

**IMPACT OF STIGMA AND DISCRIMINATION ON
UPTAKE OF HIV VOLUNTARY COUNSELLING AND
TESTING IN OLENGURUONE DIVISION, NAKURU
COUNTY, KENYA**

BY

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**A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL FULFILLMENT
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DECLARATION

This research project is my original work and has not been presented for any award in this or any other University.

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This research project has been presented for examination with our approval as University supervisors of the candidate.

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DEDICATION

This research project is dedicated to my husband Rono, son Griffin and daughter Michelle for their patience during the entire process.

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ABBREVIATIONS AND ACRONYMS

ART	Antiretroviral therapy
CDC	Center for Disease Control
CHCT	Couples HIV Couples Testing
EEOC	Equal Employment Opportunity Commission
HCWs	Health Care Workers
HIV/AIDS	Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome
IDUs	Injecting Drug Users
IRIN	Integrated Regional Information Networks
KAIS	Kenya AIDS Indicator Survey
NASCOP	National AIDS and STD Control Program
PLWHA	People Living With HIV/AIDS
PMTCT	Prevention of Mother to Child Transmission
UN	United Nations
UNAIDS	The Joint United Nations Program on HIV/AIDS
UNICEF	United Nations International Children's' Emergency Fund
VCT	Voluntary Counseling and Testing
WHO	World Health Organization

ABSTRACT

Stigma and discrimination has been shown to influence people's attitudes and perceptions as well as utilization of the services provided under the interventions intended to prevent and reduce the spread of HIV/AIDS. This has greatly impacted on the uptake of these services; consequently, many people continue to die of HIV/AIDS without accessing care and treatment. The purpose of this study therefore is to establish the impact of HIV and AIDS related stigma and discrimination on uptake of Voluntary Counseling and Testing (VCT) services among people aged 15-64 years in Olenguruone Division, Nakuru County, Kenya. The study was guided by the following objectives: to establish the level at which social rejection impact on the uptake of VCT services; to assess the impact of prejudiced attitudes on VCT services uptake and to assess how disclosure concerns impacts on the VCT services uptake and finally to establish the extent to which observed enacted stigma impact on the uptake of VCT services. A descriptive survey design was used in this study and questionnaires were employed to collect quantitative data in an attempt to answer the research questions. Closed-ended questionnaires were used to solicit information on socio-demographic profile of respondents and on indicators of stigma and discrimination against uptake of VCT services. This study targeted a total of 24,540 individuals and multi-stage sampling was used to sample 354 out of 9,946 households corresponding to a sample size of 354 people who took part in the study. Two locations were selected in the first stage and a further two sub-locations from the selected locations were picked in the second stage, from which the required households were sampled. Systematic random sampling was used to select the particular households to take part in the study. Both descriptive and inferential statistics were performed using Statistical Package for Social Sciences (SPSS) version 18. Chi-square tests and t-tests were performed to test significance between the uptake of VCT services and the study objectives. Logistic regression analysis was also obtained on VCT uptake while controlling for all possible factors (demographic factors and indicators of stigma and discrimination). Findings from the study indicated that most of the respondents (66.1%) had ever tested. Results also showed that social rejection and disclosure concerns reduces the odds of taking an HIV test by around 2.2 ($p < 0.001$) and 0.2 ($p < 0.000$) respectively. It further showed that having observed enacted stigma increases the odds of testing for HIV by around 5.6 ($p < 0.000$). Having prejudiced attitudes were shown to increase the chances of testing by 0.5 ($p < 0.001$). Logistic regression revealed religion ($p < 0.002$) and age category ($p < 0.000$) were significant in influencing one to go for testing ($p < 0.05$). The study concludes that social rejection and disclosure concerns discourages people to go for HIV VCT services; however prejudiced attitudes and observed enacted stigma, though prevalent, was shown to influence positively the uptake of VCT services. The study recommends the need to target messages and interventions designed to promote acceptance of HIV testing services by fighting against stigma and also to increase the testing points. A close relationship between the Church and the National AIDS Control Council was also recommended. The study suggests future researches which are broader and more qualitative be done to identify social cultural factors that promote stigma. It also suggests that future studies should include questions about attitudes and beliefs about HIV testing and finally an exploration of factors that may enhance HIV/AIDS positive status disclosure.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

The Human Immunodeficiency Virus/Acquired immune deficiency syndrome (HIV/AIDS) pandemic is a global crisis with consequences that will be widely felt for decades to come (Gillespie & Kadiyala, 2005). This is largely the case due to the widespread stigma and discrimination which if not addressed, may hamper the attempt towards prevention of HIV/AIDS. According to UNAIDS (2008), Human Immunodeficiency Virus (HIV) has already caused an estimated 25 million deaths worldwide by 2007. It is further estimated that 6,800 people worldwide were infected daily with HIV in 2007 and causing 5,700 deaths daily (UNAIDS, 2008), making HIV/AIDS one of the major killer diseases, particularly in sub-Saharan Africa. There is need to curb this through prevention of new infections which could be accomplished by scaling up the Voluntary Counseling and Testing (VCT) services, and addressing the issue of stigma and discrimination appropriately.

Ideally, every person is supposed to freely access VCT services and they should be treated equally regardless of their testing outcome but this has never been the case. In terms of VCT uptake globally, in seventeen low and medium income countries with HIV testing data, only 10.9% of men and 10.3% of women had ever received an HIV result between 2005 and 2007 (UNAIDS, UNICEF and WHO, 2008). The report also indicates that only 20% of people living with HIV know their status, despite the increasing number of facilities providing counseling and testing services. Stigma and discrimination therefore need to be investigated as it is one of the barriers to uptake of VCT services.

According to Mann (1987), there are three phases of the HIV/AIDS epidemic, the epidemic of HIV, the epidemic of AIDS and the epidemic of stigma and discrimination and denial. He further said that the third phase is "as central to the global AIDS challenge as the disease itself". The Joint United Nations Program on HIV and AIDS (UNAIDS) has noted the urgency of dealing with AIDS stigma, stressing it as the most important task in reducing the impact of the HIV/AIDS epidemic (Aggleton, 2001). Stigma and discrimination manifests itself in the form of social rejection, prejudiced attitudes, enacted stigma and issues surrounding disclosure of one's HIV status.

In the United States, HIV infected persons have experienced enacted stigma especially related to employment and medical care (EEOC, 2009). Social rejection has also been experienced by PLWHA including evictions from homes, disruption of family relationship and social isolation (Lambda legal report, 2010). This has been confirmed in a study by Herek et al (2002) among the adults in US. This has constantly made people to turn away from HIV testing. In a study by Stall and others, 2 out of 3 men who have sex with men who were unaware of their HIV status indicated that AIDS related stigmas were an important factor in their testing decisions (Stall *et al*, 1996). It is therefore eminent that even those who test positive may not be willing to disclose their HIV status, undermining the effective HIV prevention efforts by limiting individuals' access to and use of health care services.

In Latin America, more than 1.7 million people are estimated to be living with HIV and 100,000 new cases were reported in 2007 (UNAIDS, 2008). Researchers have shown that HIV-related stigma, especially enacted stigma, is one of the major barriers to fighting HIV in Latin America, as this often prevents people from assessing testing and treatment, with health workers being mentioned as perpetrators

of HIV stigma (Lama, 2000; Aggleton, 2003). According to Danziger (1994), the increase in HIV sero prevalence in Poland, particularly among the Injecting Drug Users (IDU), has been accompanied by widespread discrimination against people affected by HIV/AIDS.

According to UNAIDS (2008), HIV infected persons in Haiti have faced social exclusion and rejection. Haiti has one of the highest prevalence estimates of HIV outside sub-Saharan Africa (2.2%). In rural Haiti, being affected by HIV/AIDS can result in ostracism, blaming the victim for the disease, withholding food, social isolation and denial of human dignity (Fitzgerald and Simon, 2001). The Caribbean epidemics, just like sub-Saharan Africa, occur in the context of high levels of poverty and unemployment, gender and other inequalities, and considerable stigma- all of which has fuelled the spread of HIV, as well as hindering the efforts to control the epidemics through counseling and testing and referrals.

In China, prejudicial and negative attitudes towards PLWHA is common with the populations most at risk being the marginalized groups such as IDUs, female sex workers and their clients and homosexuals. A State Council AIDS Working Committee Office, United Nations Theme Group on AIDS in China (2007), estimated that 700,000 people in China were living with HIV by 2007; but of those, an estimated 68% were unaware of their status. In response to this, the government of china has made free VCT a major pillar in its HIV prevention strategy; the uptake of these services has however been low. Therefore it was noted that promoting VCT is hampered not only by HIV-related stigma and discrimination, but also by prejudiced attitudes related to the behavior of the marginalized group.

Nigeria has an estimated 3.6 million people living with HIV/AIDS and 310,000 AIDS-related deaths yearly, according to official reports. People Living with

HIV/AIDS (PLWHA) have been found to be facing enacted stigma in the workplace and by family and communities and also in the health care sector (UN, 2001; Centre for the Right to Health, 2001). Similar findings have been reported in Ghana by the United Nations Integrated Regional Information Networks (IRIN) on Africa which indicated that the Ghanaian government's AIDS program is in danger of failure due to stigma and a failing health system (IRIN, 2005). Designing effective interventions was essential to ensuring successful HIV/AIDS prevention and treatment programs and thus successful reversal of the AIDS epidemic.

In Botswana and Zambia, researchers have reported that social rejection and enacted stigma against HIV infected people and fear of being mistreated prevent people from participating in voluntary counseling and testing for HIV and access to programs aimed at preventing mother-to-child transmission of HIV (Nyblade and Field, 2000). The reluctance to be tested for HIV is driven by the fear of experiencing violence and physical and social rejection if the test results are positive (Maher *et al.*, 2000; Maman *et al.*, 2001). The Tanzania Health Research Bulletin (2002) has revealed that people living with HIV/AIDS have been denied the right to work, education and even health services. Studies have also shown that the fear of loss of social status, social isolation, and discrimination inhibits those who know they are infected from disclosing their diagnosis, thus contributing to spreading the virus further (Chesney, 2003). Disclosure concerns therefore is a major impediment in the fight against the disease

The Kenya AIDS Indicator Survey (KAIS, 2007) showed a HIV prevalence of 7.1 percent in the general adult population (15-64 years). While Kenya is among the countries with relatively high coverage of HIV testing (14%) in sub-Saharan Africa, this is still low according to WHO/UNAIDS (2009) this being highly associated with

HIV related stigma and discrimination (Meiberg *et al.*, 2008). In Kenya HIV/AIDS infected and affected people have faced prejudicial attitudes with the disease being associated with the high-risk groups identified as commercial sex workers, same sex partners, migrant workers, prisoners, intra-venous drug users and individuals in discordant relationships (NAS COP, 2008b). This has made prevention and treatment of the epidemic much harder than imagined. Many people decline testing for fear of being stigmatized. Nakuru is one of the 18 districts in Rift Valley Province of Kenya with one of the highest HIV prevalence rates in the Country, reported at 24.6% (KDHS,2003) and testing level estimated at 35.9% (Irungu *et al.*, 2008). Little is known about the impact of stigma and discrimination on the uptake of VCT services in Nakuru County.

1.2 Statement of the problem

HIV-related stigma and discrimination has accompanied the AIDS epidemic from the start (UNAIDS, 2006). In U.S.A HIV-infected and affected people have faced social rejection in all facets of live (Herek, Capitanio and Widaman, 2002) and have been reported to impact negatively on uptake of VCT services. Elsewhere in Europe and North America, prejudiced attitudes against PLWHA have been observed (Danzinger, 1994), leading to discrediting attributes to PLWHA (UNAIDS, 2002) and many avoid going for HIV testing for fear of being prejudiced. This also has been witnessed in India in a study by Ambati, Ambati and Rao (1997) among other countries. Enacted stigma has largely been fuelled by negative attitudes and social rejection and has consequently interfered with disclosure of HIV infection among the infected and the affected (WHO, 2004; Ford *et al.*, 2004). In Tanzania HIV infected people have been denied the right to work, education and health services (Tanzania Health Research Bulletin, 2002). This has hindered the wider effort to combat the

epidemic by discouraging many from taking HIV tests for fear of being discriminated against should their tests become positive

In Kenya HIV/AIDS infected and affected people have faced prejudicial attitudes with the disease being associated with the high-risk groups including commercial workers, men having sex with men (MSMs), drug users and other immoral behaviours. They have also been rejected by their families and friends and dismissed from their workplace. This has dissuaded many from knowing their status and consequently, testing levels has been low. The HIV testing levels as at 2009 was 37% (WHO; UNAIDS, 2009) translating to a gap of 46% points in achieving the national target of 80% (KAIS, 2009). In Nakuru county, 35.9% of the population had ever tested as at 2008 (Irungu *et al.*, 2008). Consequently, many people continue to die without knowing their status and without assessing HIV/AIDS treatment, HIV positive mothers continue to give birth without using PMTCT services and many discordant couples are not aware of their partner's HIV status to enable them to take action all of which fuel the spread of HIV infections. Olenguruone Division in Nakuru County is predominantly inhabited by the kipsigis sub-tribe of kalenjins where HIV/AIDS is a highly stigmatized issue. It is in this context that the study sought to investigate the impact of stigma and discrimination on the uptake of VCT services in Olenguruone Divisin, Nakuru County.

1.3 Purpose of the study

The purpose of the study was to establish the impact of stigma and discrimination on the uptake of voluntary HIV counseling and testing services in Olenguruone division, Nakuru County, Kenya.

1.4 Objectives of the study

The study was guided by the following objectives;

1. To establish the level at which social rejection impact on the uptake of voluntary HIV counseling and testing services in Olenguruone Division, Nakuru County, Kenya.
2. To assess the extent **to which** prejudiced attitudes impacts on the uptake of voluntary HIV **counseling** and testing services in Olenguruone Division, Nakuru County, Kenya.
3. To assess how disclosure concerns impacts on the uptake of HIV counseling and testing services in Olenguruone Division, Nakuru County, Kenya.
4. To establish the **extent to** which observed enacted stigma impacts on the uptake of voluntary HIV counseling and testing services in Olenguruone Division, Nakuru County, Kenya.

1.5 Research questions

The study sought to answer the following research questions:

1. How do social rejection impact on the uptake of voluntary HIV counseling and testing services in Olenguruone Division, Nakuru County, Kenya?
2. To what extent do prejudiced attitudes impact on the uptake of voluntary HIV counseling and testing services in Olenguruone Division, Nakuru County, Kenya.
3. How does disclosure concerns impact on the uptake of voluntary HIV counseling and testing services in Olenguruone Division, Nakuru County, Kenya?

4. To what extent do observed enacted stigma impact on the uptake of voluntary HIV counseling and testing service in Olenguruone Division, Nakuru County, Kenya

1.6 Research hypotheses

In order to further understand the research questions above, the following hypotheses were developed and tested at 0.05 level of significance, hence HO was rejected when the results had less than 0.05 probability of occurring.

1. **HO₁**: There is no significant association between uptake of VCT services and having social rejection stigma among the respondents.
2. **HO₂**: There is no significant association between uptake of VCT services and having prejudiced attitudes among the respondents.
3. **HO₃**: There is no significant association between uptake of VCT services and disclosure concerns among the respondents.
4. **HO₄**: There is no significant association between uptake of VCT services and observed enacted stigma among the respondents.

1.7 Significance of the study

It was significant to study this area in order to inform decision makers in developing appropriate strategies to curb stigma and discrimination and reduce its impact on VCT services. It was hoped that information gathered during the study will be used to guide and advise future strategies to promote HIV prevention, care and treatment. Various stakeholders including the National AIDS and STI coordinators (NASCO), HIV researchers and NGOS dealing with HIV and AIDS may find the results from the study useful in planning for the future HIV prevention strategies and in understanding stigma and discrimination and the effects it has on VCT services so as to develop appropriate strategies to deal with it and ultimately promote testing and

counseling. The information was also believed to contribute to the wider body of knowledge on promotion of HIV testing and counseling and add impetus for further research by forming a basis upon which other related studies can be anchored.

1.8 Basic assumptions of the study

The study assumed that all the respondents would be ready to participate and that they would give truthful and accurate information to the research team that would be helpful in establishing the impact of stigma and discrimination on uptake of VCT services. It was also assumed that the sampling of households would be a representative of the whole population residing from Olenguruone Division and that the sample chosen were a fair representation of the entire target population.

1.9 Limitations of the study

The major limitation of this study was the sole reliance on self-report measures of HIV testing. It was therefore difficult to ascertain the level of honesty of the respondents. Respondents were however urged to try and give the right information. The other limitation of this study was the adoption of a cross sectional descriptive design in which decision to test or not to test might have arisen prior to the respondents developing AIDS stigma and discrimination.

The area is hilly and experiences poor transport network, moving from one household to another posed a challenge to the research team, the period of data collection was also a rainy season which hampered the process, the research team however used umbrellas and raincoats. Motorbikes were also used where roads were impassible with vehicles. More time were also allocated for the administration of questionnaires to ensure that the hilly areas were equally covered. HIV and AIDS has remained a highly stigmatized issue, soliciting information from the respondents fronted a challenge as some people were not ready to give information. Many people

thought that by giving information, they might be followed up for testing especially if they said they have not tested. The research team however took time to explain to the respondents that nothing would happen to them and that they were not going to be tested. The research team also ensured confidentiality by using anonymous questionnaires.

1.10 Delimitations of the study

This study focused on the impact of stigma and discrimination on the uptake of VCT services in Olenguruone Division among persons between 15-64 years of age as this was considered the group that is largely at risk of contracting HIV/AIDS and therefore targeting this group may contribute vital information that may be used by policy makers in prevention of HIV infections. Olenguruone is one of the divisions in Nakuru district where HIV prevalence is of great concern. In the year 2000, HIV prevalence rate was reported to be 18% which was much higher than the national prevalence of 14% reported in the same period (Nakuru District Strategic Plan, 2005-2006). Furthermore, it was reported that 64.11% of the population had never tested for HIV. Olenguruone Division is an area where stigma and discrimination is still high due to inadequate knowledge of HIV/AIDS.

1.11 Definitions of significant terms used in the study

Stigma and discrimination: In this study, this is taken to mean enacted stigma, prejudiced attitudes, social rejection and disclosure concerns directed at people who have HIV/AIDS

Uptake of Voluntary Counselling and Testing services:

In this study, uptake of VCT services refers to accessing and utilizing HIV voluntary counseling and testing services by those people considered most at risk of contracting HIV/AIDS, that is between the ages of 15-64 years.

Observed Enacted stigma: This refers to actions fuelled by stigma which have been taken against the people living with HIV/AIDS which are discriminatory in nature and may influence the decision to seek one's HIV status.

Prejudiced attitudes: refers to negative judgements and assumptions made against people living with HIV/AIDS regarding how they contracted the disease.

Disclosure concerns: refers to issues surrounding the decision by a person infected with and /or affected by HIV deciding to give others information about their status and talk openly about someone living with HIV/AIDS.

1.12 Organization of the study

The study is organized into five main chapters. Chapter one is the introduction and will basically give the background to the study, statement of the problem, purpose of the study, research objectives, research questions, significance of the study, limitations of the study, delimitations of the study, basic assumptions, definition of terms and organization of the study. Chapter two is the literature review which provides a review of literature related to the study thematically as per the research objectives, theoretical and conceptual frameworks on which the study is based as well as a summary of literature reviewed. The third chapter describes the research methodology and included in this chapter is the research design, target population, sampling procedure and the sample size, research instruments, validity and reliability of the instruments to be used, procedure of data collection and finally data analysis. Chapter four of this project presents introduction, themes on which data is presented, interpretation and discussion of data and finally, chapter five of the study gives an introduction, summary of findings, conclusions, recommendation, the study's contribution to knowledge and suggestions for further research. This is then followed by a list of chronologically organized references and the attached appendices.

CHAPTER TWO LITERATURE REVIEW

2.1 Introduction

This chapter highlights the major concepts of the literature reviewed in relation to the study based on the following thematic areas; an overview of stigma and discrimination and HIV/AIDS prevention, social rejection and its impact on the uptake of VCT services, prejudiced attitudes and its impact on VCT service uptake, disclosure concerns and its impact on VCT service uptake and finally the impact of observed enacted stigma on the uptake of VCT services. The chapter also presents the theoretical and conceptual frameworks on which this study is based as well as a summary of the literature reviewed.

2.2 Stigma and Discrimination and Voluntary Counseling and Testing

HIV Voluntary counseling and testing (VCT) services are a key component of national aids programmes in sub-Saharan Africa. In terms of HIV prevention, post-test counseling sessions are an opportunity to provide education, and to promote strategies for reducing the risk of HIV transmission or acquisition among sexually active adults (WHO, 2004). Moreover, with the current expansion of antiretroviral therapy (ART) programmes, VCT sites are now acting as a gateway for HIV-infected persons to receive medical care beyond treatment for opportunistic infections (WHO, 2003). Indeed maximizing VCT use among HIV infected adults will be the first step to ensuring that they have the best chances of starting ART in a timely fashion, and that treatment coverage is as fair as possible. However, since the onset of the disease in the early 1980s, HIV and AIDS have triggered responses of fear, denial, stigma and discrimination, often targeted at those groups seen as the most affected for instance the drug users, sex workers among others. People living with HIV/AIDS have been

rejected by their loved ones and their communities, unfairly treated in the workplace and denied access to education and health services. Fear of discrimination often discourages people from disclosing their HIV status, which make prevention and management of the disease very difficult.

HIV-related stigma and discrimination(S&D) has accompanied the epidemic from the start. Fear of and actual experience with stigma and discrimination reduce an individual's willingness to practice prevention, seek HIV testing, disclose his or her HIV status to others , ask for(or give) care and support, and begin and adhere to treatment (USAID, 2006).

Stigma is described as an attribute that is deeply discrediting and results in the reduction of a person or group from a whole and usual person to a tainted, discounted one (Goffman, 1963), thus the ultimate effect of stigma as noted by Goffman is the reduction of the live chances of the stigmatized through discriminatory actions. Discrimination on the other hand is the negative acts that results from stigma and that serve to devalue and reduce the life chances of the stigmatized (Goffman, 1963). Stigma has its origin deep within the social structure of the society as a whole and in the norms and values that govern everyday life (Nylblade *et al.*, 2003). Stigma and discrimination related to HIV/AIDS have been linked to misconceptions about the disease, fear of the disease due to its manifestations and fatality and to the association of HIV/AIDS with the stigmatized individuals in the community (Herek and Glunt, 1988; Boer and Emmons, 2004).

HIV/AIDS-related stigma has been a negative factor in the crusade to diminish the prevalence and the effect of the HIV/AIDS pandemic. Discrimination has been rampant; isolation and rejection have been common place in the lives of people identified to have AIDS (Carr and Gramling, 2004). According to Cumming and

Cumming (1965), Persons who are stigmatized are diminished in social standing, they are seen as deserving of their illness and that they got what they wanted. In the eyes of others, they are discredited and their identities are tainted (Goffman, 1963; Link *et al.*, 1989). This is fuelled by ignorance regarding the disease as people with the most correct knowledge about HIV infection are least likely to believe that HIV patients got what they deserved (CDC, 2000). Empirical studies have also shown that stigma negatively affects self-perception, emotional wellbeing, social interaction and life chances (Link *et al.*, 1997). Because of stigma therefore, many people are afraid to seek HIV services and minimizes the public acceptance of VCT services, dwarfing the role the service can play in prevention and control initiatives.

According to Brown, Trujilo and Macintyre (2001), HIV-related stigma have had a variety of negative effects on health behavior such as seeking HIV testing, willingness to disclose HIV status, accessing health care and on quality of health care provided or received. PLWHA and their families are subjected to prejudice, discrimination, abuse and hostility related to stigma associated with HIV (Holzemer & Uys, 2004). This disease then continues to evoke wide-spread public fear of the disease and condemnation of those afflicted by it.

In a study by Laver (2001), of rural adult Zimbabweans' preparedness for HIV testing, fear of being seen by friends and stigmatization were reported to be among the major factors preventing people from seeking VCT services. Similar findings were reported by Day *et al.* (2003) in a study of attitudes to HIV among mine workers in South Africa which found out that anticipated negative consequences fuel the fear of testing positive. Kalichman and Simbayi (2003) in their study on HIV testing attitudes and AIDS stigma among inhabitants of a black township in Cape Town suggested that AIDS-related stigma is one of the most important barriers for HIV testing. Their study

showed that individuals who had not been tested for HIV and those tested but who did not know their results, held significantly more negative testing attitudes than individuals who tested and knew their test results.

Discriminatory or unethical behavior by health-care professionals against people living with AIDS, have also created an atmosphere that interferes with effective prevention and treatment by discouraging individuals from being tested or seeking information on how to protect themselves and others from HIV/AIDS. Nadine France and Development Networks revealed that the most frequently cited setting for HIV/AIDS' stigma in Africa was in health care. Nurses were frequently cited as being the perpetrators of stigma (France, 2001). According to France, the reasons cited for stigma in the health care setting included negative attitudes from knowledge deficit of HIV/AIDS, fears of contagion, personal judgmental attitudes, constantly being reminded of the high risk of acquiring HIV due to increased exposure and feeling of helplessness due to limited resources (France, 2001). This suggests that health care providers should be the main targets of educational review of HIV/AIDS, with an emphasis on learning more effective coping strategies.

Parker and Aggleton (2003) noted that HIV-related stigma and discrimination have been increasingly recognized as major obstacles to effective HIV/AIDS prevention and care programs. Not understanding the disease, misconceptions about protecting oneself may trigger stigmatization (Aggleton and Parker, 2002). Therefore identifying the predictors of stigma and designing effective interventions may be key to ensuring successful HIV/AIDS prevention and treatment programs and thus successful reversal of the AIDS epidemic. There is also need to educate people about AIDS-related stigma and to design theory and evidence based interventions to reduce

AIDS-related stigmatization. This chapter looks at some predictors of stigma and how they influence the uptake of voluntary HIV counseling and testing services.

2.3 Social rejection and VCT services uptake

Consequences of stigma can be viewed along a continuum from mild reactions for instance silence and denial, to ostracism. Many studies have found a close association between social rejection and uptake of VCT services. The logic behind it is, having experienced rejection or observed others being rejected because of HIV and AIDS, few people if not none, will want their status to be revealed for fear of same rejection and would therefore rather not seek HIV testing. The pervasive perception that HIV can be relatively easily transmitted leads to behaviors that may be experienced as stigmatizing. This can include isolation of HIV patients in hospitals, isolation within families and avoidance by neighbors and the community more generally. The fear of being rejected in the family and the community has made people to decline using the VCT services should they be found with the disease.

Valerian *et al.*, (2008) in their survey of inmates and staff at prison in the southern United States found that inmates and prison staff who had inaccurate beliefs about HIV being transmissible through casual contact were more likely to have stigmatizing reactions to people with AIDS. Similar results were found in a study report by Kaiser Family Foundation (2006) on a survey of Americans HIV/AIDS where the significant minorities of the public still incorrectly think that HIV might be transmitted through various forms of casual contact such as kissing, sharing a drinking glass and touching a toilet seat. These people were likely to express discomfort about working with someone with HIV and hence rejection against HIV-positive individuals. Fear of being rejected because of one's HIV status or perceived HIV status also appeared to have at least some relationship to people's decision about

whether or not to get tested for HIV. Many people believe that the mere contact with a person who has AIDS may cause one to be infected with the disease. People will therefore try to distance themselves away from these people to avoid contagion and hence social rejection

In China, a study by Li.L, Lin *et al.*, (2007) revealed that medical professionals who provide health care to PLWHA have stigmatizing attitudes about PLWHA, similar to that of the general society. Similar findings have been reported in other studies (Chen *et al.*, 2005; Huang *et al.*, 2005) which carried out a study in 66 communities in china and showed that about half of the participants had stigmatizing attitudes about PLWHA. Ninety in-depth interviews conducted among rural-to-urban migrants in China by Hong *et al.*, (2008) revealed that their attitudes towards HIV-infected individuals mainly derived from fears of contagion and being associated with diseases. Health care providers should therefore be targets of educational review on HIV/AIDS with emphasis on learning more coping strategies

International Center for Research on Women (ICRW) (2004) conducted a research in Vietnam on understanding HIV/AIDS-related stigma and discrimination revealed that many of those selling food, for instance would refuse to serve PLWHA. Some food vendors were said to have scolded PLWHA in front of a crowd. Due to the fear of losing customers as well as fear of infection, many vendors clearly ostracized people living with HIV and AIDs particularly those who were thought to have acquired their infection through injecting drug users. In a South African National survey on HIV/AIDS stigma, 26 percent of respondents would not be willing to share a meal with a person living with HIV/AIDS, 18 percent were unwilling to sleep in the same room with someone with AIDS and 6 percent would not talk to a person they

knew to have AIDS. These were considered to pose considerable barriers to seeking VCT in South Africa (stall *et al.*, 1996).

HIV-related stigma is largely fuelled by ignorance about the basic modes of HIV transmission and unfounded fears of contagion (Gregory, Herek and Capitano, 1998). This may be the reason why people remain untested despite country-wide campaigns. Katherine *et al.*, (2008) in the study of literacy, social stigma and HIV medication, reported that large segments of the public remain uneducated about HIV and how it is transmitted, which promotes fear and hostility that can often translate into biased and discriminatory actions.

Health care workers (HCWs) have also been cited by many authors as perpetrators of social stigma by bringing in to their medical work their foibles, anxieties and deficiencies that characterize the human species. An in-depth interview with health care workers in the Cape Coast municipality in Ghana revealed that there was general fear of infection among health care workers that resulted from inadequate supply of basic protective items and insufficient information on the sero-status of some patients. Refusal to treat PLWHA, refusal to work in HIV/AIDS facilities, maltreatment of PLWHA and inequality in treatment between HIV/AIDS infected and uninfected patients were forms of HIV/AIDS discrimination shown by Health Care Professionals in health care facilities. This was shown to discourage HIV positive people from seeking care and further, it has turned away from away those who intend to know their status.

Mascolini (2011) carried out a study in Kenya to identify the fear of partner stigma among Kenyan women and found out that one third of women (32%) feared break-up of their relationship with a male partner if they tested positive for HIV, and 45% feared they would lose friends if they tested positive. Therefore anticipated fear

of male partner stigma or rejection because of a positive HIV test independently doubled the risk that rural Kenyan women would decline HIV testing. Similar findings were reported by Day *et al.*, (2003) in a study of attitudes of HIV VCT among mineworkers in South Africa. Nuwaha *et al.* (2002) also found that there are severe negative consequences to a positive HIV test result in his study in Uganda where this includes possibility of ending a marriage relationship.

The fear of being socially rejected has made people to seek for HIV care and treatment far away where they are not known for fear of stigma and discrimination. A study by Omollo (2010) on factors influencing HIV/AIDS care and treatment among patients in Migori found that patients would opt to default care and treatment and avoid being socially rejected by the society.

This hampers the whole process of caring for and availing treatment to HIV/AIDS patients. Social rejection constantly reminds PLWHA that they are social outcasts or even deserve to be punished. When people are mocked or treated with hostility, they may feel uncared for and are therefore less likely to take steps to protect themselves. It may also shun others from knowing their statuses for fear of being treated same as those already living with HIV should they be found positive.

2.4 Prejudiced attitudes and uptake of VCT services

Prejudiced attitudes are moral- or value-driven stigma where assumptions and judgments are made about how people living with HIV/AIDS contract HIV, which are manifested in stigmatizing attitudes (Ogden & Nyblade, 2005). These stigmatizing attitudes according to Boer and Emons (2004) have been linked to misconceptions about the disease and fear of the disease due to its manifestations and fatality, and to the association of HIV/AIDS with marginalized individuals in the community. This has resulted in attempts by people and communities to relieve their fears by

perceiving certain "other" groups to be at risk rather than considering the possibility of acquisition through their own behaviors (Unghakorn and Sittitrai, 1994). The marginalization of these "risk groups" poses a health threat since it allows individuals to disassociate themselves from the disease and therefore they are less likely to change behaviors or seek testing.

Several researchers have found that many people feel that those who have contracted HIV are deserving of their illness (AIDS Action, 2001). This represents the overwhelming number of people who think HIV is only transmitted via contaminated needles or as a result of homosexual intercourse. People with the most correct knowledge about HIV infection are least likely to believe that HIV patients got what they deserved (CDC, 2000).

In Ghana and many countries of sub-Saharan Africa, for instance, HIV/AIDS is widely viewed as a consequence of sexual immorality or immoral behaviors, thus infected individuals are considered responsible for acquiring the disease. In some cases, the infection is perceived as a punishment from God to perpetrators of sins like prostitution, promiscuity, drug use, or homosexuality as in a study on the role of spiritual beliefs in the HIV-positive patients in Ghana (Kaldijan, *et al.*, 1998). A similar scenario has also been documented in Chile where there are predominant beliefs that HIV is linked to commercial sex workers, multiple sexual partners and homosexuality (Rajevic, 2000). HIV/AIDS is therefore perceived by many as a disease of people with loose morals and of bad behaviours. This has been attributed to inadequate knowledge in the general population (Arrendo *et al.*, 2000).

According to UNAIDS report (2006) on Global AIDS epidemic, HIV/AIDS epidemic remains concentrated among vulnerable and marginalized populations including sex workers, injecting drug users and men who have sex with men.

Tanzania Health Research Bulletin (2002) on stigma and discrimination on HIV/AIDS found that HIV/AIDS in Tanzania is associated with Promiscuity and bad behaviours. An HIV-positive result is therefore commonly seen to confirm an individuals' membership in a group that participate in socially unacceptable behaviors. Far better then, they prefer not to know, rather than let their status be known to the public.

PLWHA have experienced emotional agony not because there is no cure for the disease but also because of a public frenzy that ends in blaming and shaming the victim. The shame associated with AIDS prevents people living with HIV from seeking treatment, care and support. Such shame can have a powerful influence over how people with HIV see themselves and adjust to their status, making them vulnerable to blame, depression and self-imposed isolation (UNAIDS, 2005). This is confirmed by a study conducted by Mill (2004) on the experience of HIV-seropositive women receiving care in Accra and Agomanya, which revealed that many HIV positive women felt the need to hide their HIV status due to the perceived shame and disgrace surrounding the HIV infection. People who may be infected avoid screening because they believe that self-exposure will result in stigmatizing attitudes leading to shame.

In many occasions, AIDS is perceived as a disease of "others"-of people living on the margins of society, whose lifestyles go against social norms and are often considered wrong (Ambati, Ambati and Rao, 1997). Because of the separation between "us" and "them", people avoid confronting their own risk and therefore opt not to test for HIV

2.5 Disclosure concerns and uptake of VCT services

The way in which individuals discover and disclose their HIV status to others, as well as how they cope with their HIV status, is influenced by cultural and community beliefs and values regarding causes of illness, learned patterns of response to illness, social and economic contexts, and social norms. Disclosure has been considered a proxy measure for stigma and discrimination with the assumption that where stigma and discrimination is low, disclosure will occur more often and among a wider group of individuals and consequently high uptake of VCT services will prevail.

Within HIV testing and counseling programmes, emphasis is placed on the importance of HIV status disclosure among HIV infected clients, particularly to sexual partners (WHO, 2004). Disclosure has some potential benefits for the individual including increased opportunities for social support, improved access to necessary medical care including increased antiretroviral treatment, increased opportunities to discuss and implement HIV risk reduction with partners. Other than these, disclosure of one's status may motivate sexual partners to seek testing, change behavior and ultimately decrease transmission of HIV (WHO, 2004). Along with these benefits, however, HIV status disclosure to sexual partners has a number of potential risks for the individual including loss of economic support, blame, discrimination, and disruption of family relationship. In a study by Simbayi *et al.*, (2006), on disclosure of HIV status to sex partners in South Africa, found that people who do not disclose their HIV status may have had adverse experiences related to previous disclosures, including loss of support, loss of employment, violent reactions and other forms of discrimination. In addition, those who had not disclosed their HIV status to sex partners were significantly more likely to have experienced

discrimination related to their HIV status. This is an indication of high levels of stigma and discrimination which is a hindrance to HIV testing. The level of familiarity that people have on how much people who have disclosed their statuses have suffered, has a great impact on whether one is going to disclose his or her status, or not. A study done in Zimbabwe on AIDS stigma and uptake of VCT services where it was found that 77% of the women and 79% of the men reported that they would not want others to know that their family member had HIV/AIDS. In a study conducted by Adeyemo *et al.*, (2011) on psychological impact of disclosure of seropositive status in Nigeria, it was found that not disclosing HIV status to sex partners was because of the adverse experiences related to previous disclosures including loss of social support, rejection, loss of employment, violent reactions and other forms of discrimination. They may merely lack a sense of being able to effectively disclose their status, especially to their partners. Ford (2004) also noted that many persons in Indonesia were not ready to disclose their status to community members and sexual partners because of the serious concerns about others being ashamed of them and the impact of HIV on relationships with spouses and on employment.

Lack of confidentiality has also been repeatedly mentioned as a particular problem in health care settings. Many people living with HIV/AIDS do not get to choose how, when and to whom to disclose their HIV status. Studies by WHO in India, Indonesia, the Philippines and Thailand found that 34% of respondents reported breaches of confidentiality by health workers (WHO, 2008). This has shunned many from utilizing the health care facilities including the VCT sites because of the anxiety that their test results will not be kept private.

Among the various determinants of disclosure behavior, cultural factors have been identified, both regarding level and pattern of disclosure. Friends appear to be closer confidants than immediate families among gay men, while relatives might be chosen as confidants over spouses among HIV positive African women (Antelman *et al.*, 2001) this poses a challenge since the first people to benefit from disclosure is the partners by seeking early testing and not the relatives. Non-disclosure has been noted to be common amongst stable relationships that may lead to marriage. The most common reason for non-disclosure among married couples was fear of separation and divorce (Daniel *et al.*, (2004).

2.6 Observed Enacted stigma and uptake of VCT services

Enacted stigma or discrimination can be described as acts that are meant to disadvantage people on the basis of one's status. Discrimination has often been rampant (Carr and Grambling, 2004). Where pervasive discrimination exists, concerned individuals feel reluctant to be tested due to fears of discriminatory repercussions. If one realizes that a positive test result will result in isolation, harassment, loss of employment and even denial of health services, then a person fearing that he/she may have been infected in the past, will prefer to remain in ignorance, especially in circumstances where confidentiality cannot be ensured.

Work place discrimination remains a huge barrier to PLWHA from seeking HIV testing. A study conducted by Brooks *et al.*, (2004) on perceived barriers to employment among persons living with HIV/AIDS reported that 66% of unemployed PLWHA in the United States indicated that work place discrimination along with the loss of health insurance and disability income benefits were significant barriers to returning to work. This is confirmed by Lambda Legal Report (2010) on HIV stigma and discrimination in the U.S. More individuals reported that they had experienced

HIV-related employment discrimination in 2009 according to the US Equal Employment Opportunity Commission (EEOC), (1997-2009) while Chijioko *et al.* (2009) in his study in Ghana also revealed that 12% of the participants in the study indicated that they would change jobs if someone they work with becomes infected with HIV and that 29% of respondents agreed that people with HIV should be isolated in certain villages or town.

In Latin America, enacted stigma is one of the major barriers to fighting HIV. It prevents people from accessing testing and treatment with HCWs being mentioned as the perpetrators of HIV stigma (Lama, 2000). A study in South Africa by Kalichman and Simbayi (2003) on HIV testing attitudes and AIDS stigma indicates that only one in five people in South Africa who know about VCT have been tested for HIV, with the main reason for not testing being enacted stigma. Stigmatizing beliefs about HIV /AIDS and their associated fears of discrimination can influence decisions to seek HIV testing and HIV treatment services.

From the inception of AIDS, people have advocated extensive measures including quarantine of HIV infected people in order to protect the populace from the infection. PLWHA in Nigeria have been found to be subject to discrimination in the work place, and family and community at large (Center for the Right to Health, 2001) and also in the health-care sector (UN, 2001). In Ghana, family members are considered ultimately responsible for the behavior of each household member and the family is blamed or praised for the behavior of its members (Hintz, 1987). Thus, a family member of a person who dies of or lives with HIV/AIDS has to remain silent about their HIV status to prevent gossip and discrimination. In some cases, family members isolate relatives with HIV to minimize social contact and/or prevent infection. With such cases, the uptake of VCT services is highly compromised.

In Zambia and Botswana, researchers have reported that fear of being mistreated prevented people from participating in VCT including programs aimed at preventing mother-to-child transmissions (PMTCT) (Nylblade *et al.*, 2003). In Tanzania, the stigmatized and discriminated people are denied the right to work, education, and housing or health services (National AIDS Control Program, 2000). A study by Achando (2010) on uptake of Couple's HIV Counseling and Testing (CHCT) in Kisumu found out that 28.9% and 40.9% of females and males respondents reported fear of stigma and discrimination as a barrier to CHCT uptake and advocated for the need to address the issue. 63.8% of the participants reported fear of relationship discord as the major cause for not taking up CHCT. In other studies however, research has shown that personally knowing someone who has HIV or AIDS is associated with an increased likelihood of being tested for HIV (Bond *et al.*, 2005).

2.7 Theoretical framework

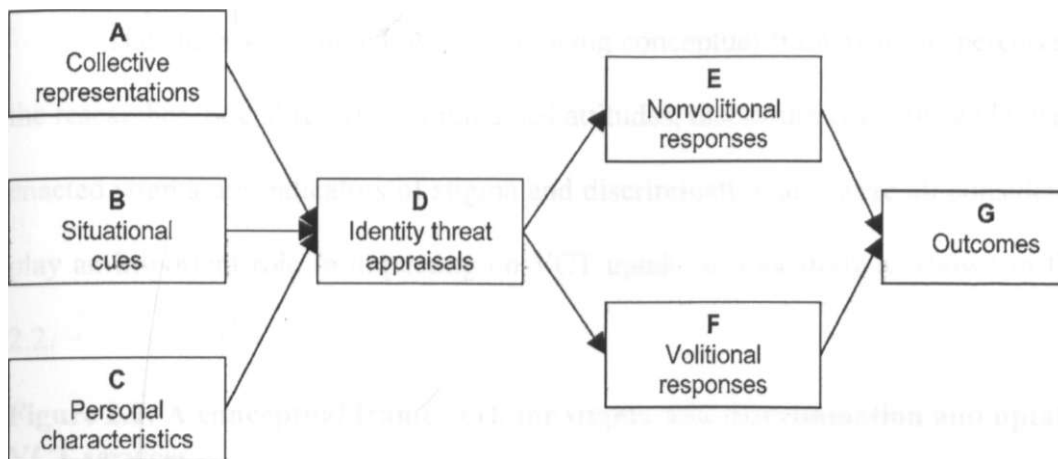
Stigma-Induced Identity Threat Model is applied in this study. The model has been propounded by Crocker (1998) and has been described in various publications (Major *et al.*, 2002a, 2002b; and Steele *et al.*, 2002). It has been used to integrate theory and research on the effects of social stigma- of being labeled, negatively stereotyped, and excluded and being discriminated against (Brenda and Laurie, 2005). The model assumes that being stigmatized increases one's exposure to identity-threatening situations which may have a negative influence on important life outcomes such as academic achievement, health and self esteem depending on how one perceive and appraise stigma relevant situations considered as a function of cues in the immediate environment as shown in Fig. 2.1

The Identity Threat Model of Stigma is linked to this study in that stigma and discrimination is thought to impact on the decision to take up HIV testing. This will depend largely on how people perceive and appraise stigma relevant situations and circumstances such as discrimination, prejudiced attitudes, social rejection and issues of disclosure which are considered to be determined by a function of cues in the immediate situation including being exposed to the society that reinforces negative stereotypes of a HIV infected group, collective representations of one's stigma status including the awareness that HIV infected and affected persons are devalued in the eyes of others and knowledge that HIV infected and affected people are negatively stereotyped in the society, and individual characteristics including stigma sensitivity and personal goals and motives to protect self esteem as shown in figure 2.1. Identity threat results when an individual appraises the demands imposed by these stigma-relevant stressors as potentially harmful to his or her social identity and as exceeding his or her resources to cope with those demands.

This model asserts that people who are sensitive to rejection, discrimination and negative attitudes directed at them, based on their group membership are more vigilant for stigma-related threats and are more likely to appraise stigma-relevant situations as threatening. For this case, people want to uphold their self-esteem and therefore going for VCT may reveal one's status thus making them loose their self-esteem should they test HIV positive.

The model looked at the effect of stigma on important life outcomes and in general, health. This study therefore wants to look at the impact of stigma and discrimination on the uptake of VCT services.

Figure 2.1: The Identity Threat Model of Stigma

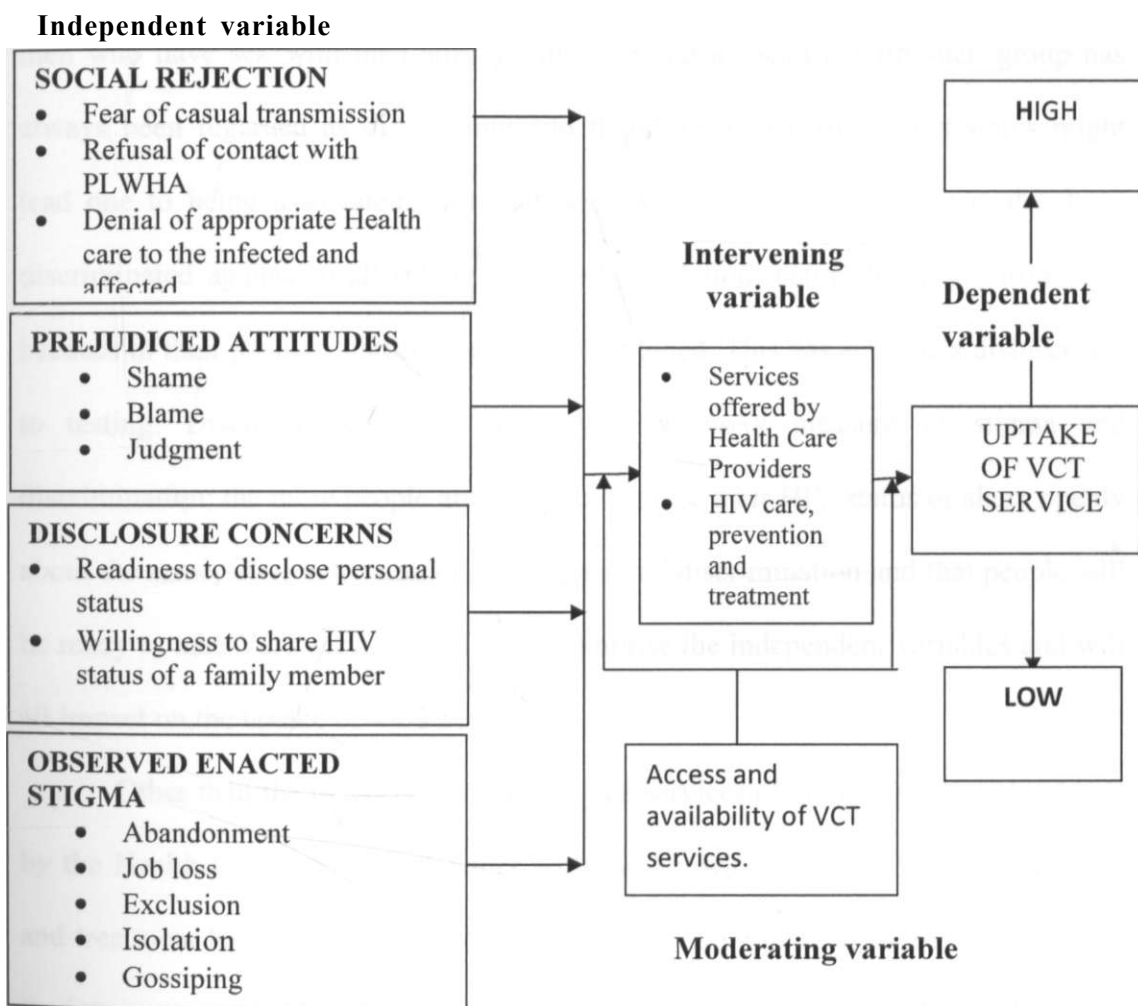


Source: Brenda and Laurie (2005).

2.8 Conceptual framework

The study was guided by the following conceptual framework as perceived by the researcher. Social rejection, prejudiced attitudes, disclosure concerns and observed enacted stigma are indicators of stigma and discrimination and were all considered to play an important role in impacting on VCT uptake in this study as shown in figure 2.2.

Figure 2.2: A conceptual framework for stigma and discrimination and uptake of VCT services.



Social rejection of HIV infected and affected persons have influenced the uptake of VCT services. This has been manifested through fear of casual transmission, refusal of contact with PLWHA, denial of appropriate health care to PLWHA and even loss of social identity. All these have combined to dissuade people from taking up HIV testing and counseling for fears of being rejected in the family, community and even health care.

Furthermore, HIV infected people have been ashamed, blamed for their disease and associated largely to bad behaviors such as sex workers, drug users and men who have sex with men among others. Being associated with such group has always been regarded as discrediting and therefore discovering one's status might lead one to being associated with such groups. Besides this, they have also been discriminated against in all spheres of life by isolation, being dismissed from jobs because of their positive statuses and even abandoned. This has acted as a disincentive to testing. Disclosure concerns is used as a proxy measure of stigma and discrimination; the more people are ready to disclose their HIV status or share openly about the same, is an indication of low stigma and discrimination and that people will be ready to take VCT services. All these comprise the independent variables and will all impact on the uptake of VCT services.

Other than the independent variable, the services offered by or the role played by the Health Care providers together with the knowledge on HIV care, prevention and treatment has a key role in influencing the uptake of VCT services. This acts as the intervening variables, the amount of knowledge one has on HIV/AIDS will largely determines if he/she will go for an HIV test. Other factors are moderating variables and this includes logistical support factors like accessibility of VCT centers.

2.9. Gaps in knowledge

This study has a lot in common with previous studies that have been conducted on stigma and discrimination as a barrier to VCT uptake. A study undertaken by Meirberg et al., (2008) in South Africa among the university students, demonstrated that fear of stigmatization is an important barrier to HIV testing and has negative consequences for AIDS prevention and treatment. The study concentrated on the psychosocial correlates of HIV VCT with an emphasis on the association between fear of AIDS-related stigma and willingness to have an HIV test. Though the study looked at knowledge of HIV/AIDS and VCT among the study participants, it failed to bring out the social rejection stigma explicitly; this is usually associated with lack of knowledge on modes of HIV transmission. This study is therefore going to look at each indicator in detail so as to bring out its impact on uptake of VCT services.

Another study carried out in Lesotho on the effect of stigma and discrimination on the Voluntary Counseling and services in a workplace setting (Qobolo, 2009) solicited reasons for not testing for HIV in which rejection, disclosure concerns, negative attitudes and observed stigma were found to be forms of stigma. The study however did not look at each of these indicators per se to determine their effect on HIV VCT services. This study thus sought to find out the impact of each of these indicators on uptake of VCT.

While study conducted in Zimbabwe on AIDS stigma and uptake HIV testing (Sambisa, 2008) emphasized on pathways to testing and reasons for not being tested and stigma and discrimination and found that the most common AIDS stigma is built upon disclosure concerns, the study did not look at the major ways in which HIV positive status is known by the community. This study went ahead to solicit this information in order to better understand the issues around disclosure of positive HIV status which is a major barrier to VCT uptake.

From the literature review several studies have been conducted on stigma and discrimination and VCT uptake. These studies were mostly done in areas where there are high HIV prevalence and in such countries such as South Africa, Zimbabwe, and Kenya among other countries. This would mean that findings from such studies would not be a representation of areas where there are low prevalence and especially in the rural areas.

2.10 Summary of Literature Reviewed

The reviewed literature revealed that stigma and discrimination is a major impediment in the fight against HIV/AIDS pandemic by creating a climate that negatively impacts on effective prevention by discouraging individuals from coming forward for testing and seeking information on how to protect themselves and others, thus deepening the adverse impact of living with HIV/AIDS.

People who are HIV infected have been labeled and rejected by families and friends and faced social exclusion, in different spheres of life. As a result, those who have tested positive, together with their relatives, have developed fear and felt ashamed and worthless. All these, coupled with lack of information and ignorance has brought about fear, self withdrawal and social exclusion of those who are infected and to those who are affected by the virus. It then fuels the spread of stigma and discrimination, which in turn undermine the efforts aimed at curbing the pandemic. Stigma and discrimination have not only affected the infected and the affected communities but they have negative impact on the provision of services related to HIV/AIDS including HIV testing.

Reviewed literature also revealed that those who are infected with HIV have been viewed as people who are of bad and immoral behaviors, people who have sinned and deserved punishment. HIV infection is linked in many people's minds

with homosexuality, IDUs, sexual activity and commercial sex- behaviors that not only make people uncomfortable, but also challenge attitudes and values. This has brought about shame, despair and lack of self worth to people who have been infected and affected. The fear of being stigmatized and associated with bad behaviors has made people to avoid screening for HIV/AIDS.

Disclosure of HIV status is a planned and selective behavior which responds to the person's balance of potential risks and benefits of secrecy and disclosure. Disclosure to others, lovers, family or friends, has been shown to be a potent stressor as individuals living with HIV/AIDS might fear negative reactions such as blame, rejection or violence. People living with HIV/AIDS have not been willing to disclose their HIV infection even to family members and sexual partners. The fear of being stigmatized in the society has made it hard for people to disclose their status.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section describes the methodology that was used in the study. It describes the research designs, target population, sample size and sample selection, the research instruments used, their reliability and validity and procedure for data collections. It also entails techniques for data analysis and finally ethical considerations in research.

3.2 Research Design

The research design employed in this study was descriptive survey which involved quantitative approaches. This design, at a glance, makes the researcher to identify what is in the whole population considering the nature of data needed and the resources that are available, being always limited, this design was the best for this study. Descriptive survey design enabled the researcher to describe the population with respect to a given outcome and to collect information on many variables from a large number of respondents and hence it was an efficient way of collecting information for this particular study since it involved a large population. Descriptive survey was also suitable as they are flexible in the sense that a wide range of information such as perceptions, attitudes, values, beliefs and past behaviors can be collected, which is the case for this study. Given the nature of this study, a lot of information was solicited ranging from the socio-economic profile to measures of stigma and discrimination, therefore survey was most appropriate for this study.

3.3 Target population

Target population is a set of individuals, items and objects with some common observable characteristics (Mugenda and Mugenda, 1999). The study was conducted in Olenguruone, one of the Divisions in Nakuru County. Olenguruone Division is situated in the south west of Nakuru town and covers a total area of 194.6 square kilometers with an estimated population density of 205 per square kilometers. The area has 6 locations and 13 sub-locations with a total population of 45,879 and 9,946 households (Census Report, 2009) as shown in Table 3.1. The area is predominantly inhabited by the kipsigis and Ogiek sub-tribes of kalenjins, with the main economic activities being subsistence farming, tea farming and livestock rearing.

This study targeted persons between 15-64 years of age which was calculated as a proportion of total number of people between ages 15-64 years in the whole County. The total population of Nakuru County was estimated to be 1,621,802 by 2010 (Nakuru district Strategic Plan, 2005-2010) as shown in Appendix III. Those between the ages of 15-64 years, which the study intended to use, was a total of 867,483 and therefore the proportion of the target population for the entire County was calculated as $867,483/1,621,802$ which is equivalent to 0.5348884 or 53.48884%. The obtained proportion was then used to estimate the target population in Olenguruone Division with a total population of 45,879 as $45,879 \times 0.5348884$; this gave 24,540 as the target population to be used to obtain the desired sample size.

Table 3.1

General population of Olenguruone Division

Sub-location	Male	Female	Total	Households
Koisegut	557	576	1133	207
Ainamoi	801	754	1555	332
Irongo	1038	991	2029	390
Kabagunot	1080	1068	2148	417
Chebotoi	941	1036	1977	440
Cheptuech	1197	1151	2348	456
Emitik	1334	1370	2704	522
Kiptaragon	2139	2040	4179	973
Chepakundi	2679	2599	5278	995
Amalo	2409	2270	4679	1062
Kiplamai	2788	2762	5550	1090
Kiptagich	2869	2527	5396	1428
Arorwet	3666	3237	6903	1634
TOTAL			45879	9946

Source: Population and Housing Census Report (KNBS, 2009)

3.4 Sample size and sampling procedure

Sampling in research is selecting a portion of a population to which one wants to generalize the findings to a wider population (Orodho, 2003). The purpose of sampling is to ensure a representative group which will enable the study to gain information about the whole population. The procedure for sampling should ensure that all the members of the population are given an equal chance to participate in the

study, while the sample size should be statistically representative of the population where the research will be conducted.

3.4.1 Sample size

The sample is the individuals or group of persons who actually participates in the study and considered to be a full representation of the general population. A large sample has always been recommended as it is likely to give more accurate and representative information to the general population compared to a small sample size. To estimate the sample size, the researcher used the following formula according to Donner (1984).

$$m = \frac{Z_a^2 P(A-P)}{m} \quad (\text{Donner, 1984}).$$

Where:

n= Sample size

p= proportion in the target population utilizing the VCT services.

m= degree of precision or a tolerance error margin or width of the confidence interval (a measure of precision of the estimate).

Z_a= is the standard normal deviate at the required confidence interval.

for a=0.05, Z_{0.05}=1.96, that is for a 95% CI, z=1.96.

For this study, the researcher used 95% as the confidence interval and an error margin of ±5%. It was estimated that 35.9% of the population in Nakuru County utilizes the VCT services (Irungu et al., 2008).

Using the information in the sample size formula above,

$$1.96^2 \times 0.359 \times 0.641 - (0.05^2) = 353.61$$

Therefore the desired sample size for this study was 354 people which were selected from the target population of 24,540 to represent the whole population.

3.4.2 Sampling procedure

Multi-stage sampling method was used to sample households in Olenguruone Division from which the respondents were picked. Mugenda (2008) describes multi-stage sampling as a complex form of cluster sampling in which, instead of using the entire selected cluster, the researcher randomly selects elements from each cluster at different stages.

Out of the 24,540 people as the target population, a total of 354 people between the ages of 15-64 years were sampled to be used in the study. These people were picked from the households and therefore it required that, out of the 9,946 households in the Division, 354 were to be sampled and used in the study. This is arrived at through multi-stage sampling process. According to Mugenda (2008), 30% sample size is sufficient to represent a population to be used in a social science research. Based on this theory, 30% of the total 6 locations in Olenguruone Division were sampled to determine the number of locations to be used in the study. From this, 2 (30% of 6) locations were then randomly selected through a ruffle method containing names of all the 6 locations of which the first two locations were picked. The locations to be selected are Emitik location and Cheptuech location which have two sub-locations each.

In the second stage of sampling, sub-locations were sampled from the already chosen locations. Two sub-locations were then picked randomly, one from each location, using ruffle method. These sub-locations were Kapugunot from Emitik location and Cheptuech from cheptuech location. The two sub-locations were therefore used to determine the number of households to be selected from each sub-location. According to the population and housing census report (2009), these sub-locations have 417 and 522 households respectively. In the third stage of sampling,

the number of households selected from each sub-location depended on the total number of households in that particular sub-location and were calculated as a proportion of the total number of households in the two selected sub-locations, which was 939; therefore, for Kapugunot sub-location, a total of 157 ($417/939$ of 354) households and 197 ($522/939$ of 354) households in Cheptuech sub-location were used in the study. This gave a total of 354 households which participated in the study.

One sub-location with which to start the survey from was chosen at a random. The first household to start the survey was chosen at a random at each sub-location after which systematic random sampling process was used to select the subsequent households where every second household was chosen for the study. In every selected household, one individual who were found eligible for the study was picked at a random using simple random sampling.

3.5 Research instruments

The selection of the instruments to be used was guided by the data collected and the type of study being conducted. One set of close-ended assisted questionnaires were used to collect data from people between 15-64 years considered likely to be using VCT services. The questionnaire was structured into five sections, designed based on the objectives of the study, the first section sought information on the demographic characteristics of the respondents, the second section solicited information on the impact of social rejection on the uptake of VCT services and the third section addressed the impact of prejudiced attitudes on uptake of VCT services. The fourth and fifth part sought information on the impact of enacted stigma and disclosure concerns on the uptake of VCT services respectively.

According to Mugenda and Mugenda (2003), questionnaires allow measurements for or against a particular view point at the same time it collects large

amount of information in a reasonable quick space of time. The questionnaire basically generated quantitative data only. For this study, questionnaire was preferred as it was considered to be the most confidential and hence enhance reliability due to the absence of interviewer bias especially considering the fact that HIV/AIDS remains a highly confidential issue in the area of study

3.5.1 Pilot testing of the instrument

A pilot test is a preliminary study conducted before the final study begins to ensure that the research instrument is appropriate in answering the research questions. A pilot study was conducted in Keringet Division, which is a neighboring Division and in the same district as Olenguruone, among persons 15-64 years of age. This was done immediately after training the research assistant and it involved 10 participants aged between 15-64 years. Questionnaires were then administered to this group and research assistant took the respondents through the questionnaire to ensure that they understood how to respond to the questionnaires. Respondents were then given a free hand to respond to the questionnaires; blank spaces, inconsistencies, inaccurate responses and other weaknesses detected in the items were reviewed and re-testing done. Data collected was then analyzed and results used for appropriate amendment of the instrument. Important questions which had been omitted and seemed necessary were incorporated and the unclear sections were rectified. This was enabled the research team to capture important comments and suggestions from the respondents that was then used to improve the efficiency of the instrument.

3. 5.2 Validity of the research instruments

According to Kothari (2003) validity refers to the extent to which an instrument measures what it is supposed to measure. Validity is the degree to which results from data analysis actually represent the actual phenomena under study. Validity of the research instrument was ensured through researcher's supervisors scrutinizing the instruments to assess the appropriateness of the questions in terms of their relevance in answering the research questions and also the language used. Piloting the research instrument prior to actual implementation helped the research to improve on the efficiency of the research instruments. The researcher also used the same research team throughout the study to ensure uniformity and consistency in administration of the questionnaires.

3.5.3 Reliability of instrument

A reliable instrument is that which yields consistent results after repeated measurements (Cooper and Schindler, 2008). Reliability is the level of internal consistency or stability of the research tool over time. To ensure reliability therefore, the researcher took the instrument through pre-testing as outlined in section 3.5.1 above before utilization. This gave the research team a chance to determine how reliable the tool was in capturing the desired information. In an attempt to enhance internal reliability, questions that answer to the same objective were grouped together in sections and footnotes were used to guide the respondents when filling the instruments.

Reliability of the instrument was also tested using split-half method using the Pearson r formula. The correlation coefficient (r) of the halves was corrected by Spearman Brown prophecy (R_e) formula. Generally, a coefficient of at least 0.70 was

acceptable. The method involves scoring two halves, odds and even items separately independently on each other as follows;

$$r \text{ (Split -half)} = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{[N \sum X^2 - (\sum X)^2][N \sum Y^2 - (\sum Y)^2]}}$$

Where : x = odd scores y = even scores

- I x = Sum of x scores
- I y = Sum of y scores
- I x² = Sum of squares of x scores
- I y² = Sum of squares of y scores
- I xy = Sum of product of x and y scores
- N Sum of paired scores
- Y Correlation coefficient of halves

3.6 Data collection procedure

The study began by obtaining research authorization and a research permit from the National Council of Science and Technology (NCST) to facilitate the processing of research permit. Copies of the approval letter and permit were presented to the District Commissioner and District Education Officer of Kuresoi District in which Olenguruone Division lies for approval. The District Commissioner then wrote an introductory letter to the Divisional Officer of Olenguruone Division who then introduced the researcher to the area chiefs.

Recruitment and training of a research-assistant was also done to help with data collection and processing. Research assistant was trained on data confidentiality and other research ethics. Pilot testing was then done to make the instrument clearer in preparation for actual data collection after which, the researcher then administered the questionnaires to the respondents with the help of the research assistant after

seeking consent with them. The research instrument used was assisted questionnaires, which gave room for discussions and clarifications with the respondents.

3.7 Data analysis techniques

Data analysis involves closely related operations which are performed with the purpose of summarizing collected data and organizing them in a manner that they answer research questions (Kothari, 2009). This study employed both descriptive and inferential methods of analysis to analyze the data that was collected from the respondents. Questionnaires were checked for completeness and then data was captured in Ms Access Database. Data cleaning was done to ensure data quality and analyzed using SPSS statistical software (version 18). Descriptive tables are used to display distribution of population in relation to demographic factors. The frequencies and percentages of outcome variable versus indicators of stigma and discrimination variables are displayed in 2 by 2 tables. Items on the indicators of stigma and discrimination were recorded into different variables. The items for each indicator were summed and average obtained. The figure obtained was then treated as an ordinal scale data where the lower value shows absence of the indicator measured and the upper value showed the presence of the same. Bivariate analysis was performed to test for hypotheses. Multivariate analysis was also done using logistic regression to assess the risk factors related to VCT uptake while controlling for indicators of stigma and discrimination and demographic variables. Odd ratio was then interpreted to be significant at $P < 0.05$.

3.8 Ethical considerations

The study was conducted only upon approval by the faculty board following successful defense of the project proposal and any appendices thereof. A permit and research authorization letter was then obtained from the National Council of Science

and Technology. A copy was made to the District Commissioner (D.C) and the District Education Officer (D.E.O) of Kuresoi District who confirmed the authorization. A letter of introduction was given from the D.C to the Divisional Officer (D.O) who then introduced the researcher to the area Chiefs.

The major ethical issue in this study was the privacy and confidentiality of the respondents given the sensitive nature of HIV/AIDS stigma. An assurance was therefore given to the participants on confidentiality of their information and anonymous questionnaires were used to ensure that information collected remained confidential. Respondents were also given a chance to choose if to participate in the study or not and also had a chance to select the items to give answers to.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSIONS

4.1 Introduction

This chapter presents research findings of the study which have been discussed under thematic sub-sections in line with the study objectives. The thematic areas include questionnaire return rate, demographic characteristics of respondents, uptake of VCT services among the respondents, social rejection and uptake of VCT services, prejudiced attitudes and uptake of VCT services, disclosure concerns and uptake of VCT services and finally observed enacted stigma and uptake of VCT services. Hypothesis testing is also done on each of the main objectives of the study. This chapter also presents a logistic regression analysis on uptake of VCT services while controlling for demographic factors and indicators of stigma and discrimination.

4.2 Questionnaire return rate

A total of 360 questionnaires were successfully administered and all questionnaires were returned for analysis forming a 100% return rate. According to McBurney (2007), the required response rate should be at least 60% but 90% and above is preferred. This is supported by Mugenda and Mugenda (2003), where a response rate of 60% is rated good while a response rate of 70% and over is very good and goes on to advocate that researchers should use all means to increase the response rate as much as possible in order to have a representative sample for meaningful representation. The high response rate of the study was thus commendable.

The high response rate among the respondents was attributed to the fact that the research instruments were collected from the respondents as soon as they finished answering the questions. This reduced the chances of misplacement or loss of the instruments. Another strategy that was employed to ensure high return rate was that the instruments were distributed to respondents after which the research team went

round to pick them before the end of the day. The research team also administered the questionnaires during afternoon hours when most of the people could be found in their homes or during early morning hours. This ensured that at least one respondent was found in a household. Analysis of data was also done on a daily basis to have a brief on the missing data in which effort were made to collect the following day.

4.3 Demographic characteristics of respondents

The study sought to establish demographic distribution of the respondents in terms of age, gender, marital status, education levels, source of livelihoods and religious affiliations. The following sub-sections discuss some of these demographic characteristics in order to understand the participants who took part in the study.

4.3.1 Distribution of respondents by age and gender

The study sought to establish the ages of respondents by gender who participated in the study. This was considered important as it could reveal information on the age bracket of the respondents who largely took part in the study. Respondents were therefore asked to state their age and gender. Table 4.1 illustrates the age findings of the study by gender.

Table 4.1
Distribution of respondents by gender

Age category	GENDER					
	FEMALE		MALE		Total	
	Freq	%	Freq	%	Freq	%
15-24	35	20.3	42	22.3	77	21.4
25-34	71	41.3	79	42.0	150	41.7
35-44	31	18.0	32	17.0	63	17.5
45-54	20	11.6	15	8.0	35	9.7
55^and above	15	8.7	20	10.6	35	9.7
Total	172	100	188	100	360	100

Table 4.1 shows that, out of 360 respondents who participated in the study, 172, representing 47.8% of the respondents in the study (not documented) were females. Among them, 35 (20.3%) fell between the age of 15-24 years, 71 (41.3%) were within the age range of 25-34 years; within the age category of 35-44 were 31 (18.0%) female respondents. More still, there were 20 (11.6%) female respondents who fell within the age bracket of 45-54 years and 15 (8.7%) were above 55 years. From the study findings, majority of the female respondents (61.3%) were aged 35 years and below. This represents the group known to be sexually active and thus high heterosexual transmissions.

Out of 360 respondents, 188 were males who took part in the study. This represents 52.2% (not documented) of the total respondents in the study. Among the male respondents, 42 (22.3%) fell between the age of 15-24 years, 79 (42.0%) were males within the age category of 25-34 years and 32 (17.0%) fell between the age of 35-44 years. More still, there were 15 (8.0%) male respondents who fell within the age range of 45-54 years and 20 (10.6%) males reached by the study were aged 55 years and above. From this findings also, majority of the male respondents (64.3%) were aged 35 years and below just like the female respondents. A few of them had more than 45 years of age and this was also found to be useful in understanding the uptake of VCT services among this group and how it's being influenced by stigma and discrimination..

Based on the two statistics displayed by both male and female respondents, it appears that majority of those who participated in the study were of a relatively young age. This is because females and males under 35 years of age who participated in the study were 61.6% and 64.3% respectively. Similar findings were realized in a study of AIDS stigma and uptake of VCT services in Zimbabwe by Sambisa (2008) which

found that slightly more than one-third of the respondents were aged 15-34 years. Members within this age range therefore forms the target for anti-HIV/AIDS campaigners since they are the sexually active and thus they are the group considered highly at risk of contracting HIV/AIDS. This is expected to reveal the level of VCT uptake among this group.

4.3.2 Distribution of respondents by marital status

The study also sought to establish the marital status of various respondents who took part in the study. This was deemed important in order to find out whether marital status of respondents had an impact on uptake of VCT services. Respondents were thus asked to state their marital status and the findings were as illustrated in table 4.2.

Table 4.2

Distribution of respondents by marital status

Marital status	Freq	%
Married	237	65.8
Separated	5	1.4
Single	104	28.9
Widowed	14	3.9
Total	360	100

The study reported findings regarding marital status of the respondents out of which, 237 (65.8%) were married; 5 (1.4%) were separated; 104 (28.9%) were single and 14 (3.9%) were widowed. Based on these study findings, most of the respondents 237 (65.8%) were married, followed by 104 (28.9%) who were single while those who were either separated or widowed constituted 5(1.4%) and 14(3.9%) of the respondents respectively. Therefore, majority of the respondents were married followed by those who were single, which forms the target group of VCT services. From this findings, the level of HIV testing is expected to be high given the high

number of people considered most at risk of contracting HIV and thus investigating barriers to uptake of testing among this group is imperative.

4.3.3 Distribution of respondents by level of education

The study sought to establish the level of education of the respondents. The researcher solicited this information by asking respondents to state their highest level of education. The data on the level of education of the respondents was appropriate for the study as it would enable the researcher to establish whether the level of education had an impact on uptake of VCT service. The distribution of the level of education within gender of the respondents is as illustrated in table 4.3.

Table 4.3
Distribution of respondents by level of education

Responses	GENDER				Total	
	FEMALE		MALE		Freq	%
	Freq	%	Freq	%		
None	9	5.2	2	1.1	11	3.1
Informal/adult learning	0	0.0	2	1.1	2	0.6
College	26	15.1	36	19.1	62	17.2
Primary	46	26.7	53	28.2	99	27.5
Secondary	81	47.1	87	46.3	168	46.7
University	10	5.8	8	4.3	18	5.0
Total	172	100	188	100	360	100

Table 4.3 shows that out of 360 respondents who participated in the study, 172 were females and 188 were males. Among female respondents in the study, 81 (47.1%) had secondary education, 46 (26.7%) had primary education, while 26 (15.1%) had attained college education. Only 9 (5.2%) of female respondents had no education at all and 10 (5.8%) had university education. Majority of female respondents therefore had basic education. Among the male respondents in the study, 87 (46.3%) had secondary education and 53 (28.2%) had primary education.

Those who had college and university education among the males were 36 (19.1%) and 8 (4.3%) respectively.

From the study findings, a large percentage, (73.8%) of females and (74.5%) of males had had at least secondary education with a comparable number of males and females. There were more females than males who had informal or no education at all (i.e. 9% and 2.2% of females and males respectively). These findings are in line with the findings of a study in Zimbabwe on AIDS stigma and uptake of VCT services by Sambisa (2008), which found that for both women and men respondents who took part in the study, majority had secondary education or higher education. From these findings, these form the group who is considered knowledgeable in the society and are aware of the availability of VCT services and thus are expected to be able to utilize them.

4.3.4 Source of livelihoods of the respondents

The study sought to establish the main sources of livelihoods for the respondents who participated in the study as it could be a contributing factor in uptake of VCT services. Respondents were thus asked to state their main source of livelihood. The findings are as shown in table 4.4.

Table 4.4

Sources of livelihood of the respondents

Source of livelihood	GENDER					
	FEMALE		MALE		TOTAL	
	Freq	%	Freq	%	Freq	%
Farming/animal raising	81	47.1	76	40.4	157	43.6
Labourer/semi-skilled	3	1.7	20	10.6	23	6.4
Professional	34	19.8	35	18.6	69	19.2
Trade/business	49	28.5	50	26.6	99	27.5
Others	5	2.9	7	3.7	12	3.3
Total	172	100	188	100	360	100

The study findings show that, out of 172 female respondents, 81 (47.1%) of them practiced farming or animal raising as their main source of livelihood while 49 (28.5%) does business to earn a living and only 34 (19.8%) females were professionals. Of the 188 male respondents, 76 (40.4%) practice farming or animal rearing as their main source of livelihood and 50 (26.6%) male respondents does business. There were 35 (18.6%) males who earned a living through professionalism. The others, 3 (1.7%) of females and 20 (10.6%) of males were semi-skilled and a few who reported other sources were mainly those who were still undergoing studies or still dependant on others and did not have a main source of living.

From the study findings, majority of the respondents 157 (43.6%) practiced farming or animal rearing as their main source of living, followed by those who do small business or trade 99 (27.5%). This is an indication that most of the people operates from around their homes and take more time on their farms and thus accessing VCT services becomes a challenge if they are not sensitized on its importance and services brought nearer to them. This people may also not have enough financial support to enable them reach the VCT centers given that it takes too long for them to earn from their produces. This may pose a challenge to uptake of VCT services.

4.3.5 Religious affiliation of the respondents

The researcher sought to establish the religious affiliation of the respondents with respect to gender. This information was found to be necessary in establishing whether religious affiliation of respondents could have an impact on individual's decision to go for an HIV test. To ascertain this, the respondents were thus asked to name the religion they were affiliated to. The findings of the study are as illustrated in table 4.5.

Table 4.22

Religious affiliation of respondents

RELIGION	GENDER					
	FEMALE		MALE		Total	
	Freq	%	Freq	%	Freq	%
Catholic	18	10.5	48	25.5	66	18.3
Protestant	121	70.3	109	58.0	230	63.9
SDA	26	15.1	29	15.4	55	15.3
None	7	4.1	2	1.1	9	2.5
Total	172	100	188	100	360	100

From table 4.5, it can be seen that, out of 172 female respondents who took part in the study, 18 (10.5%) were from catholic religion, 121 (70.3%) were from protestant churches while 26 (15.1%) were the Seventh Day Adventist church and a further 7 (4.1%) having no religion at all. On the other hand, out of 188 male respondents who took part in the study, 109 (58.0%) were from protestant churches followed by 48 (25.5%) from the catholic religion and 29 (15.4%) from the Seventh Day Adventist church. Only 2 (1.1%) of male respondents had no religion and thus were traditional.

It is clear that majority of respondents were from Christian families (protestants and Catholics). Thus, in a country where the church plays a major role in people's lives, the church must become involved in HIV/AIDS advocacy. Religious groups can be effective in promoting behaviour change by focusing on tolerance and human rights of people infected. The church can help to identify myths and misconceptions about HIV thus eliminating stigma and discrimination born as a result of ignorance and thus increasing the utilization of VCT services.

4.4 Reported uptake of VCT services by gender of the respondents

For all the respondents, the study sought to establish whether they had ever visited a VCT facility for HIV testing and counseling. This helped in revealing the extent to which respondents utilized these facilities. Respondents were thus asked to state whether they had ever gone to a VCT for HIV testing or not. The findings as presented in table 4.6.

Table 4.6

VCT uptake by gender of respondents

Responses	GENDER					
	FEMALE		MALE		Total	
	Freq	%	Freq	%	Freq	%
Yes	115	66.9	123	65.4	238	66.1
No	57	33.1	65	34.6	122	33.9
Total	172	100	188	100	360	100

From the study findings, 238 (66.1%) of the respondents reported having ever tested for HIV/AIDS. The study further found out that, of the respondents who reported having ever tested, 115 (66.9%) were females and 123 (65.4%) were males. Those who had never tested were 122 (33.9%) respondents where 57 (33.1%) and 65 (34.6%) were females and males respectively.

These findings show that more females are likely to go for an HIV test as compared to males, as it is common knowledge that women have better health seeking behavior as compared to men. The findings of the study also revealed that majority of the respondents who participated in the study (66.1%) knows their status and only 33.9% do not know of their status. This indicates that people are not totally discouraged by stigma and discrimination to test for HIV; however 33.9% should still cause concern. Stigma and discrimination instills fear in people and is said to be one of the reasons why people are reluctant to test for HIV.

These findings concurs with a study in Lesotho by Qobolo (2009) on the effect of stigma and discrimination on Voluntary Counseling and Testing which found that around 70% of the respondents were willing to go for HIV testing and only 20% were not willing to test. This indicates that many people are aware of HIV voluntary testing and are ready to use the services although a significant number is still resistant to it. The findings however contradict the results of a study in Nakuru District by Irungu *et al.*, (2008), which found that 35.9% of the population had ever tested. Since this study was conducted in an area within Nakuru, this could imply that people have continued to be knowledgeable on importance of VCT services and thus as time goes by; more people are likely to seek testing. The time span between the year 2008 and 2012 could have created an impact on the testing levels and this call for continued education and sensitization on the importance of knowing ones status.

4.4.1 Motivation for HIV testing

Respondents who reported having ever tested before were asked to state their motivation for HIV testing. According to the study findings, 234 respondents reported that they had ever tested. The various reasons for testing as reported by the respondents are illustrated in table 4.7.

Table 4.7
Motivation for HIV testing

Factors	Freq	%
As part of treatment	26	11.1
Blood donation	2	0.9
Convinced by health care worker	27	11.5
Personal decision	147	62.8
Plan for marriage	24	10.3
Prenatal care	6	2.6
Work requirement	2	0.9
Total	234	100

A majority of the respondents 147 (62.8%) reported that they tested for HIV as a personal decision to know one's status, while 26 (11.1%) and 27 (11.5%) respondents reported that they tested as part of treatment and others were convinced by health care workers respectively. Only 2 (0.9%) respondents were tested before donating blood and 24 (10.3%) of them tested while planning for their marriage. Of the female respondents, 6 (2.6%) were tested during pre-natal clinic.

This implies that majority of the respondents sought VCT services as a personal choice and a desire to know one's status. It is also evident that health care workers need to work towards ensuring that most of the people seeking health care are also encouraged to test and sensitized on the importance of testing, hence increasing the uptake of these services. The findings of this study confirm those of another study conducted in Kisumu by Achando (2010) on uptake of CHCT services which found that the desire to know one's status was the major motivator for CHCT uptake. People go to VCT for HIV test due to personal decision and desire to know one's status.

4.4.2 Reasons for not testing

The key objective of this study was to establish the impact of stigma and discrimination on the uptake of VCT services. Out of 360 respondents who took part in the study, only 122 reported having ever gone to a VCT for testing. They were therefore asked to give the reasons for their decisions not to test, if any, and thus the question "why have you not tested for HIV?" The responses were then analyzed and the results are as shown in table 4.8.

Table 4.22

Reasons for not testing

Responses	Freq	%
Fear of stigma and discrimination	24	19.7
Lack of testing points or too far	37	30.3
Never thought of	6	4.9
Perceived no risk	52	42.6
<u>Unfriendly service providers</u>	<u>3</u>	<u>2.5</u>
Total	122	100

From the research findings, majority of the respondents who participated in the study, 52 (42.6%), perceives no risk of contracting HIV/AIDS mostly due to their age and others due to religion. Those who reported lack of testing points or testing points too far from their homes were 37 (30.3%) respondents and thus they cannot access the services easily, while 24 (19.7%) of the respondents have not tested because of fear of being stigmatized and discriminated against in the society; it is worth noting that, when people have such fears, it is likely to have a negative impact on HIV testing because of the close association of HIV positive status and stigmatization. Less common reasons cited for not being tested by respondents includes the fact that one has never thought of testing 6 (4.9%) and there was nothing pushing them to go for an HIV test and also fear of or unfriendly services providers who may reveal their status to the public. Some of the respondents could say that they see no need in testing since they are not feeling sick and that they feel they are healthy, so why should they go for HIV testing.

Other than stigma and discrimination, the study established that other factors come in to play to contribute to low uptake of VCT services; this includes lack of testing points and perceived low risk of contracting HIV/AIDS. Similar reasons have been cited as barriers to uptake of voluntary counseling and testing (VCT) for HIV in

several African countries. For example, in Uganda, barriers to uptake of VCT include low perceived risk of HIV infection and lack of access to free testing whereas, in Zambia, a major barrier is fear of test results and fear of being stigmatized (Matovu *et al.*, 2005; Nakanjako *et al.*, 2007; Bakari, *et al.*, 2007). Many people will want to imagine that they are safe from contracting HIV virus simply because they are old or religious or married monogamous or never married or not sexually active. This may largely contribute to low uptake of VCT services and consequently, the rapid spread of HIV virus due to unknown HIV status.

4.5 Social rejection and uptake of VCT service

Social rejection of people living with HIV/AIDS has been shown to influence negatively on the uptake of VCT services. It has been found that anticipated negative consequences including being socially rejected in the community fuels the fear of testing HIV positive. Respondents were therefore asked questions that ascertain whether they had Social rejection stigma. Their responses were put in a scale of 1-5. These are addressed in the following sub-sequent sub-themes;

4.5.1 Willingness to share a drinking glass with PLWHA

Due to fears of contagion, many people living with HIV/AIDS have been rejected and isolated to the extent of separating the utensils that they should use. The study thus sought to find if this was the case for the residents of Olenguruone. When respondents were asked, whether they think they could become infected with HIV if they share a drinking glass with persons living with HIV/AIDS, the responses were as indicated in table 4.9.

Table 4.22

Willingness to share a cup with a PLWHA

Statements	Have you ever gone to VCT for HIV test					
	Yes		NO		Total	
	Freq	%	Freq	%	Freq	%
Strongly disagree	63	26.5	27	22.1	90	25.0
Disagree	143	60.1	61	50.0	204	56.7
Neutral	0	.0	7	5.7	7	1.9
Agree	12	5.0	20	16.4	32	8.9
Strongly agree	19	8.0	7	5.7	26	7.2
No response	1	.4	0	.0		.3
Total	238	100	122	100	360	100

Table 4.9 shows that out of 238 respondents who had ever tested for HIV, a total of 206 (86.6%) would either disagree or strongly disagree to share a cup with a PLWHA while 31 (13%) would either agree or strongly agree with this statement. A similar trend was observed among the respondents who had not tested for HIV, with a total of 88 (72.1%) of them who would disagree to share a cup or drinking glass with someone who is HIV infected and 27 (22.1%) reported that they could become infected if they share a cup with a PLWHA.

From the findings, majority of the respondents (up to 81.7%) seemed to have adequate knowledge regarding HIV modes of transmission and so most of them would not fear to share a cup or drinking glass with a PLWHA. It is worth noting however, that a considerable number of the respondents still have minimal knowledge regarding HIV/AIDS transmission and reported that they believe they can be infected with HIV if they share a cup with a person living with HIV/AIDS. It is also important to note that majority of those who disagreed with this statement (86.6%) and thus less stigmatized, had ever gone to a VCT for testing and that majority of those who agreed with it (22.3%), and thus more stigmatized, were less likely to have had an HIV test.

The fear of casual transmission, as cited in other studies, has been reported to be the major social rejection stigma which discourage many from testing, where HIV infected people are stigmatized and discriminated against because others are being too careful not to be infected. This is in line with the study findings on a survey of Americans by Kaiser Family Foundation (2006) where significant minorities in the public still incorrectly thinks that HIV might be transmitted through various forms of casual contact including sharing a drinking glass. The belief that one can be infected through casual contact including sharing a drinking glass and thus social rejection stigma was thus found to be a barrier to VCT uptake.

4.5.2 Risk of a child getting infected if he/she interacts with an HIV positive child

In responding to the question on whether they think that their children could become infected with HIV if they interact with children who are infected, majority of the respondents disagreed with the statement as shown in table 4.10

Table 4.10

Belief that children could be infected by interacting with HIV positive children

Statements	Ever gone to VCT for HIV testing				Total	
	NO		YES			
	Freq	%	Freq	%	Freq	%
Strongly disagree	24	19.7	61	25.6	85	23.6
Disagree	61	50.0	130	54.6	191	53.1
Neutral	12	9.8	19	8.0	31	8.6
Agree	19	15.6	13	5.5	32	8.8
Strongly agree	6	4.9	14	5.9	20	5.6
No response	0	0.0	1	0.4	1	0.3
Total	122	100	238	100	360	100

From the study findings, out of 85 (23.6%) respondents who strongly disagreed with this statement, 24 (19.7%) cited having not tested and 61 (25.7%) had ever tested, while 61 (50.0%) of those who had not tested and 130 (54.6%) of those who had ever tested would simply disagree that their children could become infected

with HIV. Of the 32 (8.9%) respondents who agreed that their children could become infected with HIV if they interact with HIV positive children, 19 (15.6%) had not tested and 13 (5.5%) had ever tested, six (4.9%) and 14 (5.9%) of those who had not tested and those who had tested respectively, strongly agreed with the statement.

In general, the study established that many people would disagree with this statement. It also established that a higher percentage of those who had not tested (20.5%) compared to those who had ever tested (10.4%), believe that their children are at risk of contracting the virus that causes AIDS should they be allowed to play or interact with children of known positive status. Although it was revealed that this social rejection stigma was rare among the respondents, it was clearly shown that people of unknown HIV status were likely to have this social rejection expressed through fear of casual transmission of HIV virus and this could be the reason as to why they had not sought testing.

The finding of this study is in line with the findings of Kalichman and Simbayi (2003) in their studies on HIV testing attitudes and AIDS stigma among inhabitants of a black township in Cape Town, which revealed that individuals who had not been tested for HIV and those tested but did not know their test results, held significantly more negative stigmatizing attitudes than individuals who knew their test results. This reveals that the reason for declining HIV test is the fear of being stigmatized. The fear of being socially rejected as self and together with the family reduces an individual's willingness to practice prevention, seek testing or adhere to treatment. This poses a challenge in the crusade to increase access to testing services and thus dwarfing the role of VCT services.

4.5.3 Readiness to stay with a person living with AIDS

HIV positive individuals have been isolated in hospitals, within families and avoided by neighbours and the wider community. The study thus sought to find out if respondents were willing to stay/live with PLWHA freely just like any other people in order to establish the extent in which people isolate the HIV infected people. They were thus asked to respond to the question: 'You could become infected if you live with a person living with HIV', the responses are as illustrated in table 4.11

Table 4.11

Willingness to live with a person living with AIDS

Statements	Have you ever gone to VCT for HIV testing?					
	NO		YES		Total	
	Freq	%	Freq	%	Freq	%
Strongly disagree	25	20.5	64	26.9	89	24.7
Disagree	66	54.1	126	52.9	192	53.4
Neutral	3	2.5	9	3.8	12	3.3
Agree	11	9.0	24	10.1	35	9.7
Strongly agree	17	13.9	14	5.9	31	8.6
No response	0	0.0	1	0.4	1	0.3
Total	122	100	238	100	360	100

As indicated on the table 4.11, 25 (20.5%) of respondents who had not tested strongly disagreed, while 66 (54.1%) disagreed in response to the question on whether they thought that one could become infected if they live with a person living with HIV/AIDS and thus did not believe that they could be infected by staying with an HIV infected person. Of the same respondents, 11 (9.0%) would agree and another 17 (13.9%) would strongly agree with the same statement. On the other hand, among those who had ever tested, 64 (26.9%) would strongly disagree and 126 (52.9%) would simply agree with the statement and hence reported that they did not have any problem in living with an HIV positive person. Only 3 (2.5%) of those who had not

tested and 9 (3.8%) of those who had ever tested remained neutral in response to the question.

From the study findings, a higher percentage of those who had not tested (22.9%) compared to those who had ever tested (16%) had social rejection stigma. It is also evident that, although most of the respondents at 281 (78.1%) did not have fears in living with an HIV infected person, a significant number of them at 66 (18.3%) would not be comfortable living with people living with HIV/AIDS. This concurs with the findings of a study carried out in a South African National survey on HIV/AIDS stigma, where 26 percent of respondents would not be willing to share a meal with a person living with HIV/AIDS, 18 percent were unwilling to sleep in the same room with someone with AIDS and 6 percent would not talk to a person they knew to have AIDS (stall *et al.*, 1996). This triggers stigma and discrimination and may dissuade people from seeking VCT services for fear of being socially rejected.

4.5.4 Willingness to buy food from PLWHA who are NOT visibly sick

Respondents were also asked whether they were willing to buy food from a person living with or suspected of HIV/AIDS who is not visibly sick. This was to ascertain the extent to which respondents were willing to associate with PLWHA and treat them like other people. The findings are as shown in table 4.12 as were reported by the respondents to the specific question; 'In a market of several food vendors, I would buy food from a person living with or suspected of HIV/AIDS who is NOT visibly sick'.

Table 4.22

Willingness to buy food from PLWHA who are not sick

Statements	Have you ever gone to VCT for HIV test					
	Yes		NO		Total	
	Freq	%	Freq	%	Freq	%
Strongly agree	33	13.9	16	13.1	49	13.6
Agree	101	42.4	51	41.8	152	42.2
Neutral	15	6.3	5	4.1	20	5.6
Disagree	51	21.4	33	27.0	84	23.3
Strongly disagree	37	15.5	17	13.9	54	15.0
No response	1	.4	0	.0	1	.3
Total	238	100	122	100	360	100

Table 4.12 shows responses of all the respondents who participated in the study. From the table, 201 (55.8%) respondents were of the opinion that they had no problem in buying food from a person living with HIV who is not visibly sick, while 138 (38.3%) reported that they would not buy food from these people and thus, either disagreed or strongly disagreed with the statement 'I would buy food from a PLWHA or suspected of HIV/AIDS who is not visibly sick'. Among those who had ever tested for HIV, 134 would be willing to buy food from a person living with AIDS but not visibly sick, where 101 (42.4%) of them agreed and 33 (13.9%) strongly agreed with the statement. Of the same respondents, 88 (36.9%) were of the opinion that they will not buy food from them. On the converse, among the respondents who had not tested for HIV, 67 (54.9%) would be willing to buy food from PLWHA where the results indicate that 16 (13.1%) of them strongly agreed and 51 (41.8%) agreed with the statement. Among the same group who had not tested, 50 (40.9%) disagreed with the statement.

From this findings, 88 (36.9%) among those ever tested and 50 (40.9%) of those who had not tested would not buy food from someone who is HIV positive even

though not visibly sick. Majority of those who expressed these fears reported that they had not tested for HIV and thus it should be considered as a barrier to seeking VCT services as was evident in the study. Similar findings were revealed in Vietnam in a study aimed at understanding HIV/AIDS related stigma and discrimination conducted by ICRW (2004), which revealed that many of those selling food would refuse to serve PLWHA. This finding were similar to findings of this study in the sense that HIV positive people have been shown to be isolated and rejected in the society shown by refusal to either buy from them or sell to them. The fear of being isolated in the society due to HIV positive status may discourage many from seeking testing. People would therefore prefer to remain ignorant of their HIV status other than being stigmatized and discriminated against in the society. This eventually influences negatively on the uptake of VCT services and thus the fight against HIV/AIDS pandemic.

4.5.5 Willingness to buy food from a PLWHA who is visibly sick

The researcher also sought to find out if respondents would be willing to buy food from HIV positive food vendors whose HIV positive status is seen and known by other people, thus responses to the question 'In a market of several vendors, I would buy food from a person living with HIV/AIDS who is visibly sick', are as illustrated in table 4.13.

Table 4.22

Willingness to buy food the visibly sick HIV positive persons

Statements	Have you ever gone to VCT for HIV test					
	Yes		NO		Total	
	Freq	%	Freq	%	Freq	%
Strongly agree	18	7.6	19	15.6	37	10.3
Agree	71	29.8	15	12.3	86	23.9
Neutral	11	4.6	4	3.3	15	4.2
Disagree	72	30.3	35	28.7	107	29.7
Strongly disagree	63	26.5	49	40.2	112	31.1
No response	3	1.3	0.0	0.0	3	.8
Total	238	100	122	100	360	100

When respondents were asked if they would buy food from a person living with HIV who is visibly sick, many of them responded that they would decline buying from this group of people. From the study findings, of those who had tested, 71 (29.8%) would agree and 18 (7.6%) would strongly agree to buy food from PLWHA. Of the same respondents, 72 (30.3%) would disagree and 63 (26.5%) would strongly disagree with this statement and thus not willing to buy food from PLWHA who are visibly sick. On the other hand, 19 (15.6%) of the respondents who had not tested would strongly agree to buy food from PLWHA, whereas 15 (12.3%) would simply disagree and 49 (40.2%) would strongly disagree and thus not ready to buy food from PLWHA who are visibly sick. Clearly, many people were of the opinion that it is not safe to buy food from people living with HIV/AIDS, illustrating the extent to which HIV/AIDS infected people have been socially rejected.

From the study findings, it was evident that majority of the respondents at 68.9% of those who had not tested and 57.4% of those who had tested respectively would decline to buy food from these people for reasons known to them. It should

also be noted that among those who disagreed to buy food from PLWHA, most of them had not tested. Many people are thus likely to reject someone who is visibly sick because of HIV/AIDS and this may be a challenge in the crusade to mobilize more people to go for HIV testing. This could result in decreasing the chances of going for counseling and testing for HIV.

The result were similar to those reported by Stall et al., (1996) in a South African National Survey where food vendors were found that they could out rightly ostracize PLWHA for fear of losing customers. This illustrates the extent to which people living with HIV/AIDS has been ostracized, which may discourage many people from knowing their status. Having seen others being treated differently because of HIV/AIDS, may make others to keep away from knowing their status, for fear of being treated in the same manner should they be found to be HIV positive. It can thus be said that the fear to buy from or sell to HIV positive people shun others from testing for HIV; as was noted earlier, this was found to be common among those who had never tested for HIV.

Hypothesis one testing

The study sought to test the hypothesis one to reveal if there was any significant association between being socially rejected because of HIV positive status as an indicator of stigma and discrimination and uptake of VCT services in Olenguruone Division, Nakuru County.

HOi: There is no significant association between uptake of VCT services and social rejection stigma among the respondents.

T-test was then employed to test for any association between social rejection variable and uptake of VCT services at 95% confidence interval. The bi-variate analysis shows a significant association between uptake of VCT services and social

rejection where the respondents who were ranked lower in social rejection scale were more likely to test than those ranked higher ($p < 0.021$). This thus implies that social rejection as an indicator of stigma was found to influence the decision to go for voluntary HIV testing hence we reject the null hypothesis.

4.6 Prejudiced attitudes and uptake of VCT services

HIV/AIDS have been associated with negative behaviours. It has been perceived as a punishment from God to perpetrators of sins like prostitution and drug use (Kaldijan, *et al.*, 1998) and a disease for people with loose morals. PLWHA have therefore been seen as deserving of their illness and that they should be ashamed of themselves. An HIV positive status is thus seen to confirm an individual's membership in a group that participates in socially unacceptable behaviours. It is this that has been seen to influence negatively the testing levels. The study therefore sought to establish whether these negative attitudes towards PLWHA do exist among the respondents and by what extent do they impact on uptake of VCT services. Respondents were thus asked to state whether they strongly agree, agree, neutral, disagree or strongly disagree on statements that were targeted to gauge whether they had prejudiced attitude stigma. These variables were further examined in the subsequent sub-themes:

4.6.1 HIV is a punishment from God

HIV and AIDS have been seen as a punishment from God to perpetrators of sin. Being HIV positive has therefore been associated with sin and that one deserved it. The study therefore sought to establish whether this attitude is prevalent among the respondents. The results as shown in table 4.14, shows the responses when respondents were asked whether they think HIV is a punishment from God.

Table 4.14

HIV is a punishment from God

HIV is a punishment from God	Have you ever gone to VCT for HIV test					
	Yes		NO		Total	
	Freq	%	Freq	%	Freq	%
Strongly disagree	26	10.9	28	23.0	54	15.0
Disagree	51	21.4	29	23.8	80	22.2
Neutral	21	8.8	4	3.3	25	6.9
Agree	71	29.8	28	23.0	99	27.5
Strongly agree	69	29.0	33	27.0	102	28.3
Total	238	100	122	100	360	100

Table 4.14 shows responses of male and female respondents who participated in the study. From the table, 134 (37.2%) respondents feel that HIV is not a punishment from God while 201 (55.8%) either agrees or strongly agree that HIV is a punishment from God. Among those who have not tested for HIV, 57 (46.8%) do not believe that HIV is a punishment from God while half the number, 61 (50%) agreed that HIV is a punishment from God and only 4 (3.3%) remains neutral. The table also shows that of those who have ever tested, 140 (51.8%) agrees that HIV/AIDS is a punishment from God, compared to 77 (32.3%) who disagreed and belief that HIV is not a punishment from God.

From the results, it can be interpreted that over 50% of the respondents believes that HIV is a punishment from God and that it is only meant for the sinful. It can also be said that, although most of the respondents who agreed that HIV is a punishment from God were more likely to have tested, almost 50% of those who had not tested had the belief that HIV is a punishment from God, this was thought to be the reason that makes people to decline to test for HIV, for fear of being associated with sinners. A study in Ghana on the role of spiritual beliefs in the HIV-positive patients by Kaldijan, *et al.*, (1998) showed that the infection is perceived as a

punishment from God to perpetrators of sins like prostitution, promiscuity, drug use or homosexuality. An HIV positive status is therefore commonly seen to confirm an individuals' membership in a group that participate in socially unacceptable behaviours and thus deserves to be punished. Many would therefore opt to remain with unknown HIV status and avoid VCT testing as much as possible for fear of being associated with sinners and this may contribute to the low uptake of VCT services.

4.6.2 People with HIV are promiscuous

People who are HIV positive have been seen as people who are immoral, who 'got what they were looking for'. This has been shown to also impact negatively on uptake of VCT services. The researcher therefore wanted to establish whether this applied to the residents of Olenguruone Division. The table 4.15 shows the responses as reported by the respondents on the question, 'People with HIV are promiscuous'.

Table 4.15

People with HIV are promiscuous

People with HIV are promiscuous	Have you ever gone to VCT for HIV test					
	Yes		NO		Total	
	Freq	%	Freq	%	Freq	%
Strongly disagree	26	10.9	11	9.0	37	10.3
Disagree	82	34.5	42	34.4	124	34.4
Neutral	27	11.3	13	10.7	40	11.1
Agree	55	23.1	22	18.0	77	21.4
Strongly agree	45	18.9	34	27.9	79	21.9
No response	3	1.3	0	.0	3	.8
Total	238	100	122	100	360	100

The table shows that 56 (45.9%) and 100 (42.0%) of those who have not tested and those who have ever tested respectively believes that people who are HIV positive are promiscuous. Among those who have tested, 82 (34.5%) disagree while 26 (10.9%) strongly disagree with the statement. Of those who have not tested 42 (34.4%) would disagree while 11 (9.0%) would strongly disagree that people with

HIV are promiscuous. Among those who have not tested, 22 (18.0%) agreed while 34 (27.9%) strongly agreed with the statement. It was also found that those who had never tested for HIV were more likely to agree that people with HIV are promiscuous as compared to those who had ever tested (45.9% and 42.0% respectively).

From the study findings, it can be interpreted that the perception that HIV/AIDS belongs to people who are promiscuous is high among the residents of Olenguruone Division of Kuresoi District and by extension may negatively impact on the uptake of VCT. This is in line with the results of a study that was done in Tanzania as documented in the Tanzania Research Bulletin (2002) which found that HIV/AIDS in Tanzania is associated with promiscuity and bad behaviours. People may think that if they are tested positive, then they are regarded as unfaithful, immoral or promiscuous because they believe HIV/AIDS belong to the wicked who are just receiving what they deserved. This also is a challenge in the crusade to boost HIV testing levels as it shun away many people who would have accessed the services.

4.6.3 Shame and blame over PLWHA

PLWHA have experienced emotional agony not because there is no cure for the disease but also because of a public frenzy that ends in blaming and shaming the victim. Such shame can have a powerful influence over how people with HIV see themselves and adjust to their status, making them vulnerable to blame, depression and self-imposed isolation (UNAIDS, 2005). Blaming and shaming victims of HIV may thus discourage others who intend to know their status from going for VCT services, for fear of being shamed and blamed if the tests turn out positive. The study therefore sought to establish whether the respondents had this stigma and the extent to which it influence uptake of VCT services.

To solicit this information, respondents were asked the following questions; 'I would feel ashamed if a were infected with HIV/AIDS', 'I would feel ashamed if someone in my family had HIV/AIDS' and 'People with HIV/AIDS should be ashamed of themselves' and responses ranked in a five-point-scale as shown in table 4.16.

Table 4.16

Shame and blame over PL WHA

Statements	Response	Have you ever gone to VCT for HIV test					
		Total		Total		Total	
		Freq	%	Freq	%	Freq	%
I would feel ashamed if I were infected with HIV	Strongly disagree	36	15.1	13	10.7	49	13.6
	Disagree	69	29.0	37	30.3	106	29.4
	Neutral	24	10.1	11	9.0	35	9.7
	Agree	70	29.4	22	18.0	92	25.6
	Strongly agree	39	16.4	39	32.0	78	21.7
	Total	238	100	122	100	360	100
I would be ashamed if someone in my family had HIV/AIDS	Strongly disagree	53	22.3	23	18.9	76	21.1
	Disagree	110	46.2	57	46.7	167	46.4
	Neutral	12	5.0	11	9.0	23	6.4
	Agree	31	13.0	17	13.9	48	13.3
	Strongly agree	32	13.4	14	11.5	46	12.8
	Total	238	100	122	100	360	100
People with HIV/AIDS should be ashamed of themselves	Strongly disagree	63	26.5	32	26.2	95	26.4
	Disagree	84	35.3	51	41.8	135	37.5
	Neutral	7	2.9	11	9.0	18	5.0
	Agree	59	24.8	15	12.3	74	20.6
	Strongly agree	25	10.5	13	10.7	38	10.6
	Total	238	100	122	100	360	100

When respondents were asked whether they would feel ashamed if they had HIV virus, 170 (47.3%) of all the respondents agreed that they would feel ashamed while 155 (43.0%) disagreed with the statement. Most of the respondents would therefore be ashamed. Sixty one (50%) of the respondents who had not tested compared to 109 (45.8%) of the respondents who had tested, reported that they would feel ashamed if they are tested positive.

It can therefore be said that most of those who had not tested (50%) would not go for testing probably because they will be ashamed. Majority of those who had tested (45.8%) also had the same feelings that they would be ashamed if they were infected with HIV. Many people may thus decide to hide their status if they are infected or decide not to seek testing for fear of a positive test result that would result in shame and blame over them. This confirms a study conducted by Mill (2004) on the experience of HIV-seropositive women receiving care in Accra and Agomanya, which revealed that many HIV positive women felt the need to hide their HIV status due to the perceived shame and disgrace surrounding the HIV infection. It can thus be interpreted that shame surrounding the HIV virus discourages those who know their HIV status from sharing out with others and dispirit those who have not tested to go for HIV tests and thus has a negative impact on the uptake of VCT services

The study findings also revealed that most of the respondents will not be ashamed if someone in their family had HIV/AIDS and that people with HIV/AIDS should not feel ashamed. In response to the question; I would be ashamed if someone in my family had HIV, 80 (65.6%) of respondents who had never tested and 163 (68.5%) of those ever tested responded that they would not be ashamed. A few of the respondents however would be ashamed if someone in their family had HIV represented by 31 (35.4%) of those who had not tested and 63 (26.4%) of those who had tested. It can therefore be noted that, of the respondents who would be ashamed of an HIV positive family member, majority had not tested at 35.4% compared to 26.4% who had tested.

To the question on whether PLWHA should be ashamed of their positive status, almost similar results were noted as in the previous question. Of those who had not tested, 83 (68.0%) believed that people with HIV should not be ashamed of

themselves compared to 147 (61.8%) of those who had ever tested. On the other hand, 28 (23%) of those who had tested and 84 (35.3%) who had not tested believed that PLWHA should be ashamed. This shows that a majority of respondents believe that people should not be ashamed of their status so that people may be accorded necessary help which may impact positively on the uptake of VCT services. The study also established that among the respondents who had the belief that PLWHA should be ashamed; majority of them had not gone to VCT for testing. This implies that people who have this attitude towards PLWHA are less likely to go for HIV testing because they do not want to be ashamed of their status. This supports the findings of a study in Zimbabwe on AIDS stigma and VCT uptake by Sambisa (2008) which found that 32% of women and 26% of men reported that persons infected with HIV should be ashamed of themselves. If people have the feeling that HIV positive people should be ashamed, they may not want to be in the same situation and thus would rather avoid knowing their status. This dwarfs the role of VCT services in helping people know their status.

Hypothesis two testing

The study also sought to test hypothesis two to establish if there were any significant association between having prejudiced attitudes towards those living with AIDS as an indicator of stigma and discrimination and uptake of VCT services among the respondents. HO2: There is no significant association between uptake of VCT services and prejudiced attitudes among the respondents.

T-test was employed to test for significance at 95% confidence interval. The bi-variate analysis revealed no significant association between uptake of VCT services and prejudiced attitudes ($p < 0.058$). We then fail to reject the null hypothesis

at $p < 0.05$. This shows that prejudiced attitudes did not have any influence on uptake of VCT services and thus it cannot be used as predictor of VCT service uptake.

4.7 Disclosure concerns and uptake of VCT services

The study had also sought to establish the extent at which disclosure concerns impact on the uptake of VCT services. Disclosure has been considered a proxy measure of stigma and discrimination and has been shown to have some potential benefits for the individual, including increased opportunities for social support and improved access to necessary medical care including increased antiretroviral treatment. Addressing disclosure concerns were therefore thought to be useful in reducing stigma and discrimination and in dealing with HIV/AIDS. Respondents were thus asked various questions to solicit this information which are further discussed on the following sub-subsequent themes:

4.7.1 Knowledge of people who have disclosed their HIV positive status publicly

The study presupposes that knowing someone who has disclosed his/her status is more likely to encourage one to take an HIV test. Thus, responses to the survey question; "Do you know of someone who has either disclosed his/her HIV positive status directly to you or publicly?" The response to this question is illustrated in table 4.17

Table 4.17

Knowledge of people who have disclosed their HIV positive status

Response	Have you ever gone to VCT for HIV test					
	Yes		No		Total	
	Freq	%	Freq	%	Freq	%
YES	90	79.6	23	20.4	113	100
NO	148	59.9	99	40.1	247	100
Total	238	66.1	122	33.9	360	100

Table 4.17 shows the responses of the respondents who participated in the study when they were asked to state either yes or no to the statement; "Do you know of someone who has disclosed their HIV positive status to you or publicly". Among the 113 respondents who responded 'Yes', 90 (79.6%) had ever gone to VCT for HIV testing compared to 23 (20.4%) who had not tested. On the other hand, out of 247 respondents whose responses were 'No', 148 (59.9%) had ever gone to VCT for testing and 99 (40.1%) had not.

Clearly, majority of the respondents (214) did not know of people who have disclosed their HIV status to them or publicly. Majority of the people (79.6%) who knew someone who had disclosed his/her HIV status to them or publicly, were more likely to have gone for a VCT test and a higher percentage of those who reported having not tested for HIV did not know of someone who has disclosed his/her status to them privately or publicly. This could imply that, knowing someone who has disclosed their HIV status is a motivator to VCT uptake. These findings are supported by other research that has shown that personally knowing someone who has HIV or AIDS is associated with an increased likelihood of being tested for HIV (Bond *et al*, 2005). By extension, people should be encouraged to disclose their HIV positive status so as to encourage those who do not know their HIV status to seek testing.

4.7.2 Readiness to disclose HIV positive status

Personal disclosure of HIV positive status is important in preventing and reducing the spread of HIV virus. It also motivate other people, for instance sexual partners, to seek testing, change behavior and thus reducing transmission of HIV virus (WHO, 2004). The study therefore sought to establish if respondents would be willing to disclose their status if they were tested positive. They were thus asked to state

whether they would disclose their HIV positive status if they had HIV/AIDS, the responses were as tabulated in the table 4.18

Table 4.18

Readiness to disclose HIV positive status

Responses	Have you ever gone to VCT for HIV test?					
	Yes		No		Total	
	Freq	%	Freq	%	Freq	%
Yes	121	72.9	45	27.1	166	100
No	117	60.3	77	39.7	194	100
Total	238	66.1	122	33.9	360	100

Based on the findings, Among 166 respondents who responded that they would be willing to disclose their status if they are tested HIV positive, 121(72.9%) had ever tested for HIV compared to 45 (27.1%) who had not tested. Moreover, 194 respondents reported unwillingness to disclose their HIV positive status. Among these, 117 (60.3%) had ever gone to VCT for an HIV test compared to 77 (39.7%) who had not tested.

From the results, those who were willing to disclose their HIV positive status were more likely to go for an HIV test and those who had not tested, likewise, were less likely to be willing to disclose their HIV positive status. It is also worth mentioning that most of the respondents (194 out of 360) would not be at ease in disclosing their HIV positive status. This is in contrast to the findings of a study in Lesotho on stigma and discrimination where a higher percentage 63.1% of the respondents had indicated that they would be willing to disclosing their HIV positive status compared to 30% who indicated that they would not disclose their status if tested positive. When people still have the fears to disclose their status, it is clear that discrimination still prevails, since disclosure concerns is a proxy measure of stigma and discrimination, and this situation is likely to have a negative impact on HIV

testing. Fear of being rejected, blamed, and victimized and fear of desertion are the main reasons why people may not want to disclose their status and this affects HIV testing negatively.

4.7.3 HIV/AIDS should be kept as a private fact

The study also sought to establish the extent to which the respondents thought that HIV/AIDS should remain in the public domain. Respondents were thus asked to give their opinion regarding the question "If a person learns he/she is infected with the virus that causes AIDS, should the person be allowed to keep this fact private" Table 4.19 shows the responses solicited from the respondents.

Table 4.19

HIV/AIDS should be kept as a private fact

Responses	Have you ever gone to VCT for HIV test?				Total	
	Yes		No		Freq	%
	Freq	%	Freq	%		
YES	79	54.1	67	45.9	146	100
NO	159	74.3	55	25.7	214	100
Total	238	66.1	122	33.9	360	100

From the table 4.19 above, 79 (54.1%) out of 146 respondents who reported that HIV should be kept as a private fact had ever tested for HIV as compared to 67 (45.9%) who had not tested. Among the 214 respondents who thought that HIV should not be kept as a private fact, 159 (74.3%) had ever gone to VCT for HIV test as opposed to 55 (25.7%) who had not tested. Although 146 is a lower number compared to 214, it shows a certain degree of disclosure concerns exist among the people of Olenguruone Division.

Those who had the belief that HIV should be kept as a private fact were less likely to go to a VCT for an HIV test as compared to those who did not have this belief. It can therefore be interpreted that majority of those who had this belief had

disclosure concerns which is a proxy measure of stigma and discrimination; this could have influenced them not to go for VCT for testing for fear of their HIV positive status being exposed. They may also have heard of people who disclosed their status and was not being treated well. This will in turn discourage them from sharing their status with others for fear of similar experiences. This concurs with findings of a study by Simbayi *et al.*, (2006), on disclosure of HIV status to sexual partners in South Africa, which found that people who do not disclose their HIV status may have had adverse experiences related to previous disclosures. This may discourage many from emerging publicly to declare their HIV positive status and hence reluctance to go for HIV testing.

4.7.4 Ways of knowing one's HIV status in the community

In order to explore the extent at which disclosure concerns impact on uptake of VCT services, the researcher also sought to establish the main ways in which people in the community get to know when someone has HIV and AIDS. This was to give an insight on the various means of disclosure and whether people are ready to declare their HIV positive status. Fear of disclosing one's status is highly linked to likelihood of having stigma and discrimination. The results are as shown in the table 4.20.

Table 4.22

Methods of knowing one's HIV status in the community

Statements	Have you ever gone to VCT for HIV test?						Total Freq	100	
	Yes	Yes		No	No				Total Freq
		Freq	%		Freq	%			
The infected person discloses their status	Yes	102	82.9	21	17.1	123	100		
	No	136	57.1	101	42.6	237	100		
Through gossips	Yes	170	65.4	90	34.6	260	100		
	No	68	68.0	32	32.0	100	100		
Through one of the family members	Yes	92	70.2	39	29.8	131	100		
	No	146	63.8	83	36.2	229	100		
Through health care workers who performs HIV test	Yes	98	71.0	40	29.0	138	100		
	No	139	62.9	82	37.1	221	100		
The person looks physically ill	Yes	147	62.6	88	37.4	235	100		
	No	91	72.8	34	27.2	125	100		
Total		238	66.1	122	33.9	360	100		

From the results, out of 123 respondents who reported that HIV status is known through personal disclosure, 102 (82.9) had ever gone for HIV test as compared to 21 (17.1%) who had not gone for test. On the other hand, among those who were of the contrary opinion that infected people do not disclose their HIV positive status, 136 (57.1%) had ever tested compared to 101 (42.6%) who had not tested. From the study findings, it is apparent that many people in the community are not ready to disclose their HIV status. It further shows that those who reported that infected people disclose their HIV positive status were more likely to go to VCT for HIV test as compared to those who did not report personal disclosure of HIV status. The low proportion of personal disclosure of HIV positive status in this study is comparable to findings of a study in Ghana where HIV positive persons were reported to be hiding their HIV-seropositive status to reduce HIV/AIDS related stigmas and to retain the care and support services provided by the family members (Mill, 2003). People who are

unwilling to disclose their HIV status are less likely to seek HIV testing services and thus continued indulgence in risk behaviours which hold back the fight against the spread of HIV/AIDS.

Regarding the question on whether someone's HIV positive status is known through gossips, out of 260 respondents who answered 'Yes', 170 (65.4%) had ever tested as compared to 90 (34.6%) who had not tested. Among 100 respondents who answered that one's HIV positive status is not known through gossips, 68 (68%) had ever gone to a VCT for HIV test, and 32 (32%) had not tested. It can then be concluded that those who alleged that one's HIV status in the community is known through gossips, were less likely to go for an HIV test (65.4%) as compared to those who reported otherwise. Majority of the respondents also reported gossips as a way of HIV disclosure in the community. This was found to discourage many from going to VCT for HIV testing. The results concurs with the findings of the study on fear of stigmatization as a barrier to VCT in South Africa (Meirberg, *et al.*, 2008) which found that participants of the study indicated that people gossip about HIV-positive people. This was found to have a negative influence on the uptake of VCT services. As a result, many people would fear to seek to know their status for fear of being gossiped about and the result is low utilization of VCT services.

Similar results were also recorded when respondents were asked whether someone's HIV positive status is known only when one looks physically ill. Out of 235 respondents who responded 'Yes' to this question, 147 (62.6%) had ever tested for HIV compared to 88 (37.4%) who had not tested for HIV. Among those who answered 'No', 91 (72.8%) had ever gone to a VCT for HIV test while 34 (27.2%) had not tested. Clearly, majority of the respondents 235 of 360 reported that HIV/AIDS status is known through physical looks. It also shows that those

respondents who reported physical look as a way of knowing one's HIV positive status were less likely to go for a test than those of contrary response. The expectation of skinny looks makes others difficult to imagine that they can also be in the same state. Similar findings were reported by Day, *et al.* (2003) in a study of attitudes to HIV among mine workers in South Africa which found out that anticipated negative consequences fuel the fear of testing positive. This is an indication that when someone has got HIV 'wasting syndrome' and is physically ill, makes others fear going for an HIV test and discovering themselves positive and so cannot imagine being in the same state of illness. They then rather remain ignorant of their status other than 'committing suicide'. This will have a negative impact in the crusade to improve HIV VCT uptake.

On the question on whether family members discloses the HIV positive status of their infected members, 92 (70.2%) of the 131 respondents who answered yes, had gone to a VCT for HIV testing compared to 39 (29.8%) who had not tested. Among 229 respondents who reported that family members are not the ones to disclose one's HIV status, 146 (63.8%) had ever tested as opposed to 83 (36.2%) who had not tested for HIV. This results indicates that a higher percentage of the respondents who responded that family members discloses the HIV status of an HIV infected person, were most likely to have ever tested for HIV in a VCT center. Majority of those who had not tested felt that family members should not be the responsible for disclosure of HIV positive status of their members. From this, disclosure concerns were high among those who had not tested and this could be the main reason for not testing for fear of being associated with the disease. The findings confirms those of a research done in Zimbabwe on AIDS stigma and uptake of VCT services where it was found that 77% of the women and 79% of the men reported that they would not want others

to know that their family member had HIV/AIDS (Sambisa, 2008). The fear of being stigmatized and discriminated against makes people to avoid being associated with people who are HIV infected by all means and would not want to reveal to the public. These people are less likely to go for HIV testing for fear of stigmatization by family members and the society and thus the low uptake of VCT services.

On the question on whether the health workers are the ones to reveal ones HIV positive status, 138 respondents believed that the health workers who perform the test may leak the information to the public. Among them, 98 (71.0%) had tested for HIV while 40 (29.0%) had not tested. On the other hand, among 221 respondents who reported that health workers do not disclose their HIV status, 139 (62.9%) had ever tested compared to 82 (37.1%) who had not tested for HIV. Majority of the respondents did not have this belief however, a reasonable number of respondents 40 (29.0%) had the belief that health care workers may fail to keep this fact private and thus may be known by other people. The mistrust of health care workers on confidentiality of test results is a common challenge towards utilizing VCT services as confirmed in studies by WHO in India, Indonesia, the Philippines and Thailand which found that 34% of respondents reported breaches of confidentiality by health workers (WHO, 2008). This has shunned many from utilizing the health care facilities including the VCT sites because of the anxiety that their test results will not be kept private.

Based on the results, the two ways of knowing ones' HIV status in the community emerged, this is majorly through gossips and also when the person is looking physically ill. This was considered one of the challenges leading to underutilization of VCT services. Many people would fear being gossiped about and

also have the fears of looking physically ill because of HIV/AIDS and thus would want to imagine that they cannot contract HIV virus.

Hypothesis three Testing

The study also sought to establish the relationship between the uptake of VCT services and disclosure concerns of the respondents by testing the hypothesis three as follows

H03: There is no significant association between uptake of VCT services and disclosure concerns of the respondents.

Chi-square test was employed to test for association between the categorical variables. It was found that there is a significant association between uptake of VCT services and disclosure concerns ($p < 0.000$). It was found that a respondent who had disclosure concern was less likely to take VCT services as compared to the one who did not have. The null hypothesis was thus rejected at 95% confidence interval and concluded that disclosure concerns impacted on uptake of VCT services.

4.8 Observed enacted stigma and uptake of VCT services

The study also sought to establish whether knowledge of somebody who has been discriminated against because of their status had an impact on the uptake of VCT services. In line with this, respondents were asked to state whether they knew of someone who has had the following to happen to him/her because of their HIV positive status; Lost business customers or lost a job, had property taken away, abandoned by spouse or family or if they have seen people being gossiped about. This was to be compared with the testing levels of the respondents as illustrated in table 4.21.

Table 4.22

Observed enacted stigma and uptake of VCT services

Statements	Responses	Have you ever gone to VCT for HIV test?					
		Yes		No		Total	
		Freq	%	Freq	%	Freq	%
Lost business customers or lost a job due to HIV positive status	NO	144	63.7	82	36.3	226	100
	YES	94	70.1	40	29.9	134	100
Had property taken away or destroyed	NO	175	62.5	105	37.5	280	100
	YES	63	78.8	17	21.3	80	100
Abandoned by spouse or family	NO	124	54.9	102	45.1	226	100
	YES	114	85.1	20	14.9	134	100
Gossiped about	NO	50	57.5	37	42.5	87	100
	YES	188	68.9	85	31.1	273	100
Total		238	66.1	122	33.9	360	100

Based on the study findings, among 226 respondents who did not know of people who have either lost business customers or lost a job because of HIV infection, 144 (63.7%) had ever gone to a VCT for HIV testing compared to 82(36.3%) who had ever tested. Among the respondents who knew of people who have lost business or a job because of HIV positive status, 94 (70.1%) had ever tested while 40 (29.9%) had not tested for HIV as per the time of the study. From the findings therefore, Majority of the respondents did not know of people who have lost a job or business customers due to HIV positive status. It is worth noting that those who had reported that they knew people who have lost jobs were more likely to have tested for HIV and that those who reported not knowing such people were less likely to have had an HIV test. This concurs with findings of a study done in Lesotho by Qobolo (2009) on the effect of stigma and discrimination on Voluntary Counseling and Testing which cited that a significantly high percentage, 96% of workers have never heard anyone who has been expelled from work because they are HIV infected or suspected to be infected.

However, a significant minority (37.2%) of the respondents had this observed enacted stigma which was shown to discourage them from seeking HIV testing services for fear of losing jobs or business. Knowing someone who has lost a job or business because of HIV status motivates one to go for HIV testing.

The results also indicates that 280 of the respondents never knew of people who had had property taken away or destroyed due HIV positive status while 80 were of the contrary opinion. Among the respondent who knew such people, 175 (62.5%) had ever tested for HIV compared to 105 (37.5%) who had not tested. Conversely, 63 (78.8%) of the respondents who reported that they had not seen HIV positive people whose property had been taken away because of their status had ever tested as compared to 17 (21.3%) who had not tested. It can be seen that majority of those who had this observed stigma were more likely to have ever tested for HIV compared to those who did not have. Similarly, those who reported that they did not know of people whose property has been taken away or destroyed because of HIV status were less likely to have gone to a VCT for HIV test. Knowing someone whose property has been taken away or destroyed because of HIV status was thus a major contributor to high uptake of VCT services.

This finding also illustrates that 226 of the respondents did not know of someone who has been abandoned by spouse or family. Among them, 124 (54.9%) had ever tested compared to 102 (45.1%) who had not tested. On the other hand, among the 134 respondents who knew of people who have been abandoned by spouse or family, 114 (85.1%) had ever tested as opposed to 20 (14.9%) respondents who had not tested. From the results, someone who knew of people who have been abandoned by spouse or family were more likely to have tested and that those who did not know of people who have been abandoned were less likely to have ever gone to a VCT for

testing. These findings support other research that has shown that personally knowing someone who has HIV or AIDS is associated with an increased likelihood of being tested for HIV (Bond et al., 2005). Knowing someone who has been abandoned by spouse or family motivates one to go for an HIV test and thus improved uptake of VCT services.

When respondents were asked to state whether they knew of people who have been gossiped about because of their HIV status, 273 reported on the affirmative, among them were 188 (68.9%) who had ever tested and 85 (31.1%) who had not tested. On the other hand, 87 respondents reported that they did not know of people who have been gossiped about, where 50 (57.5%) had ever tested as opposed to 37 (42.5%) who had not gone to a VCT for HIV testing. Majority of respondents therefore knew of people who have been gossiped about. Knowing such people was however found to motivate one to go for an HIV test. It was also found that people who did not know of people who have been gossiped about were less likely to have tested as compared to those who knew of people who have been gossiped about. This in contrast to findings of the South African study by Meigberg *et al.*, (2008) which found that, participants who reported that HIV-positive people are being gossiped about were less likely to have tested for HIV. The study therefore found that knowing people who have been gossiped about because of HIV positive status were more likely to have tested for HIV and thus this observed enacted stigma was found to encourage many to seek testing.

Generally, the data above indicate a positive relationship between observed discrimination against those living with HIV and being tested for HIV. Those who have not observed people being discriminated against were less likely to be reported

to have tested for HIV, while most of those who reported having seen someone being discriminated against were more likely to have ever tested.

Hypothesis Four Testing

The study also sought to establish the relationship between the uptake of VCT services and observed enacted stigma of the respondents by testing the hypothesis four as follows.

HO4: There is no significant association between uptake of VCT services and observed enacted stigma of the respondents.

Chi-square test was also employed to test for significance. The bi-variate analysis showed that there is significant association between uptake of VCT services and observed enacted stigma ($p < 0.000$). It was found out that having observed enacted stigma reduces one's chance for going for VCT service uptake. The null hypothesis is thus rejected at 95% confidence interval and concluded that observed enacted stigma is a predictor of VCT service uptake.

4.9 A logistic regression on VCT uptake

In order to understand which factor had greater impact on uptake of VCT services, a Logistic regression was done on VCT uptake while controlling for stigma and discrimination indicators and demographic factors. Gender, marital status, level of education, source of livelihood were found to be insignificant in influencing one to go for VCT service uptake [$p > 0.05$]. Religion, age category, social rejection, prejudiced attitude, disclosure concern and observed enacted stigma were found to be factors which influence the uptake of VCT services [$P < 0.05$] as shown in table 4.16 below.

Table 4.22

Binary logistic regression on uptake of VCT services

Variables in the Equation						
	B	S.E.	Wald	df	Sig-	Exp(B)
gender(male)	.124	.306	.165	1	.685	1.132
marital_			4.294	3	.231	
marital(separated)	-18.240	17895.370	.000	1	.999	.000
marital(single)	.342	.399	.735	1	.391	1.407
marital(widowed)	-1.723	.899	3.677	1	.055	.179
Level-of			7.063	5	.216	
level_of(info)	21.645	28420.722	.000	1	.999	2.514E9
Level_of(prim)	.739	.988	.559	1	.455	2.093
level_of(colleg)	.955	1.065	.804	1	.370	2.600
level_of(secon)	.453	1.011	.201	1	.654	1.572
level_of(univer)	-1.289	1.281	1.012	1	.314	.276
sourceo			5.334	4	.255	
sourceo(labour)	.109	.599	.033	1	.856	1.115
sourceo(others)	-1.393	1.137	1.502	1	.220	.248
sourceo(proffes)	-.506	.471	1.153	1	.283	.603
sourceo(trade)	-.703	.392	3.224	1	.073	.495
Religion			15.137	3	.002	
religion(none)	.027	1.038	.001	1	.980	1.027
religion(protest)	.044	.378	.014	1	.907	1.045
religion(SDA)	-2.234	.633	12.466	1	.000	.107
Agecat			20.394	4	.000	
agecat(25-34)	-.515	.430	1.436	1	.231	.598
agecat(35-44)	.719	.544	1.748	1	.186	2.053
agecat(45-54)	1.024	.631	2.638	1	.104	2.785
agecat(55+)	1.917	.670	8.189	1	.004	6.803
obenacts(No)	1.731	.365	22.532	1	.000	5.648
disclos(No)	-1.674	.442	14.382	1	.000	.187
socialrejection	.795	.237	11.216	1	.001	2.214
prejudicedAtt	-.701	.220	10.101	1	.001	.496
Constant	-2.832	1.5	3.233	1	.072	.059

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a. Variable(s) entered on step 1: gender, marital_, levelof, sourceo, religion, agecat, obenacts, disclos, socialrejection, prejudicedAtt.

The findings, according to this analysis show that respondents whose religious denominations were Catholic, Protestant and traditional had equal chances of going

for a VCT services but varied significantly with SDA denomination which had an increased odds of going for a VCT uptake by 0.107 $P < 0.002$. It was also found that a person who was 54 years and above was 6.803 times less likely to go for an HIV test compared to someone whose age ranged between 15 to 54 years ($p < 0.000$).

On the indicators of stigma and discrimination which the study sought to establish their influence on testing for HIV, it was found that a respondent who did not have observed stigma of people living with HIV and AIDS were 5.648 times less likely to take an HIV test compared to those who have observed enacted stigma $PO.000$. The study also established that someone who did not have disclosure concerns was 0.187 times more likely to go for an HIV test compared to someone who has disclosure concerns. This indicates that having disclosure concerns reduces the odds of taking an HIV test [$PO.000$].

Social rejection was ranked in a scale between 1 to 5 where the lowest value indicates low or no rejection and highest value indicates high social rejection. The output from logistic regression indicates that a unit increase in social rejection scale reduced the odds of going for a VCT test by 2.214. This shows that people who had social rejection stigma were less likely to test for HIV ($P < 0.001$). This therefore shows that having social rejection stigma reduces the odds of going for VCT services, an indication that social rejection stigma has to be dealt with in order to ensure increased uptake of VCT services.

In a scale of 1 to 5 of prejudiced attitude stigma where the lower value shows low or absence of the indicator and 5 showing high, a unit increase in prejudiced attitudes scale increases the odds of going for a VCT services test by almost 0.5 ($P < 0.001$). Having prejudiced attitudes stigma therefore increased the chances of going for an HIV test.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the major findings, conclusions, recommendations of the study, contributions to knowledge and suggestion for future research.

5.2 Summary of findings

From the data analysis, interpretation and discussion in chapter four, the study came up with a number of findings which are discussed thematically in this section based on the themes as was discussed in chapter four.

From the demographic data, it was found that majority of men (64.3%) and women (61.6%) were aged 35 years and below and that most of them were married (65.8%). Looking at the level of education, it was established that more than 70% of the respondents had at least acquired a secondary education. The main source of livelihood for these respondents came out clearly to be farming/animal raising (43.6%) and trade/business (27.5%). On the religious affiliation, majority of the respondents were protestants (63.9%) followed by Catholics (18.3%).

On the level of HIV testing uptake, findings from the study revealed that most respondents (66.1%) have had an HIV test which was equally distributed across gender, although a significant number (33.9%) had not tested for HIV. It was established that the major motivators for testing were personal decision and were expected to have sought testing themselves in VCT. Most notably, health care workers had played a major role in convincing people to carry out an HIV test. It was also revealed that a good number of people had been tested as part of treatment.

The study also highlighted reasons for not being tested for HIV by the respondents. Among the untested female and male respondents, the most commonly cited reason for not being tested was perceived no risk due to age or religion (42.6%)

followed by lack of testing points or testing points too far from them (30.3%). However, some respondents reported that they had not tested because of fear of stigma and discrimination (19.7%).

On the impact of social rejection on uptake of VCT services, the study established that the main social rejection contributor to stigma and discrimination which negatively impacts on uptake of VCT services is the belief that it is not safe for someone to buy food from a vendor who is HIV positive and who is visibly sick where a total of 219 (60.8%) would not buy food from HIV positive people who are visibly sick. The study also revealed that having social rejection stigma reduces the odds of going for an HIV test by 2.214 ($p < 0.001$). It is worth noting that majority of the respondents have knowledge on HIV transmissions, a factor always known to be instrumental in escalating social rejection stigma. For instance, a higher percentage disagreed with the statements which measured the level of social rejection: "I could become infected with HIV if I share a cup with a person living with HIV/AIDS" (81.7%), "your child could become infected if he/she interacts with a child who has HIV/AIDS" (76.7%) and "you could become infected if you live with a person living with HIV/AIDS" (78.1%). Majority of these respondents were more likely to have gone for an HIV test also. There was an association between uptake of VCT services and social rejection where social rejection stigma reduces the chances of testing.

On objective two that investigated the impact of prejudiced attitudes on uptake of VCT services, it was established that the major contributor of prejudiced attitude stigma is the belief that HIV is a punishment from God followed by the belief that HIV positive individuals are promiscuous. A significant number (47.3%) reported that they would feel ashamed if they were infected with HIV/AIDS. Majority of the respondents did not have any reason to be ashamed if someone in their family had

HIV and AIDS. Many were also of the contrary opinion when they were asked whether they think HIV infected people should be ashamed of themselves. Although bivariate analysis did not show any significant difference between uptake of VCT services and prejudiced attitudes ($p < 0.058$), multivariate analysis showed presence of association between the two variables, where having prejudiced attitudes increased the odds of going for testing by almost 0.5 ($p < 0.001$). On average, those who had prejudiced attitudes were more likely to have tested compared to those who did not have.

The study findings also revealed that disclosure concerns had an impact on uptake of VCT services. The most prevalent disclosure concern (found in 68.6% of the respondents) was established when respondents were asked whether they knew someone who has ever disclosed their HIV positive status to them privately or publicly. Majority of the respondents (65.8%) also would not disclose their status if they are tested HIV positive. The findings also revealed that most of those who had disclosure concerns were less likely to have gone to VTC for an HIV test compared to those who did not have disclosure concerns. For instance, 63.1% of those who have not tested would not disclose their HIV positive status to anyone compared to 49.2% of those who have tested. From these findings, the study further illustrated that the main ways of knowing one's HIV positive status in the community is through gossips and when one looks physically ill. This was more likely to impact on VCT uptake. Multivariate analysis showed significant difference between uptake of VCT and disclosure concerns, where disclosure concerns were reported to reduce the chances of going to a VCT for testing by around 0.2 ($p < 0.000$)

On the fourth objective, majority of respondents reported that they have observed PLWHA being gossiped about (75.8%). It was also revealed that most of

those who had not tested 69.7% reported that they had seen HIV positive persons being gossiped about. More still, 37.2% knew of people who have been abandoned by spouse or family and who have lost business customers or lost a job due to HIV positive status. Both bivariate and multivariate analysis showed a significant relationship between uptake of VCT services and having observed enacted stigma. The logistic regression output showed that having observed someone with HIV/AIDS being stigmatized is likely to motivate one to take an HIV test. People who had this stigma were thus found to be 5.648 times ($p < 0.000$) more likely to take an HIV test compared to someone who did not have this stigma.

Religion and age category, among the demographic variables, were found to be significant in influencing people to go for HIV test ($p < 0.002$, $p < 0.000$ respectively), while disclosure concerns stigma and social rejection stigma were reported to have a negative influence on the uptake of VCT services. Having observed someone with HIV who have been discriminated against were more likely to motivate one to take an HIV test. Prejudiced attitudes stigma was also positively associated with uptake of VCT services.

5.3 Conclusions

From the summary of findings, the study came up with some conclusions. The study concluded that religion and age category, among the demographic variables, had a significant impact on VCT services uptake in Olenguruone Division, Nakuru County. However, it was noted that marital status, gender, level of education and source of livelihood did not have any significant influence on the uptake of VCT services.

The study concluded that social rejection stigma impacts negatively on the uptake of VCT services. Even though majority of respondents did not have social rejection

stigma, those who reported having this stigma were less likely to have gone to VCT for testing. It was also concluded that respondents had adequate knowledge on the modes of HIV transmission which usually culminates into stigma and thus most of them were less likely to have social rejection stigma. On the same objective, the study found out that the main social rejection contributor to stigma is the belief that it is not safe to buy food from a person living with HIV/AIDS who is visibly sick.

On objective two, the study concluded that the belief that HIV is a punishment from God, that HIV belongs to people who are promiscuous was most prevalent among the respondents and were more likely to influence negatively on the uptake of VCT services. However, having prejudiced attitudes were more likely to increase the chances of going to a VCT for testing, and therefore, prejudiced attitudes was positively associated with uptake of VCT services. This was so because those who agreed to the statements that gauged whether respondents had these attitudes were almost equally distributed between those who had tested and those who had not tested. The study also concluded that many people would feel ashamed if they test HIV positive and this was thought to influence negatively on the uptake of VCT services.

On objective three, the study concluded that disclosure concerns had a negative impact on the uptake of VCT services. Those who had disclosure concerns were less likely to have ever tested. The most prevalent disclosure concern was public disclosure of HIV positive status. Majority of respondents did not know of someone who had disclosed his/her status publicly and also majority of them were not ready to disclose their status if they were tested HIV positive. This was found to have adverse impact on the uptake of VCT services. The study also concluded that the main ways of knowing one's HIV positive status in the community was through gossiping and

when an HIV positive person is physically ill. This was found to discourage others from seeking to know their status.

Lastly, the study concluded that having observed someone being stigmatized and discriminated against were more likely to motivate one to go for testing, however, having observed someone being gossiped about shunned away many others from knowing their status. Majority of the respondents who had observed others being gossiped about because of their HIV positive status were less likely to have ever tested. This clearly is an indication that people fear being gossiped about and thus would prefer to remain untested. Generally the logistic regression output revealed that having observed stigma were likely to increase the chances of having ever tested.

5.4 Recommendations

The following recommendations should be implemented with a view of improving access to VCT services, reducing stigma and discrimination and thus contributing to better health seeking behavior among the people.

1. The association between acceptance of HIV testing and religion calls for a close working relationship between the church and the National AIDS Control Council in promoting VCT services and community discussions and social mobilization around HIV/AIDS.
2. The study also established that there is need to call for aggressive mobilization in the community and promotion of HIV testing services and, especially which will enable the common man in the villages to go for an HIV test. This recommendation is based on the research finding that people have not tested because of lack of testing points or testing points too far from them.
3. The study also recommends the need to promote accepting attitudes towards people living with HIV. This includes educational, advocacy and community

mobilization interventions to help reduce AIDS stigma by sensitizing the public to accept people living with HIV/AIDS as they are.

4. The study also recommends the need to develop programmes that aim to combat stigma and discrimination and funds be allocated to such programmes so as to help in sensitizing the public about HIV and AIDS and its related stigma and discrimination. Such programmes will be instrumental in educating people on the importance of HIV positive status disclosure, demystifying myths about HIV/AIDS and modes of transmission and infection and also in ensuring positive attitudes are accorded to those who are infected. This will ensure reduced stigma on HIV/AIDS.

5.5 Contribution to Knowledge

Table 5.1

Study's Contribution to Knowledge

Objective

1. To establish the level at which social rejection impact on the uptake of voluntary HIV counseling and testing services in Olenguruone Division, Nakuru County, Kenya.
2. To assess the extent to which prejudiced attitudes impacts on the uptake of voluntary HIV counseling and testing services in Olenguruone Division, Nakuru County, Kenya
3. To assess how disclosure concerns impacts on the uptake of HIV counseling and testing services in Olenguruone Division, Nakuru County, Kenya.
4. To establish the extent to which observed enacted stigma impacts on the uptake of voluntary HIV counseling and testing services in Olenguruone Division, Nakuru County, Kenya.

Contribution to body of knowledge

The study established that although many people have adequate HIV knowledge and modes of transmission and therefore reduced social rejection stigma, those found with it were less likely to have ever tested and thus the negative association of social rejection stigma and uptake.

The belief that HIV/AIDS is a punishment from God and that PLWHA are promiscuous and should be ashamed is a major contributor to low uptake of VCT services.

The study established that there is significant difference between uptake of VCT services and disclosure concerns, where disclosure concerns reduces the odds of going for a VCT for testing and thus, HIV positive status disclosure was found to be essential in improving utilization of VCT service.

The study found that having observed someone with HIV being discriminated against increases the chances of going for VCT services.

5.6 Suggestions for further research

The study established the impact of stigma and discrimination on uptake of VCT services. HIV/AIDS stigma and discrimination has continually influenced the decision to take up an HIV test. Further studies therefore need to be done to further explore its impact on VCT services. The researcher therefore suggests that research be done on the following areas:

1. A further research which is broader and more qualitative covering a broad area to further identify the social and cultural factors that promote stigma and discrimination to be conducted.
2. Future studies should include questions about attitudes and beliefs about HIV testing.
3. Factors that enhance HIV/AIDS positive status disclosure need to be explored in an attempt to increase uptake of VCT services.

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APPENDICES

Appendix I: Letter of Transmittal

TANGUS CAROLYNE C.

P.O. BOX 614-40100, KISUMU

E-mail: ctangus@gmail.com

Cellphone : 0725 846 365

Dear respondent,

**RE: IMPACT OF STIGMA AND DISCRIMINATION ON UPTAKE OF HIV
VOLUNTARY COUNSELLING AND TESTING SERVICES IN
OLENGURUONE DIVISION, NAKURU COUNTY, KENYA.**

I am a Master of Arts student at the University of Nairobi. As part of the requirement of the Masters Degree in project planning and management, I am conducting research for my project on the above mentioned as a prerequisite for the course. This will lead to improvement of HIV/AIDS prevention, care and treatment among the people.

To enable me collect data for the research, you have been selected as one of the participants of the study. Kindly complete the questionnaire attached. The research is for academic purposes only and thus your responses will be treated with utmost confidentiality. There is no penalty for failing to answer any of questions asked therein. You are requested to give your response as honestly as possible.

Thank you for participating in this research.

Yours Sincerely



Tangus Carolyn C.

Appendix II: Voluntary Counseling and Testing Uptake Questionnaire

VCT UPTAKE QUESTIONNAIRE

Questionnaire number	Date		
1.0	SOCIO-DEMOGRAPHIC PROFILE		
	Question	Response	Instructions
1.1	How old are you?/Year of birth	Years OR Year of birth	(IN FULL YEARS)
1.2	Gender	Male [] Female []	TICK THE MOST APPROPRIATE FOR EACH PART
1.3	What is your marital status	Single [] Married [] Separated [] Divorced [] Widowed [] Cohabiting []	
1.4	What is your highest level of education	None [] Informal/ Adult learning [] Primary [] Secondary [] College [] University []	
1.5	What is your main source of livelihood	Professional [] Trade/Business [] Labourer/ Semi-skilled [] Farming/ Animal raising [] Others []	
1.6	What is your religious denomination	Protestant [] SDA [] Catholic [] Islam [] Others	
2.0	Have you ever gone for VCT for HIV testing and counseling services?	Yes [] _____ No [] •	IF NO .GOTO 2.2
2.1	If YES above what motivated you to go for VCT for HIV test?	Plan for marriage [] Convinced by health care worker [] As part of treatment [] Work requirement [] Personal decision [] Others	GOTO 3.0
2.2	If NO to 2.0 above why have you not tested for HIV?	Fear of stigma and discrimination [] Lack of testing points or too far [] Unfriendly service providers [] Perceived no risk [] Others	

3.0 SOCIAL REJECTION AND UPTAKE OF VCT SERVICES			
	Question	Response	Instructions
3.1	I could become infected with HIV if I share a cup with a person living with HIV/AIDS	Strongly agree [] Agree [] Neutral [] Disagree [] Strongly disagree []	TICK THE MDST APPROPRIATE FOR EACH PART <i>(1=Strongly disagree 2= Disagree 3=Neutral 4= Agree 5=Strongly agree)</i>
3.2	Your child could become infected with HIV if he/she interact with a child who has HIV or AIDS	Strongly agree Agree [] Neutral [] Disagree [] Strongly disagree []	
3.3	You could become infected if you live with a person living with HIV/AIDS	Strongly agree [] Agree [] Neutral [] Disagree Strongly disagree []	
3.4	In a market of several vendors I would buy food from a person living with or suspected of HIV/AIDS who is NOT visibly sick	Strongly agree [] Agree [] Neutral [] Disagree Strongly disagree []	
3.5	In a market of several vendors I would buy food from a person living with or suspected of HIV/AIDS who is visibly sick	Strongly agree [] Agree [] Neutral [] Disagree Strongly disagree []	
4.0	PREJUDICED ATTITUDES AND UPTAKE OF VCT SERVICES		
	Question	Response	Instructions
4.1	HIV/AIDS is a punishment from God	Strongly agree [] Agree [] Neutral [] Disagree [] Strongly disagree []	TICK THE MDST APPROPRIATE FOR EACH PART
4.2	People with HIV are promiscuous	Strongly agree [] Agree [] Neutral [] Disagree [] Strongly disagree []	

4.3	I would feel ashamed if I were infected with HIV	Strongly agree [] Agree [] Neutral [] Disagree [] Strongly disagree []	
4.4	I would be ashamed if someone in my family had HIV/AIDS	Strongly agree [] Agree [] Neutral [] Disagree [] Strongly disagree []	TICK THE MOST APPROPRIATE FOR EACH PART
4.5	People with HIV/AIDS should be ashamed of themselves	Strongly agree [] Agree [] Neutral [] Disagree [] Strongly disagree []	
5.1	OBSERVED ENACTED STIGMA AND UPTAKE OF VCT SERVICES		
	Question	Response	Instructions
	Do you know of someone who has ever had the following happen to him/her because of HIV/AIDS?		
	a.) Lost business customers or lost a job	Yes [] No []	TICK THE APPROPRIATE FOR EACH PART
	b.) Had property taken away or destroyed	Yes [] No []	
	c.) Abandoned by spouse or family	Yes [] No []	
	d.) Gossiped about	Yes [] No []	
6.0	DISCLOSURE CONCERNS		
	Question	Response	Instructions
6.1	Are there people you personally know who have either disclosed their HIV-positive status directly to you or publicly	Yes [] No []	TICK THE APPROPRIATE FOR EACH PART
6.2	If you had HIV, would you disclose your status	Yes [] No []	
6.3	If a person learns he/she is infected with the virus that causes AIDS, should the person be allowed to keep this fact private	Yes [] No []	
6.4.1	In your community, what are some of the ways people know if someone has HIV virus		
6.4.2	The infected persons discloses their status		

6.4.3	Through gossips	r i	MARK ALL THAT APPLY
6.4.4	Through one of the family members	r i	
6.4.5	Through health workers who performs HIV test	r i	
6.4.6	The person looks physically ill	r i	
6.4.7	Any other (specify)		

END

Thank you for your time.

Appendix HI: Nakuru County Population

Age category	Male	Female
0-4	112810	106438
05-Sep	115136	111555
Oct-14	114997	114108
15-19	102543	103839
20-24	82076	85989
25-29	65940	70370
30-34	48510	52949
35-39	37449	40490
40-44	28495	28573
45-49	22126	21576
50-54	17263	16938
55-59	12812	12875
60-64	7829	8841
65-69	5813	6767
70-74	4843	5433
75-79	4919	4838
80+	24611	22054
Total	808172	813633

Source: Nakuru district strategic plan (2005-2010)

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PAGE 2



PAGE 3

Research Permit No. NCST/RCD/14/012/417
Date of issue 3rd May, 2012
Fee received KSH. 1,000.

THIS IS TO CERTIFY THAT:
Prof./Dr./Mr./Mrs./Miss/Institution
Caiolyne Chepkoech Tangus
of (Address) University of Nairobi
P.O.Box 30197-00100, Nairobi.
has been permitted to conduct research in

S
Nakuru County



"ICOMP*
6W
fi&WPfM
xcm&VZ"

**on the topic: Impact of stigma and
discrimination on the uptake of HIV
Voluntary Counselling and Testing in
Olenguruone Division, Nakuru County,
Kenya.**

C J << J B M
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for a period ending: 31st August, 2012.

" Applicant
Signature

Secretary
National Council for
Science & Technology
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Appendix V: Research Authorization Letter

REPUBLIC OF KENYA



NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

Telephone: 254-020-2213471, 2241349
254-020-110571, 2213123, 1219420
Fax: 254-020-318245, 318249
When replying please quote
Secretary's Office

P.O. Box 30623-00100
NAIROBI, KENYA
Website: www.ncst.go.ke

Our Ref: NCST/RCD/14/012/417

3rd May 2012

Carolyne Chepkoech Tangus
University of Nairobi
P.O.Box 30197-00100
Nairobi.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "*Impact of stigma and discrimination on the uptake of HIV Voluntary Counselling and Testing in Olenguruone Division, Nakuru County, Kenya*," I am pleased to inform you that you have been authorized to undertake research in **Nakuru County** for a period ending **31st August, 2012**.

You are advised to report to **the District Commissioners and the District Education Officers, Nakuru County** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

Signed
SAID HUSSEIN
FOR: SECRETARY/CEO

Copy to:

The District Commissioners
The District Education Officers
Nakuru County.

The National Council for Science and Technology is pleased to authorize the promotion of the research project titled "Impact of Stigma and Discrimination on the Uptake of HIV Voluntary Counselling and Testing in Olenguruone Division, Nakuru County, Kenya" for a period ending 31st August, 2012.