World Vision

February 2001

Special Report

HIV/AIDS and Human Development in Africa

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Published by World Vision International, 800 W. Chestnut Avenue, Monrovia, California 91016-3198, U.S.A.

Copy editor: Joan Weber Laflamme. Cover design and typesetting: Richard Sears. Cover photo: Peter Mwakabwale/World Vision

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HIV/AIDS is a pandemic disease for which there is no cure. The virus can rapidly mutate, thereby defeating efforts to produce effective vaccines. HIV/AIDS victims depend on drug therapies to slow the progress of the virus and control opportunistic infections. Yet for most people in developing countries these AIDS "cocktails" are not affordable.

By the end of 1999 HIV/AIDS had killed about 18.8 million people; over 80 percent were Africans. Most HIV/AIDS deaths occur in two age groups: children under five and adults between 15 and 49. Children are infected *in utero* or during breast feeding. Over 90 percent of adult HIV infections are sexually transmitted. In 1999, 24.5 million of the 34.3 million people in the world with HIV/AIDS were in sub-Saharan Africa. Unless drug therapies become widely available, or a vaccine is found quickly, almost all these people will die within a decade.

Most of Africa's increased vulnerability to HIV/AIDS may be attributed to conflict, poverty, and cultural and behavioural practices. At least 30 African countries are facing some form of conflict today. In these situations, HIV is spread mainly by soldiers, para-military groups, and rebels. Refugee camps are places where the disease is especially rampant. HIV/AIDS is a democratic disease that freely strikes both rich and poor. It is the poor, though, that suffer most cruelly. Poor households have few assets that they can muster to fight HIV/AIDS once an adult family member is infected. Some of yesterday's admirable cultural practices that protected widows and orphans now help spread HIV/AIDS. At the same time, today's more permissive sexual behaviour undoubtedly has contributed to the rapid rise in the disease.

The result is that the adult HIV/AIDS prevalence rate in Africa is 8.6 percent compared to the world average of 1.1 percent. About 90 percent of the infected children under 15 live in Africa. Sub-groups that are especially at risk include women and girls, infants, and young adults. Most of the highest prevalence rate countries are in Eastern and Southern Africa. For two of these nations, Botswana and Zimbabwe, over 25 percent of the adult population has HIV/AIDS.

Impact

The high adult prevalence rate means that the population of AIDS orphans will increase at an exponential rate until 2020. Already the continent is home to 12.1 million orphans under age 15. The situation will worsen. By 2010, the 19 African countries with the highest HIV/AIDS rates will have produced about 40 million orphans – over 16 percent of all children less than 15 years old.

The HIV/AIDS impact in Africa goes well beyond the tragedy of mass producing AIDS orphans. Millions of households will be further impoverished, even affecting the food security of families. Experts Tony Barnett and Alan Whiteside believe that the HIV/AIDS pandemic may be so devastating in some countries as to destroy the very fabric of society.

This statement by Barnett and Whiteside is not hyperbole thrown out to get attention. Unless there's a cure (vaccine), life expectancy will continue to decline. As pointed out in the Durban Conference, the average person in several Southern African countries will die before reaching age

40.[1] HIV/AIDS is fundamentally a disease of the household because it afflicts so many people in their prime productive years. Reduction of family income is accompanied by a steep rise in medical expenses. Children are especially affected. They eat less and work harder. In addition, children often drop out of school as incomes shrink and parents (or grandparents) can no longer afford the education fees.

As a result of the crisis, economies will slow. Economists, though, can only roughly predict future trends. In countries with the highest prevalence rates, the World Bank estimates a decrease of about 1.1 percent/year of Gross National Product (GNP). That may seem small, but it may be enough to keep poor countries poor. Companies are already seeing HIV/AIDS eat into profits due to absenteeism especially. The number one leave-takers are not retirees, as in the past, but people dead or dying from AIDS. Hardest hit may be the key mining and agricultural commodity sectors. Both are swiftly losing skilled employees to the HIV/AIDS virus.

Negative social impacts at the provincial and national levels may be seen today. Public health services are failing in many countries. The disease is swallowing up a growing percentage of the total public health budget as HIV/AIDS patients overload hospitals and clinics. Education systems will suffer in at least two ways. First, fewer students will attend school. And girls more than boys will be forced to leave. Second, there will be a loss of teachers. Over 30 percent of the teachers in Malawi and Zambia, for example, are HIV-positive.

Despite the gloomy shadow that HIV/AIDS casts, there is still hope. Today HIV/AIDS in Africa is higher on the UN, World Bank, and NGO (non-governmental organisations) agendas than ever before. African nations could do more, but their governments are no longer complacent. Senegal is on the vanguard of preventive measures. At the opposite end, Uganda has shown how a highly infected and very poor state can combat HIV/AIDS using a combination of well-implemented policies. These include openness to the issue of HIV/AIDS, mass education, promotion of behavioural change and increased resource allocation to control the disease.

Issues for Consideration

HIV/AIDS in Africa must be a global concern. The growing incidence of this disease across the continent brings terrible human costs. The loss of life brought by HIV/AIDS is paralleled by wider impacts that threaten to derail other aspects of Africa's development, including food security and economic growth. Those concerned about human development in Africa face a diverse and complex set of challenges. NGOs will find a number of important niches in addressing these problems. So, too, will other elements of civil society, including the church. Many will look to NGOs to help find new ways both to reduce the incidence and redress the impact of the disease.

1. *Call for Resources.* The World Bank and UNAIDS have made calls for more resources from OECD sources. Currently, only US$300 million is targeted towards prevention and treatment programmes in the whole of Africa. Needed is US$2 billion a year to combat the disease. Investments must be made in poor communities, especially in education, water and sanitation. Some would put food security at the top of the list in an effort to support families and keep girls and orphans of both sexes in school. Others want to add micro-credit and savings mobilisation services to these lists.

2. *Do More to Save the Lives of Children.* Lives can be saved with drug therapies. Studies

[1] The XIII International Conference on HIV/AIDS, subtitled "Breaking the Silence," was held in Durban, South Africa, from 9-14 July 2000.

indicate that a treatment of ATZ (ziduvodine) and aviroprene in the last trimester and during labour and delivery would substantially cut the mother to child transmission of HIV. The trouble is that the cost would be about US$1,000. For US$100, drugs such as ATZ or the much cheaper NVP (nevirapine) given during the last two weeks of pregnancy can cut the transmission of HIV at birth in half. Yet few African families can afford these "inexpensive" therapies, even if drug companies cut their prices 70-80 percent.

3. *Assist HIV/AIDS Orphans*. How is the rapidly growing number of AIDS orphans to be provided for?[2] In the most infected countries, AIDS orphans will make up about 16 percent of the children under age 15 by 2010. It is difficult to see how already overstretched families, communities, and states can provide for a tripling of the orphan population.

4. *Mobilise the Church*. The church may be on the move to unleash its resources in the fight against HIV/AIDS. The tangible help it can offer has mobilised parishioners and communities into action in parts of Kenya and Uganda. Secular agencies now view churches as "unrivalled" NGOs in curbing the spread of HIV and caring for the victims of AIDS.

5. *Improve Health Service Provision*. There is need for developing specialised health-care clinics, that can meet the unique needs of AIDS patients. One study indicates many HIV/AIDS patients in Uganda, particularly children, die from common bacterial infections that could be treated if supplies of drugs were regularly available.

6. *Promote Education*. Prevention remains the best hope for many in Africa. Resources are needed to enable more comprehensive education campaigns. There is a need for greater political will deliberately to keep HIV/AIDS high on the development and aid agendas of industrialised countries and donor agencies.

7. *Recognise Economic Consequences*. HIV/AIDS directly affects rates of economic growth; it constrains food production, and it also destroys human capital formation. At a time when Africa is increasingly marginalised in the world economy, HIV/AIDS threatens to set back decades of progress in human and economic development. The impact on the state will also be significant as existing services are put under considerable strain. OECD (Organisation for Economic Cooperation and Development) states must review their ODA (overseas development assistance) commitments and the conditionality they impose in light of this negative economic force.

8. *Learn by Best Practices*. Experience shows that HIV/AIDS programmes undertaken by NGOs produce positive results in reducing infection rates. Successful programmes also have been developed that deal with the consequences of HIV/AIDS, particularly as the virus affects children.

9. *Recognise the Challenges*. NGOs need to scale up HIV/AIDS programmes to become more effective. NGOs are increasingly recognising that the enormity of the HIV/AIDS pandemic demands new kinds of work, partnerships and alliances.

10. *Encourage Civil Society to Take Up the Challenge of Advocacy*. Some governments still have room to take the HIV/AIDS pandemic more seriously. Others haven't developed programmes or created the policy "space" for NGOs to operate effectively.

[2] By 2010, the number of cumulative AIDS orphans in Africa will have reached nearly 40 million. Some of these children will have died; others will be older than 15 (Maugh 2000,1).

Section One

Background to the World's Largest Development Crisis

The Disease

While many of us have witnessed its devastation first hand, it is almost impossible to describe the grip that AIDS has on villages across the continent of Africa. Twelve million men, women and children in Africa have already died of AIDS. Each day, 11,000 people in Africa become infected with HIV. More than 5,500 are buried daily because of AIDS. By 2005, more than 100 million world-wide will have become infected with HIV. AIDS is a plague of biblical proportion (Thurman 2000).

Acquired immune deficiency syndrome (AIDS) is a fatal disease with no cure and no vaccine to prevent its spread. The best that medical science can offer are drug therapies to retard the invasion of opportunistic diseases and to prolong life. AIDS is caused by the human immuno-deficiency virus (HIV). HIV is a retrovirus transmitted from an infected person through exchange of body fluids, principally through blood transfusions, infected needles, or sex with an infected person.[3] HIV may also be transmitted from mothers to infants during pregnancy, childbirth, or breast feeding (CDC 1999, 74).

Many people who have HIV do not feel sick and may not know they are infected until years later, when the symptoms of AIDS finally appear. Because people with AIDS usually lose weight, it is sometimes called the "slim disease" or "body shrinker." Besides weight loss, several other symptoms associated with AIDS include chronic fatigue, diarrhoea, respiratory problems, swelling of the lymph notes and deterioration of the central nervous system. HIV/AIDS weakens the body and presents a pathway for opportunistic diseases such as tuberculosis, pneumonia and meningitis (Loewenson and Whiteside 1997, 4).

Devising therapies or discovering a cure for HIV is very difficult because the disease is complex and adapts rapidly to changing conditions. Complexity is reflected by the types and strains of HIV. For example, there are nine clades (sub-types) and numerous strains of HIV-1, the more common and deadlier variety. While found throughout Africa, HIV-1 tends to be concentrated in the Central, East and South regions of the continent. In contrast, HIV-2 predominates in most of West Africa, although the disease also may be found in parts of Southern Africa, such as Mozambique.[4]

AIDS was first described in the late 1970s. HIV was identified as the cause a few years later. The earliest proven origin of the disease dates to the 1930s in East Africa, probably near the shores of Lake Victoria. Scientific evidence indicates that HIV is a species crossover disease, from monkeys to humans.[5] While the disease has become a worldwide pandemic, its longer history in Africa helps explain the large prevalence rate in this continent.

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[3] HIV causes cells to translate viral RNA (ribonucleic acid) material to DNA (deoxyribonucleic acid) that the virus uses to attack white cells (T lymphocytes).

[4] Usually three times as many incidences are required to become infected with HIV-2 than HIV-1. This may be one of the reasons that HIV/AIDS is less prevalent in West Africa than the other areas of the continent.

[5] The crossover from HIV-1 was probably from chimpanzees. The probable source of HIV-2 was the Sooty Mangoby Monkey (Loewenson and Whitehead 1997, 11, 20).

Epidemiologists have learned a great deal about the dispersion of HIV/AIDS over the past years. The disease spreads rapidly through a core of high risk people who practice unprotected sex with multiple partners (Africa, Asia) or through drug use with infected needles (Eastern Europe, Russia). Examples of vulnerable groups include long-haul truck drivers, migrant labourers, fishing folk, military personnel, agricultural estate workers, miners and sex workers. A characteristic of most of these groups is that they are absent from their home communities for long periods of time. Yet high-risk behaviour isn't restricted to the working and lower classes. Middle-class urbanites contracted HIV en masse and are dying of AIDS in plague proportions in many of the cities of Eastern and Southern Africa.

After an initial gestation period in urban, mining and plantation (estate) centres, the disease spreads into rural areas as workers return to their home villages. Once HIV begins to infect rural communities, it becomes extremely difficult to stop. Prevention measures, such as AIDS education and cheap condom availability programmes, are difficult to introduce and manage across the large numbers of scattered farming and fishing villages where most Africans live. Even discussions of sex are taboo in most African contexts.

Reasons for High Incidences of HIV/AIDS

No other world area approaches Africa's high HIV/AIDS prevalence rate. Historically, Africa's leaders and international partners have been slow to respond to the epidemic. The lack of knowledge about what to do plus a certain fatalism surpassed the valiant efforts of a large number of people in Africa to make a dent in the massive infection rates. The HIV/AIDS epidemics in Africa are diverse and complex and seem to progress unabated. Of people living with HIV around the world, 6 in every 10 adult men, 8 in every 10 adult women and more than 9 of every 10 children infected are in sub-Saharan Africa. Of the estimated 16,000 new infections occurring daily, at least 7,500 of them are in Africa (MAP 1998).

In sub-Saharan Africa at the close of 1999, at least 24.5 million people across the continent were infected (UNAIDS 1999a, 5). Virtually all of these people will die of the disease. About 90 percent of the annually infected children under 15 live in Africa (560,000 children in 1999). The continent now has over 1 million children living with HIV/AIDS (UNAIDS 1999b, 1; UNAIDS 2000, 6).

The adult prevalence or infection rate of HIV in Africa is 8.6 percent (Oxford Analytica Brief, 1; UNAIDS 2000, 124). This rate is extremely high compared to the world average of 1.1 percent or the prevalence rates of other regions. For example, the rate is 0.69 percent in South and Southeast Asia and 1.96 percent in the Caribbean (UNAIDS 1999a, 5). The 21 countries in the world with the highest adult (ages 15-49) HIV prevalence rates are in Africa (World Bank 1999a, 1).

The HIV/AIDS rates vary considerably within Africa. Generally the adult prevalence rates in West Africa are below 3 percent. That rate is still well above regions outside of Africa. Yet, in comparison to other areas in sub-Saharan Africa, the West African rate is low. Barnett and Whiteside estimate that 12 percent of adults age 15-49 in Southern Africa are infected (Barnett and Whiteside 1999, 7). This sub-region now accounts for half the new HIV infections on the continent. The rate for Central and East Africa is about 9 percent – less than Southern Africa, but still alarmingly high.

Prevalence rates of over 10 percent are found in 13 countries: Botswana, Central African Republic, Cote d'Ivoire, Kenya, Malawi, Mozambique, Namibia, Rwanda, South Africa, Swaziland, Uganda,[6] Zambia and Zimbabwe. Over 25 percent, perhaps even over 35 percent, of the adult population in

[6] The prevalence rate in Uganda is now 8 percent (UNAIDS 2000, 9).

Botswana is HIV-positive. In Swaziland and Zimbabwe, the adult prevalence rate is over 25 percent, and Lesotho isn't far behind (UNAIDS 2000, 124). 1997 prevalence rates, total number of people and children infected, AIDS orphans and other information listed by country in sub-Saharan Africa may be found in Appendix I.

Acting either separately or in combination, conditions have greatly increased the vulnerability of Africa to HIV/AIDS. Growing economic disparity is one. Social and cultural uprooting that is linked to intense migration and urbanisation is another. Both have contributed greatly to the extraordinarily rapid spread of the epidemic. Other considerations include power gaps linked to gender, age and other social or cultural constructs. These and other actions may be generalised into three factors that have had a major bearing of Africa's vulnerability: conflict, poverty and sexual behavioural practices associated with cultural beliefs of the past.

Conflict

At least 30 countries in Africa are involved in one type of conflict or another. The accompanying breakdown of law and order in situations of conflict and the moral decadence that ensues provide very fertile ground for HIV infection to flourish. Rapid movement of troops across regions may be a major contributor to the spread of HIV. Evidence from HIV/AIDS surveillance reports from Uganda indicates that the cumulative cases of clinical prevalence of AIDS in the war-ravaged districts of Gulu and Kitgum increased significantly. The widespread rape of women and girls dramatically increases during war and civil unrest. Culprits are found on both sides of the conflict.

Refugee camps are another breeding ground for HIV/AIDS. Both soldiers stationed to protect displaced people and militants within the camps are guilty of sexual harassment and rape. Economic and social conditions of the camps lend themselves to promiscuous sexual behaviour. Family and communal constraints are frayed or destroyed, permitting liaisons with multiple partners. Economic opportunities in the camps are severely limited. Often the search to survive leads women and girls to trade sex for food. It comes as no surprise to learn that some of the highest incidences of HIV/AIDS are found among displaced people in these camps.

UNAIDS asserts that the HIV virus continues to explode on the African continent, with rates of infection increasing several-fold within just a few years. In the troubled South African province of Kwazulu/Natal, HIV prevalence in pregnant women doubled (from 1 in 10 to 1 in 5) in just two years. In the Free State Province, the prevalence tripled (from 1 in 25 to 1 in 9) in two years (UNAIDS 1996).

Poverty

HIV/AIDS strikes the rich as well as the poor. The urban middle class in many cities of Eastern and Southern Africa may have the highest prevalence rate of the disease. Yet the poor are the hardest hit. Their few assets are depleted in the course of caring for HIV/AIDS family members, especially if the victim is an adult. In such cases, the main asset of the poor, labour, is lost. Paying for basic medical services, if available, becomes increasingly difficult. For example, a study in Cote d'Ivoire showed that when an adult family member succumbs to AIDS, the household income drops 52-67 percent while the health bills climb fourfold (UNICEF/UNAIDS 1999, 2).

Financial burdens create severe hardships for families. Jobs are often scarce, especially for people who lack marketable skills. The vulnerability that stems from poverty and limited job opportunities often means that girls and women become easy prey as they seek financial favours in exchange for sex. Children, especially orphans, are easy targets to be exploited for child labour or recruited as child soldiers.

Cultural and Behavioural Practices

There are many social or cultural practices that in the past carried value and contributed to the harmony of society. Today some of these customs are contributing to the spread of HIV/AIDS. As an example, the practice of a brother or next of kin marrying the widow of a deceased relative was meant to ensure family continuity and to guarantee parental support and economic survival of the children. For a long time, this custom made it possible for bereaved families to remain together and for the children to continue their education. Changing economic conditions and the swift onset of HIV/AIDS have rendered this practice extremely dangerous. The chances are high that a man with AIDS will infect his wife. She, in turn, will pass the disease on to her former husband's brother or cousin. There are millions still caught in this cultural trap.

Other cultural practices that are thought to have fuelled the spread of HIV/AIDS in Africa include early engagement in unsafe sex practices, FGM (female genital mutilation), multiple sexual partners and husband sharing.[7] Many of these practices still occur in parts of Africa. They increase the risk of contracting HIV. In the fight against HIV/AIDS, these practices may be a major stumbling block, as they are deeply embedded in peoples' beliefs and represent varying forms of identity and expressions of authority. These beliefs and practices had value in their own time, but in the context of HIV and AIDS, they have become devastating.

Knowledge about preventive care explains why the spread of HIV/AIDS has declined in some parts of the world. This is not the case in most areas in Africa. With very low levels of literacy, especially among women, it is possible for exploitative behaviour and high-risk practices to flourish. People find it easier to exchange long-term benefits for short-term gains.

The issue is not one of placing blame but rather of constructive action. As the African proverb says, If a snake has entered the house, first kill the snake and then ask where it passed. The good news is that more African countries are making concerted efforts to curb the HIV/AIDS pandemic. At the same time, more young adults are limiting their sexual partners and showing a growing acceptance to the use of condoms.

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[7] In parts of Rwanda, a much higher percentage of men than women died in the 1994 genocide. The result is that women are willing to "share" husbands in order to have children.

Section Two

Incidences

The HIV/AIDS pandemic is spread unequally around the world, with Africa the most affected continent. In many cities in sub-Saharan Africa more than a quarter of young and middle-aged adults are infected with HIV. In contrast, the number of annual HIV/AIDS cases continues to decrease in industrialised countries. This is primarily due to a high level of state-supported prevention measures (MAP 1998). Therapeutic drug care is also readily available in the West. Few Africans have access to US$10,000-15,000 per year life-extending therapies.

By the end of 1999 AIDS had killed 18.8 million people, over 80 percent of whom were Africans. In 1999 alone, 2.2 million Africans died because of AIDS and 24.5 million people in Africa, including 1 million children, were living with HIV/AIDS (UNAIDS 2000, 6). Thus Africans make up two-thirds of the globe's 34.3 million HIV/AIDS cases. About 4 million of the 5.4 million newly infected persons in 1999 were from sub-Saharan Africa. Cumulatively, of the 47.3 million HIV infections, at least 34 million are in sub-Saharan Africa (World Bank 1999b, 5; UNAIDS 2000, 6).

As there is no cure for AIDS, the disease is a major killer of children in Africa today. About one in four AIDS deaths are among children less than five years old. In 1999 estimates indicate that 760,000 children in Kenya and 50,000 children in Tanzania died of AIDS. In Zambia and Zimbabwe AIDS increased the infant mortality rates by 25 percent.

> Eithembeni House, run by the Salvation Army in downtown Johannesburg, has 38 children 5 or younger. All of them have tested HIV-positive. All were abandoned: a vagrant found newborn Moses, now 3, in a dumpster; a woman handed days-old Simon, now 2, to a street vendor and never returned. The rooms in Ethembeni, lined with cribs, are clean and decorated with pictures of clowns and dolls. Other pictures, of children who died here, line the mantel. Moses points to one. "He's gone," he says. When a stranger enters the room, the children turn expectant faces to her: "Mama, mama," they cry (Masland and Nordland 2000, 3).

Until recently, HIV/AIDS in Africa was seldom mentioned in the Western press. The limited world news stories dealt with other mass killers such as malaria, preventable childhood diseases, famine and wars. Unlike these tragedies, HIV/AIDS calls for special attention because of its horrific impact on development. AIDS now surpasses malaria as the leading cause of death in Africa. The virus kills many adults in the prime of their working and parenting lives. It decimates the work force, fracturing and impoverishing

Figure 1:
Life Expectancy

Country	1996	1997	1998	1999
Botswana	65.2	52.3	51.7	47.4
South Africa	63.2	63.7	64.1	54.7
Swaziland	57.8	58.3	58.8	60.2
Namibia	59.1	55.9	55.8	52.4
Zimbabwe	53.4	49.0	48.9	44.1
Kenya	55.5	53.6	53.8	52.0
Zambia	48.5	42.6	42.7	40.1
Malawi	45.5	41.1	41.0	39.3

(Data taken from Barnett and Whiteside 1999, 28)

families. As examples, in parts of rural Tanzania, 35 percent of adult deaths are due to AIDS and in sections of Uganda with HIV rates over 20 percent, AIDS is responsible for 75 percent of the deaths (White and Robinson 1999, 10). In Zimbabwe, 65,000 people died in 1998 because of AIDS (Schoofs 1999, 2).

Figure 2:

Human Development Index (HDI) Ranking

Country	1996	1997	1998	1999
Botswana	71	97	97	122
South Africa	100	90	89	101
Swaziland	110	114	115	113
Namibia	116	118	107	115
Zimbabwe	124	129	130	130
Kenya	128	134	137	136
Zambia	136	143	146	151
Malawi	157	161	161	159

(Data taken from Barnett and Whiteside 1999, 28)

> In the morgue of Zimbabwe's Parirenyatwa Hospital, head mortician Paul Tabvemhiri opens the door to the large, cold room that holds cadavers. But it's impossible to walk in because so many bodies lie on the floor, wrapped in blankets from their deathbeds or dressed in the clothes they died in. Along the walls, corpses are packed two to a shelf. In a second cold-storage area, the shelves are narrower, so Tabvemhiri faces a gristly choice: He can stack the bodies on top of one another, which squishes the face and makes it hard for relatives to identify the body, or he can leave the cadavers out in the hall, unrefrigerated. He refuses to deform bodies, and so a pair of corpses lie outside on gurneys behind a curtain. The odor of decomposition is faint but clear (Schoofs 1999, 3).

HIV/AIDS is expensive. The disease forces countries to make heartbreaking choices. Will the cost of care for HIV/AIDS patients today jeopardise the resources needed by victims of the disease tomorrow? How should cash-strapped states best choose between health care and dozens of other vital investments for development? Josef Decocas and Alix Adrien predict that deaths due to HIV/AIDS in Africa alone will soon surpass the 20 million Europeans killed by the plague epidemic of 1347-51 and the great flu pandemic of 1917 (Decocas and Adrien 1999). What has happened so far may only be 10 percent of AIDS' deaths in the future.

Who Is Affected?

HIV/AIDS has affected differing parts of African society in various ways. It is possible, however, to determine the broad variation of effects on a number of key groups.

Women and Girls

HIV/AIDS is more prevalent among women than men in Africa (55 percent to 45 percent). The reasons for this are not clear. It may have something to do with the fact that in 93 percent of the time HIV is contracted by adults through heterosexual intercourse. In other regions, "dirty" needles and/or homosexual activity play a significant role in spreading the disease. Physiological reasons may also come to bear. Women with sexually transmitted diseases (STDs) are more prone than men with venereal infections to contract HIV. Age may be another factor. Young women tend to begin their sexual experiences with older men, who are more likely to have HIV than are younger men. The result is that women 15-19 are eight times more likely to be HIV-positive than men the

same age. It is not until the late 20s and early 30s that the prevalence rate of men equals that of women (UNICEF/UNAIDS 1999, 6).[8]

Women and girls may also be more vulnerable to HIV/AIDS for other social as well as economic reasons. Rates of sexual abuse have skyrocketed in many urban areas. Preventive care that includes education about HIV/AIDS and free condoms does not help rape victims. Women may be driven to high-risk behaviour, such as prostitution, as a mode of survival. Something as basic as providing food for their AIDS-affected families drives women into the sex trade (Rugalema 1999a, 12).

Infants

The concern for women is to a large extent the concern for children. In some places in Zimbabwe, 50 percent of pregnant women are infected. In Botswana, Namibia, and Zambia, the prevalence rates among pregnant women range between 20 to 40 percent (UNICEF/UNAIDS 1999, 14). A crude estimate is that 25 to 35 percent of breast-fed children born to HIV/AIDS mothers contract the disease. This translated into over 500,000 HIV births in Africa in 1998. Most of these children will die before their fifth birthday.

Lives might be saved if HIV/AIDS mothers didn't breast feed. Unfortunately, for most women with the disease, there are no safe and affordable alternatives to breast milk. The World Health Organisation (WHO) recommends a compromise – limiting breast feeding to three to seven months (SAFAIDS 1999, 1).[9]

Many lives could also be saved with drug therapies. Studies indicate that a treatment of ATZ and aviroprene in the last trimester and during labour and delivery would substantially cut the mother to child transmission of HIV. The cost would be about US$1,000. Yet for only US$100, ATZ given during the last two weeks of pregnancy could cut the transmission of HIV at birth by half. Tests also show that nevirapine treatments may be as effective as ATZ – and at a much lower cost (UNAIDS 1999c, 8-9; UNAIDS 2000, 82).[10] Still, even at a price of US$4 per treatment, the drug is costly for most poor families. Then, too, the sad fact remains that most of these children will be orphaned before reaching their tenth birthday.

Young Adults

UNAIDS boldly states: "There is a glaring gap in data on the incidences of infection among children as they grow into adolescence" (UNAIDS 1999c, 3). These are the years of experimentation, including sex. Various sources confirm that 50 to 60 percent of new HIV infections occur in the 15 to 24 age group (UK AIDS Consortium 1999, 2; UNAIDS 1999d, 2). That's about 1.9 million people each year. A gruesome conclusion to draw from these facts is that 5 to 12 percent of the population in most of Eastern and Southern Africa will die before age 35.

This age group also has direct ties to the gender and infant groupings. Half the women in most sub-Saharan African countries give birth to their first child before age 20. Many of these young mothers in Eastern and Southern Africa have HIV/AIDS, and the HIV prevalence rate is growing. For ex-

[8] The average life expectancy of women vis-à-vis men doesn't seem to be affected by women contracting HIV at an earlier age then men. The reason is that younger people live longer with HIV/AIDS than older people (UNAIDS 1999e). For example, a 17-year-old HIV-positive girl may have the same life expectancy as a 25-year-old man with HIV.

[9] WHO estimates that one-third of children born to HIV/AIDS mothers contract the disease at birth or through breast feeding. The organisation further states that of those infants who become infected, two-thirds do so at birth or in utero, one-third by breast milk. This means that one-ninth of children born of HIV/AIDS mothers get the infection through breast milk.

[10] The experimental but successful drug NVP (nevirapine) costs about US$4 a dose in Uganda. Even so, nation-wide distribution would be US$10 million a year, about 7 percent of the country's public-health budget (UN Wire 2000c).

ample, in 1990 only 1 percent of mothers under age 20 in South Africa were infected with HIV. The rate exploded to 20 percent by 1999 (BBC 1999b, 1). Kenya may be no better. A 1999 report states that 36 percent of women aged 15-19 couldn't think of ways to protect themselves from AIDS (UNICEF/UNAIDS 1999, 6).

There are emerging signs of counter forces, however. The fear of contracting HIV/AIDS has changed the attitude of some young people toward sexual experimentation. The promiscuity rate among men in several infected areas has declined. A number of youths in some heavily AIDS-infested districts have pledged to avoid premarital sex. Some girls in parts of Uganda have made a vow of chastity. Granted, these attitudes are the exception, and the reasons may have more to do with fear than morals. Still, these responses show that youth may be receptive to more radical preventive behaviours.

Others

Some information is available for a number of high-risk groups. A UNDP report estimated the urban HIV rate is double that of rural areas (Topouzis 1998, 1). In Zambia during the early 1990s, the prevalence rate was 21 percent in urban and 18 percent in peri-urban areas (Loewenson and Whiteside 1997, 5). Other high-risk individuals include the military and police, long-haul truck drivers, women who live near truck stops, people who experience violent conflict and emergency relief personnel. Data related to these high-risk people are found in Figure 3.

Country Information

Appendix I contains basic demographic information on HIV/AIDS for most African countries. Some additional material includes:

- Botswana: This year AIDS will be responsible for 64 percent of the deaths of children under 5 (UNICEF/UNAIDS 1999, 8).
- Kenya: 1.9 million people were infected with HIV/AIDS in 1999 (BBC 2000a, 1).

Figure 3:

HIV Prevalence Rates for Selected Cohorts with High-Risk Behaviour

Group	Country	HIV prevalence
Military and police	Malawi	62.0 %
Long-haul truck drivers	Tanzania	11.5 %
Women living near truck stops (most are presumed to be sex workers)	Tanzania	55.7 %
Women living in truck stop communities	Tanzania	17.8 %
People living in conflict areas	Liberia	Pre-conflict 0.5 % Post-conflict 0.6 %
Relief workers	(ICRC, Africa)	10 %

(Data from Loewenson and Whiteside 1997 and UK AIDS 1999.)

- Liberia: 10 percent of children under 15 are HIV-positive (UK AIDS Consortium 1999, 2).
- Malawi: 25 percent of the women in Blantyre and Lilonge who attended antenatal clinics had HIV/AIDS (UNICEF/UNAIDS 1999, 11).
- Namibia: The adult HIV prevalence rate may be 35 percent. In the Caprivi and Kavango regions it is 58 percent (*UN Wire* 1999, 1).
- Rwanda: 60 percent of the hospital patients have AIDS-related diseases. In 1999, 150,000 adults and 200,000 children under 15 died of AIDS (*NewsVision* 2000).
- South Africa: There were 97,200 AIDS deaths in 1999. By 2005, 383,000 people are expected to die of the virus (Barnett and Whiteside 1999, 4).
- Tanzania: 1999 data indicate 2 million people are infected, 600,000 of these with full-blown AIDS (BBC 2000a, 2).

AIDS Orphans

One of the cruellest effects of the HIV/AIDS pandemic is the orphaning of millions of children.[11] Estimates of the cumulative number of global AIDS orphans vary between 8.2 and 13.1 million. UNAIDS now agrees with latter figure, dropping its insistence on more conservative numbers (Boisrouvray 1999, 2; UNICEF/UNAIDS 1999, 1; FXB 2000, 1; UNAIDS 2000, 124). Somewhere between 90 and 95 percent of all AIDS orphans are African. Africa accounts for at least 12.1 million of the cumulative AIDS orphans, using the widely accepted 13.2 million figure. Of the 10.4 million orphans who are still alive and under age 15, Africa accounts for 9.4 million (UNICEF/UNAIDS 1999,1).

Over nine million children! As NGO staff know firsthand, even thousands of households in hundreds of communities cannot adequately care for this number of children. The extended family system provided an admirable system of care and support in the past,[12] but today families are severely stretched and deeply eroded with AIDS-related deaths of working-age adults. A not unexpected result is that orphans have higher malnutrition and lower school attendance rates than children who are not orphans. For example, on commercial farms in Zimbabwe, 48 percent of the surveyed primary-age children dropped out of school (UNAIDS 2000, 29). In Zambia, 32 percent of urban and 68 percent of rural AIDS orphans don't attend school. For non-orphans, the rates are 25 and 48, respectively (UNICEF/UNAIDS 1999, 17). Nor should anyone be surprised to learn that many orphans become street children, surviving as thieves, pickpockets, beggars and prostitutes (Masland and Nordland 2000).

Country Information

Appendix III contains figures on AIDS orphans for 19 of the African countries most affected by HIV/AIDS. Some additional information on the number of children helps illustrate this crisis:

- Botswana: In 1998, 5 percent of children were orphaned due to AIDS (FXB 2000, 2).
- Kenya: There were 350,000 orphans in 1997. That number will reach 900,000 by the end of this year (*UN Wire* 2000, 1).

[11] Defined by UNAIDS and UNICEF, an orphan is a person younger than 15 whose mother or both parents have died.

[12] The pre-HIV/AIDS orphan rate is estimated at 2 percent (UNICEF/UNAIDS 1999, 2).

- Kenya: 52 percent of orphans are not attending school. The rates are disproportionately high for girls – 56 percent *vs.* 46 percent for boys. Orphans miss 26 school days due to illness. The corresponding number of days for non-orphans is 9 (Elmore-Meegan et al. 1999, 3).
- Malawi: In 1997, 6 percent of children were orphans (FXB 2000, 2).
- Rwanda: There were 60,000 new orphans in 1999 (*NewsVision* 2000).
- South Africa: The province of Zulu-Natal will be home to 197,000 to 250,000 orphans by the end of 2000 (Briggs 1999; Whiteside 2000, 1).
- Tanzania: 9 percent of the children in rural areas are orphans (Barnett and Whiteside 1999, 11). By the end of 2000, there will be 800,000 to 1 million orphans.
- Uganda: The country contained 1.7 million orphans in 1999, making it the world's leader (UNAIDS 1999b, 2); 10 percent of the children in the Masaka region are orphans (Barnett and Whiteside, 11).
- Zambia: In 1997, 9 percent of all children were orphans. The number rose to 500,000 in 1999 (13 percent of children under 15). By 2010, the orphan population will double. Half the 75,000-90,000 homeless street children are orphans (FXB 2000, 2).
- Zimbabwe: The country with the fastest growing number of orphans. Orphans will increase from 360,000 in 1997 to 900,000 in 2005. Of all children under 15, 7 percent are AIDS orphans (UNAIDS 2000, 28), and 15 percent of the children in the Mutare study area in 1995 were orphans (UNAIDS 1999b, 2; FXB 2000; Briggs 1999).

Section Three

The Impact on Economies and Human Development

The HIV/AIDS pandemic already has taken its grisly toll in Uganda. Other African countries are reeling from the infection's impact. Some outside help will come from rich governments and benefactors. The World Bank and UN agencies will target HIV/AIDS with money and brain power. Yet, unless there's a quick cure in the form of an HIV vaccine, many countries in Africa are likely to experience social and economic conditions that will overwhelm their capacities to cope with the expected rapid changes.[13] All nations that are hard hit by HIV/AIDS will face some degree of political turmoil as people demand more medical and other resources from depleted public treasuries. The HIV/AIDS epidemic in parts of Africa is spreading three to five times faster than resources become available to fight the disease. "Against a backdrop of poverty aggravated by global trends, debt and miscued budget priorities, AIDS programmes are simply starved of resources" (UNICEF/UNAIDS 1999, 26).

Trying to predict impact is risky business. Societies are so complex that creditable predictions are difficult to make. Then, too, the unexpected is bound to happen. Nonetheless, forecasting some of the demographic impacts of HIV/AIDS is fairly straightforward and reliable for two reasons. First, the time horizons are short to medium term, only five to ten years away (2005 to 2010). Second, even in the unlikely event that a vaccine to prevent HIV becomes available in 2000, most of the adverse affects of HIV/AIDS could not be erased in a decade. Indeed, some of the demographic and other effects of the disease will be felt for generations.

Sectors

The HIV/AIDS pandemic affects individuals, households, communities, and the social and economic sectors that support them. The exponential increase in the number of AIDS orphans and the question of who will look after and nurture these children in communities where extended families cannot afford more mouths to feed has already been discussed. So has the declining life expectancy in many countries in Eastern and Southern Africa. As other nations, such as Togo, Tanzania, Lesotho, and Ethiopia, approach the 10 percent adult prevalence rate, a decrease in life expectancy may be expected in these countries as well.[14] Most of these deaths will be children under five and adults in their prime productive years.

Besides radically changing the demography of many African nations, the HIV/AIDS pandemic will strongly alter economic and social systems. In countries with high rates of HIV/AIDS, the World Bank anticipates a 1.1 percent loss of Gross Domestic Product (GDP) each year (UNICEF/UNAIDS

[13] Experts say that the spread of HIV/AIDS, like that of other diseases, takes the form of an "S" curve. First, only a small percentage of the population contracts the disease. In the case of HIV/AIDS, this is the period when the disease infects high-risk individuals. Next, the disease spreads rapidly into the general population. Most of the countries in Eastern and Southern Africa are now in this stage. Finally, the top of the "S" curve is reached when the rate of infection drops. Uganda is likely to be in this third stage.

[14] Eighteen countries in sub-Saharan Africa witnessed stagnant or declining life expectancies between 1990 and 1995. All except Togo were facing an HIV/AIDS epidemic (World Bank 1999b, 9). Togo has now joined the list of epidemic-proportion countries. Of 29 nations with improved life expectancy between 1990 and 1995, the HIV/AIDS rate was of epidemic size in only one country, Mozambique (World Bank 1999, 9).

1999, 2). The cumulative effect due to this loss, together with a projected increase in inequality, will substantially retard economic development.[15] The International Labour Organisation concludes that "economic growth may be reduced by as much as 25 percent" in the high HIV prevalence countries over the next 20 years (ILO 2000, 11). Social development will decline, not only because of shorter life expectations of working-age adults, but also because of overstretched and malfunctioning health care, education and civil service systems. If this weren't gloomy enough, the Food and Agricultural Organisation (FAO) warns that 44 of the 49 sub-Saharan African states are Low Income Food Deficit Countries (LIFDCs). It wouldn't be rash to surmise that the food situation in several of these nations could deteriorate in the future due to the HIV/AIDS pandemic (Topouzis 1998, 11).

If more orphans, earlier deaths, slower economic growth and overburdened and undernourished health and education systems weren't dismal enough scenarios, Tony Barnett and Alan Whiteside believe that the long-term effects of the HIV/AIDS pandemic will be extremely serious, unexpected and difficult to measure. In the worse affected countries, HIV/AIDS could destroy the fabric of society itself. By this the authors mean that the potential destruction wrought by the pandemic could dismantle the "stored investments" of trust and understanding needed before social, economic and political transactions take place. Barnett and Whiteside are also deeply concerned about the losses in "socially reproductive labour" that is normally women's work. Examples include rearing children, caring for orphans and participating in the informal economy as a needed source of family income (Barnett and Whiteside 1999, 17).

Economic Production in General

Sandra Thurman points out that AIDS is a trade and investment issue (Thurman 2000). The pandemic has grave implications for the management of natural resources and sustaining the flow of trade. In Africa's high prevalence countries, HIV/AIDS will shrink the labour force 10 to 22 percent (ILO 2000, 18). Domestic savings and investments will be reduced as families and companies struggle to pay for medical and other costs related to HIV/AIDS. Life insurance companies and disability insurers soon will have little money to invest. Foreign Direct Investment (FDI) is likely to diminish as well, especially in the agricultural commodity markets (Cohen 1996, 3-4). Similarly, investment in some mining activities may fall. Both mining and estate agriculture have been particularly hard hit by the scourge of HIV/AIDS

Thurman advances the underlying reason for the productivity decline:

> Skilled workers are taken in the prime of their lives, forcing their companies to find and train new employees to take their place. As workers get sick, they can no longer afford to buy or produce products, so the economies of their countries suffer (Thurman 2000).

In South Africa, the AIDS death rate for highly skilled and skilled people is over 2.6 times more than other AIDS victims. For semiskilled workers, the rate is three times as great (Anderson 1999, 1). In five years, the country is expected to lose 27 percent of all mine workers and 22 percent of transportation and storage personnel due to AIDS (Anderson 1999, 1). The sugar industry in Kenya is in danger of serious contractions as specialised farmers succumb to AIDS and as the disease kills sugar-refining engineers and other skilled workers (USAIDS 1999c, 10). In Tanzania, the skilled labour force is expected to shrink 20 percent by 2010 (Loewenson and Whiteside 1997, 23).

The cost of HIV/AIDS is already cutting deeply into profits and government budgets. Expenses will

[15] On the average, African countries need to grow 4.7 percent annually to substantially reduce the number of people in poverty.

more than double by 2005 (World Bank 1999a, 2). In Kenya, companies pay US$45 per employee each year for HIV/AIDS related costs. That amounts to 3 percent of profits. By 2005, the HIV/AIDS bill will rise to US$120 a year or 8 percent of profits (Barnett and Whiteside 1999, 14). Other examples of HIV/AIDS related costs include:

- Foods and Beverages in Uganda indicated that the cost of health care and related benefits increased threefold, while the labour force was reduced by half, from 700 to 325.
- HIV/AIDS expenses cost Zimbabwe Transport 20 percent of its profits in 1996. HIV/AIDS costs are expected to jump 2.5 times by 2005.
- HIV/AIDS costs to surveyed Botswana firms were US$237 per worker in 1996. The bill will be US$268 in 2005.
- For two Cote d'Ivoire companies the cost will increase from US$120 to US$125 per employee by 2005.
- In South Africa the cost of benefits resulting from HIV/AIDS infections will rise from 7 percent in 1995 to 19 percent in 2995 (Bollinger and Stover 1999, 5).

Most HIV/AIDS expenses are attributed to absenteeism because of illness, funerals or time off to attend funerals, training and recruitment, labour turnover, medical services and death benefits. Absenteeism appears to be the largest cost across the continent; it was estimated to be 52 percent of HIV/AIDS-related expenses in Botswana. In Malawi, on the other hand, death benefits and funeral expenses were the leaders (Bollinger and Stover 1999, 4). This may not be surprising considering that in highly infected countries most workers don't retire; they die of AIDS.

In Namibia, Thurman notes, AIDS cost the country 8 percent of its GNP in 1996. The World Bank reports that Kenya's GDP will be 14 percent smaller in 2005, and Tanzania's 20 percent less in 2010, due to AIDS (Bollinger and Stover 1999, 8). The South African government has estimated that this epidemic costs the country 2 percent of its GNP each year, a situation that will only worsen without strong intervention. Overall, the annual GDP reduction across 30 African nations is expected to be 0.8 to 1.4 percent. This is a substantial amount for countries seeking to escape the harsh grip of poverty (Bollinger and Stover 1999, 8).

Interestingly, the annual per capita GDP decline will be less, measuring – 0.3 percent (Bollinger and Stover 1999, 8). This partially reflects the fact that opportunities will increase for some people. For example, wages for skilled workers are likely to rise in many industries. Semi-skilled labour may also see salary increases, plus an opportunity for skilled task training. Some government officials even see the HIV/AIDS pandemic as an economic blessing. "With unemployment rates in sub-Saharan Africa between 30 and 70 percent, [government heads] reason that there are plenty of people to replenish labour losses" (Schoofs 1999, 5).

This attitude parallels the idea that jobs and economic opportunities followed the plagues of Medieval Europe. Ignored is the fact that, unlike bubonic plague, HIV/AIDS is a long illness that depletes assets and cripples household economies. Also forgotten is that growth industries are technologically based and rely primarily on skilled workers. Reports indicate that many of these concerns will be hard pressed to stay in business due to the loss of investment capital and skilled labour.

In the midst of the economic gloom, there are grounds for some optimism. Despite the HIV/AIDS in their countries, the economies in Botswana and Uganda are growing. For Africa overall, the continent is expected to see a 3.3 percent economic growth over the 2001-2002 period (APIC

2000, 4). Exports in countries other than Nigeria and South Africa increased 4.6 percent in 1999; including Nigeria and South Africa, the rate was 6.3 percent (APIC 2000, 4).[16]

The truth is that no one knows what the effects of HIV/AIDS will be on the African economies. Combining forecasts of the potential impacts of HIV/AIDS with econometric models of the economy are too complex to yield reliable results (UNAIDS 1999b, 15).

Agricultural Production

Agriculture is the major source of livelihood for most people in countries severely affected by the HIV/AIDS pandemic. These countries rely heavily on agriculture and agricultural exports to pay for raw materials and essential imports for development. In Uganda, for example, agriculture contributes 70 percent of the country's GDP. Agriculture also accounts for more than 84 percent of the country's export earnings, and it provides the livelihood for about 90 percent of the population (Kayita et al. 1997).

A study by Tony Barnett revealed that 45 percent of households investigated reported a decline in the area cultivated during the previous ten years (Barnett 1994). In addition, 70 percent of the families reported a decrease in the range of crops grown. Another 57 percent reported experiencing agricultural labour shortages. The same study revealed that in the community of Nakyerira, the average size of cattle herds per family fell drastically, from 8-15 head to 2-3 head per household.

The loss of adults to AIDS often leads to a shift in cropping patterns. As examples, coffee is no longer grown in parts of Uganda; sugar production in Nakambala, Zambia, is disrupted; and tea production in Malawi has suffered. In Kenya, some households have shifted to less intensive food crops, such as maize and cassava (Rugalema 1999a, 2). These coping strategies may ultimately lead to greater poverty and increased vulnerability as families switch from cash crops to subsistence farming. HIV/AIDS forces families to make irreversible decisions to sell livestock, equipment, land and other assets to cover AIDS-related expenses. This leaves surviving family members in poverty from which it is very hard to escape (Topouzis 1998). At the same time, agricultural knowledge and skills are lost. The World Bank predicts that the strongest effect of HIV/AIDS will be the negative impact on the supply of skilled farm labour.

The loss of skilled workers is one of the high costs of HIV/AIDS in commercial agriculture. For example, HIV/AIDS quadrupled the medical costs on agricultural estates in Kenya. As in industry, absenteeism, retraining, and medical and funeral expenses have all taken a bite out of profits in agriculture. In many estates in Kenya, death, not retirement, is the chief way people leave (Rugalema 1999a, 2). Until recently, HIV prevention was largely ignored on estates where casual and commercial sex are commonly practised, STD rates are high, alcohol and drugs are problems, and HIV/AIDS is denied or ignored (UK AIDS Consortium 1999, x).[17] In short, commercial agriculture faces a "severe social and economic crisis due to the impact of HIV and AIDS" (Rugalema 1999b, ix).

Demographic

The World Bank predicts that, because of HIV/AIDS, much of Africa in the beginning of the twenty-first century will see the gains made in the twentieth century evaporate. AIDS has already reversed

[16] It is important to keep in mind that as agricultural and mineral exporters, African countries are extremely vulnerable to fluctuations in commodity prices.

[17] In some communities, HIV/AIDS is seen as curable. The disease is perceived to be the result of either bad luck or a curse. Some people believe that either may be reversed, freeing the body of the disease.

Figure 4:
Impact of AIDS on Child Mortality Rates (CMR) in 2010

Country	CMR with AIDS	CMR without AIDS
Botswana	147.5	38.3
Burkina Faso	184.3	108.7
Cote d'Ivoire	118.7	70.7
DR of Congo	118.7	97.3
Kenya	110.3	45.4
Malawi	233.8	136
Nigeria	79.2	68.2
Tanzania	166.1	95.8
Uganda	168.1	92.2
Zambia	152.9	37.8
Zimbabwe	202.1	96.9

(Data taken from US Bureau of the Census.)

30 years of hard-won social progress in some countries (World Bank 1999b). According to UNAIDS, the most disturbing long-term feature of the HIV/AIDS epidemic is its impact on life expectancy. In 13 African countries with an adult prevalence rate of 10 percent or more, HIV/AIDS will erase 17 years or more of gains in life expectancy. This means that instead of reaching 64 years by 2010-2015, life expectancy in these countries will regress to an average of just 47 years (World Bank 1999b, 12).

The continual decline in life expectancy among high prevalence rate countries is truly staggering. In the five highest-prevalence nations, HIV/AIDS will cut life expectancies in half by 2010. In Southern Africa overall, life expectancy will be reduced to 45 within the next five to 10 years (UNAIDS 1999a, 15). Appendix II shows life expectancy and other demographic projections in 2010 for 19 African countries with high HIV prevalence rates. On the global level, HIV/AIDS will account for 37 percent of adult deaths by 2020 (World Bank 1999b, 13).

Much of the decline in life expectancy will be due to HIV/AIDS deaths among children less than five (Cohen 1998a, 7). UNAIDS says that infant mortality is expected to increase 75 percent and child mortality 100 percent in the countries with the highest HIV/AIDS rates (UNAIDS 1999c, 3; Cohen 1998a, 7). Infant mortality will double in Botswana and Zimbabwe while increasing 60 percent in Zambia and 40 percent in Malawi by 2010 (Cohen c.1998A:7). Cohen also foresees a 100 percent increase in child mortality in Botswana, Malawi and Zambia, and a fourfold increase in child deaths in Zimbabwe (Cohen 1998a, 7).[18]

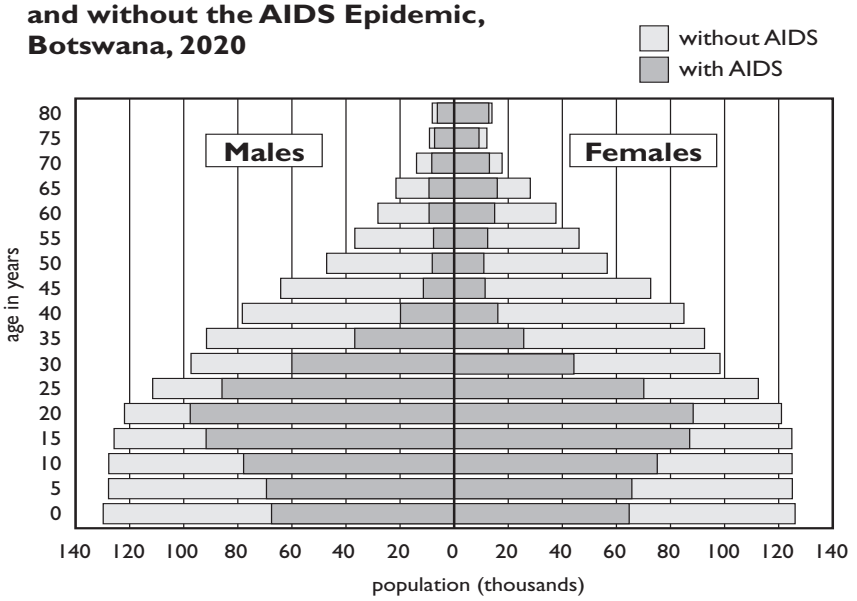
Despite the sharp decrease in life expectancy, the population will still grow in most Eastern and Southern African countries. This is because birth rates will remain relatively high. Yet the increase in death rates will have its effect. By 2010, Zambia's natural increase will be 1.2 percent and Malawi's 0.1 percent. Rates without AIDS were projected at 3.1 and 2.2 percent, respectively. The two countries forecasted to lose population are Botswana and Zimbabwe. The anticipated rate in 2010 for both is -0.5 percent versus a without AIDS rate of 1.8 percent (Ayieko 1998, 7).

A final demographic concern is the elderly (Barnett and Whiteside 1999, 20). As younger adults die, elderly parents take care of their grandchildren. There is not much information about the large number of these older people who need care and support themselves as they become more feeble. Normally their children would provide for them. But these adults are dead. Some of the older grandchildren will assume the role as care-givers. Many other children will be too young to

[18] As a result of the huge increase in infant and child mortality due to HIV/AIDS, the OECD/World Summit for Social Development goal of cutting the 1990 rates by two-thirds will be impossible to meet (Barnett and Whiteside 1999, 3).

Figure 5:

Projected Population Structure with and without the AIDS Epidemic, Botswana, 2020



(Data taken from US Census Bureau, World Population Profile 2000; printed in UNAIDS 2000, 22.)

support themselves and their grandparents. Little help can be expected from the already overstretched resources in the community and state.

The new demography created by AIDS is graphically illustrated in Figure 5. In comparing the without AIDS projection (darker bars) with the forecasts with AIDS (lighter bars), a number of significant differences stand out.

- Sharp loss of children less than 15 years old;
- Tremendous loss of women beginning in their mid-20s;
- Equally spectacular loss of men from their early 30s.

A population pyramid such as Botswana's is called a *chimney* because of the unique shape created by similar population sizes in the 40s to 80s age groups.

Households

HIV/AIDS takes a terrible toll on households, especially among the poor, who form the majority of people in most African countries. As the virus steadily progresses, more work days are missed and pay (urban) or crop production (rural) becomes less. Eventually, a person becomes too sick and weak to work. Medical costs, including special foods, increase. In Cote d'Ivoire, for example, the medical expenses in HIV/AIDS homes are twice those of households without the disease. A study in Tanzania found that HIV/AIDS households had 30 to 35 percent lower annual incomes than non-infected families. In Kagabiro, Tanzania, medical care and funeral costs amounted to 8 percent of annual family expenditures for non-AIDS diseases. Those expenses jumped to 29 percent for the care and burial of a person who died from AIDS (Bollinger and Stover 1999, 2, 15).

Losses don't stop with death. When an employee living in company housing dies, his or her family must find new housing. If the mother dies, then the production of food crops drops dramatically. In

Kagera, Tanzania, the death of an adult from AIDS reduced the food consumption in the poorest households by 15 percent (Over 1998, 2). Another effect of HIV/AIDS on women is the reduction of fertility by 20 percent (UNAIDS 1999c, 4). If the husband dies, the surviving widow and her family face a double dilemma. First, the production of cash crops falls as the family's coping strategy focuses on food crops. Second, in many societies "poverty grabbing" relatives restrict or force the widow and her family off the land (Donahue 1998, 3, 7).[19]

Children may be the principal victims. They work more but eat less. Their medical care may be denied as AIDS victims deplete savings and assets (Bollinger and Stover 1999, 2). In the long run, though, the most debilitating effect is to be pulled out of school as HIV/AIDS households are forced to cut all but immediate expenses. AIDS households in Cote d'Ivoire were forced to cut school expenses in half. Not surprising, only half the children attended classes (Piot 1999, 2). It is likely that over half of these dropouts were girls, perpetuating a vicious cycle. Fertility and child mortality correlate well with female education; both remain high if education of girls is kept low.

AIDS Orphans

An essential question to ponder is how to provide for the rapidly growing number of AIDS orphans. By 2010, 19 sub-Saharan African countries will be home to nearly 22 million orphans (Maugh 2000, 1). Put another way, over 16 percent of the population less than 15 will be orphaned. In the most infected countries, AIDS orphans will make up about 16 percent of the children under age 15 by the next decade. It is difficult to see how already overstretched families, communities and states can provide for this tripling of the orphan population.

Countries

Appendices IV and V contain information on AIDS orphans listed for 19 African countries in 2005 and 2010. Some projections about countries that are most affected may help give a better idea of the scope of this immense problem:

- Cote d'Ivoire: The 500,000 orphans this year will increase to 1.2 million by 2005 (UN IRIN 1999, 1).
- Namibia: By 2010 there will be 120,000 orphans (Briggs 1999).
- Ethiopia: The country can expect over 3 million orphans in 2010 (US Bureau of the Census).
- South Africa: The country expects 1 million orphans by 2004 and 3 million in 2010 (FXB 2000).
- Democratic Republic of Congo: By 2005 there will be almost 2 million orphans (US Bureau of the Census).

Health Services

The states most affected by HIV/AIDS are often those least able to afford increased costs of health care. Yet these countries "have had the capacity to change public expenditure allocations in ways that would have prevented much of the deterioration in essential public services such as education and health" (Cohen 1998a, 2, 3).

[19] Alternatively, younger widows wish to marry or are coerced into marrying their former husband's relative in order to survive.

The result is that today's health-care systems are stretched beyond their limits as they deal with a growing number of AIDS patients and the loss of health personnel. Opportunistic infections that had become a thing of the past, such as tuberculosis, have resurfaced with full vigour, further complicating the health puzzle. Hospitals are saturated with patients with HIV/AIDS-related diseases. In Cote d'Ivoire, Kenya, Zambia and Zimbabwe, HIV/AIDS-infected clients occupy 50 to 80 percent of all beds in urban hospitals (World Bank 1999a, 2). So crowded are hospitals in Kenya with AIDS patients that people with other ailments have been turned away (Over 1998, 23).

The disease burden profile is changing, and this will certainly lead to drastic alterations in the composition of essential health-care packages as well. Motivations for health staff, considering the risk of exposure and the emotional drain that accompanies the AIDS situation, could have lasting implications for the quality of care, especially in public units.

The World Bank estimates that treating one AIDS patient is as expensive as educating 10 primary school students for one year (World Bank 1999b, 2). In Rwanda, HIV/AIDS absorbed 66 percent of the health budget (UNAIDS 2000, 31). For sub-Saharan Africa as a whole, HIV/AIDS consumes 35-84 percent of public health care costs. UNAIDS observes that there is little hope that any development goals for health (such as reduced infant, child and maternal mortality or reduced mortality from malaria) can be achieved in the face of AIDS. Unfortunately, the situation will be worse for many countries in the future. By 2005, HIV/AIDS will swallow 60-70 percent of the public-health budget in Zimbabwe, over 50 percent in Kenya and over one-third in Ethiopia (UNICEF/UNAIDS 1999, 2; UN Press Release 1999, 1). HIV/AIDS will claim 10 percent of the health budget in relatively well-off South Africa by 2002 or 2003 (Anderson 1999, 1).

A participatory evaluation conducted by TASO (The AIDS Support Organisation) in Uganda yields some indication of the care-seeking pattern of people living with HIV/AIDS. The study shows that 63.8 percent of the clients sought treatment from the specialised services offered by TASO. Another 18.3 percent went to private practitioners, but only 16.2 percent visited a public health facility. The remainder (1.7 percent) got support from family or other sources.

This pattern has implications for health service provision. There is a need to develop specialised health-care clinics that can meet the unique needs of AIDS patients. The study indicates many patients, particularly children, die from the usual bacterial infections that could be treated if supplies of drugs were regularly available. The study concludes that because of the chronic nature of HIV/AIDS and its impact on family resources, patients may be less likely to afford care in the private sector, particularly later in their illness.

Education

Scarce resources spent on education are being wasted as teachers and students die of AIDS. The cost rises with the level of education. A study carried out in Uganda by Kayita found that 41.7 percent of people who tested positive had attained Ordinary Level secondary education. Another 18.7 percent had either completed a higher school certificate or had actually completed tertiary training. A study that focused on the Kabarole district in Uganda confirmed Kayita's findings. The report showed the number of people with a seropositive status increasing rapidly among those who have finished secondary education (Uganda Ministry of Health 1999).

A decent education may not be available for many children in highly infected areas of Africa. The HIV/AIDS prevalence rate among teachers bodes ill for education in many countries. In Malawi and Zambia, more than 30 percent of teachers are infected (World Bank 1999a, 2). In these countries, AIDS kills teachers faster than they can be replaced. For example, two or three teachers die each

day due to AIDS in Malawi. In Cote d'Ivoire, it is one teacher each day (Piot 1999, 2). Deaths of teachers due to HIV/AIDS in Tanzania are forecasted at 15,800 in 2010 and 27,000 by 2020 (UN Press Release 1999, 1). In the Central African Republic, 71,000 children under age 12 will not be able to attend school by 2005 due to a teacher shortage caused by AIDS deaths (UNAIDS 2000, 29).

Girls are especially vulnerable to lost education opportunities. Girls are at a higher risk of infection with HIV, and this undermines their hopes for education. The resultant lower female literacy rates could lead to significant reversals in recent health, nutrition and family planning gains. According to the National AIDS Documentation and Information Centre in Uganda, the population of the girls in school is lower than that of boys despite the almost even population of both sexes (NADIC 1998). The school dropout rate is higher for girls at all levels. This limits girls' access to life-skills development opportunities and HIV/AIDS prevention information.

Section Four

Measures of Intervention

During the last decade, some attempts were made to address the HIV/AIDS pandemic. Given the magnitude of the problem, past efforts can best be described as minimal. The World Bank says the cost of delaying an intensified response has been monumental. More than 4 million people in sub-Saharan Africa were newly infected in 1998 alone and the numbers may have doubled in 2000. Most of these people are likely to die within this decade, leaving millions of orphans. The resulting social decay and breakdown will threaten social and economic development for decades to come. This realisation is coming almost too late.

The Joint United Nations Programme on HIV/AIDS (UNAIDS) is the leading advocate for global action on HIV/AIDS. UNAIDS brings together six UN agencies in a common effort to fight the epidemic. These are: UNICEF, UNDP, UNFPA, UNESCO, WHO and the World Bank. UNAIDS both co-ordinates the responses to the epidemic by its co-sponsoring organisations and supplements these efforts with special initiatives. Its purpose is to lead and assist an expansion of the international response to HIV on all fronts: medical public health, social, economic, cultural, political, and human rights. UNAIDS works with a broad range of partners – government, NGO, scientific and lay – to share knowledge, skills and best practices across boundaries.

Barriers

Previous efforts have been hampered by a number of stumbling blocks. Everyone agrees on what works to slow down the epidemic. The World Bank observed that the challenge is to create the enabling environment and mobilise the resources to bring these interventions to scale quickly. Some of the major barriers in the past included the following:

- Lack of strong political commitment. Not all leaders and development agencies are convinced of the seriousness of the epidemic. Many people underestimate the impact it could have on their development programmes;
- Lack of accurate and relevant data;
- Insufficient resources and inadequate capacity to mount the necessary level of response;
- Cultural norms and religious beliefs that seem to oppose some recommended mitigating strategies.

Despite these barriers, however, some success has been recorded. There have been reductions in HIV/AIDS incidence and deaths in North America and Europe after 1995. These accomplishments are largely due to more effective anti-retroviral therapies, although prevention efforts and the natural evolution of the epidemic also may have contributed. Trends in paediatric AIDS reflect reduced mother-to-child transmission due to increased adherence to guidelines for antenatal HIV/AIDS testing of pregnant women and the provision of AZT (zidovudine) or nevarapine to those infected. In Canada and the United States, the spread of HIV among homosexual men has generally declined. (MAP 1998). In Europe, HIV/AIDS incidence increased rapidly throughout the decade of the 1980s. The infection continued to rise, but at decreasing rates, in the early 1990s. It stabilised in 1994-95 and has declined since then.

In Africa, on the other hand, the epidemic has continued its rapid growth. This trend has profound implications for future strategies. Questions arise as to why there have been great successes recorded elsewhere but not in Africa. Answers may form a basis for future planning. Critical research is needed to identify the gaps in HIV/AIDS prevention and control.

Success Stories

Africa is not completely bereft of success stories. The government of Senegal acted early to contain HIV before it became an epidemic. High-risk people were targeted. Religious and community leaders were consulted, and they supported HIV/AIDS education and condom distribution programmes. The result is that today the combined HIV-1 and HIV-2 prevalence rates are under 5 percent. The rate for pregnant women in urban centres is 1.4 percent. Among prostitutes in Dakar, the rate has stabilised at 17 percent since 1993 (UNAIDS 1999e, 19).[20]

In addition, Uganda, once the most AIDS-ridden country, seems to have contained the disease. As in Senegal, much of the credit must go to the policies pursued by the national government. Through its pioneering work, Uganda is a leader in HIV/AIDS programming that includes orphans, health care, vocational training, education, food security and support for micro-enterprises.

Perhaps partially due to better health care and HIV preventative programmes, life expectancy in Uganda improved between 1995 and 2000 (Morgan 2000, 40). On the other hand, the HIV virus in Uganda may have reached its saturation point. Other factors may be involved as well. In any case, caution is needed before assuming that longer life expectation will last. The US Bureau of Census forecasts a drop in life expectancy in Uganda to 35 years in 2010 (see Appendix II).

World Bank Recommendations

The World Bank recently recommended several ways that the organisation will combat HIV/AIDS in sub-Saharan Africa. These include:

- Advocate to assist political leaders in mobilising civil society and the private sector for greater actions against HIV/AIDS.
- Build capacity in national and local governments, civil society and the private sector to lead and implement effective programmes in the fight against HIV/AIDS.
- Place HIV/AIDS as a central element of the Bank's development programmes in Africa.
- Create capacity in the Bank to intensify action against HIV/AIDS. This will be done under the new ACTafrica division of the Bank.
- Strengthen socio-economic activities that contain the spread of HIV/AIDS, such as emphasising education for girls, health reform and poverty reduction.
- Increase funding for HIV/AIDS prevention, care and treatment.
- Press for a multisectoral approach that will "retrofit" Bank-financed projects to reach more vulnerable populations.
- Mobilise the international community, including the private sector, to leverage additional resources.

[20] Senegal did have some advantages, such as a strong public-health sector, women who usually engaged in sex after marriage, male circumcision (associated with lower rates of HIV) and regular health checks of sex workers. Yet the success of Senegal's programme is largely due to government policies that focused on HIV/AIDS and provided the support needed to check the disease.

- Identify innovative means to finance the development of vaccines and other preventive therapies, such as microbicides.
- Include female-controlled methods of prevention.
- Support research that will assist decision-makers with the data and tools to intensify efforts to fight HIV/AIDS.
- Support alternative treatments.
- Declare HIV/AIDS a national crisis in applicable countries. Dispatch high level task forces to assess needs, identify barriers and review plans to close gaps (World Bank 1999b, 27ff.).

In many ways, the World Bank strategy is a call for resources. Currently, only US$300 million is pledged for prevention and treatment programmes in Africa. That's about the annual budget of two small hospitals in Western Europe (*UN Wire* 2000e; UNICEF/UNAIDS 1999, 26). Needed is US$2 billion a year to combat the disease (Piot 1999, 4). According to UNAIDS and UNICEF, investments must be made in poor communities, especially in education, water and sanitation (UNICEF/UNAIDS, 28). Others would put food security at the top of the list in an effort to support families and keep girls and orphans of both sexes in school. Donahue would add micro-credit and savings mobilisation services to these lists (Donahue 1998, 11).

Inexpensive therapies to prolong life and help prevent opportunistic infections are desperately needed. Palliative medicines to check or reduce the effects of opportunistic diseases now cost about US$300 a year in Africa. The price of a "bare bones" prenatal treatment of ATZ and aviroprene is US$100. That's cheap by Western standards, but it is probably higher than the annual income of most of poor Africans. The successful anti-retroviral therapies (HAAFT) that partially block the HIV virus from reproducing work well in rich countries. Currently, basic levels of such therapy cost US$250 to $600 per month in Uganda. The more effective treatment costs US$500 to $1,000 per month (Stephenson 1999, 2).[21]

Recently, major pharmacology companies promised to cut the price of anti-AIDS drugs 70-80 percent in poor countries (*BBC News* 2000b, 2; *UN Wire* 2000d). Unfortunately, these drugs will still remain out of the price range of most Africans.[22] For the HAAFT therapies, sophisticated monitoring systems and trained personnel, well beyond the capabilities of the rural clinics, also are needed. The most hopeful possibilities for African countries today are palliative therapies for HIV/AIDS victims and an ATZ and aviroprene treatment for pregnant women with the disease.

Long-term eradication of HIV/AIDS depends on a vaccine. So far, none has been successfully developed due to the many strains and rapid mutation capability of HIV. Some hope is extended for AIDSVAX, the only vaccine to undergo phase III testing. Tests of the vaccine will begin this year in Kenya, but a verdict on its effectiveness is two or three years away. Based on qualities of HIV resistance found in Kenya, AIDSVAX was developed against clades (sub-types) B and E of HIV-1. However, most Africans are infected with HIV-1 clades A, C and D (Stephenson 1999, 3; BBC 2000c).[23]

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[21] Due to governmental pressures, Glaxo Wellcome says it will cut the price of AZT (ziduvodine) to US$2,000 a year or less. Catalysis and the Association of People with AIDS in Kenya launched a test of Viusid. The drug costs US$100 a month in the United States (UN AFFAIRS News Bulletin 2000).

[22] The United States will offer US$1 billion a year loans to African countries for drugs and equipment. European and Japanese matches may increase the loans to US$3 billion (UN Wire 2000d). Given that these are loans, not grants, one wonders who the chief beneficiaries will be – the poor or the drug companies.

[23] IRIN reports that Kenya will begin HIV vaccine tests in December (UN IRIN 2000). A recent news story stated that a South Korean team has developed genetic antibodies that will activate the immune system to kill HIV infected cells (UN Wire 2000b, 1). Then there is Bill Gate's donation of US$28 million for vaccines. The amount that will be set aside for HIV research is not known.

Section Five

New Millennium Efforts

Scale of the Problem

At the end of 1999, the cumulative global infection of HIV/AIDS was 47.3 million people (World Bank 1999b, 11). Of this number, 34.3 million, or 72.5 percent, are alive. Almost all will eventually die of AIDS, most within the next six to eight years. By 2020, AIDS will be the leading cause of death in the less developed countries (Squire 1998, 16). There will also be a shift in numbers. While 80 percent of the HIV/AIDS victims are Africans today, at the end of the decade the majority may be Asian.

For NGOs and major global institutions, two challenges must be addressed if the pandemic is not to derail African development for several generations. The growing incidence of HIV/AIDS must be checked, and this can only be achieved through widespread education on the nature and transmission of the disease, coupled with effective provision of the resources needed. Second, action is needed to offset the inherent impact of the disease on Africa's economic growth and human capital formation. Without assistance geared towards redressing the effect of HIV/AIDS on the economy, other interventions (such as debt relief and overseas development assistance) will have markedly reduced success.

The potentially titanic proportions of the disease may be glimpsed by looking at the current situation. About 250 million people live in countries with *generalised* epidemics. Here, HIV infections are primarily among those of riskiest behaviour. In addition, 5 percent of the women visiting antenatal clinics are infected (Ainsworth 1998, 21). These are the states with the highest adult prevalence rates and include most of the nations in Eastern and Southern Africa. Another 1.6 billion people live in *concentrated* epidemic countries, where 5 percent of the highest risk people are infected. Included are most of the other countries of sub-Saharan Africa, much of Latin America, Ukraine, and parts of Asia, including about half of India. The third stage of the HIV/AIDS pandemic is termed *nascent,* and includes 2.3 billion people, or half of the South. Included are most of China, the Former USSR, Bangladesh, Indonesia and much of India.[24]

The number of people infected with HIV increases exponentially every year. In 1999 the number was over 5.6 million (BBC 1999a, 2). That's nearly 16,000 people a day. Over half of those infected in 1999 were between the ages of 15 to 24 (World Bank 1999b, 13). Of the 5.6 million new HIV cases, between 570,000 and 600,000 people (11 percent) were children under age 15 (UNAIDS 1999a; World Bank 1999b, 5). HIV was transmitted from mother to child 25 to 35 percent of the time,

Following the anti-AIDS crusade in the last two decades, there is evidence of reductions in rates of infection, especially in the developed world. UNAIDS states that more than 95 percent of all HIV-infected people now live in the developing world, which also has 95 percent of the deaths to date from AIDS.

Figure 6 shows that the proportion of the HIV/AIDS load for the African continent is overwhelmingly greater than all the other continents combined. HIV/AIDS has been identified as Africa's biggest development crisis in the new millennium. The UN Security Council devoted January 2000 to Africa.

[24] The stage of the HIV/AIDS pandemic is unknown in much of the Balkans, Central Asia, and the Middle East.

The United States led the UN Security Council in a discussion of the AIDS crisis in Africa as a global security threat. This introduced a new twist in the perception of the pandemic (*NewsVision* 2000). According to the Security Council, the number of people who will die of AIDS by 2010 will by far exceed the number of people who died in all the wars of all the decades of the twentieth century.

Call for Action

While addressing the UN Security Council, US Vice President Al Gore said,

> Security is not just about fighting or harmony. It is about protecting lives. When a single disease threatens everything, from economic strength to peace keeping, we clearly face a security threat of the greatest magnitude (quoted in *NewsVision* 2000).

Figure 6:

Regional HIV/AIDS Data and Features (December 1998)

Region	Epidemic started	People having AIDS	Adult prevalence rate	Number newly infected	Women having AIDS
Sub-Saharan Africa	Late 1970s-early 1980s	22.5 million	8.0 %	4.0 million	50%
North Africa and Middle East	Late 1980s	210,000	0.13 %	19,000	20%
South & SE Asia	Late 1980s	6.7 million	0.69 %	1.2 million	25%
East Asia and Pacific	Late 1980s	560,000	0.068 %	200,000	15%
Latin America	Late 1970s-early 1980s	1.4 million	0.57 %	160,000	52%
Caribbean	Late 1970s- early 1980s	330,000	1.96 %	45,000	35%
Eastern Europe and Central Asia	Early 1990s	270,000	0.14 %	80,000	20%
Western Europe	Late 1970s-early 1980s	500,000	0.25 %	30,000	20%
Northern America	Late 1970s-early 1980s	890,000	0.56 %	44,000	20%
Australia and New Zealand	Late 1970s-early 1980s	12,000	0.1 %	600	5%
Total		33.4 million	1.1 %	5.8 million	43%

(Data taken from UNAIDS.)

In view of this, the United States has released an additional $150 million to boost the fight against the pandemic around the world.

The World Bank president, James Wolfensohn, has described AIDS as a global issue, one which "forces us to bring all our understanding together – of security, health, economics, social and cultural change" (quoted in *NewsVision* 2000). The World Bank has consequently introduced a new strategy to combat the partnership with African governments and UNAIDS.

The DC AIDS Network called for a declaration of an "AIDS Continental State of Emergency" for Africa with an objective to

> combat the effects of the deadly disease. In addition to measures directly focused on AIDS, the statement highlights the need for primary health care and for debt relief in order to enable Africa to deal with this crisis. It calls for African and international responses on a far greater scale in order to address the severity of what the letter terms a "Holocaust" (DC AIDS Network 2000).

Among several recommendations made to the African leaders, the letter called for an initiation of an "international black family debate and conversation" on:

- Re-prioritising of African government expenditures towards AIDS prevention,
- Pressuring on US pharmaceutical companies to permit more affordable drugs,
- Forgiving debt of African countries to free up resources to address the AIDS crisis,
- Building easily available health-care centres to prevent and treat opportunistic diseases,
- Establishing national funds for HIV/Aids,
- Promoting massive education campaigns to stem apathy towards HIV/AIDS,
- Providing special care for AIDS orphans, including housing, education and health care.

The Church

Overall, the church has not been an effective force in combating the spread of HIV/AIDS in Africa (Morgan 2000, 40). Leaders of both Protestant and Roman Catholic persuasions have been criticised for their opposition to HIV preventive activities, such as the use of condoms. Lay persons of all denominations are guilty of shunning AIDS victims and their families. This is sad, because the HIV prevalence rate among Christians is no different from that of non-Christians.

The good news is that Christian attitudes towards HIV/AIDS are changing. This change may be due to the admission that "the Church has HIV" (Morgan 2000, 38). The result is pioneering work of prayer backed by tangible acts of assistance. Critics are now beginning to see the church as a strong ally in the battle against HIV/AIDS: "Health experts see churches and their community networks as unrivalled in their potential to fight AIDS through community awareness, care for the sick, and encouraging either sexual fidelity or abstinence" (Morgan 2000, 38).

Section Six

Best Practices

Existing Best Practices for Addressing HIV/AIDS

A number of African countries have been planning and implementing HIV/AIDS programmes since 1985. The first set of programmes was designed by WHO and monitored in country by an AIDS Control Programme Manager based within the Ministry of Health. As the epidemic intensified, countries started developing strategies, with the help of UNAIDS, that identified priority areas and activities based on the determinants of the epidemic in country. Unfortunately, except for Uganda and Senegal, African leaders have not taken strong positions in support of these strategies.[25]

Available evidence from leading agencies working on HIV/AIDS and from countries where HIV/AIDS infection rates have been stabilised suggests a number of approaches for addressing the above challenges. All require a multisectoral approach within which issues of human sexuality are discussed openly, with AIDS perceived like any other serious disease. Furthermore, communities must be empowered to play a leading role in addressing the challenges facing them. This requires commitment and leadership at all levels, starting with those in government, and including leadership in communities, business, labour unions, religious organisations and NGOs.

Experience has shown that only when there is this level of involvement can open and interactive discussion on issues of HIV/AIDS take place. When such environment is fostered, it is possible to implement a co-ordinated package of initiatives that work synergistically to help people reduce the risk of HIV/AIDS infection and adjust to its aftermath. To date, specific approaches that have produced positive results in reducing the infection rate include:

- Encouraging increased faithfulness in marriage (or practising "zero grazing," as they say in East Africa)
- Encouraging delayed initiation of sexual activity (especially within the 15-24 age group)
- Discouraging unprotected sex among men with multiple partners
- Providing for detection and early treatments of sexually transmitted diseases in both males and females
- Maintaining a safe blood transfusion supply
- Helping poor women who invariably depend on sex to have other ways of earning a livelihood
- Reducing vulnerability of women and girls in an adverse cultural environment
- Improving the well-being of people living with HIV/AIDS
- Making voluntary testing and counselling available and affordable
- Reducing transmission from mother to child

[25] Not a single African leader attended the last Global AIDS meeting held in Zambia.

- Intensifying public education
- Offering easy access to condom distribution

In terms of coping with the consequences of HIV/AIDS, especially as it affects children, best practices thus far include:

- Providing youth-related messages through music, video, radio and newspapers, together with appropriate youth-friendly services
- Offering home-based care of AIDS patients and increased access to HIV/AIDS related drugs
- Encouraging foster care for orphans
- Improving economic opportunities for households with orphans
- Reducing school fees so that children from poor families and AIDS orphans stay in school longer
- Educating children, especially girls, to enhance their abilities to avoid infection
- Establishing outreach programmes for street children
- Providing social funds to help grassroots organisations cope with the pandemic
- Stimulating and strengthening community-based responses
- Ensuring that governments protect the most vulnerable children and provide essential services to them
- Building the capacity of children to support themselves
- Creating an enabling environment for affected children and families
- Improving economic opportunities, especially for women-headed households
- Facilitating food programmes for children and support for educational expenses
- Promoting exclusive breast feeding for four to six months, even in HIV-positive mothers (this is controversial; see note 9)

The implication is that coping with HIV/AIDS requires the *mobilisation* of all to ensure the *well-being* of all. This includes government, whose role and commitment are key to creating the appropriate environment, as well as ensuring that the necessary institutions are in place and functioning. It includes individuals, whose commitment to wellness is foundational to any initiative bearing results. It includes community organisations, NGOs and faith-based organisations to mobilise, inform and care for people at the grassroots level. Hence a multi-pronged approach targeting all the pathways through which HIV/AIDS spreads and exerts its impact is necessary.

Faith-based organisations are an essential part of this approach, given the high emphasis their teachings place on morality. Uganda is a country that has made the most dramatic turn-around in the HIV/AIDS infection rate. Experience suggests that through increased faithfulness in marriage and delayed onset of sexual involvement, especially among the 15 to 24 year olds, HIV/AIDS infection rate has significantly declined, from 15 percent in 1992 to 9.5 percent in 1998. NGOs that operate broadly at the grassroots and have credibility with civil society also can play a key role in linking churches with communities.

World Vision's Experience Working with HIV/AIDS

World Vision was among the earliest NGOs to develop a programmatic response once the devastating impact of HIV/AIDS became known. The organisation's first significant response was made in 1990 in Uganda, where WV utilised funds from the Government of Uganda through a World Bank (IDA) credit to implement a programme of assistance to orphans of HIV/AIDS and war in three districts. In the mid 1990s, WV made an internal policy that required its programme offices to add HIV/AIDS-related activities within each of its existing health programmes. To date, a total of 65 projects in 11 countries have at least one goal that relates specifically to HIV/AIDS prevention. The bulk of these programmes are in East Africa (24 in Uganda, 13 in Tanzania and 10 in Kenya). Zimbabwe and Mozambique have one project each. Malawi, South Africa and Zambia have four such projects each.

In general, WV's activities have been of varying magnitude and focus. The most notable is its programme of assistance to orphans of AIDS in the districts of Rakai and Masaka in Uganda. This programme demonstrated the effectiveness of an approach that combines direct support to orphan children with initiatives geared to enhancing foster-family productivity and community recovery in order to create an environment where the needs of children can be catered for in a caring and sustainable manner.

WV, through its Child Survival Project in Kwazulu/Natal Province, South Africa, has actively targeted youth in schools to improve knowledge about the epidemic. Evaluations of those efforts prove they were effective in raising awareness regarding transmission and prevention of HIV. The programme also was successful in introducing teachers and parents to key concerns regarding reproductive health, sexual practices and communication in relationships. The project forged a strong collaboration with the Department of Education, resulting in strengthening training of teachers in both primary and secondary schools.

Further study is needed to determine how far educational efforts can affect the behaviour of adolescent school attendees over a longer period, especially those who are already sexually active at the time of the peer education encounter. One promising avenue may be through the churches, as more than 75 percent of the youth reported regular church attendance, even those who left school. As a follow-up to this initial work, the community is asking for AIDS education and assistance in caring for home cases. A new effort to combine micro-enterprise development with AIDS education for the community is now in the early stages of development.

In Zambia, WV has actively targeted truck drivers and the communities where the drivers make overnight stops. The initiative focuses on the Great North Road, a corridor of transnational travel where HIV/AIDS transmission is very high. Education programmes stress greater awareness and prevention of HIV/AIDS. Available lessons learned suggest the need to incorporate income-generating activities for girls and women as part of the prevention strategy.

Within WV, there has been limited replicability across countries or even within countries; the need for new programmes remains great. Also, many of the major projects were of short duration and came to a premature close. Critical reasons for this state of affairs include the following:

- WV programmes have been largely supported by government grants. Grants have been scarce, country specific and of limited duration.
- The approach to HIV/AIDS has been project focused rather than programmatic. Hence, projects have been started and phased out, while the problem has remained.
- WV has only begun to capture the lessons learned. Until these lessons are taken into

account, the ability of the organisation to be a significant influence in the evolution of HIV/AIDS-related policies will be curtailed.

- Staff members with appropriate programming experience have not been able to stay with some of the strategic initiatives. This has tended to limit the ability of country programmes to build credibility with the appropriate bilateral funding agencies.

The Challenges for NGOs

The key challenges for NGOs are:

- Scale up activities to Africa-wide proportions to ensure that those who are not yet infected remain free of the virus. Currently, UNAIDS estimates that there are 200 million adults in Africa who have not yet been infected by HIV/AIDS. In addition, many of the young, especially those between the ages of 5 through to 14, are free of HIV/AIDS. Hence a key challenge is to address the youth.
- Scale up activities within already devastated countries with programmes that will enable communities to cope with the aftermath of HIV/AIDS. This strategy is especially relevant in those parts of Africa (such as the Southern African countries) which currently constitute the epicentre for this epidemic and where, for a variety of reasons, there has been less programmatic response.
- Design programme responses that are realistic, given the nature of the HIV/AIDS crisis. Knowledge is limited, and the crisis will be long term. How may programming be flexible enough to permit the injection of learnings as they become available? How may funding be accessed?
- Disseminate learning on issues of HIV/AIDS-related programming especially related to prevention and mitigation.

Suggested Steps for Civil Society and Donors

- No single agency has sufficient resources to address all the problems of HIV/AIDS. To ensure effective results, all development actors need actively to seek to build alliances with others at national, international and local levels.
- Development actors need to recognise the potential role of faith-based organisations (church, mosque and related NGOs). Faith-based organisations are present in communities, and they have grassroots credibility and understand grassroots language. Faith-based organisations have the institutional infrastructure that is both extensive and self-sustaining. In addition, in many countries the church supports up to 50 percent of health facilities. These agencies need to be supported technically and given the resources they need. They can be extremely effective in advocacy for government official response and action, for broad education and behaviour change initiatives, and for counselling and care.
- Civil society must promote in-country advocacy geared to creating a conducive national environment in which effective HIV/AIDS related programming may take place. Although many African countries are now more open to the issue of HIV/AIDS, there are still some where this is not yet the situation.
- Strategies are needed to enable each development actor (NGOs, governments, multilateral institutions) to support the expansion of programmes aimed at both the prevention

and mitigation of the disease. This task needs to be preceded by a clear understanding of the socio-economic situation which affected households find themselves in today, including the capacity of the current extended family to function as a safety net for children. In particular, there is need to evaluate how the extended family mechanism is operating in the urbanised societies of Zambia and South Africa, as well as the areas experiencing extreme land shortage, such as Malawi.

- Experience gained from working with AIDS orphans in Uganda suggests that addressing the needs of children in a family setting (as opposed to individual children) helps to minimise stigmatisation and separation of siblings, as well as retaining harmony within the fostering family. This approach can help the orphan children to overcome the trauma of losing loved ones as well.

Appendix I

HIV/AIDS Incidences in Africa, 1997

Country	Total HIV/AIDS (000's)	Adults (15-49) (000's)	Adult Rate (%)	Women (15-49) (000's)	Children (0-14) (000's)	Orphans (0-14) (000's)	Orphans Cumulative (000's)	Deaths Cumulative (000's)
Angola*	110	100	2.12	52	5.2	16	25	19
Benin	54	52	2.06	26	2.4	9.3	11	15
Botswana	190	190	25.1	93	7.3	25	28	43
Burkina Faso	370	350	7.17	170	22	150	200	250
Burundi*	260	240	8.3	120	15	110	160	200
Cameroon	320	310	4.89	150	13	59	74	100
CAR	180	170	10.77	85	7.3	48	65	92
Chad*	87	83	2.72	42	4.2	38	55	70
Congo	100	95	7.78	47	5.3	45	64	80
Congo, DR*	950	900	4.35	450	49	31	41	470
Cote d'Ivoire	700	670	10.06	330	32	240	320	420
Eritrea		49	3.17					
Ethiopia*	2600	2500	9.31	1200	140	700	840	1000
Gabon	23	22	4.25	11	8	3.8	4.8	7.1
Gambia	13	13	2.24	6.3	0.62	6	8.4	11
Ghana*	210	200	2.38	100	10	90	130	170
Guinea	74	70	2.09	35	3.6	14	18	23
Guinea-Bissau	12	11	2.25	5.7	0.42	0.87	0.99	1.6
Kenya*	1600	1600	11.64	780	66	350	440	600
Lesotho*	85	82	8.35	41	3.1	8.5	9.5	15
Liberia*	44	42	3.65	21	2.3	16	21	24
Madagascar	8.6	8.2	0.12	4.1	0.37	1.2	1.3	1.9
Malawi*	710	670	14.92	330	42	270	360	450
Mali*	89	84	1.67	42	4.8	25	33	40

Country	Total HIV/AIDS (000's)	Adults (15-49) (000's)	Adult Rate (%)	Women (15-49) (000's)	Children (0-14) (000's)	Orphans (0-14) (000's)	Orphans Cumulative (000's)	Deaths Cumulative (000's)
Mauritania*	6.1	5.9	0.52	2.9	0.25	1.1	1.4	1.9
Mozambique*	1200	1200	14.17	58	54	150	170	250
Namibia	150	150	19.94	75	5	7.3	7.8	14
Niger*	65	61	1.45	31	3.5	16	20	25
Nigeria	2300	2200	4.12	1100	99	350	410	530
Rwanda*	370	350	12.75	170	22	94	120	170
Senegal*	75	72	1.77	36	3.8	34	49	
Sierra Leone*	68	64	3.17	32	3.7	34	47	54
Somalia*		11	0.25					
South Africa*	2900	2800	12.91	1400	80	180	200	360
Sudan*		140	0.99					
Swaziland*	84	81	18.5	41	2.8	7.2	8	14
Tanzania*	1400	1400	9.42	680	68	520	730	940
Togo	170	160	8.52	82	9.6	78	110	130
Uganda*	930	870	9.51	430	67	1100	1700	1800
Zambia*	770	730	19.07	370	41	360	470	590
Zimbabwe*	1500	1400	25.84	720	57	360	450	590
Totals	20777.7	20206.1	7.665	9369	960.56	5548.27	7403.19	9571.5

*WV countries

(Data taken from UNAIDS 1998.)

Appendix II

Orphan Estimates for 19 African Countries, 2000

Country	Population of children < age 15	Maternal and double orphans[2] from all causes	Maternal / double orphans as % of children < age 15	% of maternal / double orphans from AIDS
East African Countries				
Burundi	3,011,656	216,455	7.19%	40.70%
Ethiopia	29,179,899	1,997,671	6.85%	28.50%
Kenya	12,733,972	685,716	5.38%	65.50%
Rwanda	3,931,130	475,598	12.10%	56.80%
Tanzania	13,806,174	1,349,485	9.77%	65.70%
Uganda	10,825,573	1,243,361	11.49%	66.70%
Southern African Countries				
Botswana	641,343	67,455	10.52%	70.60%
Lesotho	834,425	52,921	6.34%	65.00%
Malawi	4,487,572	553,926	12.34%	69.50%
South Africa	15,542,260	812,825	5.23%	60.90%
Zambia	4,828,272	745,492	15.44%	78.40%
Zimbabwe	4,946,183	610,713	12.35%	84.70%
West and Central African Countries				
Burkina Faso	5,614,199	526,698	9.38%	67.70%
Cameroon	7,303,972	402,488	5.51%	46.30%
Central African Republic	1,543,963	141,228	9.15%	53.90%
Congo	1,164,121	90,295	7.76%	66.50%
Côte d'Ivoire	7,567,279	654,556	8.65%	92.70%
Dem. Rep. of Congo[4]	24,774,491	1,759,578	7.10%	45.60%
Nigeria	52,611,519	1,930,697	3.67%	25.90%
19 African Countries				
TOTAL	**205,348,003**	**14,316,828**	**6.97%**	**52.72%**

[1] Maternal orphans: children who have lost their mothers; double orphans: children who have lost both parents

[2] Paternal orphans: children who have lost their fathers

[3] A ratio of 40 percent maternal/double to 60 percent paternal was used to expand the U.S. Census Bureau estimates of maternal orphans for 1995.

[4] formerly Zaire

Paternal orphans[1] from all causes[3]	Patternal orphans as % of children < age 15	Total orphans from all causes	Total orphans as % of children < age 15
264,556	8.78%	481,011	15.97%
2,441,598	8.37%	4,439,269	15.21%
838,097	6.58%	1,523,813	11.97%
581,286	14.79%	1,056,884	26.89%
1,649,371	11.95%	2,998,856	21.72%
1,519,663	14.04%	2,763,024	25.52%
82,445	12.86%	149,900	23.37%
64,681	7.75%	117,602	14.09%
677,021	15.09%	1,230,947	27.43%
993,453	6.39%	1,806,278	11.62%
911,157	18.87%	1,656,649	34.31%
746,427	15.09%	1,357,140	27.44%
643,742	11.47%	1,170,440	20.85%
491,930	6.74%	894,418	12.25%
172,612	11.18%	313,840	20.33%
110,361	9.48%	200,656	17.24%
799,610	10.57%	1,453,836	19.21%
2,150,595	8.68%	3,910,173	15.78%
2,359,741	4.49%	4,290,438	8.15%
17,498,345	**8.52%**	**31,815,173**	**15.49%**

Appendix III

Orphan Estimates for 19 African Countries, 2005

Country	Population of children < age 15	Maternal and double orphans[2] from all causes	Maternal / double orphans as % of children < age 15	% of maternal / double orphans from AIDS
East African Countries				
Burundi	3,311,859	227,826	8.39%	57.70%
Ethiopia	33,070,855	2,583,857	7.75%	42.60%
Kenya	12,420,299	986,529	7.94%	79.40%
Rwanda	4,002,070	652,531	16.30%	73.20%
Tanzania	14,807,982	1,840,713	12.43%	76.70%
Uganda	11,581,022	1,599,923	13.82%	76.10%
Southern African Countries				
Botswana	638,013	97,056	15.21%	83.00%
Lesotho	855,683	63,255	7.39%	73.50%
Malawi	4,504,411	714,976	15.84%	79.80%
South Africa	15,957,899	1,132,182	7.09%	75.10%
Zambia	5,136,912	968,786	18.86%	84.50%
Zimbabwe	4,649,787	742,779	15.97%	90.40%
West and Central African Countries				
Burkina Faso	6,146,227	774,910	12.61%	79.10%
Cameroon	8,260,808	532,974	6.45%	60.10%
Central African Republic	1,654,062	181,927	11.00%	66.70%
Congo	1,255,983	105,716	8.42%	72.60%
Côte d'Ivoire	8,279,599	816,234	9.86%	19.72%
Dem. Rep. of Congo[4]	28,678,849	1,932,156	6.74%	13.48%
Nigeria	60,775,356	2,195,423	3.61%	7.22%
19 African Countries				
TOTAL	**225,985,676**	**18,179,750**	**8.04%**	**16.09%**

[1] Maternal orphans: children who have lost their mothers; double orphans: children who have lost both parents

[2] Paternal orphans: children who have lost their fathers

[3] A ratio of 40 percent maternal/double to 60 percent paternal was used to expand the U.S. Census Bureau estimates of maternal orphans for 1995.

[4] formerly Zaire

Paternal orphans[1] from all causes[3]	Patternal orphans as % of children < age 15	Total orphans from all causes	Total orphans as % of children < age 15
277,826	8.39%	555,652	16.78%
2,583,857	7.75%	5,127,714	15.51%
986,529	7.94%	1,973,058	15.89%
652,531	16.30%	1,305,062	32.61%
1,840,713	12.43%	3,681,426	24.86%
1,599,923	13.82%	3,199,846	27.63%
97,056	15.21%	194,112	30.42%
63,255	7.39%	126,510	14.78%
714,976	15.87%	1,429,952	31.75%
1,132,182	7.09%	2,264,364	14019%
968,786	18.86%	1,967,572	37.72%
742,779	15.97%	1,485,558	31.95%
774,910	12.61%	1,549,820	25.22%
532,974	6.45%	1,065,948	12.90%
181,927	11.00%	363,854	22.00%
105,716	8.42%	211,432	16.83%
816,234	9.86%	1,632,468	19.72%
1,932,156	6.74%	3,864,312	13.48%
2,195,420	3.61%	4,390,840	7.22%
18,179,750	**8.04%**	**36,359,500**	**16.09%**

Appendix IV

Orphan Estimates for 19 African Countries, 2010

Country	Population of children < age 15	Maternal and double orphans[2] from all causes	Maternal / double orphans as % of children < age 15	% of maternal / double orphans from AIDS
East African Countries				
Burundi	3,629,305	349,544	9.63%	69.40%
Ethiopia	36,564,014	3,181,524	8.70%	53.60%
Kenya	11,938,922	1,284,954	10.76%	86.80%
Rwanda	4,320,544	833,779	19.30%	83.40%
Tanzania	15,496,154	2,310,002	14.91%	83.40%
Uganda	12,200,07,	1,928,811	15.81%	82.20%
Southern African Countries				
Botswana	601,357	120,458	20.03%	89.50%
Lesotho	870,860	71,664	8.23%	79.30%
Malawi	4,376,416	861,200	19.68%	86.00%
South Africa	15,623,343	1,449,363	9.28%	83.30%
Zambia	5,402,402	1,145,892	21.21%	88.00%
Zimbabwe	4,274,235	842,463	19.71%	93.70%
West and Central African Countries				
Burkina Faso	6,565,553	1,014,873	15.46%	85.50%
Cameroon	9,223,404	673,494	7.30%	69.30%
Central African Republic	1,753,915	224,006	12.77%	75.50%
Congo	1,325,383	118,381	8.93%	77.30%
Côte d'Ivoire	9,020,656	963,662	10.68%	78.00%
Dem. Rep. of Congo[4]	32,743,123	2,083,207	6.36%	55.30%
Nigeria	69,090,458	2,351,430	3.40%	45.40%
19 African Countries				
TOTAL	**245,020,114**	**21,808,707**	**8.90%**	**72.21%**

[1] Maternal orphans: children who have lost their mothers; double orphans: children who have lost both parents

[2] Paternal orphans: children who have lost their fathers

[3] A ratio of 40 percent maternal/double to 60 percent paternal was used to expand the U.S. Census Bureau estimates of maternal orphans for 1995.

[4] formerly Zaire

Paternal orphans[1] from all causes[3]	Patternal orphans as % of children < age 15	Total orphans from all causes	Total orphans as % of children < age 15
285,991	7.88%	635,535	17.51%
2,603,065	7.12%	5,784,589	15.82%
1,051,326	8.81%	2,336,280	19.57%
682,183	15.79%	1,515,962	35.09%
1,890,002	12.20%	4,200,004	27.10%
1,578,118	12.94%	3,506,929	28.75%
98,557	16.39%	219,015	36.42%
58,634	6.73%	130,298	14.96%
704,618	16.10%	1,565,818	35.78%
1,185,842	7.59%	2,635,205	16.87%
937,548	17.35%	2,083,440	38.57%
689,288	16.13%	1,531,751	35.84%
830,351	12.65%	1.845.224	28.10%
551,041	5.97%	1,224,535	13.28%
183,278	10.45%	407,284	23.22%
96,857	7.31%	215,238	16.24%
788,451	8.74%	1,752,113	19.42%
1,704,442	2.78%	3,787,649	11.57%
1,923,897	5.21%	4,275,327	6.19%
17,843,488	**7.28%**	**39,652,195**	**16.18%**

Appendix V

Demographic Impact on 19 African Countries, 2010

Country	Total Population (millions)	Population Loss to AIDS (millions)	Population Growth Rate (%)	Life Expectancy (years)	Infant Mortality (deaths < < age 1 per 1000)	Child Mortality (deaths < age 5 per 1000)	Fertility Rate (no. of births per 1000)
East Africa							
Burundi	8.2	0.8	2.3	44.9	80.4	130.8	5.3
Ethiopia	81.2	5.8	2.2	43.8	105.7	165.6	5.9
Kenya	33.9	5.2	0.5	43.2	55.9	110.3	2.6
Rwanda	10.1	2.7	0.9	32.7	107.6	193.4	5.0
Tanzania	36.1	7.8	1.1	36.5	90.9	166.1	4.4
Uganda	26.4	6.3	1.6	35.2	86.1	168.1	5.2
Southern Africa							
Botswana	1.6	0.5	-0.4	33.4	66.1	147.5	2.9
Lesotho	2.4	0.3	1.2	49.4	65.7	107.5	3.1
Malawi	10.7	3.4	0.1	29.5	126.1	233.8	3.9
South Africa	49.2	4.4	0.7	47.8	47.3	86.3	2.6
Zambia	11.5	4.2	1.2	30.3	97.4	202.1	5.4
Zimbabwe	11.9	4.5	-0.5	33.1	71.0	152.9	2.4
West and Central Africa							
Burkina Faso	14.2	3.0	1.6	35.2	101.9	184.3	5.4
Cameroon	20.6	1.6	2.4	48.9	64.5	110.6	5.0
Central African Republic	4.2	0.7	1.4	39.9	92.5	156.1	4.4
Congo	3.3	0.5	1.6	46.8	80.4	133.7	4.0
Côte d'Ivoire	20.3	3.2	2.1	44.8	65.4	118.7	4.9
Dem. Rep. of Congo *	69.3	5.3	2.9	51.3	77.9	118.7	5.6
Nigeria	157.4	4.6	2.8	59.7	45.1	79.2	5.1

* formerly Zaire

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