

ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES

**FACTORS AFFECTING THE PREVALENCE OF HIV IN AMHARA
REGION ACROSS RURAL AND URBAN AREAS: THE CASE OF
BAHIRDAR AND KONE-WADLA**

BY: HAILEGIORGIS TILAHUN

**A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE
STUDIES OF ADDIS ABABA UNIVERSITY IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE
OF MASTERS OF SCIENCE IN DEMOGRAPHY.**

DOCUMENTATION CENTRE
INSTITUTE OF DEVELOPMENT RESEARCH
ADDIS ABABA UNIVERSITY
P. O. Box 1176, ADDIS ABABA
ETHIOPIA

**JUNE, 2005
ADDIS ABABA**

B7372

ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES
INSTITUTE OF DEVELOPMENT RESEARCH
DEMOGRAPHIC TRAINING AND RESEARCH CENTER

Factors Affecting The Prevalence Of HIV In Amhara Region Across
Rural And Urban Areas: The Case Of Bahirdar And Kone-Wadla

BY: HAILEGIORGIS TILAHUN

A Thesis Submitted To The School Of Graduate Studies Of Addis
Ababa University In Partial Fulfillment Of The Requirements For The
Degree Of Masters of Science In Demography.

JUNE, 2005
ADDIS ABABA

The
H3F2
2005

**ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES**

*Factors Affecting the Prevalence and Trends of HIV in Amhara Region: A
Comparative Analysis Between Urban and Rural Communities*

By

Hailegiorgis Tilahun Moges

**Demographic Training and Research Center
Institute of Development Research**

Approved by the Examining Board

Assefa Hailemariam
Chairman, Department Graduate Committee

Assef
Signature

Assefa Hailemariam
Advisor

Assef
Signature

Prof K. Mahadenam
External Examiner

K. Mahadenam
Signature

Dr. R. B. Upadhyay
Internal Examiner

R. B. Upadhyay
Signature

The
H3F2
2005

ACKNOWLEDGEMENTS

Word alone can not express my sincere acknowledgement to, Assefa Hailemariam (PhD, Associate professor), my thesis advisor for his unreserved constructive advise, guidance and critical comments during the thesis work.

I am grateful to United States Center for Disease Control and Prevention/Ethiopia for allowing me to pursue this postgraduate study program. In particular, I would like to express my great gratitude to Dr. Tadesse Wuhib (Country director), Dr. Shabbir Ismail, Ato Gobena Daniel, and Ato Jelaludin Ahmed for their unreserved invaluable advice and moral support during the study.

My heart-felt thanks also goes to Ato Tibebe Shinie and Ato Yitbarrek Sebu from CDC/Ethiopia. I am also indebted to Ato Yayeh Addis (Head), Dr. Sirak Solomon, Dr. Yohannes Chanyalew, Bizuallem Gashaw from Amhara HAPCO, Dr. Endalamaw Abbera/WHO, Ato Mergessa Kaba/UNICEF, Ato Zemenu Addis/CARE, Ato Abebe Shiferaw/FHI and Ato Michael Shiferaw/A.A.U. I am benefited from their kind personality, profession and moral support in the preparation of this thesis work.

I am also indebted to the data collectors and supervisors, data entry clerks and the informants who participated genuinely in the data collection, supervision, data entry process and provided me with valuable information and devoted their time to the study.

I would not forget my family, my friends and all my colleagues for their unforgettable all-rounded support. Besides, I would also like to send many thanks to many others who, directly or indirectly, provided me several services, moral support and constructive suggestions concerning my study.

Finally, I am also very grateful to U.S. CDC/Ethiopia, my employer, and Amhara Regional HAPCO, and School of Graduate Studies of Addis Ababa University for the financial support and participation to the study.

On top of all, I thank God without whose help is impossible to accomplish my study and reach this time.

TABLE OF CONTENTS

I. ACKNOWLEDGEMENTS.....	I
II. TABLE OF CONTENTS.....	II
III. LIST OF TABLES	IV
IV. LIST OF FIGURES AND MAPS.....	V
VI. ACRONYMS.....	VI
VII. ABSTRACT.....	VII

CHAPTER ONE

1. INTRODUCTION.....	1
1.1 The HIV/AIDS Epidemiological Contexts.....	1
1.1.1 The Global context.....	1
1.1.2 The Sub-Saharan Context.....	1
1.1.3 The National Context	1
1.2 Statement of the Problem.....	3
1.3 Rationale and Objectives of the Study.....	4
1.4.1. Rationale of the Study.....	4
1.4.2. Objectives of the Study.....	5
1.4 Research Hypothesis.....	5
1.5 Operational Definitions of Terms.....	6
1.6 Significance of the Study.....	6
1.7 Organization of the Thesis.....	7

CHAPTER TWO

2. LITERATURE REVIEW	8
2.1 Conceptual Framework of the Study	8
2.2 Empirical Observations	9
2.2.1. Spatial Differentiation and Vulnerability in Sub-Saharan Africa.....	9
2.2.2. Vulnerability and Risk Assessment in Sub-Saharan Africa.....	11
2.2.3 Determinant of Risk Factors and Vulnerability to HIV Infection.....	12
2.2.4 Harmful Traditional Practices and Cultural Norms	15
2.2.5 National Programmatic Responses to the HIV/AIDS Pandemic.....	16

CHAPTER THREE

3. SOCIO-DEMOGRAPHIC BACKGROUND OF THE STUDY AREA AND STUDY METHDOLOGY	18
3.1 STUDY METHODOLOGY	18
3.1.1 Types and Sources of Data.....	18
3.1.2 Sampling Design and Selection of Kebeles /PAs.....	19
3.1.3 Sample Size Determination.....	19
3.1.4. Selection of Sample population.....	20
3.1.5 Data Processing and Analysis Methods.....	20
3.2 SOCIO-DEMOGRAPHIC BACKGROUND OF THE STUDY AREA.....	21
3.2.1 Location and Physical Set Up.....	21
3.2.2 Demographic and Social Conditions.....	22
3.2.3 HIV/AIDS Situation	23

CHAPTER FOUR

4. SOCIO-ECONOMIC AND DEMOGRAPHIC CHARACTERISTICS OF THE STUDY POPULATION	25
4.1 Demographic Characteristics of the Study Population.....	25
4.1.1. Respondents by Sex and Age.....	25
4.1.2. Respondents by Marital Status and Age at First Marriage.....	26
4.2. Socio-Economic Characteristics of the Study Population.....	27
4.2.1 Respondents by Religion and Ethnicity.....	27
4.2.2 Respondents by Literacy and Educational Status.....	28
4.2.3 Respondents by Employment Status.....	30

CHAPTER FIVE

5. KNOWLEDGE, ATTITUDES, AND PRACTICES TO HIV/AIDS/STI, AND HARMFUL TRADITIONS OF THE STUDY POPULATION.....	31
5.1 Awareness about HIV/AIDS.....	31
5.2 Source of Information on HIV/AIDS.....	33
5.3 Modes of Transmissions of HIV/AIDS.....	34

5.4 Prevention of HIV/AIDS.....	36
5.5 Attitude and Practices to Voluntary Counseling and Testing.....	38
5.6 Mother to Child HIV Transmission.....	39
5.7 Specific Types of STIs.....	40
5.8 Main Harmful Traditional Practices.....	42
5.9 Belief of Female Genital Mutilation	43
5.10 Practitioners of Female Genital Mutilation.....	45
5.11 Decision Makers for Female Genital Mutilation.....	46

CHAPTER SIX

6. FACTORS ASSOCIATED WITH HIV/AIDS ACROSS RURAL AND URBAN RESIDENCE.....	48
6.1 Statistical Techniques Employed For Hypothesis Testing	48
6.2. Application of Logistic Regression Analysis.....	50
6.2.1. Place of Residence Vs. Employment Status.....	52
6.2. 2. Place of Residence Vs. HIV Test.....	52
6.2.3 Place of Residence Vs. HTPs Practice.....	52
6.2.4 Place of Residence Vs. Mobility.....	52
6.2.5 Place of Residence Vs. Marital Status.....	53
6.2.7 Place of Residence Vs. Early Marriage.....	53

CHAPTER SEVEN

7. SUMMARY CONCLUSION AND RECOMMENDATIONS.....	54
7.1. Discussions on the finding.....	54
7.2 Conclusion.....	56
7.2. Recommendations.....	57
REFERENCES.....	60
APPENDIXES: INSTRUMENTS USED FOR DATA COLLECTION	63
Appendix A: Structured Questionnaire Used For Data Collection.....	63
Appendix B: FGDs Guidelines Used For Data Collection.....	74

III. LIST OF TABLES

Table 2.2. The Prevalence Rate of FGM In Ethiopia By Region	14
Table 3.1: Amhara Regional State Demographic Indicators, 2004.....	22
Table 3.2: Amhara Regional State Potential Health Facility Coverage, 2004.....	22
Table 3.3. Amhara Regional State Health Professionals Population Ratio, 2004.....	22
Table.3.4. Regional HIV/AIDS Related Estimates, 2003.....	24
Table 4.1 Percentage distribution of respondent's Age, Sex and, Residence.....	25
Table.4.2 Percentage distribution of respondents by marital status and Age at first marriage	27
Table.4.3. Percentage distribution of respondent's Religion and Ethnicity.....	28
Table.4.4. Percentage distribution of respondents Literacy and Educational status.....	29
Table.4.5. Percentage distribution of respondents by Employment status.....	30
Table.5.1. Percentage distribution of respondents to Awareness of HIV/AIDS...	32
Table.5.2. Percentage distribution of respondent's knowledge to Source of Information.....	33
Table.5.3. Percentage distribution of respondent's knowledge about modes of transmissions	35
Table.5.4. Percentage distribution of respondent's knowledge to mode of Prevention	37
Table.5.5. percentage distribution of respondent's Attitude and practices to VCT.....	38
Table.5.6. Percentage distribution of respondent's knowledge about Mother to child Transmissions.....	39
Table.5.7. Percentage distribution of respondent's knowledge of specific types of STDs.....	41
Table.5.8. Percentage distribution of respondent's knowledge to main HTPs.....	42

Table.6.1.The Chi square and Cramer's correlation coefficients result of the selected analytical Variables of the study, Amhara across urban and rural areas, 2005.....	49
---	----

Table.6.2. Binary logistics regression coefficients and Unadjusted Odd ratios of the determinants by place of Residence.	51
---	----

V. LIST OF FIGURES AND MAPS

Figure1.1. Major National HIV Indicators for 2003-2005.....	2
Figure1.2. Unadjusted HIV Prevalence by age group and site setting, 2003.....	3
Figure 2.1. Conceptual Framework of the Study.....	8
Figure3.4. Amhara, regional, Estimated and Projected number of New HIV infections, New AIDS cases, and annual AIDS Deaths by year, all ages, 2003.....	23
Figure 4.1.percent of respondent's sex by Residence.....	26
Figure 4.2.percent of respondent's education by Residence.....	29
Figure 5.1.percent of respondent's Awareness to HIV/AIDS by residence.....	32
Figure.5.2. Percentage of respondent's knowledge to Source of Information by residence.....	34
Figure.5.3. Percentage of respondent's knowledge to ways of transmissions by residence.....	36
Figure 5. 4: Percentage of respondent's knowledge to Prevention of HIV/AIDS by Residence.....	37
Figure 5.5: Percentage of respondent's knowledge to specific types of STDs by Residence.....	41
Figure 5.6: Percentage of respondent's knowledge to t main HTPs by Residence.....	43
Figure 5.7: Percentage of respondent's Belief to FGM by Residence.....	44
Figure 5.8: Percentage of respondent's Knowledge to FGM Practitioners by Residence.....	45
Figure 5.9. Percentage of respondent's knowledge on persons deciding FGM....	47
Map3.1. Amhara National Regional State Administrative Map, Adopted, 2005.....	21

IV. ACRONYMS AND ABBREVIATIONS

AACs – Anti AIDS Clubs
ADB – African Development Bank
AIDS – Acquired Immunodeficiency Syndrome
ART – Anti-Retroviral Therapy
BCC – Behavioral Change Communication
BSS- Behavioral Surveillance Survey
CBOs – Community Based Organizations
CSA – Central Statistical Authority
CSW – Commercial Sex Workers
DHS – Demographic Health Survey
FGD – Focus Group Discussion
FGM – Female Genital Mutilation
GOs – Governmental Organizations
HAPCO- HIV/AIDS Prevention and Control Office
HHS/CDC –Human and Health Services/Center for Disease Control and Prevention
HIV – Human Immuno-Deficiency Virus
HTPs – Harmful Traditional Practices
MOH- Federal Ministry of Health
NACS – National HIV/AIDS Council Secretariat
NCTPE _ National Committee on Traditional Practices In Ethiopia
NGOs- Non-Governmental Organizations
PLWHAs – People Living With HIV/AIDS
PMCT – Prevention from Mother to Child Transmission
SNNPR – Southern Nations, Nationalities and Peoples Region
SPSS – Statistical Package for Social Sciences
STIs- Sexually Transmitted Infections
TFR- Total Fertility rate
UNAIDS- Joint United Nations program for HIV/AIDS
UNECA – United Nations Economic Commission for Africa
UNICEF- United Nations Children’s Fund
USAID- United States Agency for International Development
VCT – Voluntary Counseling and Testing
WHO – World Health Organization

VII. ABSTRACT

The General objective was to analyze the direct and indirect major determinants affecting the prevalence of HIV in Amhara region across the selected urban and rural areas. Based on Dixon and Leach's [1978] formula, a total of 493 subjects who are eligible were selected and included in the populations for the household survey. Moreover, Logistics regression models were fitted based on results found to be significant in Chi Square and bivariate analyses and examined using Forward LR stepwise analysis. Due to the large number of parameters estimated, variables that were not significantly associated with the outcome variables ($p < 0.05$) were not entered in binary logistic regression model. Univariate and bivariate data analyses were performed using SPSS (release 11.0) and 95% confidence intervals and p-value were computed for all predicted variables. With regard to the results, as it can be observed from the chi square result (Table 5.1), residence was significantly associated with Early marriage, Unemployment, marital status, HIV-test and mobility of individuals. The independent variable, place of residence, was found to be significant in explaining the variations in the probability of risk factors as follows; the probability of getting employment in rural areas was 73.3% decreased ($\chi^2 = 46.114$, $p = 0.000$) as compared to that of urban dwellers, the probability of rural dwellers with the odd ratio 1.55, ($\chi^2 = 70.609$, $p = 0.000$) were found to be more likely to be not tested as compared to the urban dwellers, the probability of rural dwellers with the odd ratio 0.572 ($\chi^2 = 8.019$, $p = 0.005$) were found to be less likely to practice harmful traditional practices as compared to the Urban dwellers, the probability of rural dwellers ever departing for at least two weeks were 2.00 ($\chi^2 = 8.284$, $p = 0.004$) times more likely than that of the urban, the probability of rural dwellers that were Ever married were 2.004 ($\chi^2 = 9.891$, $p = 0.002$) times more likely than that of the urban, and the proportion of late marriage (above 15) in rural dwellers was decreased by 88.0% ($\chi^2 = 24.605$, $p = 0.000$) than urban dwellers.

In general, the findings have revealed clearly that the risk factors incidences were significantly higher among rural residents. Among the rural; early marriage,

illiteracy rate, unemployment rate were higher Compared to the urban dwellers. But, in the urban, the rate of mobile individuals was higher. Hence, accordingly, all of these consider being the possible determinant risk factors for the relatively higher HIV prevalence across urban and rural populations studied in Amhara region, respectively. Thus, adapted preventive programs and Innovative client-driven risk reduction strategies addressing the pandemic in the region should be developed to prevent further spread of the infection in this population.

CHAPTER ONE

1. INTRODUCTION

1.1. THE HIV/AIDS EPIDEMIC IN GLOBAL, SUB-SAHARAN AND NATIONAL CONTEXTS

1.1.1. THE GLOBAL ESTIMATES

The HIV/AIDS pandemic pose significant threats in the world with impacts that will be felt for decades to come. Despite high levels of global responses, more than 20 million people have died since the first case was reported in 1981. The Joint United Nations Program on HIV/AIDS revealed that HIV/AIDS killed 2.9 million people and an estimated 4.8 million became infected, and the number of people living with HIV reached around 38 million in the world (UNAIDS, 2004).

1.1.2. THE SUB-SAHARAN ESTIMATES

In Sub-Saharan Africa, the Epidemic is believed to have reached a point where it is hardly under control. AIDS has presented a major challenge to African societies during the last two decades. In Sub-Saharan Africa, the UNAIDS report revealed that the overall percentage of adults with HIV infection has remained stable in recent years, but the number of people living with HIV is still growing. Hence, out of the 10% of the world's population that are living in Sub-Saharan Africa, yet 66% (25 million) of all PLWHA in the world is found in this region. Estimates have also shown that in Sub-Saharan Africa around 3 million people have been infected and 2.2 million have died of AIDS only in 2003. In addition, in many African countries, the epidemic is generalized, that is, HIV affects the general population and the pandemic is not limited to particular sections of the population. Fore instance, only in Sub-Saharan Africa, over 12 million children have lost one or both parents to AIDS (UNAIDS, 2004).

1.1.3. THE NATIONAL ESTIMATES

Ethiopia is among the sub-Saharan African countries where the HIV/AIDS epidemic is at a critical phase and has become a threat for the Country's overall socio-economic development. According to the UNAIDS 2004 report, Ethiopia is one of the countries highly affected by the epidemic and has become the third largest population of HIV-

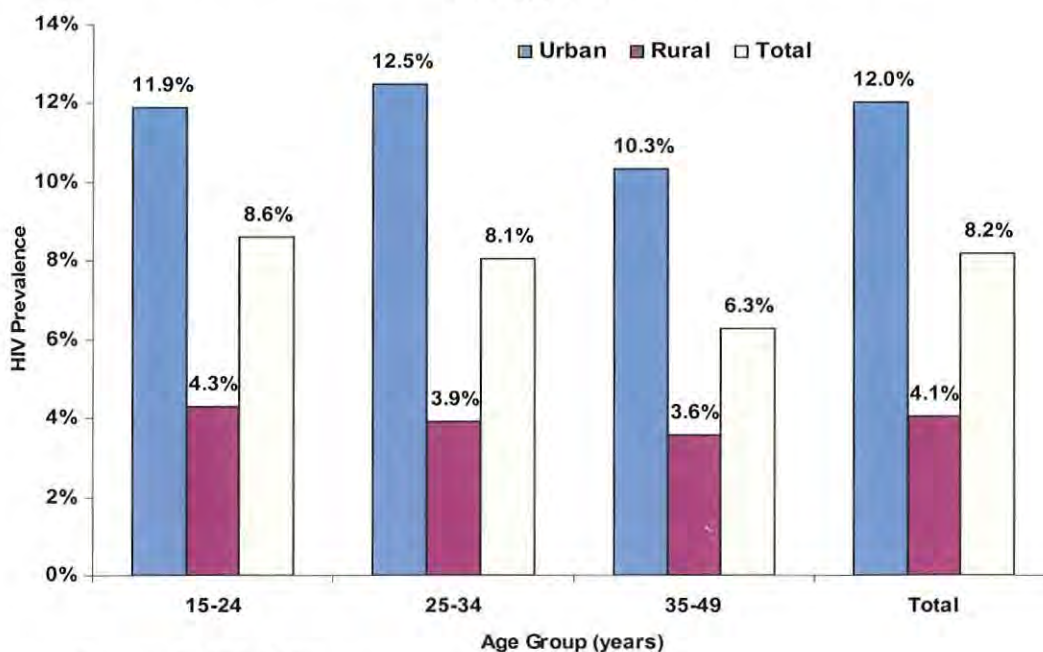
infected persons living in Africa, which represents about 9% of the world's HIV/AIDS cases (UNAIDS, 2004). The 5th report of AIDS in Ethiopia has also documented that the national prevalence among all adult population aged 15 to 49 is 4.4% (rural 2.6 % and Urban 12.6%). Moreover, the report also indicates that the number of adult PLWHA in the country has increased from 1.5 to 1.6 million from 2003 to 2004, an increase of 6.7%. Similarly, the number of children (under 15) living with HIV has escalated from 95,741 to 103,675 (8.3% increase). On the same line of development the report has shown that estimated numbers of parental and maternal AIDS orphans in 2004, respectively, are 374,867 and 431,929. Furthermore, the 5th report of AIDS in Ethiopia has indicated that a total of 97,609 adults and 27,226 children died of AIDS while 105,453 adult and 27,226 Children new AIDS cases have surfaced in 2004 (MOH; 2004). Detailed are presented in the table below;

Figure 1.1. MAJOR NATIONAL HIV INDICATORS FOR 2003-2005			
Adult HIV Prevalence (%)	2003	2004	2005
National	4.4	4.6	4.7
Urban	12.6	12.5	12.5
Rural	2.6	2.8	3.0
HIV-positive Population	1,474,758	1,590,967	1,590,967
HIV-positive Pregnant Women	128,122	137,596	146,570
HIV-positive Births	34,875	37,450	39,886
New HIV Infections	231,415	244,384	253,308
New AIDS Cases	122,697	132,677	143,129
AIDS Deaths	114,690	124,178	134,124
No. of Persons Needing ART	245,394	265,354	286,258
AIDS Orphans	538,674	606,998	678,936
Non AIDS Orphans	4,015,073	4,072,083	4,122,283
Proportion of TB Cases Caused by AIDS	38%	39%	39%
Proportion of 15 - 49 year Olds Dying of AIDS	30%	32%	33%
Decreases in Expectation of Life Due to AIDS	4.6 Years	4.7 Years	4.9 Years
Population Increase	1,962,766	2,013,537	2,063,749

Source: (MOH, 2004)

The Crude 2003 site data estimated that 8.6% of ANC clients in the age group 15-24 were HIV-positive. As sexual debut often occurs in this age group, this prevalence is sometimes used as a proxy for recent infections. In rural Ethiopia as well as overall, HIV, prevalence was more pronounced in younger age groups (MOH, 2004).

Figure 5A.1: Unadjusted HIV Prevalence by Age Group and Site Setting , 2003



Source: MOH, 2004

1.2 STATEMENT OF THE PROBLEM

A number of studies have documented the fact that being a migrant, having high fertility and mortality of a certain age group are not risk factors rather the activities undertaken during the process that are the risk factors. Although in particular the risk of HIV infection is high among some population groups, anyone engaged in sex with multiple partners is at risk of infection. Several studies have found that sex with multiple partners is widespread in most parts of African countries. (The Strategic paper, Africa Development Bank, 2001).

The expansion of the delivery of HIV/AIDS interventions to produce substantial, measurable and rapid results can be accomplished if a concerted effort by the Government, NGOs and civil society is approaching. Whilst the need for financial

resources is not the only barrier, the Debt-for-AIDS approach is advocated to fast track the responses. As a result, a joint activity to develop this appraisal has been undertaken by the federal government, international funding and other implementing agencies, and the communities of the country. Beyond other preventive routine activities, several strategic frameworks have been developed by the international and local concerned bodies to fight against the pandemic in Ethiopia. The international responses to fight against HIV/AIDS have included major areas like Prevention, care and psychosocial support to PLWHAs, and also in areas such as research and management of HIV/AIDS programs. The African Development Bank has also documented that Positive results have been continuously increasing in all areas of the HIV/AIDS prevention programs (ADB, 2001). However, the spread of HIV/AIDS has not been controlled. Moreover, according to the technical document of AIDS in Ethiopia, the rural HIV Epidemic prevalence has been increasing in Ethiopia (MOH, 2004). Thus, the potential scale of the rural epidemic requires an urgent response and to recognize the nature of the rural epidemic, a careful analysis of who is most at risk and how they could become infected is required.

Thus, the epidemic estimation has shown that there is a need to identify the extent and nature of those determinant risk factors in order to design appropriate intervention mechanisms and integrate the multi-sectoral responses against the HIV/AIDS pandemic in the region as well as the country.

1.3 RATIONALES AND OBJECTIVES OF THE STUDY

1.3.1 RATIONALES OF THE STUDY

Amhara Administrative region was selected as the study area based on the following rationales.

- As it is indicated in AIDS in Ethiopia, compared to other regions as well as the national, the prevalence of HIV and Number of PLWHAs in the region is relatively high (MOH, 2004).
- The Demographic and Health Survey of Ethiopia has also shown that the percentage of related service uptake and the source of information in the region are relatively low (DHS, CSA, 2001)

- In the region, there is a relatively high prevalence of harmful traditional practices, particularly, FGM (81.1%) next to Afar (94.5%) and Harari (81.2%) (NCTPE, 1998; CSA, 2001).
- From the study region, Bahirdar with a relatively high prevalence of HIV (20.3%) to represent the Urban Amhara and Wadla-Kone with a relatively high prevalence of HIV(11.7%) to represent the rural communities were selected for the study (MOH, 2004)

1.3.2 OBJECTIVES OF THE STUDY

The General objective of the study is to identify factors that are affecting the HIV/AIDS prevalence across urban and rural areas of the Region. Thus, the specific objectives of the study were to;

- Identify the factors associated with the relatively higher HIV prevalence in Amhara region (particularly for the rural population), as determined from the 2003 round of HIV sentinel surveillance.
- Analyze the direct and indirect determinant factors affecting the prevalence of HIV in Amhara region across the selected urban and rural areas
- Identify the correlations between residence (either urban or rural) and possible determinant factors affecting the prevalence of HIV in the region.
- Evaluate patterns of recent behaviors of the population in the study areas;
- Gathered, reviewed and used several related literatures to analyze the primary data and interpret the findings.
- Recommend the possible interventions that could slow down the spread of HIV in the study areas.

1.4. RESEARCH HYPOTHESIS

Several studies, including the discussed above, documented that different Socio-demographic and socio-cultural determinants could be the responsible risk factors for the relatively high prevalence of HIV. Hence, since the study was aimed to identify the association between place of residence (either urban or rural) and those factors in the region. The following below presented hypotheses were postulated and tested;

- Mobility of the people and Harmful traditions such as early marriage and FGM are mostly practiced in rural than urban Amhara
- Having multiple partners and the presence of never married individuals are relatively high in urban Amhara compared to the rural.
- Despite the high level of prevalence of HIV; the people's level of awareness about HIV/AIDS and the number of HIV tested individuals are exceedingly low in rural compared to urban Amhara.

1.5. OPERATIONAL DEFINITIONS OF TERMS

- Kebele; refers to the smallest administrative unit in Ethiopia. In urban areas it is also called an urban residents Association at the same time as in rural areas it is known as a peasant Association (PA).
- Woreda; refers to the smallest administrative unit above Kebele (equivalent to a district) in Ethiopia.
- Zones; refers to the administrative unites above woredas, in Ethiopia.
- Regions; refers to the national states that consist of a number of zonal administrative unites.
- Household; refers to a dwelling that constitutes of a person or group of persons, irrespective of whether related or not who normally lives together in the same housing unit or group of housing units and who have common arrangements.

1.6. SIGNIFICANCE OF THE STUDY

It is possible to say that there is no in-depth study indicating the direct relation/correlation between the prevalence of HIV (biological survey) and the possible determinants of it (i.e. the socio-demographic and socio-cultural factors) in the region as well as the national. And, thus, the study will serve as baseline population based indicator of the region. And, hence, the result of this study is aimed to be used for decision makers, planners and other interested researchers to design appropriate interventions in the study area. However, the national DHS-2000, the BSS, the ANC-based sentinel surveillance and other related surveys that were conducted for the last couples of years have been contributed.

1.7. ORGANIZATIONS OF THE THESIS

The thesis has seven chapters. Hence, the first chapter deals with the Background information and methods that were designed for the problem under study. The second chapter attempts to assess some related literatures. The third focused on the socio-demographic background of the study areas. The fourth and fifth chapters are discussed about the descriptive part of the findings. And, in chapter six, the postulated hypotheses are tested and analyzed using appropriate statistical techniques. Finally, the last chapter deals with the summary, conclusion and recommendations.

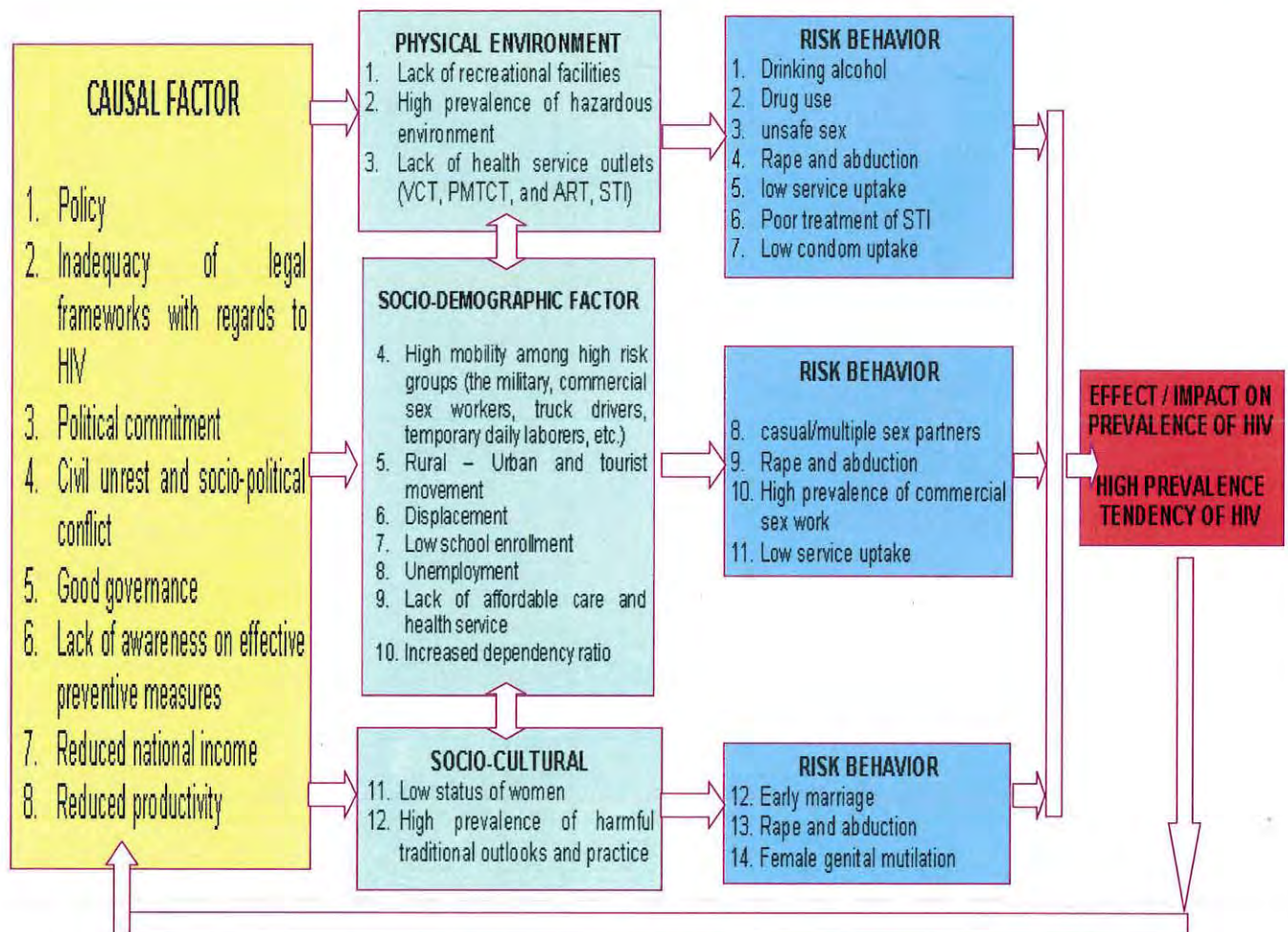
CHAPTER TWO

2. LITERATURE REVIEW

2.1 CONCEPTUAL FRAMEWORK OF THE STUDY

The conceptual framework was designed mainly to show how multiple factors determine the prevalence of HIV in the region and this in turn affects the determinant risk factors too;

CONCEPTUAL FRAMEWORK ON FACTORS AFFECTING HIV/AIDS PREVALENCE



Source: Developed by the researcher, November 2004

2.2. EMPIRICAL OBSERVATIONS

2.2.1. SPATIAL DIFFERENTIATION AND VULNERABILITY IN SUB-SAHARAN AFRICA

In sub-Saharan Africa, there is considerable differentiation in prevalence levels between one region and another. This can be seen from the 2001 projection. Southern Africa has prevalence levels of between 20–40% whereas most of West Africa has prevalence levels below 10%. What is also clear is that while in most of sub-Saharan Africa prevalence levels have increased between 1986 and 2001, in at least two countries, Senegal and Uganda, levels have decreased. Where prevalence levels are highest, such as in the mining district of Carleton Ville in South Africa, in the copper belt of southern Zambia, in the commercial farming district of Masvingo in Zimbabwe and in the urban centers of Lesotho and Botswana due to common factors: economic or politically-driven migration.

In sub-Saharan Africa this takes several forms, the most relevant to the HIV/AIDS pandemic are labour migration to intensive agricultural or mining enterprises, conflict-induced migration to neighboring countries and migration to cities in search of work away from the stabilizing environment of the home to riskier environments with high levels of alcohol consumption and prostitution. Locality is obviously a key factor in HIV/ AIDS risk assessment, but never easy to generalize. Each country has its own pattern of dissemination. For example, in Lesotho, Botswana and Zambia the prevalence is greatest in the urban centers whereas in Zimbabwe, it is in the rural commercial farming districts that the problem is most acute. Throughout the 1990s, Ghana demonstrated a similar pattern with infection being spread to rural villages in Ashanti by returning commercial sex workers.

There are many other factors that lead to increased vulnerability. Among these are awareness and education, poverty, disempowerment and exposure and sensitivity. The lack of awareness and education is often fuelled by a culture of denial. This exists where governments and individuals have found it expedient to downplay the crisis or at a personal level to deny HIV/AIDS infection. This is especially marked in Zambia, where the church has been active in stigmatizing HIV/AIDS sufferers. Where a culture of denial exists there is also likely to be limited public awareness through the media and limited forms of sex education, exacerbating the problem. A result of this

is there is a low or non-existent use of condoms by men. This is a particular problem in southern Africa, not so in Uganda, Kenya and much of West Africa. Another reason that prevalence levels are so high in southern Africa is because of the 'recycling' of the virus across generations, (UNAIDS/WHO Working Group report March 2004).

All-encompassing practice for older men to pay for sex with teenage girls in return for the payment of school fees, gifts or even food. These so-called 'Sugar Daddies' are often infected with HIV. This leads to the infection of the younger girls with the virus (The Economist, 2004). Such girls may then infect other sexual partners they have in the future since many STDs (sexually transmitted diseases) that cause open wounds or ulcers on the genitalia – which would easily be treated with antibiotics in the West – can become infected with the virus (Kanabus and Fredriksson, 2004). These men, when their wives die, or when they migrate to towns and cities in search of work, can then infect more women, and the cycle continues. Individual poverty, therefore, is a major determinant of HIV infection and is further exacerbated by an AIDS death. (Poku; Poverty and Africa's HIV/AIDS crisis, 2002).

A UNAIDS survey on the economic impact of HIV/AIDS in Kenya estimated that households would lose 49%–78% of their income when one person dies from AIDS (excluding funeral costs). Such extra financial burdens put pressure on household nutritional levels which in turn leads to greater susceptibility to HIV infection. (Poku, 2002). A further factor leading to increased HIV/AIDS prevalence concerns exposure and susceptibility. It has already been suggested that high levels of STDs (sexually transmitted diseases) and STIs (sexually transmitted infections) in a community can exacerbate the problem, but opportunities for transmission are further enhanced where there has been genital mutilation, where men are uncircumcised or where anal sex is widely practiced in societies where virginity at marriage is highly prized (Poku, 2002).

Where healthcare services are inadequate the problem is therefore increased. By contrast, in Senegal, government leadership on the issue has been commendable; when the first six cases of AIDS were reported in 1986, a national AIDS programme was immediately set up and steps were quickly taken to protect the population from the virus (Kalipeni et al., 2004). Sex education has also been introduced into the

curriculum at an early stage. Prostitution was legalized in Senegal in 1969. Sex workers are registered by the government and have to have regular sexual health checks. The government is quite vigilant about screening for STIs and STDs as untreated STIs and STDs, such as herpes or vaginal ulcers, increase the chance of a women contracting HIV. Condom use has been promoted by the government and was incorporated into the teaching of Friday sermons in the mosques. The co-operation between religious leaders and the government has ensured that the countries AIDS programme of knowledge and awareness has been successful. Senegal's success is "attributable to cultural practices – circumcision, fidelity in polygamous relations – and effective political leadership that translated into early decisive and comprehensive action to prevent an AIDS crisis", together with low levels of alcohol consumption (Kalipeni et al., 2004)

In Uganda, President Museveni advocated nationwide condom publicity campaigns through the mass media by government health educators and non-governmental organizations (NGOs) in the early 1990s. This has resulted in outreach to men in industries and those on the move in the roadside towns along the Trans-African highway (Kalipeni et al. 2004). Increased condom use has been the result of social marketing; a recent study of sex workers in Kampala reported nearly 100% condom use with clients, although not with regular partners, while use reported by truckers, traders and the military was found to be significant (Schoepf, 2004). Indeed, strong moral governance is important in the battle against the HIV/AIDS.

2.2.2. VULNERABILITY AND RISK ASSESSMENT IN SUB-SAHARAN AFRICA

In this section we go on to demonstrate how economic, social, cultural or political realities, and healthcare services can either open or block opportunities to mitigating the impact of HIV/AIDS in sub-Saharan Africa. Debt and the impact of debt has been one of the key stressors, which, contingent on susceptibility, have increased vulnerability to HIV/AIDS in sub-Saharan Africa.

Currently, African countries are paying US \$13.5 billion in debt service repayments each year with a debt to GNP ratio in sub-Saharan Africa of 340% (Cheru, 2002). Disciplinary measures introduced by the multilateral creditors referred to as 'structural adjustment programmes' have resulted in a quantifiable decline in both

government education and healthcare provision in sub-Saharan Africa. In 2000, South Africa was the only country in the region that was able to spend more on health than on debt servicing (UNAIDS 2004).

A further pressure is that awareness and education about HIV/AIDS is decreasing due to declining school attendance and shortage of teachers. In Zimbabwe the situation is little better. Real capital expenditure dropped there by 35% between 1991-1994 with a 10% decline in nurses between 1991-2. Structural adjustment has led to educational cutbacks throughout sub-Saharan Africa with so-called peripheral subjects such as sex education being an early casualty.

National debt and structural adjustment programmes continue to be significant pressures throughout Africa, increasing individual poverty as currencies are devalued, and increasing export-orientated agro-industrial employment regimes and thus intra-regional labour migration. Whilst debt rescheduling under the HIPC (Heavily Indebted Poor Countries) and HIPC II programmes, introduced in 1996 and 1999, has helped alleviate some of the problems of the past, this is only in countries which are politically stable, since debt rescheduling is linked to 'good governance'. This means that in countries such as the Democratic Republic of Congo, one of the SSA countries most in need of support in tackling HIV/AIDS, there is almost no money available for government healthcare services at all. Similarly, the situation is made worse where there are poor government health services due to debt service provision, where there is a culture of denial and where it is the social and cultural norm for men and women to engage in binge drinking and then have unprotected sex with multiple partners.

2.2.3 DETERMINANT OF RISK FACTORS AND VULNERABILITY TO HIV INFECTION

Different Studies documented that the key factors for the transmission of HIV infection are behavioral factors, such as unprotected sex, causal sex, multiple sexual partners and early sexual contact. In most medical and health sectors, the presence of STI and lack of awareness of the Sero-status, often due to the withholding of the results of a positive test, can support HIV prevalence. Moreover, lack of knowledge of the mode of transmission always leads people to the fear of being infected in their day

to day working situation. Therefore, this and others factors hinder HIV/AIDS prevention efforts of some countries (ADB, 2001). Moreover, other related researches indicated that the source of risk for the majority of rural residents is the movable populations, people who are at higher risk and provide considerable links with other Sub-populations who have lower risk behavior. These linkage may provide a channel for the virus to progress into the broad population (UNAIDS and WHO, 2000). Therefore, these documents identified that, in order to identifying the extent to which rural communities are at risk of HIV infection, three phases are to be responsible: (i.e.; the status of the epidemic in the urban locality, the presence of bridge Populations, and the social norms and practices within a community which put residents at risk.

Beside, as it is clearly presented by the HIV/AIDS strategic paper that were developed in the African Development Bank for the HIV prevention program of Africa, today, the HIV prevention efforts should focus on risk reduction particular on population's vulnerability reduction (ADB, 2001). The Strategic paper of the Bank has also categorized the major risk factors and/ or people's vulnerability with regard to HIV transmission as follows; Vulnerability due to Socio-cultural factors: such as early marriages that are imposed on young girls, the loss of social standards and etiquette, rape and abduction, the inferior status of women in certain society groups, certain harmful traditional practices such as female genital mutilation, levirate and sororate and etc. Fore instance, a baseline survey in Ethiopia on harmful traditional practices indicated that the prevalence of female genital mutilation was estimated at about 74% in the country (NCTPE, 1998). In addition that the mentioned source revealed that the prevalence level in the Study area (i.e. Amhara region) was around 81.1% and the Demographic and Health Survey report of the country also documented that four out of five women have undergone to Female Genital Mutilations practice in Ethiopia (CSA and Macro, DHS, 2001).

Table.2.1 The prevalence Rate of FGM in Ethiopia by Region

Region	Prevalence Rate (%)	Types of FGM
Afar	94.5	Infibulations
Harari	81.2	Infibulations
Amhara	81.1	Clitoridectomy and excision
Oromiya	79.8	Clitoridectomy
Addis Ababa	70.2	
Somali	69.7	Infibulations
Tigray	48.1	Clitoridectomy and excision
SNNPR	46.3	Clitoridectomy
Dire-Dawa	39.9	Infibulations
Gambella	0.0	
National	73.6	

Source: (NCTPE, 1998; CSA, 2001)

Moreover, in addition to, the psychological, social and health problems, FGM has a sever consequence for the transmission of HIV and other diseases in the areas where the practice has taken place. For instance, “lose of femininity, lack of libido, less frequent coitus, absence of orgasm, depression, psychosis and high rate of divorce” are major psychological impacts that results from FGM (WHO, 1994). With regard to HIV/AIDS, the World health organization has indicated than the infibulated women may have vaginal laceration during sexual intercourse. This is due to the removal of lubricating glands during operation and formation of scar around vaginal hole. This

provides an easy get way for HIV/AIDS if her sex partner is infected with the virus. Since many of these harmful traditional practices are taken place under extremely poor sanitary instruments like Knife, scissors, or sharp edge by untrained traditional circumcisers; the probability of the transmission of HIV is relatively high (WHO, 1999; NCTPE, 2003).

2.2.4 HARMFUL TRADITIONAL PRACTICES AND CULTURAL NORMS

Several types of harmful traditions (HTPs) are widely practiced in Ethiopia. The baseline survey that was conducted in 1998 on traditional practices in Ethiopia has also revealed that the prevalence of HTPs are vary in various cultures, residence (urban and rural), and ethnic groups of country. The same survey has also documented that FGM is practiced widely in the nation with an over all prevalence of 74 percent and the greater part of women are victims of the practice over the country (NCTPE, 1998). With regard to FGM, the relatively high prevalence is recorded in Afar, Harari and Amhara regions with 94.5%, 81.2% and 81.1%, respectively.

The Demographic and Health survey has also indicated that four out of five women in the country have undergone for FGM (DHS, CSA, 2000). Hence, in Ethiopia, once the virus is found within rural areas, the socio-cultural practices may play a vital role for its progression within the communities. The Demographic and Health Survey (DHS) of 2000 has found that early marriage (under 15 years old), marriage by abduction and polygamy was also quite common practices in the country and at the same time put women at risk of infection (CSA, 2000).

In many parts of the country, the multiple sexual practices are varying due to place of residence, sex and marital status. The Demographic and Health survey indicates that compared to the rural, urban inhabitants are more likely users of condom during relatively high risk sex. This would appear mainly to be due to a general unwillingness, a lack of familiarity or cultural taboos of adultery to use them rather than the availability of condom in the rural (CSA, 2000). Moreover, the 2002 round Behavioral Surveillance Survey has documented that, during the survey, the rural communities were the least well informed about modes of transmission and preventative methods, and nearly all rural communities particularly, women had less attitude towards people living with HIV/AIDS (MOH,2002). However, there has been a change in the level of intensity of awareness raising activities during the last couple of years in rural communities. Whenever there are social gatherings in the

community, Health officials, religious leaders and CBOs' leaders spend some time talking about HIV/AIDS (Miz-Hasab Research Centre, 2004).

2.2.5 NATIONAL PROGRAMMATIC RESPONSES TO THE HIV/AIDS PANDEMIC

With regard to the National responses, a National Task Force on HIV/AIDS was established in 1985. Two Medium Term prevention and control plans were designed and implemented between 1987 and 1996. With the increasing rate of infection and the worsening of its impacts, the Government of Ethiopia has developed a national policy on HIV/AIDS. The Policy is designed to guide the implementation of programs to prevent the spread of HIV, to care for AIDS patients and to reduce the adverse Socio-economic, Socio-Demographic, and psychological consequences of the pandemic (MOH, 1998). The priority prevention and control measures called for in the policy includes; encouraging people to maintain faithful sexual relationships, the use condoms, Ensuring safe medical practices and human rights of PLWHAs. Hence, the following recommendations are given as specific measures to be taken:

- Strengthen the multi-sectoral approach to AIDS interventions and promote the participation of all sectors of society, including government, NGOs, private Sector organizations, religious groups, unions, professional organizations, etc;
- Increase the allocation of government funds to sustain the AIDS/STD prevention and control program;
- Incorporate family life education into school curricula in order to inform young children about how they can protect themselves from HIV/AIDS and Provide informal education to out-of-school youth;
- Develop effective co-ordination of the AIDS prevention and care efforts of the different organizations and individuals involved;
- Assign capable and well experienced staff to the AIDS control program at both the national and regional governmental levels, Implement the National Policy of HIV/AIDS and Increase the political commitment of the leaders, etc.

The National HIV/AIDS Prevention and Control Council Secretariat (NACS) were also established in April 2000 headed by the President of the Federal Democratic Republic of Ethiopia (HAPCO, December 2003). Following this, a Strategic Framework for the National Response to HIV/AIDS in Ethiopia (2001-2005) was

formulated (NACS, June 2001), which included; IEC/BCC, Condom Promotion and Distribution, VCT, Management of STIs and blood safety, PMCT, care and support, legislation and human rights, and surveillance and researches. The national structure also lays out the institutional arrangement through which the strategies are to be implemented. The National HIV/AIDS Council (NAC) is the federal level bureau, which is composed of members of the government, sector ministries, religious organizations, non-governmental organizations, the private sector, and people living with the virus. Under the NAC, there are the National HIV/AIDS Secretariat, National Advisory Board, and National Review Board each entrusted with different responsibilities.

With regard to monitoring and evaluation, there is considerable degree of underreporting with regards to regular case reporting and notification on HIV/AIDS due to poor systems establishment of routine data collection, monitoring and evaluation. However, the ANC sentinel surveillance that has been planned every year since 1989 in one site of Addis and with the last one in 2003. The 2003 round ANC based sentinel surveillance report is already published and launched. The national sentinel survey are done under the Federal Ministry of Health with technical and financial support of National HAPCO, WHO, U.S –CDC, USAID, UNAIDS, and the Policy Project.

In addition, it is possible to say that the monitoring and evaluation of HIV prevention and control programs are not well-built, though the National framework for the multi-Sectoral response was developed (HAPCO, December 2003). Hence, the country has inadequate information on the level of activities undertaken for the national response towards HIV/AIDS prevention and control. But, It is obvious that the HIV/AIDS prevention and control effort and the role that effort plays in controlling the epidemic in various socio-demographic and socio-cultural contexts of the country have to be clearly measured and presented.

CHAPTER THREE

3. SOCIO-DEMOGRAPHIC BACKGROUND OF THE STUDY AREA AND STUDY METHDOLOGY

3.1. STUDY METHDOLOGY

3.1.1 TYPES AND SOURCES OF DATA

Both primary and secondary data were gathered using various data collection instruments. Accordingly, Desk reviews for all available related pertinent literatures were also critically examined, to obtain relevant information from several published and unpublished documents. Moreover, quantitative and qualitative methodological approaches were employed. And, therefore, the following instruments were used for data collection are;

- Household Survey was carrying out through structured questionnaires on the local community. Thus, questionnaire to be administered for individual women and men was designed and used to generate quantitative data pertaining to their social-demographic and socio-cultural characteristics. The questionnaire were based on the model questionnaires developed by UNAIDS and different organizations, adapted to the situation and needs of the study area. After preparation of the draft questionnaires in English, the questionnaire was translated into the Amharic language.
- Focus group discussion was also employed for collecting qualitative data in the selected study areas to supplement the results of quantitative information obtained from the structured questionnaire. The FGDs was recorded, transcribed and analyzed in line with the objectives of the study; and Participants in the discussions were recruited to represent the socio-demographic and socio-cultural compositions of the targeted study population.
- Structured observation checklist was designed and used to assess the types, availability and accessibility of various services given by several stakeholders that were working on HIV/AIDS prevention and control programs.
- The research tools were pre-tested and appropriate training was given to the data collectors. Maintaining confidentiality and anonymity of the respondents were also another key component of these study processes. And, hence, prior to each interview, informed consent was obtained from the participants.

3.1.2. SAMPLING DESIGN AND SELECTION OF KEBELES AND PEASANT ASSOCIATIONS

There are 17 kebeles in Bahirdar and around 26 Peasant Associations (PAs) in wadla-Kone. Accordingly, for urban Bahirdar were divided into three strata/ Kebeles based on the following criterions;

- Areas where relatively commercial and other Income generation and PAs Activities are available (i.e. kebele 6)
- Areas of Peripheral/ relatively far from the commercial and other social services (i.e. kebele 11)
- Areas where GOs institution like School, health and other services are available (i.e. kebele 13)

Besides, the five PAs for the rural, the sentinel surveillance satellite sites of kone-wadla, (Kone, Daleгна, Abdikom, Gazobelay and Konna) were selected. The selected kebeles were further divided into blocks (for urban) and gotts (for rural); and selection of blocks and gotts was done randomly. Finally, from each kebele/PA administration considerable number of households was selected.

3.1.3 SAMPLE SIZE DETERMINATION

Households were used as sampling unit, while respondents in the age group 15 - 49 years

Were the actual sample populations for the quantitative Study? Multi- stage Cluster sampling technique was applied to identify households that were to be joining up for the study. Moreover, according to the 2003 sentinel surveillance report, the HIV prevalence rate for Bahirdar (urban) and Kone-wadla (rural) of Amhara is 20.3 and 11.7, respectively. Thus, the following formula was used to determine the sample size;

$$\text{Sample Size } (n) = \frac{[(Z \alpha/2)^2 \times P(1-P)]}{e^2} + 10\%$$

Where n is the sample size, $Z \alpha/2$ is the standard normal deviate usually fixed at 1.96 corresponding to the 95% CI, e is Margin of error(0.05), P is the HIV Prevalence rate in the study areas and 10% of contingency for the reference group was employed. Accordingly, based on Dixon and Leach's [1978] formula, 272 for Bahirdar, 175 for Kone-wadla and based on purposive sampling techniques, 230 PLWHAs as a

reference group (a total of 677 households) were selected and included in the populations for the household survey with the following assumptions:

- Prevalence rate of HIV in the Study area was used as a proxy (p)
- Level of significance / margin of error (e) was at 5%
- Level of contingency was 10% for reference groups

3.1.4 SELECTION OF SAMPLE POPULATION

After the target areas were selected and the clusters within each sampled areas were identified, the respondents were first taken by using criterion sampling, which is an important component of Purposive sampling and a very useful technique to pick up all cases that meet the criteria. Hence, regarding to the number of subjects, one female of reproductive ages from each sampled household and one male from every fourth sampled household was interviewed. To select the required number of subjects from many eligible respondents in the household, simple random sampling technique was applied. All women in the 15-49 years age group living permanently in the selected households at the time of the survey were eligible to be interviewed in the survey.

3.1.5 DATA PROCESSING AND ANALYSIS METHODS

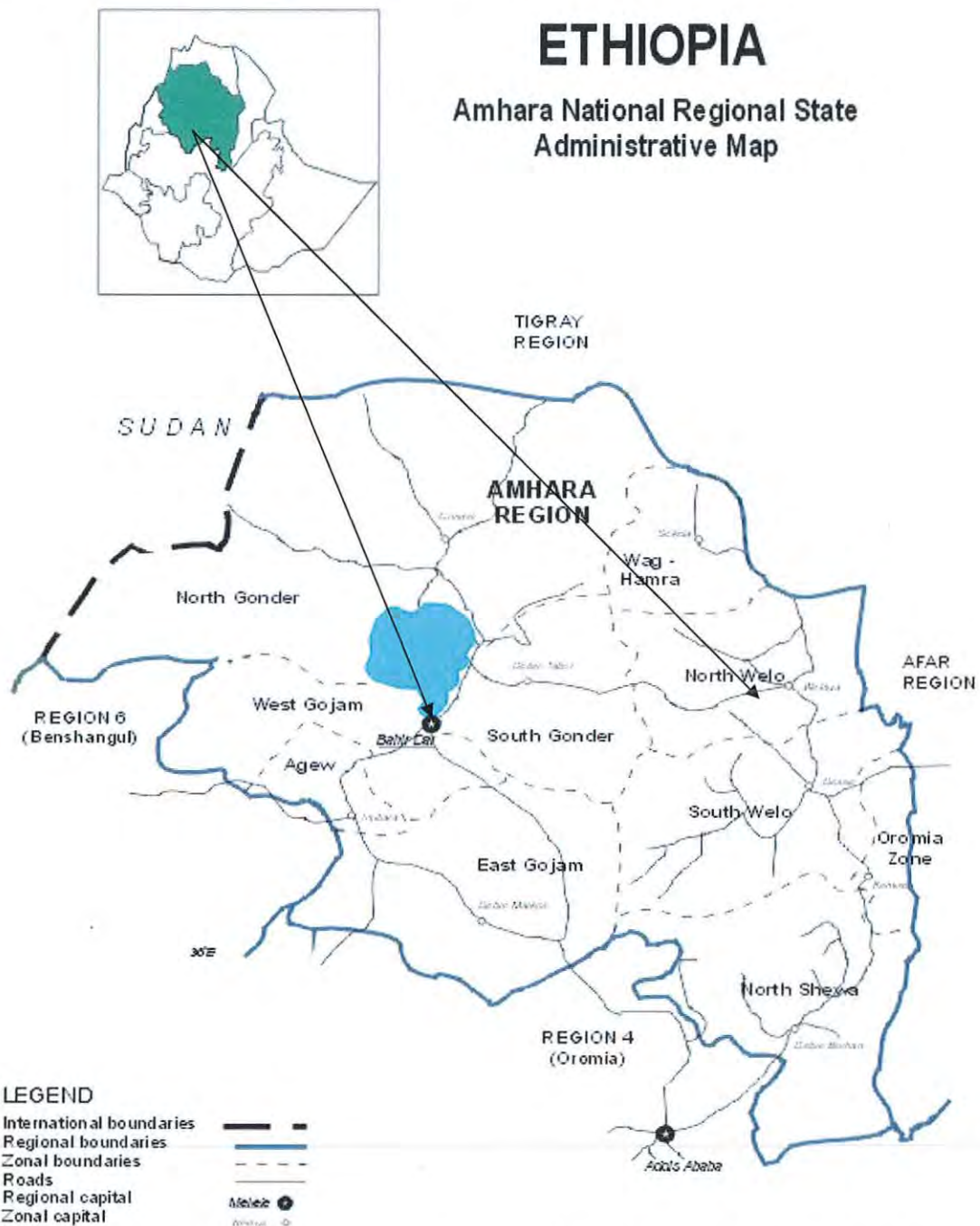
Group of teams (one for Bahirdar and another one for wadla woreda), each consisting of 20 data collectors, were recruited for the data collection activities. Four supervisors were also assigned to be responsible and engaged for monitoring of the field work. Following to the data collection, editing and making correction in the field, data entry processes of all questionnaires were carried out. The SPSS-11 software package was used for entry, editing and tabulation of the data. All errors detected during the editing procedure were corrected. SPSS software was also used to analyze the quantitative data that was generated during the fieldwork using the structured questionnaire based on the objectives and research hypothesis of the study. Moreover, the study had been presented in descriptive and statistical analysis that permits comparison across the rural and urban areas of the region.

3.2. SOCIO-DEMOGRAPHIC BACKGROUND OF THE STUDY AREA

3.2.1. LOCATION AND PHYSICAL SET-UP

The target area for the study is located in Amhara region as described in the given below presented map of Ethiopia.

Map. 3.1 Amhara National regional state Administrative Map



Source: Adopted from http://www.telecom.net.et/~undp-eue/reports/map_page.htm, 2005

3.2.2. DEMOGRAPHIC AND SOCIAL CONDITIONS

The total population of Amhara region, according to the 1994 census, is 18,143,000, which constitutes 25.5% of the entire population of the country, which is 71,066,000 giving an arithmetic density of 114.0 persons per square kilometer. The largest part of this population nearly 88.9 % is rural (CSA, 1994).

Table.3.1 Amhara Regional State Demographic Indicators, 2004

Region	Both sexes	Sex ratio	Urban %	Surviving Infants %	Under Five %	Female 15-49 %	Dependency Ratio %	Population Density per km ²
Amhara	18,143,000	100.0	11.1	3.5	16.7	23.4	87.2	114.0

Source: Adopted from Health & Health related Indicators, MOH, 2004

Table 3.2. Amhara Regional State potential Health facility coverage, 2004

Region	Population	Health Centers	Health station	Health Post	Private clinics	Hospitals
Amhara	18,143,000	115	0	1128	175	17

Source: Adopted from Health & Health related Indicators, MOH, 2004

Table 3.3. Amhara Regional State Health Professionals population Ratio, 2004

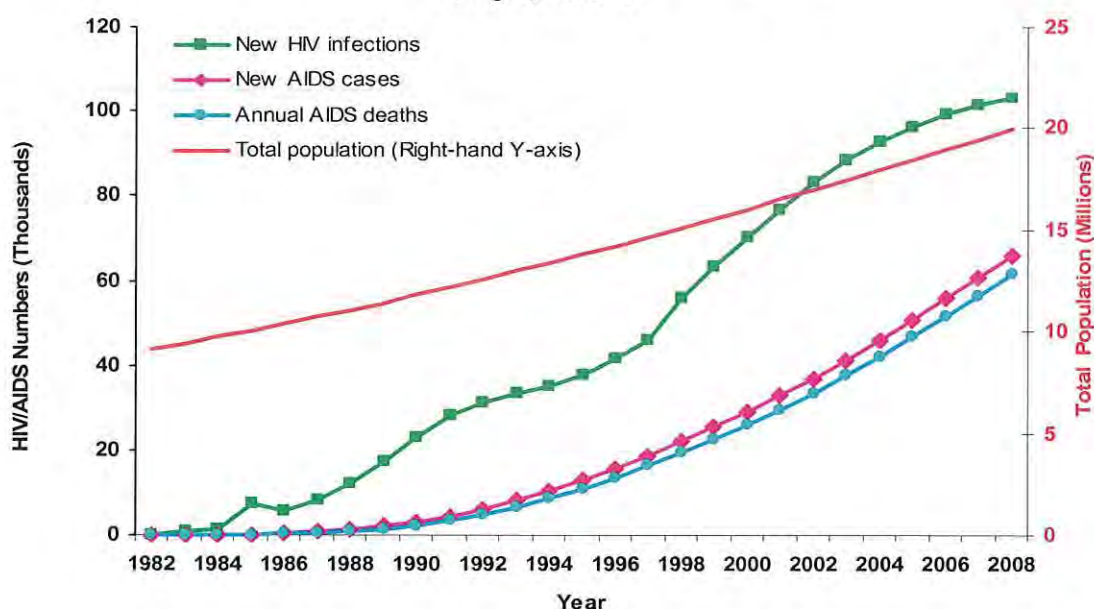
Region	Population	Physicians	Nurses	4.1s Health Assistant	Environmental Health Workers
Amhara	18,143,000	67,951	11,483	17,580	67,951

Source: Adopted from Health & Health related Indicators, MOH, 2004

3.2.3. HIV/AIDS SITUATION

With regard to the regional estimates, AIDS in Ethiopia technical report has documented that out of the total all age groups, the HIV prevalence in Amhara has increased from 6.1% to 6.7% from 2003 to 2005. And, The HIV incidence of the region is estimated to be 1.02 and 1.03 in 2003 and 2005 respectively. The report has also revealed that in the respective years, the prevalence of HIV among the urban population is estimated to be 15.6% and 15.5% whilst among the rural population is estimated to be 4.9% and 5.6% (MOH; 2004). In general, in the region, the urban prevalence is found to be stabilizing after a year of 1996/7 while the rural prevalence trend is increasing. Moreover, the number of new HIV infections, new AIDS cases and annual AIDS death are also arising rapidly. And, accordingly, the total Amhara HIV prevalence is estimated to be increasing and these may also be attributed to the national population which is rapidly increasing (MOH, 2004).

Figure 2.4 : Estimated and Projected Number of New HIV Infections, New AIDS Cases, and Annual AIDS Deaths By Year, All Ages, Amhara



Source: MOH, 2004

Table.3.4. REGIONAL HIV/AIDS RELATED ESTIMATES, 2003							
REGION		PLWHA		New HIV Infections		Annual AIDS Deaths	
		All Ages	Children	All ages	Children	All Ages	Children
Tigray	Total	87,377	6,123	13,358	2,230	6,813	1,553
	Urban	46,417	3,328	5,989	1,040	4,276	830
	Rural	40,960	2,795	7,369	1,190	2,537	723
Afar	Total	16,161	914	2,157	311	1,320	228
	Urban	10,068	585	1,120	173	946	143
	Rural	6,093	329	1,037	138	374	85
Amhara	Total	528,310	36,093	88,402	13,837	37,604	9,259
	Urban	154,341	11,576	20,722	3,430	14,694	2,918
	Rural	373,969	24,517	67,680	10,407	22,910	6,341
Oromia	Total	330,441	24,552	55,603	8,934	25,076	6,322
	Urban	157,592	12,827	22,835	3,857	14,676	3,266
	Rural	172,849	11,725	32,768	5,077	10,400	3,056
Somali	Total	50,256	3,573	7,244	1,172	4,272	894
	Urban	34,310	2,614	4,417	771	3,303	647
	Rural	15,946	959	2,827	401	969	247
Benishangul	Total	8,921	592	1,352	221	669	151
	Urban	3,539	254	465	79	326	64
	Rural	5,382	338	887	142	343	87
SNNPR	Total	183,985	13,123	31,133	5,117	12,925	3,373
	Urban	50,862	4,254	7,178	1,298	4,781	1,073
	Rural	133,123	8,869	23,955	3,819	8,144	2,300
Gambella	Total	4,714	256	653	87	391	65
	Urban	3,349	189	440	60	308	48
	Rural	1,365	67	213	27	83	17
Harari	Total	7,080	363	953	108	654	93
	Urban	6,691	339	880	97	629	87
	Rural	389	24	73	11	25	6
Addis Ababa	Total	241,272	9,295	28,325	2,554	23,507	2,334
Dire Dawa	Total	16,241	934	2,235	304	1,459	242
	Urban	15,652	895	2,138	288	1,421	232
	Rural	589	39	97	16	38	10

Source; MOH, 2004

CHAPTER FOUR

4. SOCIO-ECONOMIC AND DEMOGRAPHIC CHARACTERISTICS OF THE STUDY POPULATION

4.1. DEMOGRAPHIC CHARACTERISTICS OF THE STUDY POPULATION

4.1.1. DISTRIBUTION OF STUDY POPULATION BY AGE, SEX AND RESIDENCE

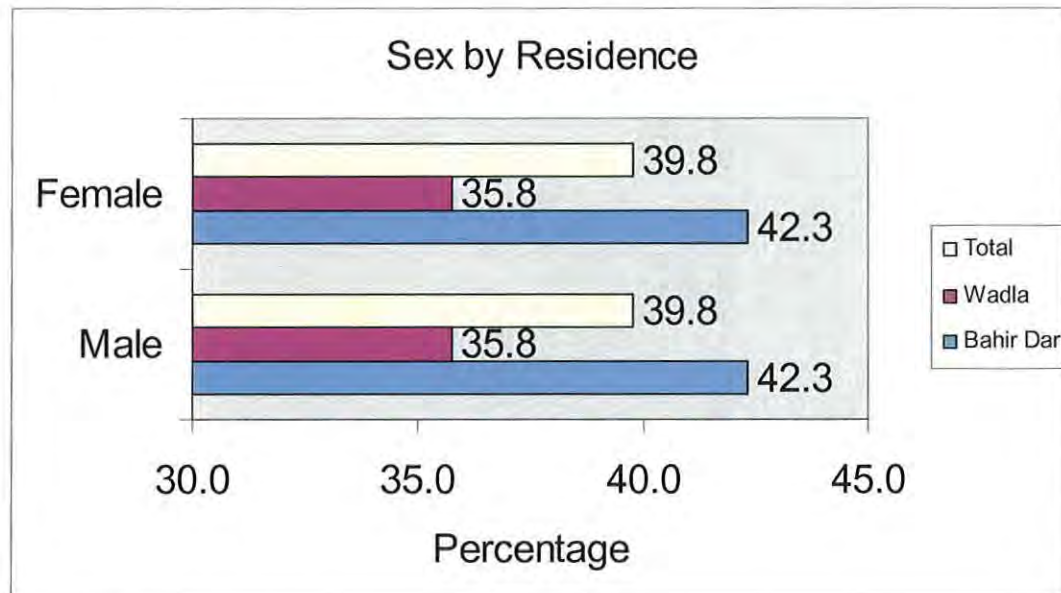
In this chapter, some selected socio-demographic characteristics of the respondents of the study area of Amhara region are presented. As it is shown in Table 4.1, a total of 493-sample population aged 15-49 and 15-59 for female and male respondents correspondingly were taken. Of the total respondents in the study area, 61.2% and 38.8% were living in urban (Bahirdar) and rural (Wadla-Kone) respectively. Both sexes were interviewed. Accordingly, a total of 41.8 percent were males and the remaining 58.2 percent were females. Regarding to age groups; 35.9 percent of the sample population aged 25-34, 29.6 percent were 15-24, 23.7 percent were 35-44, 9.5 percent of the respondents were 45-54 and the remaining 1.2 percent were aged 55+. Detailed data is presented below.

Table 4.1. Percentage distribution of respondents by age, sex and Residence

Age group	Residence						Total
	Urban			Rural			
	Male	Female	Total	Male	Female	Total	
	%	%	%	%	%	%	%
15-24	23.6	31.8	28.3	30.4	32.3	31.6	29.6
25-34	36.2	32.9	34.3	33.3	41.1	38.3	35.9
35-44	25.2	25.4	25.3	23.2	20.2	21.2	23.7
45-54	12.6	9.8	11.0	8.7	6.5	7.3	9.5
55+	2.4		1.0	4.3		1.6	1.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Field Survey; 2005

Figure 4.1.percent of respondent's sex by Residence



Source: Field Survey; 2005

4.1.2. DISTRIBUTION OF RESPONDENTS BY MARITAL STATUS AND AGE AT FIRST MARRIAGE

Since marital status and age at first marriage is another socio-demographic variable for the study, both men and females were asked about their current marital status. And, therefore, Urban and rural differed significantly in terms of marital status where about 30.0 percent of urban dwellers are never married compared to 17.6 percent of the rural. In addition, 18.0 percent of urban inhabitants are widowed compared to 7.8 percent of the rural. But, regarding to currently married and divorced status, as it is shown in the below presented table; there is no significance difference between urban and rural residents.

The respondents were asked the age at which their first marriage took place. The problem is that many of the respondents do not know/remember the age at which such events happened. But, accordingly, the survey result revealed that about 89.0 percent (82.5% urban vs. 97.5) of the sampled population have practiced early marriage, under age 15, compared to only 11.0(17.5 urban vs. 2.5%) percent who get married after age 15.

Table 4.2 Percentage distribution of respondent's Marital Status and age at first marriage by Residence

Background Characteristics		Residence					
		Urban		Rural		Total	
		N	%	N	%	N	%
Marital status	Never married	90	30.0	34	17.6	124	25.2
	Currently Married	109	36.3	110	57.0	219	44.4
	Widowed	54	18.0	15	7.8	69	14.0
	Divorced	47	15.7	34	17.6	81	16.4
	Total	300	100.0	193	100.0	493	100.0
Age at first marriage	Age <15	175	82.5	157	97.5	332	89.0
	Age > 15	37	17.5	4	2.5	41	11.0
	Total	212	100.0	161	100.0	373	100.0

Source: Field Survey; 2005

4.2. SOCIO-ECONOMIC CHARACTERISTICS OF THE RESPONDENTS

4.2.1. DISTRIBUTION OF RESPONDENTS BY RELIGION & ETHNICITY

The survey result revealed that the sample population of the study areas was reasonably homogenous in terms of religion and ethnic groups. Hence, the majority of the sample population is orthodox Christian that is 94.9 percent (of them 94.7 urban vs. 95.3% rural) followed by Muslim 4.7 percent (of them 4.7% urban vs. 4.7% rural) and protestants 0.4 percent).

With regard to the ethnic compositions of the sample population; Amhara is the predominant Ethnic group, constituting 98.6 percent (of them 97.7% urban vs. 100% rural), followed by Tigre, and Oromo collectively constituting 1.4 percent.

Table 4.3 Percentage distribution of respondent's Religion and Ethnicity by Residence

Socio-economic Characteristics		Residence					
		Urban		Urban		Total	
		N	%	N	%	N	%
Religious Affiliation	Orthodox	284	94.7	184	95.3	468	94.9
	Protestant	2	.7			2	.4
	Muslim	14	4.7	9	4.7	23	4.7
	Total	300	100.0	193	100.0	493	100.0
Ethnicity	Amhara	293	97.7	193	100.0	486	98.6
	Oromo	2	.7			2	.4
	Tigrie	5	1.7			5	1.0
	Total	300	100.0	193	100.0	493	100.0

Source: Field Survey; 2005

4.2.2. DISTRIBUTION OF RESPONDENTS BY LITERACY AND EDUCATIONAL STATUS

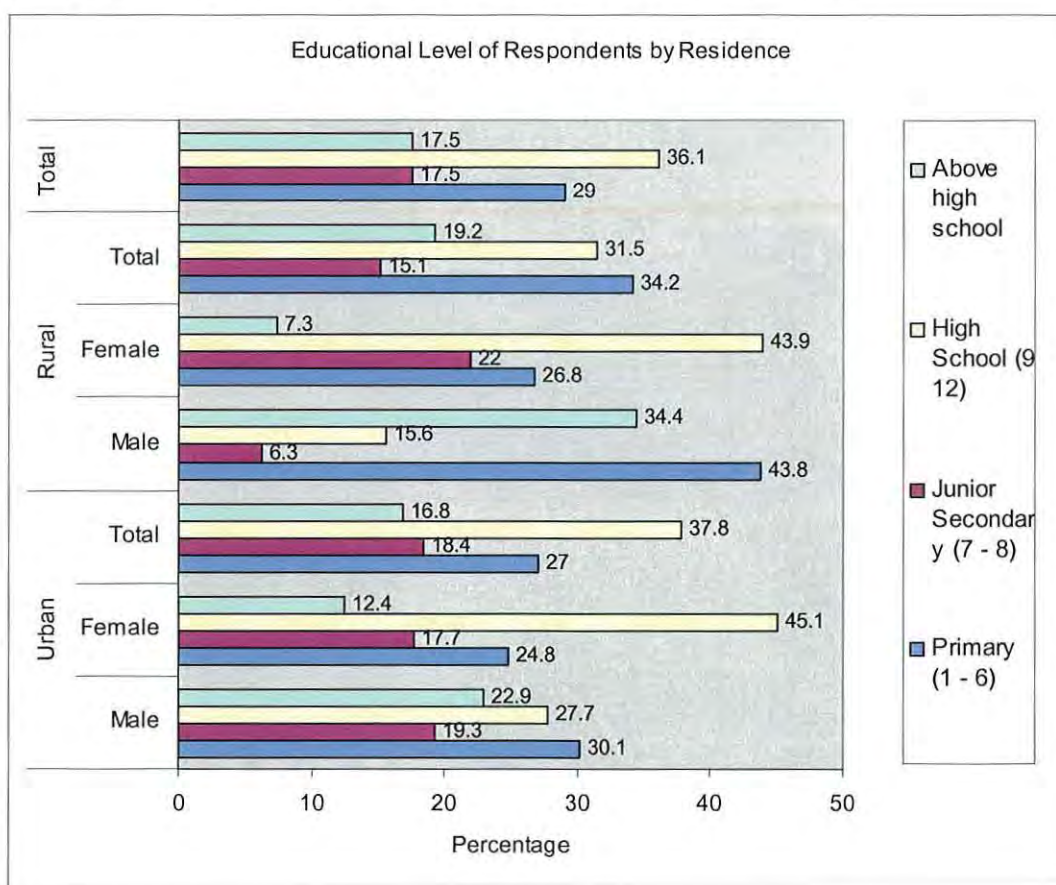
With regard to educational attainment; the sample population indicates that there is a significance differences between urban and rural population where nearly 66.1 percent urban population had been attended formal education compared to only 38.9 percent of rural population. Out of those who attended formal education, 16.8 percent of urban are above high school level compared to 19.2 percent of rural sample population. But, as it is shown in the table below; regarding to non formal education attainments, there is no significance difference between urban (1.3%) and rural (2.6%) populations. Detailed data is presented below in the figure.

Table 4.4 Percentage distribution of respondents by age, sex and Residence

Socio-economic Characteristics		Residence						
		Urban			Rural			Total
		Male	Female	Total	Male	Female	Total	
		%	%	%	%	%	%	
Literacy status	Non formal	2.4	.6	1.3	1.4	3.3	2.6	1.8
	Yes, formal	65.9	66.1	66.0	47.8	33.9	38.9	55.4
	Not at all	31.7	33.3	32.7	50.7	62.8	58.4	42.7
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Field Survey; 2005

Figure 4.2.percent of respondent's education level by Residence



4.2.3. DISTRIBUTION OF RESPONDENTS BY EMPLOYMENT STATUS

The data on employment status were also collected from the sampled population. Accordingly, the survey result revealed that about 56.0 percent (44.0% urban vs. 74.6% rural) of the total sampled populations do have a job out side of their home to generate a regular income.

Differentials in types of occupation exist between places of residence as shown in table 3.5. Thus out of the employed, 33.3 percent (3.8 % urban vs. 60.4% rural) of the population was engaged in farming activities, 19.2 percent (23.5% urban vs. 60.4% rural) in GOs/NGOs, and 20.3 percent (30.3% urban vs. 11.1%) in their own Business, 4.7 percent (8.3% urban vs. 1.4% rural) in handicrafts and the remaining 22.5 percent (34.1% urban vs. 11.8% rural) were reported that they were engaged in other informal sectors. Details presented below.

Table 4.5. Percentage distribution of respondent's Employment Status and Type of Occupation by Residence

Socio-economic Characteristics		Residence						
		Bahir Dar			Wadla			Total
		Male	Female	Total	Male	Female	Total	
Employment status	Yes	48.0	41.0	44.0	84.1	69.4	74.6	56.0
	no	52.0	59.0	56.0	15.9	30.6	25.4	44.0
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Type of Occupation	GOs/NGOs	24.6	22.5	23.5	19.0	12.8	15.3	19.2
	Farming	1.6	5.6	3.8	65.5	57.0	60.4	33.3
	Business	26.2	33.8	30.3	6.9	14.0	11.1	20.3
	Handicraft	13.1	4.2	8.3	1.7	1.2	1.4	4.7
	Others	34.4	33.8	34.1	6.9	15.1	11.8	22.5
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Field Survey; 2005

CHAPTER FIVE

5. KNOWLEDGE, ATTITUDES AND PRACTICES TO HIV/AIDS/STI AND HARMFUL TRADITIONS OF THE STUDY POPULATION

5.1 AWARENESS OF HIV/AIDS

It is a well-established fact that one of the major strategies for preventing the epidemic is to increase the knowledge of individuals on the modes of transmission of HIV and how to take measures to protect them. Hence, the percentage of sample population who have heard of HIV/AIDS is presented against different selected socio-demographic characteristics of respondents. Accordingly, the survey result shows that there is no significant difference on HIV/AIDS awareness between urban and rural dwellers, male and female respondents, among various religious groups, age groups, marital status, educational status, employment status and other variables.

However, different surveys reported that urban dwellers have more knowledgeable on HIV issues than the rural folk. When we look in to the same table; the majority of the sample population in the study area gives the impression of having adequate knowledge. However, still 3.3 percent (2.7 urban vs. 4.2 rural) the population reported that they do not have the knowledge of HIV/AIDS. The study indicates that generally, the HIV/AIDS awareness level of respondents in the study area is high.

The surveys revealed that among 493 respondents, 96.7% of the respondents have heard HIV/AIDS. As seen in table 5.1, the awareness level of HIV/AIDS does not make any notable difference between urban and rural population, 97.3 percent and 95.8, respectively. Similarly there are no substantial variations by sex and age of respondents on the level of awareness. This may be due to the fact that the participants of the study were from relatively similar background area and age groups. Detail results are presented below in the table and the figure.

Table 5.1. Percentage distribution of respondent's Awareness to HIV/AIDS by Background Characteristics

Background Characteristics		Have You Ever Heard of HIV/AIDS					
		Have		Have not		Total	
		N	%	N	%	N	%
Residence	Bahir Dar	288	97.3	8	2.7	296	100.0
	Wadla	183	95.8	8	4.2	191	100.0
	Total	471	96.7	16	3.3	487	100.0
Sex	Male	187	96.9	6	3.1	193	100.0
	Female	284	96.6	10	3.4	294	100.0
	Total	471	96.7	16	3.3	487	100.0
Age group	15-24	140	95.9	6	4.1	146	100.0
	25-34	167	96.0	7	4.0	174	100.0
	35-44	112	97.4	3	2.6	115	100.0
	45-54	46	100.0			46	100.0
	55+	6	100.0			6	100.0
	Total	471	96.7	16	3.3	487	100.0
Marital status	Never married	121	98.4	2	1.6	123	100.0
	Ever married	350	96.2	14	3.8	364	100.0
	Total	471	96.7	16	3.3	487	100.0
HTP Practice	Yes	147	97.4	4	2.6	151	100.0
	No	324	96.4	12	3.6	336	100.0
	Total	471	96.7	16	3.3	487	100.0
Employment Status	Yes	266	97.1	8	2.9	274	100.0
	No	205	96.2	8	3.8	213	100.0
	Total	471	96.7	16	3.3	487	100.0

Source: Field Survey; 2005

5.2 SOURCE OF INFORMATION TO HIV/AIDS

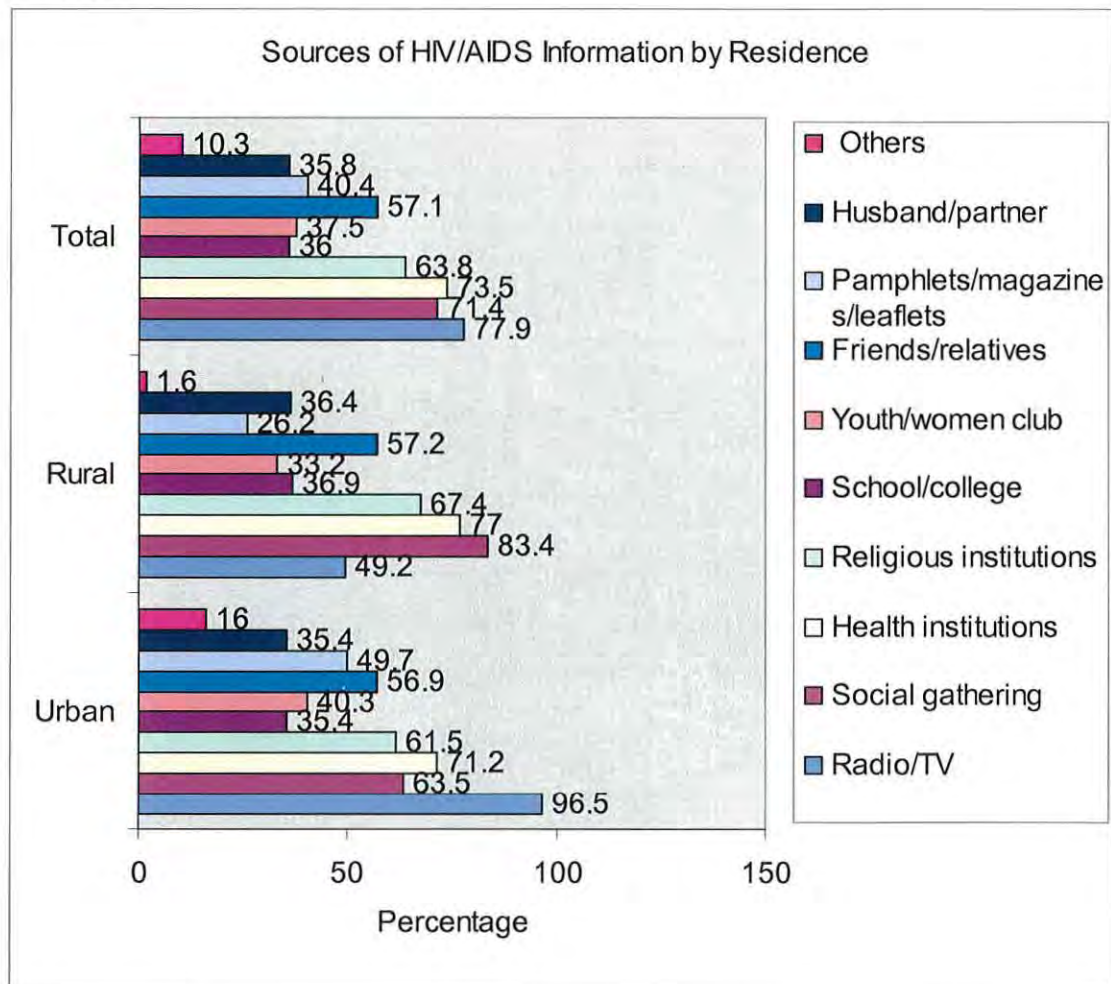
The sampled population who had ever heard of HIV/AIDS were asked source of information. The study respondents reported that most of them were benefited from many sources of information. Thus, the most common sources of information were Radio, Health institutions, Social gatherings, religious institutions, and relatives/friends. Table.5.2 Shows that among the 493 respondents, 77.9 percent (96.5% urban vs. 49.2% rural) were mentioned radio, 73.5 percent (71.2% urban vs. 77.0% rural) Health institutions, 71.4 percent (63.5% urban vs. 83.4% rural) social gatherings, 63.8 (61.5% urban vs. 67.4% rural) religious organizations, 57.1(percent(56.9% urban vs. 57.2% rural) Friends/relatives, 40.4 percent (49.7% urban vs. 26.2% rural) pamphlets/leaflets, 36.0 percent(35.4% urban vs. 36.9% rural) school, 35.8 percent(35.4% urban vs. 36.4% rural) partners and only 10.3 percent (16.0%urban vs. 1.6% rural), other sources as their source of Information. Detailed results are presented below in the table. Urban dwellers seem to have better access to the different source of information compared to the rural. Hence, there is some significance difference between urban and rural population on the sources.

Table 5.2. Percentage distribution of Respondent's knowledge to source of Information by Residence

Source of Information	Residence					
	Urban		Rural		Total	
	N	%	N	%	N	%
Radio/TV	278	96.5	92	49.2	370	77.9
Social gathering	183	63.5	156	83.4	339	71.4
Health institutions	205	71.2	144	77.0	349	73.5
Religious institutions	177	61.5	126	67.4	303	63.8
School/college	102	35.4	69	36.9	171	36.0
Youth/women club	116	40.3	62	33.2	178	37.5
Friends/relatives	164	56.9	107	57.2	271	57.1
Pamphlets/magazines/leaflets	143	49.7	49	26.2	192	40.4
Husband/partner	102	35.4	68	36.4	170	35.8
Others	46	16.0	3	1.6	49	10.3
Total	288	100.0	187	100.0	475	100.0

Source: Field Survey; 2005

Figure.4.2. Percentage of respondent's knowledge to Source of Information by residence



Source: Field Survey; 2005

5.3 MODES OF TRANSMISSIONS OF HIV/AIDS;

The sample population were asked to list/name the possible modes of HIV transmission. Accordingly they named the most common ones that are having sex with PLWHAs (99.4%), Blood transfusion (87.8%), and using unsterilized contaminated sharp instruments (88.5%).

The surveys result has also shown clearly that while awareness of HIV/AIDS has increased in the study area, the knowledge and understanding of HIV/AIDS transmissions are not fair. Hence, misconceptions also appeared in the study areas in that a significant number of respondents were still believe that mosquito biting (19.6%), shaking and eating together (3.7%), sharing and

using utensils with PLWHAs (8.0%) and curse of God (37.5) could be possible modes of transmissions of the infection.

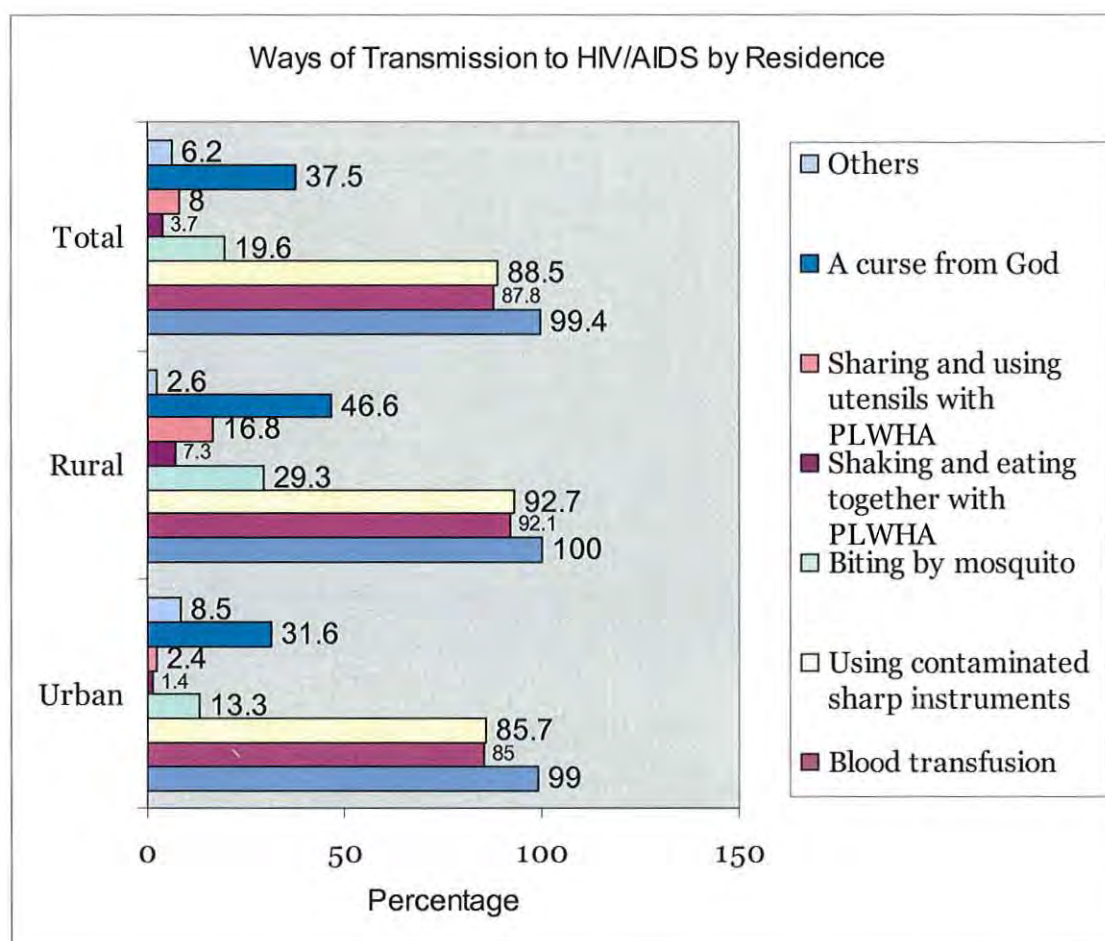
With regard to these misconceptions, there is significant difference between urban and rural dwellers. Detailed are presented below in the table.

Table 5.3 Percentage distribution of Respondent's knowledge to Modes of HIV Transmissions by Residence

Means of HIV transmissions	Residence					
	Urban		Rural		Total	
	N	%	N	%	N	%
Having sex with HIV person	291	99.0	191	100.0	482	99.4
Blood transfusion	250	85.0	176	92.1	426	87.8
Using contaminated sharp instruments	252	85.7	177	92.7	429	88.5
Biting by mosquito	39	13.3	56	29.3	95	19.6
Shaking and eating together with PLWHA	4	1.4	14	7.3	18	3.7
Sharing and using utensils with PLWHA	7	2.4	32	16.8	39	8.0
A curse from God	93	31.6	89	46.6	182	37.5
Others	25	8.5	5	2.6	30	6.2
Total	294	100.0	191	100.0	485	100.0

Source: Field Survey; 2005

Figure.5.3. Percentage of respondent's knowledge to ways of transmissions by residence



Source: Field Survey; 2005

5.4 PREVENTION OF HIV/AIDS;

The sampled population who had heard of HIV/AIDS was also asked for mode of HIV preventions. Accordingly, as presented in table.5.4, among 493 respondents about 93.2 percent (90.4% urban vs. 97.4%) and 93.2 percent (89.4% urban vs. 99.0% rural) of the respondents reported that Abstinence and Limiting of sex with one partner are the major mode of prevention of HIV transmission.

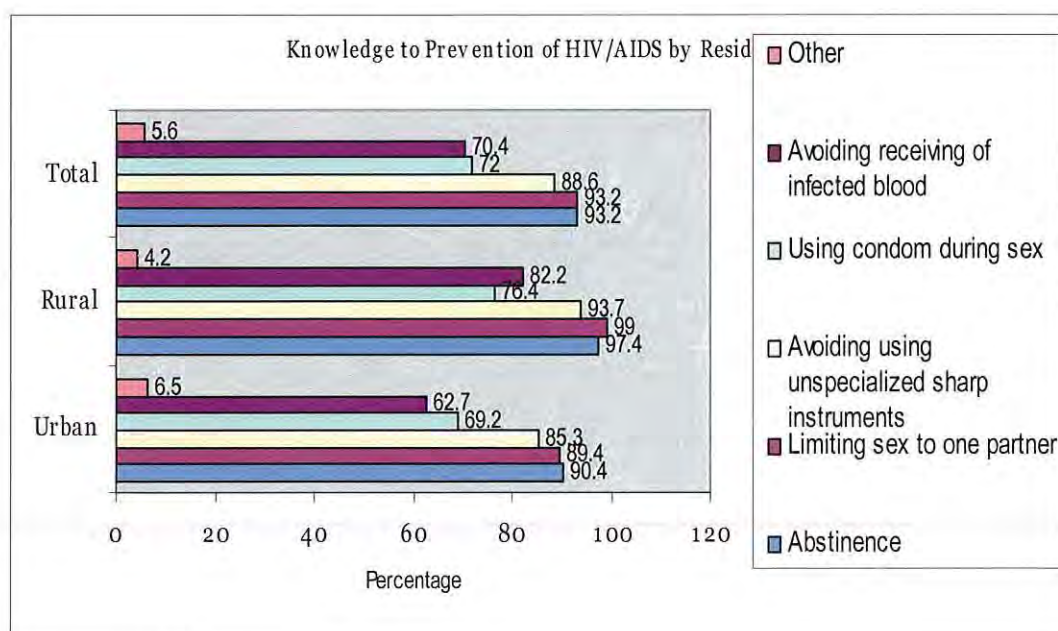
About 88.6 percent (85.3% urban vs 93.7%) of them also reported that avoiding unsterilized contaminated instruments could prevent HIV. Moreover respondents had given their response for condom and infected blood transfusion. Hence, about 72.0 percent (69.2% urban vs. 76.4%) and 70.4 percent (62.7%

urban and 82.2%) of the sampled population responded that using condom and avoiding receiving of infected blood could also prevent HIV.

Table 5.4 Percentage distribution of Respondent's knowledge to Ways of Prevention by Residence

Ways of HIV Preventions	Residence					
	Urban		Urban		Urban	
	N	%	N	%	N	%
Abstinence	264	90.4	186	97.4	450	93.2
Limiting sex to one partner	261	89.4	189	99.0	450	93.2
Avoiding using unspecialized sharp instruments	249	85.3	179	93.7	428	88.6
Using condom during sex	202	69.2	146	76.4	348	72.0
Avoiding receiving of infected blood	183	62.7	157	82.2	340	70.4
Other	19	6.5	8	4.2	27	5.6
Total	292	100.0	191	100.0	483	100.0

Figure 5.4: Percentage of respondent's knowledge to Prevention of HIV/AIDS by Residence



Source: Field Survey; 2005

5.5 ATTITUDE AND PRACTICES TO VOLUNTARY COUNSELING AND TESTING

All sampled women respondents were asked whether they have ever discussed or not with their partner or others about VCT. Accordingly, the survey result indicated that there is a significant difference between urban and rural inhabitants about discussions on VCT during and since they were pregnant.

Level of knowledge and attitudes towards VCT is satisfactory in urban compared to the rural dwellers. Out of the total female sampled population, 87.9 percent get health care services since they were pregnant.

Moreover, 18.2 percent and 22.3 percent of them reported that they were tested for HIV since and before they became pregnant. Detailed are presented below.

Table 5.5 Percentage distribution of Women respondent's Attitude and Practices to VCT by Residence

Attitude and Practices to VCT		Residence					
		Urban		Urban		Urban	
		N	%	N	%	N	%
Test Since becoming pregnant	Did anyone talk to you about getting tested for HIV	14	17.7	4	7.5	18	13.6
	Did you talk to your partner about getting tested for HIV	29	36.7	9	17.0	38	28.8
	Did you get tested for HIV?	21	26.6	3	5.7	24	18.2
	Did you get any health care during your pregnancy	71	89.9	45	84.9	116	87.9
	Did anyone talk to you about getting tested for HIV	15	19.0	7	13.2	22	16.7
	Did you talk to your partner about getting tested for HIV	20	25.3	6	11.3	26	19.7
	Total	79	100.0	53	100.0	132	100.0
Test before pregnant	Did anyone talk to you about getting tested for HIV	15	23.1	7	18.4	22	21.4
	Did you talk to your partner about getting tested for HIV	20	30.8	6	15.8	26	25.2
	Did you get tested for HIV?	20	30.8	3	7.9	23	22.3
	Did you talk to your partner about getting pregnant	50	76.9	32	84.2	82	79.6
	Total	65	100.0	38	100.0	103	100.0

Source: Field Survey; 2005

5.6 MOTHER TO CHILD HIV TRANSMISSIONS

The field observations and FGDs that were conducted in the study areas has clearly shown that, the PMTCT programme in the region was started with pilot plan in Gonder and Bahirdar (Felege-Hiwot) Hospitals with the technical and financial support of UNICEF and U.S-CDC/Ethiopia in 2004. Though the program initiated in the two pilot sites, it is rapidly expanded to the seven additional hospitals (namely; Debretabor, Debre-Birhan, Debre-Markos, Finote-Selam, Woldia, Desie and Sekota).

Sseveral questions were raised to identify respondent's knowledge and misconceptions on Mother to child transmissions of HIV. As presented in Table .3.11. Among 420 respondents, 60.7 percent, said during pregnancy, 52.9 percent during delivery, 73.3 during breast feeding, 7.9 don't know and 5.2 by other modes, the infection transmitted from mother to the child. Detailed are presented below.

Table 5.6 Percentage distribution of Women respondent's Knowledge about MCT by Residence

Knowledge to mother to child Transmissions and ways of Prevention		Residence					
		Urban		Urban		Urban	
		N	%	N	%	N	%
knowledge to mother to child transmissions	During pregnancy	172	65.9	83	52.2	255	60.7
	During delivery	154	59.0	68	42.8	222	52.9
	During breast feading	201	77.0	107	67.3	308	73.3
	Others	18	6.9	4	2.5	22	5.2
	Don't know	10	3.8	23	14.5	33	7.9
	Total	261	100.0	159	100.0	420	100.0

knowledge to PMCT	Traditional medicines during pregnancy	16	6.1			16	3.8
	Use ARV during pregnancy or labour	44	16.9	12	7.5	56	13.3
	Avoid breast feeding after the baby is born	152	58.2	101	63.5	253	60.2
	Breast feed the baby after 6 months without other foods	11	4.2	3	1.9	14	3.3
	Take vitamin supplements	20	7.7	7	4.4	27	6.4
	caesarian section at a health facility	31	11.9	17	10.7	48	11.4
	Nothing	4	1.5			4	1.0
	Others	52	19.9	3	1.9	55	13.1
	Don't know	38	14.6	48	30.2	86	20.5
	Total	261	100.0	159	100.0	420	100.0

Source: Field Survey; 2005

5.7 SPECIFIC TYPES OF STDs

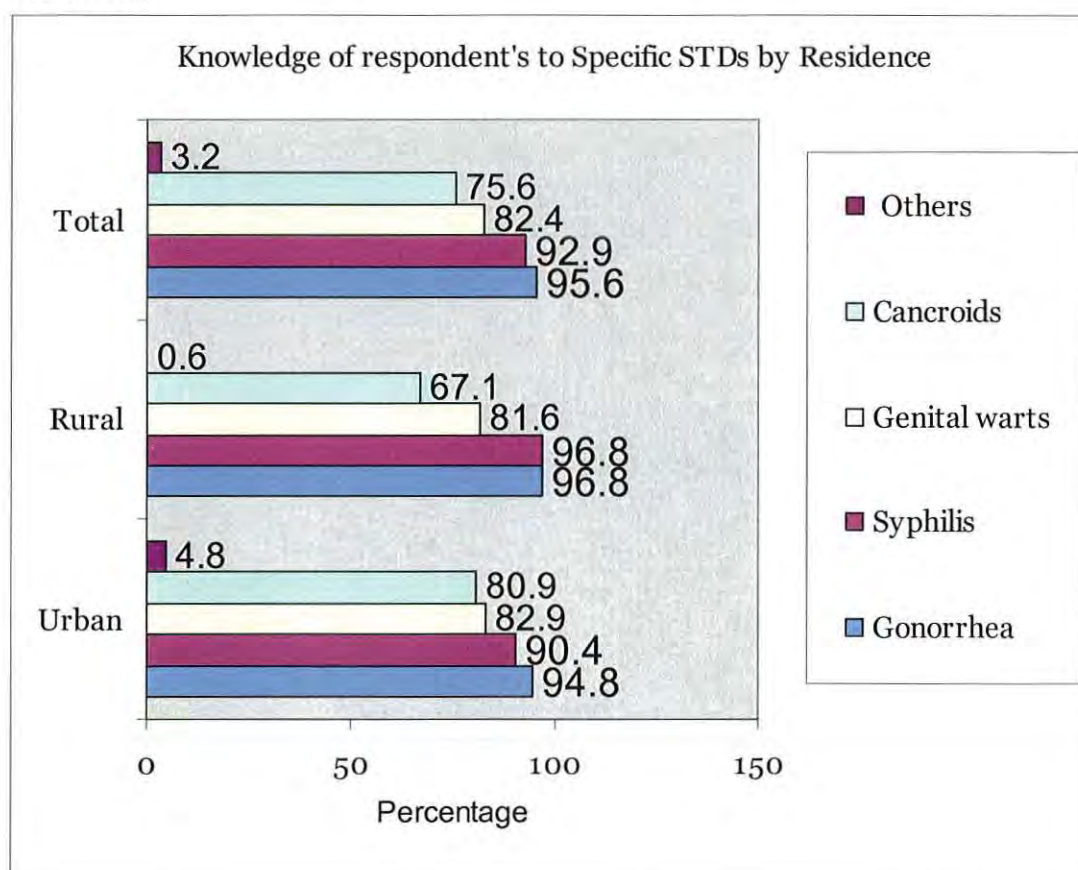
The table presented below show the percentage distribution of respondents' knowledge for specific types of STDs. Accordingly, the percentage of respondents that have knowledge about Gonorrhea, Syphilis, Genital warts and cancroids were 95.6 percent (94.8% urban vs. 96.8% rural), 92.9 percent (90.4% urban vs. 96.8% rural), 82.4 percent (82.9% urban vs. 81.6%) and 75.6 percent (80.9% vs. 67.1%) respectively. Detailed presented below.

Table 5.7 Percentage distribution of respondent's Knowledge To Specific Types of STIs by Residence

Types of Sexual Transmitted Infections	Residence					
	Urban		Urban		Urban	
	N	%	N	%	N	%
Gonorrhea	238	94.8	153	96.8	391	95.6
Syphilis	227	90.4	153	96.8	380	92.9
Genital warts	208	82.9	129	81.6	337	82.4
Cancroids	203	80.9	106	67.1	309	75.6
Others	12	4.8	1	.6	13	3.2
Total	251	100.0	158	100.0	409	100.0

Source: Field Survey; 2005

Figure 5.5: Percentage of respondent's knowledge to specific types of STDs by Residence;



Source: Field Survey; 2005

5.8 MAIN HARMFUL TRADITIONAL PRACTICES;

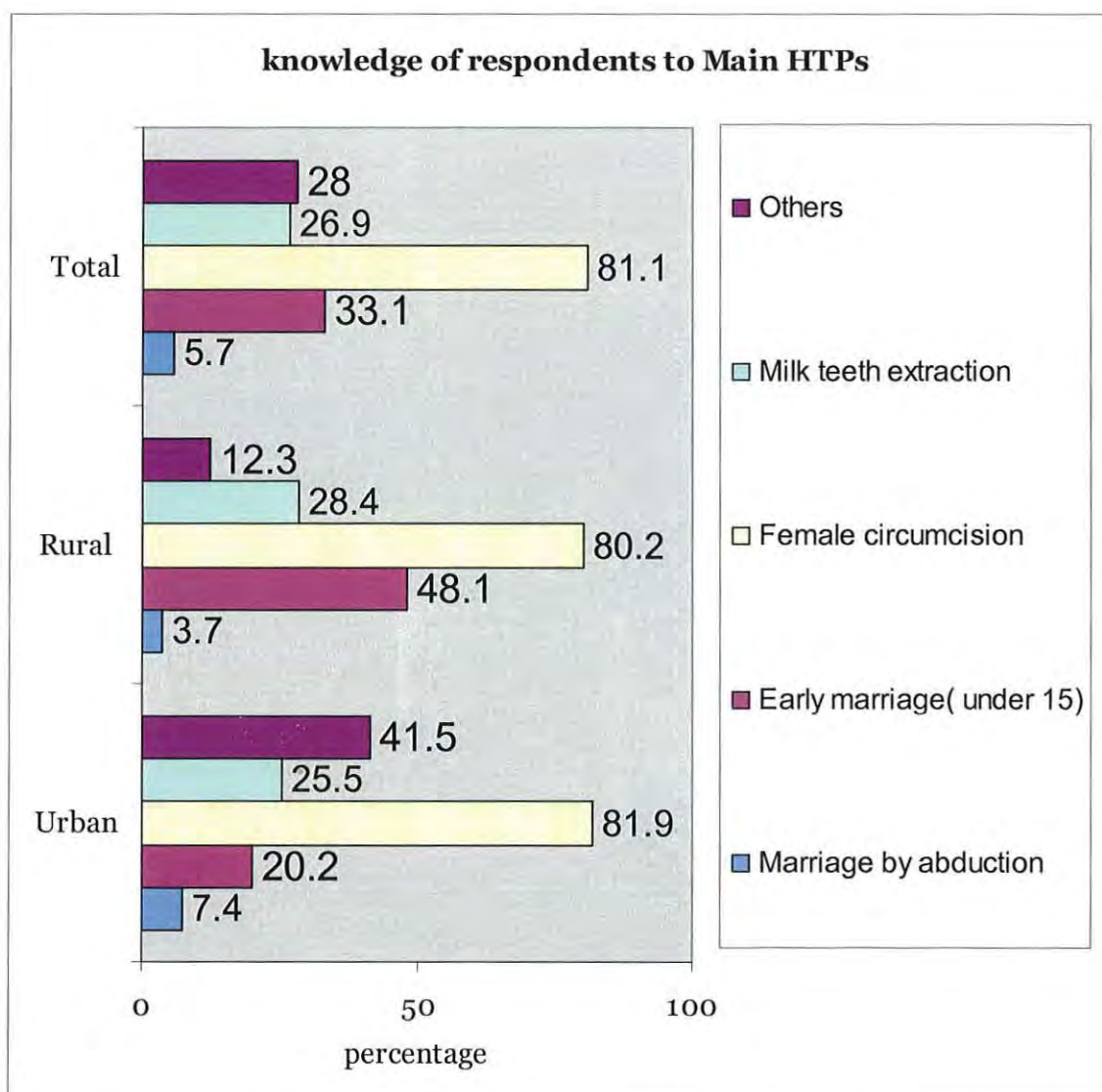
The respondents were asked about selected types of HTPs. As indicated in the result of the survey, there is significance difference between urban and rural areas on the selected HTPs prevalence. Moreover, the table presented below has also shown the percentage distribution of respondents on the selected harmful practices. Hence, the percentage of respondents on the practices of FGM, Early marriage, Milk teeth extraction, and marriage by abduction, were 81.1 percent (81.9% urban vs. 80.2%), 33.1 percent (20.2% urban vs. 48.1%), 26.9 percent (25.5% urban vs. 28.4%) and 5.7 percent (7.3% urban vs. 3.7%). But, about 35.4percent (31.3% urban vs. 41.9% rural) know about the selected HTPs, respectively. Detailed data are presented in the table below.

Table 5.8. Percentage distribution of respondent's Knowledge to Main HTPs by Residence

Ever Practiced HTPs	Residence					
	Urban		Urban		Urban	
	N	%	N	%	N	%
Marriage by abduction?	7	7.4	3	3.7	10	5.7
Early marriage(under 15)	19	20.2	39	48.1	58	33.1
Female circumcision	77	81.9	65	80.2	142	81.1
Milk teeth extraction	24	25.5	23	28.4	47	26.9
Others	39	41.5	10	12.3	49	28.0
Total	94	100.0	81	100.0	175	100.0

Source: Field Survey; 2005

Figure 5.6: Percentage of respondent's knowledge to t main HTPs by Residence;



Source: Field Survey; 2005

5.9 BELIEF OF FEMALE GENITAL MUTILATION

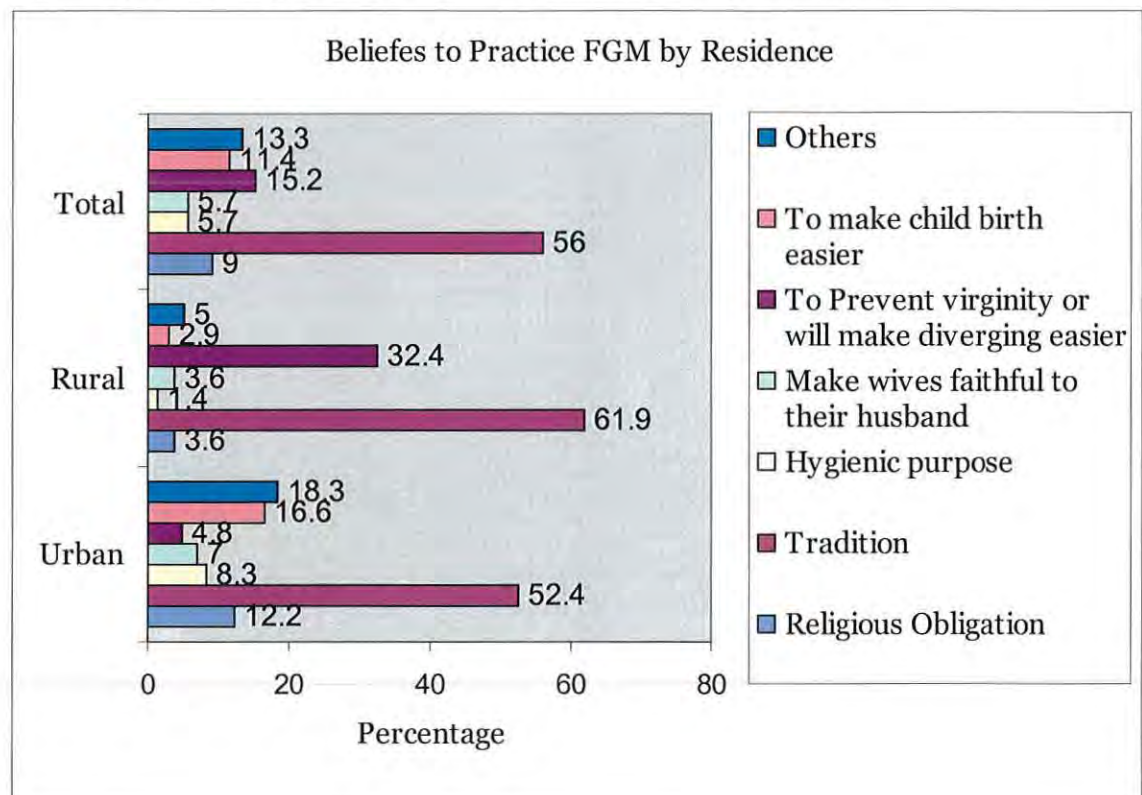
Various terminology and phrases were used to express their beliefs on the FGM practices. The percentage distribution of respondent's belief on FGM practices are presented below. Accordingly, 56.0 percent (52.4% urban vs. 61.9% rural) of respondents believed that it is a tradition, 15.2 percent (4.8% urban vs. 32.4% rural) were reported that it is to make diverging easier and only 9.0 percent

(12.2% urban vs. 3.6% rural) were reported as a religious obligation of the community in the study areas.

Table 5.9. Percentage distribution of respondent's Beliefs to FGM by Residence

Believes in FGM practices	Residence					
	Urban		Urban		Urban	
	N	%	N	%	N	%
Religious Obligation	28	12.2	5	3.6	33	9.0
Tradition	120	52.4	86	61.9	206	56.0
Hygienic purpose	19	8.3	2	1.4	21	5.7
Make wives faithful to their husband	16	7.0	5	3.6	21	5.7
To Prevent virginity or will make diverging easier	11	4.8	45	32.4	56	15.2
To make child birth easier	38	16.6	4	2.9	42	11.4
Others	42	18.3	7	5.0	49	13.3
Total	229	100.0	139	100.0	368	100.0

Figure 4.7: Percentage of respondent's Belief to FGM by Residence;



Source: Field Survey; 2005

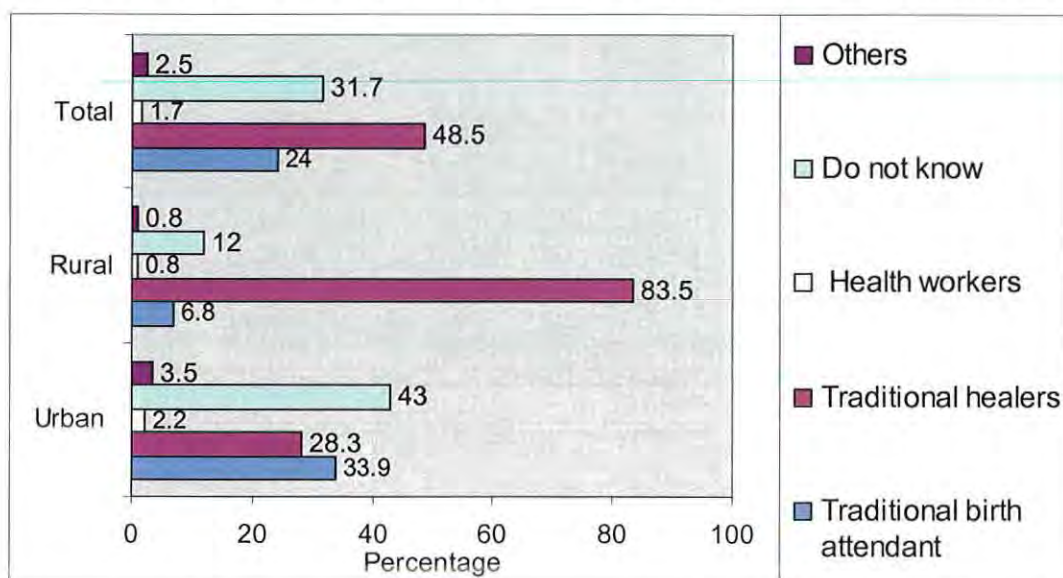
5.10 PRACTITIONERS OF FEMALE GENITAL MUTILATION

As shown in the below presented Figure, 48.5 percent (28.3% urban vs. 83.5% rural) of the respondents revealed that the most popular practitioners of FGM in the study areas are Traditional healers (circumcisers) followed by Traditional birth attendants (BAs) constituting 24.0 percent (33.9% urban vs. 6.8% rural). Hence the type of practitioners appears to be influenced by area of residence. As shown in the table below, TBAs are the most practitioners in urban settings than in the rural.

Table 5.10 Percentage distribution of respondent's Knowledge about FGM Practitioners by Residence

Persons who does FGM	Residence					
	Urban		Urban		Urban	
	N	%	N	%	N	%
Traditional birth attendant	78	33.9	9	6.8	87	24.0
Traditional healers	65	28.3	111	83.5	176	48.5
Health workers	5	2.2	1	.8	6	1.7
Do not know	99	43.0	16	12.0	115	31.7
Others	8	3.5	1	.8	9	2.5
Total	230	100.0	133	100.0	363	100.0

Figure 5.8: Percentage of respondent's Knowledge to FGM Practitioners by Residence;



5.11 DECISION MAKERS FOR FEMALE GENITAL MUTILATION.

As indicated in the Figure below, the sample population were also asked to give there opinion about persons in the study areas who are deciding FGM in the communities. Accordingly 61.8 percent (55.7% urban vs. 71.6% rural) were reported that mothers are the most influential in the families.

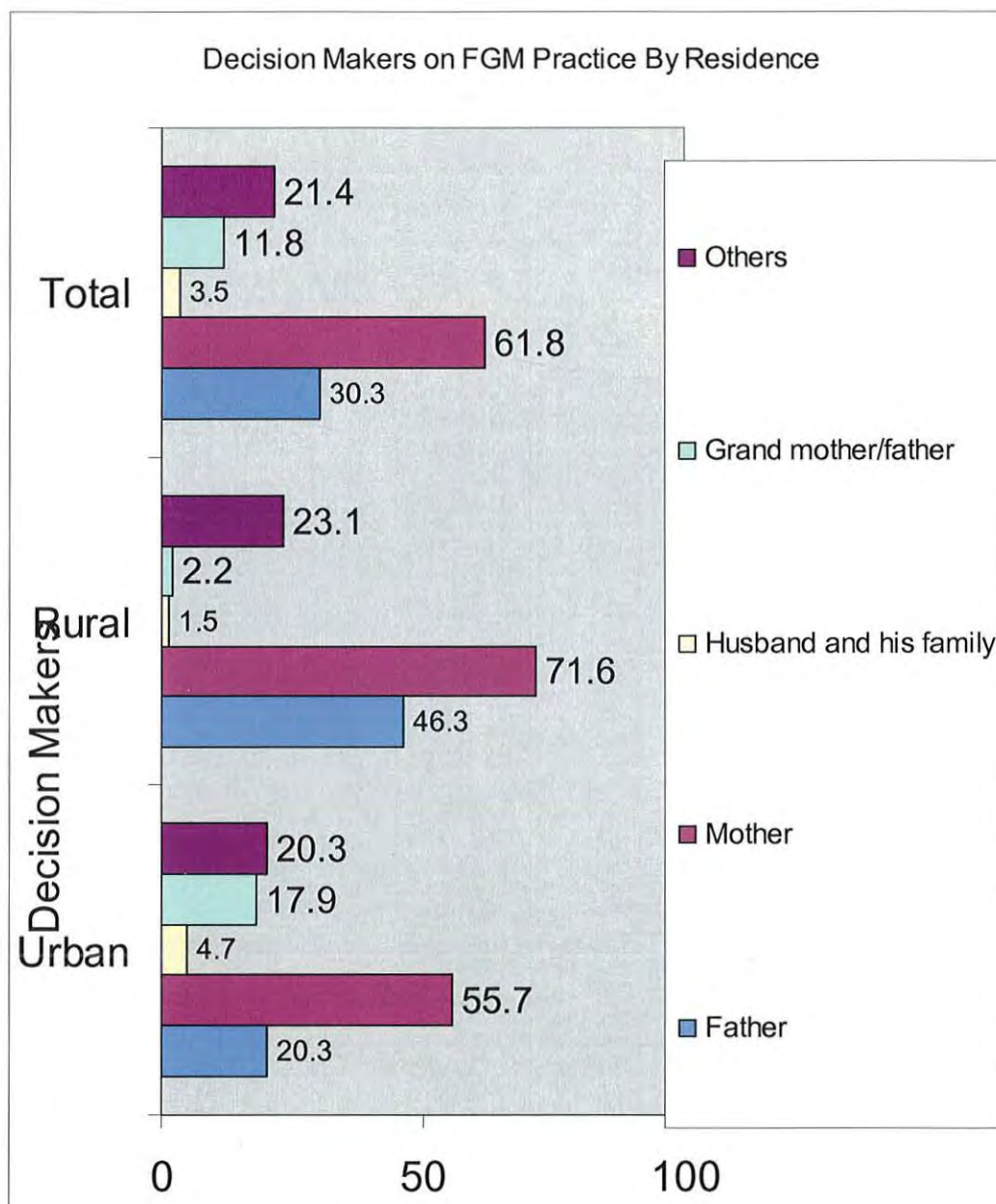
The other 30.3 (20.3% urban vs. 46.3% rural) percent of the respondents reported that father are the next influential in the families/communities. Moreover, the survey result also revealed that there is a significant variation between urban and rural communities on persons deciding FGM in that Husband(3.5%) and grand father/mother(21.4%) are the most popular in urban compared to the rural. Detailed are presented in the Figure below.

Table 5.11. Percentage distribution of respondent's Knowledge to Decision Makers to FGM by Residence

Persons deciding FGM practices	Residence					
	Urban		Urban		Urban	
	N	%	N	%	N	%
Father	43	20.3	62	46.3	105	30.3
Mother	118	55.7	96	71.6	214	61.8
Husband and his family	10	4.7	2	1.5	12	3.5
Grand mother/father	38	17.9	3	2.2	41	11.8
Others	43	20.3	31	23.1	74	21.4
Total	212	100.0	134	100.0	346	100.0

Source: Field Survey; 2005

Figure 5.9 Percentage of respondent's knowledge on persons deciding FGM



Source: Field Survey; 2005

CHAPTER SIX

6. THE FACTORS ASSOCIATED WITH HIV/AIDS ACROSS RURAL AND URBAN RESIDENCE

6.1. STATISTICAL TECHNIQUES EMPLOYED FOR HYPOTHESIS TESTING

As it is clearly observed in the third chapter, descriptive statistics were calculated and results are presented through the specific methods of data analysis involved cross tabulations, mean and standard deviation. Moreover, the Inferential non-parametric statistics such as Chi square test of independence and simple correlation coefficient models were employed to examine and establish links between the predictor(place of residence) and the dependent variables (i.e.; Determinant risk factors). Analysis was conducted using the statistical package SPSS (release 11.0) and a p-value<0.05 was considered significant. Accordingly, the most significant determinant factors of the HIV prevalence are selected and their respective results are summarized in the below presented table. The results of this study has also shown the nature and level of practices of some determinant risk factors of HIV (i.e. HTP, getting early marriage, Having multiple partners, FGM practice, Literacy status, Employment status, Ever had HIV-test and presence of mobile population) are found to be significantly different between urban and rural dwellers of the study areas. On the other hand, there is no significant difference in other determinant factors that were described in the earlier chapter between the two places of residences. Detailed are presented in the chi-square and correlation table below.

Table 6.1. The Chi square and Cramer's correlation coefficients result of the selected analytical Variables of the study, Amhara across urban and rural areas, 2005

Selected Dependent Variables		STUDY AREA						Likelihood Ratio		Cramer's Correlation Coefficients	
		Bahirdar		Wadla		Total		X2	P-value	P-value	Sig
		N	%	N	%	N	%				
Literacy status	Non-Formal	4	1.3	5	2.6	9	1.8	34.526	.000**	.265	.000**
	Yes, formal	196	66.0	74	38.9	270	55.4				
	Not At All	97	32.7	111	58.4	208	42.7				
	Total	297	100.0	190	100.0	487	100.0				
Employment status	Yes	132	44.0	144	74.6	276	56.0	46.114	.000**	.301	.000**
	No	168	56.0	49	25.4	217	44.0				
	Total	300	100.0	193	100.0	493	100.0				
Ever had an HIV test	Yes	128	48.5	21	11.7	149	33.6	70.609	.000**	.382	.000
	No	136	51.5	158	88.3	294	66.4				
	Total	264	100.0	179	100.0	443	100.0				
FGM practice	Yes	288	97.3	183	95.8	471	96.7	68.897	.000**	.376	.000**
	No	8	2.7	8	4.2	16	3.3				
	Total	296	100.0	191	100.0	487	100.0				
HTP Practice	Yes	38	26.7	75	38.9	155	31.4	8.019	.005**	.128	.004**
	No	184	73.3	118	61.1	338	68.6				
	Total	222	100.0	193	100.0	493	100.0				
Knowledge to STI	Yes	235	78.3	135	69.9	370	75.1	4.356	.037*	.095	.036*
	No	65	21.7	58	30.1	123	24.9				
	Total	300	100.0	193	100.0	493	100.0				
Mobile groups	Yes	78	45.1	39	29.1	117	38.1	8.284	.004**	.163	.004**
	No	95	54.9	95	70.9	190	61.9				
	Total	173	100.0	134	100.0	307	100.0				
Early Marriage	Age <15	175	82.5	157	97.5	332	89.0	24.605	.000**	.237	.000**
	Age > 15	37	17.5	4	2.5	41	11.0				
	Total	212	100.0	161	100.0	373	100.0				
Marital Status	Never married	90	30.0	34	17.6	124	25.2	9.891	.002**	.139	.002**
	Ever Married	210	70.0	159	82.4	369	74.8				
	Total	300	100.0	193	100.0	493	100.0				

Source: Field Survey; 2005

6.2 APPLICATION OF LOGISTIC REGRESSION ANALYSIS

However, statistical methods were employed in attempt to identify quantitatively the relations between the independent and the dependent variables of the study. Logistic regression models were constructed based on results found to be significant in Chi Square and bivariat analyses and examined using Forward LR stepwise analysis. Thus, first it is worthwhile to define the term Logistic Regression before go to detail presentations of the results obtained from the intended field survey. The term Logistic regression is a type of predictive model that can be used when the target variable is a categorical variable with two categories. And, therefore Logistic regression can be used only with two types of target variables:

- A categorical target variable that has exactly two categories (i.e., a binary or dichotomous variable).
- A continuous target variable that has values in the range 0.0 to 1.0 representing probability values or proportions.

Before employing the logistic regression model, due to the large number of parameters estimated, variables that were not significantly associated with the outcome variables

($p < 0.05$) were not entered in binary logistic regression model. The order in which dependent variables were removed from the model was determined by their position on the causal pathway (more distant variables were removed first) and the strength of their association with the predictor variable (i.e. place of residence) was also observed. Univariat and bivariat data analyses were performed using SPSS (release 11.0) and 95% confidence intervals and p-value were computed for all predicted variables. Hence, this section is, therefore, given for the discussion of the Logistic regression results.

Table 6.2. Binary logistics regression Coefficients and Unadjusted Odd ratios of the Determinants by Place of Residences of the study population.

DEPENDENT VARIABLES	PREDICTOR	B	S.E	WALD	df	Sig.	Correct Class %	EXP(B)	95.0% C.I. FOR EXP(B)	
									Lower	Upper
Having Multiple Sexual Partners	Rural	-.157	.303	.271	1	.603	89.2*	.854	.472	1.546
	Urban(RC)	.000						1.000		
	Constant	-2.057	.182	127.575	1	.000		.128		
Employment Status	Rural	-1.319	.202	42.567	1	.000***	63.3*	.267	.180	.397
	Urban(RC)	.000						1.000		
	Constant	.241	.116	4.299	1	.038		1.273		
Ever Test for HIV	Rural	.440	.210	4.378	1	.036**	75.1*	1.553	1.028	2.346
	Urban(RC)	.000						1.000		
	Constant	-1.285	.140	84.100	1	.000		.277		
Ever Encountered HTPs	Rural	-.558	.197	8.025	1	.005***	68.6*	.572	.389	.842
	Urban(RC)	.000						1.000		
	Constant	1.012	.131	60.036	1	.000		2.750		
Mobility	Rural	.693	.244	8.073	1	.004***	61.9*	2.000	1.240	3.226
	Urban(RC)	.000						1.000		
	Constant	.197	.153	1.665	1	.197		1.218		
Age at first Marriage (Under 15)	Rural	-2.116	.538	15.488	1	.000***	89.0*	.121	.042	.346
	Urban(RC)	.000						1.000		
	Constant	-1.554	.181	73.745	1	.000		.211		
Marital Status	Rural	.695	.227	9.370	1	.002***	74.8*	2.004	1.284	3.128
	Urban(RC)	.000						1.000		
	Constant	.847	.126	45.229	1	.000		2.333		

Source: Field Survey, 2005

RC – Reference Category

*** - P<0.01

** - P<0.05

*- Correct Class % (The cut Value was 0.05)

6.2.1. PLACE OF RESIDENCE VS. UNEMPLOYMENT

The independent variable, place of residence, is found to be significant in influencing the variations in the probability of employment status of the study population. The crude logistic model show that the probability of residents having employment in rural was decreased by 73.3% as compared to that of urban dwellers.

In addition, the chi-square test of independence ($\chi^2 = 46.114$, $p=0.000$) has also indicated significant association between place of residence and Employment status of the residents (Table 6.1)

6.2. 2. PLACE OF RESIDENCE VS. BEING TEST ED FOR HIV

The data resulted that place of residence was significant in explaining the variations in probability of persons getting tested.

The crude logistic model was correctly classifies with 75.2% prediction for probability of persons getting tested. The model has also shown that with the odd ratio 1.55, the urban dwellers were found to be more likely had been tested for HIV as compared to the rural dwellers.

Besides, the chi-square test of independence has showed that the two variables had significant association ($\chi^2 = 70.609$, $p=0.000$) (Table 6.1)

6.2.3 PLACE OF RESIDENCE VS. HTPS PRACTICE

The independent variable, place of residence, was found to be significant in explaining the variations in probability of persons practicing harmful traditional practices. The logistic result has also shown that with the odd ratio 0.572, urban dwellers were found to be less likely to practice harmful traditional practices as compared to the rural dwellers.

This means, harmful traditional practices were widely practiced in rural areas as compared to the urban. Accordingly, the chi-square test of independence has also showed that the two variables had significant association in that ($\chi^2 = 8.019$, $p=0.005$) (Table 6.1)

6.2.4 PLACE OF RESIDENCE VS. MOBILITY

The analysis result also show that the independent variable was found to be significant in explaining the differences with regard to Departure of sampled

population from their usual place of residence for at least two weeks of period during their life time.

According to the logistic model, the probability of rural dwellers having departure for at least two weeks were 2.00 (twice) more likely than that of the urban. This means urban dwellers had less likely to depart from their respective place of residence as compared to the rural. Moreover, the chi-square test of independence has showed that the two variables had significant association ($\chi^2 = 8.284$, $p=0.004$) (Table 6.1)

6.2.5 PLACE OF RESIDENCE VS. MARITAL STATUS

The independent variable was found to be significant in explaining the variation in marital status of residents in the study areas. The logistic model showed that the probability of rural dwellers that were Ever married were 2.004 times more likely than that of the urban. This means that urban dwellers were more likely to be Single than rural dwellers.

Besides, the chi-square test of independence has showed that the two variables had significant association ($\chi^2 = 9.891$, $p=0.002$) (Table 6.1)

6.2.6. PLACE OF RESIDENCE VS. EARLY MARRIAGE

The crude binary logistic model revealed that the independent variable, place of residence, was significant in explaining the differences between getting early marriage (under 15). Accordingly, the logistic result has also shown that with the odd ratio 0.121, rural dwellers were found to be more likely to practice late marriage (above 15) as compared to the urban dwellers. And, also the chi-square test of independence has showed that the two variables had significant association in that ($\chi^2 = 24.605$, $p=0.000$) (Table 6.1)

CHAPTER SEVEN

7. DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS

7.1. DISCUSSIONS ON THE FINDINGS

- The age groups, 15-49 for females and 15-59 for males had been purposely selected in order to target a sexually active age group (Table.4.1.) The sample was thus convenience sampling to target this age group. Both female and male interviewers were engaged to interview an equal number of men and women and to overcome barriers people may have when interviewed by or interviewing the opposite sex, especially in the case of sensitive questions on sexual and reproductive health.
- In the Wadla-kone 193 interviews were conducted (69 men, 124 female). Interviewing more women in Focus group discussions offset the small difference between male and female respondents. In Bahirdar the sample size of respondents was deliberately increased, to compensate for problems as faced in Bahirdar. Thus, total number of interviews in Bahirdar came to 300(127male and 173 female) . In Bahirdar, the interviews were spread out in the three selected kebeles. In Wadla-kone district, the survey covered the *five "gotts"* within the district which is the satellite sites of the sentinel HIV/STI surveillance.
- Most of the respondents (36.3%) in Bahirdar reported that they were Married, followed by never married (30.0%). In the rural the majority of the respondents (57.0%) were living as married (Table 4.2.).
- The findings indicate that in both Bahirdar (97.7%) and wadla-kone (100.0%) the dominant ethnic group is Amhara, followed by Tigrie (1.7%) in Bahirdar.
- The majority of the respondents in Bahirdar(67.3%) and Wadla-kone (37.2%), were literate. The highest education levels attended by respondents in Bahirdar and Wadla-kone were secondary school education (37.8%) and primary(34.2%), respectively.
- The survey has also revealed that the majority of the respondents are Christian, with orthodox followers in both Bahirdar (94.7%) and Kone, (95.3%) (Table 3.3). In The study area, the influence of the Orthodox Church could be seen. The Church was active and organized various events in HIV/AIDS prevention and control programs.

- With regard to Occupation of respondent and sources of income, Table 3.5 shows that the majority of the respondents in Bahirdar had no formal occupation (56.0%), this figure being higher among female respondents (59.0%). The majority of the respondents reported to be either students or laborer (34.1%) and followed by business person (30.3%). The majority (60.4%) of the respondents in Kone stated that they were peasants' farmers.
- The respondents in Bahirdar (11.3%) and in Kone (9.8%), reported that they had multiple sexual partners during the survey time. But the majority of the interviews and focal group discussions respondents confirmed extra-marital relations to be prevalent in both study areas. Widespread poverty and lack of employment were reported to be the main factors which forced young women to seek money through engaging in sex with Business men. According to the focus group discussion, casual sex was also reported by the majority of the FGD respondents in both places to be common during Holy days, particularly while dwellers are drinking parties.
- Knowledge and awareness about HIV/AIDS was found to be very high amongst the interviewed respondents in Bahirdar and Kone. All respondents in Bahirdar (97.3%) and Kone (95.8%) reported they had heard of or knew about HIV/AIDS (Table 5.1).
- In general, the surveyed population described HIV/AIDS in detail, its modes of transmission, and the prevention means. Respondents made difference between the symptom of STD's such as syphilis and gonorrhea, Genital warts and HIV/AIDS (Table.5.7).
- In relation with sources of information to HIV/AIDS, the result of the study shows the leading sources for urban dwellers were radio (96.5%), Health institutions (71.2%) and social gatherings (63.5%) and for the rural whose leading source of information is social gatherings (83.4%), Health institutions (77.0%) and religious institutions (67.4%).
- During the focus group discussion, the churches emphasized abstinence and only having sex when married as the means to prevent the epidemic. On the issue of condom use as a preventive measure against HIV/AIDS transmissions, the Orthodox Church in the study area remained silent, only stating that the use of non-natural contraceptives was against the doctrine of the Church.

- All churches reported they preach faithfulness, and that they strongly frown upon prostitution and having multiple partnerships outside a monogamous marriage. In general, the Orthodox Church and the mosque teach prevention through abstinence and courtship without sex until marriage.
- Some researches conducted in the region and the FGDs conducted during the survey revealed that voluntary counselling and testing services in the study area exist on a small magnitude for the total dwellers. The VCT guidelines and some related training manuals were widely disseminated in the region. Most of the VCT services were operated by private organizations. Moreover most the discussants reported that it is difficult to afford the cost of HIV screening in the private clinics. Another problem raised during the focus group discussion was the test is conducted in these facilities without providing of the appropriate counselling services.

7.2 CONCLUSION

The Over all analysis of the results of the survey found that in Bahirdar, the living condition of the population depends on incomes from salaried employment, informal business, and wages of the rehabilitation works in private and public sectors. But, in Wadla-kone the population largely depends on subsistence agriculture and informal trade, characterized by the exchange of agriculture goods. In both areas, unemployment rates were found to be high. With regard to religious denominations, the predominant religion in both study areas is Christianity, the majority being orthodox (Table 4.2).

Regarding respondents' knowledge of HIV/AIDS documented that the majority of respondents were aware of HIV/AIDS in both urban and rural areas. Most of the respondents reported they strongly believed in the existence of HIV/AIDS, had knowledge of somebody who suffered or had died from the disease and were aware of the fact that currently there is no cure for the disease. Many of them and focal group discussants admitted having been confronted with the epidemic in one way or another. However, it observes that there seem to be limited understanding of certain facts of the epidemic which the survey was unable to address as the questions only dealt with the awareness and their basic knowledge the infection.

The practice of having extra-marital sex was found to be the existing risky sexual practice in the communities in both study areas. HIV/AIDS programmes are

available in both study areas. However, psychosocial care and support activities for PLWHAs were found to be limited in both study areas.

In the study area, particularly in wadla-kone, the result of the past civil war and poverty was caused considerable relocation of people and yields a concentration of ex-soldiers around the woreda capital (kone). Accordingly, unemployment has also increased. In addition, the focus group discussants revealed that the effect of the past war was a reduction of the productive labor force and a subsequent disruption of traditional ways of living. Hence, with the shortages of formal employment, men are increasingly engaged in long distance informal activities. 38.1 Percent of the respondents both in Bahirdar (45.1%) and Wadla-kone (29.1%) reported that they were depart from their locality for at least two weeks due to different forcing factors. The discussion result has also shown that occasional labor work as well as the exchange of agricultural goods is a very important means among the communities to move from place to place. However, the Governments have struggled to develop different innovative programs to address the epidemic. It is believed that Socio-economic development will inversely linked with the HIV prevalence of the adult population of the country.

In general, the findings show that the risk factors incidence was significantly higher among rural residents. Accordingly, FGM, Early marriage, illiteracy rate, unemployment rate were higher in the rural Compared to the urban dwellers. In the contrast, the rate of mobility and having multiple partners were higher in the urban. Hence, all of these could be the possible determinant risk factors for the relatively higher HIV prevalence across urban and rural populations in the region, respectively (Table 6.2).

7.3. RECOMMENDATIONS

The recommendations limited in this chapter seek to address the existing contextual issues underlying HIV/AIDS transmission and spread that have been identified in the two study area cultural settings. These recommendations further seek to assist how to address dominant socio-cultural beliefs and practices of the population in the study areas, and emphasize the need to strengthen relevant institutional responses to prevent the HIV/AIDS epidemic in the areas.

Having the survey findings in mind and based on the above conclusions, the study makes the following strategic recommendations.

1. In order to generate employment opportunities for youth and to keep them occupied, it is recommended that specific and relevant projects have to be identified, modified to the specific socio-cultural setting of the two study areas. Such programmes should include:
 - Transfer vocational life skills and income generating schemes to youth.
 - The support could be identified, developed and direct through the Community based associations, religious organizations and other associations linked to informal groups.
 - Recreation and entertainment – in schools, religious institutions and clubs. This component should aim at promoting cultural interchange and communication among different communities.
2. It appears the level of awareness of and belief in HIV/AIDS is high amongst the sample population. Furthermore, despite reported high levels of awareness and belief in the existence of the infection, risky sexual practices commonly associated with HIV/AIDS infection and spread have been found to be prevalent in the study area. It is therefore recommended that in order to address related socio-cultural issues, these Differences and similarities amongst and between the populations in the two study areas should be addressed through relevant IEC materials and methods.
3. It is clearly observed that the number of trained counsellors, VCT centres and other related services are go on with improvement but still desires massive scaling up. Hence, it is also recommended to institutionalise VCT because of its vast benefits in both prevention and care activities. Institutionalising the services may include enhancing of the capability of private organizations already involved in VCT and linking them up with institutions to provide variety of psychosocial care and support.
4. Identify regional sectoral roles and assign responsibilities for the implementation of the policies based on sectors' relative return and core competencies;
5. Increase the knowledge and sensitisation among the high risk groups in the area about the consequences of Harmful traditional practices and the modes of transmission and prevention of the HIV Epidemic

6. Create opportunities for PLWHAs to get appropriate psychosocial care and support in their respective accessible areas.
7. New approaches to HIV testing and counseling will help to reduce stigma and ensure the accessibility of the services in the area. Hence, it is recommended that home based VCT services should be encouraged to motivate the potential clients..
8. In general, an adapted preventive programs and Innovative client-driven risk reduction strategies addressing the pandemic in the region should be developed to prevent further spread of the infection in this population.

REFERENCES

1. African Development Bank (December 2001) HIV/AIDS Strategic Paper for Bank group operations.
2. Ainsworth, M. Semali, I.(1998) “ Who is most likely to die of AIDS? Socioeconomic correlates of adult deaths in Kagera Region, Tanzania.
3. B.M.Ramesh and D.G.Satih, Socio Economic and Cultural Antecedents of HIV/AIDS in Northern Karnataka, was presented in the workshop on AIDS Prevention and Care for People Affected by AIDS in India, at Amsterdam, Netherlands during 27-29 June 2001.
4. Cheru, F. (2002) ‘Debt, adjustment and the politics of effective response to HIV in Africa.’ Third World Quarterly. 23.
5. Central Statistics Authority (1994) Country level population and Housing Census report, Addis Ababa, Ethiopia
6. Central Statistics Authority (2000) Demographic and Health Survey (DHS) Ethiopia, Addis Ababa, Ethiopia
7. Central Statistics Authority (2002) Behavioral Surveillance Survey (BSS) Ethiopia, Addis Ababa, Ethiopia
8. D.G.Satih, P.K.Bhargava, S.S. Halli and B.M. Ramesh, Sexual Behavioral Patterns and Condom Use among Unmarried Men and Women in Karnataka: Findings from a Community Based Study, presented in ASIA conference on, Young Population Sexual and Reproductive Health Needs” in New Delhi during 2-4 December 2004, organized by Centre of Operation Research and Training (CORT) Vadodara.
9. Filmer, D. (1998) “ The Socioeconomic correlates of sexual Behavior: A summary of Results from an analysis of the DHS Data

10. Halperin, D. (2000) "Is poverty the Root cause of African AIDS? The 'Answer' May be more complex than commonly Thought".
11. HAPCO (2003) Updated Strategic Framework for the National Response to HIV/AIDS (2004/5), Addis Ababa, Ethiopia.
12. ICHAP. The Hidden Epidemic: HIV/AIDS in Rural Karnataka-A situation Assessment of Bagalkot district, September 2003 (ICHAP Report Bangalore).
13. Kalipeni, E. (2000). "Health and disease in southern Africa: a comparative and vulnerability perspective." Social Science and Medicine 50: 965-983.
14. Kalipeni, E., Craddock, S., Oppong, J. and Ghosh, J. (2004) HIV & AIDS in Africa: Beyond Epidemiology. Oxford, Blackwell.
15. Kanabus and Fredriksson (2004) <http://www.avert.org/aafrica.htm>
16. Miz-Hasab Research Centre (2004) The Rural HIV/AIDS Epidemic In Ethiopia And Its Implications For Market-Led Agricultural Development, Ababa, Ethiopia
17. Ministry of Health (2004) Technical Document of "AIDS in Ethiopia: 5th Report ,Addis Ababa, Ethiopia
18. Ministry of Health(2004) AIDS in Ethiopia:5th report, Addis Ababa, Ethiopia
19. P.K. Bhargava and D.G. Satihal, Prevalence of HIV/AIDS in Northern Karnataka, India, a paper presented at the seminar on "Challenges in the Demographic and Health Scenario Before India in the 21st Century", at Population Research Centre, University of Kerala India, during November 2004.
20. P.K. Bhargava, D.G. Satihal, James Blanchard, Stephan Moses, B. M. Ramesh and Reynold Washington, Community Cased HIV Prevalence Study in ICHAP Demonstration Project Area, PRC Report No. 132. Population Research Centre, JSS Institute of Economic Research Dharwad.

21. Poku, N. (2002). "Poverty, debt and Africa's HIV/AIDS crisis." International Affairs 78: 531-46.
22. Schoepf, B. G. (2004). AIDS, History, and Struggles over Meaning. HIV & AIDS in Africa: Beyond Epidemiology. E. Kalipeni, S. Craddock, J.Oppong and J. Ghosh. Oxford, Blackwell.
23. Tamburlini, G., O. S. v. Ehrenstein, et al. (2002). Children's health and environment: A review of evidence. Luxembourg, EEA and WHO: 1-225.
24. The Economist (2004) "How To Make Africa Smile: A Survey of sub-Saharan Africa", The Economist Vol 370: 8358
25. UNAIDS (2001) Summary Booklet of Best Practice Collection. Issue 1. Geneva
26. UNAIDS (2002) reports on effects of HIV/AIDS in sub-Saharan Africa, Geneva

APPENDIXES: INSTRUMENTS USED FOR DATA COLLECTION

APPENDIX A: STRUCTURED QUESTIONNAIRE USED FOR THE THESIS

INTRODUCTION & INFORMED CONSENT

Good morning/good afternoon. Thank you for your interest in talking with me today. My name is _____. I am working on the research entitled “Factors affecting the prevalence and trends of HIV in Amhara region” and I am interviewing people like you here in this district/town/PA in order to find out more about the experiences of dwellers about their Knowledge, attitude and behaviors related to HIV/AIDS. I want to collect such and related information that can assist for better understanding of the situation of HIV/AIDS and factors that promote/aggravate the prevalence of the epidemic in the region.

If you agree to participate in this survey, I will ask you some questions. Your honest answers are very important for the research project. I would like to assure you that everything that you say during the interview will be kept completely private and confidential. That means your name will not be written on this form, and will never be used in connection with any of the information you give me. You can decide whether or not you want to participate. If you decide to participate you do not have to answer any question you do not want to answer (I will skip that question and continue with the remaining questions), and you can terminate/stop this interview any time you want. Since your participation and your responses are important for the study, I would like to ask you to give me your genuine responses. Would you be willing to participate?

Yes _____ No _____ End.

Thank you,

B: FOR THE INTERVIEWER

1. Before starting the interview, please make sure that your respondent has understood the aim of your interview and has agreed to be interviewed.
2. Before leaving the household, please also make sure that you have checked the completeness of your questionnaire.

BACKGROUND INFORMATION OF RESPONDENTS

For administration propose ,Please use the below presented columns; (Site code: 3.1.1- Bahirdar; 3.2.1- Kone; 3.2.2- Chena; 3.2.3-Dalanga; 3.2.4-Abidikom;3.2.5- Koz belay;3.2.6- Kona

I. Identification				Codes
101. woreda 1. Bahir dar 2= wadela				.....
102. Peasant Association/Kebele:				.....
1=_____2=_____3=_____4=_____5=_____				.....
6=_____7=_____8=_____9=_____				.....
103. House Holds/structure Number.....				.....
104. Location of Interview.....				.....
105. Name of interviewer.....				.....
106.Interviewer Visits	1	2	3	Final Visit
Date	.....	.....	.....	Day.....
Result code	.....	.....	.....	. Month..... .. Result..... .
Next Visit: Date Time	..... .....	..... .....	..... .....	Total number of its.....
107. Result codes				
1=completed 4= postponed 7= Incapacitated				
2=Not at Home 5=respondent refused 8=Others				
(Specify).....				
3= Away from extended period 6= partially completed				
108. Supervisor's name.....			Signature.....	
109. Data entry name.....			Signature.....	
110. Date of interview.....				

II. SOCIO-DEMOGRAPHIC AND SOCIO-CULTURAL CHARACTERISTICS

201. How old are you? Age in completed years: _____

202. What is your religion?

1. Orthodox 2. Protestant 3) Muslim 4. Traditional

5. Other (specify) _____

203. To which ethnic group do you belong?

1. Amhara 2. Agew
3. Oromo 4. Tigre 5. Other (specify) _____

204. what is your marital status?

1. Never married (Single) [If single, skip to next section, # 208]

2. Currently married,

3. Widowed

4. Divorced)

5. Separated

205. How old were you when you first got married? _____

206. (FOR MARRIED MEN) are you currently married to more than one woman?

207. Do you have ever apart from your family?

1. Yes 2. No 3. Refused

208. (IF MARRIED OR LIVING WITH A PARTNER) in the past year, have you and your spouse/current partner been away from one another for more than two weeks?

1. Yes 2. No [If No, skip to next section, #211]

209. For how long were you usually apart from your family? [Days, weeks, or months]

Days _____ Weeks _____ Months _____

210. What is the main reason you were away from each other?

1. Agricultural work
2. Military
3. Truck/bus driver
4. Trading
5. Another type of job
6. Family obligations (visit, care for family, etc.)

7. Other (specify: _____)
211. (If single), at about what age did you first have/start sex? [Age in years] _____
212. Have you ever attended any education?
1. Yes, formal 2. Yes, non-formal 3. Not at all [If "answer 2 or 3, skip to next section, #214]
213. What is the highest grade you have completed?
1. Primary (1 to 6 grades)
2. Junior secondary (7 to 8 grade)
3. Senior secondary (9 to 12 grade)
4. Tertiary
214. Where did you grow until you were 12 years old?
1. Urban
2. Rural
215. Are you currently working?
1. Yes 2. No [If no, skip to next section, #220]
216. What is your occupation?
1. Government/NGO employee
2. Farming/peasant
3. Business person
4. Handicraft
5. Other (specify) _____
217. With regard to HIV/AIDS, does your job expose you to any other types of risk?
1. Yes
2. No
3. No response [If No/ No response, skip to next section, # 220]
218. What types of risk and by whom?
1. _____
219. Do you have any recommendations for AIDS prevention for people who do the same work as you do in this district/town?
1. _____
220. How often did you come to this district/town in the last twelve months? _____
221. How long have you been in this district/town; _____
222. How long do you usually stay in this district/town? _____

223. What employment/job do you have in this district/town?

1. Farming
2. CSW
3. Laborer
4. Student
5. Unemployed
6. Other (specify) _____

224. In which other district/town within/ out of the region have you worked before?

225. Do you have a sex partner in this district/town?

1. Yes
2. No

226. Have you ever encountered any harmful traditional practices in the community, even by your own families such as; Father , Husband/his family, Grand Mother/Father, Other (specify) _____

1. Yes
2. No

3. Do not know

227. Which of the following harmful traditional practices are practiced in this district/town/PA?

1. Marriage by abduction
2. Early marriage (under 15)
3. Female genital mutilation/Circumcision
4. Milk teeth extraction
5. Other (please specify) _____

228. Do people in your community still/currently FGM/Female genital mutilation?

1. Yes
2. No

3. Do not know

229. Usually at what age, daughters are circumcised in this district/town/PA?

230. Who are the persons in your community do the FGM/Female genital mutilation?

1. TBA (Traditional Birth Attendant)
2. Traditional Healers (Circumciser)
3. Health workers
4. Do not know

5. Other (specify) _____

231. Who is the responsible/ influential person in deciding to circumcise daughters?

1. Father

2. Mother

3. Husband/his family

4. Grand Mother/Father

5. Other (specify) _____

232. What are the reasons in your community for female circumcision?

1. Religious obligation

2. Tradition

3. Hygienic purpose

4. To Make wives faithful to their husband (prevent multi partner sex)

5. To Prevent virginity/ will make diverging easier

6. To make child birth easier

7. Other (specify) _____

233. Is there any pressure by the community against those individuals who oppose the harmful traditional practices?

1. Yes

2. No

3. Do not know [If No/Do not knows, skip to next section, #235]

234. Would you please describe?

1. _____

2. _____

235. Is there any program that involves the community in this district/town/PA to eradicate HTPs?

1. Yes

2. No

3. Do not know

236. Are you willing to cooperate with others in order to prevent HTPs/ Harmful traditional practices in this district/town/PA?

1. Yes

2. No

3. Do not know

237. Would you please recommend what action should be taken to prevent HTPs/ Harmful traditional practices in this district/town/PA?

1. _____

238. Would you please indicate/explain the harmful consequences of the HTPs/ Harmful traditional practices such as; Marriage by abduction, early marriage (under

15), Female genital mutilation/Circumcision, Milk teeth extraction and others in this district/town/PA?_____

239. What do you think are the factors that help to eradicate the HTPs/ Harmful traditional practices in this district/town/PA?

1. _____

III. HIV/AIDS AND OTHER STDs

301. Have you ever heard of HIV/AIDS?

1. Yes 2. No

302. If your answer for question No. 501 is 'yes', what is/are your source of information? (Multiple responses are possible)

302.1 Radio/TV 1. Yes 2. No

302.2 Social gathering 1. Yes 2. No

302.3 Health institutions 1. Yes 2. No

302.4 Religious institutions 1. Yes 2. No

302.5 School/college 1. Yes 2. No

302.6 Youth/women club 1. Yes 2. No

302.7 Friends/relatives 1. Yes 2. No

302.8 Leaflets/pamphlets/ magazines 1. Yes 2. No

302.9 Husband/partner 1. Yes 2. No

302.10 Other, Specify _____

303. What are the means of HIV transmission (Multiple responses are possible)

303.1 Having sex with HIV person 1. Yes 2. No

303.2 Blood transfusion 1. Yes 2. No

303.3 Using contaminated sharp instruments 1. Yes 2. No

303.4 Biting by mosquito 1. Yes 2. No

303.5 Shaking and eating together with PLWHA 1. Yes 2. No

303.6 Sharing and using utensils with PLWHA 1. Yes 2. No

303.7 A curse from God 1. Yes 2. No

303.8 Leaflets/pamphlets/ magazines 1. Yes 2. No

303.9 Other, Specify _____

304. Can HIV/AIDS be prevented? 1. Yes 2. No

305. How can HIV/AIDS be prevented? 1. Yes 2. No

- 305.1 Abstinence 1. Yes 2. No
- 305.2 Limiting sex to one partner 1. Yes 2. No
- 305.3 Avoiding using unspecialized sharp instruments 1. Yes 2. No
- 305.4 Using condom during sex 1. Yes 2. No
- 305.5 Avoiding receiving of infected blood 1. Yes 2. No
- 305.6 Other, Specify _____
306. Do you believe that a person who looks healthy can have the virus that causes AIDS?
1. Yes 2. No
3. Do not know
307. Do you believe that AIDS can be cured?
1. Yes
2. No
3. Do not know
308. Do you want to know more about HIV/AIDS?
1. Yes 2. No
3. Do not know
309. Is there any non-governmental organization/s in your locality that is/are involved in anti- AIDS activities?
1. Yes 2. No [If No, skip to next section, #312]
310. When did it start its program?
- _____
311. What is its name?
- _____
312. In your opinion, does the attitude of people in your locality towards PLWHA changed in recent years, as compared to a year before?
1. Yes 2. No
313. Have you currently made any changes in your sexual behavior to avoid the transmission of HIV?
1. Yes
2. No
3. Do not know
314. If someone very close to you tells you that s/he has AIDS, what would be your reaction?

513.1 Surprise 1. Yes 2. No

313.2 Hatred 1. Yes 2. No

313.3 Sadness/Anger 1. Yes 2. No

313.4 Avoidance 1. Yes 2. No

313.5 Other, Specify _____

315. Have you ever heard of any infections that can be transmitted through sexual contact other than HIV/AIDS?

1. Yes 2. No

3. Do not know

316. What sexually transmitted infections have you heard other than HIV/AIDS?

516.1 Syphilis 1. Yes 2. No

516.2 Gonorrhea 1. Yes 2. No

516.3 Genital warts 1. Yes 2. No

516.4 Cancroids 1. Yes 2. No

516.5 Other, Specify _____

317. Have you ever been tested for HIV?

1. Yes

4.12. No [If No, skip to next section, #319]

318. Did you volunteer to take the HIV test or were you required to take it?

1. Yes 2. No

3. No response

319. Do you think that love and affection for PLWHA can reduce the transmission of AIDS?

1. Yes 2. No

3. No response

320. What other services PLWHA need from the community?

1. _____

321. Can a baby get HIV from its mother?

1. Yes 2. No

3. Don't Know [If No/Do not know, skip to next section, #328]

322. When can a baby get HIV from its mother? (Multiple responses are possible)

1. during pregnancy

2. during delivery

3. during breastfeeding

4. Other (specify: _____)

5. Don't know

323. What, if anything, can a woman with HIV do to keep from passing HIV to her baby?

1. Use traditional medicine during pregnancy

2. Use anti-retroviral medicines during pregnancy or at labor

3. Avoid breast feeding after the baby is born

4. Breast feed her baby for 6 months without giving the baby other food

5. Take vitamin supplements

6. Eat nutritious foods

7. Deliver the baby by caesarian section at a health facility

8. Nothing

9. Other (specify _____)

324. A woman should find out if she is infected with HIV before becoming pregnant. Do you

1. Strongly agree 2. Agree 3. Neither agrees nor disagrees 4. Disagree

5. Strongly disagree

325. A pregnant women should get tested for HIV while she is pregnant

1. Strongly agree 2. Agree 3. Neither agrees nor disagrees 4. Disagree

5. Strongly disagree

326. If a woman has HIV/AIDS she should not have any more children

1. Strongly agree 2. Agree 3. Neither agrees nor disagrees 4. Disagree

5. Strongly disagree

327. If a man knows he is infected with HIV, he should not try to get a woman/his wife pregnant

1. Strongly agree 2. Agree 3. Neither agrees nor disagrees 4. Disagree

5. Strongly disagree

328. (FOR WOMEN) are you currently pregnant?

1. Yes 2. No

329. (FOR WOMEN, IF NO TO 328) have you ever been pregnant?

1. Yes 2. No

330. (IF YES TO 328 OR 329) the last time you were pregnant/since becoming pregnant

a) Did anyone talk to you about getting tested for HIV? 1. Yes 2. No

b) Did you talk to your partner about getting tested for HIV? 1. Yes 2. No

c) Did you get tested for HIV? 1. Yes 2. No

d) Did you get any health care during your pregnancy? 1. Yes 2. No

331. (IF YES TO 328 OR 329) before becoming pregnant the last time/this time?

a) Did anyone talk to you about getting tested for HIV? 1. Yes 2. No

b) Did you talk to your partner about getting tested for HIV? 1. Yes 2. No

c) Did you get tested for HIV? 1. Yes 2. No

d) Did you talk to your partner about getting pregnant? 1. Yes 2. No

332. (FOR WOMEN WHO HAVE NEVER BEEN PREGNANT) have you ever thought that you should get an HIV test before you get pregnant for the first time?

1. Yes 2. No 3. Don't know

333. (FOR ALL WOMEN) how likely is it that you will get an HIV test before you get pregnant for the first time/the next time?

1. Not at all likely

2. Not very likely

3. Moderately likely

4. Very likely

5. Extremely likely

Thank You Very Much!!!

APPENDIX B; STRUCTURED FGD GUIDELINES

1. INTRODUCTION

Date _____ of _____ discussion
 conducted _____
 Address _____
 Region _____
 Zone _____
 Woreda _____
 Kebele for Bahirdar/ PA in Wadla-kone _____

2. PARTICIPANTS OF THE FGDS

No	Name of Participants	Age	Sex	Education Status	Religion	Ethnic group	Marital status		Employment status	
							Never Married	Ever Married	Employed	Un Employed

3. POINT OF DISCUSSION

- Have you ever heard of HIV/AIDS and Other STIs? If yes, from where did you here about it?
- How HIV/AIDS can be transmitted? Are there any possible prevention measures? If yes, what are they?
- Do the community discuss about HIV/AIDS? If yes, how; If yes, how and when?
- Do the communities have an opportunity to be tested for HIV? If yes where and are they willing to do. If not, what are the major factors?
- Do people make premarital sex in this area? If yes, at what age? What do do know about the consequences of it and its possible relation with HIV?
- At what age boys and girls make marriage and start sexual relation in this area?
- Is there any HTPs; like, FGM, Abduction, Early marriage (under 15), milk teeth extraction and others in this area? Who encouraged, process, practice it? What is the reason behind?
- What mechanism do you suggest for HIV prevention who shall do what, when and how in this area?

We have finished the discussion,
 Thank you!

DECLARATION

This Thesis is my Original work, has not been presented for a degree in any Other University and that all sources of materials used for the thesis have been duly acknowledge.

Name: Hailagiorgis Ekaheem
Signature: [Signature]
Date: 15/07/05

The Thesis has been submitted for examination with my approval as university advisor

Assefa Hailemariam Assef 22/7/05
Advisor