

**To: AGEC 340 Students**

**From: Will Masters**

**Re: Example of a literature review paper for AGEC 340**

**Date: January 23, 2009**

The following pages offer an example of a previous student's response to the AGEC 340 literature review assignment. My comments on the title page are exactly what I returned to the student (this feedback is emailed when grades are posted). Notice that the paper is shown here anonymously, as it should be when you upload to Turnitin: unlike almost all other work, here there is no author name on the title page or in the filename, which should be something like "Agec340\_LitReview.doc".

Note that for Assignment #1, which is due in class on February 12<sup>th</sup>, you will need to hand in only a title, plus a one-paragraph description of the topic and at least 10 good sources that match this topic. A detailed description of what's needed is provided in the syllabus, on pages 3-4 and 7-11.

For your own work, be sure to learn from my comments on the title page: please format your bibliography and paragraphs more professionally than this student did. A convenient model for your bibliography and paragraphing can be the style used in our textbook.

# **The Impact of HIV and AIDS on Economic Development in Southern Africa**

**AGEC 340 – International Economic Development**

**April 18, 2008**

*Comments from WAM*

*This is excellent work on a very important issue. The review covers a range of valuable sources and summarizes their findings in a logical structure with clear, interesting writing. Formatting of the bibliography and some paragraphs could be standardized to make the writing seem more professional, but overall this review is extremely well done.*

*Score: 245/250*

## **Introduction**

Numerous economic analyses have shown that even though only a disease, HIV/AIDS is not just a health issue for Southern Africa. Africa remains the hardest hit continent with more than 70 percent of all HIV/AIDS related cases in the world. In addition to the tremendous amount of lives lost, the repercussions of this epidemic affect the structure of economies, the capacity of institutions, and the viability of families. Coupled with poverty and reduced opportunities for social and personal achievement, HIV/AIDS is disrupting the capacity of African countries to maintain economic development that has been secured the past decades. This literature review looks at HIV at the household level, agriculture and food insecurity and government and institution in an attempt to evaluate its effects on economic development.

## **HIV/AIDS at the household level**

To understand the impacts of HIV/Aids, it is best that we begin at the household level and assess the effects in relation to household resources, household labor supply, attitude and knowledge. The most notable changes entailed by the AIDS pandemic are a decrease in the adult population of indistinct duration and a structural inequality in the gender ratio (De Waal, 2003).

Just as De Waal, Gillespie also portrays that HIV/AIDS is most interesting in its characteristic as it primarily affects the adult and most active section of the population. This attribute is very important with regards to human capital. The HIV/AIDS epidemic is essentially devastating for Southern Africa as those infected don't leave the HIV population by getting better but by dying. The loss of adults in households brings about a set of changes in the affected household use of land and other resources (Gillespie 2003).

De Waal for example shows in his report that a host of immense expenses are incurred during the time of illness, and the numerous traditions involving funerals create added demands on a household's savings

and assets. The added pressures on household savings affect current as well as future potential for capital accumulation thereby decreasing economic growth (De Waal 2003).

Weaver, a public policy officer with Tearfund, also links loss of life to its effects on capital accumulation. A majority of adults are stricken by Aids at the point where the accumulation of capital is at its greatest. The subsequent illness and the loss of life related to Aids have colossal implications not only for the family, but the wider community as a whole, particularly as the single most affected group are those aged 20-45. This age group is critical in providing livelihoods and parenting to their families. Household economies continue to weaken as those infected and weakened by the disease are not able to work, and their care providers have to dedicate time and financial resources towards the patients well being. Decreasing savings have meant that productive assets such as livestock, tools and land may be sold off to offset health related expenses (Weaver, 2004).

In his research, De Waal goes further than Weaver to explain the effects of HIV on savings. A falling life expectancy together with diminishing savings and the amplified need for immediate medical expenditure modifies the patient's incentives and future outlook drastically. For those living with HIV and Aids or whose family members are infected may believe that they only have a few years left to live and as such do not make an effort to invest in any business related activities (De Waal).

The FAO (Food and Agriculture Organization) however, show that loss of resources and investment opportunities are not the only immediate effect of chronic illness and death. AIDS has a negative impact on labor as well. When the most productive member is sick the household not only has to manage without their labor input but also the loss of labor from the patients care providers (FAO, 2003). Jeffrey Sachs, a renowned economist and Director of the Earth Institute at Columbia University concurs on the loss of labor and further continues to explain how this affects businesses. Business costs have risen because of disarray from massive medical costs for workers, persistent absenteeism and a massive rate of worker death (Sachs, 2005). Similar trends have been observed in Uganda, Tanzania and Zambia. Usually

funeral ceremonies last between 4-7 days. Time spent at funeral by workers means that workers output reduce due to absenteeism. However customs are changing to shorter and less expensive ceremonies.

The loss of labor and its effects are explained in detail in Haacker's report. Loss of labor too has a massive effect on companies as far as costs are concerned. The most critical ways in which labor affects companies is through absenteeism, disruption of production, pensions to surviving dependents and funeral costs and attendance. With costs and reduced productivity associated with the HIV pandemic at \$300 dollars per year per employee in Uganda for example, the effects on competitiveness and profitability are severe (Haacker, 2002)

As far as the effects of loss of labor on the GDP is concerned, a study done by the Bureau for Economic Research found that the GDP per capita would rise over the long term as the population and workforce reduction would be less than the reduction in GDP (De Waal, 2003).

It is important to understand that this came up with the thought that loss of labor results into the adoption of machinery and new technologies. However it is difficult to assess how this can be so as an increase in demand is what triggers adoption of new technologies to cope with increasing demand.

For Southern African countries, loss of labor has a tremendous effect on agriculture and food security.

### **Agriculture and food security**

According to FAO, agriculture plays an important role in Southern Africa's economy. More than two-thirds of the 25 most affected countries living in rural areas mostly rely on agriculture as means of subsistence (FAO 2003).

In his report Gillespie agrees with the FAO by stating that rural farming systems are made up of a diverse range of farm and off farm income generating tasks. HIV and AIDS affect the capability of agricultural institutions. The epidemic puts pressure on the agriculture sector due to among others the loss of staff in agriculture administration, extension and research due to death. In addition to this is the decline

in the quality of human resources due to morbidity and disorientation of those left behind (Gillespie 2003).

The FAO report concurs with Gillespie's report by showing that AIDS creates an immediate threat to household food security. In the short term HIV and AIDS is characterized by intermittent periods of sickness and recurrent loss of labor which ultimately lowers agricultural production and erodes food security. The vast majority of rural agriculture production is significantly labor dependent with varying labor demands in specific periods of the year. Chronic illnesses or funeral attendance may sometimes mean that a planting season is missed and with it a full crop which leads to food insecurity (FAO 2003).

Gillespie shows in his report that there is a correlation between HIV/Aids and food insecurity. Food insecurity is further heightened as a result of livestock and food theft. HIV and AIDS contribute to this problem as farmers do not dedicate their time to caring for their assets at a time when they have to nurse their sick relatives. This further complicates issues involving production, investment in agriculture enterprises and labor (Gillespie, 2003).

The FAO report on the impact of HIV on food security and rural poverty also talks about the decrease in agricultural production. Labor shortages have contributed to the decrease in gross agricultural production. It is estimated that about 7 million agriculture workers have died of the disease and a further 16 million agriculture workers predicted to be killed by the disease by 2020. The most affected African countries may lose up to 26% of its agricultural labor within two decades and with agriculture accounting for a significant portion of GDP, this loss in labor could have detrimental impacts on the national economy (FAO, 2003).

Even though all the sources have indicated that HIV has a negative effect on agriculture, Gillespie and the FAO think otherwise. It is interesting to note that the agriculture sector itself is partly responsible for the declining production and transmission of the virus. The Food and Agriculture organization argues that the agriculture sector plays a vital role in influencing migratory patterns as commercial farms employ a large number seasonal migrant workers. The type of accommodation offered

at commercial estates does not effectively support families of workers, are often overcrowded, lacking in privacy and therefore favorable to casual and commercial sex.

Both Gillespie and FAO both agree that food insecurity renders women more vulnerable to the effects of HIV/AIDS pandemic. With the loss of household's productive member, the women's work load increases and this in conjunction with a diminishing resource base including land, credit, training and technology (FAO, 2003). The lack of resources and the increasing workload force the women to find food to feed their families by engaging in commercial sex as a last resort (Gillespie, 2003). HIV/AIDS is also responsible in the reduction in the capacity of rural institutions in the provision of ample services. Even though some technical skills can be replaced, institutional knowledge cannot be easily replaced by new staff (FAO, 2003).

Institution and governance are critical in developing economies and the role of HIV/AIDS should not be overlooked.

### **Institution and Governance**

All the sources show that education and health are vital to economic development. HIV/AIDS has a predominantly strong effect on children and young people who are very important to a community's economic, social and family structures. Education and health systems are destabilized as teachers, medical personnel and other staff is unable to work due to illness (Weaver, 2004).

The Food and Agriculture Organization admit that education is necessary for development but adopt a different approach as to the effect of HIV/AIDS on education. The organization focuses on knowledge and how it is passed down through the generations in different households. The loss of a productive generation prevents livelihood skills including agriculture knowledge from being passed down from generation to generation leaving a young population lacking in skills to manage the effects of the epidemic (FAO, 2003).

The International Fund's (IMF) report on the economic consequences of HIV/AIDS in Southern Africa takes a more detailed look at how HIV/AIDS affects education. According to the IMF, an

increasing proportion of school aged children will be orphaned by the HIV pandemic and therefore unable to continue with education due to increasing education costs. With the pandemic reducing the number of teachers, it is estimated that the rate of newly trained teachers to replace AIDS victims would increase from 38 to 83 percent. The number of newly trained teachers will have to expand significantly to avoid the worsening pupil-teacher ratios. Training new teachers require a significant amount of funding and this may prompt government to divert funds that were originally meant for other developing programs into education (Haacker, 2002).

Whereas all the other sources indicate the adverse effects of HIV on education, Alwyn Young, a professor of economics at the University of Chicago opposes this view and states that the epidemic will ultimately improve education. His approach to the pandemic is unique as his view is that HIV/AIDS is only a humanitarian crisis and not an economic one. To understand his thought process we need to evaluate the effect of HIV/AIDS on fertility rates. There is a direct correlation between fertility rates and HIV/AIDS. With a prevalent AIDS epidemic over the past three decades, the ratio of infants to women fell a full 18 percent in the early nineties and has continued to do so (Young, 2004). This decline of fertility related to the AIDS epidemic relieves pressure on capital and will therefore allow for enough resources to be allocated to the available children. The epidemic will also allow for future surviving generations to have higher living standards, while still leaving enough resources to support the ill (Young 2005). This concept works because without the epidemic a lot of stress is put on the ratio of capital to effective labor by a better educated young generation, but eventually increases as higher levels of education results into a lower fertility and population growth. The AIDS epidemic reverses this trend since a high mortality helps to raise wages due to a declining labor force. These higher wages lead to lower fertility and better educated children. It is important to understand that uneducated households tend to have a higher fertility rate and less educated children so the loss of productive members early in the epidemic lingers for generations.

The challenge on the government's side is to adopt strategies that can effectively minimize the impacts of the epidemic. The HIV/AIDS pandemic is expected to transform African governments by placing increasing demands for programs aimed for HIV prevention, AIDS care and treatment as well as improving other public health provisions. It is estimated by the Commission on Macroeconomics and Health that at least 10 to 20 billion dollars per year is required for HIV and Aids intervention. For most African governments this will require a tenfold increase in public spending and an increased need to have more training and improved facilities for health personnel (De Waal, 2003).

The introduction of ARVs brought about a new ray of hope but as early as 2001 Sachs expresses in his book that the donor community regarded ARVs as massively expensive and technically unfeasible such that obtaining funding for the drugs was uphill struggle (Sachs, 2005)

Unfortunately enough data is not available on the actual costs on HIV related health spending. Most of the sources estimate the costs of treating patients by obtaining aggregate costs by multiplying the costs per individual case with a rate that is deemed realistic or desirable.

The likely advantage with this approach is that a standardized approach can be adopted for the different countries across Southern Africa. According to the IMF report, a recent study carried out by the World Bank summarized the costs of ARV treatment for higher income countries such as Botswana, Namibia, South Africa and Swaziland and their subsequent impacts were also assessed. A similar summary was done for low income countries.

**Table 4. The costs of treating HIV patients**

	Costs per patient per year	
	Low-Income Countries	Higher-Income Countries
Palliative care	\$ 25.80	\$ 25.80
Prevention of opportunistic infections	\$ 36	\$ 79
Clinical treatment of opportunistic infections	\$ 359	\$ 698
Costs of HAARTs (drugs only)	\$ 1,400	\$ 1,400
Costs of HAARTs (support)	\$ 600	\$ 1,000

Data sources: Bonnel, *Costs of Scaling HIV program activities, 2001*. For palliative care, prevention of opportunistic infections, and treatment of opportunistic infections, table 4 reports data from a medium cost

From the table above the total cost for per patient per year in low income countries would be 2420.80 dollars where as that of higher income countries would be 3202.80 dollars. The difference for this being higher costs in prevention of opportunistic infections, support and prevention of opportunistic infections. However the report estimates the actual amount spent by low income countries is \$1100 per patient per year and \$1500 per patient per year in high income countries. This difference is due to the negotiated prices which are much lower than the original cost of the drugs (Haacker, 2002).

At first glance, even at the lowered prices, cost of drugs will still be costly for African governments considering that the majority of the population survives on less than a dollar a day. However if we compute the prices at PPP and consider the effect of generic drugs, the cost of treatment turns out to be much lower.

Young thinks that the cost of treatment should be even lower than the World Bank estimate. He compares the provision of ARVs to that available in Brazil where the cost of treatment per patient per year is \$292. He argues that if the same approach can be adopted for Africa, there would be sufficient resources to cater for those infected and to provide enough surplus for future generations (Young, 2004)

The other way in which the epidemic affects governments is through declining revenues particularly through its effect on the tax base. For example, Markus Haacker from the IMF argues that the declining rate of population growth affects the tax most especially on personal income, company profits, imports and consumption (Haacker, 2002).

In a report by Dixon, a lecture in health economics at Sheffield University, he too comments on taxes. Due to the reduction in taxes, governments are forced to increase their spending to counter the rising prevalence of AIDS. This has potential to trigger fiscal crises (Dixon et Al, 2002)

The other sources concluded that the epidemic will have massive economic effects and will continue to derail economic progress from past decades. However, in his book Fox thinks that all is not lost as far as African governance is concerned. Some countries such as Uganda and Chad have done well to cope with the complications of the epidemic. Uganda's integrated approach to HIV and AIDS has

meant that all the important sectors such as Agriculture, Health and Education have incorporated strategies to sensitize their personnel about the epidemic. In addition to this is the openness, advocacy and publicity at levels of government which have had a tremendous impact on people's lives (Fox, 2006) Uganda has had its national HIV prevalence fall from 12% in 1996 to about 6% in 2006. In addition to this is also the fact that most of Uganda's educated citizens were outside the country when Uganda was at war. Coming back from countries such as the United States and UK with fewer AIDS cases and better education- the returning exiles had lower HIV levels and a vast array of skills and resources with which to help their country develop.

### **Conclusion**

The effects of HIV/AIDS epidemic are similar and unanimous as the majority of the sources agree to the effect of the epidemic on economic development. This literature review has shown that the HIV/AIDS has had a massive effect on labor supply, demographics, education and governance. The effect on education is surprisingly positive as its demand will decline due to falling fertility rates. This means that there will be more resources for those few left. However the challenge at present with education is the difficulty in maintaining pupil to teacher ratio consistently.

The fact that HIV/AIDS is a relatively new epidemic and has no known cure means that it may potentially have adverse effects on Southern African economies if effective structures are not put in place to counter its effects. AIDS is most devastating as it affects the key areas that a country needs to develop such as agriculture, health, education and governance. But amidst all this some African countries have done exceptionally well as is the case with Uganda. What works for one country may not necessarily work well for others but it is worth adopting strategies that work and modifying them to suit a particular country. The way forward for African countries is to improve on governance, innovation and incorporating HIV/AIDS programs in the key areas so as to sensitize the wider public.

The most unique aspect of the epidemic was that from Young's Gift of the dying in which he expresses that the epidemic not an economic crisis but rather a humanitarian one and that the subsequent

reduction on the population will more resources and a better life for those left behind. Collecting data seemed to be the biggest issue but as more research is carried into epidemic, more concrete information concerning the epidemic and its subsequent effects on economies will be evaluated.

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