The Impact of HIV/AIDs on Household Income: The Case of Dodoma Municipal

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Abstract- The study assessed implication of HIV/AIDs on household income in Dodoma Municipal. A sample of 150 respondents was purposively and randomly selected and a case study design was adopted. Primary and secondary data were collected. The qualitative and Quantitative data were analysed by using the MS-Excel. The results showed that majority of the respondents (60%) engaged themselves in farming and gardening. Also, findings revealed that the respondents whose monthly income was below Tshs.100, 000/= or the equivalent of $ 60 spent a great portion of their income on transport and medication, while those who earn income above Tshs. 100,000/= spent a great portion of their income on special food and transport. Furthermore, findings showed that HIV/AIDS awareness among the respondents was high (90%) among respondents with formal education, implying that respondents were aware about HIV/AIDs epidemic Transmission. Moreover, respondents admitted that by having an affected member in the family production time is reduced, some assets were sold to foot medical and other associated costs something which results in the increase of poverty level and whereby land was found to be the asset mostly sold (50%). The study recommends on jointly multidisciplinary efforts from all stakeholders such as government and non-government are required overcome challenges of HIV/AIDS and the control activities should be complemented with poverty alleviation measures. New effective approaches should be determined and adopted. Institutional strengthening and integrations of programmes in government and community systems are among key issues emphasised for HIV/AIDs control to impact on household income.

Index Terms- Impact of HIV/AIDs, Household Income, Expenditure

I. INTRODUCTION

The Acquired Immunodeficiency Syndrome (AIDS) pandemic poses the greatest health challenge of our time in Tanzania and perhaps may be the worst in her long history. AIDS causes the loss of young adults in their most productive years of life, which certainly affects the overall economic output. The Country HIV/AIDS prevalence was 5.8% in 2008 (URT-NBS, 2008)

Young people are particularly vulnerable to Human Immunodeficiency Virus (HIV) infection because of risky sexual behaviour, drug abuse and lack of access to HIV/AIDS information and preventive services. Large numbers of young people in sub- Saharan Africa begin sexual activity at a relatively early age and are sexually active before marriage, are not monogamous and do not use condoms regularly enough to ensure protection from HIV infection (UNAIDS, 2007).

The AIDS pandemic is rampant among the economically active section of the population (Erickson, 1990). This greatly affects production, loss of labour, results into loss of income, which is a reduction of the available financial resources for the household. The spread of HIV/AIDS among the most productive age groups of the population seriously affects the economic development of any country in the world.

According to NACP (2008) the Youth in Tanzania form a group which is most affected by the HIV/AIDS epidemic. This is the most productive age upon which families and the nation depend for sustenance, production, and development, indeed the very future of families and the nation. Since agriculture is the backbone of the Tanzanian economy and most agricultural workers are in the age group 15-45 who are mostly affected by the epidemic, the impact of HIV/AIDS on rural communities is increasing (RDS, 2009; NACP, 2009). Since HIV/AIDS in Tanzania has affected the most productive age group of the population, there have been both lowering in production levels and deterioration of service delivery in the health care system. Among the unemployed people in Tanzania, 60% are youths. The consequences of this problem are that youth engage in promiscuous behaviour like theft, armed robbery, drug abuse and unsafe sex (NYDP, 2008).

Data from blood donors have shown a rapid increase in HIV/AIDS prevalence among the youth of 15-24 years in Tanzania (NACP, 2001). The 15-24 years age group makes up 21% of the adult population in Tanzania (NYDP, 2006). This group constitutes altogether the future generation, the nation's dependable resource for providing the labor force for national development.

The government efforts with the technical support from the World Health Organisation Global Programme on AIDS (WHO-GPA) formed the National HIV/AIDS Control Programme (NACP) under the Ministry of Health. NACP formulated the Short Term Plan (1985-1986), and three 5 years Medium Term Plans (MTP): MTP-I (1987-1991), MTP-II (1992-1996), MTP-III (1997-2000), MTP IV (2001-2003), and MTP V (2004-2007). The national response consisted of mobilising funding to implement a number of strategies to prevent, control and mitigate the impact of HIV/AIDS epidemic, through health education, decentralisation, multi-sect oral response and community participation. Despite all the efforts, which have been done in the past to control HIV/AIDS, the situation of the pandemic is not stabilising but in the contrary, the HIV prevalence cost at

Household level in the country is general increasing and affecting more the youth, the country's most productive and dependable workforce.

Since most of studies in HIV/AIDS have focused on Impact of HIV/AIDS on households food productivity, poverty acceleration (ESRF, 2004), rural livelihood (ECA, 2006), and on nutritional status, loss of productive labour force (Loevinsohn et al, 2009), no study has been done to assess the impact of HIV/AIDS on households income. Therefore, in order to establish this, the researchers conducted a study to assess the Implications of HIV/AIDs on household income in Dodoma Municipal. The reason behind this study is to understand the extent in which HIV/AIDS has affected household income.

II. Materials and Methods

Study area

This study was conducted in Dodoma Municipal. The Municipality is one among the seven councils found in Dodoma region. Dodoma municipal was selected due to the following main reasons: For many years Dodoma has been reported among the highest HIV/AIDS cases in the country and this is because of the rapid population increase due to political situations where by there are huge inflows and outflows of politicians, business men and activists. Also the existence of higher learning Institutions like University of Dodoma(UDOM), College of Business Education(CBE),Institute of Rural Development Planning(IRDP),Local Government Training Institute(LGTI), St. John's University and Minerals Institute which bring in a huge number of students from across the country. Though Dodoma is the national growing capital it is among the poorest and least developed area of Tanzania and suffers the highest mother/infant mortality and HIV/AIDS (www.nbs.go.tz, 5th July, 2014).

Research Design

The study used a case study design because this design is convenient in depth study of a situation rather than statistical survey. This design was chosen due to the limitations of time and funds. The structured questionnaires were used.

Sampling size and sampling procedure

Study used a sample of 150 respondents selected from 350 households. Both probability and non-probability sampling designs were used. For probability sampling design a multistage sampling was used and for non-probability sampling design, a purposeful sampling design was used. These sampling designs were used to select Divisions, wards, Streets and villages from which youths to be interviewed were obtained. Multi-stage random sampling was chosen because it was suitable for drawing samples from large populations (Cooksey and Lokuji, 1995).

Data collection and analysis

Structured questionnaires were used to collect data from the household. Both primary and secondary data were collected. Primary data was collected using structured questionnaires with both open and closed ended questions. Secondary data was obtained from Commission for AIDS, National University Libraries, Medical Libraries, Regional and District AIDS Coordinators, Dodoma Social Economic Profile, National Bureau of Statistics, Dodoma Municipal HIV/AIDS Report, National Census Report, 2012. Also secondary data was gathered through reading of relevant documents, publications and reports. The focus was to obtain data, which could not be obtained sufficiently through primary data sources. The qualitative data were analysed by using the MS-Excel.

III. Results

Demographic characteristics

The understanding of HIV/AIDS implications on household income was found to vary significantly between respondents with different levels of wealth and marital status. It was higher among those with least average income than in those with minimal or inadequate income. On average, 19.1-32.7% of the respondents had some difficulties in providing clear costs and budget on HIV/AIDS. Level of education was also an important factor for someone to understand clearly on HIV/AIDS epidemic. A total of 150 household members responded with females accounting for 58% of the respondents, where respondents aged 46-60 comprised 48% and 15-45 (44.7%). A larger proportion (41.3%) of the respondents had completed primary school education. Over half of the respondents were married (65.3%). Majority of the respondents were farmers and business people (78%) Table 1. Results revealed that majority (87%) of respondents had formal educational level. This implies that respondents were aware of HIV/AIDS infections and Impacts.

Table 1: Demographic characteristics of respondents

Factors	**Responses**				**Respondents**
Age	Below 15	15- 45	46-60	Above 60	**150**
	1(0.6%)	67(44.7%)	72(48%)	10(6.7%)	
Sex	Male	Female			150
	63(42%)	87(58%)			
Marital Status	Single	Married	Widow	Divorced	140
	29(20.7%)	98(70%)	5(3.6%)	8(5.7%)	
Educational	Informal education	Primary education	Secondary education	College education	150

	18(12.1%)	62(41.3%)	48(32%)	22(14.6%)	
Occupation	Farmer	Business	employee	student	150
	75(50%)	43(28.6%)	22(14.6%)	10(6.8%)	

Source: Field data (2010)

The community`s major source of Income for HIV/AIDS patients

Table 2 below shows the community's major sources of income for HIV/AIDS patients. Results indicate that major source of income included Agriculture, Trade/business and Employment. Majority of HIV/AIDS patients (60%) got their income from agriculture of which 70% were involved in poultry and gardening; and 26.7% of HIV/AIDS patients got their income from trade/business of which 95% were involved in small and medium size businesses. The study also revealed that 13.3% of HIV/AIDS patients got their income from employment of which 80% were in informal sector. Findings indicate that agriculture and trade/business were the major economic activities in the study area as they were performed by more than 80% of HIV/AIDS patients.

Table 2: Community's major sources of income for HIV/AIDS patients

Source of Income	**Responses**				**Respondents**
Agriculture	Poultry	Grazing	farming	Gardening	**90**
	31(34.4%)	12(13.3%)	15(16.7%)	32(35.6%)	
Trade/ Business	Small	Medium	Large		40
	26(65%)	12(30%)	2(5%)		
Employment	Formal sector	Informal sector			20
	4(20%)	16(80%)			
Total					**150**

Source: Field data (2014)

Household Income level and Expenditure

Table 3 presents household income level and expenditure. Findings from the table revealed that there were negative impacts of HIV/AIDS on household income after having a member suffering from HIV/AIDS. Under this study majority of respondents (62.2%) were found to earn between Tshs.101, 000 - 600,000 per month. On the side of expenditure, this group spent almost 64% on special food while 42.2% spent on medical treatments and 35.3% spent on transport. This implies that most of them are aware of HIV/AIDS epidemic hence mostly use their income on special diet to keep them healthier. Also they spent less on medical treatment because some medical costs e.g. for ARVs are supplemented by the Government.

Furthermore the earners of below Tshs100,000/= per month or $ 60 spend much of their income on transport (62%), medical treatments (57%) and lastly on special foods (36.2%). This implies that this group spent more on transport because most of them do not own private transport; hence they mostly depend on hired transport which is expensive. Also this group spent less on special foods because of their income status, hence special food is not a priority.

Group of household whose income per month was above 600,000 spent more on transport and special foods. This group consisted of people who were aware of HIV/AIDS. Special food to them was an ordinary menu.

Table 3: Household Income level and expenditure (Tanzanian Shillings)

Criteria	**Income Categories /Reponses**				**Total Respondents**
	Below 100,000	101,000 – 300,000	301,000 - 600,000	Above 600,000	
Income level per month	23(15%)	55(36.7%)	42(28%)	30(20%)	150
Medical treatment	66(56.9%)	34(29.3%)	15(12.9%)	1(0.8%)	116
Special food	42(35.3%)	42(35.3%)	32(26.9%)	3(2.5%)	119
Transport	72(62.1%)	28(24.1%)	13(11.2%)	3(2.6%)	116

Source: Field data (2014)

HIV/AIDS Awareness and Place of Treatment

Table 4 below shows HIV/AIDS Awareness and Place of Treatment. Majority of respondents (90%) were aware of HIV/AIDS epidemic and 20% of respondents admitted to have patients in their families. Majority of those admitted to have affected members in their families get medication from Hospital (66.7%). This implies that there is high degree of awareness in the community which results in majority to attend to hospital and health centres. However, the result shows that 6.7% of respondents get medical treatment from traditional healers. This shows that there is still a need to sensitize and educate people on proper care, prevention, protection and treatment of HIV/AIDS epidemic.

Table 4: Respondents HIV/AIDS Awareness

Factors	**Responses**			Total
Awareness	Yes	No		150
	135(90%)	15(10%)		
HIV/AIDS patient existence in respondents neighbourhood	Yes	No		150
	30(20%)	120(80%)		
Place of Treatment	Hospital/ health centres	Traditional healers	Traditional healers and Hospital	30
	20(66.7%)	2(6.7%)	8(26.6%)	

Source: Field data (2014)

Effects of HIV/AIDS to family member and Assets Disposed

Results in table 5 below show the effects of HIV/AIDS to family member and assets disposed. Out of 30 respondents who admitted to have affected member in their families, more than 90% replied that by having an affected member in family, production time is reduced which results into increased poverty level. In addition to that, 40% of respondents who had affected member in the family admitted to have sold an asset to cover health care of the affected member. The findings also showed that half of respondents who admitted to have an affected member in the family said they had sold land. This finding agrees with Nyamuryekung'e; K. (2000)and Mikael L. (2003) who argued that having an affected member in the family reduces availability of disposable income. This is also supported by Barnett et al., (2008) who stated that the family with an affected member may sell assets to meet urgent expenditure needs. AIDS death brings with it loss of productive resources through the sale of livestock to pay for sickness, mourning and funeral expenses, as well as sharp decline in productivity.

Gillespie (2006) argued that, the net effect of these losses is that such households rarely recover even their initial level of living, since their capacity is eroded. As a result, a true process of structural economic decline quickly sets in. It is therefore reasonable to expect that HIV/AIDS will bring about increase in the proportion of households that are poor. Loevinsohn et al (2009), states that, sickness also contributes to the scarcity of labour because of both the incapacity of workers and the time others have to devote to looking after them. The extended families of people who have fallen sick and died of AIDS also suffer economically because of the burden of supporting and educating children orphaned by AIDS.

Table 5: Effects of affected member and Assets disposed

Categories	**Responses**			**Total Respondents**
Effects of affected member to family	Reduction of production time	Termination from production activities	Increase of poverty level	30
	15(50%)	2(6.7%)	13(43.3%)	
Assets disposed	Yes	No		30
	12(40%)	18(60%)		
Types of Asset Sold	Livestock	Furniture	Land	12
	4(33.3%)	2(16.7%)	6(50%)	

Source: Field data (2014)

IV. CONCLUSION

HIV/AIDS has a marked impact on and off household income (loss of assets, savings, remittances, etc) and particularly on the availability of disposable cash while it also increases household expenditures (for medical treatment and transport, special foods). The results showed that majority of the respondents engaged on farming and gardening as their major economic activities. Further, results revealed that the respondents whose monthly income was below Tshs.100, 000/= spent a great portion of their income on transport and medication, while the middle and higher income earners (income above Tshs. 100,000/=) spent a great portion of their income on special food and transport. Also results showed that HIV/AIDS awareness among the respondents with formal education were higher implying that respondents are aware about transmission, care and treatment of the epidemic. Major impact of HIV/AIDS on households income were noticed on reduction of production time, sold of assets were. Land was the mostly sold asset. This implies that household income was diverted from funding development activities to social services (cover the cost of HIV/AIDS).

V. RECOMMENDATIONS

The study recommends that in order to overcome challenges of HIV/AIDS jointly multidisciplinary efforts from all stakeholders such as government and non-government are required and the control activities should be complemented with poverty alleviation measures. New effective approaches should be determined and adopted. Institutional strengthening and integrations of programmes in government and community systems are among key issues emphasised for HIV/AIDs control to minimise costs on household income.

VI. POLICY IMPLICATIONS

HIV/AIDS is among the development agenda in the National Strategy for Poverty Eradication (MKUKUTA), and the National Development Vision of 2025. Therefore, government effort to emphasize policy mainstreaming in all sectors should be increased in order to Prevention and Control HIV/AIDS in all sectors and to improve the well-being of the people.

In response to the HIV/AIDS pandemic, the Government of Tanzania has made substantial valuable progress in nearly all areas of HIV/AIDS prevention, care, and treatment. The challenges of HIV/AIDS need concerted and multidisciplinary efforts from all sectors, government and non-government, including civil society organizations and the community at large. In line with this, the Tanzania Commission for AIDS (TACAIDS) was created by a statute of the Parliament in 2001. TACAIDS is mandated to provide strategic leadership and coordination of multispectral response as well as monitoring and evaluation, including research, resource mobilization, and advocacy.

To address the multiplicity of factors that fuel the spread of HIV infection in the country, a comprehensive prevention approach is adopted. Hence the policy measures include the adoption of risk-reducing counselling or sexual behaviour change, reduction of multiple concurrent sexual partners, proper and consistent use of condoms, transfusion of safe blood, HIV testing and counselling, prevention and treatment of sexually transmitted infections, and use of antiretroviral medicines to prevent mother to child transmission and to provide post-exposure prophylaxis in the workplace and including victims of sexual violence. Also addressed is legislative reform to criminalize intentional transmission of HIV and reduce sexual abuse related transmission. Emerging preventive measures such as male circumcision and the use of microbicides are also considered (URT, 2007:6).

ACKNOWLEDGMENT

It would have been impossible to finish the study without an assistance of many who devoted their time, material and moral support. Special thanks should go to Municipal Director who gave us permission to conduct research in his area of jurisdiction. Furthermore, researchers acknowledge the cooperation made by respondents who devoted their time in filling the questionnaires.

REFERENCES

[1] Barnett and Blaikie, 2001; Barnett et al., 2004; Gillespie and Loevinsohn, 2005). AIDS in Africa: Its Present and Future Impact, The Guilford press, New York. Pg. 21

[2] Bureau of statistics (Tanzania) and Marco International (2000). Tanzania Reproductive and Child Health Survey 1999.

[3] Cooksey, B. & Lokuji, A. (1995). Some practical research guidelines. Research on Poverty Alleviation, Dar es Salaam in Tanzania.

[4] Erickson, J.R. (1990). International Behaviour Responses to a Health Hazard: AIDS. Social Science Medicine 31 pp 951-952.

[5] Loevinsohn (2005), "Impact of AIDS on health expenditures: Overview," Institute for Health Policy, Heller School, Brandeis University.

[6] Mikael L. et al (2004) pg. 4: Exploring the Impacts of of HIV/AIDS on Household Food Security in Rural Ethiopia. A Joint UNECA/UNDP/WFP Study.

[7] NACP (1998). Strategic framework for Third Medium term Plan (MTP-III) for prevention and control of HIV/AIDS/STDS. Ministry of Health, Dar es Salaam. Pp 1-12.

[8] NACP (1999) AIDS Surveillance. Report No. 13. Ministry of Health, Dar es Salaam.

[9] NACP (2001). HIV/AIDS/STI Surveillance Report (January-December 2001): Report Number 15. Ministry of Health, Dar es Salaam. Pp 1-36.

[10] NACP (2002) HIV/AIDS/STI Surveillance Report (January-December 2001) Report Number 16. Ministry of Health Dar es Salaam.Pp 1-27

[11] Nyamuryekung'e, K. (1988) pg. 9-12 "The Direct and Indirect Cost of HIV Infection in Developing Countries": The Cases of Zaire and Tanzania.

[12] UNAIDS (2005).pg. 21 AIDS Epidemic update. Geneva-Switzerland. Pp 1-36.

[13] URT (2010). Medium Term Expenditure Framework in Temeke Municipality, Dar es Salaam Tanzania.

[14] URT (2003). National Multi-Sectoral Strategic Framework on HIV/AIDS (2003-2007). Prime Minister's Office, Dar es Salaam

[15] URT (2001). National Policy on HIV/AIDS. Prime Minister's Office, Dar es Salaam.

[16] URT (2003). 2002 Population and Housing Census General Report: Central Census Office National bureau of Statistics President's Office Planning and Privatisation Dar es Salaam. Government printer Dar es Salaam Tanzania. Pp 107-114; 157-164.

[17] URT. (2008): pg. 12. Rural Development Strategy. Prime Minister's Office Dar es Salaam.

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