

Socio-economic Impacts of HIV/AIDS at Household Level in Gondar town: The Case of Abba Jale Kifle Ketema, Ethiopia

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“HIV prevention is neither simple nor simplistic. We must achieve radical behavioral changes both between individuals and across large groups of at-risk people to reduce incidence” (Thomas et al., 2008:36).

Abstract

HIV/AIDS has already become one of the greatest challenges to human life. Since its emergence more than two decades ago, HIV/AIDS has killed tens of millions of people around the globe, and the misery and suffering it caused is more evident in developing countries such as Ethiopia. The general objective of this study was therefore to assess the economic impact of HIV/AIDS on household's livelihood in Gondar town. Mixed research design was employed for the study. The total sample for this study was 164 households selected using census methods. Questionnaires, focus group discussions, key informants interview and direct observations were used to collect data. Multivariate analysis of variance (MANOVA) was employed to show the variations between categorical independent variable and continuous independent variables. The study revealed that there was strong relationship between household income and expenditures to basic needs before and after HIV infection. It was also noted that the majority of the households (70.3%) did not have access to the basic services such as housing, water and toilet. The survey result showed that saving (26.6%) and borrowing (20.3%) were the major coping strategies for the affected households. Creation of community awareness and the proper allocation of funds for the intended purpose could reduce the economic crises of the households due to HIV/AIDS infection. Besides, there is a need for political and financial commitment to prevent the disease, and to provide treatment and care services to the community.

Key words: HIV/AIDS, Income, Expenditure, Coping strategy, Gondar, Ethiopia

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1. Introduction

Reports evidenced that 33.3 million people were living with HIV at the end of 2009 compared to 26.2 million in 1999 (a 27% increase) (Negash *et al.*, 2013; Tesfaye & Mesganaw, 2012). Various scholars, as a result regard HIV/AIDS as an immense challenge hindering human development endeavor and as an obstacle to the achievement of the Millennium Development Goals. Reports from UNICEF (2013) and IRIN (2014) and scholars such as Wondemagegn *et al.* (2014) indicate that there are regional variations in the prevalence rates of the epidemics across the world. Accordingly, the prevalence rate of HIV/AIDS in adults in North America, Middle East, Eastern Europe, Central Asia, Western and Central Europe was about 0.2%. In south and south East Asia and Oceania, it was 0.3% and in Latin America, the prevalence rate increased to 0.4%. However, the prevalence rate of HIV/AIDS in Africa is severe. For example, in 2010, about 68% of all people living with HIV/AIDS and 70% of new HIV/AIDS infections in the world reside in Sub-Saharan Africa (SSA) (Getnet, 2013; Wondemagegn *et al.*, 2014). Surprisingly enough, of all deaths from HIV/AIDS globally, 76% were in Africa (MoH, 2008). More importantly, about 80% of teenagers living with HIV/AIDS are also found in Sub-Saharan Africa (Ravinder, 2014). It was estimated that about 24 million people could live with HIV/AIDS at the end of 2011 in SSA (UNAIDS, 2012).

According to Kloos (2001), the first HIV/AIDS case in Ethiopia was detected in 1984. Since then, HIV/AIDS has claimed the lives of millions and has left behind hundreds of thousands of orphans (Tsegazeab & Alemtsehay, 2008). Hence, HIV/AIDS poses the foremost threat to Ethiopia's development endeavor and the future of the country seems to rest on how forcefully and urgently it can respond to the epidemic. According to EDHS (2011), in 2010 about 759,338 people were living with HIV/AIDS in Ethiopia, of which, 61% were females. The same report also indicated that during the same year 900,000 children lost their parents to HIV/AIDS and became orphans. The highest prevalence rate is found in the ages between 15 and 49 and women have a higher HIV prevalence (1.9%) than men (1.0%) (MoH, 2011). In Ethiopia, HIV is more prevalent in urban areas (4.2%) than in rural areas (0.6%) (MoH, 2011; World Bank Global HIV/AIDS Program, 2008).

The Amhara Region HIV/AIDS Prevention and Control Coordination Office (2012) pointed that the scale of HIV/AIDS in the Amhara Region is alarming. This is evidenced by the fact that currently, about 379,096 people are living with HIV/AIDS, and about 40,000 new HIV infections and 48,251 annual deaths with a prevalence rate of 1.6% were recorded in the region. The prevalence rate in Gondar town in 2002, 2003 and 2005 were 18.3%, 13.9% and 10.3%, respectively. Hence, based on these reports it can be said that the study area (Gondar town) is one of the districts with the highest concentrations of HIV/AIDS cases in the Amhara region (ANRS HIV/AIDS Prevention and Control Coordination Office, 2012). The socio-economic impact of HIV/AIDS on households is multidimensional. The moment one of the household members is known to have HIV/AIDS, he/she will instantly be exposed to multitude of problems such as psychological strain as he/she has to grapple with the existing stigma. A reduction in income will result in a reduction in expenditure (Aster, 2005). In general, access to social services such as toilet, water, and electricity are dramatically reduced.

Country wide studies on HIV/AIDS in Ethiopia had been conducted by Selamawit (2005), Tsegazeab & Alemtsehay (2008), Yohannes and Jema, (2013) and Aster (2005) and Bollinger *et al.* (1999). However, as far as the authors' knowledge is concerned, very few studies (Tesfaye, 2006; Negash *et al.*, 2013; Yeshiwas, 2007) had been conducted in some prominent

towns in the Amhara region (where the current study is located). Previous studies gave more emphasis to qualitative research methods, and the impacts of HIV/AIDS on households socio-economic were slackly presented and many of the research works were national surveys. On the other hand, in some places such as Gondar town where HIV/AIDS is an emerging problem; research works in relation to the epidemics is scanty. Besides, HIV/AIDS is dynamic and has spatial and temporal variations, which demands up-to-date information for policy trust. More importantly, measuring the socio-economic impacts of HIV/AIDS provides an important input to the limited literature on the impact of the epidemic on affected households. Thus, this study is hoped to fill these gaps and add knowledge to the existing literature in relation to the socio-economic impacts of HIV/AIDS. The general objective of the study was to assess the socio-economic impacts of HIV/AIDS on household's livelihood in the town of Gondar, Amhara National Regional State.

Description of the study area

Gondar was founded by Emperor Fasiledes in 1636 A.D. (Berry, 1989). During the time, according to the same source, the town served as the capital city of both the Ethiopian Empire and the subsequent Begemeder province. The city holds the ruins of several royal castles, including those in Fasil Ghebbi, for which Gondar has been called the "Camelot of Africa". Its latitudinal and longitudinal extension were $12^{\circ}39'N$ and $37^{\circ}30'E$, respectively (Henok, 2014). The total land area of Gondar town is estimated to be about 5560 hectares with a total population of 300,000 (EDHS, 2011). Its average elevation is about 2260m above mean sea level and it has sub-tropical climatic conditions (Henok, 2014). The current administration system classified the town into 13 *kifleketemas*; each *kifleketema* comprises two kebeles. The total number of people in Abajale *kifleketema* (the study site) was 6909. Out of these, 3056 were males and the remaining (3853) were females (Abajale *kifleketema* administration office, 2014) (see Fig. 1).

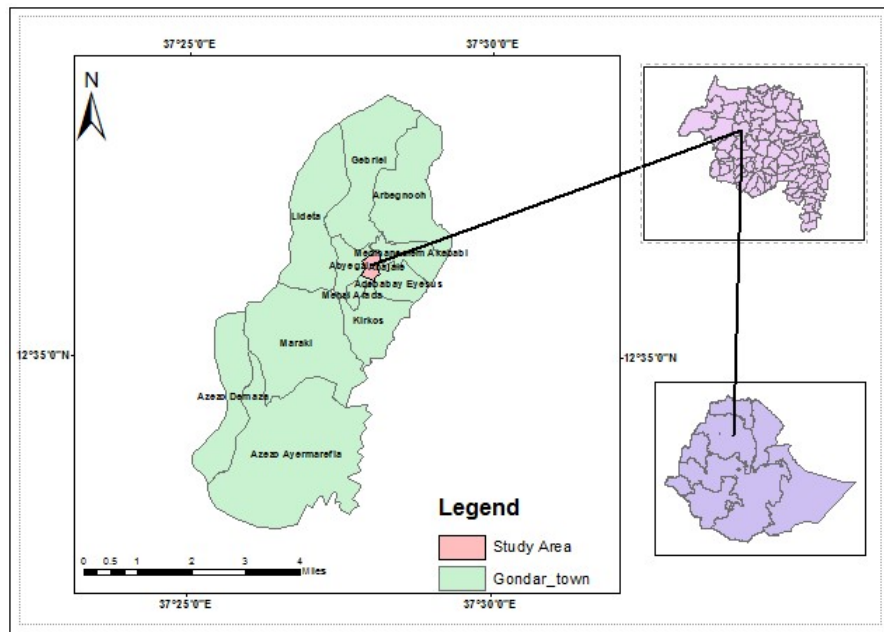


Figure 1. Location map of the study area

Research Methodology

Research design: The study employed mixed research design. This is due to the fact that mixed research design helps to triangulate the quantitative and qualitative data in relation to the socio-economic impacts of HIV/AIDS at household level. HIV/AIDS result in the social/cultural and financial alienation of the affected people. To get appropriate information for this study, the researchers found it necessary to use both quantitative and qualitative research approaches.

Sampling procedures: The study area, Abajale *kifleketema* was selected using purposive sampling technique since this is one of the *kifleketemas* in Gondar town where commercial sex work is commonly practiced and where large numbers of carriers reside. As information obtained from the study *kifleketema*, the total numbers of HIV affected households were 164 of which 55 were male-headed and 109 were female-headed households. All the affected households were taken as a sample mainly since their numbers were small and since it was manageable to collect and analyse data from such a sample size. In addition to household survey, eight key informants were purposefully selected for interview taking into account data saturation. Key informants were composed of NGO experts working with HIV affected households, experts from HIV/AIDS prevention and control office, the *kifleketema's* HIV/AIDS prevention and control desk, community based caregivers, and HIV/AIDS infected households. Two FGDs with six participants in each group were conducted. The FGD participants were purposefully selected from HIV/AIDS affected households in the selected *kifleketema*.

Data collection techniques: Survey questionnaire, key informant interview, focus group discussions and direct observation were the instruments used to collect the primary data. The primary data from household survey was collected using structured questionnaire. The principal investigators have conducted the survey. Among the 164 respondents, 156 respondents can read and write, hence they filled the questionnaire through self-administration systems and the remaining households filled the questionnaire with the help of the principal investigators. Likewise, focus group discussions and key informant interviews were conducted to get detail information about the problems identified. With the awareness of key informants and FGD participants, tape recording was used to buy time and to maintain eye contact with participants.

Data analysis: Both quantitative and qualitative data analysis techniques were employed for this study. The information collected through key informant interviews, focus-group discussions and observations in relation to socio-economic impacts of HIV/AIDS were documented and analyzed textually to substantiate the statistical results from the structured questionnaire. Upon completion of the survey data collection, the data was coded, edited and entered into the Statistical Package for Social Science version 20 and presented using descriptive statistics such as frequencies, percentages and tables. The study employed paired t-test, to show the differences between job opportunities, income and expenditure patterns of households before and after the households were infected with HIV/AIDS. Multivariate analysis of variance (MANOVA) was employed to answer the following major research questions: Do males and females differ in terms of income, expenditure and family size? Are male households better adjusted in terms of income and expenditure than female households? For this, one categorical independent variable (gender) and three continuous dependent variables (income, expenditure and family size) were employed. Normality, outliers, linearity,

homogeneity of regression, multicollinearity, homogeneity of variance-covariance matrices were checked and no significant violations were observed. The null hypothesis was formulated that the sample means on a set of dependent variables do not vary across different levels of grouping independent variables.

Ethical Considerations

Primarily, ethical clearance was obtained from the office of Bahir Dar University research and community service. Later on, formal letter of cooperation was submitted to HIV/AIDS prevention and control office in the *kebele* and the *kifleketema's* HIV/AIDS prevention and control desk. Besides, consent from *kebele* administrative Office was obtained. The principal investigators collected the information after obtaining verbal consent from each participant. Respondents were informed that they could refuse or discontinue participation at any time they wanted and they were informed that they could ask anything about the study. Information was recorded anonymously and confidentiality was assured throughout the study period.

Results and Discussion

“Ending HIV/AIDS epidemic will not be possible without greatly increased efforts to reduce new infections and prevent AIDS-related deaths among key populations at highest risk” (The Foundation for Aids Research, 2013: 1).

Demographic Characteristics of Respondents

Age and Sex Categories of the Respondents

The study revealed that about 33% of the respondents were male headed while 67% were female-headed households. The maximum numbers of respondents (~ 55%) fall in the age category between 25 and 35 years. More than 80% of the respondents were found to be between 25 and 45 years of age (Table 1). The result showed that the majority of the affected households were found in the working age category. Consistent to this finding, Tekola (2008) stated that the majority of households living with HIV/AIDS were categorized under the working age of the population. More specifically, Kloos (2001) and Negash et al. (2013) argued that the highest prevalence of infection is in the age 20-39 years with the highest rates in females than male households. The Ethiopian MoH (2011) added that households affected of HIV/AIDS were found in the age bracket between 14 and 59. Likewise, SIDA (2006) indicated that all-cause of mortality for women and men were the highest from 15 to 49 years during the 1990s. Previous study by Bariagaber (2001) also indicated that in Ethiopia, 94% of 10,374 reported HIV/AIDS cases were in the age bracket of 15 to 49 years; and the comparable figure for Botswana was about 86%. Kenya National Aids Control Council (2006) differently stated that 3% of women aged 15-19 were HIV infected, compared with 0.4% of men aged 15-19, while HIV prevalence among women aged 20-24 was over three times that of men in the same age groups. From the discussions, it can be said that though underlying socio-economic and cultural environments appear to favor the perpetuation of high fertility, it appears that HIV/AIDS strikes at the most productive and reproductive segments of the population.

As it is shown in Table 1, the number of female respondents was two times greater than that of male respondents. Rathavuth et al. (2008) substantiated that at younger ages (15-29), females were much more likely to be HIV positive than males. According to women key informants, job opportunities are extremely rare and the only options available to them include engaging as house cleaners, sex workers and domestic helpers, which makes them

vulnerable to sexual abuse. In relation to this, Kenya National Aids Control Council (2006) evidenced that young women are particularly vulnerable to HIV infection, as compared to young men. This result was consistent with the finding by Aster (2005) in which females were more vulnerable to HIV/AIDS than males. In-depth interview with KIs and FGD participants also evidenced that young couples frequently practiced divorce in rural areas. This happened because of lack of experience and tolerance. The informants further pointed that the majority of the divorced women do not have the right to stay at home; they are forced to leave their homes and reside with their parents. Staying with their parents is not easy, and many of them migrate to the nearby towns to be hired as a maidservant, or become commercial sex workers. In relation to this, EDHS (2011) identified the factors aggravating females' vulnerability to HIV/AIDS as economic inequality, violence, biological, cultural and local factors.

Marital status of respondents

The survey data exhibited that considerable number of respondents (52.5%) were married and about 47% was divorced and widowed (Table 1). Consistent to this finding, Rathavuth et al. (2008) agreed that HIV prevalence rates were much higher among formerly married (widowed/divorced/separated) women and men than among those currently in union. Likewise, Tsegazeab & Alemtehay (2008) found that 78% of the not-affected household heads were married however, only 56% affected households were married. Shelley et al. (2006) differently indicated that in all countries of Africa except South Africa and Namibia, about 80% of adolescent females who had had unprotected sex was married. From the result it can be said that separation and widowhood were relatively high in the study area (Table 1). Contrary to this finding, MoH (2008) pointed out that about 56% of the affected households' head was married and 27% of the households' head was widowed/divorced. As the female focus group discussion participants pointed, HIV/AIDS was the major cause for divorce. The participants further indicated that households were divorced from their husband after they had been affected by HIV/AIDS. The result is consistent with the works of Bollinger et al. (1999) which says HIV/AIDS was the major cause of divorce and quarrel between unions.

Table 2. Marital status, religion and education and family size of the respondents

Age of respondents	Male (%)	Female (%)	Total (%)
< 25 years	1.6	3	4.6
25-35	9.4	45.4	54.6
36-45	14.1	15.6	29.7
46-55	4.7	3	7.8
56-65	1.6	-	1.6
>65 years	1.6%	-	1.6
Total	55 (33.5%)	109 (66.5%)	164 (100%)
Marital status	Frequency	Percent	Cumulative percent
Married	86	52.5	52.5
Widowed	35	21.3	73.8
Divorced	43	26.2	100
Total	164	100	
Educational status			
Illiterate	8	4.7	4.7
Read and Write	26	15.6	20.3
1—4	12	7.8	28.1
5—8	17	10.9	39.0
9—10	62	37.5	76.5

Preparatory	33	20.3	96.8
Certificate	3	1.6	98.4
Diploma and above	3	1.6	100
Total	164	100	
Family size			
One	13	7.8	7.8
Two	46	28.2	36
Three	38	23.4	59.4
Four	28	17.2	76.6
Five	26	15.6	92.2
Six and above	13	7.8	100
Total	164	100	

Educational Status of households

The study revealed that about 5% of the respondents cannot read and write and about 20% were preparatory students (Table 1). The data showed that about 40% of the total affected of HIV/AIDS were high school students indicating that at this educational ladder they are in what is usually referred as 'fire age' and are likely to engage in highly risky sexual activities with their peer groups. In relation to this, Tadesse (2013) confirmed that students enrolled in secondary and preparatory schools were likely to engage in higher risk sexual activities and more vulnerable to HIV/AIDS. Rathavuth et al. (2008) differently noted that HIV prevalence increased with the level of educational attainment, from 1.2% among women with no education to 4.4% among women with primary education, and 11.3% among women with secondary or higher education. In this regard, Sileshi (2013) clearly stated that the rate of infection is markedly higher among individuals who are enrolled in tertiary and secondary schools than those who have low educational attainment. According to key informants' opinion, low awareness of the potential threat of HIV/AIDS and high prevalence of unprotected sex with multiple peer groups are the major causes for the spread of the epidemics in the study area. Key informants also pointed that in many cases the prevalence rate of HIV/AIDS increases with increasing educational and financial attainment of males than females.

Household size of respondents

The survey data indicated that household size of the sampled households ranges from 1 to 6 with a mean of 3.28 and a standard deviation of 1.56. The result showed that 28.1% of the respondents have two household members and 23.4% of the respondents have three household members (Table 1). The study revealed that more than 50% of the respondents have less or equal to three household size. In relation to this, key informants pointed that when the mother or father is infected with HIV/AIDS or one of them dies, orphans were taken by their relatives or friends. This might be the possible reason for the small family size for the majority of the households. Consistent to this finding, Aster (2005) pointed out that HIV/AIDS is one of the causes for family dissolution. Focus group discussants added that children have been taken by their relatives where resources of the affected households become extremely scarce to afford the family. Likewise, Gow & Desmond (2002) argued that reducing family size composition as one of the major coping strategy of HIV/AIDS affected households in many sub-Saharan African countries including Ethiopia.

To test the relationships between marital status of households and household size one-way ANOVA was computed. The result showed that there was significant difference between marital status and family size at $p < 0.05$ ($F(2) = 4.325$, $p = 0.018$). The implication is that

married households have relatively large number of household size than others. In relation to this, Silleshi (2013) pointed out that HIV affected married households have had large number of family members than that of divorced or widowed.

Socio-economic Characteristics of the Respondents

Training and credit services

A key informant expert from the *kefleketema* administration indicated that among the 164 HIV affected households 150 (91%) have taken entrepreneurial skill trainings and received credits. The key informant added that the *kifleketema's* administration office experts in collaboration with Organization of Social Services for HIV/AIDS (OSSA) had given entrepreneurial skill trainings, which helped HIV affected households create their own job opportunities. The survey result revealed that out of the total respondents, 70% were engaged in various occupations after the trainings. Before the trainings, only 16% of the respondents were engaged in employment opportunities. The implication behind the result is that training plays an enabling environment to create jobs. In general, 50% of the respondents were civil servants and traders. Paired sample t-test was run to see the relationship between job access before and after trainings. The result showed that there was statistically significant difference in job access before and after trainings ($t(163) = -9.33, p < 0.01$). This result was consistent with the works of Silleshi (2013). However, key informants differently stated that though skill trainings were given, job opportunities are very seasonal and challenge the sustainability of the livelihoods of the affected households.

Housing and Toilet Conditions of Households

Out of the total respondents, 70.3% have poor housing conditions and they are destitute. The situations become worse after they were affected by HIV/AIDS. In this study, housing conditions was hypothesized to be worse after they had been affected by HIV/AIDS. In relation to this, paired sample t-test was employed and there was statistically significant differences after and before at $p < 0.01$ ($t(163) = 4.899, p = 0.000$). The implication behind the result is, as also observed in the field, HIV affected households housing conditions become worsened and many of them are living in impoverished situation without toilet and water availability. The key informants and focus group discussants unanimously pointed out that HIV/AIDS deteriorates housing and toilet conditions of households. The principal investigators' also observed that poor hygiene toilets, which are used publically and are located far from their home, were common in the study area. Fenton (2004) reached similar conclusions, which says.... HIV/AIDS resulted in poverty and forced carriers of HIV to suffer from toilet and poor housing conditions. The ownership of housing conditions was investigated. Accordingly, 50% were rented from individuals and 40.6% rented from *kebele* houses and about 9% of the respondents owned private house but lack toilet facilities during the survey (Table 2). Aster (2005) in a study made in Addis Ababa substantiated the results in such a ways that of the total HIV/AIDS affected households, about 38% live in rented houses from individuals and 33% live in houses with poor quality rented from *kebeles* and only 3% of the respondents own private houses. The study also revealed that HIV/AIDS decreases households' income aggravating poverty manifested by lack of toilet and poor housing conditions.

Table 2. Housing conditions of households

Housing condition	Frequency	Percent
Private house	15	9.4
Rented from <i>kebele</i> houses	67	40.6
Rented from private/individual houses	82	50.0
Total	164	100

Income of Households

The economic impact of HIV/AIDS is significant and often dramatic in terms of changes in income, asset ownership and longer-term prospects for economic security. Households' sources of income from different sources (petty trade, daily works, wage labor, and other miscellaneous activities) were recorded. The study revealed that before HIV infection, the average annual income received from different sources by the respondents was Ethiopian birr 7323. However, after HIV infection, the average income households earned from different sources decreased to ETB 4930 a reduction of birr 2393 (~ 20%). The result evidenced that HIV/AIDS plays a role in the deterioration of socio-economic situations of households. The paired sample t-test also strengthen the descriptive results at $p < 0.001$ ($T(163) = 24.5$, $p = 0.000$). Likewise, the impacts of HIV/AIDS between gender were compared. Before the infection of HIV/AIDS, the average income of female headed households from different sources were birr 6444, however, after HIV/AIDS infection, it has declined to ETB 4952 a reduction of birr 1491 (13%). Male-headed households on the other hand, earned on average an income of ETB 8532 before HIV/AIDS and 4500 after HIV/AIDS, a reduction of ETB 4032 (30%). In relation to this, the works of the Common Wealth Secretariat (2002) indicated that women's face greater economic insecurity and engage in income generating activities such as sex works- making them vulnerable to HIV/AIDS pandemic. To test the relationship between incomes of HIV affected households and sex of respondents', independent t- test was employed. The result showed that there was statistically significant difference between sex of households and total annual income at $p < 0.001$ ($T(162) = -19.572$, $p = 0.000$). This result was confirmed by key informant interview and focus group discussion, which says. . . HIV/AIDS weakens household's income by increasing their expenditures for health care and other services. Barnett & Whiteside (2000) witnessed that HIV/AIDS leads households' income to be declined either by loss of employment or by increasing cost of health care.

Expenditure for Basic Needs

Households' expenditure were estimated from different sources (house rent, cost on water and electricity, health expense, funerals, expense for food and cloths). The survey data exhibited that expenditure of households to basic needs before HIV/AIDS was ETB 3897 and after HIV/AIDS was ETB 2957, a decline of 940 (14%). Key informants confirmed that the total annual expenditure of households to basic needs including food, water, cloth and electricity, declined from year to year after they have been affected by HIV/AIDS. On the other hand, expenses like health care related expenses have tremendously increased. This is evidenced by the fact that about 30%-50% of hospital beds in Ethiopia were occupied by AIDS patients (MoH, 2011). Like that of income, expenditure showed differences between sexes. Accordingly, before HIV/AIDS, the average expenditure of female-headed households was ETB 3708 and after HIV/AIDS, it was ETB 2714 a reduction of 993. On the other hand, the average expenditure of male headed households before HIV/AIDS was ETB 4270 and after HIV/AIDS, it was ETB 3438 a decline of 832. Consistent to the findings, Steinberg et al.

(2002) noted that HIV/AIDS forces households to move deeper into poverty by diminishing their sources of income and increasing their expenditure on health care services at the expense of other basic needs such as food, water and cloth. Jan et al. (2002) in a study made in Rwanda added that HIV infected households spent on average 20 times more on health care than households without HIV/AIDS. Innocentia (2012) and Marlink (2008) also noted that death due to HIV/AIDS results in permanent loss of income and increase in funeral costs. Booysen et al. (2001) in their own part noted that HIV/AIDS affected households allocated more of their economic resources to health care and less to the basic social services such as education. Likewise, a study made by Jan et al. (2002) in Tanzania reported that households with AIDS death spent, on average, 50 % more on funerals than on medical care. The paired sample t- test result showed that there was statistically significant relationship between expenditure of households to basic needs before and after HIV infection at $p < 0.01$ ($t(163)=11.923$, $p=0.000$). Taking in to account health care service expenditures, about 38% were covered by themselves where as 34.4% and 10.9% of the expenditures were covered by the government and relatives, respectively.

A one-way between-groups Multivariate Analysis of Variance (MANOVA) was performed to investigate sex differences to some socio-economic variables. Three dependent variables were used: total income, expenditure and household size. The independent variable was gender. Preliminary testing for the various assumptions were conducted to check for normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, multicollinearity and no serious violations investigated. The result showed that there was a statistically significant difference between males and females on the combined dependent variables: $F(3, 161) = 13.7$, $p < 0.001$; Wilks' Lambda = 0.83; partial eta squared = 0.173. When the results for the dependent variables were considered separately, the only difference to reach statistical significance, using a Bonferroni adjusted alpha level of .017, was household size: $F(1, 164) = 41.23$, $p < 0.001$, partial eta squared = 0.173. An inspection of the mean scores indicated that males reported slightly higher household size ($M = 3.8$, $SD = 1.7$) than females ($M = 2.8$, $SD = 0.3$).

Coping strategies of households

Mitigation of socio-economic impacts of HIV/AIDS is one of the priority areas of the governmental and non-governmental organizations in Ethiopia. However as the key informants pointed, it is the least worked by the concerned bodies. Hence, affected households' ability to respond to the situations was low and there were variations between households. For example, poorer households respond to the challenges better than do better-off households. As it was shown in Table 3, about 27% of the respondents practice savings as a major coping strategy against the economic crises that result from HIV/AIDS. About 20% and 12% of the respondents replied that borrowing from relatives/friends and reducing family size were the major coping strategies, respectively. The focus group discussants added that, selling household' assets, self-employment opportunities and reducing family size were the major coping strategies against the economic crises of HIV/AIDS. Households in the study area sell their key productive assets (22% of respondents), which they usually fail to rebuild (restock) in the future. In general, as can be seen from Table 3, the coping strategies of households were severe since 50% engaged in withdrawal of savings and selling assets, which are stiff to restock in the future. Consistent to the findings, a previous study made by Donahue (1998) revealed that use of savings, sale of assets, borrowing, and wage labor and community assistance were the chosen coping strategies commonly practiced by HIV affected households. UNAIDS (1999b) cited in Jan et al. (2002) pointed out that to minimize the

impact from HIV/AIDS, households mainly responded by reducing expenditures, diversifying income and alleviating the loss of labor.

Table 3. Coping strategies of households

Coping strategies	Frequency	Percent
Have no options	8	4.7
Selling assets	36	22
Withdrawal from savings	44	26.6
Reducing family size	20	12.2
Searching assistance from NGOs	10	6.1
Borrowing from relatives/friends	33	20.3
Daily laborer	5	3.1
Community assistance	8	4.7
Total	164	100

Key informants added that shortage of financial resources, inadequate support from the community, lack of continuous assistance from governmental and non-governmental organizations and large household size were taken as the major factors that limit the coping strategies of the affected households. The survey data revealed that the largest percentage of assistance given by governmental and non-governmental organizations was medical assistance (67%) and material assistance (30%). Financial assistance was low both from governmental (7.3%) and non-governmental organizations (28%).

Social Networks /social capital

As it can be seen in Table 4, 46.9% of the respondents were the member of *iddir* (people commonly referred to as *Kebariye*). Substantial numbers of respondents (20%) were not participated in any kind of social networks. In this regard, about 90% of the affected households replied shortage of income and stigma as the main reasons for not participating in social networks. The other most important social capital investigated was *mahiber* (people commonly designated as *Lenfesemadeira*). *Mahiber* is a very traditional ritual, but still is a powerful belief both in urban and rural areas of the Amhara region (Arega, 2013). In the study area, *mahiber* helped members to save money every month and gave members the right to take credits when they face acute social problems.

Table 4. Social networks used by households as coping strategies

Social networks	Frequency	Percent
<i>Iddir</i>	77	46.9
<i>Eqquib</i>	18	10.9
Microfinance	15	9.4
<i>Mahiber</i>	21	12.5
Not participant	33	20.3
Total	164	100

Eqquib (commonly referred as *Sewen sew yadregew*) is also another important social capital practiced in the study area. However, because of scarcity of finance and determined by the relative capacity of the households to pay money, few (~11%) households participated in *Eqquib* during the survey. Gow & Desmond (2002) noted that the importance of informal financial institutions in enabling HIV/AIDS affected households at times of money shortage

and helping to recover their livelihoods. However, because of scarcity of cash some households were withdrawn from these important social assets as key informants and FGD discussants unanimously indicated.

Conclusion

Ethiopia is one of the poorest countries in the world with the majority of its people living below the poverty line. One of the many problems that aggravate poverty in the country is the prevalence of HIV/AIDS. The study found out that HIV/AIDS strikes economically active/working segments of the population hence; the pandemic appears to be negatively correlated with income status and occupational levels of households. The data confirmed that women were more vulnerable to HIV/AIDS due to socio-economic and cultural factors prevailing in the community. The study investigated that problem of housing; lack of access to vital facilities such as toilet, water, and electricity aggravated the already existing problems of the affected households. It was also indicated that majority of the respondents were daily laborers engaging in various activities such as selling *injera*, *kollo*, and *lottery*. However, during the survey, they informed that the disease reduced their working capability and exposed to chronic food insecurity creating a vicious circle of poverty. The study found out that spending a significant amount of money for health care services and funerals of the deceased family member increased from time to time weakening their sources of income and assets. Sexually transmitted HIV/AIDS, being behavioral in nature, calls for undertaking continuous awareness raising efforts and educating at individual and community levels with a strong institutional support. Hence, minimizing multiple sexual networking; delaying the onset of sexual activities among youth; increasing quality and quantity of condom usage among the sexually active segment of the population and involving religious groups in campaigns against the pandemic have to be given due attention. More importantly, sex workers need access to HIV testing, appropriate care, timely initiation of antiretroviral therapy, and support services to enhance retention in care and treatment. Finally, the present study could not be by any means conclusive; hence, there is a need for further investigation by taking statistically representative samples, with cross-sectional coverage and longitudinal timeframe.

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