



The POLICY Project

The Economic Impact of AIDS in Zambia

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AIDS has the potential to create severe economic impacts in many African countries. It is different from most other diseases because it strikes people in the most productive age groups and is essentially 100 percent fatal. The effects will vary according to the severity of the AIDS epidemic and the structure of the national economies. The two major economic effects are a reduction in the labor supply and increased costs:

Labor Supply

- The loss of young adults in their most productive years will affect overall economic output
- If AIDS is more prevalent among the economic elite, then the impact may be much larger than the absolute number of AIDS deaths indicates

Costs

- The direct costs of AIDS include expenditures for medical care, drugs, and funeral expenses
- Indirect costs include lost time due to illness, recruitment and training costs to replace workers, and care of orphans
- If costs are financed out of savings, then the reduction in investment could lead to a significant reduction in economic growth

LABOR FORCE STATISTICS				
	Economically Active Labor Force: 1991¹		Wage Employment by Industry: 1986²	
Sector	'000s	%	'000s	%
AGRICULTURE	1398	73.2		
Agriculture, hunting, forestry and fishing			37.2	10.34
INDUSTRY	188	9.8		
Mining and quarrying industries			54.2	15.07
Manufacturing industries			50.9	14.15
SERVICES	326	17.0		
Electricity, gas and water			8.7	2.42
Construction			20.8	5.78
Trade, restaurants and hotels			26.6	7.39
Transport, storage and communications			26.1	7.26
Finance, insurance, real estate and business services			24.7	6.87
Community, social and personal services			110.2	30.65
TOTAL	1912	100.0	359.6	100
Source: 1 – Europa World Year Book, 1998; 2 - United Nations, Statistical Yearbook, 1995, table 29				

The monetized economy of Zambia is heavily dependent on the mining of copper, cobalt and zinc. Fifteen percent of total wage employment in Zambia is in the mining industry, which in turn accounted for about 11% of GDP in 1996, and 75% of the country's export earnings. Manufacturing industries and agriculture are the next two major sources of paid employment in

Zambia; the sectors contributed 30.7% and 18.8% to GDP in 1996, respectively. The services sector contributed 38.2% of GDP in 1996, and provided employment for 60% of wage-earning employees. Agriculture remains underdeveloped, and accounts for the largest proportion of the labor force, consisting of about 73.5% of the economically active population in 1996. The table above shows the labor force structure by sector in Zambia.¹

The economic effects of AIDS will be felt first by individuals and their families, then ripple outwards to firms and businesses and the macro-economy. This paper will consider each of these levels in turn and provide examples from Zambia to illustrate these impacts.

Economic Impact of AIDS on Households

The household impacts begin as soon as a member of the household starts to suffer from HIV-related illnesses:

- Loss of income of the patient (who is frequently the main breadwinner)
 - Household expenditures for medical expenses may increase substantially
 - Other members of the household, usually daughters and wives, may miss school or work less in order to care for the sick person
 - Death results in: a permanent loss of income, from less labor on the farm or from lower remittances; funeral and mourning costs; and the removal of children from school in order to save on educational expenses and increase household labor, resulting in a severe loss of future earning potential.
- One study found that the illness of parents forces children to be the caregivers, thereby sacrificing their education through poor attendance and simply dropping out of school. The study also found that, since the disease affects the productivity of the patient, it affects the household income adversely. One of the major consequences of this is malnourishment in the children of that household; this condition is often worsened when the child is orphaned and sent to a guardian's house.²
 - Focus group discussion results from the Mansa District of Luapula Province indicated that people felt AIDS had many economic repercussions on the families of AIDS patients. Malnutrition was perceived to be a major risk in 60% of the families, while 55% of the respondents felt unable to meet the costs of their children's educational requirements. Inadequate shelter and a reduced income flow in the family were the other perceived repercussions of the epidemic.³
 - In another study that was conducted to examine the social impact of AIDS on Zambian families, an analysis was performed of 49 case studies throughout Zambia. In the 12 single-parent households, AIDS had led to 7 deaths. In the other families,

¹ Europa World Year Book 1998, Volume 2 (1998) Europa Publications Limited (London).

² Baggaley, R.C., Needham, D. (1997) Canadian Medical Association Journal; 156(6): 873-878.

³ Kasawa, K.B. (1993), unpublished

all of which began with two parents, both parents died in 7 families, the father only had died in 15 families, and the mother only had died in 12 families. The economic condition of all of the observed families was affected with half facing food shortages, and 31 percent facing a breakup in the family. Out of a total of 215 children in the households, 56 had been forced to leave school.⁴

- Research following 116 families throughout Zambia found that 54 fathers and 20 mothers had died; only 13 of the parents who were still alive did not show any symptoms of AIDS. In this sample, 42 percent stopped attending school, 102 families suffered economic problems, and 59.8 percent of the households had food shortages.⁵
- In general, research has found that approximately 37 percent of all households in Zambia are caring for one or more orphans, while about 25 percent of the households were headed by widows. By the year 2000, one study projects that there will be over 1,000,000 orphans, or 18% of children, due to AIDS. Over half of the households in each study caring for orphans cited financial pressures associated with their care. Non-orphans are 1.3 times more likely to attend school than orphans.⁶
- In a recent study of two areas in Kafue, Zambia, researchers found that caregivers in the less affluent community reported lost earnings of 10,000 kwachas (K) per month, where half of the sample earned less than K100,000 annually. Those in the more affluent area had lost earnings of K24,583 per month, where more than 85% of the sample had an annual income of over K1,000,000. The average funeral cost was between K112,000 and K240,700. The average cost for a visit to a clinic ranged from K8,542 to K16,500 for the two areas. Households that were affected by AIDS reported annual income levels of 30-35% less than unaffected households. The affected households also reported selling off assets such as bicycles and radios in order to pay costs such as health and funeral costs.⁷

⁴ Haworth, A., Kalumba, K. et al. (1991) Paper presented to the VII International Conference on AIDS, Florence, 1991.

⁵ Haworth, A. (1991) "A study of the effects of AIDS upon the children in 116 Zambian families." Unpublished.

⁶ Mulenga, C, J Kamwanga, J Ngwisha. (1993) "Orphans, Widows and Widowers in Zambia: A Situation Analysis and Options for HIV/AIDS Survival Assistance." Institute of African Studies. St Francis AIDS Department (1994) "The plight of orphans in Katete." Paper presented at the 4th National AIDS Conference, Lusaka, 1994. Rossi, MM and Reijer, P (1995) "Prevalence of orphans and their education status in Nkwazi Compound – Ndola." Paper presented to the 5th National AIDS Conference, Lusaka; Webb, D (1996) "Children in Especially Difficult Circumstances (CEDC) in Zambia: A Situation Analysis," SAfAIDS News; 4(1):2-6; "Zambia's AIDS Orphans to Be One Million," Friday June 4, 1999, Xinhua News Agency.

⁷ Mutangadura, G and D Webb (1998/99) "The socio-economic impact of adult mortality and morbidity on urban households in Zambia." AIDS Analysis Africa 9(4): Dec 98/Jan 99.

- Except for teenagers, HIV prevalence rises significantly as the level of education rises in Zambia; for example, one study found that the most educated group of women were 3.13 times more likely to be HIV-positive than the least educated women.⁸
- A recent study found that households in rural Zambia have developed a variety of coping mechanisms for the impact of HIV/AIDS, including begging, having smaller families, diversifying income-generating activities, selling assets such as cattle, pulling children out of school to take on domestic or agricultural duties, and obtaining loans.⁹

Economic Impact of AIDS on Agriculture

Agriculture is the largest sector in most African economies accounting for a large portion of production and a majority of employment. Studies done in Tanzania and other countries have shown that AIDS will have adverse effects on agriculture, including loss of labor supply and remittance income. The loss of a few workers at the crucial periods of planting and harvesting can significantly reduce the size of the harvest. In countries where food security has been a continuous issue because of drought, any declines in household production can have serious consequences. Additionally, a loss of agricultural labor is likely to cause farmers to switch to less-labor-intensive crops. In many cases this may mean switching from export crops to food crops. Thus, AIDS could affect the production of cash crops as well as food crops.

- In a study of 29 agricultural organizations, significant effects of HIV/AIDS were found, including increased absenteeism; an increase in the number of deaths, especially in the management categories; and increased expenditures for both medical costs and terminal benefits.¹⁰
- The reliance on female labor for crucial agricultural tasks such as planting, weeding, and fertilizing crops will result in a fall in agricultural production once the women need to spend more time caring for AIDS patients. The combined effect of drought and AIDS made it difficult for farms to recover from the 1992 drought.¹¹
- Little evidence of the impact of HIV/AIDS on agricultural production was found by the FAO in 1993. The authors hypothesize that this is due to the fact that the agricultural systems that are most vulnerable to labor supply interruptions are, in Zambia, the systems with the lowest HIV prevalence. In Zambia, the men are responsible for managing the household and marketing agricultural produce; thus

⁸ Fylkesnes, K, RM Musonda, K Kasumba, Z Ndhlovu, F Mluanda, L Kaetano, CC Chipaila. (1997) "The HIV epidemic in Zambia: socio-demographic patterns and indications of trends among childbearing women." *AIDS*; 11(3):339-45.

⁹ SAfAIDS (1998) "Socio-economic Impact of Adult Mortality and Morbidity on Households in Kafue District, Zambia," Harare, Zimbabwe.

¹⁰ Ching'ambo, LJ, K Mwanza, DH Kalyalya, MF Phiri, SWM Kunkhuli (1995) "The Socioeconomic Impact of HIV/AIDS on Selected Industries in Zambia," Lusaka: SIDA/WHO.

¹¹ Foster, S (1993) "Maize production, drought and AIDS in Monze District, Zambia" *Health Policy and Planning*; 8(3):247-254

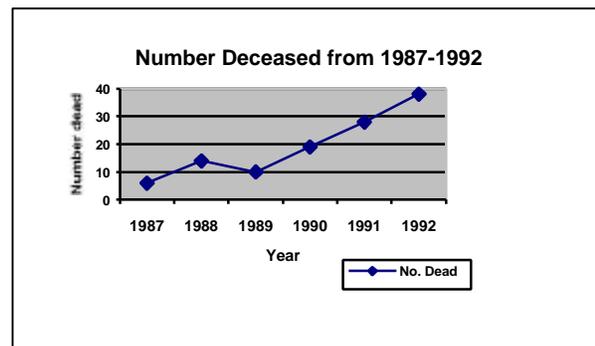
their loss affects the cash resources of the household. The major impact of HIV/AIDS on the commercial estate sector in this study was its negative effect on the supply of skilled and educated members of the work force; little effect on production had been felt.¹²

Economic Impact of AIDS on Firms

AIDS may have a significant impact on some firms. AIDS-related illnesses and deaths to employees affect a firm by both increasing expenditures and reducing revenues. Expenditures are increased for health care costs, burial fees and training and recruitment of replacement employees. Revenues may be decreased because of absenteeism due to illness or attendance at funerals and time spent on training. Labor turnover can lead to a less experienced labor force that is less productive.

Factors Leading to Increased Expenditure	Factors Leading to Decreased Revenue
Health care costs	Absenteeism due to illness
Burial fees	Time off to attend funerals
Training and recruitment	Time spent on training
	Labor turnover

- In Zambia, a typical large company will pay workers 90 days of sick leave at full pay, and another 90 days at half pay. The cost of this to a firm, along with annual leaves of 30 days for non-unionized workers and 42 days for unionized workers, begins to have an effect on productivity levels.¹³
- The petroleum refining company INDENI Petroleum paid out K22.6 million (US\$33,781) in medical costs for AIDS patients and funeral expenses, which was greater than their profits of K16.4 million (US\$24,514).¹⁴
- In a study that was conducted in Lusaka, four organizations out of ten surveyed reported that AIDS was a problem in their companies. The number of employees dying due to HIV was high and was affecting the productivity of the organizations. Half of the organizations noted an increase in the rates of sick leave, while four firms registered an increase in absenteeism, and six experienced an increase in rates of funerals.¹⁵



¹² Barnett, T. (1994) FAO. "The effects of HIV/AIDS on farming systems and rural livelihoods in Uganda, Tanzania and Zambia".

¹³ Whiteside, A (1995) "The Economies of Africa and HIV/AIDS: What Needs to be Done," IXth International Conference on AIDS and STDs in Africa, Kampala, 10-14 December 1995.

¹⁴ ILO EAMAT (1995) "The Impact of HIV/AIDS on the Productive Labour Force in Africa," EAMAT Working Paper no 5 (Addis Ababa).

¹⁵ Tembo, R. (1994) Unpublished. "Human resource development and training in relation to HIV/AIDS in the formal sector".

- An employers' response summarizing the impact of the AIDS epidemic in Barclays Bank in Lusaka stated that the death rate has risen from 0.4% in 1987 to 2.2% in 1992. Ex-gratia payments made to bereaved families affect profit levels, because the amount paid increases every year, as the number of deaths increases. In 1991, ZK 6.8 million was paid, followed by ZK 24.6 million in 1992 for deceased staff. The Bank also has paid for the funeral expenses of the deceased. Note that the age distribution of deaths, as shown in Table 2, shows a disproportionate amount of deaths in the youngest age group, as well as in the group aged 36-40. Some costs that have occurred but are difficult to quantify include reduced man hours, increased absenteeism, reduced staff morale and increased re-training costs.^{16,17}

TABLE 2
Age distribution of deceased Barclays Bank Zambia staff

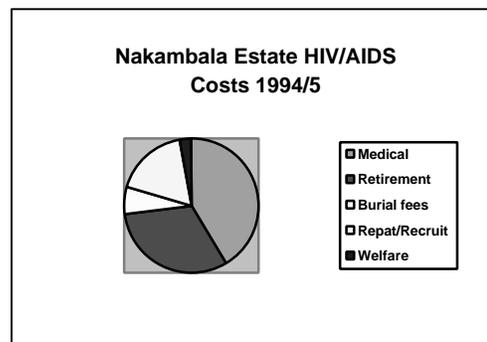
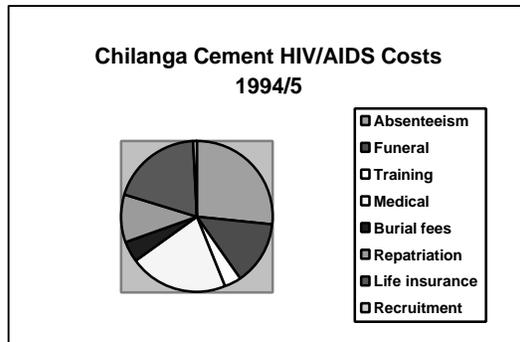
Age Group (Years)	1987	1988	1989	1990	1991	1992	Total	% of Total
< 30	1	-	4	4	9	11	29	25.2
31 – 35	2	5	2	4	5	4	22	19.1
36 – 40	2	5	3	7	10	6	33	28.7
41 – 45	1	-	-	1	4	9	15	13.0
46 – 50	-	2	-	2	-	4	8	7.0
51 – 55	-	1	1	-	-	3	5	4.4
56+	-	1	-	1	-	1	3	2.6
Total	6	14	10	19	28	38	115	100.0

- Two firms studied in detail by the AIDSCAP project describe different sets of costs associated with HIV/AIDS for two firms in Zambia, Chilanga Cement and Nakambala Sugar Estates, a commercial sugar estate. For Chilanga Cement, the majority of the costs experienced by the company were increased absenteeism rates. Fewer costs were calculated for the sugar estate; there, the major cost was related to increased medical expenditures.¹⁸

¹⁶ Nyirenda, B.N. (1993) Paper presented at the National workshop for AIDS and the workplace, Siavonga, July 1993.

¹⁷ A presentation by A.L.Keembe, Personnel Director, Barclays Bank of Zambia Limited, Kitwe, March 11, 1993.

¹⁸ Smith, J. (1995) "The Socio-Economic Impact of HIV/AIDS on Zambian Businesses," Report for the BEAD Group and CDC, unpublished.



For some smaller firms the loss of one or more key employees could be catastrophic, leading to the collapse of the firm. In others, the impact may be small. Firms in some key sectors, such as transportation and mining, are likely to suffer larger impacts than firms in other sectors. In poorly managed situations the HIV-related costs to companies can be high. However, with proactive management these costs can be mitigated through effective prevention and management strategies.

Impacts on Other Economic Sectors

AIDS will also have significant effects in other key sectors. Among them are health, transport, mining, education and water.

- **Health.** AIDS will affect the health sector for two reasons: (1) it will increase the number of people seeking services and (2) health care for AIDS patients is more expensive than for most other conditions. Governments will face trade-offs along at least three dimensions: treating AIDS versus preventing HIV infection; treating AIDS versus treating other illnesses; and spending for health versus spending for other objectives. Maintaining a healthy population is an important goal in its own right and is crucial to the development of a productive workforce essential for economic development.
- In the Monze Hospital in Zambia, data on the costs of treatment of HIV disease in inpatient wards and the outpatient department show that the cost to the health services of treating HIV disease in the 2 years before death was US\$110.60 per person.¹⁹ Daily costs ranged from US\$1.70 to US\$7.20 for inpatient care, depending on the location of the hospital.²⁰

¹⁹ Foster, S. and Anne Buvé (1995) "Benefits of HIV screening of blood transfusions in Zambia". The Lancet. Vol.346.

²⁰ Loewensen, A and A Whiteside. (1997) "Social and Economic Issues of HIV/AIDS in Southern Africa," SAfAIDS Occasional Paper No. 2, SAfAIDS, Harare, Zimbabwe.

- As of 1993, hospital occupancy rates were at least 90 percent or more through the country; of these occupied beds, over 50 percent were taken by AIDS patients.²¹
- **Transport.** The transport sector is especially vulnerable to AIDS and important to AIDS prevention. Building and maintaining transport infrastructure often involves sending teams of men away from their families for extended periods of time, increasing the likelihood of multiple sexual partners. The people who operate transport services (truck drivers, train crews, sailors) spend many days and nights away from their families. Most transport managers are highly trained professionals who are hard to replace if they die. Governments face the dilemma of improving transport as an essential element of national development while protecting the health of the workers and their families.
 - An official at Zambia Airways, which holds seminars for its air crews and who are considered by some to be a high risk group, was quoted as saying “We are an international airline, and if our passengers come to know that Zambia Airways employees are HIV-positive, they will be alarmed.”²²
- **Mining.** The mining sector is a key source of foreign exchange for many countries. Most mining is conducted at sites far from population centers forcing workers to live apart from their families for extended periods of time. They often resort to commercial sex. Many become infected with HIV and spread that infection to their spouses and communities when they return home. Highly trained mining engineers can be very difficult to replace. As a result, a severe AIDS epidemic can seriously threaten mine production.
 - Copper mining in Zambia is a labor intensive industry, employing the young and healthy in the population. The mining industry provides various services for its employees and their dependents, including health, education, housing, and social services. The industry also provides training for all its recruits in most of the skilled jobs on the mines. Absenteeism due to sickness as well as social commitments that reduce the efficiency of the labor force will have a significant impact on the industry. New employees will also need to undergo extensive training. The industry faces huge economic costs as a result of the high prevalence of this disease in Zambia.²³ Early estimates show that 68 percent of the men who tested positive for HIV in the copperbelt area were professionals in the mining industry.²⁴

²¹ Foster, S (1993) “Cost and Burden of AIDS on the Zambian Health Care System: Policies to Mitigate the Impact on Health Services.” Unpublished.

²² AIDS Analysis Africa, Vol.2 No.2, March/April, 1992. “Zambia’s companies count the costs”.

²³ Nkowane, B.N. (1988) “The impact of human immunodeficiency virus infection and AIDS on a primary industry: Mining (a case study of Zambia)” in “The Global Impact of AIDS”, pages 155-160.

²⁴ Green, EC (1988) “AIDS in Africa: an agenda for behavioural Scientists,” in N Miller and RC Rockwell (eds) AIDS in Africa, Edwin Mellen Press, Lewiston.

- **Education.** AIDS affects the education sector in at least three ways: the supply of experienced teachers will be reduced by AIDS-related illness and death; children may be kept out of school if they are needed at home to care for sick family members or to work in the fields; and children may drop out of school if their families can not afford school fees due to reduced household income as a result of an AIDS death. Another problem is that teenage children are especially susceptible to HIV infection. Therefore, the education system also faces a special challenge to educate students about AIDS and equip them to protect themselves.
- In a study centered in two provinces of Lusaka and Northern Zambia, the impact of AIDS was examined using a survey conducted on 346 students and 74 teachers drawn from 20 rural and urban primary and secondary schools. Respondents mentioned AIDS as the major cause of death. Effects for the students include increased absenteeism and increased dropout rates, especially in the urban areas. Enrollment is not expected to be affected, however, since there is a shortage of places in schools. Teachers report that they have experienced increased absenteeism due to illness and funeral attendance, and find it more difficult to teach due to worries and depression. It is anticipated that teacher training and recruitment costs will increase by 25% to replace teachers who die; in 1998 alone, 1,500 teachers died from AIDS.²⁵
- **Water.** Developing water resources in arid areas and controlling excess water during rainy periods requires highly skilled water engineers and constant maintenance of wells, dams, embankments, etc. The loss of even a small number of highly trained engineers can place entire water systems and significant investment at risk. These engineers may be especially susceptible to HIV because of the need to spend many nights away from their families.

Macroeconomic Impact of AIDS

The macroeconomic impact of AIDS is difficult to assess. Most studies have found that estimates of the macroeconomic impacts are sensitive to assumptions about how AIDS affects savings and investment rates and whether AIDS affects the best-educated employees more than others. Few studies have been able to incorporate the impacts at the household and firm level in macroeconomic projections. Some studies have found that the impacts may be small, especially if there is a plentiful supply of excess labor and worker benefits are small.

There are several mechanisms by which AIDS affects macroeconomic performance.

- AIDS deaths lead directly to a reduction in the number of workers available. These deaths occur to workers in their most productive years. As younger, less experienced workers replace these experienced workers, worker productivity is reduced.

²⁵ Mukuka, L., Kalikiti, W. (1995) Ministry of Health; "Zambia's AIDS Orphans to Be One Million", Friday June 4, 1999, Xinhua News Agency.

- A shortage of workers leads to higher wages, which leads to higher domestic production costs. Higher production costs lead to a loss of international competitiveness which can cause foreign exchange shortages.
- Lower government revenues and reduced private savings (because of greater health care expenditures and a loss of worker income) can cause a significant drop in savings and capital accumulation. This leads to slower employment creation in the formal sector, which is particularly capital intensive.
- Reduced worker productivity and investment leads to fewer jobs in the formal sector. As a result some workers will be pushed from high paying jobs in the formal sector to lower paying jobs in the informal sector.
- The overall impact of AIDS on the macro-economy is small at first but increases significantly over time.

According to UN sources, the infant mortality rate in Zambia will be 60% higher by 2010 due to the impact of AIDS, the child mortality rate will double, the crude death rate will triple, and life expectancy will decrease from 60.1 to 30.3 years. Overall, population growth will be reduced from 3.1% to 2.1%, because of the effect of AIDS.²⁶

Forgy and Mwana (1994) utilize a simple macroeconomic model to examine the impact of AIDS on Zambia. They compare a scenario without AIDS to two different scenarios: (1) with AIDS, but without foreign assistance, and (2) with AIDS and with foreign assistance. In the first AIDS scenario, without assistance, they estimate that GDP would be 9 percent less than the baseline scenario, with per capita income equal to \$494, about 4 percent less than the baseline. If foreign assistance pays for medical costs and training of workers, GDP would only fall by about 5 percent. These effects are a combination of initial effects of decreased production due to reductions in the labor force, and later losses in productivity due to lower investment levels initially.²⁷ One conclusion from the study was: “...without unprecedented infusions of free foreign aid to mitigate the effects of AIDS, the economy of Zambia will suffer considerable damage.”¹

What Can Be Done?

AIDS has the potential to cause severe deterioration in the economic conditions of many countries. However, this is not inevitable. There is much that can be done now to keep

²⁶ Cohen, D. (1997) “Socio-Economic Causes and Consequences of the HIV Epidemic in Southern Africa: A Case Study of Namibia,” HIV and Development Programme Issues Paper #31, United Nations Development Programme, [Http://www.undp.org/hiv/issues/English/issue31.htm](http://www.undp.org/hiv/issues/English/issue31.htm).

²⁷ Forgy, L and A Mwanza (1994) “The economic impact of AIDS in Zambia.” Lusaka: Report for the Ministry of Health/USAID.

the epidemic from getting worse and to mitigate the negative effects. Among the responses that are necessary are:

- **Prevent new infections.** The most effective response will be to support programs to reduce the number of new infections in the future. After more than a decade of research and pilot programs, we now know how to prevent most new infections. An effective national response should include information, education and communications; voluntary counseling and testing; condom promotion and availability; expanded and improved services to prevent and treat sexually transmitted diseases; and efforts to protect human rights and reduce stigma and discrimination. Governments, NGOs and the commercial sector, working together in a multi-sectoral effort can make a difference. Workplace-based programs can prevent new infections among experienced workers.
- In Zambia, a program in a district hospital where prevalence was about 15.9% found a benefit-cost ratio of screening blood for transfusions of ranging from 2.7 to 3.5.²⁸
- The Morehouse HIV/AIDS Prevention Project was designed to reach youths that had dropped out of school, and thus out of reach of programs administered in schools. The project used peer educators first in groups, followed by one-on-one meetings. Clubs were also formed to provide training and alternative opportunities to experimentation with alcohol, drugs, and/or sex. Early anecdotal evidence finds the program to be quite successful.²⁹
- **Design major development projects appropriately.** Some major development activities may inadvertently facilitate the spread of HIV. Major construction projects often require large numbers of male workers to live apart from their families for extended periods of time, leading to increased opportunities for commercial sex. A World Bank-funded pipeline construction project in Cameroon was redesigned to avoid this problem by creating special villages where workers could live with their families. Special prevention programs can be put in place from the very beginning in projects such as mines or new ports where commercial sex might be expected to flourish.
- **Programs to address specific problems.** Special programs can mitigate the impact of AIDS by addressing some of the most severe problems. Reduced school fees can help children from poor families and AIDS orphans stay in school longer and avoid deterioration in the education level of the workforce. Tax benefits or other incentives for training can encourage firms to maintain worker productivity in spite of the loss of experienced workers.

²⁸ Foster, S and A Buve (1995) "Benefits of HIV screening of blood transfusions in Zambia." *Lancet* 1995; 346: 225-27.

²⁹ Seifert, K and CJ Prather. (1997) "Early Intervention: HIV/AIDS Programs for School-aged Youth." Office of Sustainable Development, Bureau for Africa, USAID, Washington DC.

- However, more counselling services are needed in Zambia. One researcher discovered that, although one counselling and testing site had tested more than 1000 clients in the first half of 1996, and found about 40% of the tests positive, only 70 seropositive clients received counselling during that time.³⁰
- Numerous studies in Zambia have documented their approach to home-based care of AIDS patients, rather than caring for the patients in a more expensive, hospital setting.³¹ One study performed a cost-effectiveness analysis of community-based home care versus outreach home care, performed by hospital-based staff. The community based home care was far more cost-effective in providing care, averaging only US\$0.14 per visit, compared to US\$0.43 per visit for the outreach home care.

Programme Element (US\$)	Outreach Home Care	Community Based Home Care
Cost/visit	0.43	0.14
# of clients	65	200
Avg duration Of visit	30 min	120 min
Transport cost	19485.29	1274.51
Supplies	5851.12	2601.20

- **Mitigate the effects of AIDS on poverty.** The impacts of AIDS on households can be reduced to some extent by publicly funded programs to address the most severe problems. Such programs have included home care for people with HIV/AIDS, support for the basic needs of the households coping with AIDS, foster care for AIDS orphans, food programs for children and support for educational expenses. Such programs can help families and particularly children survive some of the consequences of an adult AIDS death that occur when families are poor or become poor as a result of the costs of AIDS.
- In Zambia, an organization was founded to care for orphans aged 20 or younger called the CINDI (Children In Distress) project. Funding is provided by the Zambian government, as well as other sources, including their own income-generating projects. Children receive funds to attend school and buy clothing, and families receive assistance to buy food. This effort, however, even combined with other projects, reaches only a small percentage of those who have been orphaned by AIDS.³²

A strong political commitment to the fight against AIDS is crucial. Countries that have shown the most success, such as Uganda, Thailand and Senegal, all have strong support from the top political leaders. This support is critical for several reasons. First, it sets the

³⁰ Whiteside, A and R Winsbury. (1996) "Vancouver AIDS conference: special report. Zambia criticised for 'missed opportunities'." AIDS Analysis Africa; 6(4):3.

³¹ See, for example, Mwiinga, MS (1991) "The Response of HIV/AIDS Patients and Their Families to Home Care in Lusaka Urban," unpublished; Macwing'I, M, R Nangawe, RN Ngcongco (1993) "A consultancy Report: Evaluation of the Home based Care Programme of the Churches Medical Association of Zambia (CMAZ)," unpublished.

³² World Health Organization and United Nations Children's Fund. (1994) "Action for Children Affected by AIDS." UNICEF: New York, NY.

stage for an open approach to AIDS that helps to reduce the stigma and discrimination that often hamper prevention efforts. Second, it facilitates a multi-sectoral approach by making it clear that the fight against AIDS is a national priority. Third, it signals to individuals and community organizations involved in the AIDS programs that their efforts are appreciated and valued. Finally, it ensures that the program will receive an appropriate share of national and international donor resources to fund important programs.

Perhaps the most important role for the government in the fight against AIDS is to ensure an open and supportive environment for effective programs. Governments need to make AIDS a national priority, not a problem to be avoided. By stimulating and supporting a broad multi-sectoral approach that includes all segments of society, governments can create the conditions in which prevention, care and mitigation programs can succeed and protect the country's future development prospects.

¹ Forgy, Larry. 1993. "Mitigating AIDS: The Economic Impacts of AIDS in Zambia and Measures to Counter Them," REDSO/ESA, February 1993.