FACTORS ASSOCIATED WITH VCT UTILIZATION IN GURAGHE ZONE, SNNPR, ETHIOPIA

BY

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Declaration

I, the undersigned, declare that this thesis is my original work and has not been presented for a degree in this or any other university, and all sources of materials used for this thesis have been fully acknowledged.

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Dedication

To my mother W/o Ayelech Mengistu, who never tired in educating her father-less children.

To my priest school teacher the late Yeneta G/Mariam W/Gebriel for his keen advice and effort, and my friends (North Shoa).

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List of Abbreviations

AIDS	Acquired Immunodeficiency Syndrome
ART	Anti-Retroviral Therapy
BSS	Behavioral Surveillance Survey
CDC	Center for Disease Control
CCA	Central Statistics Authority
CI	Confidence Interval
DHS	Demographic and Health Survey
ECSA	Eastern Central and Southern Africa
ELISA	Enzyme Linked Immunosorbent Assay
EMJ	Ethiopian Medical Journal
EPHA	Ethiopian Public Health Association
FGAE	Family Guidance Association of Ethiopia
FHI	Family Health International
FGD	Focus Group Discussion
HAPCO	HIV/AIDS Prevention and Control Office
HIV	Human Immunodeficiency Virus
MOH	Ministry of Health
MTCT	Mother-to-child Transmission
OR	Odds Ratio
PMTCT	Prevention of Mother-to-child Transmission
SSA	Sub-Saharan Africa
STD	Sexually Transmitted Disease
SNNPR	Southern Nations, Nationalities and Peoples Region
UN	United Nation
UNAIDS	Joint United Nations Program on HIV/AIDS
UNGASS	United Nations General Assembly for Special Sessions.
VCT	Voluntary Counseling and Testing
WHO	World Health Organization

Operational Definitions

Anonymous HIV Testing- clients' identifying information is not linked to testing information

Attitude – consistent feeling directed towards a person, idea, object or situation.

Cases-VCT users who came to the 6 selected VCT centers during study period irrespective of reasons

Controls-non-VCT users who came to the 6 selected VCT centers the same day, but for non-VCT service

Confidential HIV Testing- client's identifying information is linked to testing information

Discrimination- an action or treatment based on stigma and directed towards the stigmatized.

Stigma +ve- individuals with average score of stigma 4 and above.

Discrimination + ve- individuals with average score discrimination of 5 and above.

Knowledgeable about HIV/AIDS –respondents scoring above average, regarding mode of transmission, prevention and correct conception of HIV/AIDS

Higher education –respondents who completed grade 10/12 and attended at least additional training for a year

Sexual Intercourse - refers only to penetrative vaginal sex

Stigma –negative feeling toward people with HIV/AIDS, intention to avoid people living with HIV/AIDS from social relationship.

Town- Residence where more than 2000 people live.

VCT – process by which an individual undergoes counseling to enable him make informed choice about being tested voluntarily for HIV.

Zone- Administrative part consisting of a number of Woredas

Abstract

A case-control study was conducted from November 2003 to January 2004 to investigate the association of socio-demographic variables with VCT use and to assess determinants of VCT service utilization using both Quantitative and Qualitative methods of data collections.

A total of 636 individuals (212 cases and 424 controls), who came to health institutions that deliver VCT services in Guraghe Zone, were enrolled in the study. Twelve (5.7%) of cases and 82 (19.3%) of controls (non-VCT users), 94 (14.8%) of the total study subjects had not have heard of VCT in general. The main reason for VCT utilization among cases was pre-marital 160 (75.5%) and the main reasons for non-use among controls were partner-and self-trust (23.1%), no information about it (17.8%), other social reasons (13.7%) and lack of nearby services (13.0%).

The majority (82.8%) of cases were in the age groups of 15-19 and 20-29 years. Study participants were 54.7% males, 78.3% rural by residence, 54.7% followers of orthodox religion, 80.7% Guraghe by ethnicity, 37.3% farmers by occupation, the majority (67%) had educational status of elementary and below and 80.7% were unmarried.

Religion, Muslim & other Christianity, secondary and above educational status, other occupational status, singleness and non-polygamous union showed statistically significant positive associations with VCT utilization. Attitudes related to stigma and discrimination showed statistically significant positive associations with cases but there was no statistically significant difference regarding knowledge and practice between cases and controls.

Confidential testing, Physicians as counselors, and face-to-face way of receiving HIV VCT test result were the preferred VCT schemes by most respondents and FGD participants.

Most health institutions do not have referral system for social support, targeted VCT, follow up training and supervision, referral for indeterminate HIV VCT test results.

Maximizing pre-marital VCT with proper information dissemination targeting the rural community, involving all possible stakeholders and using local resources, follow-up training and supervision and setting up referral systems are recommended.

Key words: **VCT utilization, Case-Control, Stigma, Discrimination, Service quality**

1. Introduction

Since its emergence in the 1980s, HIV /AIDS has been the most challenging epidemic of modern times, its devastating spread affects the lives of 16,000 people each day (1, 2). The epidemic has resulted in the death of 3 million people and 5 million acquiring HIV only in 2003, bringing to 40 million the number of people living with the virus around the world (3).

The HIV/AIDS epidemic reached the global regions at different times and has spread faster or slower in various populations according to different risk factors, hence there are several epidemic patterns. As the epidemic primarily affects the productive age range in the population, productivity and production of the household and community and sectoral and national economic securities are being affected (2).

In many countries and areas with a high prevalence, HIV/ AIDS represents not only a health threat to the individual and a social and economic threat to families and communities, but also destroys developmental gains acquired with difficulty over the past decades (4).

Sub-Saharan Africa remains by far the region worst affected by the epidemic, although Africa accounts for only 10% of the world population it accounts for 70% of the HIV positive case load and 90% HIV infected babies (1).

In 2003 alone, an estimated 26.6 million people in the region were living with the virus. In the same year the number of newly infected people reached 3.2 million, with estimated death of 2.4 million and bringing adult prevalence estimate to 7.5 – 8.5 % (4).

Sub-Saharan Africa is also characterized by more infection of women, 1.2 times than their male counter- parts, among young people this ratio is two- and- a- half times. However, HIV prevalence varies considerably across the continent ranging from less than 1 % in Mauritania to almost 40% in Botswana and Swaziland (1,4)

In 1999 alone, 2 million people were killed by HIV/ AIDS in the region, as compared to the 200,000 who died each year from armed conflicts, giving the view that HIV/AIDS is the greatest undeclared war (5).

Especially, the east, central and southern Africa (including Ethiopia, Rwanda and Burundi) account for more than 50% of the world's burden of HIV/AIDS. It is known that 12 of the 14 countries with the heaviest burden of HIV/HIDS are in this region. HIV/AIDS is the worst disaster ever to afflict the sub-region and this region has been the epicenter of the epidemic (6).

The spread of HIV started in Ethiopia in the early 1980s. Globally, the country has the 16th highest HIV/AIDS prevalence and the 3rd highest number of people living with HIV/AIDS. As a whole, an estimated 5000 people are newly infected each week in the country affecting mainly the age group of 20–49 years, the most important group from both economic and parenting stand point. In this age group, AIDS is now the leading cause of death (7).

The estimated HIV prevalence for the rural population in 2003 was 3.2% among rural pregnant women, rates for urban areas have been estimated at 13.7%. The national HIV prevalence is 6.6 %, and that of Addis Ababa is 11% (4).

An MOH report of 2002 estimated that 2 Million Ethiopian adults and 220,000 children are living with HIV/ AIDS, 219,400 people have full-blown AIDS, the highest number following

South Africa and India. Approximately 750,000 Ethiopian children are orphaned by AIDS. In urban areas, AIDS patients occupy half of the hospital beds, revealing that HIV/AIDS poses the foremost threat to Ethiopian development. Hence, investing adequately in HIV/AIDS prevention is now a pre-condition for virtually all other development investments to succeed (7,8).

Most HIV transmission in SSA occurs through sexual intercourse (hetero-sexual), and vertical transmission. Transmission through, unsafe blood transfusion and unsafe injections account for a small fraction of transmission (9).

Taking into account the main mode of transmission in SSA, access to information on one's HIV status is a human right as well as a public health measure. People have the right to know their HIV status. Moreover, by knowing their sero-status, they can protect themselves and others from infection, improve their health care and plan for the future. VCT services provide a supportive venue for learning this essential health information with the major aims of promoting HIV prevention, helping reduce stigma, providing entry point for support and helping parents prevent transmission to a baby (2).

But, as shown by several studies, uptake of VCT is affected by increased age, high education level, ignorance about mode of HIV transmission and condom use, partner agreement, risk perception, counselor's professional skills and quality of information (2).

Despite the presence of high male migration to bigger towns and an estimated 100,000 HIV/AIDS infection in the zone (10), research on socio-demographic determinants particularly in Guraghe zone is scarce (non-existent)

The aim of this study is to find and determine socio- demographic determinants of VCT utilization of HIV/AIDS among cases and non-use among controls in Guraghe zone.

2. Literature Review

2.1- Overview of VCT

HIV Voluntary Counseling and testing services provide a critical entry point for both HIV/AIDS prevention and care and support of infected and affected individuals. The scope of VCT has evolved from a diagnostic tool for symptomatic patients to an essential component of HIV prevention efforts (11).

HIV testing is the process by which blood or body fluids are analyzed for the presence of antibodies or antigens produced in response to HIV. Counseling is a confidential dialogue between a person and a care provider aimed at enabling the person to cope with stress and make personal decisions related to HIV/AIDS (12,13).

Starting from 1985, there have been different HIV testing strategies developed ranging from the expensive and confirmatory Radio-Immuno Precipitate Assay (RIPA) to simple –rapid tests which usually produce results in five–thirty minutes. Some of the tests do not require a blood sample, but oral fluids and urine as alternatives. Currently, there are at least nine tests that detect HIV antibodies, antigens or the nucleic acid of HIV in a person's body fluids. (ELISA, Western Blot, Polymerase chain reaction PCR, saliva and urine tests Amplicor, branched DNA test, Immuno-flourescent antibody assay rapid HIV test kits and at home HIV test kits) (11,14, 15,16).

Hence, HIV VCT is the process whereby an individual or couples undergo counseling to enable him/her/them to make an informed choice about being tested for HIV. This decision must be the choice of the individual/s and he/she/they must be assured that the process will be confidential (17).

People have a right to know their HIV status, and testing and counseling should be widely accessible through innovative, ethical and practical models of delivery. Potential benefits for the individuals and communities cannot be realized unless people are able to know their sero-status.

Individual benefits: - Initiate and maintain behaviors to prevent acquisition or further transmission of HIV.

- Early access to HIV specific care, treatment and support
- Access interventions to prevent MTCT.
- Better cope with HIV infection.
- Plan for the future

Community benefits: - Reduce denial, stigma and discrimination that surround HIV/AIDS

- Mobilize support for appropriate response (18).

There is great political and international will to develop and expand VCT services particularly in high prevalence developing countries. The UNGASS (United Nations General Assembly for Special Session) declaration also reflects a commitment to the rapid scaling up of VCT services (8). In SSA, where majority of people living with HIV/AIDS are found, only around 5% of those infected are aware of their sero-status. This signifies the importance of expansion of VCT service in the region (5).

2.2- Significance of VCT

HIV VCT is now acknowledged within the international arena as an efficacious and pivotal strategy for both HIV/AIDS prevention and care with the following rationale.

- Vital point of entry to other HIV/AIDS services – from MTCT to psychosocial and legal support
- There is demand (people want to know their sero-status)
- Provision of benefits for both HIV positive as well as HIV negative people
- Offers a holistic approach (20).

Many studies show the significance of VCT. In Uganda, utilization of VCT was highly responsible for behavior changes in condom use with casual partners (2, 21).

In another cohort study conducted on 3120 individuals in Nairobi Kenya, Tanzania and Trinidad and Tobago, unprotected sexual intercourse declined by 35% and 39% among men and women VCT recipients, respectively. But in the control arm in which clients received only health education a reduction in unprotected sex occurred, but was less pronounced resulting in 15% and 17% decline by men & women respectively (2).

A recent study from Kenya and Uganda showed that young people valued the counseling aspect of VCT. Most of the young people tested disclosed their test result to someone and intended to practice safer sex. Additionally, the vast majority of Untested People wanted to take an HIV test (22). In Kinshasa DRC, a program offering VCT screening and treatment of STI, group discussions about prevention and free condom distribution for sex workers have increased condom use and reduced the incidence of HIV & Other STI among sex workers (23).

Another study conducted in Kenya & Tanzania about cost and cost effectiveness of VCT for HIV1 confirmed that the cost compared well with that of other public health interventions such as measles immunization. The cost effectiveness was most pronounced when clients were couples and HIV-1 infected. These data demonstrated that VCT is a cost effective intervention in preventing HIV transmission and falls within World Bank criteria (19,23, 24).

Studies among sero-discordant couples in several high prevalence African countries (Kenya, Ruwanda, Uganda, DRC and Zambia) showed that attending VCT together leads to consistent and significant reduction in risky sexual behavior and prevents transmission to negative partners following VCT (25).

2.3- Determinants of VCT

Up- take of VCT services varies greatly between settings and countries.
There are several societal and delivery associated factors like,

- Stigma (societal factors) current events
- Community mobilization and
- Method of reporting / confidentiality
- Availability of treatment
- Simple rapid testing / same day testing
- Poor quality of Services (15).

Similarly, in a study in United Kingdom by Sheer et. al, the following factors were also shown to affect VCT uptake. Staff training (professional skill & empathy) and supervision, societal factors like stigma, minimal male involvement, partner violence and rejection of HIV positive women. Helplessness, denial, high educational level ignorance about sexual transmission of HIV, condom use, quality of information and its mode of presentation were identified societal factors (1, 23).

Testing is more likely to be accepted when:

- Clients perceive their own HIV risk & acknowledge behaviors placing them at increased risk.
- It is voluntarily and routinely offered
- Confidential & anonymous testing is available
- Alternative testing technologies are available
- Providers & clients perceive VCT as HIV prevention means (26).

In a study done on preference of the type of VCT Method, 61% preferred confidential testing 31.6% anonymous and 1.8% suggested getting VCT service openly or non-confidentially. With regard to preference on counselor 51.9 % chose physician 29.1 % trained counselor, 10.5% religious leaders and 7.9% nurse counselor (27).

The following are summarized as some of the barriers to VCT in the developing world

- Wide- spread fear of taking an HIV test.
- Potential for increased violence, loss of security, discrimination and isolation, following sharing information about HIV sero-positivity.
- Scarce Economic resources and Competing priorities
- Lack of access to drug therapies, psychosocial and clinical care (28).

2.3 - Socio- Demographic correlates of VCT utilizers

The trend of gender distribution from Uganda VCT users showed that 47% were females, about half of clients were between the ages of 20 and 29 years, the majority (57%) had some secondary and post secondary education and about half were single. Pre-marital testing and planning for the future were pronounced reasons for seeking VCT (29).

In a study done in Addis Ababa, the majority of VCT utilizers were Amaharas by ethnicity, had grade 9 and above education, never married, jobless and had no private income. Their mean age was 29.5 ± 7.4 and 25.5 ± 6.4 for cases and controls respectively. The median age at first marriage was 20 years for cases and 21 years for controls. The median age at first sexual intercourse was 18 years for cases and 19 years for controls (29).

Another study done in Addis Ababa showed that all 640 (100%) of study subjects agreed that pre-marital VCT is important. Prevention of heterosexual HIV transmission (93.6%), planning for the future (87.5%) and planning to have a child (86.3%) were some of the reasons given for VCT utilization by pre-marital VCT users. Male subjects who had no sexual contact with their fiancées and males with a history of another prior marriage were significantly and more likely to be associated with VCT utilization [OR= 9.62 (1.23 – 75.2)] and [OR= (0.2 = 2.96 (1.22 – 7.18)] respectively (30).

2.4 - VCT in Ethiopia

In Ethiopia, HIV counseling services began in late 1980s. Different governmental and non-governmental organizations were involved initially in the training of nurses and social workers. About 3000 counselors were trained, however no standardized training program. According to a situation assessment of HIV VCT practices in Ethiopia, there were 80 institutions involved in HIV testing or counseling or both (7,22).

There is indeed a growing demand for HIVVCT from the general public. HIV VCT is included as one of the strategies of HIV/AIDS prevention in the recently approved HIV/AIDS policy of the country. It is considered as one of the priority intervention areas with the general objective of serving as an entry point of HIV prevention through creating more personal awareness and care (7). However, despite its benefits HIV VCT, coverage among people who need the service is around 6% in less developed countries of Africa (31).

The 2000 Ethiopian Demographic Health Survey (DHS) revealed that only 2% of men reported being tested, this means many people with HIV/AIDS in the country do not know their sero status. From the DHS report the following were survey findings as factors affecting VCT utilization: educational status, urban resident, male sex, younger age than 40 years and never married. (2,3). Currently, in Ethiopia the number of VCT sites is increasing covering all regions and reached 144 from 23 in 2002 (32, 33).

Misconception and inadequate knowledge of HIV transmission among the youth are also common. DHS revealed that lack of specific way to avoid contracting HIV/AIDS on the average was 18% (22, 31).

Regarding reasons in the unmet need group (180) for not demanding pre-marital VCT from Habte D. Study, the most commonly cited reasons were, not perceiving oneself at risk (57.8%) followed by no consideration at all (23.9%), afraid of positive result, (15.6%) and fear of stigma (3.9 %) (30).

In a study done in Afar, N. Ethiopia, having educational status of secondary and above, female sex and being Christian were positively associated with willingness to take HIV VCT services (34).

Rationale of the Study

The HIV/AIDS epidemic has been witnessed in Ethiopia for the past two decades. Like that of other SSA countries, the major mode of transmission in the country has been identified as heterosexual contributing for more than 90% of cases.

Voluntary Counseling and Testing has been recognized as an effective and pivotal strategy by nations in general and considered as one of the essential prevention interventions to curb the pandemic.

Examining and understanding socio-demographic and service delivery factors that influence VCT utilization is needed to improve use of service, hence its impact on the long run, among the health institutions and the public is vital and timely activity to facilitate HIV prevention effort in the country in general and in Guraghe Zone in particular.

However, there is lack of such studies in the Zone. Therefore, this study was conducted to identify socio-demographic and VCT service utilization factors which may be useful in maximizing use of VCT services and contributing to the anti-HIV/AIDS package in the Zone.

3. OBJECTIVES

3.1-General objective

To identify socio-demographic determinants of VCT service utilization and assess the quality of VCT services in Guraghe Zone.

3.2-Specific Objectives

- To assess socio-demographic and other factors associated with VCT use.
- To describe reasons for VCT use among cases (VCT users) and to identify reasons for non-use among controls (non-VCT users).
- To compare knowledge and attitude towards HIV/AIDS and VCT among cases and controls.
- To examine quality of VCT services in the Zone.

4. METHODS AND MATERIALS

4.1- Study area

Guraghe Zone is one of the 13 Zones in the Southern Nations, Nationalities and Peoples Regional Government (SNNPRG). Its capital, Wolkite is located 156 km south west of Addis Ababa along Jimma road. The Zone is divided into 12 administrative woredas with an estimated total population of 1.44 million of which 48.6% are males and the rest females. (35). The Zone is dependent on subsistence farming mainly Enset as staple diet. The Zone is also characterized by high population growth and density and migration of men to bigger towns. As a result, HIV\AIDS infection is estimated to be high (10). Health facilities and services are inadequate with poor sanitation coverage and wide- spread communicable diseases are common (35).

4.2- Study design

The study used both qualitative and quantitative methods. For the quantitative method a case-control study was carried out in 6 different VCT centers from November 2003-mid January 2004. Cases are VCT users who came to the 6 selected VCT centers irrespective of their reasons. Controls are non-VCT users who came to the same health institutions in the same day but for other health services. For the qualitative method, 4 FGDs were employed. Additionally, the 6 health institutions that provide VCT services were assessed regarding their **operational** aspect.

4.3- Source Population

All individuals in reproductive age groups (15-49 years) who reside in the Zone.

4.4- Study population

The study population includes individuals in the age group of 15-49 years, who are residents in the Zone and who came to the 6 selected health institutions that provide VCT services.

4.5- Inclusion criteria

Cases: VCT users of both sexes in the age groups 15 to 49 years who came for VCT service to the 6 health institutions included in the study and residents of the respective study sites at least for the last 6 months.

Controls: non-VCT users with similar inclusion criteria, except that they came for other health services. They were matched by sex age group and residence to cases.

4.6- Sample size

Sample size was determined using the two-population proportion formula using EPI-INFO version 6. Taking prevalence of lack of knowledge of specific way to avoid contracting HIV among the general population as controls to be 19% (average data of DHS revealed 18%) (31), assuming to tolerate 53% reduction of lack of specific knowledge to avoid HIV among cases, to obtain the maximum sample size at 95% confidence level and 80% power certainty a maximum of 219 cases and 438 controls were needed. (Allocation ratio of cases: controls=1:2). Because of many reasons of uncertainty and possible non-response, additional 15% were required, thus a total of 658 cases and controls were needed.

Level of significance $\propto$=0.05

$$n_1 = \frac{\left[Z_{\propto/2} \sqrt{(1+1/r)\, P\,(1-P)} + Z_{\beta} \sqrt{P1\,(1-P_1) + P_2\,(1-P_2)/r} \right]^2}{(P_1 - P_2)^2}$$

Then, the final sample size was, n_1=219, n2=438 and N= 658.In actual study a total of 636 study subjects were included during the study period (cases =212, controls= 424).

4.7- Sampling technique and selection of study subjects

Six VCT centers in different parts of the zone, which were functioning at least 6 months prior to the study period, were included in the study. All study subjects that came to those health institutions for VCT service within the study period and who were volunteer were recruited as cases. Controls were those individuals, who came in the same health institutions for other health services in the same day, volunteer and matched with cases by sex, residence as urban and rural and age group as within ± 5 years of cases.

4.8. Methods of Data collection

4.8.1- Quantitative

A structured questionnaire was administered which has four different sub- sections, namely socio-demographic, sexuality, knowledge and attitude towards HIV/AIDS /VCT and stigma and discrimination**.**

4.8.2- Data Quality Assurance

The structured Questionnaire was formulated from the standardized of WHO, BSS (Behavioral Surveillance Survey) Questionnaire. Its English version was translated into Amharic version and again back to English so as to insure its consistency.

4.8.3- Pre-Testing and Data Collection

The translated Amharic version was pre-tested and modifications were made accordingly, the modified Amharic version was used during the interview.

Training about data collection was given for two days for 6 data collectors and 2 supervisors. The supervisors and data collectors were nurses by profession and were selected from the 6 health institutions counseling teams. One of the Supervisors was Health Officer by profession and the other one was a Nurse.

Interviews were conducted keeping strict privacy after getting informed consent from the respective study participant. This was ascertained by putting the signature of the interviewers from the respective health institutions and checked by the supervisors and principal investigator.

The two supervisors checked the collected data for its completeness, clarity and consistency. Corrections were made accordingly with each data collector, communicating with the principal investigator. The principal investigator was communicating with his advisors, supervisors and data collectors through all available means of communications to follow the progress as the situation permitted (telephone, letter, public transport, motor bicycle and vehicles.)

Health institutions were assessed by the Principal Investigator using semi-structured questionnaire from UNAIDS document, tools for evaluating HIV VCT services especially about the operational aspects of VCT centers (Annex 5).

4.9- Qualitative

Four Focus Group Discussions (FGDs) were held in Butajira and Emdibir towns. Participants were selected from the community/ health institutions by convenience. Semi- structured questionnaire was used to facilitate the discussions. The Principal Investigator moderated all the focus group discussions. During the group discussions notes were taken and discussions were tape-recorded. Composition of FGD participants is shown in Annex2.

4.10- Data entry and analysis

The data were entered using EPI-INFO version 6 soft ware. Analysis was carried out using the EPI-INFO version 6 and SPSS version10 statistical program. The data from FGD were transcribed and analyzed. Data from the assessment of VCT centers were also grouped and analyzed.

For different variables, frequencies, odds ratio 95% confidence intervals, X^2 and p-value were computed to assess the presence and degree of association between dependent and independent variables and compare results between VCT users and non-users according to the objectives. Logistic regression was done to assess the relative effect of various explanatory variables on the dependent variable.

4.11- Study variables

Dependent variables -being a case (VCT user) or control (non-VCTuser).

Independent variables-

Socio-demographic variables, (age, sex, religion, ethnicity, residence occupation, education and marital status).

Knowledge about, HIV\AIDS and VCT.

Attitude, stigma and discrimination, towards HIV/AIDS and VCT.

4.12- Ethical considerations

Ethical clearance was obtained from Addis Ababa University Medical Faculty- Department of Community Health Ethical Committee. Official letter of co-operation was also written to Guraghe Zone Administration. Letter of co-operation was obtained from Zonal Health Desk to the 6 selected VCT centers.

Informed consent was obtained from each study participant. Individuals who were not volunteer to continue from the beginning or from any part of the interview had respected right to do so.

Privacy and strict confidentiality was maintained during the interview process.

4.13- Benefit to the study subjects

Brochures, about the importance of VCT were distributed for those who read and write at the end of the interview.

Questions and doubts about HIV/AIDS and in particular about the importance of VCT were discussed freely with respective interviewees.

5. Results

5.1.1- Description of study participants

Of the total study population who visited the 6 VCT sites (Wolkite, Emdibir, Butajira H/centers, FGEA clinic Wolkite branch, Attat and Butajira Hospitals) during study period November/2003-January/2004 658 study participants were eligible according to the set criteria of the study. 636 study participants completed the interview in all study sites, a response rate of 97%. Among these 212 (33.3%) were cases (VCT users) and 424 (66.7%) were controls (non-VCT users). Male participants were 348 (54.7%) and the rest were females.

A socio-demographic characteristic of the study subjects is presented in table 1.

The mean ± SD age of study subjects was 24.1 ± 6.93 years.

Majority, 404 (63.5%) of the study participants had educational level of elementary and below. Ethnically, 473 (74.4%) of the study subjects were Guraghes and the majority were followers of Orthodox and Muslim religions, 44.7% and 39.5%, respectively.

Four hundred ninety eight (78.3%) were residents of rural areas and 411 (64.6%) were single (unmarried). The majority study participants 531 (83.5%) claimed to have no monthly income but 202 (31.8%) were farmers by occupation followed by job less 173 (27.2%). Study participants, cases and controls, had no statistically significant difference in sex, age and residence. ($p > 0.05$). Additionally there was no statistically significant difference between cases and controls regarding monthly income ($p>0.05$). However, study participants had statistically significant difference regarding religion, educational status, ethnicity, occupation, marital status and polygamy ($P < 0.05$).

Table-1: Socio-demographic characteristics of study subjects, Guraghe Zone, April 2004.

Characteristics	Cases N= 212 n (%)	Controls N= 424 n (%)	Total N (%)
Sex			
Male	116 (54.7)	232 (54.7)	348 (54.7)
Female	96 (45.3)	192 (45.3)	288 (45.3)
Age in years			
15-19	62 (29.2)	124 (29.2)	186 (29.2)
20-29	114 (53.8)	228 (53.8)	342 (53.8)
30-39	25 (11.7)	50 (11.7)	75 (11.7)
40-49	11 (5.2)	22 (5.2)	33 (5.2)
Residence			
Urban	46 (21.7)	92 (21.7)	138 (21.7)
Rural	166 (78.3)	232 (78.3)	398 (78.3)
Religion			
Orthodox	116 (54.7)	168 (39.6)	284 (44.6)
Muslim	74 (34.9)	177 (41.7)	251 (39.5)
Other Christians	22 (10.3)	79 (18.6)	101 (15.9)
Education			
Illiterate	88 (41.5)	144 (33.9)	232 (36.4)
Elementary	70 (33.0)	99 (23.3)	169 (26.6)
Secondary & above	54 (25.5)	181 (42.7)	235 (37.0)
Ethnicity			
Guraghe	171(80.7)	302 (71.2)	473 (74.4)
Non-Guraghe	41(19.3)	122 (28.8)	163 (25.6)
Occupation			
Job-less	66 (31.1)	107 (25.2)	173 (27.2)
Farmer	79 (37.3)	123 (29.0)	202 (31.8)
Merchant	35 (16.5)	57 (13.4)	92 (14.5)
Others	32 (15.1)	137 (32.3)	169 (26.6)
Monthly income (in Birr)			
No income	175 (82.5)	356 (84.0)	531 (83.5)
5-100	19 (9.0)	21 (5.0)	40 (6.3)
101-400	10 (4.7)	20 (4.7)	30 (4.7)
401& above	8 (3.8)	27 (6.4)	35 (5.5)
Marital status			
Married	41(19.3)	184 (43.4)	225 (35.4)
Unmarried	171(80.7)	240 (56.6)	411 (64.6)
Polygamy (N= 225)			
Yes	16 (39.0)	22 (12.0)	38 (16.9)
No	25 (61.0)	162 (88.0)	187 (83.1)

5.1.2- Sexual characteristics of study participants

The mean age ± (SD) at first marriage of the study participants was 20.6 ± 4.4 years. However, the mean age ± (SD) at first sexual intercourse of the study participants was 20.2± 4.1 years. (Table-2). There was no statistically significant difference between cases and controls regarding these variables. (P > 0.05).

Table-2: Age at first marriage and at first intercourse of study subjects Guraghe Zone, April 2004

	Cases N= 41 n (%)	Controls N= 184 n (%)	Total N=225 n (%)
Age in years			
15-19	17 (41.5)	89 (48.4)	111(49.3)
20-29	22 (53.7)	90 (48.9)	112 (49.8)
30-39	2 (4.9)	5 (2.7)	6 (3.1)
Mean age±SD (Years)	20.7 ± 5.1	20.6 ± 4.2	20.6 ± 4.4
Age in years, at first sexual inter course N =240			
15-19	25 (44.6)	96 (52.1)	121 (50.4)
20-29	29 (51.8)	85 (46.1)	114 (47.5)
30-39	2 (3.6)	3 (1.8)	5 (2.1)
Mean age± SD (Years)	20.4 ± 4.7	20.2 ± 3.9	20.2± 4.1

5.1.3- Descriptions of reasons for VCT utilization by users, and for non- utilization by non-users.

Study participants, cases were asked the reasons for their current VCT utilization. Majority 151 (75.3%) of them utilized the service for pre–marital reasons followed by to know self, 40 (20.0%). (Figure 1).

Similarly, controls were also asked the reasons for their non- utilization of VCT.

From the multiple responses given the major ones were, partner and self trust 79 (23.1%), followed by no knowledge about it 61 (17.8%), other social reasons (no recent plan for marriage, younger age for marriage …) 47 (13.7%), and no near by service 44 (13.0%). (Figure 2).

Figure1.
Reason for VCT Utilization by cases Guraghe Zone, Aptil 2004
(N=200)

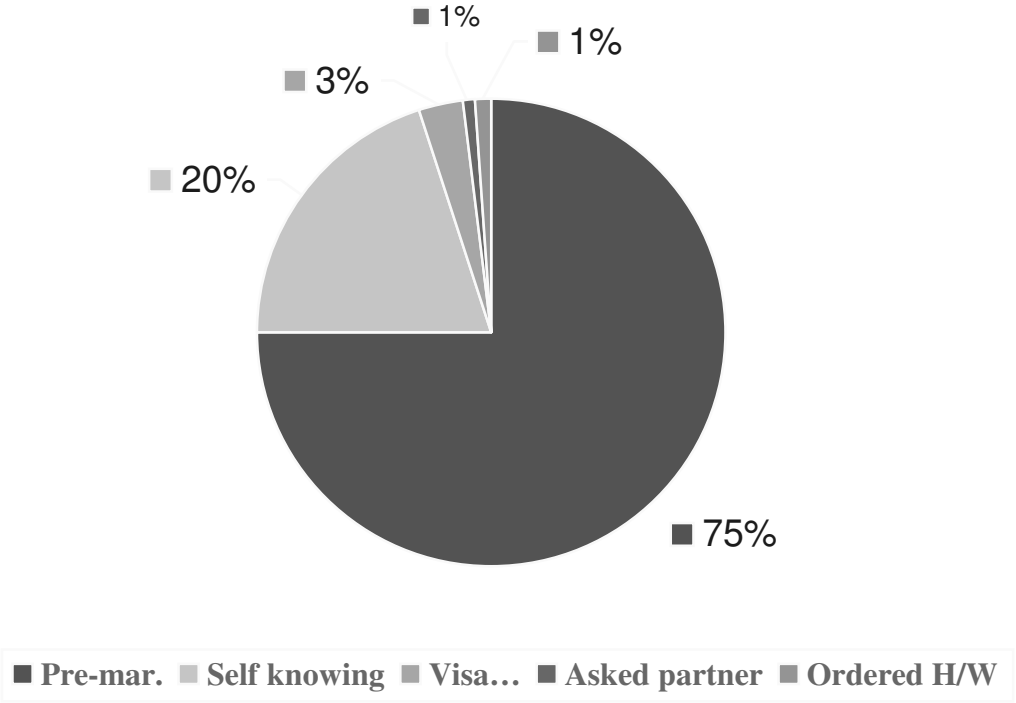
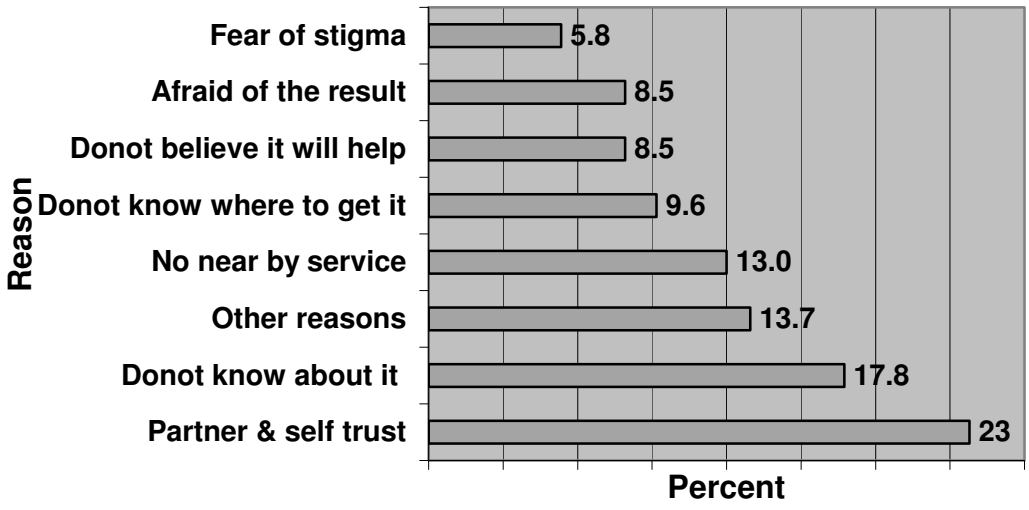


Figure- 2: Reason for no utilization of VCT by controls
Guraghe Zone, April 2004. (N=342)



5.1.4- Information regarding VCT and its importance of study participants

Study participants were compared regarding information on VCT and its importance.

From 212 cases that came to VCT, 12 (5.7 %) participants that did not have the information about what VCT was. Similarly, there were 82 (19.3%) controls that did not have information regarding VCT. There was a significant difference regarding VCT information between cases and controls, cases had more information than controls. ($P < 0.05$).

From the total 542 (200 cases and 342 controls) respondents who heard of VCT, 195 (97.5%) of cases said VCT was important and 5 (2.5%) of them said it was not. However, from the controls side 336 (98.2%) responded that it was important and the rest said it was not. There was no statistically significant difference between cases and controls. ($P >0.05$) (Table-3).

Table –3: Comparison of study participants on having VCT information and its importance Guraghe Zone, April 2004.

Characteristics (Variables)	Cases n (%)	Controls n (%)	P-value
Heard of VCT			
Yes	200 (94.3)	342 (80.7)	<0.001
No	12 (5.7)	82 (19.3)	
Importance of VCT			
Yes	195 (97.5)	336 (98.2)	0.78
No	5 (2.5)	6 (1.8)	

5.1.5- Practice variables of study participants

Comparison of study subjects regarding their practices, particularly on condom utilization and history of STD in the past one year, revealed that out of 240 respondents, who gave history of sexual contact, 8 (3.3%) of them utilized condom always in their extra marital affairs, but majority 126 (52.5%) either did so sometimes or did not practice it at all. The rest 106 (44.2%) had no response regarding condom utilization. (Table 4).

Regarding history of STD, 14 (2.2%) reported to have STD in the past one year and the rest claimed, as did not have it. (Table-4). There was no statistically significant difference regarding these variables. ($P > 0.05$).

Table-4: Comparison result of Practice assessment of study participants Guraghe Zone, April 2004.

Characteristics (Variables)	Cases n (%)	Controls n (%)	P-value
Condom utilization N=240			
Always	3 (5.3)	5 (2.7)	0.43
Sometimes/Never	26 (46.4)	100 (54.3)	
No response	27 (48.2)	79 (43.0)	
History of STD N=636			
Yes	3 (1.4)	11 (2.6)	0.50
No	209 (98.6)	413 (97.4)	

5.1.6- Preferences of VCT models, counselor qualification and ways of getting VCT result by the study participants.

Study participants were compared on their preferences towards models of VCT, Counselor's qualification and ways of getting HIV VCT test result. Out of 542 respondents, who had heard about VCT, majority 379 (70%) of respondents showed preference for confidential testing followed by anonymous 123 (22.5%) and open types 40 (7.3%).

Regarding preference of professionals as counselors 294 (54.2%) preferred physician, followed by trained counselor 121 (22.3%), nurse 49 (9.0%), HIV positive people 47 (8.6%) and religious /community leaders 32 (6.0%). There was no Statistically significant difference between cases and controls regarding these preferences. ($P > 0.05$).

Concerning preference of ways of receiving HIV test result majority preferred face- to- face 368 (67.9%) followed by secretive letter 124 (23.0%), through partner 32 (5.9%) and through other relatives 18 (3.3%). There was statistically significant difference between cases and controls, regarding ways of getting VCT test result, as cases preferred more face-to-face way of getting VCT result than controls. (P <0. 05) (Table-5).

Table –5: Preference of VCT model, counselor qualification and ways of getting HIV test result Guraghe Zone, April 2004.

Characteristics (Variables)	Cases n (%)	Controls n (%)	P-value
VCT Model			
Confidential	144 (72.0)	235 (68.7)	0.72
Anonymous	42 (21.0)	81 (23.6)	
Open	14 (7.0)	26 (7.6)	
Counselor Qualification			
Physician	107 (53.5)	187 (54.7)	0.44
Trained counselor	45 (22.5)	76 (22.2)	
Nurse	23 (11.5)	25 (7.3)	
HIV+ve people	16 (8.0)	31 (9.1)	
Comm./Religi. Leaders	9 (4.5)	23 (6.7)	
Ways of getting HIV test result			
Face to face	152 (76.0)	216 (63.2)	<0.01
Secretive letter	40 (20.0)	84 (24.6)	
Partner	2 (1.0)	30 (8.8)	
Other relative	6 (3.0)	12 (3.5)	

5.1.7- Knowledge and Attitude towards HIV/AIDS/ VCT of cases and controls

Average score of knowledge was taken after coding and scaling from total score of 23, from the variables on transmission, prevention and misconception of HIV/AIDS and VCT. The same was done for stigma and discrimination to obtain the respective average score. Accordingly, the average score for knowledge was 18. Study participants with score of 18 and above were considered knowledgeable.

The average score for stigma was 4, from total score of 10. Participants with the score of 4 and above were considered stigma positive.

The average score obtained, for discrimination was 5 from total score of 13. Study participants with score of 5 and above were considered discrimination positive.

Based on this, cases and controls were compared on knowledge variables, regarding HIV transmission, prevention methods and misconception about VCT and on attitude, regarding stigma and discrimination variables.

Knowledge of cases was better than that of controls when seen crudely, but failed to show its statistically significant association after adjusting for socio- demographic variables of study subjects.

Surprisingly, cases, VCT users, were more likely to stigmatize and discriminate HIV/AIDS cases than controls, non- VCT users, AOR= 1.90 (1.23, 2.82) and 1.57 (1.05, 2.35) respectively. (Table-6).

Table-6: Comparison result of cases and controls on knowledge and Attitude of HIV/AIDS, Guraghe Zone 2004.

Characteristic (Average score)*	Cases n (%)	Controls n (%)	Crude OR (95%CI)	Adjusted OR (95%CI)
Knowledge				
Non-knowledgeable	88 (41.5%)	120 (28.3%)	1.00	1.00
Knowledgeable	124 (58.5%)	304 (71.7%)	**1.80 (1.27,2.54)**	1.40 (0.92,2.12)
*Average score=18				
Stigma				
Stigma - ve	140 (66%)	221(52.1%)	1.00	1.00
Stigma +ve	72 (34%)	203 (47.9%)	**1.79 (1.27,2.54)**	**1.90 (1.23,2.82)****
*Average score=4				
Discrimination				
Discrimination -ve	118 (55.7%)	176 (41.5%)	1.00	1.00
Discrimination +ve	94 (44.3%)	248 (58.5%)	**1.77(1.27,2.50)**	**1.57 (1.05,2.35)****
*Average score= 5				

** Statistically significant associations with non-VCT users after adjusting for socio-demographic variables

5.1.8- Associations of Socio-demographic variables with study participants.

Socio-demographic variables were analyzed if there were associations with VCT utilization. Based on the logistic regression the following socio-demographic variables showed associations with VCT utilization.

- Age groups 15-19 and 20-29 showed positive associations as compared to 30-39 and 40-49 age groups.
- Followers of Muslim and other Christianity were to utilize more VCT than the orthodox, AOR= 1.92 (95% CI, 1.25, 2.95) and 2.49 (95% CI, 1.25, 4.95) respectively.
- Individuals with educational status of secondary and above were more likely to utilize VCT than the illiterate groups, AOR = 2.06 (95% CI, 1.12, 3.79).
- Individuals with occupational status of other groups (drivers, students, housewives...) were more likely to utilize VCT than job- less groups, AOR=2.64 (95% CI, 1.35.5.13).
- Non-married/singles, were more likely to utilize VCT than their married counter parts, AOR AOR=7.04 (95% CI, 3.92, 12.65). And individuals in non-polygamous union were more likely to utilize VCT than individuals in polygamous union, AOR= 5.75 (95% CI, 1.68,19.67). Gender, residence, ethnicity and income didn't show statistically significant association with VCT utilization in this study. (Table-7).

Table-7: Association of Socio-Demographic variables of Study subjects with VCT utilization, Guraghe Zone, April 2004.

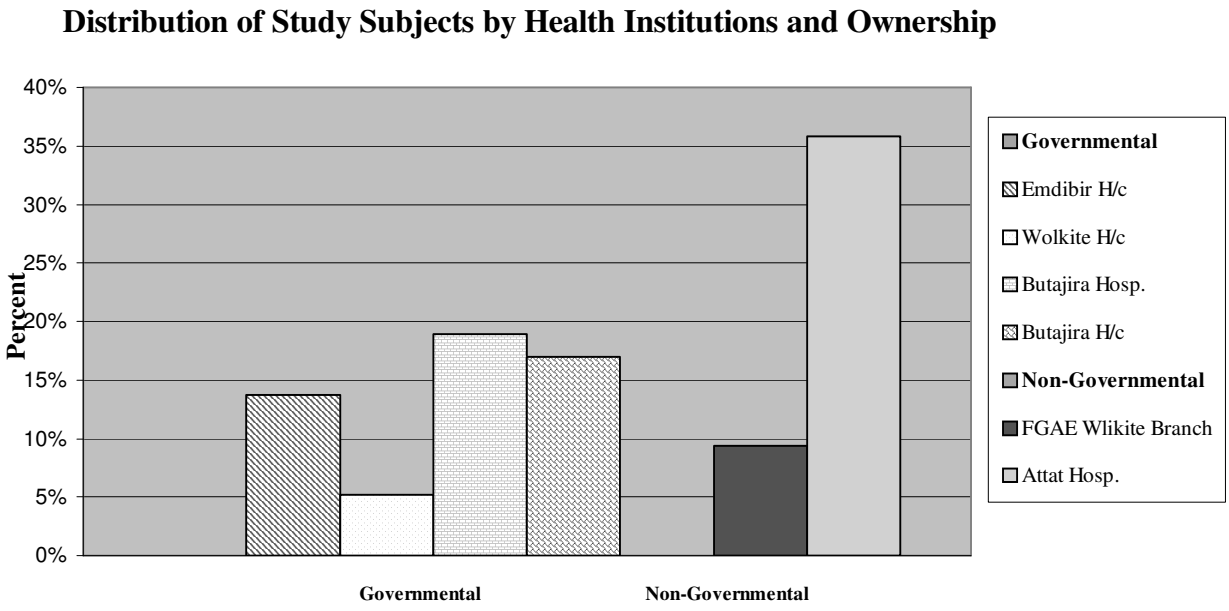
Characteristics	Crude OR (95% CI)	Adjusted OR(95% CI)
Sex		
Male	**1.00**	**1.00**
Female	1.00 (0.72,1.39)	0.65 (0.36,1.16)
Age in years		
15-19	1.00	1.00
20-29	1.00 (0.68,1.46)	1.07 (0.67, 1.72)
30-39	1.00 (0.57,1.75)	1.16 (0.60, 2.23)
40-49	1.00 (0.46,2.19)	1.52 (0.58,4.00)
Residence		
Urban	1.00	1.00
Rural	1.00 (0.67,1.49)	1.24 (0.36,4.22)
Religion		
Orthodox	**1.00**	**1.00**
Muslim	**1.65 (1.15,2.37)**	**1.92 (1.25,2.95)** **
Other Christians	**2.48 (1.46,4.21)**	**2.49 (1.25,4.95)** **
Education		
Illiterate	**1.00**	**1.00**
Elementary	0.86 (0.58,1.30)	0.69 (0.22,2.13)
Secondary and above	**1.95 (1.21,3.14)**	**2.06 (1.12,3.79)** **
Ethnicity		
Guraghe	**1.00**	**1.00**
Non-Guraghe	**1.69 (1.12,2.52)**	0.99 (0.61,1.64)
Occupation		
Job-less	1.00	1.00
Farmer	0.96 (0.63,1.46)	0. 96 (0.50,1.84)
Merchant	1.01 (0.60,1.70)	1.33 (0.66,2.66)
Others(student, drivers house wives...)	**2.64 (1.61,4.32)**	**2.64 (1.35,5.13)** **
Monthly income (in Birr)		
No income	1.00	1.00
5-100	0.54 (0.28,1.04)	0.62 (0.29,1.31)
101-400	0.98 (0.45,2.15)	0.35 (0.09,1.41)
401& above	1.66 (0.74,3.73)	0.28 (0.07 ,1.23)
Marital status		
Married	**1.00**	**1.00**
Unmarried	**3.2 (2.16,4.73)**	**7.04 (3.92,12.65)** **
Polygamy		
Yes	1.00	1.00
No	**4.71 (2.18,10.17)**	**5.75 (1.68,19.67)** **

** Statistically significant associations with VCT utilization, after adjusting for socio-demographic variables.

5.2.1- Distribution of study participants by Health Institutions.

The six health institutions, involved in this study, were selected both from Governmental and Non- Governmental institutions. Two were hospitals and the rest were health centers located in different parts of the Zone. One hospital and three health centers were governmental the rest are Non-Governmental by ownership. The distribution of study participants by health institution was Emdibir Health Center 87 (13.6%), Wolkite H/Center 33 (5.2%), FGAE Wolkite Clinic 60 (9.4%), Attat Hospital 228 (35.8%), Butajira Hospital 120 (18.9%) and Butajira H/Center 108 (17%). From the study participants 348 (54.72%) were from the Government health institutions and the rest from Non-Governmental ones. (Figure3).

Figure–3: Distribution of Study participants by Health Institutions and Ownership Guraghe Zone, April 2004.



5.2.2- Assessment of VCT sites.

The Health Institutions were assessed about the operational aspect of their services. In all 6-health institutions, Governmental and NGO, there was no referral for social support for HIV/AIDS patients.

-There was no counseling supervision and support, ongoing follow-up training and referral for indeterminate test results.

-However, in one of the NGO H/institution there was targeted service for the youth and commercial sex workers. Additionally, there was trial to advertise VCT through out reach programs. Exceptionally, one of the Government health institution works during weekends, Saturday, as that of the NGOs.

In terms of background qualification of the counselors, in the four H/institutions they were nurses. There were physicians who took the training on counseling. However, only two physicians were actively involved in counseling sessions, each in both Governmental and NGO health institutions. (Table-8).

Table-8: Operational features of the 6 VCT centers, Guraghe Zone, April 2004.

Common features
Availability of written document (at least training material).
Confidential testing and integrated VCT model.
Availability of private/adequate counseling room.
Lack of data management system.
Lack of follow-up/ongoing training and supervision.
Minimal involvement of physicians in counseling.
Lack of referral for social support.(AIDS patients).
Lack of referral for indeterminate HIV test result.
Variations
Availability of targeted services.
Presence of payment for VCT
Open at week-ends (Saturday)

5.3-Summary Result of Focus Group Discussion

5.3.1- Knowledge about HIV/AIDS and VCT

Most participants have mentioned about the method of transmission and means of preventions of HIV/AIDS. They have also stressed about the severity of HIV/AIDS mentioning as one of their top priority health problem. A 26 years old woman from rural Butajira "**It (HIV/AIDS) is a terrifying disease with no medicine killing people especially the young."**

Majority of the participants have mentioned about the HIV blood test, where to get the service, and about the need for the repeat test as confirmatory test after 3 months. They have also mentioned that a healthy looking person can be infected unless confirmed by HIV blood test.

However, some women participants from the rural parts did not have much information.

Majority of the participants have heard about VCT, through different means. But few women participants from rural parts of the Zone have not heard about it. A 30 years old woman from rural Butajira **"I heard about it (VCT) recently from students, but not much."**

The majority also mentioned Hospitals and Health Centers as places to get the service. They also mentioned about the negativity, positivity and the need to repeat after 3 months the HIV blood test as confirmatory for the first test result. A 24 years old man from rural Emdibir " **It is a must to have HIV- free paper before marriage, and there should be a re-test after 3 months for confirmation."**

5.3.2- Attitude towards VCT

All the groups have mentioned about the importance and they have mentioned that HIV blood test is a "Must" before marriage. The other benefits mentioned were planning for better life, for

employment, and visa purpose. A 25 years old woman from Emdibir **" It (VCT) frees from back bite if the result is negative, but harmful if positive."**

Despite the mentioned benefits, if one's test result is HIV positive, fear, stigma and discrimination, from family, neighbors and the community, were the prominent mentioned problems. As mentioned by the participants these were the reasons not to have VCT openly among the community.

Unavailability of the service in their nearer area, lack of adequate information through local language and sometimes people negotiations not to have HIV VCT test were mentioned as reasons not to have VCT. A 27 years old woman from Butajira " **Sometimes people, elders, mask HIV/AIDS patient, saying the man has TB and not HIV and negotiate us/family to marry that patient. They also try to convince not to have /bring HIV test result, lobbying let him replace his race, this is cultural tolerance in our area."**

5.3.3- Intention to, ask partner for, have VCT, and share the result and preferences

Almost all intended to use VCT in the near future and ask their partner for it. Majority claimed to have intention to share their test result to partner, family, friend, neighbors and community/religious leaders.

Majority of the participants preferred H/ institutions as better places for VCT. They requested, if possible to expand VCT to Health posts but after solving the administrative problems the health posts have. A 27years old man from rural Butajira "**Health posts are accessible, nearer to us and can serve as well but their administrative problems should be solved first."**

Most participants, for several economic and security reasons preferred to receive the result the same day. In the dissemination of information, almost all strongly preferred the involvement of others, students, religious and community leaders, but after proper training.

5.3.4- Religious /Cultural settings to promote VCT

Churches/Sunday school youths/, Mosques, were mentioned to have been involved in giving health education. Using the local language, local community elders (after training) were also mentioned as the socially/ culturally acceptable ways of promoting VCT, particularly around the great public holydays.

A 29 years old man from rural Emdibir " **If properly trained, chairmen of peasant associations, respected women, Abegazes, Religious leaders can be involved especially the elders, since they are respected, can benefit us around great holydays Meskel/Arafa, we have seen the result and they are acceptable."**

Some also mentioned the involvement of "**Role models from Government officials for VCT to encourage people"** known individuals, community leaders and government officials as the potential area to promote VCT service more in the area.

The most encouraging aspect of VCT utilization in the Zone is the trial to normalize VCT as a social norm particularly as pre-marital requirement by most of the community.

The most remarkable suggestions given were: -

* Improving poor/lack of follow up system in general.
* Accessing the very rural part of the community through the existing health institutions.
* Giving health education using local language and local leaders after proper training.

A25 years old woman from rural Butajira "**We see many trainings on HIV/AIDS with huge budget, but no follow-up if that trained person has changed the community according to the training, Government should focus on this."**

6- Discussion

Sex, residence and age groups did not show statistically significant associations with VCT utilization as they were matched. However, as most cases came for pre-marital HIV test, younger age groups are expected to utilize VCT more than the other older age groups. Individuals in younger age groups can play crucial role from both economic and potential parenting point of view. Also this age group can play significant role in HIV advocacy and education in challenging stigma and denial (36). This is also supported by the Zambian study.

A study done in Kara Counseling and Testing Trust (KCTT) Zambia showed the majority of VCT clients were young people between the age group of 18-29 years with the pre-marital VCT as one of prominent motivating factor.

However, the mean age of first sexual inter course is relatively higher than the other previous Ethiopian study and report (33,37). This may be encouraging and may be due to cultural support from the community.

Educational status of secondary had statistically significant association with VCT utilization. Individuals with educational status of secondary and above were more likely to utilize VCT than illiterate groups. Individuals in this educational level might have had better information and awareness about HIV/AIDS and VCT, and are more likely to utilize VCT. This is also observed in Uganda AIDS Information Centers (28).

Religion, Muslim or Other Christianity (Catholic or Protestant) showed statistically significant association with VCT utilization as compared with Orthodox Christian. This may be due to the fact that the area is Muslim dominant and there are also significant Catholic followers and might have had access for the service. It may also be due to wedding season, particularly for the Muslims during the study period.

Occupational status of other category (drivers, students, housewife etc.) had statistically significant association with VCT utilization as compared to job-less group. Individuals in this other occupational category might have better awareness and desire to know their sero-status.

Marital status- singleness also showed statistically significant association as compared to married counter parts. As majority, (75%) cases came for pre-marital VCT as a pre condition before marriage the situation is consistent with singleness. This is also in line with the other study finding in Ethiopia and trend analysis of Ugandan AIDS Information Center (29, 37).

Non-polygamous union had shown statistically significant association with VCT utilization as compared with polygamous union. It may be due to the fact that individuals in polygamous union may consider polygamy as a protection and may not consider risk of HIV/AIDS and may not utilize VCT. Polygamy is widely practiced in the area. This finding may be strengthened by a survey finding in one of the woredas, Meskan and Mareko, where polygamy was found to be 27% as compared to the national figure of 14%. However, polygamy has been considered as one the risk factors for the transmission of HIV/AIDS (37, 38).

Sex, residence and monthly income did not show any statistically significant association with VCT utilization in this particular study.

However, attitude related with stigma and discrimination has shown statistically significant association with cases. This may be explained by the fact that such attitudes are deep-rooted among the community and difficult to eliminate at once. As evidence indicated deep-rooted stigma cannot be reduced through the usual awareness creation campaigns (10). The involvement of other support groups is crucial and important as it was also reflected during FGD in this study. This again may indicate the information to be disseminated through health education and in counseling sessions may benefit from the inclusion of such topics during the respective sessions. It indicates that there is a long way to go in tackling this attitude. As lack of awareness can lead people to stigmatize and discriminate against HIV positive people, the situation provides combustible fuel for the spread of the epidemic, in silencing the open discussion, which may result in psychosocial consequences, depression, lack of self worth and despair. Culture of secrecy may contribute for the spread of HIV/AIDS. As stated, talking openly and frankly about personal subjects is not part of Ethiopian culture (39, 40).

This finding goes with the other study finding in the country. According to a study on stigma, discrimination and attitude it was indicated that high level of stigma and discrimination existed among rural population, which remained a challenge to HIV/AIDS control and prevention efforts in the country (41). To tackle such barriers for VCT utilization besides the multi-pronged approaches, HIV VCT is seen as an important way of normalizing intervention breaking the vicious circle of denial, stigma and discrimination (40,42,43).

This study did not show statistically significant difference between cases and controls regarding knowledge of HIV/AIDS, transmission, prevention and misconception. This may be against the assumption that VCT users could have more exposure information /knowledge regarding HIV/AIDS before they came to HIV VCT centers. This is also against the research finding from the Zimbabwe peri-urban study (44). This could be either due to introduced bias using health professional data collectors (nurses) as they might have directed respondents during the interview or the level of awareness created among the community may be comparably similar. It might also be due to the awareness created among the general public might be relatively comparable.

Regarding practice, condom utilization history of STD in the past year, this study did not show statistically significant difference between cases and controls. However several studies have recorded the limitation in the validity of self–reported sexual behavioral data as it is subject to bias (44)

Regarding preference of VCT model, counselor qualification and method of receiving HIV test result there was no statistically significant difference between cases and controls. The majority preferred confidential testing, physician and face-to-face method of receiving HIV test result. This is consistent with other research findings in the country (27,37).

Assessment of the HIV/AIDS intervention program, HIV VCT centers from various angles is important in order to improve and develop the program based on comprehensive evaluation and in response to evolving knowledge, client needs and technology (45,46).

Based on the assessment of the operational aspect of the 6 VCT centers in the Zone, almost all the 6 VCT centers can be characterized by lack of: -supervision, follow –up training for counselors, referral system for support of HIV positive people, referral for indeterminate HIV test results and promotion of VCT other than health education, restricted around the institutions. In most of the centers the service was for free and nurses were counselors in the majority of the institutions.

These could be taken as crucial service delivery related factors that should be taken and addressed accordingly as situation permitted. HIV VCT should never be provided without clear working links with services for back-up and complementary management. Services set up in this manner, employing all appropriate tools suiting the local needs further improve uptake and openness which is important to break the vicious circle of denial, stigma and discrimination which is considered an intermediate out come of HIV VCT intervention (40, 41, 45, 47). Consistent and systematic application of quality assurance measures and ongoing supervision are crucial for sustaining the delivery of high quality and effective VCT service (48).

FGD participants also stressed the need for proper supervision, training and evaluation of such trainings at the community level. They have also emphasized the need for further involvement of local elders, community/ religious leaders, schools, prominent individuals, government officials, as role models utilizing HIV VCT in public, and HIV positive people in addressing health education and proper information dissemination to the needy rural community. There is positive social ground to further maximize the intervention in the area assessing the activities conducted so far and drawing appropriate intervention mechanisms involving possible stakeholders.

Utilizing the existing health institutions, health posts, was also stressed to close the accessibility problem (geographic, economic) in reaching the rural community based on the local needs.

7- Strengths and Limitations of the Study

Strengths -Probably this is the first study in its type in the area trying to explore associations of Socio-demographic variables with VCT utilization and assessing Operational aspects of VCT centers.

The design of the study is unique in trying to minimize potential bias by matching cases and controls on certain Socio-demographic variables.

Using standard structured Questionnaire adapted from WHO, BSS, pre-testing of the questionnaire and correcting accordingly and supervision of the data collectors through all possible means by the principal investigator and supervisors.

Inclusion of the major VCT centers in the study.

Limitations – As the study subjects came to VCT centers self- selected and have access (Geographic, Financial and other) the study may not represent the general public.

Utilization of health professional data collectors (nurses) may create bias as they might direct the respondents during the interview.

Shortage of literature particularly studies on similar topics could be mentioned as some of the limitations.

8- Conclusions

♦This study showed that religion, (Muslim and other Christianity,) Educational status of secondary and above, other occupational status, marital status-singleness and non- polygamous union showed statistically significant positive associations with VCT utilizations.

♦ In this study, there was no statistically significant difference between cases and controls regarding knowledge and practice but attitude, related with stigma and discrimination showed statistically significant positive association with cases.

♦The study revealed the reason(s) of VCT utilization among cases was mainly for pre-marital HIV test and for non- use of VCT among controls were mainly due to partner and self –trust, lack of information about VCT, and unavailability VCT service.

♦The study also showed that majority of the study participants preferred confidential model of testing, physician as counselor and face- to- face receiving the HIV test result.

♦This study also showed the presence of service delivery related factors, lack of supervision & training, referral systems for indeterminate HIV test results and HIV positive people for support and minimal promotional activity outside health institutions.

♦The study also revealed the presence of favorable social ground for pre-marital VCT intervention with the need for further involvement of all concerned stakeholders after proper work-up on the challenges faced so far regarding the intervention to address the needy rural community.

9- RECOMMENDATIONS

♣There should be continued effort to further maximize pre-marital HIV VCT test, hand in hand with proper information dissemination involving all possible stakeholders focusing on the rural community and the young using local resources.

♣ Possible and appropriate sustained activities to bring behavior change regarding stigma and discrimination related with HIV/AIDS is necessary using local resources like, local people, language and other appropriate resources and missed opportunities.

♣There should be a system for regular supervision, follow-up training and means of quality control and possible referral system for HIV positive people.

♣ Further study may be needed how to involve health posts in closing the accessibility gap for the needy rural community to maximize the intervention according to the local needs and behavior change of couples after marriage to evaluate the effectiveness of Counseling aspect of HIV VCT.

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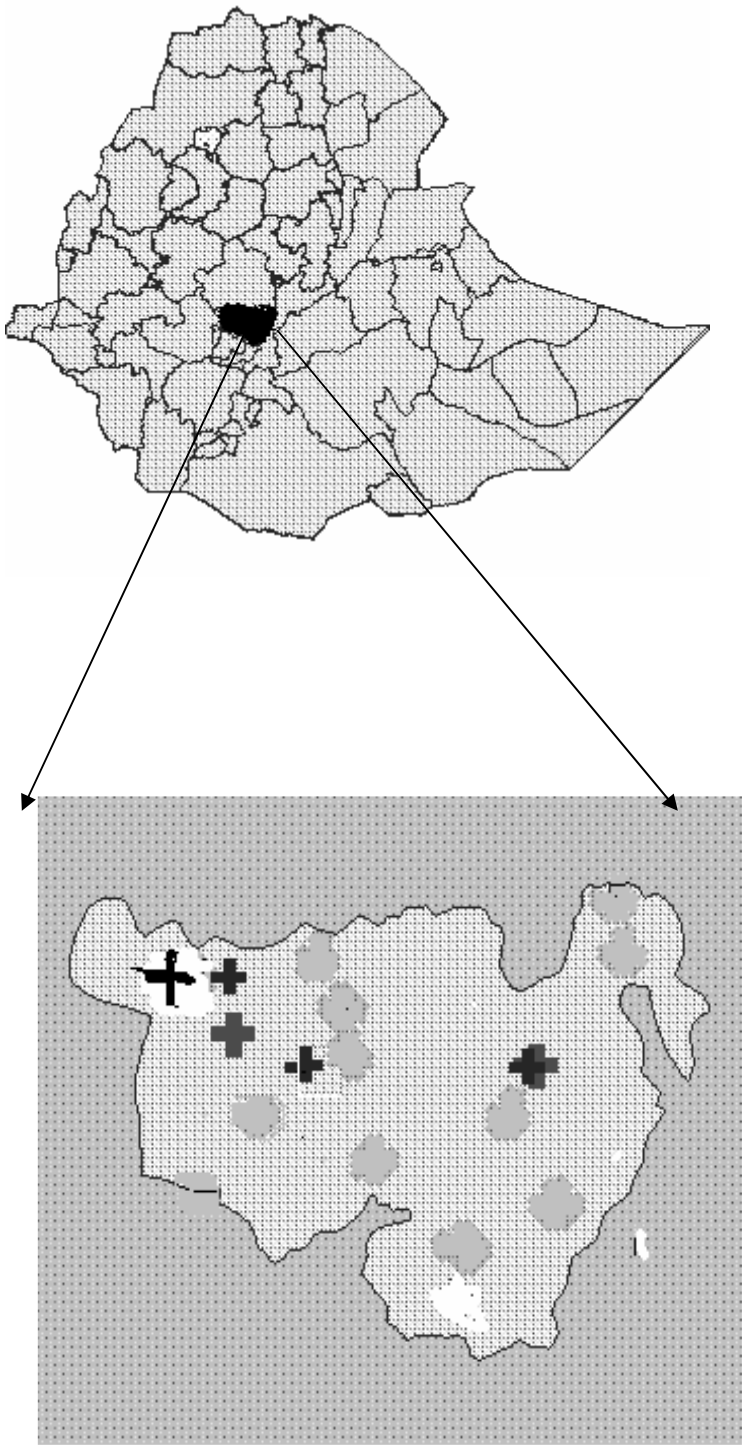

Map of Ethiopia, Guraghe Zone and the 6 selected VCT centers

Hospital

H/Center

FGAE Clinic

Annex 2- Focus Group Discussion participant Description Guraghe Zone,April 2004.

Characteristics						
Sex	Age	Number of participants	Place	Duration of session	Date	Remark
Female	20-30	8	Butajira Hosp	80 min.	1/12/03	Urban and rural residents
	20-26	8	Emdibir H/c	75min.	11/12/03	"
Male	20-27	8	Emdibir H/c	85min.	3/12/03	"
	20-30	8	Butajira Hosp	90min.	1/1/04	"

Annex -3

Questionnaire

Factors Associated with VCT utilizaton in Gurage Zone, SNNPRG Ethiopia, 2003

Ser. No_____

Time at the beginning of interview ----------

001 Questionnaire Identification Number _____

002 Site _____

003 Study participant 1= VCT users
2= Non-VCT users

Introduction: My name is _____. I'm working for _____. We are interviewing people here in _____ (name of site) about Voluntary HIV Counseling and Testing service utilization.

∗Interview should be conducted **before** counseling session for VCT users.

Have you been **interviewed** in the past 6-month (or other time) for such type of study or did you have **VCT** before? If the respondent has been interviewed had VCT test before this, do not interview this person. Tell them you cannot interview, thank them and end the interview. (This statement applies only for Non- VCT users.)

If they have not been interviewed before continue:

Confidentially and content: - I'm going to ask you some very personal questions that some people find difficult to answer. Your answers are completely confidential, your name will not be written on this form, and will never be used in connection with any of the information you tell me. You do not have to answer any questions that you do not want to answer and you may end this interview at any time you want to. However, your honest answers to these questions will help us better understand about VCT utilization in the zone. We would greatly appreciate your helping. Would you willing to participate? If Yes, _____ (1) Continue.
No _____ (2) Stop.

(Signature of interviewer certifying that informed consent has been given verbally by respondent) _____

004 Result Code _____ 1. Completed. 2. Refused 3. Partially completed
4. Other_____

Interviewer Name _____ **Signature** _____

Date of interview _____

Checked by supervisor: Signature _____ Date_____

1) **Socio-Demographic Characteristics**

No	Questions and Filters	Response	Code	Skip
101	Sex of the respondent	• Male =1 • Female = 2		
102	Age in years (completed year)	• Year _____ • Do not know = 8 • No response = 9		
103	Your Residence	• Town = 1 • Rural Village = 2		
104	Level of Education	• Illiterate = 1 • Read and write = 2 • Primary = 3 • Secondary = 4 • Higher = 5 • No response = 9		
105	What religion are you ?	Orthodox Christian = 1 Muslim = 2 Protestant = 3 Catholic = 4 No response = 9		
106	To which ethnic group do you belong?	Mixed ethnicity = 1 Gurage = 2 Kebena = 3 Wolene = 4 Silite = 5 Amhara = 6 Oromo = 7 Hadya = 8 Others_____ = 9		
107	What is your current occupation ?	- Job less = 1 - Farmer = 2 - Merchant = 3 Government employee =4 - House wife =5 - Driver =6 Others (specify) _____ = 7		
108	What is your monthly income?	---------- Eth. Birr per month - No income =1 - Do not know =8 - No response = 9		

109	In the last 12-month have you been away from home for more than one month?	• Yes = 1 • No = 2 • Don't know = 8 • No response = 9		
No	Questions and Filters	Response	Code	Skip
110	Are you Married?	Yes=1 No=2		▶Q.201
111	If married A. Men – Do you have more than one wife? B. Women- Does your husband have other Wives?	• Yes =1 • No = 2 • No response = 9		
112	How old were you when you first married	• Age Years _____ • Don't know = 8 • No response = 9		

II) **Sexual history and Condom use**

No	Questions and Filters	Response	Code	Skip
201	Have you ever had sexual intercourse?	• Yes = 1 • No = 2 ..... • No response = 9		▶ 301
202	If yes, at what age did you first have sex?	• Age in year _____ • Don't know = 8 • No response = 9		
203	Have you had sexual intercourse in the past one-year?	• Yes = 1 • No = 2 ..... • No response = 9		▶ 301
204	With how many different people have you had sex during the past one-year?	• _____Number		
205	If you had sex with non- regular partner How often did you use a condom?	• Always = 1 • Sometimes = 2 • Never = 3 • No response = 9		

III) **Knowledge and attitude towards HIV/AIDS and STD**

No	***Questions and Filters***	***Response***	***Code***	***Skip***

301	From where did you hear about HIV/AIDS ? (Multiple response is possible, Probing is needed)	• Family =1 • Friend = 2 • Neighbors = 3 • Mass media (TV, Radio, Newspaper) = 4 Health workers, (Facility) = 5 • No response = 9		
302	Can a person get the HIV from mosquito bites?	• Yes = 1 • No = 2 • Do not know = 8 • No response = 9		
303	Do you think that a healthy looking person including you, can be infected with HIV?	• Yes = 1 • No = 2 • Do not know = 8		
304	Can a person who has HIV/AIDS be cured?	Yes =1 No = 2 Do not know = 8		
305	How is HIV/AIDS transmitted? (Multiple response is possible, Probing is needed)	• Sexual intercourse =1 • Mother to Child =2 • Transfusion of infected blood =3 • Sharing of Sharps with someone who is infected (Needles, razors …etc) = 4 • Inhalation =5 • Body contact greeting =6 • Eating together =7 • Mosquito bite =8 Others_____(Specify) = 9		
306	How can a person find out if he/she has HIV/AIDS? (Multiple response is possible, Probing is needed)	Simply by looking =1 By physical examination, of health personnel =2 Go to Traditional healer/wizard =3 Go to counseling/testing service =4 Other (specify)---------- =5 Do not know =8		
No	Questions and Filters	Response	Code	Skip

307	How can people protect themselves from getting HIV/AIDS? (Multiple response is possible, Needs probing)	Avoiding Sex (abstinence) =1 Avoiding multiple sexual partners = 2 Avoiding Sharing sharps = 3 Using sterile needle (disposable) =4 Avoiding mosquito bite =5 Avoiding physical contact =6 Avoiding eating together =7 Avoiding living together =8 Others (specify)=-------- - = 9 Do not know = 10		
308	Have you had any STD's in the past one-year?	• Yes =1 • No = 2 • No response =9		

IV) Voluntary Counseling and Testing

No	Questions and Filters	Response	Code	Skip
401	Have you heard of Voluntary HIV Counseling and Testing?	• Yes =1 • No =2		416
402	If yes where did you get this information? (**After this Question, Skip to Question 409 to askControls**)	• Family =1 • Friends = 2 • Neighbors =3 • Mass media =4 • Health workers, (Institutions) =5 • Other (Specify)_____ =6		
403	(Please do not tell me the result? Have you ever had VCT in the past?	• Yes =1 • No = 2 • No response =9		406
404	(Please do not tell me the result) did you find the result?	• Yes = 1 • No =2 • No response =9		
405	If yes to Q 403, what was the reason for having VCT?	Voluntary =1 Ordered by health worker = 2 Required (visa, work, etc.) =3 Blood donation =4 Specify reason for voluntary VCT_____ =5		
No	Questions and Filters	Response	Code	Skip
406	What is your reason for current VCT?	Ordered by health worker =1 Requirement for marriage =2 Voluntary to know self =3 Other purpose (visa, marriage, employment etc) =4 Asked by partner =5 Other (specify)_____ =6		
407	Do you agree that VCT is important?	• Yes =1 • No = 2 • Do not know =8 • No response =9		

408	If yes, to Question 408 what are the advantages?	Prevention of partners/others =1 Knowing self =2 Self care for future =3 To plan future life =4 To have wife husband/friend = 5 Others (specify)---------- =6 Do not know =8		
409	Do you have the desire to have VCT though you didn't have it before?	• Yes =1 No = 2 ----------➔ • No response =9	(Only to Controls)	411
410	If yes to Question 409,where would you go?	Health Institutions having VCT center =1 Traditional healer = 2 Others (specify)--------- = 3 Do not know = 8	(Only to Controls)	
411	If No to question 409, what is the reason you did not have VCT before?	Do not know where to get =1 Do not believe it will help = 2 Partners and self trust =3 Afraid to get the result =4 Do not know about it =5 Lack of money =6 Partner refusal =7 Fear of stigma =8 No nearby service =9	(Only to Controls)	
412	Generally, who should go for an HIV/AIDS test? (Circle all that mentioned)	Sex workers =1 Users of sex workers =2 Drivers, Soldiers, Traveling sales persons =3 Any one at risk =4 Those with multiple partners =5 Any one sexually active =6 Those who are sick =7 Others =8 No response =9		
No	Questions and Filters	Response	Code	Skip
413	Which method of testing do you prefer if both methods are available?	Confidential, linked testin =1 Anonymous testing =2 Others(specify)_____ =3		

414	By whom do you prefer to get VCT Counseling?	• Physician (Doctor) =1 • Nurse = 2 • Trained counselor =3 • Religious leader =4 • Community leaders =5 • HIV/AIDS positive people =6 • No need of counselor = 7 • Others =8		
415	Which way do you prefer to obtain the HIV test result?	• Face to face =1 • Secretive letter =2 • Partner =3 • Relative =4 • Others (specify)--------=5 • Do not know = 8 • No response =9		
416	If a member of your family became ill with HIV, the virus that causes AIDS, would you want it to remain secret?	• Yes =1 • No =2 • Don't Know =8 • No response =9		418
417	If yes, to Question 417can you specify the reason?	Fear of discrimination =1 Fear of stigma =2 Since no change =3 Since difficult to tell =4 Others ---------- -=5 No response = 9		

V. Stigma and Discrimination

No.	*Questions*	*Yes (1)*	*No (2)*	*Not applicable (3)*	*No response (9)*
418	If you test positive for HIV, would you tell any of the following individuals about your HIV test result? (Please read all options that apply)				
	a. Your spouse	1	2	3	9
	b. Your family (mother, father, brother, sister)	1	2	3	9
	c. Your sexual partner	1	2	3	9
	d. Your relatives	1	2	3	9
	e. Your friends	1	2	3	9
	f. Your neighbors	1	2	3	9
	g. Your religious leaders	1	2	3	9
	h. Your community leaders	1	2	3	9
	i. Your children	1	2	3	9
	j. Your employers	1	2	3	9
		1	2	3	9

419	If you test positive for HIV and prefer to disclose your HIV test result, how likely is it that the following might happen to you? (Please read all the options and circle that apply)				
	a. Neglected by family	1	2	3	9
	b. Marital breakage	1	2	3	9
	c. Physical abuse by spouse/sexual partner	1	2	3	9
	d. Neglected by friends	1	2	3	9
	e. Increased emotional support from family /relatives	1	2	3	9
	f. Increased emotional support by peers	1	2	3	9
	g. Strengthening of relationship with spouse/Sexual partners	1	2	3	9
	h. Increased emotional support from health professionals	1	2	3	9
	i. Break up of sexual relation ship	1	2	3	9
	j. Increased emotional support form religious leaders	1	2	3	9
	k. Increased emotional support form community leaders	1	2	3	9
	l. Discrimination by health professionals	1	2	3	9
	m. Discrimination by religious/Community leaders	1	2	3	9

This is the end of our questionnaire. Thank you very much for taking time to answer these questions. We appreciate your co-operation.

Time at the end of interview ----------.

Annex –4

Focus Group discussion Protocol
Tentative Program Topic Guide
Focus Group Discussion Protocol
Good morning (afternoon), Thank you for your coming here

- My name is _____
- My colleague besides me is called _____
- We came from Zonal Health Department & AAUMF

This will be read for them

- We will conduct brief introduction and will talk about several different issues. We will ask you some questions about your general experience with the current disease HIV/AIDS in your locality and issues of Voluntary HIV Counseling and Testing (VCT). We will end the session by asking you for your suggestions on how VCT program can be improved and strengthened in your community in the future.
- Potential use of Data

  The information we are going to gather in relation to VCT program will be utilized to improve the program particularly in the zone in a better way.

- **Issues of Confidentiality**

  Please be certain that any information collected here is completely confidential. The research team, or other participant will not directly share the gathered information in away that would reveal an individual's personal identify.

Consent for participation and Tape –recording

It is necessary that we obtain your comment for to conduct the session. Please understand that this is more for your protection than any thing else.

Read Consent form loud to the group

- Your remaining in this session indicates that you are volunteer and agreed to participate for the discussion you have the right to refuse to answer any questions and end the discussion if you find it necessary to do so. For the sake of accuracy and efficiency, we will tape-record the sessions, unless there is objection.
- Responsibility of Note taker/Moderator.

  The moderator will facilitate the discussion. The moderator will keep truck of the discussion along the main issues. The moderator will not give any indication (verbal/physical) that encourages certain types of comments or discourage other types of comments. Generally, the moderator will guide the session if necessary, but taking care not to lead the discussion. Our role will be facilitation and your role will be telling us w hat you think.

  The note Taker will be responsible to capture the session as accurately as possible. This will includes not only participants' responses, but also nonverbal actions, physical

environment, atmosphere of the session as well as other important peculiar manifestations of that particular session.

Importance of Total Group/Responses

In this group and session every body should feel free and talk freely. Each and every option/idea/ is important and wanted. It is vital that all the group participants get a chance to express their idea (opinion).

In this session there are no wrong or right answer. Everybody can express the opinion or attitude pertinent to him/her. When you express your opinion idea, you are encouraged to be honest in your view of HIV/AIDS prevention and VCT service program. We want you to focus your comments on the program and not toward each other or member of the group.

Focus Group Discussion: - Topic Guide

Parts I: - Introduction

At this moment, we would like you to introduce yourself to the rest of the group.

Let's start with the research team.

- Name
- Age
- Education
- Work experience…etc (in short)

Part II: - Ice breaking Question/Warming up/

To show concern about people, start by asking them how they cope with life, their jobs, health, etc.

Next we would like to hear a little about your experience or knowledge about HIV/AIDS.

1. Tell us What HIV/AIDS is?

2. We would like you to tell us how a person gets HIV/AIDS ?

Probes: 1. Would you explain further?

2. Would you give me an example?

3. Has anyone else had similar experience?

4. Is there any thing else?

Part III. Voluntary HIV Counseling and Testing program

Now we would like to ask you about voluntary HIV counseling and testing (VCT) service.

1. Have you heard of Voluntary Counseling and Testing?

2. What do you know about testing for HIV/AIDS? What is positive HIV test result mean? What is negative HIV test result mean?

3. What do you think about testing and counseling for HIV/AIDS?

- Is it good or bad?
- Pleasant or unpleasant?
- Easy or difficult?

4. What are the usual reasons people go for VCT in this area? Where do people go for VCT service?

5. What are the benefit and harms of VCT?

6. Why do people decline HIV testing & counseling?

7. To whom do you think people comply to accept HIV testing and counseling?

8. Do you have intention to use VCT service in the near future (2months)

- Why?
- Why not?

9. Do you have the intention to ask your partner for VCT?

- Why?
- Why not?

a). Do you have the intention to share your test result (what ever it is) to: -

- Your partner - Your Neighbors, community /religious leaders

- Your family - Why? Why not?

- Your friends

10. Is there any cultural and religious practice in the area that could promote/prevent VCT service utilization? Example? Is it acceptable? Why?
11. Is there any service delivery related problem that could prevent VCT service utilization?
12. What could be done to encourage people go for VCT service?

Part IV

Type and method/ preferences of/VCT

Now we would like you to share a little bit about how VCT service should be delivered to meet the demand of your community?

1. What organization or where do you think appropriate to give such a service?
2. Who should be involved to make VCT better accepted in the community? How?
3. What type of people do you think be involved in counseling?
4. How should VCT be done?

   (Anonymous- unnamed, confidential named method) why?
5. Which way do you think more preferable to get the VCT test result?
   - Face to face?
   - Secretive letter?
   - Through partner?
   - Through family/friend? Why?
6. After giving a sample for testing, when do you think preferable to hear (get) the result
   - Same day?

- Next-day?
- Two- to three week latter. Why?

Part V. Recommendation /Suggestion/

Up to now we have talked about one of the preventive programs of HIV/AIDS; VCT. We would like to ask you what other things could be done to make this program (VCT service) better acceptable in the community?

Thinking about the issues we have discussed, what recommendations/suggestions would you make on VCT program?

Probes: - 1. What do the rest of you think?

2. Would you explain further?

3. Would you give me an example?

4. Is there any thing else, remained?

We thank each of you for time and cooperation and we do appreciate all your suggestions and ideas. At this point is there any thing we forgot to ask or any thing you would like to mention before we close the session?

Annex - 5

Service Quality Assessment

Evaluation of operational aspects of the sites and services

001 Questionnaire Identification number ---------

002 Town ----------

003 Region ----------

004 Site ----------

005 Result code ---------- 1= completed , 2= Refused, 3= Partially completed, 4=Other

Date of observation/Interview----------

Signature ----------

Name ----------

Introduction

Hello,

My name is ----------. I came from AAUMF and we do this research in collaboration with MOH. We are going to observe the operational aspects of the sites and services of your organization in relation to VCT service. We appreciate your co-operation. Finally, all the information will be helpful to improve VCT service utilization in the Zone.

Do I have agreement to continue my observation/Interview?

Yes = 1 No = 2 ⇒ Stop to continue.

If yes, consent obtained from Name----------

Position---------- Date ----------

Signature of observer (P/I)----------.

1.1. Which services do you offer ? (Tick that apply)

1. Pre-test counseling
2. Post test counseling
3. Ongoing counseling
4. HIV testing
5. HIV diagnostic counseling (without testing)

1.2. If pre and post test counseling are undertaken, do you have carefully defined procedures?

(written policies, checklists, data management systems, etc.)

Yes =1

No =2

2. 1. Are you open at any of the following times?

1. Early evening
2. Lunch hour
3. Weekends.
4. None.

2.2. If yes to weekends, 1. Saturday,

2. Sunday

3. Both.

3.Do you have an appointment system? Yes =1, No = 2

4.1. Do you have adequate space to ensure privacy of counseling sessions?

Yes= 1, No= 2

4.2 If yes to Question 4 .1, what type of space is it?

1= private office

2= curtained -off area

3= cubicle

4= other (specify)----------

4.3. Is the counseling room isolated from the rest of OPD/Wards?

Yes= 1, No=2

5. Does the site have a written document on confidentiality? Yes=1, No=2

6. Have any of the following staff received specific guidance about the role of confidentiality and counseling?

1. Counselors
2. Laboratory staff
3. Non-counseling medical staff
4. Ward attendants
5. Others (specify)----------.

7. Do you receive referrals from an of the following?

1.Medical services (Clinics /Hospitals)

2. Social services

3. NGO's

4. Traditional healers

5. Spiritual /Religious leaders

6. Others (specify)----------

8. Do you refer to any the following?

1 Medical services

2 Social services

3 NGO's

4 Traditional healers

5 Spiritual/Religious leaders

6 Others (specify) 7. None.

9. Where do you carry out HIV tests?

1. On site
2. Preliminary tests done on site, confirmatory tests sent to other laboratory.
3. All testing done on site

10. Do you charge for the services? Yes= 1 (amount----------) No=2

11.Who funds the service? Specify----------

12. Do you have special services for any of the following?

1. Pregnant women
2. Young people
3. Children and families
4. Sex workers
5. 13. Do you advertise or promote your service in any way? Yes=1, No=2

14. What is the background (Qualification) of the Counselor in the site?

1. Physician

2. H/Officer

3. Nurse

4.Health Assistant

5.Person living with HIV/AIDS

6. Religious/Community leader

7. Other (specify)----------

15. How would you rate your counseling training?

1. Very good
2. Good
3. Adequate
4. Inadequate

16. Have you had follow-up or ongoing training? Yes=1, No=2

17. If No to Question 16, do you think ongoing training would be a good idea? Yes=1, No=2.

18. Do you have access to a designated counseling supervisor to provide you with support and technical back up? Yes=1, No=2

19. If yes to Question 18, who provides support? ----------

Supervision? ----------

20. On the average, how many clients do you see per week? Average number----------

21. Do you have referral system for Quality control of indeterminate VCT results?

Yes=1 No=2

Thank you for your co-operation.

Time----------

Date----------.