THE ECONOMIC AND SOCIAL IMPACTS OF HIV/AIDS IN TANZANIA

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HIV/AIDS has moved beyond its initial status as a health sector problem to a wider scale as a development issue, having social, cultural, political and economic implications. Besides the cost in terms of loss of life, HIV/AIDS is having profound effects on Tanzania's economic development. The disease affects more the most reproductive and productive group that comprise the working force, and increasingly children who are the future work force. Thus, the pandemic poses a serious threat and has tended to erode the positive economic gains achieved so far through the ongoing poverty reduction initiatives.

This study analyzes the social and economic impacts associated with HIV/AIDS pandemic at individual, household, selected sectors and at the macro level. The overall objective of the study is to provide better empirically primary based information on socio-economic impact of HIV/AIDS on the Tanzanian social and economic development so as to divulge the magnitude of the impacts, understand the copping strategies employed, and propose ways through which the presented pandemic could be averted. At macro level this study focuses on changes on macro-economic variables and/or indicators such as the GDP, per capita GDP, and some demographic variables. At sectoral level the focus has been on 4 major sectors namely agriculture, industry, health and education, whereas at micro level the study covered the households and Individuals Living With HIV/AIDS (PLWHAs).

A total of 6 districts of the 5 mainland regions were studied. These districts are Kinondoni in Dar es Salaam region, Mbeya Rural and Mbeya Urban in Mbeya region and Simanjiro in Manyara region. Other districts include Dodoma Urban in Dodoma region and Kahama in Shinyanga region. The 5 sampled regions were purposively selected to capture the HIV/AIDS high, and low prevalence areas and rural-urban settings. This was a 12 months study out of which two months were allocated for the fieldwork. The survey was conducted between September and November 2002.

During the fieldwork, 4 instruments were used to facilitate data collection. These are structured questionnaire, interview checklist, documentation ad/or literature and physical observation. The structured questionnaire was administered to 1184 households, 301 workers of health facilities, 330 workers and orphans in the education institutions, 60 PLWHAs and 33 workplaces/industries. The interview guide was mainly used sporadically to hold discussion with officials at different levels and those working closely with the health centers in the districts. Relevant and HIV/AIDS related

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documents/articles were mainly collected at the district level, libraries, and internet. Observations during the fieldwork were meant to probe on issues beyond those, which were covered in the structured questionnaire and interview guide.

The study identified the following economic and social variables through which the HIV/AIDS pandemic impacts on affected and infected household, sectoral economic performance, as well as important macro economic variables:

Impact on Labor Supply

The pandemic has resulted to decreased labor supply at household and the sectors studied through HIV/AIDS related mortalities and morbidities. The study revealed that the majority of PLWHAs and individuals dying of HIV/AIDS related illness were in the economic and social productive years (age group 30-40 years). About 57 percent of households which experienced death one year prior to the survey mentioned HIV/AIDS as the main cause of death of their members. Respondents from health facilities surveyed reported that 31 individuals died of AIDS during the four-year period in the studied health facilities. Results from education sector revealed that, HIV/AIDS deaths comprise a bigger proportion of the total number of teachers reported to have died one year prior to the survey. The reported proportions at district level for year 2001 ranged from 40 percent to 100 percent. The total number of teachers' deaths per district due to HIV/AIDS related illness ranged from 2 to 16 in year 2002. At workplaces, the companies that provided data reported to have been losing an average of 6 employees per company per year.

Impact on Labor Productivity

The loss of labor productivity was measured by three proxy variables, which are; rate of absenteeism, total years of experience lost, and paid sick leaves. AIDS has resulted in increased rate of absenteeism (and hence a loss of labor time), and loss of skills and experiences. It is indicated that each PLWHAs respondent interviewed lost between 1 to 183 working days with an average of 43 days in the past six months prior to the survey attending their illness. About 26 percent of the sick employees in the surveyed health facilities were granted a paid sick leave in the survey period. The average duration of sick leave was 3.6 months with a range of 1-9 months.

Data on years of experience for teachers who died show that only 7 out of 27 dead teachers had less than 10 years of experience. The average years of experience were 15 with a minimum of 2 years and a maximum of 27 years. Recruited teachers to replace the deceased were found to have less work experience with an average of 3 years of experience. In the health sector, the mean years of service of deceased ranged from 7 to 18 years. The surveyed companies lost employees with between 2 years to 29 years of experience with an average of 6 years in 2001. In addition, the companies that provided data had an average of 6 employees on paid sick leave and companies lost a range of 60 to 1530 man-days with an average of 598 man-days per company in 2002.

Impact on Time Allocation

HIV/AIDS was found to have affected the time allocation of infected and affected households. About 8 percent of the individuals interviewed at the household level indicated that they had attended a HIV/AIDS patient in or outside the household in the past 14 days prior to the survey. The majority spent less than 5 hours and more than 20 hours. More than 43 percent of women respondents spent more than 20 hours in two weeks time prior to the survey caring for HIV/AIDS patients compared to men (36 percent). The majority of the respondents reported to have had spent at least 3 hours in visiting HIV/AIDS sick person in the past 14 days prior to the survey. Results from the household survey further show that about 13 percent of the respondents reported to have had attended a funeral of a person who died of HIV/AIDS related problems 14 days prior to the survey. The time spent for such activity ranged between 1 hour to 280 hours per individual.

It was also found that health care providers take longer time with patients suffering from HIV/AIDS compared to the time they take to attend to patients suffering from other diseases. On average each attending clinician saw 32 patients per day with an average time of less than 13 minutes per patient. An average of 18 more minutes were spent for patients with HIV/AIDS related illnesses.

Impact on Financial Resources

From the financial point of view, the obvious impacts of HIV/AIDS are the increased expenditure that arises from medical treatment of opportunist infections affecting people living with HIV/AIDS. The costs are borne by PLWHAs themselves, household members, extended family members and friends, employers, private sector, donor community and the government. The range of medical support needed include support for testing, drugs to cure AIDS related opportunistic infections, drugs to cure sexually transmitted infections related to HIV/AIDS, outpatient care, and inpatient care. HIV/AIDS indicated to be an expensive illness, and on average, it costs the individual more than other health problems that were reported by the respondents to be affecting people at the household level. Although HIV/AIDS cases did not report the highest expenditures, on average the respondents incurred more, a mean of TZS about 79,000 and median of TZS 28,000. Findings from workplaces reveal that 21 percent of the surveyed companies provided specific medical support to employees living with HIV/AIDS. On average, about TZS 11.76 millions per company were spent on such services in year 2002 with a minimum of TZS 80,250 and maximum of TZS 65 millions

Family support, terminal benefits, replacement costs, and expenditures on preventive programs are among other financial expenses incurred due to the epidemic. An average cost of TZS 158,000 per funeral was reported at household level with a range of TZS 2,000 to TZS 2 millions. Individual households members' contribution to this cost ranged from TZS 100 to TZS 300,000 with a mean contribution of about TZS 11,797. An average household reported to have had spent more on a funeral than what their members contributed for the funeral implying that households received assistance from relatives, friends, neighbours and other sources to finance the funerals.

Data from the health sector show the funeral costs incurred by the employer to range from TZS 50,000 to TZS 1 million with an average of TZS 185,000 per person dying of HIV/AIDS related problems. District level data on the supply side of education sector revealed that transport and burial costs for teachers who died of AIDS related illness constituted a larger proportion of the total transport and burial costs (45-84 percent in 2002). In the workplaces surveyed, the majority (86 percent) of the surveyed companies provided funeral support for deceased. On average, TZS 1.8 millions was provided in year 2002 with a range of TZS 60,000 to TZS 4.6 millions.

It was further revealed that the companies surveyed had supported a total of 12 families of the deceased in year 2002 and they spent an average of TZS 7.22 millions with a range of TZS 100,000 to TZS 14 millions. It was further noted that the surveyed workplaces had spent very little on preventive programs to combat HIV/AIDS. In addition, only 10 percent of the surveyed companies had employees who retired prematurely due to HIV/AIDS related problems and this was associated with payment of premature retirement benefits. The total benefits paid ranged from TZS 1.3 millions to TZS 16.5 millions with an average of TZS 10.3 millions in year 2002.

Impact on Delivery of Social Services

AIDS is also affecting delivery of social services in both education and health sector. The impact on service delivery can be observed in at least three ways: the supply of experienced personnel is reduced by AIDS related illness and death; there is decreased productivity due to illness and absenteeism; and depletion of resources due to increased HIV/AIDS related expenses such as those on medical treatment, transport and burial of workers who die and training costs. Teachers dying of AIDS related illnesses constitute a significant proportion of the total number of teachers dying. The education system is also experiencing the problem of increased teacher absenteeism due to HIV/AIDS related illnesses. In addition, increased financial expenses for HIV/AIDS related problems is evident. These affect negatively the process of education delivery and the quality of education delivered.

The health sector is found to be facing a double jeopardy as HIV/AIDS has overburdened the health sector not only to the health sector workforce in terms of illness costs, loss of time in terms of excuse duties, cost for the disposal of the dead but also the added requirements on the health care staff when caring for the sick both in terms of time, knowledge, skills, and resources. Further, the resources for supplies needed for HIV testing, drugs to cure opportunistic infection, and ARVs is found to be burdensome.

About 73 percent of health sector personnel had difficulties in managing HIV/AIDS patients due to lack of skills, and thus need HIV/AIDS training to better manage their patients. The commonest type of training required was counseling skills followed by management and care of HIV/AIDS disease including use of ARVs. Costs for the courses were available for 4 courses and they ranged from TZS 800,000 to TZS 9 millions implying huge costs for training such types of personnel.

VCT services were present in about 37 percent of the studied health care facilities. For those areas where such services were not available, assessment was done regarding the type of resources the facilities would require to set up such services. The initial cost of establishing such a facility ranged from TZS 1 million to TZS 21.3 million with an average of TZS 4.76 millions. The running costs for such a unit ranged from TZS 100,000 to TZS 415,000 with an average of TZS 233,000 for manpower costs per month and from TZS 50,000 to TZS 1.1 millions with an average of TZS 350,000 per month for other inputs including supplies.

It is further noted that, apart from other costs such as consultation and treatment of opportunistic infections, if only one CD_4 count test is done per recommended number of PLWHAs requiring ARVs, the cost would be about TZS 16.5 billions. This is a huge burden to the health sector.

Impact on Agriculture and Food Security

In the agricultural sector, HIV/AIDS pandemic has negatively affected the performance of agricultural activities in the study area through chronic sickness of members of the households, HIV/AIDS related deaths and loss of working man-days. This has in turn affected their incomes negatively and since income is a pre-requisite for accessing food, the household food insecurity is also aggravated. Decreased agricultural productivity and aggravated food insecurity point to a deepening of poverty situation to both households affected by HIV/AIDS and high HIV/AIDS prevalence areas.

It is noted that within 30 days prior to the survey, duration of HIV/AIDS illness covered a total of 5399 man-days out of which 3848 man-days were total loss equivalent to 35 average farming households' loss of agricultural labor. In addition, within 14 days prior to the survey several household members spent time to attend and/or care for HIV/AIDS patients, attended funerals of AIDS deaths, and visited the HIV/AIDS sick persons. In terms of agricultural labor productivity this is respectively equivalent to 5 farming households losing total available labor force due to time spent to attend the HIV/AIDS patients, 8 farming households' loss of the total available labor force due to time spent to attend funerals of an AIDS death and 2 farming households' loss of the total available labor force for agriculture due to time spent to visit HIV/AIDS sick persons.

A comparison between HIV/AIDS Affected Households (HAAH) and HIV/AIDS Unaffected Households (HAUH), High Prevalence Areas (HPA) and Low Prevalence Areas (LPA) reveals that on average, the pandemic has impacted HAAH and HPA more than HAUH and LPA. The per capita income is comparatively low in HAAH (TZS 320) compared to TZS 864 in HAUH. In terms of time spent for productive activities, time spent in HAAH and HPA is far below that of HAUH and LPA. On average only 620 hours and 1304 hours are spent for productive occupation per day in HAAH and HPA respectively, which are far below 2011 hours and 1329 hours spent in the HAUH and LPA. The results for chronically ill members during the last 6 months, recent death and presence of orphans also indicate clearly that the HAAH and HPA are much more affected compared to the HAUH and LPA.

Impact on Demographic and Macroeconomic Variables

An analysis of the impact of the disease on demographic characteristics of the population reveals that annual cumulative AIDS deaths are increasing and the majority of the AIDS deaths is expected to fall on the 15-49 years age group, the most sexually active and in the prime of their productive years. The annual AIDS deaths are also increasing from about 99,000 deaths in 2000 to about 175,000 deaths in 2015. This translates to increased number of AIDS deaths per day, that is, from 252 deaths in 2000 to 480 deaths in 2015. The implication of this is that the population growth will be 18 percent below what it would be in the absence of HIV/AIDS while the active labor force is likely to be 9 percent lower than what it would be in the absence of HIV/AIDS, with female labor force affected more severely compared to their male counterparts.

Based on conjectures made about the morbidity, mortality and expenditures related to HIV/AIDS, the study finds that by 2015, 22 percent of the health budget would be spent on HIV/AIDS related patients if the current situation prevails and about 50 percent of hospital beds will be occupied by HIV/AIDS patients in year 2015. The results show further that the economy would be 8.3 percent smaller in 2015 because of the epidemic and per capital GDP would be about 4 percent lower in 2015 due to the HIV pandemic.

The Plight of Orphans and Elderly

The findings from education sector reveal that the number of orphans was increasing over the four-year period covered. The study projects that the number of orphans will be 2.7 millions by 2015 and out of these 1.45 millions will be HIV/AIDS orphans. Consistent with the trend, the number of orphans dropping out of school was on average increasing over the same period. Findings further suggest that the dropout rate within the orphans group is much higher than the dropout rate for other students. Girl orphans were found to be more likely to drop out of school than boy orphans.

The findings further reveals that, 34 percent of the orphan students interviewed were being taken care of by grandparents and 51 percent of those orphans mentioned that their grandparents were also taking care of other orphans. About 71 percent of these grandparents were taking care of between 1 and 3 other orphans while the remaining 29 percent were taking care of up to 7 other orphans. Economic capability of most grandparents does not permit them to meet all the basic needs of the orphans due to insufficient resources at their disposal. As a result, some orphans (15 percent) were forced to engage into income generating activities during school or after school hours.

Stigmatization and Discrimination

Increasingly, people living with HIV/AIDS and AIDS orphans have been discriminated and stigmatized in the household and workplaces/schools, and in the community. Due to stigma associated with the disease and lack of knowledge, the pandemic was found to have direct impact on social relations of the PLWHAs within family members, neighbors, close friends, relatives and co-workers. Elements of discrimination, neglect and problems in marital relations were also observed.

The level of stigma and discrimination against AIDS orphans was found to be low at the schools surveyed. Some of the acts of stigma mentioned include laughing at, and/or making fun of orphans, other students did not want to mix with orphans and being isolated by teachers. However, acts of discrimination were more common in the households. About 26 percent of the orphans said they were treated differently at home. Not being treated equally to other children in the household by adults was the most mentioned form of discrimination followed by being given more work.

Institutional Support for Orphans and PLWHAs

Data provided from PLWHAs and schools suggest an existence of some form of support for PLWHAs and orphans. Some organizations/NGO's were providing support to PLWHAs and orphans especially in form of free treatment of opportunistic infections, counseling and transportations cost. Other types of support include school fees, school supplies, food, and casual contributions. Support for ARV therapy was found to be minimal and the activities of these organizations/NGO's were found to be stronger in the urban areas. While acknowledging some form of support from different institutions, respondents did nonetheless mention that this was rather limited, benefiting only very few PLWHAs and orphans. Institutions listed to have been providing support to orphans and PLWHAs include Caritas (Tanzania), Municipal Council (Mbeya Urban), Churches, SHIDEPHA+, CCBRT, DCT, COMOCAH, Dogodogo Center, Care International, PASADA, WAMATA, World Vision, and some teachers.

Policies and Guidelines on HIV/AIDS

Despite that the national HIV/AIDS policy is in place, few sectoral and workplaces policies have been formulated. Up to 30 percent of the health facilities visited had guidelines for HIV prevention in their workplaces. Most of the information given in the guidelines was however directed to prevention of nosocommial infection within the health care facility setting and not, prevention of acquisition of infection by the workforce through other means, for example, sexual transition. It was further noted that no specific policy was found in place for education sector. In addition, only 2 surveyed companies had HIV/AIDS policy at their workplaces and 4 were in the process of formulating their workplace HIV/AIDS policy. Tanzania Breweries Limited (TBL) was the only company that was found to have already implemented coherent and elaborate HIV/AIDS policy.

Coping Mechanisms

Several copping mechanisms were employed from micro to macro levels to halt the spread of the virus and to mitigate the impacts of the pandemic. These include borrowing, sell of assets, taking children out of school, formation of social arrangements to support marginalized groups, setting budgets for HIV/AIDS campaigns, providing counselling and HIV testing services, support direct costs such as medical, ARV, family support among others. Nearly all employed coping strategies at household level are observed to be effective but some were found to be erosive, that is, weakening household's ability to cope with future shocks. This is clearly observed in two of the discussed coping strategies, that is, borrowing and selling of assets. The implication of increased borrowing and selling of assets in the long run is the increased poverty since the available

assets are eroded and more resources are crowded out favoring debt repayment in case the household income does not improve. In addition, taking children out of school disrupts the process of human capital investment and this will result to a mass of illiterate future labor force.

Recommendations

The following are some of the recommendations put forward for the government and other stakeholders. The government and other stakeholders are urged to find out practical and sustainable means for making the ARV therapy available and affordable for a wider community. Further, scaling up the establishment of the Voluntary Counseling Centers and establishment of some form of social insurance mechanism in support for the orphans and other groups that are victims of the pandemic is instrumental. Ministry of education and culture is also urged to come up with some practical approaches that will not only mitigate the loss of teachers but also ensure that orphans get an opportunity to continue with their education unabated. In addition, integration of sexual/reproductive health education (including HIV/AIDS and STDs issues) in the school curriculum from the very basic level is imperative.

On its own, Ministry of Health lacks the resources to cope with the growing demands of the prevention of HIV transmission and care for PLWHAs. There is, therefore, a clear consensus that effective HIV/AIDS interventions require the collaboration of a range of stakeholders, including government agencies, Non-governmental Organizations, Civil Society Organizations, businesses, and international donors. The civil society and the local community, in addition to providing voluntary counseling where possible, are also urged to maintain and sustain the social support systems for the victims of HIV/AIDS infections.

Undertaking more sensitization programs in different sectors on the importance of testing and making public the sero status of individuals is imperative because under-reporting of AIDS cases could undermine recognition of the gravity of the problem in the economy.