ADDIS ABABA UNIVERSITY

FACULTY OF MEDICINE

DEPARTMENT OF COMMUNITY HEALTH

ASSESSMENT OF SOCIO-CULTURAL DETERMINANTS FOR THE SPREAD AND PREVENTION OF HIV/AIDS IN HAMER WOREDA, SNNPR

A thesis submitted to the School of Graduate Studies of the Addis Ababa University in partial fulfillment of the requirements for the degree of Masters of Public Health, Department of Community Health, Faculty of Medicine, Addis Ababa University.

BY

SAMUEL ALTAYE, B.Sc.

APRIL29/2003

Addis Ababa, Ethiopia.

ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

ASSESSMENT OF SOCIO-CULTURAL DETERMINANTS FOR THE SPREAD AND PREVENTION OF HIV/AIDS IN HAMER WOREDA, SNNPR

BY

Samuel Altaye

Department of Community Health, Faculty of Medicine

Addis Ababa University

Damen H/Mariam

_____ _____

Chairman, Department Graduate Committee

Ahmed Ali

_____ _____

Advisor

_____ _____

Examiner

_____ _____

Examiner

DECLARATION

I, THE UNDERSIGNED, DECLARED THAT THIS IS MY ORIGINAL WORK, AND HAS NOT BEEN PRESENTED FOR A DEGREE IN THIS OR ANY OTHER UNIVERSITY. ALL SOURCES OF MATERIALS USED FOR THIS THESIS HAS BEEN FULLY ACKNOWLEDGED.

NAME: SAMUEL ALTAYE G/EYESUS
SIGNATURE: _____
PLACE: _____
DATE OF SUBMISSION: _____
NAME: _____
SIGNATURE: _____ April 30, 2004

This thesis work has been submitted for examination with my approval as university advisor

Ahmed Ali
Advisor's name and signature

ACKNOWLEDGEMENTS

My special thanks go to the Southern Nation, Nationalities and peoples Regional State HIV/AIDS Prevention and Control office (SHAPCO) for sponsoring this study. The support I got from the Southern Regional Health Bureau in coordinating the timely release of the fund is invaluable.

It has been a great pleasure for me to express my heartfelt gratitude to my advisors: Dr Ahmed Ali, DCH, AAU and Dr Ayele Belachew, WHO for their unreserved assistance and valuable comment in reviewing my thesis work from proposal stage until its completion. My thanks also go to Dr Damen H/Mariam and Ato Fikere Enque selase, DCH, and Dr Melesse Getu, DSASA, AAU for their unreserved comments and advice.

I sincerely thank all administrators of South Omo Zone especially Ato Aweke Ayke and Hamer Woreda officials for coordinating and arranging transportation means during my fieldwork. The Hamer woreda HAPCO office also deserves special acknowledgement for coordinating the study kebeles and subjects at ease.

I extend my warm appreciation to the interviewers and supervisors, who showed the greatest effort in gathering appropriate information, which are the bases for this study.

Last but not least, I wish to extend my deepest gratitude and regards to the study subjects without whose consent and provision of the required information this thesis would have not come into existence.

Key Words: Socio-cultural, Pastoralist, Agro-pastoralist, Ivangadi, Hamer, Tourism

TABELE OF CONTENET **PAGES**

LISTOF TABLES

PAGE

LIST OF FIGURES

PAGE

LISTOF ANNEXES

PAGE

ABBREVIATIONS

AIDS	Acquired Immuno-deficiency Syndrome
ANC	Antenatal Care
BSS	Behavioral Surveillance Survey
CI	Confidence Intervals
CSA	Central Statistics Authority
DHS	Demographic and Health Survey
FGD	Focus Group Discussion
HAPCO	HIV/AIDS Prevention and Control Organization
HIV	Human Immuno deficiency Virus
IEC	Information, Education & Communication
IDI	Individual in-depth Interview
KAP	Knowledge Attitude and Practices
MOH	Ministry Of Health
NACS	National AIDS Council and Secretariat
NGO	Non-Governmental Organization
OR	Odds Ratio
RACS	Regional AIDS Council and Secretariat
SD	Standard Deviation
SSA	Sub-Sahara Africa
STD	Sexual Transmitted Disease
UNSAID	United Nation Program on HIV/ AIDS
W H O	World Health Organization

ABSTRACT

HIV/AIDS is primarily perceived as an urban problem. However, the number of people living with HIV in rural areas is considerable. In rural Ethiopia the current HIV prevalence is reckoned to be 3.7%. The available literature as well suggests that about a quarter of the farmers' report sexual relation with commercial sex workers in nearby small towns.

The present study had an objective of assessing risks contributing to the spread, prevention and control of HIV/AIDS in Hamer Woreda, southern Ethiopia. A cross-sectional study was conducted using a pre-tested interviewer administered questionnaire with supplemental FGD and IDI.

About 40% of adults in Hamer were found to spend nights in other locations outside home within the last one month, the commonest reasons for that being marketing trips to urban centers within and the neighboring woredas. Among those who spent nights in town, 45.9% reported having had unprotected sex with local liquor sellers. Other prevailing socio-cultural factors and rituals such as, pre-marital sexual relation ships, multiple sexual practices, extra-marital sexual activity, wife inheritance, "Ivangadi", mass circumcision seem to contribute to the risky behavioral practices to spread of the HIV virus in the community. The comprehensive knowledge of the community about HIV/AIDS was also relatively lower than the recent BSS for pastoralist communities.

Thus, more extensive health education program through different out lets with due consideration of the deep-rooted cultural and traditional practices of the community is forwarded. Moreover, involvement of the community in the process of bringing about urgent solutions for the prevailing problems is recommended.

1. INTRODUCTION

The infection of Human Immunodeficiency Virus and its effect the Acquired Immunodeficiency Syndrome (HIV/AIDS) are rampant problems worldwide. Sub-Saharan Africa remains by far the region worst affected by the HIV/AIDS epidemic. In 2003, an estimated 26.6 million people in the region were living with HIV (1). Considering the rural composition of many African countries south of Sahara, the majority of infected and affected by the epidemic are likely to live in rural areas. And yet, HIV/AIDS was primarily perceived as and dealt with as an "urban" problem. However, currently the prevalence has reached unprecedented level that the discourse has widened towards considering the lively hood of rural population (2).

In Ethiopia the majority of the studies on HIV/AIDS carried outs in urban centers; however, evidence on the other hand, have shown that the prevalence of the disease is increasing rapidly in rural areas too. According to a study conducted in 2000 in some rural areas of North shewa, Tigiray, Arsi, Bale, and South Omo, the prevalence of HIV infection was ranging from 0% to 7% (3).

The infection continues to spread in rural areas of most countries, mainly through economic activities that enhance mobility and urban-rural linkage such as trading and migration (rural to urban). However, it is hard to measure the level of HV infection in rural areas, mainly due to poor transportation infrastructure access to reach the

community and inadequate surveillance mechanisms developed (4). These facts suggest that it is very important to identify possible routs of entry and spread of HIV to the remotely situated communities. Giving due emphasis on the context, in which the society lives and operates day to day activities, it has paramount importance in limiting the spread of the infection into the rural areas (4).

This study, therefore, aims to assess factors contributing to the spread and prevention of HIV in remotely situated communities of Hamer woreda, SNNPR. Furthermore, the study attempts to explore the socio-cultural attributes, which put the community at increased risk of contracting HIV infection. It is hoped that the outcome of this study would provide baseline information to the possible routes of HIV spread in the Hamer woreda, and the recommendations also might be used by local or regional planners for designing appropriate control programs.

2. LITERATURES REVIEW

2. 1. Global situation and trends of HIV/AIDS

Many years have passed since the HIV epidemic has been a threat to mankind. It has been increasing since the first cases were reported in the early 1980. HIV/AIDS has evolved from a mysterious illness to a global pandemic, infecting millions in less than three decades. It is now prevalent in virtually all parts of the world. The spectrum of the epidemic over the last decades has grown from a localized health concern to a global issue that now looms in national and international agenda (1, 2).

Since the epidemic began, more than 60 million people have been infected and 20 million have died of the disease. Moreover, according to the recent Joint United Nations Program on HIV/AIDS and the report of WHO, there are about 42 million people living with HIV world wide (2-6).

The infection rate is not evenly distributed around the globe. Ninety five percent of people who are infected with HIV live in developing countries .The highest proportion of people with the HIV infection is in Africa, which comprises 13% of the world's population but 69% of the cases of HIV infection (6).

AIDS killed about 3 million Africans and estimated 5 million new infections occurred in 2003 alone. Africa continues to be the region severely hit by HIV/AIDS. HIV prevalence varies considerably across the continent ranging from less than 1% in

Mauritania to almost 40% in Botswana and Swaziland. Sub-Sahara Africa remains by far the region worst affected by the epidemic. In 2003, an estimated 26.6 million people in the region were living with HIV, including the 3.2 million who become infected during the past year. (7)

From being considered as a minority group disease (Drug users and Homosexuals'); AIDS has now gradually shown to be essentially a problem of the general public in most part of the world increasingly endangering the groups which were considered as out side the danger zone either socially, behaviorally or geographically (8).

HIV/AIDS was primarily perceived as an "urban" problem and rural areas were considered to be far from the epicenter of the epidemic. In actual fact however, the number of people living with HIV may be predominantly high in rural areas. For instance in Kenya, closely 600,000 rural adults and 300,000 urban adults were livings with HIV in 1994(4, 9). HIV prevalence rate continues to rise in rural areas mainly through migration trade, population movement and strengthened rural-urban linkages. Pastoralists are at increased risk of contracting HIV due to their mobility, marginalization, cultural traditions and limited access to supportive services. However, HIV infection rate in this area is hard to measure in traditional ways and more prone to under reporting or misdiagnosis, as a result of poor health infrastructure, restricted access to health facilities and inadequate surveillance mechanism. For this reason, rural HIV remains, salient but invisible in other words, unknown entity for policy

makers and planners with potentially far- reaching implication on the country economy (4, 12).

2.2. HIV/AIDS in Ethiopia

2.2.1. National HIV/AIDS status

It is believed that HIV/AIDS started to spread in Ethiopia in the early 1980's. The first documented case of HIV infection occurred in 1984. The first AIDS case was reported in 1986, in Addis Ababa. Since then, the growth of the epidemic has been rapid and the epidemic has now reached the generalized level at the end of 2002 (11).

By the year 2001, the total number of people living with HIV/AIDS was estimated to be about 2.2 million, including 2 million adults and 200,000 children under the age of five years. UNAIDS estimate shows that Ethiopia accounts the 16th highest HIV/AIDS prevalence in the world, third highest with number of people living with HIV/AIDS in the world (11, 12).

About ninety one percent of reported AIDS cases occur in adults between the age group of 15 to 49 years. Since this is the most economically productive part of the population; the high number of cases in this broad age group adversely affects labor productivity and hence economic development. The number of male and female cases is roughly an equal because most infection is by and large acquired through heterosexual relationship (10-12). Moreover, the peak ages for AIDS cases are between 20-29 for females and 25-34 for males. The number of females infected in the

age group of 15-19 years is much higher than for males in the same age group. This is due to an earlier engagement of young females to sexual activity. About 75% of new HIV infections are due to the practice of multiple partner sexual contact, whereas the rest 24% are through prenatal transmission. A small number of new infections are due to transfusions of contaminated blood and unsafe injection practices (11, 12).

The spread of HIV, has not been widely studied in the rural Ethiopia, however, it is believed that the epidemic began in the early 1990's. The HIV Sero-survey conducted in 1993 among sexually active adults in six rural sites of the country showed that 0.7% and in 2001 the prevalence raised to 2.3%. This prevailing situation in the rural communities aggravated by the fact that nearly more than one quarter of farmers have had sexual relationship with commercial sex workers in the near by small towns (13).

For instance, according to the first round BSS report, 50% of pastoralist respondent reported having unprotected sex with commercial sex workers, even though 60% of them correctly identified three methods of preventing HIV transmission (14). The Ministry of Health (MOH) 2002 report based on six HIV Sentinel Sites (HSS), the mean rural prevalence of HIV declined from 3.9% to 2.3%. However, MOH does not believe that this fall indicates the HIV epidemic in rural Ethiopia is declining; rather it is primarily as a result of the reclassification of one sentinel site and the figure may not represent the realistic picture of the rural situation (11-14).

In quest for estimating the rural HIV prevalence, 64,000 army recruits of rural background from all over the country aged 18-25 years were referenced. The estimated

HIV prevalence of this group was 3.8%. Extrapolating the data from the rural sentinel sites and the army recruits survey to the total rural population, the prevalence rate of 3.7% was estimated. However data are highly inadequate to capture the epidemic in rural areas. Since the over whelming majority of HSS sites are in urban areas (28 urban & 6 rural), whereas the enormous segment of the rural population remains uncovered by the current HSS system, despite the fact that 85% of the population lives in rural areas. There are major gaps and variations in Ethiopia HSS data collection. Since the over whelming majority of them are in urban areas, and an enormous segment of the rural population remains uncovered, despite the fact that 85% of the population lives in rural areas (10-14).

The possible route of spread of HIV infection in the rural communities that are linked to the mobility of high-risk group, such as migrants, internally displeased persons and the return of ex-soldiers as well as demobilized army members to their original home. Military personnel in general even worst at war are highly exposed to STD including HIV/AIDS. If they are engaged in high-risk behavior during their stay in the army and on their return, certainly they can fuel the HIV epidemic to their families in particular and to the community in general, even though they have benefited from IEC activities given during the process of demobilization (15).

In recent years, there is a growing concern on social, cultural, economic and political causes (dynamistic) of HIV infection. Around the first decade of the epidemic, the general believe about the transmission of HIV was largely dominated by a notion of

individual risk, in which specific behaviors linked to attitude, belief, and practice of particular individual. However, the above thinking now transformed or shifting from the notion of individual risk to a new understanding of social vulnerability to the HIV infection (15). Vulnerability refers to a risk environment in which biological, socio-cultural, economic and political factors make it likely that a society or group from society will be rendered particularly susceptible to HIV infection and to the likelihood of experiencing the impact of the epidemic (18, 19). Biological factors include age and gender (young people are more susceptible to HIV infection than older people; women are biologically more prone to HIV infection than men). Socio-Economic and political factors contributing to vulnerability to HIV/AIDS include poverty, ignorance, fragmented social and family structures, age and gender inequality, unemployment, substance use and abuse, tacit acceptance of multi-partner sexual relationship and traditional practices (16-19).

In many countries, youth migrate from rural low agricultural potential to urban centers in search of income opportunities. When they do not find work, many return to their place of origin after two or three years of exposure to increased risk of HIV, and some may thus transmit the virus to their families or sexual partners in their village (18, 19).

As HIV/AIDS is a social problem, its spread and control can be largely determined by social and cultural issues. Socio-cultural issues of the milieu at home and in the community with its associated norms, values, kinship and marriage of social obligation, reward and sanction, sign of communication and development of attitudes,

preference and behavioral patterns. All these factors reinforce one another and contribute to shaping peoples normative behavior including sexual activity and risk taking behavior (15, 19).

The cultural contextual (socio-cultural, economic, environmental, political) issues in which operates through proximate factors (genetics, biological, behavioral) either hinder or elevate the level of HIV infection and spread in various part of the region have not been so fully considered (16, 17). Epidemiological research has made important contribution to the identification of the direct determinants of HIV infection. However, it tells little or nothing about the social, economic and cultural factors, which influence people's behavior in relation to the risk socio-economic conditions and societal/cultural feature, have to be analyzed in turn, first at the various levels, then interwoven group of causes and effects In this respect the role of culture, family, ethnical and religious factors will have an important contribution in the prevention and control of the epidemic (16, 17).

There are a number of cultural practices related to sexuality, marriage that potentially contributes to the spread of HIV. Some of the traditional practices including FGM, child marriage, abduction, wife inheritance, pre-marital and extra-marital sex and non marital cohabitation, which could potentate the transmission and spread of HIV infection, requires further research to verify its effect and design an appropriate response (18).

2.2.2. National Response to HIV/AIDS

In response to the HIV/AIDS epidemic, the Government of Ethiopia has taken various measures; in 1985 National HIV/AIDS task force was established. It issued the first AIDS control strategy at the end of 1985. In 1987, the National AIDS Control Program was established at departmental level within the Ministry of Health (MOH). The MOH developed two medium term prevention and control plans and implemented between 1987 and medium 1996. This department was responsible for directing and coordinating the implementation of the AIDS control programs. These interventions were claimed to be inadequate in scale; largely in effective in implementation; lacked sufficient stake holders involvement in planning and implementation, especially at the community level; were poorly coordinated and integrated across sectors and among service providers; and received relatively low priority within government, society and international community, with resultant low level of allocated financial and human resources in 19899 (11, 12).

The MOH drafted a four point policy statement on AIDS prevention. The first draft of a National policy was created in 1991, though not approved until 1998. The National AIDS prevention and control council secretariat (NACS) was established in 2000 to intensify and coordinate multi-sectoral response to the epidemic and in charged with implementing the strategic frame work for the National response to HIV/AIDS in Ethiopia for the 2000-2004. The NACS has declared HIV/AIDS a National emergency. A National Surveillance System based on ANC testing has been operational since 1984 and continues to provide the basic data for estimating the HIV

prevalence rate in the general population, however, it is said to be inadequate to measure the level of infection in rural area (11, 12).

Based on the National Strategic Framework, each of Ethiopia regional states has organized a regional AIDS council and secretariat (RACS) and articulated a framework for interventions at regional level and local level. The fact that decision is made on regional and Woreda level is an important step towards implementing programs at level of local communities. The HIV/AIDS Prevention and Control Office (HAPCO) are mobilizing multi-sectoral and grassroots effort in fight against the HIV/AIDS epidemic. Although much found obtained, using the existing found efficiently and effectively found to be a problem (11,12).

2.3. Rationale of the study

About 85% of the population in Ethiopia is residing in rural setting consisting mainly farm households or pastoralist, and major focus of country's development policies are based on agriculture lead economic development. Therefore, the importance of this sector to the national development effort cannot be overlooked. Though, the HIV/AIDS has done a great harm to the rural population, the epidemic in this group of people is not well delineated. Most of the HIV Surveillance Sentinel sites are urban based and did not include the southern Agro-pastoralist societies. Besides, there are fewer institutions operating in and delivering HIV/AIDS information education and communication program (IEC), providing testing and counseling for HIV and making condom accessible in rural areas. Such services are both less accessible for remote

communities and less tailored to the local realities (illiteracy, cultural practices, socio-cultural and gender differentials, etc). Hence, the level of knowledge on the transmission and prevention of HIV/AIDS among rural population of several countries are likely to be low or not well studied. Responses to HIV in rural areas have largely been based on assumptions made and experiences drawn from urban environments. Moreover, "risk behavior" has not, for most part been defined from perspective of local population sub-groups in the spectrum of socio-cultural attributes (13, 18).

Pertaining to the study area in particular, over the past decades, with the advent of all weather roads, there have been many factors threatening the spread of HIV/AIDS in south Omo Zone. The most immediate contributing factors are poverty, alcoholism, and commercial sex, all of them which are concentrated in the small towns that have grown rapidly along the road sides. Besides, Jinka, which as the Zonal capital has expanded enormously, other towns have grown up around administrative seats, police posts (e.g., Turmi, and Demeka in Hamer). Nevertheless, most towns are rapidly growing roadsides settlements frequented by many HIV-high risk outsiders. As documented in other traditional cultures subjected to rapid cultural change, modernization not only brings benefit of education, medical clinics, veterinary services, and trading facilities, but also acts as a vehicle for HIV/AIDS. Realizing the above fact, however, the study helps to point out the existing condition in the study area and the findings may help to design appropriate response to curtail and contain the problem (34).

3. OBJECTIVES

3.1 General Objective

To assess risks that contributes to the spread and prevention of HIV/AIDS in remotely situated district of Ethiopia, Hamer Woreda.

3.2 Specific Objectives

1. To assess socio-demographic factors related to the entry, spread as well as prevention of HIV infection in the Hamer community.

2. To assess the cultural and traditional practices related to marriage and sexuality that may contribute the entry and spread of HIV infection in Hamer community.

3. To explore the possibility of sexually risky behaviors for transmission of HIV during cultural rituals such as "ivangadi".

4. To assess the potential of promoting certain preventive measures within the local cultural set up.

4. METHODS AND MATERIALS

4.1 Study Area

This study was conducted in south-Omo Zone in Hamer Woreda, which is one of the 116 woredas in SNNPR. The Woreda is located about 960 km south of Addis Ababa. There is a dry weather road to the towns of Hamer, Turmi and Demeka. The nearest point for air transport is at the South Omo Zone capital town Jinka, which is situated about 180 km away from Demeka. Based on the woreda council 2001/2002 report, the woreda population is estimated to be around 43,728 of which 24,443(55.9%) are males and 19285 (44.1%) females. The Hamer Woreda comprises of five neighboring tribes living in 24 rural kebeles. These are Hamer, Bena, Erbore, Karo, and Tsemi.

Table 1- Number of major Kebeles and their population in Hamer woreda, SNNPR December 2003.

Name of the Kebeles (tribes) .	Number of kebeles	Estimated total Population
1. Hamer kebeles ●	15	36,125 (82.6%)
2. Erbore kebeles	6	5,314 (12.1%)
3. Karo kebeles	3	2,289 (5.3%)

● Where Hamere, Bena, and Tsemai tribes are living intermingled

Except the Erbores', the rest four tribes speak similar language and have strong cultural similarity and they altogether accounts for the majority of the population. In general these cultural groups have long been known by the highlanders and scholars with one representative word called "Hamer". The variation in the population size and

half a dozen distinct names for the tribes can be accounted for existence of close, long-term contact and cultural affinity among the tribes' (22-25).

The "Hamer" people live in the semi-arid zone of the country, which is economically marginalized and fragile ecosystem manifested by features of uneven distribution of rainfall often resulting in drought and famine. The environmental factors greatly affecting the socio-economical life of the people in general, and the agricultural as well as the pastoral production in particular. In the past people in Hamer subsisted mainly on pastoral products, since there were plenty of grass and grazing lands and better rainfall than today. As number of the people increased, resources depletion become apparent pauses a gradual change from pastoralist to agro-pastoralist life style which forced them to settle permanently in the present areas (24-25).

Pertaining to the social services in the woreda, according to the Hamer woreda education office report, the primary school coverage in the year 2001/2002 was 13.3 and female students accounted for the third of the total. Most of the students are from urban and sub-urban centers. The participation of the indigenous population is 46% of the woreda students. In the Woreda a governmental health center, three-health stations, and four health posts providing preventive and curative health services. According to the Catholic Church Integrated Community Development Program (CC-ICDP) report, malaria and respiratory tract infection were among the ten top lists in 1999/2000. These diseases comprised 42% the visit to the health institutions (25).

4.2. Study design

This community based descriptive cross-sectional study. Both quantitative and qualitative methods of data collection were employed.

4.3. Source population

All adults of sexually active age group from both sexes of Hamer community were the source population.

4.4. Study Population

Adults of sexually active of the "Hamer" community who fulfill the inclusion criteria aged between the age ranges 15-49 were enrolled for the quantitative study and purposely selected elderly peoples in their late reproductive age were included in the qualitative study.

4.5. Inclusion criteria

- Sexually active (age 15-49 years) adult member of the "Hamer" ethnic group who is currently residing in the woreda and found during the study period.
- The elderly in their late reproductive age and members of the "Hamer" ethnic group who did not participate in the quantitative part were included for the focus group discussion and individual in-depth interview of the qualitative component.

4.6. Sample size determination

Sample units were drawn from the source population. The proportion of those with high-risk behavior such as extra-marital sexual practices for rural communities (14%) rural populations was used to calculate the sample size based on single population proportion (13).

Assumption

- Expected prevalence(P) =14%
- Zα/2=Reliable coefficient (1.96), corresponding the 95% confidence level
- Margin of error (d) =5%
- Design effect = 2
- Non response rate=20%

The sample size determination-using estimator of Single population proportion is-

$$\mathbf{n} = \frac{(Z\,\alpha/2)^2\, p\,(1-p)}{(d)^2} = \frac{(1.96)^2 \times (0.14 \times 0.86)}{(0.05)^2} = \mathbf{185}$$

185 x 2(design effect) + 20 %(non response rate) = **448**

4.7. Sampling procedure

Since Hamer woreda is found in the arid zone of the Great Rift Valley of Ethiopia and comprises different tribes, the settlement of the society is so widely scattered making it

difficult to reach each Peasant association (PA). Therefore, stratified proportionate random sampling technique was found to be an appropriate method to overcome such difficulties. Accordingly, the 24 kebeles (the smallest local administrative unit) of the Hamer woreda were grouped to three areas; Hamer area, Erbore area, and Karo area, depending on their geographical proximity and the proportion of population living in the kebeles. From each area proportional number of study kebeles and from selected kebeles, proportional number of households were enrolled based on the list found from woreda council and total enumeration of the households. The final study households were selected using systematic random sampling and one eligible adult was interviewed from selected households using lottery method.

For the FGD and Key informant interview, purposive sampling was applied to identify cooperative and knowledgeable members of the Hammer community. This was made possible by Snow-ball sampling technique, where the community leaders suggested names of individuals who could be reliable sources of information. In case of non-response after repeated visit (three times), the next household was included in the study. In addition to this 20% non-response was added to the total sample size.

4.8. Variables

. Independent (determinant Variables)

- Socio-demographic factors (age, sex, ethnicity, marital status, mobility, in Come status …etc)

- Socio-cultural practice and rituals (“Ivangadi”, Ukuli, mass circumcision…etc)

- Knowledge and attitude variables (Knowledge of HIV transmission and prevention, comprehensive knowledge on HIV, Attitude of preventive methods…etc)

. Dependent (out come) variables

- Risk behavioral practices enhancing acquiring of HIV/AID
- Willingness for future condom use

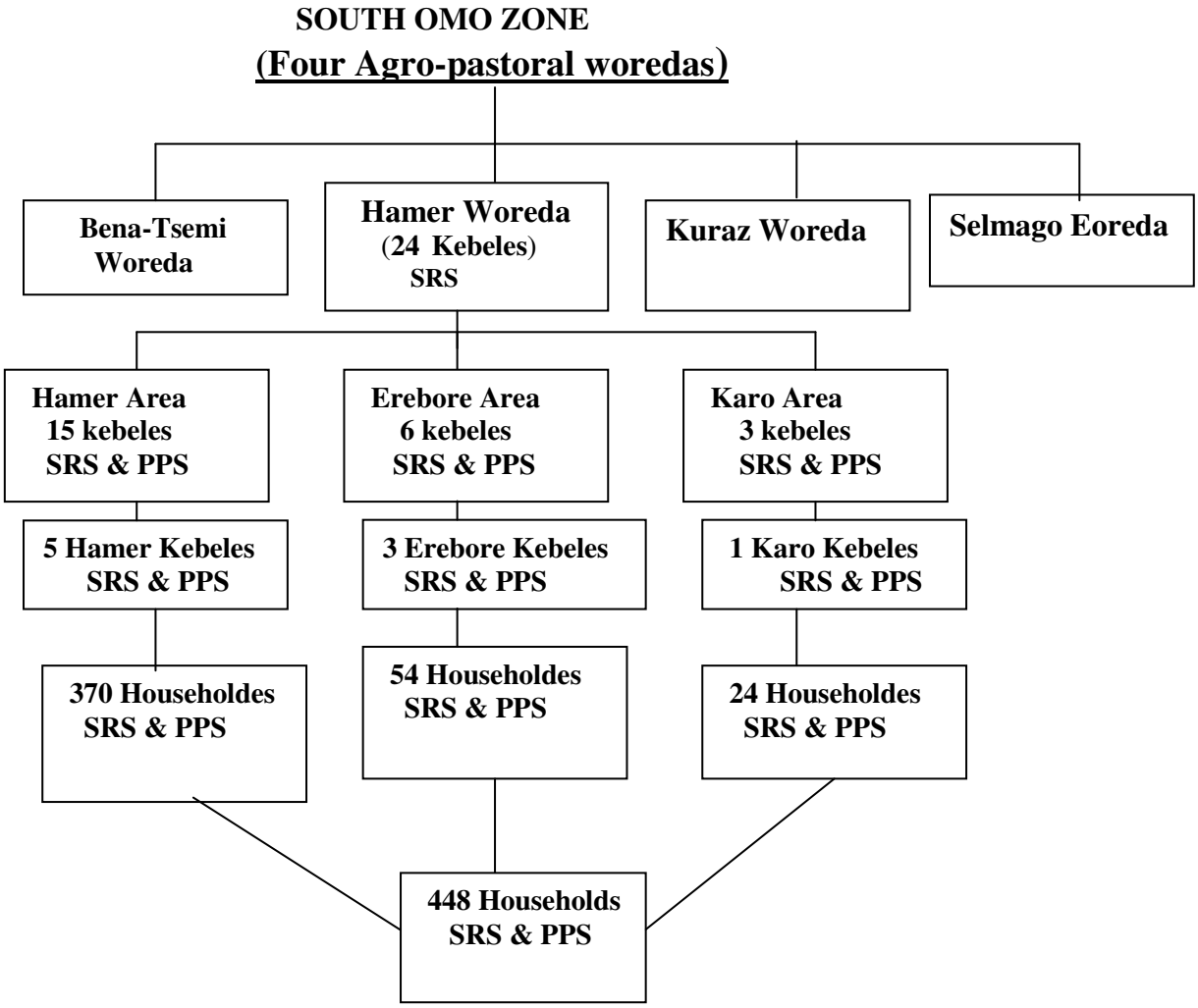


Figure 1.Schematic presentation of sampling procedure

SRS= Simple/Systematic Random Sampling PPS= Proportionate sampling

4.9. Data quality Issues

To assure the quality of the data, the following activities were accomplished

. Data collectors were selected based on the ability to speak the local language and their skill. Those who have experience in the past similar studies were included

. Intensive and problem oriented training was given to data collectors about the objectives of the study and ways of data collection.

. Questionnaires were prepared in English and translated to the local language and back translated to English was made to maintain the consistence

.Pretest of the instrument was done in the similar population and those who already included in the pretest are excluded from the actual study

.Supervisors were counter chalking the quality of the data collected by data collectors

.Data were daily chalked for completeness by the investigator

4.10. Method of data collection

Quantitative part of the study

The data for the quantitative section of this study were collected by eight trained data collectors from both sexes with the background of Junior Nurses and speaking both Hamer and English languages and with some experience of similar study. A four days classroom and filed training on the purpose of the study as well as techniques of interviewing were conducted. A standard questionnaire was used to develop the questionnaires and the necessary adoption was made in order to address important variables of the study, and it was pre-tested on 30 individuals with similar set up. The

data collection was carried out in the three areas of the woredas (Hamer, Erbore, and Karo) from November 12, 2003 up to December 14, 2003. The data collectors were visiting every 2nd households. Privacy was maintained and the study participants were interviewed based on the willingness to participate in the study. The qualitative part of the study was carried out using FGD and IDI guides.

Qualitative part of the study

Focus group discussion and in-depth interview before the survey and observational study during the study period were conducted in order to generate more detail information about prevalent socio-cultural and other risk factors and moreover, awareness of the community about HIV/AIDS was assessed.

Focus Group Discussion

There were 12 FGD groups with minimum of eight and a maximum of twelve FGD discussants. Each session took a time span of one and half hours and efferent were made to make the group homogenous in terms of age, sex, marital status and cultural differences. Settings were arranged with privacy and comfortable location. The FGD and the IDI were moderated by the investigator and non probability purposeful sampling was employed to select potential participants this was made possible by snow-ball sampling techniques, were the community leaders suggested name of the individual who could be relevant sours of information. Probing questions and transition approach were arranged to introduce new ideas starting from general non-

threatening to specific topics of interest. Tape was used to record the discussion and an experienced recorder was assigned to record the discussion.

Individual In-depth Interview (IDI)

Individual informants from the study community were interviewed using in-depth interview technique to generate detailed qualitative information for some sensitive issues on sexuality. The investigator conducted the interview based on the prepared guide lines. The interview was conducted in private set up took a time span of 15-25 minutes. The main ideas were written and tape recorded. The interviewees were limited to six when an information redundancy were observed and assumed to be exhausted.

Observational study

Observation, in the "Ivangadi" sites and in market places was conducted to document important practices in relation to the study objectives.

4.11. Data management and analysis

The qualitative data were entered using EPI-INFO version 6 and exported to SPSS version 10 soft ware statistical packages and analyzed. Uni-variate and bi-variate analysis was employed. Association between dependent and independent variables was assessed by odds ratio. The significance of the statistical association was assured using 95% confidence interval. Multiple logistic regressions were employed to adjust for possible confounding variables.

For the qualitative data manual analysis was done based on the note taken and tape recorded during the study time. Transcription, translation, coding of important phrases of the respondent own words and summary of data using summary sheet and categorizing of similar themes were made. The WHO guide to qualitative study for health program was used as reference.

4.12. Operational definitions

Attitude- refers to the predisposition of the individual/group response in favorable or unfavorable manner towards the prevention and control mechanism of HIV/AIDS, such as premarital sexual abstinence, faithful relationship and condom use etc.

Agro-pastoralists – refers to societies who constitute the subsistence base combining agriculture and livestock husbandry.

Comprehensive knowledge about HIV/AIDS- respondents were considered to have comprehensive knowledge about HIV/AIDS, if they knew about the three methods of HIV/AIDS prevention (ABC of prevention), transmission (multiple sexual practice, prenatal transmission and unsafe skin piercing sharps) and with out any misconception.

Commercial sex workers- refers to females who work in bars and local liquor (Arek, Teje, Boreda) sellers and exchange sex for money

Correct believe of HIV/AIDS transmission- refers to the individual or group understanding about at least two major ways of HIV/AIDS transmission (Hetro-sexual conduct, sharing unsafe sharps).

Risk Sexual practice– sexually active adults who had sexual contact history with causal partner, or multiple partners, or commercial sex workers or experiencing unprotected sex (not using or occasional use of condoms).

Knowledge on HIV/AIDS prevention- refers to the individual or group understanding about at least three major ways of HIV/AIDS prevention (avoiding multiple sexual practices, avoiding sharing sharps, and condom use).

"Ivangadi"- Mass cultural night dancing commonly practices in Hamer and the surrounding communities

Pastoralists - refers to those human societies who survive only on animals husbandry

4.13. ETHICAL CONSIDERATION

Ethical clearance was obtained from Department of Community Health, Faculty of Medicine, and Addis Ababa University. Official permission and letter of support was secured from the regional and local authorities. Informed consent was obtained prior to the interview and respondents were participated based on their willingness.

Confidentiality was maintained. The participants were assured that they will not face any problem. Privacy was maintained throughout the study period.

5. RESULTS

Analysis was made based on the 401 complete responses, making the response rate 90%, of the 448 calculated sample sizes. Due to semi-nomadic characteristics of the study community and their widely scattered settlement, 28 of the required sample subjects were not available at home during data collection. Further 19 filled questionnaires were excluded for gross incompleteness and inconsistency and were considered as non- responses.

5.1. Socio-demographic profile of the Study subjects

Of the total 401 respondents, 239 (59.6%) were males making the male to female ratio 1 to 0.68. The majority, 83 (20.6%) and 81 (20.1%) of respondents were in the age range of 20-24 and 15-19 years (Table 1). Regarding religion, most, 359 (89.5%) of the respondents were followers of traditional religion, while the rest 42 (10.5%) were Christians. The dominant ethnic group was Hamer 278 (69.5%) followed by Erbore 54 (13.6%). With regard to marital status, 260 (64.8%) were living in stable union, 125 (31.0%) were unmarried and the remaining 16 (3.9%) were widowed.

Concerning educational status, only 65 (16.2%) was literate. According to the community wealth-ranking category, high-income status is when one has above 20 heads of cattle and/or 60 goats. A person with medium status is one who owns about 10-20 heads of cattle and/or 20-59 goats and, low is when one has animals less than the above-mentioned amount including the destitute. According to this criterion, 41

(10%), 120 (30%) and 240 (60%) of the respondents were in high, medium and low economical status respectively.

Table 1- Socio-demographic Profile of the study subjects in Hamer Woreda, SNNPR, December 2003. (n=401)

Variables	Number	Percentage
Sex		
Male	239	59.6
Female	162	40.4
Total	401	100
Age		
15-19	81	20.1
20-24	83	20.6
25-29	56	13.6
30-34	54	13.4
35-39	46	11.3
40-44	37	9.1
45-49	44	11.9
Total	401	100
Ethnicity		
Hamer	278	69.5
Bena	20	5.0
Erborea	54	13.6
Karo	24	6.0
Tsemi	24	6.0
Total	401	100
Religion		
Christian	42	10.5
Traditional (local) believers	359	89.5
Total	401	100
Marital status		
Single	125	31.2
married	260	64.8
Widowed	16	4.0
Total	401	100
Educational status		
Illiterate	336	83.8
Literate	65	16.2
Total	401	100
Reported Economical Status		
High	41	10.2
Medium	120	30.0
Low	240	59.8
Total	401	100

5.2. Mobility and Participants sexual experience

From the total of 401 respondents, 150 (37.6%) reported that they have temporarily changed their original residence over the last five years. The reasons for change of residence reported were, moving in searching of cattle food or as being pastoralists 84 (56.0%), as being traders 12 (8.0%), 15 (10.0%) ex-soldiers or as being within military force, and 39 (26.0 %) for wild animal hunting. Concerning reported duration of stay, 39 (26.0%) stayed for less than 3 months, 44 (28.3%) stayed for 3-6 months and 67 (44.7%) stayed for more than a year. With a mean duration of 4.21 months ($\pm$2.7 sd) (Table2)

Respondents were also interviewed about the number of nights they had spent over the last one-month in the location other than their household while they where available in their permanent residence and the reasons about their spending the nights away from their residence. One hundred sixty one (40.1%) of the respondents had spent the nights in other locations out of their home during the last one month. The reported reasons were 73 (45.3%) for marketing, 39 (24.2%) for "Ivangadi" (cultural night dancing), 38 (23.6%) looking after cattle's and the rest 11 (6.9%) were away for unspecified reasons. The frequent area for spending the nights in locations other than home was 128 (79.5%) within the rural and urban Hamer territory and 35 (21.5%) within urban and sub-urban centers of the neighboring woreda and the zonal city. The number of nights spent by an individual varies between one to eight nights per month and the mean number of nights spent outside home was about 2.7 nights per month. Concerning respondents practices of casual sex during their last spend outside home

was assessed and accordingly, 74 (45.9%) of the respondents reported as having had casual sex recently spent out of home with local liquor sellers.

Table 3- Distribution of respondents by their temporary residential change and night spent with their risk sexual practice Hamer woreda, SNNPR, December 2003

VARIABLES	NUMBR	PERCENTAGE
Temporary change of residential area over the last 5 years (n= 401)		
Yes	150	37.6
No	249	62.4
Reasons to temporary change of residential area over the last 5years (n=150)		
As pastoralist	84	56.0
As trader	12	8.0
As ex-solder	15	10.0
For hunting	39	26.0
Ever spent nights out of home over the last one month (n=401)		
Yes	161	40.1
No	240	59.9
Reasons to spent out of home over the last one months (n=161)		
Visit market places	73	45.3
For "Ivangadi"	39	24.2
Looking after cattle	38	23.6
Other unspecified reasons	11	6.8
Numbers of nights spent during last one month (n=161)		
One to three times	107	66.4
Four to six times	35	23.0
Seven and more times	19	10.6
Mean of night spent	2.7 nights	
Frequent area of night spent (n=161)		
Within rural & urban territory of Hamer	126	79.5
Urban & sub-urban centers of neighboring woreda and zone	35	23.5
Ever engaged in sex during recent time night spent out of home (n=161)		
Yes	74	45.9
No	87	54.1

5.3. Marriage, postpartum abstinence and extra-marital sexual Practices

Regarding marital arrangements, 145 (54.1%) of the female respondents reported that their marriage was arranged with family permission and 48 (17.9%) of the females reported self-consent, while the remaining 6(2.2%) were abducted. Out of the total 260 married partner, 115 (44.2%) were in polygamous relationships (Table 3).

Concerning the practice of postpartum abstinence, 103(94%) of mothers reported practicing sexual abstinence after giving birth. The duration of postpartum abstinence's in their last delivery of mothers' ranges from two months up to a year and the average length of abstinence was found to be 6 months (± 3.7 SD). However, a significant number of male partners 53 (25.3%) reported that they usually do not abstain from having sex when their wives give birth and they rather mentioned options of sexual experiences. Among non-abstained husbands, 22 (41.5%) had involved in casual sex, 5 (9.4%) of husbands encountered non-marital regular sexual partners, while 28(52.8%) have co-wives.

Regarding wife inheritance, 387 (96.5%) of the study participants reported that wife inheritance is a common practices in the woreda. However, only 16 (3.5%) of the respondents reported the experience of such practice.

Table4 Marriage, practice of postpartum abstinence and risk of extra-marital sexual practices, Hamer woreda, SNNPR December 2003.

Variables	Frequency	Percentage
Marital status(n=401)		
Ever married	260	64.8
Never married	141	35.2
Marriage modalities (n= 109)		
Monogamous	145	55.8
Polygamous	115	44.2
Type of marriage arrangement (260) *		
Self consent	150	57.6
Family consent	145	55.7
Abduction	6	2.3
Duration of mothers postpartum abstinence (n=109)		
>2 months	8	7.3
>2-6 months	42	38.5
>6 months	59	54.2
Mean months of abstinence	6(±3.7 sd)	
Husbands' practices of sexual abstinence during wife postpartum period (n=115)		
Yes	86	74.7
No	53	25.3
Husbands Sexual options during prolonged postpartum period (n=53) *		
Co-wife	28	52.8
Non marital regular partner	5	9.4
Casual sex	22	41.5

*Percentage exceeds 100% because of multiple responses

5.4. Traditional rituals "Ivangadi'' and participants experience during the ceremony.

This study attempts to investigate the experiences of study participants in specific cultural rituals such as "Ivangadi" and its effect on promoting casual sex. Of all study subjects, 315 (78.3%) know about 'Ivangadi" and they have grown up practicing this traditional ceremony (Table 4). Two hundred seventy six (87.6%) of them have participated in the play during the last three months preceding this study. Concerning the composition of participants in the rituals, 260 (87.0%)* reported the involvement of unmarried youngsters, 186 (53.6%) * reported the participation of all members of the community and 174 (50%)* reported the participation of non-indigenous people like tourists. The commonest practices during the ceremony, according to respondents report were, 83 (24.0%) watching passively, 305 (88.8%) taking part and dancing with age mate while only 52 (4.3%) reported the presence of some forms of sexual activity during the ceremony. (*Percentage exceeds 100% because of multiple responses)

The frequency of organizing the "Ivangadi'' ranges from one to more than eight times in three months. In light of personal experience, only 22 (7.9%) of the respondents reported have sex during their recent "Ivangadi'' participation.

Table 5-Traditional rituals "ivangadi'' (night dancing) and the experiences of participants in Hamer Woreda, SNNPR, December 2003.

Variables	Number	Percentage
Ever participated in "Ivangadi''(n=401)		
Yes	315	78.3
No	86	22.7
Reported participants of "Ivangadi" (n=315) *		
Unmarried youngsters	241	76.5
All members of the community	282	89.5
Including non indigenous guests	174	55.5
Respondent believe during "Ivangadi'' (n=315) *		
Watching passively	83	24.0
Dancing with age mate	305	88.5
Dancing and sexual relationship	52	4.3
Frequency of organizing "Ivangadi'' over three months (n=315)		
One to three times	251	79.6
Four to eight times	59	18.7
More than eight times	5	1.7
Number of respondents in "Ivangadi'' within the last 3 months of duration(n=315)		
Yes	276	87.6
No	39	12.4
Engaged in sex during recent "Ivangadi'' Participation (n=276)		
Yes	22	7.9
No	254	92.1

* Percentage exceeds 100% because of multiple responses

5.5. Knowledge about HIV/AIDS, transmission, and prevention methods

Of all participants, 296 (73.8%) heard of AIDS, but still a significant number 105(26.2%) of them are not aware of HIV/AIDS (Table 5). Among those who have heard of HIV/AIDS, only 105 (35.5%) knew someone infected or died of the disease and 238 (83.7%) believe that people can protect themselves from catching AIDS.

Among those who heard of HIV/AIDS, 248 (83.8%) knew at least one means of HIV transmission but only 82 (27.7%) and 89 (30.1%) mentioned transmission from mother to child and through blood transfusion respectively. The majority 241 (97.1%) reported multiple sexual practices are the means of transmission and 189 (76.2%) believed that sharing sharp objects during traditional practices such as skin piercing for decoration and circumcisions could transmit the disease. On the other hand, there were wide spread misconceptions about ways of HIV transmissions. 51(20.5%) and 20 (8.0%) correctly identified the misconception which states mosquito bite are responsible for the spread of virus while sharing food and utensils with AIDS patients could transmit the virus respectively.

Regarding prevention and control methods, 219 (88.3%), 193 (77.5%), 65% and 50 (7.1%) of the respondents reported, avoiding multiple sexual practices, becoming faithful to one's sexual partner, avoiding sharing sharp objects and using condom respectively.

With respect to the comprehensive knowledge of study subjects, only 26 (6.3%) of the respondents were able to list the three major ways of HIVAIDS transmission & prevention with correctly identifying the misconception statements.

As to sources of information supply, about HIV/AIDS, 224(90.3%) reported that they got it health institutions, 70 (23.6%) from mass media, 39 (15%) from NGO, 21 (7.1%) from magazines and 11 (2.0%) heard from friends. (*Percentage exceeds 100% because of multiple responses)

Table 6- Knowledge of participants about HIV/AIDS, transmission, prevention in Hamer woreda, SNNPR December 2003

VARIABLES	NUMBER	PERCENTAGE
Ever Heard about AIDS (n=401)		
Yes	296	73.8
No	105	26.2
Know any one infected / died of HIV/AIDS (n=296)		
Yes	105	35.5
No	191	64.5
Knowledge of HIV/AIDS Transmission & prevention mechanisms(n=296)		
Yes	248	83.8
No	48	16.2
Knowledge on transmission at least one (n=248) *		
Mother to child transmission (during pregnancy & breast feeding)	82	33.0
Blood transfusion	89	35.9
Multiple sexual practices (unprotected)	241	97.1
Unsafe injections	169	68.0
Sharing sharps (during shaving, skin pricing, circumcisions, etc…)	189	76.2
Sex with prostitute	22	8.8
Mosquito bite (No)	51	20.5
Sharing food and utensil's (No)	20	8.0
Knowledge on prevention at least one (n=248)*		
Abstinence from sex	119	48.0
Avoid multiple sexual practices	219	88.3
Faithful sexual partner	193	77.8
Avoiding sharing sharps	162	65.3
Avoiding unsafe injections	129	52.0
Use condoms	50	20.1
Source of information about AIDS (n=248)*		
Mass media (radio)	60	15.0
News paper (magazine)	21	8.5

Pam plate (posters)	39	15.7
Health workers (institutes)	267	90.3
NGO	14	5.6
Friends	11	4.4

* Percentage exceeds 100% because of multiple responses

5.6 knowledge and attitudes of the study participants about Future use of condom

Knowledge of respondents about condom was assessed and based on the result, 192(46.8%) of the respondents reported that, they heard about condom but only 102(25%) reported ever seen condom. Among those reported to head about condom significant number of 117(61%) reported to try condom for the future time.

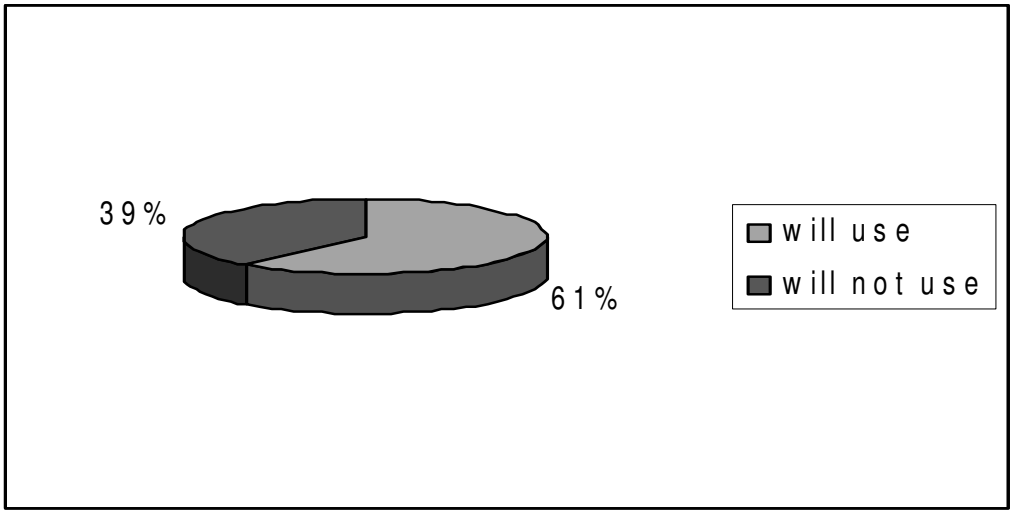


Figure 2- Attitude of the study participant for the future use of condoms Hamer woreda, SNNPR Dec. 2003

5.7. Multiple Logistic regression Analysis

5.7.1. HIV risk behavior

Risk sexual practice was assessed through different factors and binary logistic regression analysis was used to control the effect of confounding variables in order to measure the risks on the study group. Socio-demographic variables were entered against dependent variables (Table 6) .The result showed that; risk sexual relation ship is associated with age. It seems risk decrease when the age increases and it was not found statistically significant [OR (95%CI) =0.32 (0.28, 3.2)] for sexually active age group 35-49. The analysis also showed that females are more likely to practices risk behavior than male counter partner but it was not found statistically significant [OR (95%CI) =1.4 (0.62, 1.85)]. Concerning the marital status with respect to high risk practices, people who are monogamous are more likely to practice high risk sexual conduct than singles and polygamies but the result is not statistically significant [OR 95% CI= 1.41(0.24-12.6)]. For ethnicity category the Hamer tribes seem more likely to engaged in risk sexual relation ships than the rest but the association is not statistically significant [OR (95%CI) = 3.04 (0.76, 12.1)] while the Karo tribes appears to be more protected than the rest two groups and the difference was not statistically significant [OR (95%CI) =0.45(0.03, 2.71)].

Table7- Comparison of HIV risk behaviors by socio- demographic background, Hamer woreda, SNNPR December 2003

Variables	High risk sexual practice		95% CI	
Age	**Yes**	**NO**	**Crude 0R**	**Adjusted 0R**
15-34	46 (16.4)	228 (83.6)	1	1
35-49	56(42.1)	77(57.9)	0.31 (0.19-0.51)	1.32(0.28-3.2)
Sex				
Male	63(26.3)	176(73.7)	1	1
Female	33(20.3)	129(79.3)	1.40(0.84-2.32)	1.04 (0.62-1.85)
Marital status				
Polygamous	28(24.3)	87(75.7)	1	1
Monogamous	27(18.6)	118(81.4)	1.4(0.74-2.66)	1.11(0.24-12.6)
Single	41(29.0)	100(71)	0.78(0.43-1.43)	0.45(0.22-7.1)
Ethnicity				
Erbore	15(27.7)	39(72.3)	1	1
Karo	11(45.8)	13(54.2)	0.45(0.15-1.38)	0.19(0.03-2.71)
Hamer	70(21.6)	253(78.4)	1.39(0.7-2.78)	3.04(0.76-7.18)

Note * OR adjusted for socio-demographic variables

5.7.2. Willingness to use condom

Among adults, factors associated with willingness to use condom use were assessed through binary logistic analysis. Logistic regression analysis was used to control the effects of confounding variables for willingness to use condom. Socio-demographic variables and the knowledge of the respondent are used against the dependent variable.

The result indicated that, after controlling possible confounding variables, respondents with the age rang of 15-34 are more willing to use condom but the result is not statistically significant [OR = 1.18 (95% CI 0.73,1.91). With respect to the knowledge of the respondents, those who have the correct information about ways of HIV transmission and prevention methods seem more likely willing to use condom. The association was statistically significant [OR = 4.11 (95%CI 2.14, 8.10) and 5.66 (95%CI 2.86, 11.28). (Table 7)

Table 8-Comparison of willingness to use condom among sexually active age groups, SNNPR, Hamer woreda, December 2003.

Variables	Willingness to use condom		95% CI	
	Willing	Not Willing		
Sex			Crude OR	Adjusted OR
Male	30(18.5)	132 (81.5)	1	1
Female	87 (28.1)	152 (71.9)	0.40 (0. 24-0.66)	0.98 (0.52-1.8)
Age				
35-49	40 (34.1)	87 (65.9)	1	1
15-34	77(29.1)	197 (70.9)	**1.18(0.73-1.91)**	**3.9(1.4-10.6)**
Educational status				
Literate	46 (70.9)	19 (29.1)	1	1
Illiterate	71 (21.1)	265 (78.9)	9.04(4.8-17.14)	1.26(0.6-6.6)
Believe in HIV Transmission				
Incorrect	28(30.0)	20 (70.0)	1	1
Correct	89 (13.5)	264 (86.5)	**4.15 (2.14-8.1) ***	**7.4(14.1-19.0) ***
Knowledge of HVI Prevention				
Do not Know	31 (65.5)	17 (34.5)	1	1
Know	86 (24.3)	267 (75.7.)	**5.66(2.86-11.28.)** *	**26.7(13.2-47.2)** *

Note: OR adjusted for socio-demographic, Believe and Knowledge of HIV transmissions variables

5.7.3. Summary result of the Focus Group Discussion and Individuals in-depth Interview

A total of 12 FGDs and 6 IDIs were conducted. There were 6 groups of female and 6 groups of male FGD discussants with the age ranging from 20 to 49 years including married, unmarried disaggregated by age and sex. Some of the discussants were literate and spoke Amharic, but many were illiterate. The interview and discussion were conducted in local language facilitated by a moderator who speaks both Amharic and the local languages. The participants were actively participated in the discussion and they expressed their ideas freely without reservation.

5.7.3. 1. The knowledge and the perception of the study community about HIV/AIDS

During the FGD most of female participants indicated that malaria, diarrheal diseases, respiratory tract infection and abortion as the leading health problems in the area. They did not mention HIV/AIDS as a major health problem of the community. Out of the total female participants, some of them had heard of HIV/AIDS, but only a few of them know HIV/AIDS victims in their locality.

Most of the participants indicated that, multiple sexual practice, sex with commercial sex workers, sharing sharps as major mode of transmission, but some of them mentioned that being bitten by a mosquito could transmit the virus. Nevertheless, one group discussant argued that sharing sharps like blade and knives wouldn't transmit the virus. Further in her debate she stated that:

"If a disease transmits by sharing of sharp objects, why did not we get sick? We have been sharing blades since long time but non-of us get sick. "

Concerning the methods of prevention most of the participants agreed that, avoiding multiple sexual practices and avoiding sharing sharps were the important ones.

In the male discussant group, most of them had heard of HIV/AIDS. They have listed that, malaria, respiratory tract infection, conjunctivitis and "Chebeto" (Gonorrhea) as major heath problems. Some of them reported that, they suspect that some body in Turmi (small town in Hamer) died of HIV/AIDS. Participant also mentioned that multiple sexual practice, sex with commercial sex workers, unsafe injection as major ways of HIV transmission. However, none of the participants have mentioned blood transfusion and prenatal transmissions as means of transmission. Regarding the prevention of HIV/AIDS, avoiding multiple sexual practices, avoiding sex with prostitute and avoiding unsafe injection were mentioned repeatedly but a few have mentioned condom use.

With respect to the perception of the community about the high-risk groups that are prone to contracting HIV/AIDS, participants from all FGD groups mentioned that, those youths frequently visiting towns are at risk of acquiring the disease. They also remarked that, boys who are local tourist guides would be at risk of acquiring the virus, since they get a lot of money and can afford to make sex with the commercial

sex workers and further blamed to have sexual contact with local girls, as most of the discussant shared the concern.

In general, Hamer people have heard about HIV/AIDS couple of years back. The knowledge of the community seems inadequate and there are also misconceptions. Although the effect of the epidemic has not yet been widely felt in the surroundings, as the discussant speculated that, there are different possibilities for the virus to spread in the community. Among perceived possibilities, the current increased interaction of the indigenous people with non-indigenous individuals through trading, tourism and increased rural-urban linkage were mentioned.

5.7.3. 2. Mobility and Risk Sexual Practices

Concerning mobility, as most of the FGD discussants from both groups felt that they do not expect any risky sexual practice related to movement to the rural part of the woreda, since they stay searching for pasture and water to the cattle far away human settlements. The participants consistently remarked that the movement of youths to near by small town, as a lot of adults (both sexes) from adjacent and distant parts of the woreda flow to the bi-weekly open market in Turmi and Demeka. The market time usually begin at noon and get hotter in late afternoon, hence those youths that came to the market places, usually do not return to their village on the same day. When the market ends, they stay in the town drinking local alcohol and dancing with local liquor sellers through out the night. There is also a claim that some of them

engage in risky sexual practices with commercial sex workers. A FGD discussant from Shanko village expressed the adolescent activities as follows:

"I do not see any risk of moving with cattle. Since, we stay in bushes. Rather, my suspicion goes with those who frequently visit market places because they have sexual affairs with prostitute."

*Figure*3. ***Marketing in Demeka Town***

One of the IDI informants also explained that some of his friends were suffering from sexually transmitted diseases after having had unprotected sex with local liquor

sellers. It is also common to observe many youths drinking local alcohol drinks (Areki, Teje and Bordea) in alcohol selling houses through out the night.

5.7.3. 3. Socio-cultural norms related to marriage, sexual practices and risk of HIV/AIDS

Most of the discussant feel that pre-marital sexual relationship, extra-marital sexual practices, polygamy and wife inheritance are commonly practiced in the woreda. Most of the discussant agreed that those activities are risk to HIV/AIDS infection. One discussant from female groups explained the reasons about their engagement in pre-marital sexual activity in the following way:

"We *actually involve in such activity because we are expected to demonstrate our fertility before marriage and of course it is our high time to be selected by males"*

The discussants further mentioned some of socially accepted reasons have facilitated the early commencement of pre-marital sexual activities. For instance girls are considered as an important source of income to their family, since they would bring cattle through bride price paid by would be husband. However, this will be true provided that the woman was found to be potentially fertile before marriage. Therefore, in attempt to demonstrate their fertility teenage girls engaged in premarital sexual activities and consequently get pregnant which eventually end up in abortion through local traditional means. If the abortion ends up peacefully, the value of the girl within the community will be immense. Unfortunately most of the pregnancies cost the lives of the girls, as all of the discussants expressed it sadly.

Pertaining to extra-marital sexual relationships in particular, the discussant agreed that it is common traditional practice to the male partner to engage in extramarital sexual relationship through out the community. However, married women are strictly forbidden to make extra-marital sexual practices. In case she is found violating the rule she will be ostracized from the whole societal participation. Although the discussant agreed on the potentials of extra-marital sexual practice to speed HIV/AIDS across the community, nevertheless, they do not seem much concerned about it, as one of the female participants feel that HIV is an urban problem and they are far away from the risk area.

Polygamy was one of the discussion points and as all of discussants agreed that men are allowed to establish marriage with a number of females as long as they are able to pay the bride price decided by elders. Most Hamers marry 2-3 wives. The reason for polygamous was raised as point of discussion, and some of the discussants explained that, men usually want to have as many children as possible, since children have a high value in the community. A boy helps the family by looking after cattle and protecting the community from enemies. Girls are helpers of their mothers in preparing food and in farming. In addition to this they are sources of cattle through bride price. The discussion elicited the idea of participants to the contribution of polygamous marriage in the spread and prevention of HIV/AIDS. On the other hand male discussants mentioned his idea as follows: -

"On top of social value and economical benefit, polygamous marriage helped us not to go out of our wives for sex. Since postpartum abstinence in our society is so

long that we couldn't tolerate it, besides women do not allow us to be much closer during that time."

Most of male participants agreed that they feel more comfortable with polygamy and they are not much concerned about the risk of HIV/AIDS.

Wife inheritance is another discussion point of the study. As one discussant shared his idea that, after couples married and in case the wife dies, the husband will marry her sister and if the husband dies the wife is forced to marry the elder brother of the deceased husband as a form of social cushion. Some of the discussant reported that, the Widow inheritance is an age old practice in their area. However, the communities don't consider the practice as harmful in terms of the potentials of its contribution to the spread of HIV in the area.

5.7.3. 4. Traditional cultural practices, rituals and risk of HIV spread

Traditional beliefs and practices are predominantly practicing in the area. Among, the important cultural practice mentioned by both groups was the initiation rites of boys "Ukulli". As an IDI interviewee explained it, in order to marry, youngsters are expected to grown out of boyhood and achieve manhood by performing certain rituals. They are required to jump over the back of 20-30 bulls arranged in queues. Such ceremony will be approved by the elder's and girls as acknowledgment that, the boy passed from "boyhood" to "manhood" called "Ukulli" (figer4). Soon before the boys' initiation ceremony, there is a flogging of women (relative of the boy) by the

friends of the boy who is making the "Ukulli". Therefore, women who are the relatives of the boy will be whipped by the friends of the "ukulli" in attempt to show their intimacy to the boy and to his family .The whipping will continue until fresh blood comes out from the back of the women.

*Figure*4. ***"Ukulli" transfer ritual from boyhood to manhood***

As the interviewee further expressed, the flogging act not only causes a physical damage to the women but also it could be a potential way of spreading HIV among the community, Since the beating causes skin laceration and have direct contact with blood. Another female interviewee has shared her feeling in the following: -

"Let alone the new disease you are telling us but the beatings cause permanent suffering up on us for the rest of our lives. But we must accept it and show our intimacy to the son and to his parents."

With respect to sharing sharps, most discussants mentioned that circumcision is also the other common practice in the Woreda; almost in all over the area Hamer people uses by sharing knife to circumcise many individuals at a time. They also use a single blade in common for making hair style and skin decorations. Most of IDI participants from Erborea agreed that, female genital mutilation is a long standing practice in the area that was adopted from the neighboring Borena tribe. However, few discussants and interviewee mentioned the above cultural practices as potential way of HIV spread.

5.7.3. 5. "Ivangadi" (cultural night dancing) and sexual practices

Regarding "Ivangadi", the discussants elaborated that the term is composed from two words Ivan means night and gadi refers to cultural dancing that is commonly performed at night time when the yellow moon is full over the sky. The ceremony is a form of public celebration usually organized during different occasions such as weeding time, during boys' initiation rites and when ever the environmental condition becomes favorable to human and cattle lives. However, there is a claim that, nowadays the frequency of organizing "Ivangadi" becomes more increased due to tourist request and some incentives given from the tourist side. The ceremony is organized with collection of 40-50 people from both sexes and most of the female participants reported to be unmarried youngsters. During the ceremony males stand in

one side and females stand on opposite side facing each other. Couples from both sexes are allowed to join in each round of dancing. Usually females are the first initiators of the dancing and invite males to join them. While in the process of dancing together there is along period of body contact between both sexes that sensitizes sexual desire. The dancing continues throughout the night and it incepts all participants actively, some time guests and tourists are allowed to participate in the ceremony as the IDI reported.

The IDI informant explained that, in most cases the participants from female sides are unmarried adolescents but males have the right to participate irrespective of their marital status. The respondent from Besheda kebele also expresses his idea as follows:

"If boys and girls interested with each other during 'Ivangadi" it is up to them to do whatever they like including sex, but it must be with mutual interest. Besides, when guests are interested to dance with us we allow them. Anyway we want to maintain the culture for the future generation.

The IDI interviewee has also reported the possibility of sexual practices during "Ivangadi". He further explained that usually the participants from the female side are unmarried ones' that further facilitates the sexual relationship to be eminent. If the ceremony is arranged for weeding parity, local alcoholic beverages will be provided to the participants that may also influence the individuals to sexual activity. Another

FGD participant argued that, sexual activity is not the inherent part of the ceremony, but he did not defied the possibility of such acts. He reported that:

"In case friends (love) meet on the "Ivangadi" site they may do whatever they like, however, this does not mean that sexual practice is publicly encouraged act, therefore it should not be denounced, as the interviewee expressed."

Generally most of the study participants agreed that there would be a possibility of sexual relationship during the ceremony, but all of them did not tend to associate the practice with the spread of HIVAIDS.

5.7.3.6 Trading, Tourism and the concern of Hamer elders

Most of the FGD discussants explained that traders from Jenka, Arbaminch and other parts of the country are coming to their vicinity for exchange of bulls and elephant teeth with rifle. They suspect that these traders might have sexual affairs with some of the local girls and widows. On the other hand, there are a lot of foreign tourists coming to visit the area. There is a common claim from the community side that tourists and their drivers bribe the girls by giving them some money and various items like neck ornaments, whispers, soaps and chocolates in order to take their photos. In addition to these, tourist's camp in their settlement and they are alligated to slept with local girls.

Tourists' areas have grown more susceptible to HIV/AIDS transmission due to their aesthetic attraction to the people with different culture, sexual behavior and experiences and at the same time lack of basic information on the disease transmission and ways of prevention.

Most discussants also claim that there are high flow of non-Hamer persons and tourists to the area. In this regard the contribution of the two famous Amharic novels written by an Ethiopian author about Hamers' and the presence of Omo and Mago National Parks have accounted for the increased flow of Ethiopian and other tourists to the area. However, the tourists are mostly attracted by the cultural tourism than the Eco-tourism. The community complains that cultural tourism seem in the area are most disorganized and did not benefit the local Agro-pastoral community to the best. Moreover, the tourists drive to the area accompanied by tour guides that lack professional ethics and cultural sensitivity of the community. Besides, private tour companies who are there to facilitate easy and cheap access for tourists approach and help them with photographic and sex importing, will have devastating effect up on the community owning little knowledge about the disease transmission and prevention.

On the other hand, the growing necessity for money to subsidize the deteriorating economy incases the community's, well coming of the tourist inflow. From the community's own point of view, the people who wait the tourists to take their photos will not hesitant to do things such as exchange sexes for money. Interviewees from Turmi town have expressed their contempt on the fear that some girls decorate

themselves and seat the whole day waiting for tourists to come. In case tourists did not come they starve and become dependent and do nothing else. It is common to observe that decorated girls hanging around hotel doors in both towns seeking for tourists.

5.7.3.7. Knowledge and attitudes of the study participants in the promotion of preventive measures

Most of the discussants have agreed that, the early initiation of preventive measures such as, sustainable aggressive community awareness programs in all localities some of male participants mentioned that, provision of condom is an important area that should be considered. With this respect the FGD participants recalled and acknowledged the little contribution made by some NGO's (catholic mission of Demeka ICCDP) which does not currently exist. Others also appreciate the efforts being taken by the district HAPCO to sensitize the community during the occasion of World AIDS Days. However, the discussant commented that the District HAPCO activities are not in a regular base and limited to the urban centers only.

With respect to knowledge and attitude of condom use, most of male and a few from female participants pointed out their knowledge about condom but when further probed, some of them unable to provide adequate description. However, after detail explanation and demonstration given by the moderators, most of the discussant from both groups showed their desire on the promotion of condom programs. One of the IDI interviewee has explained his concern that, bringing behavioral change in this type of traditional community may require a long time and sustainable effort in the

realm of HIV prevention. Therefore, urgency of initiation condom promotion program must be underlined. However, some of them concerned about its cultural soundness, availability and the affordability of the condom in their locality.

6. DISCUSSION

Although there is lack of information on factors contributing to spread of HIV infection in pastoral communities of Ethiopia, this study has attempted to identify reasons that favor the spread as well as prevention of HIV infection in the remotely situated Agro-pastoral communities of the SNNPR. Hence the result of this finding is discussed below in relation to few available literatures and the qualitative component of this study.

In this survey males are more represented than females (59.6% verses 44.4%). The observed difference in sex proportion of study subjects could be explained by the presence of relatively less number of females than males in the area. This is due to high maternal death because of abortion and as Tezazu found it. The Hamer gives wives to the neighboring tribes but in turn they do not accept wives from others that might have as well created scarcity of women in the area (G.Melese).

Regarding the ethnic composition of the study participants, most of them were from the Hamer tribe (69%). This is because of the current restructuring of the previous Hamer-Bena woreda in to Bena-Tsemi and Hamer woreda and the study was confined to the current Hamer woreda, which was dominated by Hamer ethnic groups. In this study, however, efforts were made to include other tribes proportionally to their population size.

As to the composition of religion, majority of the indigenous people in the woreda are followers of traditional forms of worship, except for a few Protestants (Ayalew, 2000). With respect to marital status, amongst all study participants about (64%) were married and (31%) were single and the rest (4%) were widowed. There were no divorced individuals in the study area, since couples once engaged in marital union are not allowed to be divorced in the community. Concerning polygamous marriage, significant numbers of (44%) the married participants were in polygamous marriage. Almost all males in the study communities have strong tendency to marry many wives when the resource permits. As found out in similar community the rate of polygyny were, 44% in Temako (Melese 1995 more recently 22% in Suri (Eyayou.Y 2002) and 46% in Tanzania Maasi. In Ethiopia, 14.3% of married women are found in polygamous unions (DHS, 200). The reason for the high proportion of polygamous in the study area could be, as Melese (1995) explained it, "in the community where hoe based shifting agriculture commonly practiced, the role of women is dual, productive and reproductive, therefore males prefer to have as many wives as possible. Moreover, polygamy marriage has wide Variety of economic, social and political function within and outside the society. Having more wives for a man is one of the indices of wealth there by getting more children.

Pertaining to the economic status of the study subjects, it was found difficult to properly document the economical status since the communities were reluctant to disclose the exact figure of their income or number of cattle they own, partly due to fear of taxation and partly fear of insecurity. However, pastoral societies are generally

egalitarian and resources are communally owned. According to the community ranking scale, majority (about 60%) of the respondents are under low economical category.

Concerning mobility and risk sexual practice, the result indicated that the people in Hamer have a fairly high level of mobility. Thirty seven percent of the respondents had changed temporarily their residence over the last 5 years. Eighty four percent of the respondents had changed their residence as pastoralist, searching for pasture and water when the environmental condition in their settlement became unfavorable. About 39% had temporarily changed their residence for wild animal hunt to the territory of Mago National parks mainly searching for elephants. Twelve percent of them had changed their residence, as trader.

In both methods we have identified that the risk of casual sex with respect to temporary change of residence and movement within rural Hamer territory seems remote. On the other hand, 40.1% of the respondents had spent the night in other location than their home. Among those who spent over a night out of home or vicinity, 45% had casual sex. This finding is higher than the finding of Shabir (1992) 14% of rural married farmers had sex in town, while they were coming to visit markets. The Ethiopia Pastoralist Research and Development Association (EPRDA) in their study at Hamer-Bena woreda (2002) have also found the same result that, almost the majority of youth who frequently visited market places used to practice unprotected sex with local liquor sellers. The participants in the qualitative study have

further unanimously expressed their concern about the sexual practices of the youths commonly observed in towns during stay in urban centers. Since most of them were found to be indulged in sexual activities that put the adolescents at increased risk of acquiring STD including HIV.

A pre-marital and extra-marital sexual engagement is common in the study area, but women are forbidden to bear child before marriage, a restriction enforced by abortion and infanticide (EPRDA). As the qualitative component of this study assessed, almost all adults in the sexually active age groups had ever engaged in premarital sexual activity. In addition to biological quires, social and economical prerequisite imposed by the community literally prompted men and women to stay long in pre-marital sexual relationship. For instance, the time required for men to collect the requested number of cattle for bride price payment takes years of cattle herding demanding men to exercise pre marital sex. In the same way, the pre-marital fertility demonstration seeking high bride price and good family as well as social praise gives females impetus to engage in pre-marital sexual activities.

Various social and cultural factors seemingly favoring extra-marital sexual practices are tacit acceptance of extra-marital sexuality with liberal sexual norms and prolonged postpartum abstinence. In particular the practice of postpartum abstinence is common in Hamer Woreda; the duration of abstinence ranges from few months to a year, usually until the child starts walking. As reported in most cases husbands who lived in polygamous relations have been shown to comply with co-wives during

postpartum period where as those who are in monogamous marriage union, (about 46% of them) commonly tend to conduct extra-marital sexual acts. In this study also the FGD discussant mentioned that a man who has single wife would engage in extra-marital sexual practice than one who has more than one wives. The result also goes with the study findings in Gambela (31).

This study has demonstrated that some of cultural rituals could facilitate the spread of HIV infection in the community. Pertaining to "Ivangadi" (cultural night dancing), in both methods we have been informed that there is a sort of unprotected sexual relation ship in the ceremony. Among the current "Ivangadi" participants, about 7.9% reported their experience of sexual contact, however, this number may not be representative of the true picture, due to sensitivity of the subject. The result is consistent with the findings of individual in-depth interview of this study. The problem with "Ivangadi" is the involvement of non-Hamer people during the ceremony. In this regard the community complaint seems appropriate from the HIV infection and spread point of view.

The initiation ceremony takes place during "Ukuli" (the transfer process from boy-hood to man-hood) and the pre initiation women flogging act is also an important area that should be stressed properly. The flogging, besides causing a physical damage could be a potential way to HIV spread.

The qualitative result showed the presence of wide spread practice of communal circumcision, skin piercing and making hair style by sharing the same knife, hence this condition could also contribute to the fast spread of the HIV in the area. This holds true with study findings of (EPRDA) on the same community.

The result of the present study has shown that over 73% of the study population has heard of HIV/AIDS. Which is lower than the recent BSS and DHS finding but it matches with the finding in rural community in Gonder (74%) (1995). With respect to the comprehensive knowledge of the study community about HIV/AIDS (6.3%), is different from the BSS recent (10%) for pastoralist. The observed difference could be due to the prevalence of the high illiteracy rate, limited accesses for information and few organizations working on HIV/AIDS in the area.

Regarding the knowledge of respondents on transmission of HIV infection, considerable proportion of respondents were able to correctly identify the common ways of HIV transmission, but only 27.7 % and 30.1% knew mother to child transmission and blood transfusion respectively. Moreover, 83% of respondents were not able to identify the misconception (such as mosquito transmit HIV infection) correctly. This wide spread misconception (as mosquito transmits HIV infection) could be associated with the prevailing health menace, as malaria is the serious health problem in the area. On other hand, despite wide spread practice of sharing sharp objects for skin decoration and circumcision practice, relatively significant proportion of the respondents were not aware of the fact that sharing sharps could facilitate HIV

transmission. Therefore, in both cases there should be a need to give more emphasis during health education to overcome the prevailing misconceptions and low level of awareness

This study has in both ways assessed the knowledge of the study community about condom and found that the level of knowledge seems relatively low (46%). This result is consistent with finding of Ernestina coast, on rural Maasi population of Tanzania, where the level of knowledge about condom was (47%). In this regard, the reported low level of knowledge is not surprising given the very low level of penetration of social marketing campaign in the rural area in general and in pastoral communities in particular.

This study has also showed that the study community seems to have positive attitude towards promoting prevention measures at the local setup. Even though the proportion of the study participants who know about condom was relatively low (21%), significant number of participants (61%) showed their desire for future use. The qualitative part of the study also revealed that, promotion of condom seems to be the better feasible option under the prevention and control strategy of HIV/AIDS.

STRENGTH AND LIMITATIONS

In this study we have tried to find out factors contributing to the spread and prevention of HIV infection in Hamer woreda, we have also relied largely on combination of methods. Although the household survey was conducted in order to generate baseline information to the general socio-demographic and behavioral data, much of the information was collected by the qualitative method. In this regard the method I have used is appropriate to answer the study questions. The very fact that marginalized and underserved communities have been addressed should be considered as strength by itself.

The main limitation of this study was the language barrier between the informants and the investigator. Despite the attempts to recruit the best translators available in the area, valuable information and expression might have been lost since the informant's response was relayed through translators.

The other limitation of the study was the cross sectional nature of the study and in other hand the sensitive nature of the question might have also affected the level of openness of the respondents.

Lack of reference and absence of adequate similar studies on pastoral communities of the SNNPR has also restricted comparison between our finding and others.

7. CONCLUSIONS

Bearing in mind the limitation of the study and considering the remotely situated pastoral communities of the SNNPR, there are countable fertile grounds to the entry and spread of HIV infection in the Hamer Woreda. Based on this it is possible to conclude the following:

1.The routes to the entry and spread of HIV infection to Hamer Woreda are associated with the marketing trips of the adults to the market places in the towns and there by spending nights practicing unprotected sex with the commercial sex workers.

2. Socio-cultural factors such as pre-marital sexual practices, extra-marital sexual relationship, prolonged postpartum period, pre initiation women flogging, and sharing sharps favor the spread of HIV virus in the community.

4. Specific cultural rituals such as" Ivangadi", as it facilitates casual sex; it will have sped up the spread of the HIV infection in the community.

5.The comprehensive knowledge of the community about HIV/AIDS is relatively lower than the BSS for the pastoralist community.

6.Tourism has increased the chance of interaction between peoples and facilitates high risk sexual practices

7.With the respect to promotion of preventive measures some of the community members showed their desire to try condom in the future.

8. RECOMMENDATION

On the basis of the present study findings the following recommendations are fore warded:

1. Extensive Health Education on HIV/AIDS through mass media should be accessible to the rural population. In this regard, the local radio programs (At Arbaminch) can play an important role in addressing the problem with different local languages. Making radio available at relatively fair price for the pastoralists living in the peripheral parts of the country could as well facilitate this.

2. Launching Peer education program through opinion leaders and influential individuals

3. Health education can be disseminated at social gatherings and during cultural rituals, giving special emphasis on the traditional practices that facilitate the practices of high-risk behaviors, like “Ivangadi”, “Ukuli” and others through alternative program delivery outlet, such as out-reach services.

4. There appears to be virtually no data on the sero-prevalence status of pastoral communities of the SSNPR. Therefore, actual sero-prevalence study of HIV in the study community should be conducted.

5. At program level involvement of the community in the process of developing problem tree and finding possible solutions is mandatory, taking in to account the deep rooted cultural and traditional practices of the community.

6. Tourism companies should incorporate HIV/AIDS components in order to raise the awareness of the community and the tourists about the problem

7. Establishing programs promoting condom promotion distribution.

9. REFERENCE

1. Joint United Nation Program on HIV/AIDS and World Health Organization. AIDS epidemic update, Geneva. February 2003. (http://www. Unaids.org/wad/2003/Epi undated 2003-en/Epi 03-en.htm)

2. World Health Organization. Life in the 21st century a vision for all. Geneva 1998. Report on the Global HIV/AIDS epidemic. July 2000.

3. Degu. G. Knowledge and prevalence of condom in prevention of HIV/AIDS infection among commercial sex workers in three small towns of northwest Ethiopia .EJHD December 2002.V 16 (3): 277-286

4. UNDP. HIV and Development Programme; the implication of HIV/AIDS for rural development policy and programming. Focus on sub-Sahara Africa. 1999.

5. The Population division, department of economics and social affairs of National Secretariat (WWW, last searched may 2003).

6. Joint United Program on HIV/AIDS and WHO.AIDS epidemic up date December 2001**.** (http://www. Unaids.org/wad/2001/Epi undated 2001-en/Epi 03-en.htm)

7. Joint United Nation Program on HIV/AIDS and World Health Organization**.** Report on the Global HIV/AIDS epidemic. July 2002**.**

8. World Health Organization. The status and Trend of HIV/AIDS epidemic in world. Barcelona Map Symposium, July 2-4/2002.

10. USAIDS-Ethiopia. Sex and Youth, Contextual factors affecting risk of HIV/AIDS; Geneva, Switzerland, 1999, pp.110-13 (Web site WWW.usaid.org. January 2000).

11. Ministry of Health. AIDS in Ethiopia, Disease Prevention and Control Department 4th edition. October 2002.

12. Garbus I. et al. HIV/AIDS in Ethiopia, MPP AIDS Policy Research center University of California, San Francisco (Website http://ari.ucf,edu/policy/countries.htms, April 2003)

12. Unicef. Publication, The state of world's children 2003, Geneva 2003, pp. 112-13

13. Shaber I. & Larson CP. Urban and rural routes of HIV infection and Spread in Ethiopia. J Trop Med Hyg, October 1995.

14. HIV/AIDS Behavioral Surveillance Survey (BSS) Ethiopia round one, June 2002.

15. KMG, Prevention and coping with HIV/AIDS in post-conflict society. (WWW, last accessed, July 2003)

16. Undp, HIV and Development Programme. The implication of HIV/AIDS for rural developmement policy and programming. (WWW.Undp.Org/ HIV/Publication/study/ English/ spbe.htm, 1999

17. Kofi Awusabo et at. Route of HIV transmission and intervention. Analytic frame work. University of cape cost, Ghana. 1998 pp-1-8 (Web site, htc .anu. edu.au)

18. Strategic Frame Work for the National Response to HIV/AIDS in Ethiopia (2001-2005) (web site, http// www. Walta info. Com/profile/ Info. Article 1.htm

19. USAIDS, HIV/AIDS in Ethiopia fact sheet. (WWW searched, June 2003.)

20. The prevalence of HIV/AIDS in Belet and Badule. The Ivory cost Social Medicine. May1993. (WWW, last accessed June2003).

21. Central Statistical Authority-Ethiopia. Statistical Abstract, July 2003.

22. Tezazu. G. et al. Ethiopia Pastoralist Research & Development Association (EPRDA). Socio-economic life of pastoral communities of Bena-Tsemi & Hamer woreda, September 2002.

23. Ayalew. G. A survey of Knowledge, Attitude, and behavior on HIV/AIDS and an Ethnographic study undertaken in Gamo-Gofa and south Omo Zone, SSNPR, 2000.

24. Getu, M.Tsemako women's a role and status in agro-pastoral production AAU PhD desertion 1995.

25. Daniel.k et al. North and South Omo Zone Integrated Community Development Program (CC-ICDP), Jinka, January, 2000.

26. Strecker IVO. Trade life and prospect of socio-economic development in North Omo administrative Zone, AAU PhD desertion. 1976.

27. Lydall, J. Hammer in bender, M.L, The non Semitic language of Ethiopia, AAU PhD desertion 1976.

28. Eyayo. Y. Socio-cultural factors in the control of fertility among remotely situated communities. The case of "Surma "SSNPR. Thesis submitted to DCH, AAU, 2003

29. Central Statistical Authority-Ethiopia and ORC Marco USA. Ethiopia Demographic and Health Survey-2000, Addis Ababa Ethiopia and Calverton, Marry land, USA. May 2001.

30. Coast.E- Sexual behavior and perception of risks: Male rural-urban migrant in Tanzania 2002. Draft paper (internet accessed April 2003).

31. Taffesse. Z - Comparative study on utilization of modern child spacing methods between indigenous and non-indigenous women, and factors affecting the utilization of the programs, Gambela, South west Ethiopia. Theses submitted to DCH, AAU 2002.

32. Ismael. S. Routes of spread of HIV infection to rural communities, Limu woreda, South Shoa, Region, Ethiopia. Theses submitted to DCH, AAU 19922.

33. Lydall. J, The treat of HIV/AIDS epidemic in South Omo Zone, South Ethiopia. North Africa studies Journal. Volume7 number 1, 2000. pp 41- 61

34. UNESCO/ UNAIDS. A cultural approach to HIV/AIDS prevention and care. Methodological Hand book 2201pp 10- 18

35. WHO, Qualitative Research for Health programs, Geneva 1994

36. Ismeal S. H/ Georgis F, Legesse D, Alemu E. et al Knowledge, attitude and practices on high risk factors pertaining to HIV/AIDS in rural community. Ethiopia Med J. 1995; 33:1-6

1. Annexes

Annex-1

ADDIS ABABA UNIVERSITY

FACULITY OF MEDICINE

DEPARTEMENT OF COMMUNITY HEALTH

I. English questionnaires

A structured English questionnaires to assess the socio-cultural factors contributing the entry, spread, as well as prevention of HIV infection in Hamere community ,SNNPR. Ethiopia.

001. Questionnaires Identification Number -----/------

002. Woreda--- 1. Hamer 2. Bena

003. Areas- 1. Area (Hamer) 2. Area 2 (Karo), 3. Area3 (Erborea)

Greeting

Hello*!* My Name is; _____ I am in the research team of Addis Ababa University in the collaboration with Regional HAPCO and SNNPR Health Bureau. We are interviewing sexually active adults in the age range of 15-49 years. We would like asking you a few questions in order to assess the existence of socio-cultural factors contributing to the entry, spread as well as prevention of HIV infection in your the community.

You do not have to answer any question that you do not want to answer and you may end this interview at any time you want to, however your honest answer to these questions will help us to the better understanding of the conditions and planning of prevention and control strategies.

Verbal consent and confidentiality

All information given by you will be strictly confidential. Your name will not bet recorded in this form and will never be used in connection with any information you telling us. All information given by you will be kept strictly confidential. We greatly appreciate your cooperation in responding to this study. Would you be willing to participate? If yes, proceed. If no, Thank and stop here.

Signature of the interviewer certifying the informed consent has been given by respondent _____.

Interviewer visit

	Visit 1	Visit 2	Visit 3
Date			
Interviewer			
Result			

Result code: Complete=1, partially complete=2, Respondent not available=3, Refused=4 others=5

004. Interviewer Code: ____/____, Name_____, Sign_____Date_____

005. Checked by Supervisor, Name _____Sign_____ Date_____

Section one- Background Characteristics

No	Questions & Filters	Coding Categories	Skip to
101	Record sex of respondent	1. Male 2. Female	
102	Age of respondent	Age in year __/__ 1. Don't know--------88 2. No response--------99	
103	What is your region?	1. Christian 2. Muslim 3. Traditional believes---99 4. Others (specify)	
104	To which ethnic group do you belong?	1. Hamer 2. Bena 3. Tsemi 4. Erbore 5. Karo 6. Others(specify)_____ __	
105	Have you ever-attained school?	1. Yes 2. No	
106	What is the highest level of school you attained?	1. Read and Write 2. Grade 1-6 3. Grade 7-10 4. Grade 11-12 5. Above grade 12	
107	Your/Family in come	1. No of live stock_____ 2. Other in come monthly base In birr _____ 3. Don't know-------88	

Section tow- Mobility questionnaires

No	Questions & Filters	Coding Categories	Skip to
201	For how long have you been in the present area/community?	Less than 1 year Less than 5 year More than 5 year	
202	Have you ever changed/ away from your resident area?	Yes No υ	
203	Why did you have to Change/ away from your resident area?	As pastoralist As mobile trader As military force Other (specify)_____	
204	If yes to Q 203, For how long have you been away from your resident area?	Less than 3 Months 3- 6 month 6-12 month More than 1 year	
205	If yes to Q 203, Where is your frequent area of stay/spent?	Rural & urban Hamer territory urban & sub-urban centers of neighboring woread others (specify)----------	
206	Have you ever spent (nights) in location other than your home for the last 3 months?	Yes No υ	
207	If yes to Q 206, Why did you sleep/passes?	Y N s pastoralist 1 2 s mobile trader 1 2 or “Ivangdi” 1 2 o pass with co-wife 1 2 Other (specify)_____	
208	If yes to Q 206, With whom did you pass?	Y N Just alone 1 2 Some one (causal) 1 2 Regular partner 1 2 No response--------99 Other	

		(specify)_____	
209	If yes to Q 206, Have you engaged in sexual activity during your last night spent?	Yes No	

Section three. Marital status and sexual history

	Questions & Filters	Coding Categories	Skip to
301	Have you been married?	Yes No υ	
302	If yes to Q 301, Age at first marriage?	ge in full years ____/___ Do not know--------88 No response---------99	
303	Are you currently married/living with sexual partner?	1. Currently, living with spouse 2. Currently married, living with other sexual partner 3.Currently married, not living with spouse/other sexual partner 4.Not married, living with sexual partner 5.Not married, not living with sexual partner 6.married but spouse died	
304	Female: How was your 1st marriage?	With family Permission Self consent By abduction No response----------99 Other (specify)_____	
305	Female: Where you virgin during your 1st marriage?	Yes No Response--------99	
306	What your perception about virginity?	Should be kept till marriage Should not be kept till marriage (not important) No response----------99 Other (specify)_____	
307	Male- Do you have another wife/sexual partner? Female- Does your husband/ partner has another	Yes No No response--------99 Other (specify)	

		wife/wives?		
308		If yes to Q 309, how many wife/wives do/does you/he have?	_____	
309		If yes to Q 309, What could be the reasons to have additional wife/ sexual partner? (Circle more than one)	Cultural reasons To have get/more children For economic benefit One partner doesn't satisfy No response-------99 Other (specify)_____	
310		Do you think poly gamy/ more than one sexual partner has health risks?	Yes No	
311		If yes to Q 309, What are the health risks associated with it?	STI including HIV/AIDS Psycho-social problem Do not know--------99 Other (specify)_____	
312		Female: Have you ever practices post partum abstinence? Male-: Have you ever practices abstinence when your wife gives birth?	Yes No	
313		Female- If yes to Q 313, For how long do you abstain?	>2 months 2-6 months >6 months	
314		If no to Q 313, what alternative does your husband has? Male-: what alternatives do you have?	Co-wife Causal partners Others(specify)_____	
315		Have you heard of wife inheritance?		
316		If yes to Q 317, is it common in your area?		
317		If yes to Q 318, do you know any one inherited?		

Section four-Sexuality and Traditional practices

	Questions & Filters	Coding Categories	Skip to
401	Have you ever had sexual intercourse?	Yes No υ	
402	If Yes to Q401, Age at first sexual commencement	ge in year ___/___ Don't know---------88 No response---------99	
403	Are you currently married?	Yes No υ	
404	If Yes to Q403, Have you had pre-marital sexual intercourse?	Yes No	
405	Male: Have you ever had sexual intercourse with prostitute?	Yes υ No	
406	Have you ever attained traditional night dancing "Ivangadi"?	Yes No υ	
407	If Yes to Q406, Who are participants of traditional night dancing "Ivangadi"?	1.All members of the Community Yes 2. No nmarried youngsters .Yes 2. No hers gusts . Yes 2. No	
408	If Yes to Q406, what is the Experience of participants during "Ivangadi"?	passive attendance dancing with age mate some times sexual contact	
409	If Yes to Q406, what is the frequency of organizing "Ivangadi" in three months?	1.one-three times 2.Four- eight times 3.more than eight times	
410	If Yes to Q406, have you had sexual contact in your last "Ivangadi' play?		

Section five-HIV/AIDS Knowledge, Attitude and Practices

	Questions & Filters	Coding Categories		kip to
501	Have you ever hared about HIV/AIDS?	Yes No υ		
502	If yes to Q501, From where did you get the information? (Circle more than one) Y= yes, N= No	Y N Mass media (radio, TV) 1 2 News paper (magazine) 1 2 Pamphlet (poster) 1 2 Health workers 1 2 NGO 1 2 Friends 1 2		
503	Do you know any one infected/died of HIV/AIDS?	Yes No υ		
504	What are the sign/symptoms of HIV/AIDS? Y= yes, N= No	Y N Chronic weight loss 1 2 Fever> 1 months 1 2 Diarrhea months 1 2 Chronic cough (TB) 1 2 Skin lesion 1 2		
506	In what way HIV/AIDS transmit? (Circle more than one answer) Y= yes, N= No	1. Mother to child During pregnancy, Delivery and breast feeding Multiple sexual contact Blood transfusion Un safe injection Sharing sharps (blade, etc) Mosquito bite Sex with prostitute Sharing food & utensils		
507	Can people protect them selves from getting HIV/AIDS?	Yes No		
508	If Yes to Q 506, How can people protect them	No sex at all 2 .Avoid Multiple sexual relations ship		

	selves from getting HIV/AIDS? Y= yes, N= No	3 .Having single faithful partner 3. Avoid unsafe injection 4. Avoid unsafe injections 5. Use condom		
509	Have you ever hared about condom?	Yes No υ		
510	If Yes to Q 508, From where did you hared? Y= yes, N= No	Mass media (radio, TV) News paper (magazine) Pamphlet (poster) Health workers 5. NGO 6. Friends		
511	Have you ever see condom?	Yes No		
512	If Yes to Q508, From where can we get condom?	Y N Health institute 1 2 Shops /Kiosks 1 2 Don' Know 1 2 NGO 1 2 Friends 1 2		
513	What do you think, if it is made available in Your vicinity?	I don't care I will try I will never use No response		

.

ii. Semi-structure FGD and IDI guide

A. General perceptions of the study community about HIV/AIDS

Probe;

. What is the current health problem in your area?

.Could you list them according to order of importance?

. What about HIV/AIDS? What abut its transmission and prevention?

. Whom do you think are most at risk of acquiring the disease?

. Which age group, what type of workers? Why?

Method of discussion- Free discussion and matrix

B. What high risk social and cultural practices in your area do favors the spread?

Probe;

.Risk behavioral practices related to marriage and sexuality

.What about premarital, extra marital, practices

.What about multiple sexual practices, sex with non indigenous individuals

.What about polygamy, widow inheritance, abduction

.What about post-partum abstinences in your area?

.What does the male do during prolonged abstinence period?

Method of discussion- Free discussion and matrix

C. What other socio-cultural practices do exist, you think that is risk to HIV infection?

Probe:-

.How do you see “Ivangadi”?

.What about “Ukulli”?

.What about mass circumcisions and FGM?

.What about sharing knife, razor blades?

Method of discussion- Free discussion and matrix

D. How do you consider the mobility of the adults to the rural and urban areas?

Probe:-

. What about market trips?

. What does the adults commonly practices during night time at towns?

Method of discussion- Free discussion and matrix

E. What possible preventive methods do you think important in your community?

Probe:-

.What about health education?

.What other preventive methods do you know?

.What about condom promotion?

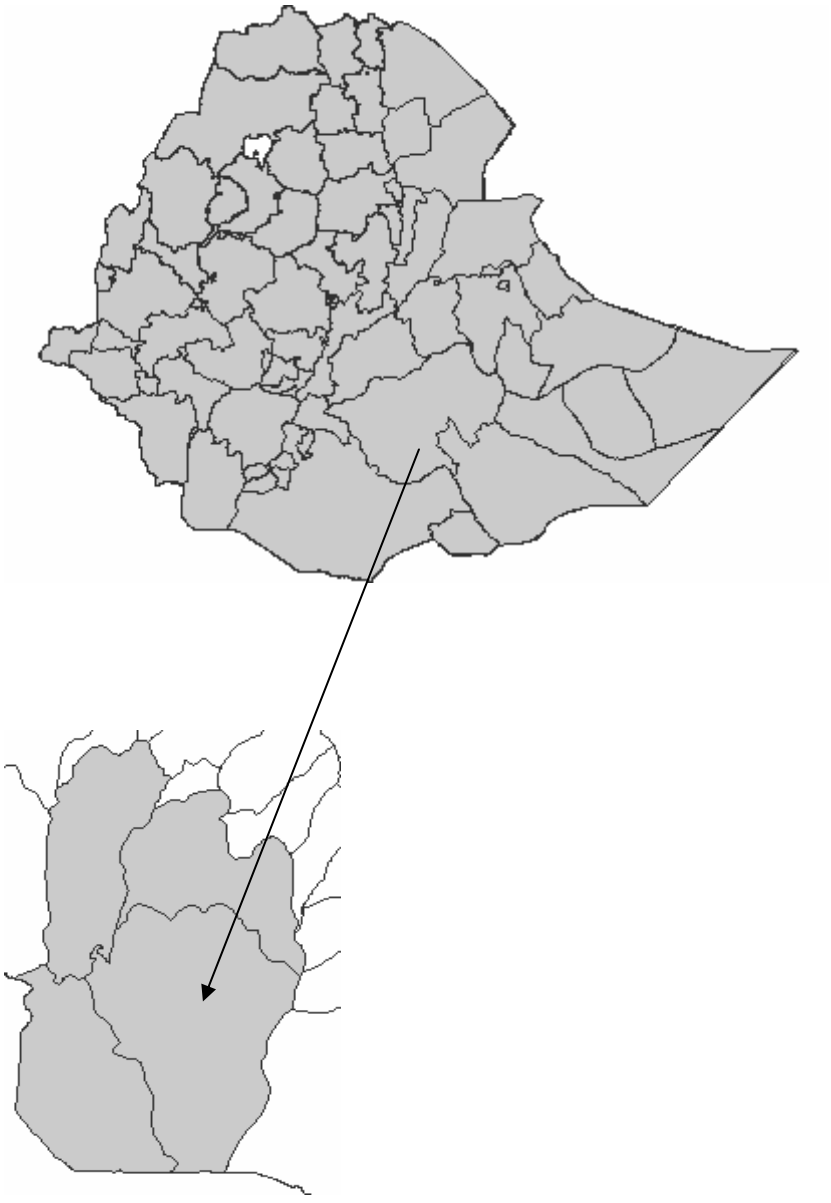
.How is the willingness of the community about condom promotion program?

. What other alternatives do you recommend?

Method of discussion- Free discussion and matrix

Annex.2

Map locating the study Woreda within Zone



Hamer woreda in South Omo zone