



## MINISTRY OF HEALTH

### NATIONAL AIDS/STDS CONTROL PROGRAMME (NASCO), SERIALISATION OF "AIDS IN KENYA" 1999 BOOK

**AIDS IN KENYA  
BOOK SERIES**

## III. THE SOCIAL AND ECONOMIC IMPACTS OF AIDS

### IMPACT OF AIDS ON EDUCATION

Kenya's education system is already under threat from HIV/AIDS scourge. According to a study by UNESCO (1995) the most immediate and visible impact of HIV/AIDS on the education system can already be seen and felt. Most of the children infected at birth have not lived to enroll in school; some of the children enrolled have dropped out of school in order to earn money for their families and for the care of ill relatives; teachers have fallen ill and have died.

Generally the education system will be affected as it struggles to respond to and cope with the pressures of HIV/AIDS on educational demand.

### CHILDHOOD DEATHS

AIDS also affects child survival. About 30-40 percent of babies born to infected mothers will also be infected with HIV. Approximately 25% of HIV infected children survive beyond their fifth birthday and are increasingly contributing to the numbers of children with chronic illness (Boerma).

AIDS may already be the major cause of child death, worse than other major causes such as measles and malaria. For example, the annual number of child deaths due to measles and malaria is expected to range between 5,000 and 10,000 through the year 2005 (UNICEF, 1992). The annual number of deaths due to AIDS could reach 40,000 to 50,000 over the same time period.

HIV infected children may die from AIDS or from lack of care because their mothers are unwell or they are overwhelmed with the burden of caring for other ill members of the families. Several studies in Africa have shown that HIV uninfected children of HIV sero-positive women have a much higher mortality than children of uninfected women living in the same environment (Boerma).

The increasing number of child deaths due to AIDS threatens to reverse many of the recent gains of child survival programmes.

- Infant mortality rate is the number of children who die before their first birthday per 1000 live births. In 1993-1998 period, the infant mortality rate in Kenya was 74 per 1000 live births compared to 67.7 in the previous four years period. The increase in infant mortality rate is attributable to AIDS. Without AIDS the infant mortality rate might be expected to decline to 45-50 by 2005. However with AIDS, it would decline to only about 55-60.
- Child mortality rate is the number of children who die between their first and fifth birthday per 1000 live births. The child mortality has also increased from the previous estimate of 33.5 per 1000 live births to the current rate of 40.8 per 1000 live births.
- Under five mortality rate is the number of children who die before reaching their fifth birthday per 1000 live births. The current rate is 112 per 1000 live births, an increase from the previous estimate of 98.9 per 1000 live births (KDHS, 1998) Without AIDS it might be expected to decline to around 70 by 2005. However, with AIDS it is likely to remain constant or rise slightly to 120-125.

### HIV AND TUBERCULOSIS

Efforts over the past 20 years to control tuberculosis had been showing some success. However, recently the number of TB cases has been rising rapidly. This is due to the spread of HIV infection. HIV infection weakens the immune system of otherwise healthy adults. Many, perhaps half, of all adults in Kenya carry a latent TB infection which is suppressed by a healthy immune system. When HIV weakens the immune system, it can no longer control the TB infection and overt TB can develop.

In the absence of HIV, the number of new TB infections would be limited to about 0.2 percent of the population (Harries, 1990). This would result in 40,000 to 60,000 new TB cases each year.

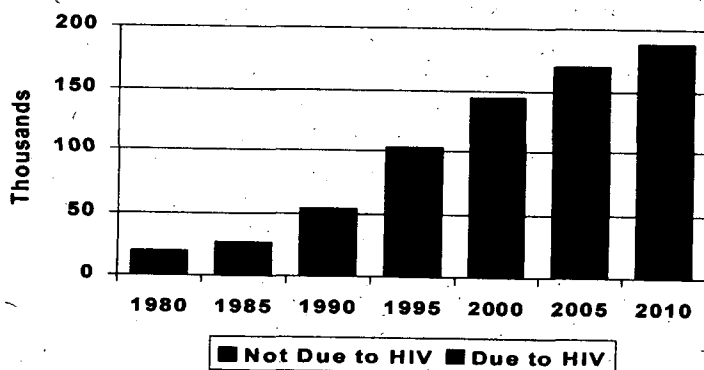
With AIDS, a number of new cases will develop. If we assume that among people with both HIV and latent TB infections, 8 percent develop TB each year, then the additional number of TB cases due to HIV infection would be about 120,000 by 2005. Even this is likely to be an under-estimate since these new cases may transmit the disease to others.

In a recent study in Kenyatta National Hospital, the proportion of TB cases among all patients admitted doubled from eight to 16 percent between 1988/89 and 1997. In HIV-infected patients, the proportion that also had active TB infection rose from 18 to 27 percent over the same period.

The consequences of a sharp rise in TB go beyond simple health concerns. The hospital study showed that TB was the most costly disease to treat for the health service. So rising TB infections will inevitably drain resources from other essential health and welfare services if quality services are to be maintained. A breakdown in TB treatment services that leaves patients half-treated may lead to the faster development of drug-resistant strains of the disease.

The impact of HIV infection on tuberculosis is a serious problem because TB is infectious through casual contact. It threatens to vastly increase the risk of tuberculosis for the entire population. Also, drug-resistant strains of TB are appearing, making it much more difficult and expensive to treat tuberculosis. The control of TB is very expensive and puts considerable strain on the health budget.

## New Adult Cases of Tuberculosis



### THE ECONOMIC IMPACTS OF AIDS

AIDS will create severe economic impacts in Kenya. It causes a reduction in the size and experience of the labour force, increases health care expenditure, raises the costs of labour and reduces savings and investment. It is different from most other diseases because it strikes people in the most productive age groups and is essentially 100 percent fatal. 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.

The economic impacts are likely to be larger in some sectors than others. Certainly, health care and insurance are likely to be significantly affected. The military will also be severely affected. Infection rates tend to be quite high among military personnel since many are young, sexually active men who are away from their families for long periods of time. Other sectors that require a mobile work force may also be adversely affected, including transportation, extension services and banking.

When someone in a family becomes sick with AIDS, it is usually the women who care for the sick person. Young girls may have to stay home from school to help the mother with the other children. The family may exhaust its savings to pay for drugs and funeral expenses. In some cases they may even be forced to sell land. The result is that families become poorer, children's education may suffer and the standard of living of the entire family declines (Okeyo, 1992).

### IMPACT OF AIDS ON FIRMS

The economic impact of HIV/AIDS on companies is manifested by reduced labour productivity through AIDS related deaths, absenteeism, and loss of skilled work force. Other effects include increased expenditures on staff recruitment and training, funeral expenses, medical costs and increased employees' benefits. These costs could be enormous to a firm depending on the HIV prevalence among the employees.

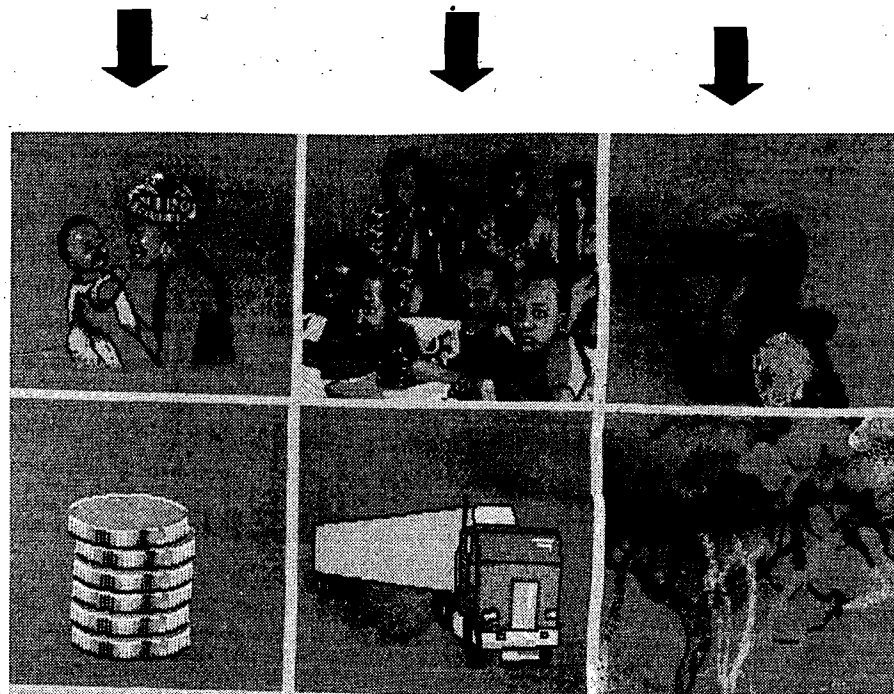
According to a World Bank Strategy (1995) report: AIDS Prevention and Mitigation in Sub-Saharan Africa, a Kenyan company spends about US\$ 45 per employee per year for HIV/AIDS related costs or 3 percent of company profits. It is projected that this cost will increase to US\$120 per employee per year, equivalent to 8 percent of company profits, by the year 2000. The report further notes that in 1992, an average company in Kenya incurred mean annual costs associated with AIDS of approximately US\$ 140,000. This cost was expected to rise to US\$ 403,000 by the year 2005.

### IMPACT OF AIDS ON COMMERCIAL AGRICULTURE

Agriculture is the predominant economic activity in Kenya. The sector accounts for approximately 30 percent of the GDP and 70 percent of the export earnings. About 80 percent of all Kenyans live in the rural areas of which 90 percent make out their livelihood from agriculture. The agriculture sector also employs about 50 percent of the Kenyan labour force. The sector is therefore extremely important to Kenya's economy.

It has been shown that AIDS is likely to have adverse effects on agriculture, including loss of skilled and unskilled labour supply, decline in labour productivity and loss of remittance income due to AIDS related death of income earners. A study on the impact of HIV/AIDS in five commercial agro-estates in three Kenyan provinces; Nyanza, Rift Valley and Eastern, reveals that the cumulative cases of AIDS in the agro-estates accounts for as high as 30 percent of the workforce in Nyanza, 12 percent in the Rift Valley and 3 percent in Eastern province.

### HIV/AIDS Epidemic Affects All Sectors



### IMPACT OF HIV/AIDS ON SMALLHOLDER FARMERS

Commercial and/or estate farming in Kenya interacts with smallholder farming in several ways.

- Smallholder farming is a major source of labour for agro-estates;
- Migrants working in agro-estates send remittances to rural areas and thereby contribute to the subsistence economy of smallholder farmers;
- Smallholder agriculture produces goods and services (e.g. food crops) which are essential needs for agro-estate workers;
- Smallholder agriculture forms a bulk of the market of most of the products produced by some of the agro-estates; and
- In some cases, survival of agro-estates depends on external producers (the so-called outgrowers) who provide the bulk of raw materials for processing.

In view of the complex interaction described above, it seems obvious that whatever happens in one of the sectors will have an effect on the other. In a study by Rugalema, et al (1997) covering two farming systems: (a) semi-subsistence sugarcane out-growers who supply sugar cane to sugar companies in Nyanza Province and (b) semi-subsistence vegetable growers (an irrigation scheme) in Eastern province, it was clear that morbidity and mortality in the households had led to decrease of acreage, loss of income, increased dependency ratio and general increase in food insecurity. Similar effects have been observed in other countries with similar social, economic, and agro-ecological environments.

Of relevance to the sugar companies is that illness and death of out-growers mean a decrease in supply of sugarcane to the sugar factory. The impact is significant, given that for the two sugar agro-estates surveyed in Nyanza Province the nuclear estates (company farm under cane) produces only 10 percent of the cane processed in the factories, while out-growers, the majority of whom are small holder farmers, produce 90 percent of cane.

### MACROECONOMIC IMPACT OF AIDS

Besides sectoral effects, AIDS can negatively affect the macro-economy in a number of ways. This occurs when key macro economic variables are destabilised as a result of AIDS. Some of the macro-effects are: reduction in savings and investment as health expenditure on AIDS escalate; decline in labour productivity as a result of morbidity leading to HIV absenteeism, and AIDS mortality culminating in loss of experienced workers.

Simulation results by Nalo and Aoko (1996) on the macroeconomic impact of HIV/AIDS in Kenya reveal that the impact of AIDS could be substantial given that 80 percent of HIV infection occurs in the economically active age group, that is, 15-49 years. With high mortality and morbidity of the most productive labour force, AIDS would lower economic performance. The authors projected that GDP would be 14.5 percent lower in the year 2005 than without AIDS while per capita income would drop by 10 percent. The study also predicts a 15 percent drop in savings by 2005. The simulation also predicted a fall in labour productivity occasioned by the replacement of experienced workers with an average age of 34 years by relatively young workers with average age of 25 years. These developments are detrimental to the Kenyan economy, which is currently in a recession, with low economic growth, low savings and investments, and low foreign direct investments. The challenge posed by AIDS is real and requires deliberate efforts if the effects are to be contained. (To be continued this Friday)

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