

**PERCEPTION OF PEOPLE TOWARDS VOLUNTARY HIV/AIDS TEST
IN ILALA MUNICIPALITY**

BY

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ABSTRACT

Voluntary HIV/AIDS testing services have been a component for HIV/AIDS prevention and care programs in many countries. Although there are so many different governmental and non-governmental Organizations (NGOs) in Tanzania, campaigning on HIV/AIDS yet the problem is still existing and increasing. The number of people going for voluntary HIV/AIDS testing is not proportional to the total population. The study was conducted to examine the perception of people towards voluntary HIV/AIDS testing in Ilala Municipality. Three wards were selected; three streets were selected from those three wards in the study area. Data were collected using questionnaires, guideline and Focus Group Discussion (FGD). Data were collected and analysed using a Statistical Package for Social Science (SPSS) program (12.0 versions). Likert scale was used for measuring perception and attitude of people towards voluntary HIV/AIDS testing. The study reveals that 92.5% of respondent perceive positive towards voluntary HIV/AIDS testing. Specifically, the finding identifies ways in which the municipality can redesign their intervention programmes that will encourage a greater number of people to submit for voluntary HIV/AIDS testing. The study leads to conclusion that voluntary HIV/AIDS testing is very crucial in enabling the whole society in making decisions to go for voluntary HIV/AIDS testing. It is learnt that voluntary HIV/AIDS testing is an essential component in HIV/AIDS prevention and treatment programmes. In that case a deeper knowledge on voluntary HIV/AIDS testing among the people is more recommended as a prerequisite to prevent the spread of HIV/AIDS among the people. Also the study recommends that more efforts and interventions in addressing stigma, confidentiality, informed consent, and social violence is needed so as to encourage many people to submit for voluntary HIV/AIDS testing. It is further recommended that the government, NGOs and other stakeholders should provide education/ skills on how to prevention from HIV/AIDS infection to special groups of

people such as the deaf, blind, disabled and children to establish new voluntary HIV/AIDS testing centre basing on predetermined requirements.

DECLARATION

I, **Adriano Mduda**, do hereby declare to the Senate of Sokoine University of Agriculture that this dissertation is my own original work and has not been nor concurrently being submitted for a higher in any other university.

Adriano Mduda
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Date

The above declaration confirmed

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Date

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2 LIST OF ABBREVIATION AND ACRONYMS

ABC	-	Affect, Behavior, and Cognition
AIDS	-	Acquired Immune Deficiency Syndrome
ARV	-	Anti-retroviral
CBOs	-	Community Based Organizations
CSOs	-	Civil Society Organizations
FAO	-	Food and Agriculture Organizations
FBOs	-	Faith Based Organizations
FGD	-	Focus Group Discussion
GGUM	-	Generalized Graded Unfolding Model
HIV	-	Human Immunodeficiency Virus
HTLV-III	-	T-lymphotropic virus-III
KIWAKKUKI	-	Kikundi cha wanawake cha Kukinga na Kupambana na Ukimwi Kilimanjaro (Women against AIDS in Kilimanjaro)
KMCMC	-	Kilimanjaro Christian Medical Centre
MCPHC	-	Municipal Comprehensive Plan for HIV/AIDS Control
MDG	-	Millennium Development Goal
MoH	-	Ministry of Health
MoHSW	-	Ministry of Health and Social Welfare
NACP	-	National AIDS Control Programme
NGOs	-	Non Government Organizations
NMS	-	National Multi-sectoral Strategic Framework
NSGRP	-	National strategic for growth and reduction of poverty
OAFLA	-	Organization of African First Ladies against HIV/AIDS

PLWHIVA	-	People living with HIV/AIDS
SPSS	-	Statistical Package for Social Sciences
STD	-	Sexually Transmitted Diseases
STIs	-	Sexually Transmitted Infections
TACAIDS	-	Tanzania Commission for AIDS
TB	-	Tuberculosis
TDHS	-	Tanzania Demographic Health Survey
THIS	-	Tanzania HIV Indicator Survey
UNDP	-	United Nations Development Programme
UNICEF	-	United Nations Children and Education Foundation
URT	-	United Republic of Tanzania
USAID	-	United States Agency for international development
VCT	-	Voluntary Counseling and Testing
WHO	-	World Health Organization

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background Information on HIV/AIDS

Throughout a human history there are few crises occurred in the world that threaten the life of people, as does HIV/AIDS epidemic (FAO, 2003a). It is estimated that, between 36.7-45.3 million people worldwide are infected with HIV/AIDS. Among them, 95% are living in the developing countries particularly in Africa (UNAIDS/WHO, 2005). In 2006, it was reported that almost two third (63%) of the total persons infected with HIV/AIDS were living in sub Saharan Africa. The 2.1 million AIDS deaths in Sub- Saharan represent 72% of global AIDS deaths (WHO, 2006). Such statistics substantiate how HIV/AIDS is more serious in sub Saharan African than other regions.

From the beginning of the epidemic in 1983 up to 2005, an estimation of 1.34 millions people in Tanzania are said to have died from HIV/AIDS and other related diseases. It is projected that, by the year 2020 about 3.17 million people will have died from HIV/AIDS (TACAIDS, 2005b). If an urgent and collective measure will not be taken in order to reduce more infections the current trend of spreading the epidemic will make it a persistent disease for long time in many countries including Tanzania (Kapinga, *et al*, 1993).

Voluntary HIV counselling and testing (VCT) is one of the key strategies in the prevention and control of HIV/AIDS. Voluntary HIV/AIDS testing involves raising community awareness, pre and post-counseling, psychological support and referred to relevant services such as prevention services, treatment/care centres and community support groups (Lampsey *et al.*, 2002).

The Intervention of voluntary HIV/AIDS testing expected to help people to be knowledgeable on how HIV/AIDS is transmitted and practice safer sex. Voluntary HIV/AIDS testing helps to take steps to avoid the infection or infecting others. Also will help patients be directed towards relevant care and support services. This will involve treatment for tuberculosis, sexually transmitted infections and prevention of mother to child transmission. In that case access to voluntary testing may lead to greater openness about HIV/AIDS and less stigma discrimination (UNAIDS, 2002).

A study conducted in Rwanda on HIV/AIDS testing the results showed that voluntary HIV/AIDS testing was associated with increased use of condoms and reduced the rates of gonorrhoea and HIV/AIDS (Alley *et al.*, 1993). Also Godfrey-Fannett *et al.* (1995) and Aisu *et al.* (1995) conducted two different studies in sub Sahara Africa the results showed that voluntary HIV/AIDS testing can be appropriate site for screening and treating people who tested and found that have infected with HIV/AIDS and active TB.

In that case Tanzania, like many other countries, needed a prompt and adequate action to control of the new HIV/AIDS infections. The successful of this depends on how people perceives and volunteer for HIV/AIDS testing and if knowledge will be adopted by the whole community. Voluntary HIV/AIDS testing knowledge holds a vast potential to hinder the spread of the disease, as key elements of all aspects including prevention for the new infections. They offer potential solutions to misinformation and myths, silence and denial, stigma and discrimination against people living with HIV/AIDS (PLWHA). They are also keys to a civil society response to the pandemic, enabling advocacy, mobilization, empowerment, participation and facilitating greater accountability (Forman, 2004). Lack of proper known perception towards voluntary HIV/AIDS testing among the people is one of the primary impediments in the fight against the pandemic in the country (URT, 2006).

However the disease has spread in all over the country in Tanzanian, HIV/AIDS is a major problem in Dar es Salaam region particularly Ilala Municipality in which its infection rate is 10.9% (TACAIDS, 2008). HIV/AIDS is among the major top five killer diseases in the particular area others are malaria, tuberculosis, diarrhoea, and acute respiratory infections. In that case a call for collective strategic measures is required to be taken that may overcoming HIV/AIDS pandemic (Tengia-Kessy, 2006).

Since the national HIV/AIDS campaign launched in 2007 the data indicated that up to September 2008 only 3.4 millions people have tested for HIV/AIDS voluntarily out of 38 million Tanzania's population. At the same time Ilala Municipality had a population of 745 306 but only 15 468 were reported to have gone for voluntary HIV testing (URT, 2008). This low turn-up of people who have voluntary tested for HIV/AIDS remains into doubt if the efforts that are taken to reduce the problem will succeed.

The launch of voluntary testing campaign was promoted to be among the strategies that were expected to reduce the spread of HIV/AIDS, but reports shows that the number of people appeared for it has been increasing at a low speed (William, 1997). This could be people have negative perception towards voluntary testing. That made this study to examine the perception of people towards voluntary HIV/AIDS testing so as to find the appropriate prevention measures to the spread of the pandemic.

1.2 Problem Statement

The devastation caused by the Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS) in sub-Saharan Africa has a major impact on both social and economic environment (NACP, 2001). HIV/AIDS pandemic has become a health and

socio-cultural hazard in Tanzania and its impacts will remain for a long time if appropriate preventive measures would not be taken (Kapinga, *et al.*, 1993).

It is estimated that more than 70% of people in East Africa region are aware of the causes, means of HIV/AIDS transmission and voluntary HIV/AIDS testing (Nyamongo, 1996; Amuyunzu, 1997). A high percentage knows the preventive measures and many people have seen the destructive consequences of HIV/AIDS in their households and communities, yet voluntary HIV/AIDS testing respond was minimal. Also it is more than ten years ago since voluntary counselling and testing services were introduced in Tanzania, but the HIV/AIDS infection yet there is no sign of decreasing at all.

The empirical studies conducted on HIV/AIDS prevention in Dar es Salaam particularly Ilala municipality indicated that the problem is on increase. The results indicated that between 1988 to 2005 HIV/AIDS prevalence increased from 3.4% to 10.9% which is higher compare to national prevalence of 7.0 (MOH, 2006). Other studies has indicated that despite of the escalating number of VCT dealing with HIV/AIDS in the particular area the number of people who went for voluntary test not increased at all (MOH, 2006). In that case the call for a comprehensive study on perception of people towards voluntary HIV/AIDS becomes to be so important.

Further more, in July 2007 President Kikwete gave a push by initiating the national campaign on voluntary HIV/AIDS testing in Dar es Salaam. Yet the report indicated that only a total of 3.2 million people out of 38 million in the country had undergone to VCT for HIV testing up to the mid of 2008 (TACAIDS, 2008). The 2002 censuses indicated that Ilala municipality had a population of 745 306, but the total number of people who have so far

gone for voluntary HIV/AIDS testing by 2007 was 30 123 equal to (4%) of the total population MOHA, (2005).

In that case a low turnout of people for voluntary HIV/AIDS testing may be due to negative perception towards voluntary HIV/AIDS testing. It is thus paramount for a study to understand the perception of people towards voluntary testing if we aim to find out the appropriate intervention programs to the pandemic.

1.3 Problem Justification

The study links with the National policy on HIV/AIDS which encourage early diagnosis of HIV infection through voluntary counselling and testing. The policy provides the general framework for the response to the HIV/AIDS pandemic. It also emphasizes on research activities in HIV/AIDS and promotes dissemination and use of research findings (URT, 2001).

The study is in line with Millennium Development Goal 6 (MDG) number six which emphasize on combating HIV/AIDS, National Multi-sector strategic Framework (NMSF), the Tanzania National HIV/AIDS Campaign for VCT prevention practices among the people and call for concerted efforts from various stakeholder in combating HIV/AIDS and the National strategic for growth and reduction of poverty (NSGRP) which link HIV/AIDS with poverty as it erodes productivity and cut down effective manpower.

The overall goal of the National Policy on HIV/AIDS was to provide a framework for leadership and coordination of the National multi-sectoral response to the HIV/AIDS epidemic. This included formulation by all sectors of appropriate interventions, which were to be effective in preventing transmission of HIV/AIDS and other sexually transmitted

infections. The policy emphasizes people to participate fully in effort that reduces HIV/AIDS transmission. The achievement depends on the extent people perceive on voluntary HIV/AIDS testing (URT, 2001). In that case the study on perception of people towards voluntary HIV/AIDS testing would be the starting point in overcoming the pandemic, reduction of primary and secondary HIV/AIDS infection (Akukwe and Foote, 2001).

The findings obtained have identified ways in which policy makers can redesign the intervention programmes that will encourage a greater number of people to submit for a voluntary HIV/AIDS testing. This is because the increased HIV/AIDS prevalence will undermine the attainment of the millennium development goals (URT, 2005).

1.4 General Objective of the Study

The overall objective of the study is to examine the perception of people towards voluntary HIV testing in Ilala municipality.

1.4.1 Specific objectives

The specific objectives of this study are:

- i. To examine the knowledge on HIV/AIDS spread, and prevention techniques used.
- ii. To examine the influence of campaigns on voluntary HIV/AIDS testing
- iii. To examine the influence of distance on people's perception towards voluntary testing
- iv. To examine the attitude of people towards voluntary HIV/AIDS testing

1.5 Hypotheses

It is hypothesized that voluntary HIV/AIDS testing is not influenced by perception of people towards it.

1.6 The Conceptual Framework on Perception of People Towards Voluntary

HIV/AIDS test

The conceptual framework is the narrative outline presentation of variables that were studied to determine their relationships between and among the variables.). It details the variables that were examined and their expected relationship. Voluntary HIV/AIDS test is influenced by independent variables (Perception of people, HIV/AIDS transmission, HIV/AIDS preventions, influence of campaign, influence of distance from VCT, location of VCT, attitude of people to HIV/AIDS testing and knowledge on prevention measures. The conceptual framework groups them into two major parts, independent and dependent variables. The type of variable shown in the conceptual framework (see figure 1) are the background variables which include Age, Sex, Marital status, Occupation and Education. In the conceptual frame work the dependent variable is voluntary HIV/AIDS testing.

The background variable was expected to have little influence on independent variables. Perception of people, factors influencing voluntary HIV/AIDS testing, HIV/AIDS transmission, HIV/AIDS preventions, influence of campaign, distance from VCT, location of VCT, attitude of people to HIV/AIDS testing and knowledge on prevention measures (independent) variables were expected to influence each other. These variables were expected to have an influence on dependent variables, for example people with knowledge on HIV/AIDS spread/prevention, there is a possibility to go for voluntary HIV/AIDS test. This is because education helps one to understand the important of voluntary testing. In that case these variables operate directly and indirectly to dependent variable (voluntary HIV/AIDS test). The variables used in this study have been defined in Figure 1.

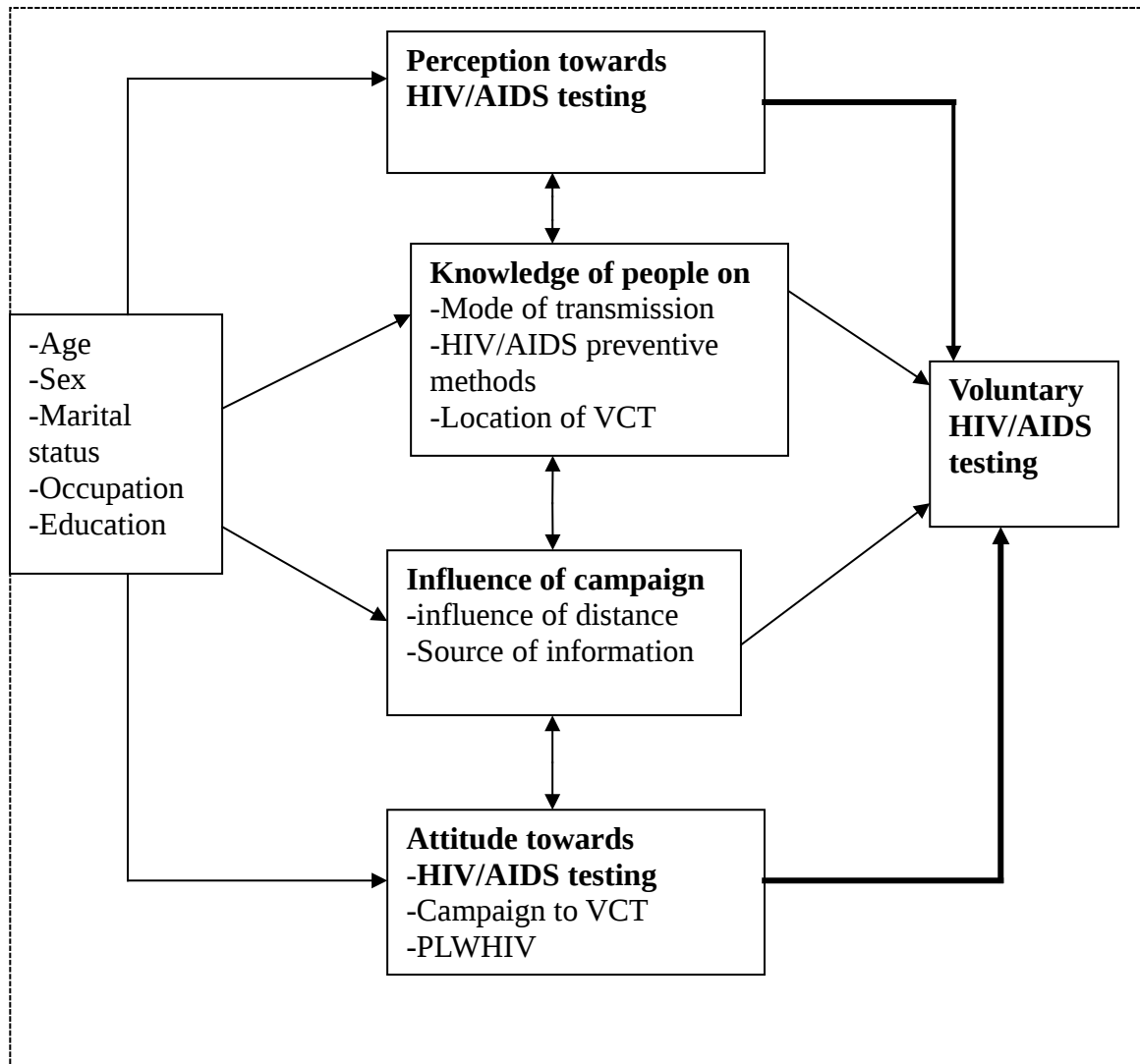


Figure 1: Conceptual framework for the study perception of people towards voluntary HIV/AIDS testing in Ilala Municipality Conceptual Framework

Key:

→ Relationship for secondary analysis

→ Relationship for primary analysis

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 A Review on Theories of Perception, Knowledge and Attitude

2.2 Theory of Perception

Perception theories states that; people are studying what it is that the organism experiences; not what the physical world contains or is made upon. What one perceives is a result of interplays between past experiences, one's culture and the interpretation of the perceived. Perception gives rise to two types of consciousness; phenomenal and psychological. The difference everybody can demonstrate to himself/herself by simple opening and closing his/her eyes. Phenomenal consciousness is full of rich sensations that are hardly present when eyes are closed. Psychological consciousness is well researched and measured. It occurs half a second after a stimulus starts. The capacity of psychological consciousness is also well measured. Depending on methods used the capacity ranges between seven and forty symbols or percepts at one time. Retrieved from [["http://en.wikipedia.org/wiki/Perception\]](http://en.wikipedia.org/wiki/Perception) site visited on 21/2/2009.

2.3 Perception

Perception according to McShane and Travaglione (2003), is, the process of receiving information about, and making sense of the world around us. It involves deciding which information to notice, how to categorise this information and how to interpret the information within the framework of our existing knowledge." Bergh and Theron, (2003) define perception as "a selective process by which people interpret and give meaning to external factors." Perception therefore makes us aware of our environment and determines how we communicate with others - each person's perception about issues may differ (Bergh

and Theron, 2003). Cognizance should be taken of these differences when structuring HIV/AIDS awareness programmes (Bergh and Theron, 2003).

According to Valdiserri, Holtgrave, and West (1999), people's perceptions about HIV testing are directly linked to testing behaviours and is a reflection on how people view their HIV/AIDS risks status. People who believe that they are not at risk of contracting HIV/AIDS may be hesitant to submit to voluntary testing (Valdiserri *et al.*, 1999).

2.4 Theories of Knowledge

The theory of knowledge states that; all knowledge (or at least the most important knowledge) is based upon sense experience except perhaps for mathematical and logical truths, which are based upon analysis and comparison of ideas which themselves originate in sense experience. What is known is changeable, of questionable universality, contingent (not necessary), and to some extent uncertain. While mathematical and logical truths are certain and unchanging, they are trivial because they tell us nothing of vital importance about reality. Knowledge about the world (i.e., about reality beyond the mind) is discovered by empirical research (by observation, generalization, and experimentation), not by reason operating independently from sense perception. With regard to universals (general categories and principles, purportedly universal, unchanging, and necessary), most empiricists take a nominal position-namely, that universals are constructions and interpretations having no objective reality outside of the mind (Cannon, 1998).

2.5 Theory of Attitude

The theory of attitude states that; Attitudes are learned through reinforcement or congruity. If an action has been highly regarded in the past, attitude toward it will likely be strengthened attitudes serve a function- such as processing information, lifting self-esteem,

or helping us fit in with others. People want to be internally consistent. In order to stay consistent and maintain homeostasis, we change our attitudes. If a liked object helps attain other liked objects, attitudes are consistent. If a liked object hinders attainment of other liked objects, there is inconsistency. When inconsistency exceeds tolerance, attitudes will change to achieve consistency (Rosenberg *et al.*, 1960).

2.6 Background and the Nature of HIV/AIDS

The Human Immunodeficiency Virus/ Acquired Immune Deficiency Syndrome (HIV/AIDS) has devastating political, social and economic consequences (Arndt and Lewis, 2000). This is evident as HIV/AIDS related illnesses and morbidity affect the income and expenditure of households, and government (Arndt and Lewis, 2000). The destruction potential of HIV/AIDS is such that the pandemic is classified as being worst than the bubonic plague that decimated more than a third of Europe in the 14 century, and the influenza epidemic early in the 20 century that killed approximately 20 million people globally (Caldwell, 1997). The mortality predictions for HIV/AIDS are greater because, whilst the previously mentioned epidemics lasted between three and four years, the HIV/AIDS epidemic spans from 1981 have no sign of abatement (Caldwell, 1997). The disease is not selective as it threatens the lives of all level of people all over the world. According to Robinson (2003), the infections are much higher in developing countries; this has a severe impact on the social, economic, and business development in these countries (Robinson, 2003).

According to Van Dyk, (1999), HIV/AIDS poses serious consequences to the health of people. The HIV/AIDS virus attacks and destroys the immune systems that protect the body against viral, bacterial and parasitic infections. The HIV/AIDS virus has been identified in body fluids such as blood, semen or vaginal secretions, breast milk, urine and saliva. The

HIV/AIDS virus can be transmitted from one person to another in the following ways; during unprotected sexual contact with an infected partner; Contact with infected blood (caused by injections with contaminated needles when intravenous drug users share needles or when health care workers are involved in needle prick accidents; and from mother-to-child (during pregnancy, childbirth or breastfeeding).

2.6.1 Situation of HIV/AIDS-Globally

Human Immunodeficiency Virus is the virus that causes AIDS, a debilitating and deadly disease of the human immune system. HIV/AIDS is one of the world most serious health problems: and it is reported that at the end of 2001, more than 40 million people world wide were infected with HIV and living with the virus or AIDS. The World Health Organization estimates that about 20 million people had died from AIDS since the infection was first described in 1981. Nearly 500 000 of those deaths have occurred in the United States. Although there is no cure for the disease, therapies exist that reduce the symptoms of AIDS and can extend the life spans of HIV- infected individuals. Researchers are also pursuing protective vaccines, but a reliable vaccine might still require years to develop (Rick, 1999).

As the HIV/AIDS pandemic enters its third decade, HIV continues to spread rapidly. At least 95 percent of all new infections occur in less developed countries, and sub-Saharan Africa is the hardest in region, followed by the Caribbean. Eastern Europe and central Asia experience the fastest growing HIV/AIDS prevalence rates. While in eastern and southern Asia, the absolute number of infected people is staggering. Experts fear that the rising rates of sexually transmitted infection (STIs) in developed nations may signal a rise in unsafe sex, among the people (Nicole, 2003).

2.6.2 A situation of HIV/AIDS in Africa

Sub-Saharan Africa is mentioned to remain by far the worst affected region, with an estimated 21.6 to 27.4 million people currently living with HIV/AIDS. Two [1.5-3.0] of them are children younger than 15 years of age. More than 64% of all people living with HIV/AIDS are in sub-Saharan Africa, as are more than three quarters of all women living with HIV/AIDS. In 2005 there were 12.0 million [10.6-13.6] AIDS orphans living in sub-Saharan Africa 2005 (UNAIDS, 2006). In South Africa many young women have sexual relationships in exchange for favors, gifts and cash (Macphail, 2001), in Cameroon norms of sexual activity among adolescent girls are so strong that virgin girls tends to be scorned both by men and women. People feel that; so long as a young woman is not promiscuous, premarital sexual experience enhance her prospects for marriage (Luke, 2001). Africa face fast growing rates of infection with HIV/AIDS and other STDs. Experts estimated that half a million African aged 15-49 would have died from HIV/AIDS by the year 2005 (Akukwe, 1999).

2.6.3 HIV/AIDS situation in Tanzania

Tanzania like other countries in sub Saharan Africa is facing a serious health and social economic problems of unprecedented nature resulted by the HIV/AIDS epidemic (MOH, NACP, 1998). The first case of HIV/AIDS in the country was reported in 1983, the spread has become a major new health problem in the country (Mhalu, 1989). But HIV/AIDS infection rates and deaths due to HIV/AIDS in the country continue to grow with the prevalence rate of 8.8% suggesting that the epidemic is worsening (MOH, 1998, NACP, 1998). Since then the situation of HIV/AIDS infection was unevenly distributed across geographical area, gender, age, groups and social economic classes in the country. The percentage of the population infected by the HIV/AIDS ranges from less than three percent across the country to more than 44.4% in certain sub- populations. The epidemic has struck

more of most economically active groups of people, aged 15-49 (URT, 2006). In 1997 a situation analysis of HIV/AIDS in Tanzania was performed and showed the worsening epidemiological situation whereby the epidemic has rapidly spread into rural areas thereby increasing the previously low rural prevalence to more than 10% in some areas. Mother to child transmissions appear to be one on the increase as more and more people continue to become infected [www.tzgov.org site accessed on 17/4/2008].

The current data indicates that Tanzania has already witnessed more than 2 millions deaths from HIV/AIDS related diseases since the scourge broke out in 1983. HIV prevalence in the country is believed to approach 10% of the 34 plus estimated millions people if all Tanzanian would have voluntary tested for it and if all cases being reported. The prevalence varies from place to place within the country. The shape and form of an epidemic reflect the economic political and cultural characteristics of any society (Barnett *et al.*, 1995).

2.6.4 A situation of HIV/AIDS in Ilala

According to TACAIDS, (2008) the situation of the epidemic has shifted from the north-west part of the country (Kagera, where HIV/AIDS started) to the south to the southern highlands and the Eastern coast. The HIV/AIDS epidemic shows strongly regional variation ranging from the highest HIV/AIDS prevalence rate Mbeya (13.8%) and Iringa (13.4%) to Dar es Salaam (11%).

Ilala Municipality like other regions in the country has been affected by HIV/AIDS; it is among the top five killer diseases. Others are Malaria, TB, Diarrhoeal diseases and Acute Respiratory Infections. HIV/AIDS is not only a biomedical problem; it is also social, economic and cultural, which calls for inter-sectoral rather than single departmental interventions. The prevalence of HIV/AIDS is still a problem in the Municipality. The rate

of infection is estimated at 10% of population and there were more than 1780 HIV/AIDS known cases up to the end of 2007 (TACAIDS, 2008).

2.7 HIV/AIDS Knowledge

After the first HIV/AIDS cases were reported in early 1980s, AIDS awareness increased rapidly in Tanzania. About 91% of women and 94% of men had heard about AIDS in 1989/90. By 1999, AIDS awareness was almost universal among both men and women. Specific knowledge about AIDS also increased overtime (Heggenhougen and Lugalla, 2005; TDHS, 1996). Although the level of awareness was high, misconception about HIV/AIDS were also common in the society. In 1999 only 54% of women and 59% of men thought it was not possible to get AIDS from mosquito bites, while 41% of women and 36% of men thought that sharing food or eating in the same utensils with AIDS patient could transmit HIV. However several reports and survey shows that although HIV/AIDS knowledge was increasing; risk perception has not changed significantly since 1994. The proportional of men who perceived themselves at high risk of HIV was 37% in 1994 and 46% in 1999, while for women it was 40% in 1994 and 43% in 1999 (TDHS, 1996). Risk perception is an important indicator of a certain level of knowledge about HIV/AIDS as it helps to show if people perceive the disease to be a threat to themselves or for some other people. Therefore it is important to establish the level of knowledge and perception among the people towards voluntary HIV/AIDS testing.

According to (THIS, 2005), over 99 percent of Tanzanian aged 15-49 have heard of HIV/AIDS, awareness of the mode of transmission and AIDS is generally high with almost 90 percent knowing that having only one uninfected, faith partner can reduce the chances of getting AIDS. In the Tanzania Demographic and health survey (TDHS, 1996) it was found that, misconception about the means of transmission and prevention of HIV are common in

Tanzania. Approximately four out of five men and women in every hundred people know that a health looking person can not have the AIDS virus and that a person can become infected by sharing food with some one who has AIDS. In THIS, (2005) about 25% of respondents thought that AIDS can be transmitted through mosquito and other insect bites. AIDS related misconceptions have been found to be common among the people in many countries.

2.7.1 The Mode of Transmissions

Epidemiological evidence indicates that in Africa HIV/AIDS infection is a blood borne disease transmitted in three general ways heterosexual intercourse with an infected person is the predominant mode of transmission of HIV/AIDS that accounts for 90%. Other ways the remaining 10% is contact with an infected person such as, mother to child transmission during pregnancy (labour) or by breast feeding and blood product which were contaminated with the virus (Edward, 2002). Also according to O'diaji, (2005), the virus can also be transmitted through cultural practices such as the cutting of tribal marks and male and female circumcision.

In that case the knowledge on voluntary HIV/AIDS testing and safer sex practices is important to prevent and reduce more HIV/AIDS transmission among the people. Paramount to preventing HIV/AIDS transmission is a change in social behavior. Sexual abstinence remains the principal method for interrupting the sexual transmission of HIV/AIDS, but a mutually monogamous sexual relationship can be equally important because it severely limits the opportunities to encounter HIV/AIDS. Appropriate barrier protection uses during sexual activity (i.e. condom) can effectively diminish the possibility of transmitting HIV/AIDS as well. To prevent the transmission of sexually transmitted disease such as HIV/AIDS, individual should use condom, as condom use lessens the

possibility for passage of body fluid to the counterpart, but this is also possible if it is used properly as instructed (Alcamo, 2002).

The risk of HIV/AIDS transmission varies with the type of sexual practices in which individual engage. Among the most dangerous sexual practices are vaginal and anal intercourses without condom. Extensive epidemiological evidence documents the stronger relationship between sexual intercourse and HIV/AIDS infection. Therefore, people should understand that HIV/AIDS is not transmitted by casual contact method this implies that family members and healthcare workers will not be infected during the care and treatment of patients (Alcamo, 2002).

2.8 The Epidemiology Situation of HIV/AIDS in Tanzania

Tanzania is among the countries in Sub Saharan Africa facing HIV/AIDS epidemic with already noticeable negative impacts to the development of the country .The HIV/AIDS has spread relentlessly affecting people of all walk of life and decimating the most productive segments of the population between the ages of 15- 49 years (URT, 2001). An estimated 2.4 million people were living with HIV/AIDS in Tanzania at the end of 2005, making one of the most affected countries in the world while thousands of people have already died of HIV/AIDS related disease (UNAIDS, 2006). The age groups between15-49 years HIV/AIDS prevalence rate is said to be 8.7% and over 1.8 million people are infected with the virus while nearly 11% of children have been orphaned. The World Bank studies estimated that the number of children orphaned by HIV/AIDS to be increasing from 260 000 to 360 000 in 1995 to more than 490 000 by the year 2007. Also the study made by UNAIDS in 2004 estimated the number of orphans due to AIDS at 1 100 000 and by the year 2010 there will be 4.2 million AIDS orphans in Tanzania (UNAIDS, 2001).

Since 1983 when the first 3 HIV/AIDS cases were reported in Tanzania, HIV/AIDS epidemic has progressed differently in various population groups. At present HIV/AIDS infection is unevenly distributed across geographical area, gender, age groups and social economic classes (URT, 2003a, NACP, 2002). It is estimated that, an average of 350 Tanzanians would die from HIV/AIDS in every single day between 2005- 2020, making a total of 1.24 to 3.17 million deaths, respectively (TACAIDS, 2005a).

Tanzania Mainland has generalized HIV/AIDS prevalence and the primary mechanism for HIV transmission in the country is unprotected heterosexual intercourse, which constitutes about 80% of all new infections. Mother to child transmission is estimated to account for about 18% of new infections. About 1.8% of young aged 15 to 24 who were reported that they never had sex were found to be HIV positive. This suggests that they were infected through blood transfusion, unsafe injections or traditional practices, including male circumcision or female genital cutting (TACAIDS, 2005a).

2.9 Background to Voluntary Testing Services in Tanzania

Voluntary counselling and HIV/AIDS testing, this is the process by which an individual undergoes confidential counselling to learn about his/her HIV/AIDS status and to exercise an informed choice and testing for it (URT, 2005). It involves raising community awareness, pre and post-counseling, psychological support and referral to relevant services such as prevention services, treatment/care centres and community support groups. It aims to enable people to cope with person stress and make decisions related to HIV/AIDS (Lampthey *et al.*, 2002).

The provision of HIV/AIDS testing services in Tanzania started in 1988; five years after the first three AIDS cases were identified in Kagera region. At the beginning, these services

were provided mainly by faith Based Organization (FBO) and NGOs to clients who sought such services. Efforts to establish voluntary testing services in the public sector started in 1989 after the joint Tanzania-Norwegian AIDS project (MUTAN) started implementing its activities in Arusha and Kilimanjaro region. In 1996 an evaluation of voluntary testing services in the country showed that these services were in a high demand and recommended their expansion to all districts (NACP, 2005b). Since then, voluntary HIV/AIDS testing services expanded gradually and by 2005 more than 500 voluntary testing sites providing voluntary counseling and testing services were operating in the whole country. Currently there are more than 11 027 voluntary counseling and testing centres within the country, (Nipashe, 2007).

Mariano, (2005) posits that HIV/AIDS interventions must focus on key issues such as testing and counseling as the entry point to both treatment and prevention. It is within the interest of all the people to have monitoring and preventative measures in place aimed at reducing the impact of the pandemic (Mariano, 2005). Antibody testing is imperative in the fight against HIV/AIDS transmission and plays an integral part in designing HIV/AIDS prevention and intervention programmes. Combined with pre-test and post-test counselling, HIV/AIDS testing leads to intervention opportunities which could modify high risk behaviour (Peltzer *et al.*, 2004).

The belief is that if voluntary counselling and testing programmes are properly planned and managed, it could lead to a reduction in HIV/AIDS transmission. Furthermore, properly planned voluntary counselling and testing programmes can bring about a change in people's perception and attitudes towards HIV/AIDS as well as a change in behaviour (Van, 2003). A study by Killewo *et al.* (1998) on voluntary HIV testing found that people who believed that they were unlikely to be HIV/AIDS positive did not volunteer to test. This highlights the

false perception that people have about the likelihood of being infected with the HIV/AIDS virus.

Additionally, people who believed that they are already infected are more likely to develop negative perceptions towards testing. Killewo, *et al.* (1998), suggested that it is essential to develop innovative ways to enhance the acceptability of voluntary HIV/AIDS testing. What is apparent from the study is that it is important for people to know their HIV status, as it may influence future behaviours and attitudes towards HIV/AIDS and it may reduce HIV transmission. Consequently, Killewo *et al.* (1998) believe that the emphasis to voluntary counselling and HIV testing is an integral component that must be considered when developing HIV/AIDS programme.

2.9.1 Factors that have Influenced People to Voluntary HIV/AIDS Testing

In recent years it has learnt that there are various factors, which have influenced people to present themselves for voluntary HIV/AIDS testing (Yorder *et al.*, 2004). Among those influencing factors are; Feeling sick for a long time, Family events, Seeking jobs/employment, Scholarships, Pregnant women and HIV/AIDS related stigma.

2.9.2 Feeling sick for a long time

Most of people who experienced sickness for a period of three to six (3-6) months were reported to have taken a decision of going for HIV/AIDS testing, this is because those who experienced continuously sickness for that period becomes in doubt with their health. Hence their intention was to know their health status Yorder, (2004). Another study conducted by Urassa, (2004) in Moshi indicated and cited some of the reasons that made people volunteer for HIV/AIDS testing, indicated that people being into illness for a long period were

influenced to go for voluntary counseling and HIV/AIDS testing (Urassa, 2004).

2.9.3 Family events

In various studies that were conducted in different social groups indicated that people decided to go for HIV/AIDS test because of family events particularly those who were nearly to get married. Their interest aimed to know their health status before getting into marriage. Therefore in that case a family event is said to have a contribution to many people to go for HIV/AIDS testing (Yorder *et al.*, 2004). For example in the study made by Urassa, (2004) indicated that 7.3% of respondent mentioned married was among the main reason that influenced them to go for voluntary HIV/AIDS testing. Further more the study revealed that factors such as “people who are soon to get married; reunited couples, who have had unfaithful sexual partners; were influenced to go for voluntary HIV/AIDS testing because they needed to know their health status before they taking the decision such as marriage (Urassa, 2004).

2.9.4 Seeking jobs/employment

In some cases it has learnt that job circumstances have influenced people to test for HIV/AIDS. Currently in many countries many people are looking for employment and those who provides those employment opportunity prefers to health people this has increased the demand for voluntary HIV/AIDS testing. This is because those who need to be employed have to undergo for a voluntary HIV/AIDS test in order to know their health status before being employed in any institution (Yorder *et al.*, 2004).

2.9.5 Pregnant women

In recent years it has been emphasized that women/girls who are pregnant have to test for HIV/AIDS before getting a child. This has been emphasized because it was discovered that

there is a lot of HIV/AIDS transmission from mother-to-child (during pregnancy, childbirth or breastfeeding). In that reasons nowadays all pregnant women have been emphasized to test for HIV/AIDS before giving birth and before they decide to get pregnant. At the same time husbands have been emphasized to do the same so that both wife and husband have to know their health status before taking the decision of having a child (Yorder *et al.*, 2004). In a study made by Manongi *et al.* (1999) identified factors associated with pregnant women's expressed willingness to accept voluntary counselling and HIV-testing (VCT). In this study a cross-sectional interview survey of 500 pregnant women, complemented by focus group discussions, was conducted in Moshi urban and rural districts, which were part of the Kilimanjaro region of Tanzania.

2.9.6 Barriers to voluntary HIV/AIDS testing

2.9.6.1 Violence

An important component of HIV/AIDS voluntary counseling and testing (VCT) programmes is encouraging clients to inform partners of their serostatus. Yet many clients do not disclose results to partners. Studies have found that a serious barrier to disclosure for women is fear of a violent reaction by male partners and those HIV-infected women are at increased risk for partner violence (Gielen *et al.*, 1997; Rothenberg *et al.* 1995; Temmerman *et al.*, 1995). Building on previous research, this study explored the links between HIV infection, serostatus disclosure, and partner violence among women attending the Muhimbili Health Information Center (MHIC) in Dar es Salaam. Another study (Maman *et al.*, 2002) revealed that some of the barrier to voluntary HIV/AIDS testing among the people especially women was hampered by violence and threats from their partners especially those who tested and found to be HIV/AIDS positive. Also it was studied that fear of partner's reaction as being the major barrier to voluntary HIV testing (Maman *et al.*, 2002).

2.9.6.2 Lack of well trained counselors

Counselors have an important role to play in helping clients develop safe disclosure plans, which include finding out about the role violence plays in their lives. Therefore counselors need to be trained in how to ask sensitive questions about voluntary HIV/AIDS testing and to use this information to foster but not force disclosure among clients. Counselors must also be made aware of existing services to help clients especially women living in violent relationships so that they can make appropriate referrals when necessary by maintaining confidentiality and partner involvement, self-efficacy regarding alternative feeding of the results of their clients (Manongi,1999).

2.9.6.3 HIV/AIDS testing related stigma and discrimination

Syam'kela, (2005) defines stigma as a negative attitude to, or belief about people who possess, or are thought to possess an attributes or quality which "significantly discredits" them in the eyes of others. Stigma is powerful and complex social label; it affects not only the health but also the social identity of people it serves psychological and social functions. Stigma presents a great deal of challenge in prevention and mitigation of HIV/AIDS mainly because of secrecy and denial. There is recognition globally for urgent action against stigma and discrimination related to HIV and AIDS (Syam'kela, 2005). HIV/AIDS related stigmas are the barrier to many people to seek for VCT. It has learned that stigmatizing beliefs about HIV/AIDS and their associated fears of discrimination can be one of the barriers for a person in taking decisions to seek HIV/AIDS testing and treatment services (Chesney and Smith, 1999). Also in a study conducted by Kalichman *et al.* (2003) it was revealed that "stigmatization, beliefs about HIV/AIDS and their associated fears is a barrier for people seeking HIV/AIDS testing. Stall, *et al.* (1996) in their study conducted in United States on HIV/AIDS testing reported that two out of three men who had sex with women who were

unaware of their HIV/AIDS status indicated that HIV/AIDS related stigmas were a barrier in their testing decisions.

2.9.6.4 Acceptability of voluntary testing and counselling

Acceptability is the starting point for the success and impact of any health intervention. A number of studies have used both quantitative and qualitative methods to assess the acceptability of VTC in Sub-Saharan Africa. In Uganda Pool *et al.* (2001) found that although almost all the women were willing to take an HIV test and to reveal their HIV/AIDS status to the maternity staff they were anxious about the confidentiality of the results of their test. They also feared that once the maternity staff knew their serostatus they might refuse to take care of them. Many of them expressed concern about the possibility of being blamed, separated or subjected to domestic violence once their husbands they were HIV/AIDS positive. In a study that was linked to a mother to child HIV/AIDS intervention program in Abidjan was found out that there were high –test refusal rates among the pregnant women who were approached, most of the women who took the test also refused to come back for their results (Caulbaly *et al.*,1995). Those who refused the test indicated that they thought they were HIV/AIDS positive and confirmation through testing could accelerate the progress of the disease. They were also afraid of the reaction of their relatives particularly their spouses. Some of the women did not consider pregnancy to be an appropriate time to do an HIV test. Cortoux *et al.* (1998) made similar findings in a study in Abidjan and Burkina Faso. They found that fewer women in Burkina Faso than in Abidjan (7.6% versus 22%) refused to do the test and the most common reason for the refusal were to seek agreement of the partner.

2.9.6.5 Disclosure of test results

An important component of VCT programs is encouraging clients to inform partners of their serostatus. Yet many clients do not disclose the results to partner (Maman, 2000). Failure to involve husbands or wives in counselling and testing has been observed to be associated with low rate of HIV testing sharing and a poor use of contraceptive methods. A study in Burkina Faso followed a cohort of 306 HIV-positive women over an average period of 13 months and found that only 18% of women informed their partner about their HIV/AIDS status (Keogh, 1994). Contraceptive use remained low despite the regular counselling and advice. The fear of domestic violence was the main reason why these women refused to disclose their positive HIV test result to their partners. In the study conducted by Kilewo, *et al.*, (2001) in mother to children Transmission (MTCT) trial in Dar es Salaam, Tanzania only 16% of pregnant women who were enrolled informed their spouses about their positive HIV serostatus. The main reasons given to why they have not informed their partner about their positive results on HIV/AIDS serostatus, they said fear of stigma, divorce, and violence were the main reason.

2.9.7 Review of Methodological Aspect

This section is on review of methodological aspect used to examine a problem related to the present study in perception towards voluntary HIV/AIDS testing. From that perspective, some tools of analysis have been used. However, according to Simon, (2006), to formulate a single number of variables representing aggregate effect of the number of individual factor may need conversation of units into common one; which in most cases involves a complex and time consuming and requires formulation of assumption which may not hold true in real situation. The study examined perception of people. Perception is one of the variables that result from aggregated effects of a number of individual factors. It is not easy to solicit information about perception of people towards voluntary HIV/AIDS testing by asking one

question to the respondent. Therefore questionnaire was developed and respondent were required to answer if has positive /negative perception, with respect to a particular statement.

2.9.7.1 The binary response model

Binary response model is used to analyze data having two possible outcomes. This study too used binary response model because people have two choices, whether they have positive or negative perception towards voluntary HIV/AIDS testing. This decision is a dichotomous choice and can be analyzed using a binary choice model where Y_i variable takes on the value of 1 if a person has positive perception and 0 if shows to have negative perception to voluntary test.

Several models have been used in other studies; multivariate regression model, linear probability models, tobit, logit and probity probabilities. Amemiya, (1981), contested that, the logit and probity probabilities provide better reliability and statistical sophistication analyzing binary choice decisions. However, Amemiya, (1981) claimed that the probit and logit models usually give similar results for most problems and it is difficult to distinguish between them statistically. The only fundamental difference is the thickness of the tails of the curves that show how rapidly the curve approach 0 and 1 (Aldrich and Nelson, 1980). Reviews of models by Simon, (2006), revealed that both probit and logit models have been widely used in adoption studies.

2.9.7.2 A review on perception, knowledge and attitude measurements of variables

Lamohr, (2006) in a study on employee's attitudes and perception towards voluntary HIV/AIDS testing in the workplace in South Africa used Statistical Package for Social Science (SPSS) to analyse data obtained from the questionnaire. Both inferential and

descriptive statistical approaches were used to analyse data. The Analyses Of Variance (ANOVA) was used to determine whether differences exist in the perceptions and attitudes of employees at different levels and groupings in the organisation. Additionally post hoc tests (i.e. the Scheffe test) were applied to all comparisons of means after the analysis of variance. A Likert scale was utilized with the range of 1 to 5 (1 – strongly disagree, 2-disagree, 3-unsure, 4-agree, 5-strongly agree). Statements were formulated in both positive and negative forms so as to avoid the acquiescent response set.

2.9.7.3 Pearson product - moment correlation

The researcher used this method to determine the relationship between two variables. The method was used to determine whether a significant difference exists between employee's attitudes and perceptions and their behaviour towards HIV/AIDS testing based on biographical variables. There fore Multiple Regressions, method was used in this study to compare the independent variables (Knowledge of HIV/AIDS and attitudes towards HIV/AIDS) against HIV testing behaviour.

2.9.7.4 Analysis of variance

According to Terre and Durrheim , (1999), the ANOVA is used to determine whether the mean scores of two or more groups are significantly different. Because this study concentrated on the differences in perceptions and attitudes towards voluntary HIV/AIDS testing between various groups of respondents therefore this method employed the Analysis of Variance (ANOVA) to determine these differences based on their biographical characteristics.

2.9.7.5 Scheffe's Multiple Comparison Procedure

This statistical method was used to determine where differences between groups lie with respect to their knowledge and attitudes towards voluntary testing for HIV/AIDS.

2.9.8 A review on perception, knowledge and attitude measurements of variables

Furthermore in a review of another study that was made by Bwambale, *et al.* (2007) on Voluntary HIV counselling and testing among men in rural western Uganda. In this study, voluntary HIV counselling and testing (VCT) considered to be one of the key strategies in the prevention and control of HIV/AIDS in Uganda. However, the utilization of VCT services particularly among men was low in Kasese district. Therefore a study conducted to determine the prevalence and factors associated with VCT use among men in Bukonzo West health sub-district, Kasese district (Beardsell, 1996).

2.9.8.1 Methodology used

A population-based cross-sectional study employing both quantitative and qualitative techniques of data collection was conducted 2005. Using cluster sampling, 780 men aged 18 years and above, residing in Bukonzo West health sub-district, were sampled from 38 randomly selected clusters. Data was collected on VCT use and independent variables. Focus group discussions (4) and key informant interviews (10) were also conducted. Quantitative data was entered into EPINFO version 6.04 and then exported to Stata version 8.0 for analysis that adjusted for the design effect. Unadjusted analysis was performed between VCT use by the men as the outcome variable and each independent variable. Variables that were significant (p -value < 0.05) were then entered into a model for logistic regression using the backward elimination method so as to control for confounding. The criteria used for the backward elimination model was the default of a p -value > 0.10 . Associations between the outcome and independent variables were assessed using odds

ratios, 95% confidence limits and p-values. A p-value of 0.05 or less was taken to be statistically significant. Binary logistic regression was performed to determine the predictors of VCT use among men.

Results Overall VCT use among men was 23.3% (95% CI 17.2–29.4). Forty six percent (95% CI 40.8–51.2) had pre-test counselling and 25.9% (95%CI 19.9–31.9) had HIV testing. Of those who tested, 96% returned for post-test counselling and received HIV results. VCT use was higher among men aged 35 years and below (OR = 2.69, 95%CI 1.77–4.07), the non-subsistence farmers (OR = 2.37, 95%CI 2.37), the couple testing (OR = 2.37, 95%CI 1.02–8.83) and men with intention to disclose HIV test results to sexual partners (OR = 1.64, 95%CI 1.04–2.60). Therefore the study revealed that VCT use among men in Bukonzo West, Kasese district was low. In order to increase VCT use among men, it was suggested that the VCT programme was to be addressed HIV stigma, improve access and confidentiality of VCT services.

The review on the above two different studies which applied various measurements of variables the results have indicated that there were low use of VCT among men. This study on perception of people towards voluntary HIV/AIDS testing has employed a likert scale, descriptive statistics and binary logistic mathematical model in analyzing data in order to get a good result.

2.9.8.2 Attitude

An attitude refers to a hypothetical construct that represents an individual's degree of like or dislike for an item. Attitudes are generally positive or negative views of a person, place, thing, or event, this is often referred to as the attitude object. People can also be conflicted

or ambivalent toward an object, meaning that they simultaneously possess both positive and negative attitudes toward the item in question (Tesser, 1993).

Attitudes are judgments. They develop on the ABC model (affect, behavior, and cognition). The *affective* response is an emotional response that expresses an individual's degree of preference for an entity. The *behavioral* intention is a verbal indication or typical behavioral tendency of an individual. The *cognitive* response is a cognitive evaluation of the entity that constitutes an individual's beliefs about the object. Most attitudes are the result of either direct experience or observational learning from the environment (Tesser, 1993).

2.9.8.3 Likert scale

A Likert scale is used to measure attitude, its usual or standard format consists of a series of statements to which a respondent is to indicate a degree of agreement or disagreement using the following options: strongly agree, agree, neither agree nor disagree, disagree, strongly disagree. The scale, per se, was intended as a summated scale, which was then assumed to have interval scale properties (Likert, 1932). This level-of-measurement characteristic together with ease of administration and response explains its popularity in marketing research applications. The individual scale is not assumed to be internally measured although it usually treated as such. In practice, the scale is often used by researchers in marketing.

The Likert scale is the most commonly used scale in survey research. Typically when analyzing Likert-scale data, a total score is computed by summing respondent's responses and a higher score is assumed to represent a large amount of ability or attribute being measured. This assumption is not always true. For example, a regular swimmer may “strongly disagree” with the statement “You like to participate in physical activity regularly,

such as walking and running” even if the survey's intent is to measure physical activeness. Fortunately, the Generalized Graded Unfolding Model (GGUM; Robert and Laughlin, 2000), an item response theory (IRT) model, was recently developed to address these issues. An unfolding model suggests that higher item scores should in all probability, be observed to the extent that the individual and the item are located close to each other on the latent continuum.

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Study/Research Design

A cross sectional research design was used in this study. The cross sectional research design allows data to be collected at a single point in one time and used in descriptive study as well as determination of relationship between variables (Bailey, 1998; Babbie, 1990). The cross sectional research design is considered to be favourable because of time limitations and resources for data collection. The adoption of the cross sectional design is justifiable on the basis that is the most common design used in survey research for producing good results. The data collected can be used for statistical description and interpretation well as for determination of the relationships between variables at a particular point in time.

3.2 Description of the Study Area and Its Justification

This study was conducted at Ilala municipality which is in Dar es Salaam region. The study area was selected because it is within Dar es Salaam region which is the third (10.9%) with high prevalence of HIV/AIDS in Tanzania after Iringa (13.4%) and Mbeya (13.5%). Dar es Salaam region is the largest city, industrial center, and major port of Tanzania. The region is recorded to have a high HIV/AIDS infections above the national prevalence which is 7% TACAIDS, (2003). The area has a big population with mixed cultures from all over the country and outside the country. Accordingly, rural- urban also urban rural migration into Dar es Salaam is higher compared to other region in Tanzania. This interaction of people of different cultures encourages the prostitution which causes the spread of HIV/AIDS (URT, 2006).

Ilala Municipality being among the three municipalities was established in the year 2000 from the former city council in Dar es Salaam region. Other two municipalities are Kinondoni and Temeke. It covers an area of 210 km² with population of 637 573; among this population 321 903 were male and 315 670 were female as per 2002 censuses. The National population and housing provisional census results indicated that the area had a growth rate of 4.6% per annual which is high compared to the national growth rate of 5.0. The rate of infection was estimated at 10% of population and there were more than 1780 known cases (Dar-es-Salaam City Council Diflucan Program, 2003 and URT, 2003).

The municipality is located at the centre of other two municipalities in Dar es Salaam region/city commonly referred to as 'Downtown Dar'. Therefore due to its setting (being at the centre of the city), rural-urban and urban-rural migration of people makes them more vulnerable to a risk of epidemic (URT, (2006).

3.2.1 Geographical location of the Ilala municipality

This research was conducted in Ilala Municipality at Dar es Salaam region. Ilala municipality is located between latitude 6° and 7° South of Equator and longitude 39° and 40° east. It covers an area of about 210 square kilometers. More than 75% of its land is in urban the rest 25% is in rural. On its eastern part it borders with Indian Ocean for a distance of about 10 kilometers. On its North Ilala borders Kinondoni municipality in Southern part is bordered by Temeke Municipality, whereas on its Western part is bordered by Kisarawe district along the Coastal region (URT, 2003).

The municipality is modified type of equatorial climate. It is generally hot and humid throughout the year with an average of temperature of 29°C. The hottest season is from October to March during which temperature can rise up to 35°C. It is relatively cool

between May and August; with temperature around 25°C. In a normal year there are two distinct rain seasons, a short rain season between February and May. Being so closed to the equator and the warm Indian Ocean, the area experiences generally tropical climatic conditions typified by hot and humid weather throughout of the year. The average rainfall is 1100mm (lowest 800mm and highest 1300mm) per annum humidity is around 96% in the mornings and 67% in the afternoon (URT, 2008). The climate is also influenced by the south westerly monsoon winds from April to October and north westerly monsoon winds between November and March. The municipality is divided into three ecological zones, namely the upland zone comprising the hilly areas to the west and north of the municipality, the middle plateau and the low land including Msimbazi valley and Jangwani the main natural vegetation includes coastal shrubs and coastal swamps.

The main economic activity in the municipality includes crops production, livestock, commercial services, fishing, industrial manufacturing, economic and social services. Ilala municipality is the most favoured in terms of government offices including state house, commercial activities, business, communication networks such as railway lines central line and Tazara, railway stations head quarters and Mwalimu Julius Nyerere International Airport.

3.3 Sampling Procedures

3.3.1 Sample size of respondents

A sample of 120 respondents aged 15-49 years was selected by the researcher to present the whole population in the study area. The choice of this figure based on the simple formula of selecting sample as suggested by Fisher, *et al*, (1991) for a population that exceed 10 000 (see Appendix 3).

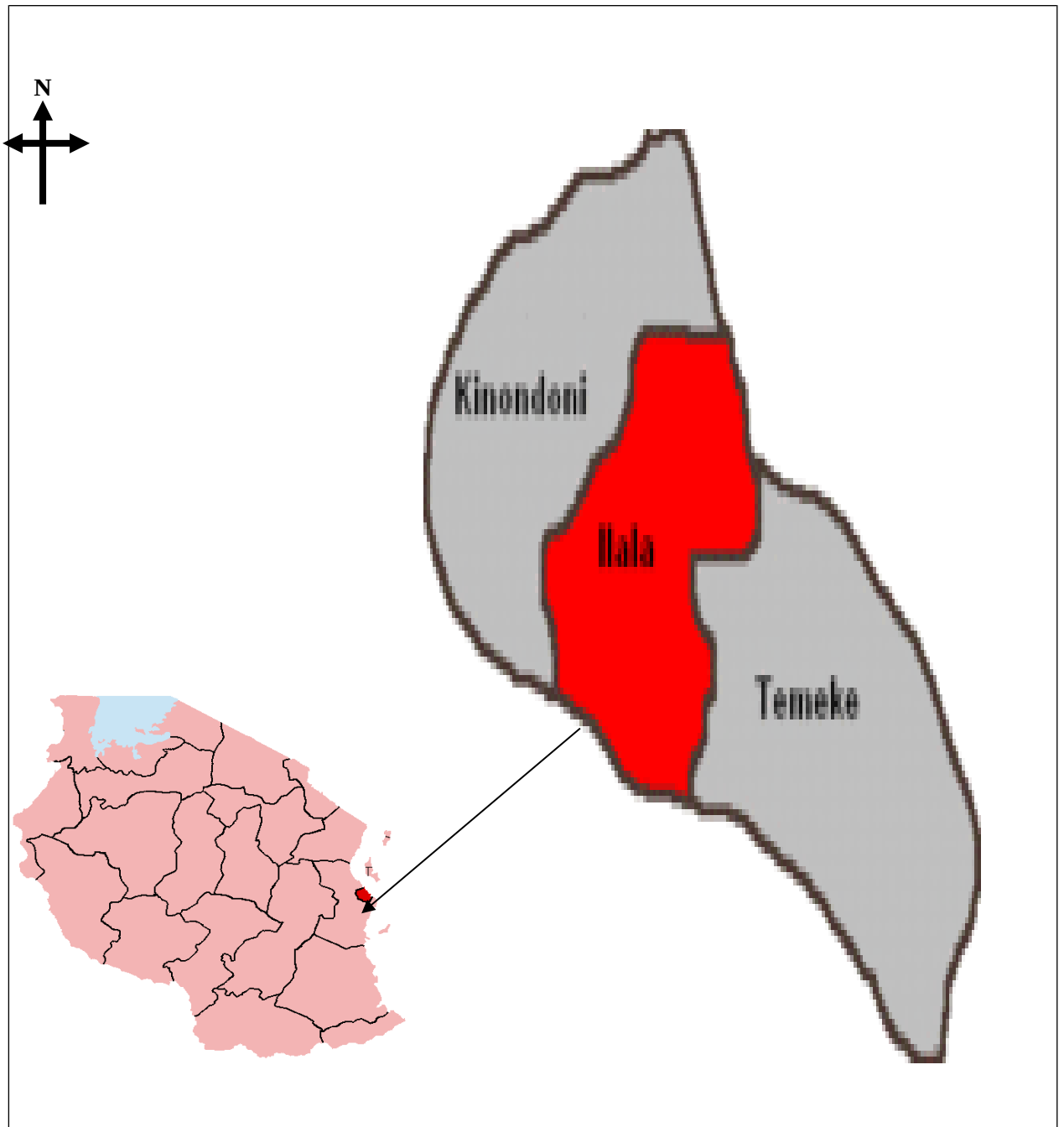


Figure 1: A map of Tanzania, Dar es Salaam showing Ilala municipality; the shaded area shows the studied area (Ilala municipality/District)

Source (URT, 2003)

Also Bailey, (1995) has suggested that, thirty sampling units are considered the minimum for the meaningful statistical computation in situations where by large samples are limited by inadequate resources. Therefore because of a large population of the study area a sample

size of 120 respondents was randomly selected, which is above thirty that is suggested to be the minimum. Both genders were involved in the sample, where by in each ward; one street was selected and in each street a total of 40 respondents were selected randomly. The choice of respondents as a unit of analysis was based on the fact that the researcher considered it to be the most appropriate unit for measurement in examining perception of people towards voluntary HIV/AIDS testing.

3.3.2 Sampling method

Multistage sampling technique was adopted. This method allows more than one sampling methods to be used and involve sampling in phases (Singleton *et al.*, 1993). This technique is convenient for studying a large and diverse population as well as population whose actual indicator to be studied is not available. In addition the technique reduces incidences of traveling for interview and it reduces the cost (Casley and Kumar, 1988).

3.4 Types of Data Collected

There are several types of data collection namely documentary reviews, interviews and questionnaire. The questionnaire allows aspect of life in the study area to be isolated and studied out of context of community life, while participants observations permits the aspect of life to be examined within the context of social system (Kothari, (2004). Data collections used in this study were of two types namely primary and secondary.

3.4.1 Type of Primary data

A structured questionnaire was prepared and used to solicit information from the respondents in the study area. Interviews were carried out to respondents by visiting the respondents in sampled streets. The primary data used a structured questionnaire in collecting information to respondents in their residences. The questionnaire was formulated

in English but the interview was carried out in Kiswahili for those who didn't understand English. The questionnaire for the survey has been presented as Appendix 3.

3.4.2 Types of Secondary data

Secondary type of data was obtained by consulting relevant official documents/reports both published and unpublished documents, Textual materials, journals and papers saved as secondary data. These were gathered from libraries such as Sokoine University of Agriculture, University of Dar es Salaam, Ilala Municipality, Health Centres office and NGOs which deals with HIV/AIDS prevention campaign and counselling and informal discussions concerning background of the study area.

3.5 Sources of Data

In order to get the required information the researcher used various sources of data namely primary and secondary source of data.

3.5.1 Primary source of data

Primary source of data were obtained from the questionnaire on perception, attitude, and knowledge of people towards voluntary HIV/AIDS testing which were distributed to the respondents shown in the Appendix 3 through the scheduled structured interviews. Other detailed source of data was obtained from recorded focus group discussion with selected respondents shown in Appendix 3.

3.5.2 Secondary data source

Sources of secondary data were obtained through reading various documents, literature, library books, journals, magazines, previous research reports such as population census reports and internet. These were obtained from various sources such as Sokoine University

Agriculture library, University Dar es salaam library, Muhimbili Science and Health Medicine University library, reports from Ilala municipality and Health centres. Other secondary data sources were obtained from International organizations and Non governmental organizations dealing with HIV/AIDS. The focus was to obtain data which could not be obtained sufficiently through primary data sources.

3.6 Tools of Data Collection

Data collections were through interviews, data were collected from one house to another along the selected streets in the study area. Consent of interviewee was sought before beginning the interviews. Both primary and secondary tools of data were used in collecting data; privacy and confidentiality were maintained by a researcher.

3.6.1 Primary tools of data collection

Primary data were gathered using structured questionnaires and face to face interview with both open and closed-ended questionnaires that were administered to respondents. The task of interviewing respondents was done by the researcher during the study. The questionnaires were administered to the selected respondents in order to ensure its validity and reliability. This method was chosen because is most appropriate to the respondents and the type of information collected.

3.6.1.1 Face to face interview

The researcher made a face to face interview by paying visits in homesteads of respondents in the study area. This method required the interviewer to meet face to face with the respondents. An advantage of interviews is that they are flexible and can give more information by providing the researcher an opportunity to probe and ask follow up

questions. Confidentiality and a person's right and dignity were observed throughout the study. Main aim and approach of the study were clearly explained to the respondents before each one was asked for verbal consent to be interviewed. A respondent who could not agree was excluded from the study.

3.6.1.2 Questionnaire

A questionnaire is a sequence of questions to elicit information upon a subject from informants (Casley *et al.*, 1988). This study used questionnaires as the main measuring instrument. This tool of data collection helps during the pilot study to test the validity and reliability of questionnaire and it allows making a necessary adjustment correction to the questionnaires before its final administration. According to Kumar, (1999), questionnaires are ideal research tools because it is inexpensive, it saves time and labour and offer greater anonymity. The advantages of using questionnaires are: It can be administered to large numbers of participants; the method allows for anonymity, and it is relatively more economical to use. A questionnaire with open ended and closed ended questions was developed and administered to the selected house hold for collection of quantitative data. Structured questionnaire was used to collect data in relation to the study's objectives.

During the data collection, open and closed ended questions were employed to supplement information on views of the respondents. Both open and closed ended questionnaire were formulated in English and in certain case it had to be translated in Swahili to those who didn't understand.

3.6.2 Secondary data collection

Secondary data was collected from published documents and unpublished documentary sources such as journals articles, papers work, magazines, books, research reports and

reports from different NGOs available in libraries such as Sokoine University of Agriculture, University of Dar es Salaam, Ilala Municipality, Health Centres office and NGOs which deals with HIV/AIDS prevention campaign and counselling centres.

3.7 Data Analysis

Data collected were entered, coded, and analyzed using the statistical package for social science (SPSS version 12.0 for windows) Computer programme. Validity check up for each variable under study was made for inconsistencies, illogical, entries and improbable value. Descriptive statistics particularly frequencies and percentages were computed. Also likert scale, a chi-square test and logistic regression were used to test the relationships between perception towards voluntary HIV/AIDS test and the influence of distance on people's to go for voluntary HIV/AIDS testing in conformity with the objectives of the study (Kosher, 2004).

3.7.1 Descriptive statistics

Descriptive statistics was employed where by frequency distribution of different variables. Results from descriptive statistics were used to construct frequency distribution tables which are important and they simplify interpretation of results.

3.7.2 Developing perceptual attitudinal and other measurable indicators

3.7.2.1 Likerts scale

Likerts scale was developed to measure the attitude and perception towards voluntary HIV/AIDS testing. Bernard, (1994) explains that Likerts scale have been used to quantify abstract variables and defining them operationally depending on the ability of the researcher to scale. In order to estimate the level of respondent's attitudes towards voluntary

HIV/AIDS test the following ten statements related to positive and negative were included in the questionnaire.

- Voluntary HIV/AIDS testing should not be done before married,
- Voluntary HIV/AIDS testing is purposely for polygamist,
- People perceive negatively to voluntary HIV/AIDS testing,
- HIV/AIDS testing is not necessary for a health looking persons,
- Voluntary HIV/AIDS testing should be done before even after marriage,
- Voluntary HIV/AIDS testing is not purposely for polygamist,
- Voluntary HIV/AIDS testing is important Even for health looking people,
- Voluntary HIV/AIDS testing is important Even for health looking people
- People perceived positively to voluntary HIV testing.

Respondents were requested to say whether they strongly agree, agree, uncertain/undecided, disagree or strongly disagree against each statements. All the statements required respondent's opinions on perception towards voluntary HIV/AIDS testing. The responses were assigned weight 5 if strongly agree, 4 if agree, 3 if undecided, 2 if disagree and 1 if strongly disagree. Information on perception towards voluntary HIV/AIDS testing was analysed first by using summated scale approach where scores on positive and negative statements was obtained and compared (see Table 7).

As per (Table 7) most of the respondents received a high percentage scores on all positive statements and relatively low percentage were obtained to all negative statements. This implies that respondents had positive perception towards voluntary HIV/AIDS testing. A related finding have been reported in the Tanzania HIV/AIDS Indicator Survey, (2005) in

which it was found that generally Tanzanians adults have positive attitude towards those who were living with HIV/AIDS.

3.7.3 Logistic mathematical model/Empirical model

Logistic analysis was used to examine the influence of campaign on voluntary HI/AIDS testing. Voluntary HIV/AIDS testing was thus a dependent variable, other variables including sex, age occupation, marital status and level of education knowledge on HIV/AIDS transmission, influence of distance and source of information.

3.7.3.1 Specification of model

Logistic model (Binary logistic model) is also called binomial logistic regression, is a form of regression that is used when dependant variables are a dichotomy and the dependant variables are of any type (Agresti, 2002). There fore binary logistic model was chosen to test perception towards voluntary HIV/AIDS testing which is dichotomous in because in this study it has been termed that; positive=1 and negative= 0. The model was also used because is powerful and is popular one in social sciences at predicting a dependent variable explained by the independent variables, gauging the impact of covariate control variables (which are some times called independent variables), and ranking the relative importance of independent variables.

Predicting of the independent variables is done by computing the odds of the dependent variable occurring. Gauging the impact of independent variables on the dependant variables is done by observing the signs of logistic regression coefficient (B values), which bear negative or positive signs meaning negative or positive impact, respectively ,on the dependant variables. The relative importance of independent variable is determined by

observing the magnitudes of Wald statistic and their concomitant levels of significance, which test the significance of the B value for each individual variable (Garson, 2008).

Perception to voluntary HIV/AIDS testing, it is the translation of normal phenomena in relation to factor change, say level of education X_4 such that the higher the education level the positive perception towards voluntary HIV/AIDS testing. The respondents were be confronted with decision, “1” If people perceive positive towards voluntary HIV/AIDS testing and “0”if otherwise used as dependant variables. The empirical model for the study was specified as follows; $Y = \alpha + \beta_1 + \beta_2 + \beta_3 + \beta_4 + \beta_5 + \dots + \beta_n + \varepsilon$ Perception to voluntary HIV/AIDS testing = $\beta_0 + \beta_1$ Age + β_2 sex + β_3 Occupation + β_4 Education + β_5 Marital status + β_6 Knowledge + β_7 Source of information + β_8 Distance + β_9 Mode of transport + β_{10} Campaign + *Random error term*

Y= Dependent variable (Voluntary HIV/AIDS test)

“1” for those perceives positive and “0” for those who perceive negative

Logistic Regression model

Where;

Y = Perception towards voluntary HIV/AIDS testing

A = Intercept

β 's = Regression coefficients

Age = A umber of Years of birth

Sex = A state of being of being male or female

Occupation = A kind of activities respondents are involved

Education = Highest level of education respondents attained in years

Marital status = Being married, single, divorced, widow/widower

Knowledge	=	Respondents basic knowledge on HIV/AIDS transmission
Source of information	=	Where respondents gets information on voluntary testing
Influence of distance	=	Distance to VCT to go for voluntary testing
Influence of campaign	=	the role of campaign to people for HIV/AIDS testing
Mode of transport	=	A kind of transport people uses to go for voluntary HIV/testing
ε	=	Error terms

Perception towards voluntary HIV/AIDS was hypothesized to positive on the basis of age, sex, education level, marital status, knowledge, and attitude of the respondents. Age of respondents between 15-49 years was expected that respondent have involved with sexual practices hence they can volunteer for HIV/AIDS testing. Therefore positive attitude was associated with the age of respondents within the study area.

High education level was hypothesized to have an influence to voluntary HIV/AIDS testing because education level is associated with greater level of information on voluntary testing and counselling. Education enhances respondent's capacity for awareness and access to information on the campaign on voluntary HIV/AIDS testing. Educated respondents could easily recognize the importance of voluntary HIV/AIDS testing as result they could develop a positive perception towards voluntary HIV/AIDS testing and recognize the importance of voluntary counselling and testing.

Knowledge reduces uncertain and thereby influences people to take the decision of voluntary HIV/AIDS testing. People having high knowledge could reasonably take a good decision to whatever wants to do. There fore knowledge is positively related with people taking a decision of testing for HIV/AIDS. Distance to the Voluntary HIV/AIDS testing centres was hypothesized to influence people to voluntary HIV/AIDS testing. Increasing distance to voluntary testing centres leads people not to go for a voluntary testing due to higher cost of transport from their residents. But for the case of Ilala Municipality the situation is deferent because of the availability of the good communication network which people can reach those centres with no problem.

3.7.3.2 Operationalization model

The Operationalization model in this study has been used to show how various variables are measured such as distance or length from one point to another. These are defined through the operations to indicate how distance can be measured. In practice "length/distance" can be measured in different ways (it's impossible to use a measuring rod if we want to measure the distance to the Moon, for example) must mean that "length/distance" logically isn't *one* concept but *many*. Each concept is defined by the measuring operations used.

3.7.3.3 Development of the index variables

For indices were developed namely awareness, knowledge, attitude and perception indices. The development of this indices involved development of sets of statements which were included in the questionnaire administered to the sample respondents. Developing such statements was necessary because it was not easy to solicit data/information for such variables by asking one question to a respondent. Answers from these statements were entered into factor analysis to determine the most important among the set of statements determining each index variables. Factor loading of statements of at least 0.03 were

considered to be the significant factors determining the index variables and therefore selected. The selected statement was then used to calculate the index variables. The following section describes the individual indices developed.

3.7.3.4 Awareness index

In developing these indices, it was assumed that the level of awareness increased with the increasing frequency of participation in the awareness on the campaign programs. The awareness creation on voluntary counselling and testing programs involved with the campaign to voluntary HIV/AIDS testing by organised meetings, seminars, workshops, public and political leaders within their respective areas. Respondent were required to indicate frequency of heard on the campaign and the frequency were analysed using the following formula to obtain Awareness Index:

$$AI = \sum (Y_{ij} / Y_{\max}) \quad (i=1,2,\dots,x, j=1,2,\dots,n)$$

Where

AI_i	=	Awareness index for an individual
Y_{ij}	=	frequency of respondents attendance to the campaign programs
Y_{\max}	=	maximum frequency of respondent attending to the campaign programs
X	=	Number of awareness determining factors
N	=	sample size

3.7.3.5 Knowledge index

To impact voluntary HIV/AIDS testing knowledge to respondents the government established the campaign and education programs. The program indented to ensure that the respondents acquire knowledge on the campaign on voluntary HIV/AIDS testing. People were also required to understand the important of voluntary counselling and testing. This involved educating people to know the important of every individual that has to understand

the health status. Respondent who acquired full knowledge of all the items in the said campaign was expected to go for voluntary HIV/AIDS testing. To test the level of knowledge on voluntary testing campaign depended on the how many times respondent heard about the campaign to voluntary HIV/AIDS testing for more than three times. The knowledge on campaign to voluntary HIV testing statement was asked to respondents. The respondent was requested to rank their knowledge on the listed item they were given whether very conversant, conversant, know very little, and do not know. Respondent were assigned weight 4 if very conversant, 3 conversant, knowledge had or not, 2 very little, and 1 if do not know. To compare knowledge for different individual the score for each item in the knowledge about the campaign were added up to obtain the knowledge index (Simon, 2006).

3.7.3.6 Attitude towards voluntary HIV/AIDS testing index

In order to estimate the attitude of respondents towards voluntary HIV/AIDS testing respondent were asked to rank the statements they were given basing on their perceptions on which they can be influenced to voluntary HIV/AIDS testing. To do so respondent were required to respond to the statements in terms of whether they strongly agree, agree, with the fact that they can influence people to voluntary testing. The response were classified and given weight such that the weights of 5 was given to strongly agree response, 4 to agree, 3 to undecided, 2 to disagree and 1 to strongly disagree. To develop the peoples attitude index the weight of all the selected factors were added up. The voluntary HIV/AIDS attitude index shows the level of attitude towards voluntary HIV/AIDS.

CHAPTER FOUR

4.0 RESULTS AND DISCUSSION

4.1 An Overview

This chapter provides an overview of the results based on the statistical analysis. It also describes the results and observation made during the study. This chapter covers discussion on findings for the purpose of identifying the perception of people towards voluntary HIV/AIDS testing. The chapter have four sections on (i) background characteristis data of respondents involved in the study such as age, sex, marital status, and occupation and education level of the respondents, (ii) examination of respondents knowledge on HIV/AIDS spread and prevention techniques, (iii) the influence of campaigns on voluntary HIV/AIDS testing, (iii) the influence of distance to VCT centres among the people and (iv) the attitudes of people towards voluntary HIV/AIDS testing.

4.2 Background Characteristics of Respondents

This section examines background characteristics of respondents who were involved in the study as shown in Table 1 below. The age group of respondents selected was between 15-49 years, this age is considered to be sexually active and they are important in the economic development of the country than other age groups. Unfortunately enough they are sexually active consequently they are at high risk of being infected with HIV/AIDS transmission. The (Table1) shows that 77.5% of the respondents were between 15 to 34 years of age. This is a youngest age group also sexually active; in that case special attention has to be taken upon them because they are expected for the future generation and are very essential to the economy. These results are similar to the study conducted by Kamugisha, and Tengia-Kessy, (2006) which indicated that (40.4 percent of boys and 16.9 percent of girls) reported to have

experienced sexual intercourse at the aged 15-33 years. Early and unprotected sexual activities expose people to the risk of contracting sexually transmitted infections (STIs) including human immunodeficiency virus (HIV/AIDS) infection.

4.2.1 Sex of respondent

In view about sex of respondents, the tables below shows that 52.5% of the respondents were male while 47.5% were females these results can be deduced that male were willing and free to respond to the questionnaires than the opposite sex. Sex distribution of respondents is important to be involved because these two sexes are vulnerable to HIV/AIDS infection therefore they have to go for a voluntary testing.

4.2.2 Marital status of respondents

In the same table the results shows that 48.5% of the respondents were married. Marriage is an important factor for exposure of male and female to sexual intercourse which is the leading mechanism to HIV infection TDHS, (2005). Respondents in this study were asked if they are married, live as single, divorced or were widow/widower. Therefore this result indicates that marital status of respondents is an important to be involved in voluntary HIV/AIDS testing and the way they perceive it should be known. This is because they are in a possibility of being involved with sexual act by their wives/husbands or partners (TDHS, 2005).

4.2.3 Occupation of respondent

The (Table 1) also shows the occupation of respondents. The purpose was to determine the economic activities done by the respondents. Though it was intrinsic difficulties in clarifying the occupation because there is a wide range of jobs and income generating activities that people can perform. In this study occupation were divided into six categories

namely commerce, agriculture, manufacturing, self/employed, livestock keeping and those who were not working. The results indicate that Commerce (40.8%), agriculture (19.2%), manufacturing (12.5%) self/employed (10.8%) livestock keeping (9.2%) and who were not working (7.5 %.) This might be resulted from sampling, since it was expected that most people would be employed in various sector because people who lives in a big city like Dar es Salaam depends on self or formal employment.

Table 1: Biographic data of respondents

Variables	Frequency	Percentage
1. Age of respondents in years		
15-24	42	35.0
25-34	51	42.5
Above 35	27	22.5
Total	120	100.0
2. Sex of respondents		
Male	63	52.5
Female	57	47.5
Total	120	100.0
3. Marital status		
Married	58	48.5
Single	50	41.3
Divorced	8	6.8
Widow/widower	4	3.4
Total	120	100.0
4. Education level		
Primary education	78	65.0
Ordinary Secondary education	21	17.5
Adv, secondary education	11	9.2
Diploma education	6	5.0
University education	4	3.3
Total	120	100.0
5. Occupation		
Commerce	49	40.8
Agriculture	23	19.2
Manufacturing	15	12.5
Employment	13	10.8
Livestock	11	9.2
Does not work	9	7.5
Total	120	100.0

4.2.4 Respondent's level of education

The (Table 1) also indicates the education level of respondents ranged from primary schools to university education. This results indicates that majority of respondent (65.5%) had primary education. The aim of this study was to involve the respondents from all level of education. The results indicates that many respondents who were meet by the researcher had primary level of education this might be due to the fact that, data were collected during a day time in which some people with higher level of education were not at home.

4.3 Knowledge of People on HIV/AIDS Spread and Prevention Techniques

This section examines the knowledge of people on HIV/AIDS spread and prevention techniques used.

4.3.1 Knowledge of people on the presence of voluntary HIV/AIDS testing

Results in (Table 2) below show that the majority (97%) of respondents who were involved in the study had knowledge on the presence of voluntary HIV/AIDS testing and how HIV/AIDS spread. Also the results indicate that 98% of respondents have enough information about voluntary tests. These results are similar Bwambale *et al.* (2008) with the results that were obtained in a related study on Voluntary HIV counselling and testing among men in rural western Uganda. The results indicated that, majority (80.1%) of the men were aware about the existence of the VCT program in their area.

Therefore from these results it can be deduced that people have knowledge about voluntary HIV/AIDS testing.

Table 3 further shows that 87% of the respondents know the places where voluntary HIV/AIDS tests are conducted. With regards to the source of information about the test, the

study shows that Radio (57%) was the main source of information about HIV/AIDS voluntary test followed by TV (30%), magazines and news papers (7%), meetings (5%) and journals. The results have indicated that majority of people have information on voluntary counselling and testing could be influenced by the national campaign on voluntary counselling and testing that were inaugurated by President Jakaya Kikwete on July 2007 which were supported by other top government officials, member of the community. This is because information on voluntary HIV/AIDS testing creates awareness and increases the knowledge to the society in understanding the importance of voluntary HIV/AIDS testing. These results are similar with the results that were obtained in a related study on voluntary HIV counselling and testing among men in rural western Uganda. The results indicated that, majority (80.1%) of people were aware about the existence of the VCT program in their area. Therefore from these results it can be deduced that people have knowledge about voluntary HIV/AIDS testing.

Table 2: Knowledge of People towards HIV/AIDS spread

Response	Number	Percent
1. If respondents have heard about voluntary Test		
Head about it	116	97.0
No head	4	3.0
Total	120	100.0
2. If respondent have enough information about voluntary testing		
Had information	118	98.0
Had no information	2	2.0
Total	120	100.0
3. If respondent knows the place where HIV/AIDS is tested		
They know the place	104	87.0
They know very few place	14	12.0
Don't know at all	2	2.0
Total	120	100.0
4. The media respondent heard Voluntary HIV testing in past months		
Media		
Radio	68	57.0
TV	36	30.0
Magazine/news paper	8	7.0
Journals	2	2.0
Meetings	6	5.0
Total	120	100.0

4.4.1 Prevention techniques used against HIV/AIDS spread

In addition to knowledge about HIV/AIDS the study also examines prevention techniques used against HIV/AIDS spread. Results in Table 3 below show that 83% of the respondents involved in the study said that a person can do something to avoid getting HIV/AIDS while 18% said they know nothing. In view about preventive methods used to avoid getting HIV/AIDS 48% mentioned limiting sexual practice to one partner as a means of avoiding HIV/AIDS infection. Other prevention methods mentioned include abstaining from sex (28%), use of condoms (17%); avoid using of razor blade (7%) and avoiding blood transfusion (2%). These results can be supported by URT, (2005) findings which indicated that 99% of respondents had knowledge on HIV/AIDS prevention measures including sexual abstinences and faithfulness. Also these results are similar to Rumisha, *et al.* (2006) which determined the knowledge of the respondents on the mode of HIV/AIDS transmission among communities. The study revealed that eighty-one percent of the respondents were knowledgeable on at least one mode of HIV/AIDS transmission. In this study respondents mentioned sexual intercourse, sharing of sharp instruments, blood transfusion and mother to child transmission established to be the most common ways on which HIV/AIDS was transmitted. Therefore the findings obtained in this study indicates that majority of people have enough knowledge on the preventive measures to avoid getting HIV/AIDS.

4.5 Influence of Campaigns on Voluntary HIV/AIDS Testing

This section examines influence of campaigns on voluntary HIV/AIDS testing. Issues on respondent's information about campaigns on voluntary HIV/AIDS testing, response after campaigns and reasons for not performing testing was cross examined. Table 4 below shows that 98% of the respondents involved in the study had enough information about campaign on voluntary HIV/AIDS testing.

Table 3: Prevention techniques used against HIV/AIDS spread

Response	Number	Percent
1. If respondent can do anything to avoid getting HIV/AIDS		
They can do some thing to avoid	99	83.0
No they can't do anything	20	17.0
Don't know	1	1.0
Total	120	100.0
2. Respondents preventive method to avoid getting HIV/AIDS		
Method		
Abstain from sex	33	28.0
Use of condoms	20	17.0
Limit sex to one partner	57	48.0
Avoid using razor blade	8	7.0
Avoid blood transfusion	2	2.0
Total	120	100.0

On the other hand 73% of the respondents said that the campaigns had no influence on voluntary testing. In addition to that the result obtained in the table below indicates that majority of respondents have not taken a decision of testing for HIV/AIDS even after the campaign on voluntary testing. Also the findings from the focus group discussion (FGD) convey with those results after asking if they have ever tested for HIV/AIDS and reasons for testing and not testing. Those who said that they had never been voluntary tested were asked whether they planned to get tested in the future. Their response was that they were not interested to go for a voluntary testing. A number of people explained their position;

“I never tested because I'm sure of my self, there is no reason for testing. A person who is not sure of himself is the one who goes for a blood test, because he has done a lot of running around. But on my self I don't have a doubt because I have been protecting myself” (Man, FGD 1)

Another respondent said that;

“In most cases the problem is that people do fear to get tested because after knowing that are infected with HI/AIDS. Even though one may get free medicated but the problem is how one can get money for buying food, because most of the people are poor who cannot even self-employ. But if both food and medicine will be provided free to those who are found to be HIV/AIDS positive I am sure many people will respond for voluntary HIV/AIDS testing” (Man, FGD 2).

Many people do not go for HIV/AIDS testing because they fear the outcome of the results. For example some people in our street have several partners but they are not sure of their health status. In that cases they might think that they are infected with HIV/AIDS because of their sexual behaviour. Therefore one can think that has already infected while not. I think the only solution is that every individual should take a decision of going for HIV/AIDS testing so as to know our health status (Man, FGD 3).

The results obtained in the focus group discussion indicated that the major reasons for not performing voluntary testing are fear of HIV/AIDS testing results (53%) and confidence that the respondents were not infected with HIV/AIDS (33%). Some reasons given by the respondent was that, people do not have enough time in going for HIV/AIDS test (8%), knowledge about the place where the test is conducted (5%) and do not have an assurance of treatment in case of positive results. In this study respondents were asked to give reasons to why they have not voluntarily tested even after the campaign, one of the respondents said; *I don't want to go for HIV/AIDS test because I fear with the results if I will be found to be HIV/AIDS positive, I believe I will die within few days than if I were not told that I have been infected.* From my personal observation in this study most of the respondents believe

that the positive results may lead one die earlier than if it could have not known. The results are similar to Kumarnayake and Walts, (2001) in South Africa which indicated that less than 1% of the sexually active urban population had been tested. Therefore the results obtained in this study reveals that more efforts are needed that will make people take a decision to go for voluntary HIV/AIDS testing.

Table 4: Influence of Campaigns on Voluntary HIV/AIDS Testing

Response	Number	Percent
1. If respondents have enough information about campaign on voluntary HIV/AIDS testing		
They have enough information	117	98.0
No they do not have enough information	3	3.0
Total	120	100.0
2. If respondents have test HIV/AIDS after the campaign on voluntary test		
They have tested for HIV/AIDS after the campaign	33	28.0
They have not tested for HIV/AIDS	87	73.0
Total	120	100.0
3. Reasons for having no voluntary test of HIV/AIDS after campaign		
Fear of the results	64	53.0
I am sure that not infected	39	33.0
I don't know the place where HIV is tested	6	5.0
I don't have time to go	10	8.0
There is no assured treatment	1	1.0
Total	120	100.0

4.5.1 The Effect of Distance to voluntary HIV/AIDS Testing

Effect of the distance to voluntary HIV/AIDS testing was another factor this study tried to examine. Table 4.6 below shows 87% of the respondents involved in the study were aware about places where voluntary HIV/AIDS testing took place. Further more results below illustrates that the common places where people went for voluntary HIV/AIDS testing included Mnazi Mmoja, Kitunda dispensary, Amana and Chanika dispensary. Other places the study established include Mwananyamala and Gongo la Mboto Jeshini. However, in view about distance to voluntary HIV/AIDS testing centre, the study shows that 59% of the

respondents said that most of these voluntary HIV/AIDS testing centre are 2 kilometers and above away from their places of residence. The results also reveals that majority of respondent 53.3% their easiest means of transport to reach the voluntary HIV/AIDS testing centre was by car/bus. From my personal observation during the study the majority of respondent were accessible to VCT by all people wished to go for voluntary HIV/AIDS testing. This was contributed by good communication system in the particular area of the study.

Table 5: The effect of distance to voluntary HIV/AIDS testing

Response	Number	Percent
1. If respondent knows the place where HIV/AIDS is tested		
I know the places	104	87.0
I know only few places	14	12.0
Don't know at all	2	2.0
Total	120	100.0
2. Place where you can go for HIV/AIDS test		
Mnazi mmoja	26	22.0
Chanika dispensary	14	12.0
Kitunda dispensary	25	21.0
Madafu	15	13.0
Gongola mboto jeshini	5	4.0
Amana	9	13.0
Mwananyamala	11	8.0
I don't know the place	120	100.0
3. Respondent distance from HIV/AIDS testing centers		
½ km	22	18.0
1 km	21	18.0
2 km and above	71	59.0
I don't know	6	5.0
Total	120	100.0
4. Means of transport to HIV/AIDS testing centers		
Walking by foot	29	24.0
Riding bike	16	13.0
By car/bus	69	57.0
I don't know	6	5.0
Total	120	100.0

4.5.2 Influence of distance on peoples' perception towards HIV/AIDS testing

The study examined if there is any relationship between distance and people's perception towards voluntary HIV/AIDS test. With regard to the impact distance peoples perception to voluntary HIV/AIDS testing the study (Table 6) shows that 96 (87.3%) of the respondents were uncertain that distance had no influence on peoples perception towards voluntary HIV/AIDS testing, 18 (15%) indicated that they don't know if distance had any influence to peoples perception to voluntary HIV testing and 14 (12.7%) agreed that distance had any influence to peoples perception towards voluntary HIV testing. These findings are supported by the similar study conducted by **Bwambale et al. (2008)** which indicated that majority of the participants (69%) lived within a radius of 5 kilometres from the nearest static VCT site. The commonest means of transport to the VCT sites was by foot walking (69.6%). This is may be due to good transport network in the study area and the location of the voluntary testing centres. The study results showed that there was statistically significant difference of means $p < 0.05$ between distance and peoples perception towards voluntary HIV/AIDS testing.

Table 6: Influence of distance on peoples' perception towards HIV/AIDS testing

Variables	Have influence	%	Have no influence	%	Don't know	%	n	Σ	X ² -value	P-value
Positive	14	(12.7)	96	(87.3)	18	(15.0)	110			
Negative	2	(66.7)	1	(33.3)	101	(84.2)	3			
Otherwise	2	(28.6)	4	(57.1)	1	(14.3)	7	120	24.375	.000

Figure in parentheses are percentages and those out parentheses are frequencies

Chi-square=24.375, $P < 0.05$

4.6 The Attitude of the People Towards Voluntary HIV/AIDS Testing

This section examines attitudes of the people towards voluntary HIV/AIDS testing. The responses were grouped into three categories namely agree undecided and disagree. Ten

statements were constructed to show the frequency of attitude towards voluntary HIV/AIDS testing. Five variables have positive meaning and the other five have negative meaning about voluntary towards HIV/AIDS testing. In all positive statements every “agree” was represented by 3, “undecided” was represented by 2 while “disagree” was represented by 1, for all negative statements every “agree” was represented by 1, “undecided” was represented by 2 while “disagree” was represented by 3. Table 7 below shows the statements that were constructed in order to assess respondent’s attitudes towards voluntary testing. The scale 1 to 3 was used to compute total score for the 10 issues shown in the Table 7 below. The highest score measure high positive attitudes towards HIV/AIDS voluntary testing while lowest negative attitudes.

Table 7: Attitude of the People towards Voluntary HIV/AIDS testing

	Attitude towards Voluntary HIV/AIDS testing	Response
1	HIV/AIDS testing should not be done before marriage	1=Agree, 2=uncertain, 3= Disagree
2	Voluntary HIV/AIDS test is purposely for polygamist	1=Agree, 2=uncertain, 3= Disagree
3	Voluntary HIV/AIDS test is more important for youth than adult	1=Agree, 2=uncertain, 3= Disagree
4	People perceive positive to voluntary HIV/AIDS testing	3=Agree, 2=uncertain, 1= Disagree
5	HIV/AIDS testing is not necessary for health looking persons	1=Agree, 2=uncertain, 3= Disagree
6	Voluntary HIV/AIDS should always be done even after marriage	3=Agree, 2=uncertain, 1= Disagree
7	Voluntary HIV/AIDS test is not only purposely for polygamist	3=Agree, 2=uncertain, 1= Disagree
8	Voluntary HIV/AIDS test is important to all people in the society	3=Agree, 2=uncertain, 1= Disagree
9	People perceive negatively to voluntary HIV/AIDS test	1=Agree, 2=uncertain, 3= Disagree
10	HIV/AIDS testing is necessary for even health looking person	3=Agree, 2=uncertain, 1= Disagree

A likert scale ranging from 10 to 30 was constructed as the measure of attitude towards voluntary HIV/AIDS testing the scale had the mean of 22. The score on the index were further categorized into positive and negative attitude. Where the score above the index mean was categorized as positive attitude and the score below the index mean was categorized as negative. On adding the scores from the 10 issues for each respondent, results in Table 8 below shows that 92.5% of the respondents involved in the study had

positive attitudes towards voluntary HIV/AIDS testing while 7.5% had negative attitudes towards the exercise.

Attitudes towards voluntary HIV/AIDS testing indicate that most respondents strongly agreed with the statements (mean = 3.28, s = .34). It is important to note that the attitude towards voluntary HIV/AIDS testing was negatively worded. This means that a mean of 3.28 indicates that the average score indicated some endorsement (Agree category) of negative attitudes towards voluntary HIV/AIDS testing.

Table 8: Attitude of the People towards Voluntary HIV/AIDS testing

SN	Score	Number	Percent
1	10	0	0.00
2	11	0	0.00
3	12	1	0.83
4	13	2	1.67
5	14	1	0.83
6	15	1	0.83
7	16	2	1.67
8	17	1	0.83
9	18	1	0.83
10	19	1	0.83
11	20	0	0.00
12	21	0	0.00
13	22	0	0.00
14	23	1	0.83
15	24	2	1.67
16	25	2	1.67
17	26	6	5.00
18	27	13	10.83
19	28	7	5.83
20	29	68	56.67
21	30	11	9.17
Total		120	100.00
Negative Attitude to Voluntary HIV/AIDS testing (%)			8.33
Positive Attitude to Voluntary HIV/AIDS testing (%)			91.67

Moreover, negative attitude towards voluntary HIV/AIDS testing scores were lowest (mean = 2.26, s = .56). The mean of 2.26 for the attitude towards voluntary testing scores indicates that respondents are unlikely to agree to HIV testing even when confidentiality is assured, when colleagues also agree and if they have guarantees of remaining anonymous.

These results indicate that people have positive attitudes towards HIV/AIDS voluntary testing as a means of reducing spread of HIV/AIDS epidemic.

4.7 Logistic Regression Model

In establishing the influence of campaigns on voluntary HIV/AIDS testing, logistic regression analysis was performed. The Wald statistic below and the corresponding significance level test the significance of each variables and dummy independents in the model. The ratio of the logistic coefficient B to its standard error S.E., squared, equals the Wald statistic. There for because results obtained below are less than 0.05 then the Wald statistic is significant (i.e., less than 0.05) then the parameter is significant in the model Results in Table 9 below the results indicates the statistical test which describe the education of respondent (Wald=4.2.1, P=0.04), occupation (Wald=5.11, P=0.02), Knowledge, Influence of campaign (Wald=6.11, P=0.01), Influence of distance (Wald=P=6.12,P=0.01) and Source of information (Wald=3.81, P=0.05) were all statistically significant influence on perception towards voluntary HIV/AIDS testing $P \leq 0.05$. On the other hand Age, sex, marital status and mode of transport had no significant influence on respondent's perception towards voluntary HIV testing.

Of the independents, knowledge, influence of campaign, influence of distance and source of information are significant but mode of transport, marital status, sex and age not influence on voluntary HIV/AIDS testing.

In case of education, for every one unity increase in education, the odds of having positive perception towards voluntary HIV/AIDS testing increased. These results imply that the higher level of education increases the positive perception of people towards voluntary

HIV/AIDS testing. Therefore the study has indicated that more efforts is needed by the government and other stake holders to raise public understanding on the important of voluntary HIV/AIDS testing. According to the report on Integration of population Variables in development Planning URT, (2003a), education not only to impart knowledge and skills to individuals it also imparts perception, attitude values and aspiration

Table 9: Logistic regression model

Logistic Regression Model variable Description	Variables(s)	B	Wald (T)	df	sig
Voluntary HIV/AIDS Testing	Y				
Independent Variables					
Age	X1	-0.36	0.33	1	0.56
Sex	X2	0.43	0.27	1	0.61
Education	X3	3.21	4.21	1	0.04 ***
Marital Status	X4	-0.38	0.66	1	0.42
Occupation	X5	0.38	5.11	1	0.02 ***
Knowledge	X6	0.21	4.61	1	0.03 ***
Influence of campaign	X7	0.11	6.11	1	0.01 ***
Influence of distance	X8	0.81	6.12	1	0.01 ***
Mode of transport	X9	-0.31	0.33	1	0.56
Source of information	X10	1.20	3.81	1	0.05 ***
Constant		0.07	0.01	1	0.97

N.B * = Significant 0.05**

CHAPTER FIVE

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Overview

This chapter provides the conclusion and recommendations in the light of the findings of the study. The main objective was to examine perception of people towards voluntary HIV/AIDS testing in Ilala Municipality. Based on these results of the study, the following conclusion and recommendations are made.

The AIDS epidemic is real complex, thus only a combination of approaches can succeed its reduction. It is increasingly clear, however, that people are to be at the centre of strategies to control HIV/AIDS. Collaboration among the people, Health organizations, and other related authorities should build across national boundaries. Education on voluntary HIV/AIDS testing must be comprehensive and continuous to all people for the survivor. Voluntary HIV/AIDS counselling and testing should be provided confidentiality and sensitivity.

This chapter described the research findings as observed in Ilala municipality. In spite of the fact that the rate of HIV/AIDS infection is growing in Tanzania and also perception of people towards voluntary testing has also improved. The study reveals that most people are now aware about HIV/AIDS and voluntary HIV/AIDS testing for their health status against HIV/AIDS. The rate of people visiting voluntary testing centres refers to the way one notice thing, especially with the senses, or the ability to understand the true nature of some thing. Most of people perceive the issue of voluntary HIV/AIDS testing positive. People had enough focus of control they had a good ability and most of them were willing to undergo for voluntary HIV/AIDS. The study has revealed that under the present pandemic situation perception of people towards voluntary HIV/AIDS testing should be a continuous strategy to the whole nation.

The general objective of this study was to examine perception of people towards voluntary HIV/AIDS testing in Ilala Municipality. The findings of this study are expected to assist all programme and policy makers to design relevant intervention programmes and policies concerning the impact of the pandemic. This chapter has described the major findings from which valid recommendations are made. The major findings are presented in the order of specific objectives of the study. In summary, the results of this study have highlighted issues that effect HIV/AIDS testing initiatives among the people.

5.2 Limitations of the Research

This research was conducted within a small sampled area. The results can therefore not be generalised to the whole municipality. Based on the fact that HIV/AIDS is a very emotive topic in Dares salaam particularly Ilala municipality social environment, and the reality of stigmatization in this regard, the response rate of respondents could have been detrimentally influenced. Due to the lack of previous empirical results regarding voluntary HIV/AIDS testing in Ilala municipality and the resultant lack of standardised measuring instruments, this study used a self constructed questionnaire. This questionnaire was aimed at measuring people's perceptions towards voluntary HIV/AIDS testing in the area of the study. However the validity of this self constructed questionnaire was not determined in this research.

5.3 Recommendations

The following recommendations that could be utilised for interventions and further research are based on the limitations of this study. In that case from the present study the proposed recommendations are:

1. This exploratory study was concentrated only on one municipality. It is recommended that a larger study, based on several municipalities and in which a larger sample is utilised, be considered.
2. It is essential that the results of this study be used to design intervention programmes aimed at encouraging a greater number of people to submit to voluntary HIV/AIDS testing.
3. Voluntary HIV/AIDS testing must be pursued to the people as a means to combat the spread of the HIV virus and to encourage changes in behaviour.

4. Management involvement in HIV/AIDS prevention is paramount at all levels of community in prevention and education initiatives in order to facilitate the success of voluntary HIV/AIDS testing programme.
5. A large number of respondents in this study indicated their willingness to participate in voluntary HIV/AIDS testing programmes. It is recommended that people pursue non-invasive HIV/AIDS testing methods in order to encourage greater number of people to participate.
6. Perception of people regarding HIV/AIDS has social and economic consequences. It is recommended that the results of this study be used for further studies to determine the cost and value of voluntary HIV/AIDS testing to the community.
7. The researcher strongly recommends that further research on perceptions towards voluntary HIV/AIDS testing be conducted in Ilala municipality and to the whole country in order to broaden the understanding of voluntary HIV/AIDS testing behaviours.

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APPENDICES

Appendix 1: Research Variables, Level of measurements and their operational Definition

Variables	Operational definition	Levels	Units measurement
Age	Years of birth that of 15-49	interval	number
Sex	A state of being male or female in biological sense	Nominal	1=male 2=female
Marital status	A state of being married, divorced, single or widow	Nominal	1=single 2=married 3=divorce 4=widow 5=separated 6=living together 7=others
Occupation	Kind of activities the respondent do at the time of interview	Nominal	1=Agriculture 2=Livestock 3=Fishing 4=Commerce 5=Manufacturing 6=Other
Education	Highest level of education one attained in years	Ordinal	1=None 2=Primary 3= Secondary 4=Post secondary 5=Higher educt
Location centres	Distance from where people reside to the VCT centres allocated in meters/kilometers	nominal	Number in kilometres
Source of information	Where respondents obtains HIV/AIDS information and communication	Ordinal	1=Radio 2=Television 3=newspaper 4=Meeting
Knowledge	Respondents basic knowledge on HIV/AIDS, transmission and prevention	Ordinal	1=sex 2=kissing 3=sharing utensils 4=Eating together 5=Blood transfusion
Attitude towards voluntary HIV testing	Respondents attitude towards voluntary HIV/AIDS test	Ordinal	1=strong disagree 2=disagree 3=uncertain 4=Agree 5=Strong agree
Perception	Interpretation, sensation to produce a meaning experience of HIV/AIDS whether positive or negative	Ordinal	Positive /negative

Appendix 2: The respondents of 120 were obtained by using the following formula.

Sample size formula

$$n = \frac{Z^2 pq}{d^2}$$

Where:

- n = desire sample size when population is greater than 10 000
- Z = standard normal deviation, set at 1.96 (in simple at 2.0) corresponding to 95% confidence level
- P = proportion in the target population estimated to have a particular Characteristics;
- q = 1.0-p
- d = degree of accuracy desired, set at 0.05 0.02

Therefore sample size will be

$$n = \frac{Z^2 pq}{d^2} = \frac{(2)^2 (0.5 \times 0.5)}{(0.05)^2} = \frac{4 \times 0.25}{0.0025} = \frac{1.0}{0.0025}$$

=400 respondents

30% of the sample size will be 120 respondents

Appendix 3: Questionnaire designed for research on “Perception of people towards voluntary HIV/AIDS testing” The information provided will be used for academic purpose only and not otherwise

(Please provide true and correct information)

Questionnaire No

Name of interviewer.....

Division.....

Ward.....Date.....

Street.....

Section A; Background information Let us now discuss about your background information.

1. What is your age in years?

2. Sex of respondent

1= Male

2= Female

3. Have you been to school?

1=Yes

2=No

4. What is the highest level of education attained?

1= Primary education 2=Ordinary secondary education

3=Adv, secondary education 4= Diploma education

5= university education

5. What is your marital status?

1=Single 2= Widow/widower

3=Married 4=Divorced

5=Separated 6=Living together

6. What is your occupation?

1=Employment 2=Agriculture

3=Livestock 4=Commerce

5=Manufacturing 6= Others

7=Does not work

Section B: Knowledge towards a voluntary HIV test

Now let us discuss about knowledge towards a voluntary HIV test, and how people can protect from more infection

1. Have you ever heard about voluntary HIV/AIDS testing?

1=Yes [] 2=No []

2. When last did you heard about HIV/AIDS testing?

1=Last week [] 2=More than one month ago []

3= More than one year ago []

3. From which media you heard about voluntary HIV/AIDS test in the past -months?

1= Radio [] 2= TV []

3= Magazines/News papers [] 4= Journals []

5= Meetings [] 6= others specify []

4. Would you say that you have enough information about voluntary HIV/AIDS testing?

1=Yes [] 2=No []

3=don't know []

5. Is there anything a person can do to avoid getting HIV/AIDS?

1=Yes [] 2=No []

3=don't know []

6. Do you think that a person infected with HIV/AIDS always shows symptoms?

1=Yes [] 2=No []

3=don't know []

8. State one major preventive method that a person can do to avoid getting HIV/AIDS

1=Abstain from se [] 2=Use condoms []

3=Limit sex to one [] 4=Avoid using razors/ blades []

5=Avoid blood transfusions []

6=Avoid sharing food with people who have AIDS []

9. Would you like to be tested for HIV/AIDS?

1=Yes [] 2=No []

3 =Don't know []

10. I don't want to know the results, but have you ever been tested to see if you have AIDS virus?

1=Yes [] 2=No []

11. Do you know the place where HIV/AIDS testing is carried?

- 1=Yes [] 2=No []
3=Don't know at all []

12. When was the last time you were tested?

- 1=Less than 12 months ago [] 2=A year ago []
3= More than two year ago []

13. What are the chances that you might catch HIV/AIDS?

- 1=No chance [] 2=Moderate []
3=Good chance []

14. Have you had sexual intercourse with any one else in the last 6 months, other than your wife/husband/ regular partner?

- 1=Yes [] 2=No []

15. Have you ever tested for HIV/AIDS?

- 1=Yes [] 2=No []

16. If yes what were the reasons for testing.....

17. If not yet what is your plan to go for HIV/AIDS testing.....

18. There are many reasons why people do not get tested for HIV. Can you tell me why you have not been tested?

- 1= Does not want to know/afraid [] 2=Is sure she/he does not have HIV []
3=Is sure she/he is HIV positive [] 4=Cost too much []
5= No time to go [] 6=Un decided []
6=Other []

**Section C: The influence of campaign on voluntary HIV testing among the people.
Let us discuss the influence of campaign on voluntary HIV testing among the people.**

1. Have you heard about the campaign on voluntary HIV testing?

- 1=Yes [] 2=No []

2. When last did you heard about it?

- 1=Last week [] 2=More than one month ago []
3= More than one year ago []

3. From which media you heard about the campaign on voluntary HIV test in the past -months?

- 1= Radio 2= TV
 3= Magazines/News papers 4= Journals
 5= Meetings 6= others specify

4. Would you say that you have enough information campaign n about the con voluntary HIV testing?

- 1=Yes 2=No
 3=Don't know

5. Do you know the place where HIV is tested?

- 1=Yes 2=No

6. Have you seen/heard people going to test for HIV?

- 1=Yes 2=No

7. Since the campaign on voluntary HIV testing started have you already tested?

- 1=Yes 2=No
 3=Don't know

8. If not why?

9. Have you ever advised other people to test for HIV/AIDS voluntarily?

- 1= Yes 2=No

10. What is your perception towards voluntary HIV/AIDS testing?

- 1=positive
 0=negative

Section D: The influence of distance on voluntary HIV testing among the people, Let us discuss about the influence of distance on voluntary HIV testing.

1. Do you know the place where HIV/AIDS testing is carried?

- 1=Yes 2=No
 3=Don't know at all

2. Mention one place where you can go and test for HIV (Name).....

3. What is the distance from the voluntary counseling testing centers to your place of residence?

- 1= 500 metres 2=One kilometer
 3=More than two kilometers

4. How one can reach the voluntary HIV centers you know?

1= walking by foot 2=riding a bicycle

3=by car/bus

5. Can you say that distance location of the voluntary HIV testing centers have an impact for you to go for HIV test?

1=Yes 2=No

3=Don't know at all

Section D: Attitude of the people towards voluntary HIV/AIDS testing. Please pick a number from a scale to show how you Agree or Disagree with the following statements: 1=strongly agree; 2=Agree; 3=Undecided/Neutral; 4=Disagree; 5=strongly disagree

	Attitudinal statements	Strongly disagree (1)	Disagree (2)	Undecided/neutral(3)	Agree(4)	Strong agree(5)
1	Voluntary HIV testing should not be done before marriage					
2	Voluntary HIV testing is purposely for polygamist					
3	Voluntary HIV testing is necessary to the whole society					
4	People perceive negatively to voluntary HIV testing					
5	HIV testing is not necessary for health looking person					
6	Voluntary HIV testing should be done before even after marriage					
7	Voluntary HIV testing is not Purposely for polygamist					
8	Voluntary HIV testing is important Even for health looking people					
9	Voluntary HIV testing is more important for youth than adult					
10	People perceive positively to voluntary HIV testing					

Section E: Perception of the people towards voluntary HIV/AIDS testing, Please pick a number from a scale to show how you Agree or Disagree with the following statements: 1=strongly agree; 2=Agree; 3=Undecided/Neutral; 4=Disagree; 5=strongly disagree

Statement implying response score by respondent	Maximum score	Score by respondent
Counselors will disclose the results of HIV test	5	
HIV positive results deteriorate people's health status	5	
People fear social stigmatization from HIV test	5	
Couple fear to test for HIV voluntarily	5	
People Perceives negative to voluntary HIV testing	5	
Total	25	

INTERVIEWER'S NAME-----

THANK YOU FOR YOUR COOPERATION

Guideline for focus group discussion (FGD)

1. A lot of people have been infected with HIV/AIDS because they have not taken serious measures particularly HIV testing. What are your comment/ opinion?
2. What are your view/ opinion on perception of people towards voluntary HIV test in general?
3. How do people perceive to voluntary HIV/AIDS testing?
4. Do they know that there are VCT that are within there respective area?
5. Do they volunteer for HIV testing? If no give reasons why people do not like to be tested?
6. If yes tested are they ready to disclose their result?
7. What are the socio-cultural factors that influence people to voluntary HIV test?