also recommendations made in view of the findings

6.1 Conclusion

The findings of the study show that a little over half of the youth had ever tested for HIV. However, the rest citing fear of discrimination, fear of positive results, fear of stigma and partner and self-trust as factors prevent them from patronizing uptake of HIV testing and counselling services. Sex of an individual was found to significantly influence whether a youth would consider uptake of HTC services. Again marital status and educational status were some demographic factors found to be significant determinants of HIV testing and counselling among the youth.

6.2 Recommendations

In line with the findings from this study the following recommendations are made

1. Public Health Practitioners need to sensitize people that everybody is at risk of being infected with HIV. Evidence from available studies indicates that people with low risk perception are less likely to test for HIV. Public Health practitioners should employ the use of radio and television in their campaign to help reach a wider audience with their message HTC.

2. The Ghana Health Service needs to introduce new strategies such as door-to-door rapid HIV same day results test. This will increase the rate of testing especially among those who avoid the hospital for fear of being recognized by known people.
3. Furthermore, the Ministry of Health and Ghana Health Service should incorporate counseling services with blood donation points to counsel blood donors. Most people who go to test in order to donate blood miss the opportunity of being counseled effectively.
4. Additionally, health workers should provide quality care and ensure privacy and confidentiality in dealing with clients seeking testing and counseling services. The supervisors should give quarterly in service training and refresher courses to providers of the service on interpersonal and communication skills as well as ethics of nursing..

6.3 Implications for Research

Further research on uptake of HIV testing and counselling among the general population in Sefwi Wiawso Municipality is needed to contribute to additional evidence on the factors influencing uptake of HIV testing and counselling within this age group.

REFERENCES

- Ababa, A., & Ali, A. (2015). Factors associated with HIV counseling and testing and correlations with sexual behavior of teachers in primary and secondary schools, 197–208.
- Abokyi, L. V, Zandoh, C., Mahama, E., Sulemana, A., Adda, R., & Baiden, F. (2014). WILLINGNESS TO UNDERGO HIV TESTING IN THE KINTAMPO DISTRICTS OF GHANA, 48(1), 43–46.
- Addis, Z., Yalew, A., Shiferaw, Y., Alemu, A., Birhan, W., & Mathewose, B. (2013). Knowledge , attitude and practice towards voluntary counseling and testing among university students in North West Ethiopia : a cross sectional study. BMC Public Health, 13(1), 1. <http://doi.org/10.1186/1471-2458-13-714>
- Asante, K. O. (2013). HIV / AIDS knowledge and uptake of HIV counselling and testing among undergraduate private university students in Accra , Ghana. Reproductive Health, 10(1), 1. <http://doi.org/10.1186/1742-4755-10-17>
- Bwambale, F. M., Ssali, S. N., Byaruhanga, S., Kalyango, J. N., & Karamagi, C. A. S. (2008). Voluntary HIV counselling and testing among men in rural western Uganda : Implications for HIV prevention, 12, 1–12. <http://doi.org/10.1186/14712458-8-263>
- Croce-galis, M., Hardee, K., & Gay, J. (2014). HIV PREVENTION FOR Brief: Scaling up Evidence-Informed HIV Prevention for Adolescent girls and young women, 1-6.
- Gadegbeku, C., & Saka, R. (2013). Attitude of the Youth towards Voluntary Counselling and Testing (VCT) of HIV / AIDS in Accra , Ghana, 3(11), 133–141.
- Govindasamy, D., Ferrand, R. A., Wilmore, S. M. S., Ford, N., Ahmed, S., Afnanholmes, H., & Kranzer, K. (2015). Review article Uptake and yield of HIV testing and counselling among children and adolescents in sub-Saharan Africa : a systematic review, 1–9.
- Jimoh, A. A. G., & Balogun, O. R. (2010). Factors Hindering Acceptance of HIV / AIDS Voluntary Counseling and Testing (VCT) among Youth in Kwara State , Nigeria, 2010(3), 159–164.
- Joint United Nations Programme on HIV/AIDS (UNAIDS), & African Union (AU). (2015). Empower young women and adolescents girls: Fast-tracking the end of the AIDS epidemic in Africa, 32. <https://doi.org/JC2746E>

- Kaai, S., Bullock, S., Burchell, A. N., & Major, C. (2012). Patient Education and Counseling Factors that affect HIV testing and counseling services among heterosexuals in Canada and the United Kingdom: An integrated review. *Patient Education and Counseling*, 88(1), 4–15. <http://doi.org/10.1016/j.pec.2011.11.011>
- Kalanzi, D. J. N. (2013). HIV Testing and Public Health in Uganda: American International Journal of Contemporary Research, Uganda, 3(1), 24–31.
- Kalichman, S. C., Eaton, L., & Cherry, C. (2011). NIH Public Access, 33(6), 432–440. <http://doi.org/10.1007/s10865-010-9275-7>.
- Kharsany, A. B. M., & Karim, Q. A. (2016). HIV Infection and AIDS in Sub-Saharan Africa: Current Status, Challenges and Opportunities. *The Open AIDS Journal*, 10, 34–48. <https://doi.org/10.2174/1874613601610010034>
- Leta, T. H., Sandøy, I. F., & Fylkesnes, K. (2012). Factors affecting voluntary HIV counselling and testing among men in Ethiopia: a cross-sectional survey. <http://doi.org/10.1186/1471-2458-12-438>
- Macphail, C., Pettifor, A., Moyo, W., & Rees, H. (2015). Factors associated with HIV testing among sexually active South African youth aged 15–24 years, 0121(October). <http://doi.org/10.1080/09540120802282586>
- Millage, A. (2009). Young People and HIV/AIDS: Opportunity in Crisis. *Internal Auditor*, 65(3), 1–28. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=41566003&site=ehost-live>
- Helleringer, S., Kohler, H. P., Frimpong, J. A., & Mkandwire, J. (2011). NIH Public Access, 51(2), 185–193. <http://doi.org/10.1097/QAI.0b013e31819c1726>.
- Ogaji, D. S., Oyeyemi, A. S., & Ibrahim, I. (2013). & PRIMARY HEALTH CARE Awareness , willingness and use of Voluntary HIV testing and counseling services, 25(2), 36–44.
- Owolabi, R. S., Daniel, O., Araoye, M. O., Osagbemi, G. K., Odeigah, L., & Ogundiran, A. (2011). Self-reported reasons for seeking HIV testing by people living with HIV / AIDS (PLWHA) in a tertiary hospital in Nigeria, 59–62.
- Population of Africa (2017) - Worldometers. (n.d.). Retrieved November 4, 2017, from <http://www.worldometers.info/world-population/africa-population/>
- Sanga, Z., Kapanda, G., Msuya, S., & Mwangi, R. (2015). Factors influencing the uptake of Voluntary HIV Counseling and Testing among secondary school students in Arusha City , Tanzania : a cross sectional study, 1–9. <http://doi.org/10.1186/s12889015-1771-9>

- Sherr, L., Lopman, B., Kakowa, M., & Dube, S. (2007). Sherr L , Lopman B , Kakowa M , et al . Voluntary counselling and testing : Uptake , impact on sexual behaviour , and HIV incidence in a rural Zimbabwean cohort Voluntary counselling and testing : uptake , impact on sexual behaviour , and HIV incidence in a rural Zimbabwean cohort, (October 2015). <http://doi.org/10.1097/QAD.0b013e32805e8711>
- Signorelli, C., Ph, D., Osborn, J. F., & Ph, D. (2001). Factors Associated with HIV Testing : Results from an Italian General Population Survey 1, 48, 40–48. <http://doi.org/10.1006/pmed.2000.0778>
- Strauss, M., Rhodes, B., & George, G. (2015). A qualitative analysis of the barriers and facilitators of HIV counselling and testing perceived by adolescents in South Africa. BMC Health Services Research, 1–12. <http://doi.org/10.1186/s12913-015-0922-0>
- Tsegay, G., Edris, M., & Meseret, S. (2013). Assessment of voluntary counseling and testing service utilization and associated factors among Debre Markos University Students , North West Ethiopia : a cross-sectional survey in 2011.
- UNAIDS. (2000). Voluntary Counselling and Testing (VCT). UNAIDS Technical Update., (May), 1–12.
- UNAIDS. (2016). Ending the AIDS epidemic for adolescents, with adolescents, 36.
- UNAIDS report shows that 19 million of the 35 million people living with HIV today do not know that they have the virus | UNAIDS. (n.d.). Retrieved November 4, 2017, from <http://www.unaids.org/en/resources/presscentre/pressreleaseandstatementarchive/2014/july/20140716prgareport>
- Voluntary Counselling and Testing for HIV/AIDS | Life skills | UNICEF. (n.d.). Retrieved November 4, 2017, from https://www.unicef.org/lifeskills/index_8017.html
- WHO. (2016). Progress Report 2016, prevent HIV, test and treat all. *Progress Report 2016, Prevent HIV, Test and Treat All*, 64.
- WHO | Adolescent health epidemiology. (2014). WHO. Retrieved from http://www.who.int/maternal_child_adolescent/epidemiology/adolescence/en/
- Yawson, A. E., Dako-gyeke, P., Addo, S. A., & Dornoo, B. T. (2014). Utilization of HIV Testing and Counseling in Ghana : Implications for Universal Coverage, 145–155

APPENDICES

Appendix A: Consent Form for Participation in the Study

Household Number.....

Dear Participant,

You have been selected to participate in this survey on factors influencing uptake of HIV Counseling and Testing among the youth who are 15 to 24 years. This study is being conducted by Mr. Eric Osei Ameyaw, a student of the University of Ghana, School of Public Health as partial fulfillment for the award of a Masters of Public Health degree.

The information you provide will be treated totally confidential and will not be disclosed to anyone except for academic purpose. No response you give will be specifically identified with you but will be combined with the general responses of the entire population.

Your participation in this study is voluntary and you are allowed to withdraw in the course of the interview even after you have agreed to participate without any penalty. If you have any questions about the study you are free to ask the interviewer or the following persons: Mr. Eric Osei Ameyaw (principal investigator) on 0243767504 or Dr. Kwabena Opoku Mensah (supervisor, School of Public Health, Legon) on 0244273182.

You will be asked questions about yourself, your knowledge regarding HIV Counseling and Testing and factors that influence HIV Counseling and Testing. The study does not pose any risk except some questions that may go into your private sexual life.

It is important to note that your participation in this study will enable you to learn about HIV and the benefits of knowing your HIV status. You may also be directed to places where HIV test is conducted if you wish.

This study has been approved by the Ghana Health Service Ethics Review Committee which is in-charge of approving studies on health among human population. You can contact the administrator of the Ghana Health Service Ethical Review Committee, Hannah Frimpong, on 0507041223 for further information or clarification, if necessary.

Signing/thumb printing this consent form indicates your understanding of what will be expected of you and your readiness to participate in the study.

Read by Participant		Read by Interviewer	
Agreed		Refused	

I hereby provide INFORMED CONSENT to participate in this study on factors influencing HIV Counseling and Testing among the youth (15-24 years) without been coerced by the interviewer.

Signature/Thumbprint of Participant.....

Signature/Thumbprint of witness.....

Date

APPENDIX B : ASSENT FORM FOR PARTICIPANTS LESS THAN 18 YEARS

Your child is invited to participate in a research study being conducted by Mr Eric Osei Ameyaw, a Master of Public Health student, School of Public Health, University of Ghana and his assistants. The purpose of the research is to study factors that influence HIV testing and counselling among the youth aged 15-24 years and your child happens to be selected to participate. He/she will be asked some questions regarding his/her sexual history, HIV testing status and demographic information. There are no known risks associated with this research other than the potential for mild boredom or fatigue. There are no known benefits other than the knowledge gained from having participated in the study. The questions will take no longer than 30 minutes. Your child's participation is voluntary.

He/she may choose not to participate in this research study. If he/she agrees to participate, he/she can withdraw from the study at any time. We will do everything we can to protect your child's privacy. His/her name will be recorded only for scheduling and consent purposes. All data will be identified only by a subject number. Any materials containing his/her name (e.g., consent forms) will be kept in a separate locked file. Any record linking your child's name to a particular subject number will be destroyed once the study is complete. His/her identity will not be revealed in any publication that may result from this study. The study is not meant to diagnose your child HIV status and for that matter we cannot provide you with any results regarding his/her HIV status.

If you have any questions at this point please ask the interviewer. You can also contact the principal investigator, Mr Eric Osei Ameyaw, on 0243767504 or his supervisor, Dr. Kwabena Opoku Mensah 0244273182 for further information.

Declaration by parent/guardian

I have read this consent form and know that I may ask questions now and any time. I will also be given a copy of the consent form for my records. I consent for my child to participate in the research described above.

Name of the child: _____

Date of interview: _____

Signed/Thumbprint: _____

(Parent/Guardian of participant)

APPENDIX A :

INTERVIEW GUIDE

**FACTORS INFLUENCING THE UPTAKE OF HIV COUNSELING AND
TESTING SERVICES AMONG THE YOUTH IN SEFWI WIAWSO**

SECTION A: PERSONAL DATA

1. Sex

- a. Female1
- b. Male2

2. Age (in years)

- a. 15-17.....1
- b. 18-20.....2
- c. 21-24.....3

3. Religious affiliation

- a. Orthodox1
- b. Protestant2
- c. Muslim3
- d. African Traditional4
- e. Other (specify)5

4. Marital status

- a. Single1
- b. Married.....2
- c. Divorced/separated3
- d. Widow/widower.4

5. Education status

- a. Never attended school1
- b. Primary education2
- c. Secondary education3
- d. Tertiary/post-secondary education..4

6. Occupation

- a. Student1

- b. Farmer2
- c. Business3
- d. Professional4
- e. Other (specify).....5

**SECTION B: KNOWLEDGE
REGARDING HTC**

7. Have you ever heard about HTC?

- a. Yes1
- b. No.....2

8. If yes in Q7, where did you hear it from?

- a. Hospital.....1
- b. Friends2
- c. Private clinic/hospital.....3
- d. NGO.....4
- e. Other (specify).....5

9. Do you know where HTC services are provided?

- a. Yes1

- b. No.....2

10. Have you ever tested for HIV and know your status?

- a. Yes1
- b. No.....0

11. If yes to Q10, how much did you pay for testing?

- a. Free.....1
- b. GHC1.00-5.00.....2
- c. GHC5.00-10.00.....3
- d. >10.00.....4

12. What reason accounted for you testing for HIV?

- a. Medical reason.....1
- b. Marital requirement.....2
- c. Fear of the disease (AIDS).....3
- d. Parental pressure.....4
- e. Others (specify).....5

13. If no to Q10, do you intend to test for HIV?

- a. Yes.....1
- b. No.....2

14. If yes to Q10, which of the following types of HIV testing was provided for you?

- a. Voluntary counseling and testing...1
- b. Know Your Status.....2
- c. During pregnancy (PMTCT).....3
- d. Provider-initiated testing.....4
- e. Others (specify).....5

15. Do you think that it is important for you to test for HIV?

- a. Yes.....1
- b. No.....2

16. If yes to 15, what is the importance of HTC in your opinion?

SECTION C: PERSONAL –RELATED FACTORS

17. What reason can you give that might prevent you from taking a test for HIV?

- a. Fear of stigma1
- b. Fear of discrimination.....2
- c. fear of positive results.....3
- d. Partner and self-trust.....4
- e. Other(s) specify.....99

SECTION D: HEALTH SYSTEM-RELATED FACTORS

18. Do you think the place where HTC services are provided is convenient for you?

a. Yes.....1

b. No.....2

