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# Sub-Saharan Africa: Implications of the AIDS Pandemic (C)

Special National Intelligence Estimate

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THE NATIONAL FOREIGN INTELLIGENCE BOARD CONCURS.

*The following intelligence organizations participated in the preparation of the Estimate:*

The Central Intelligence Agency, the Defense Intelligence Agency, the National Security Agency, and the intelligence organization of the Department of State.

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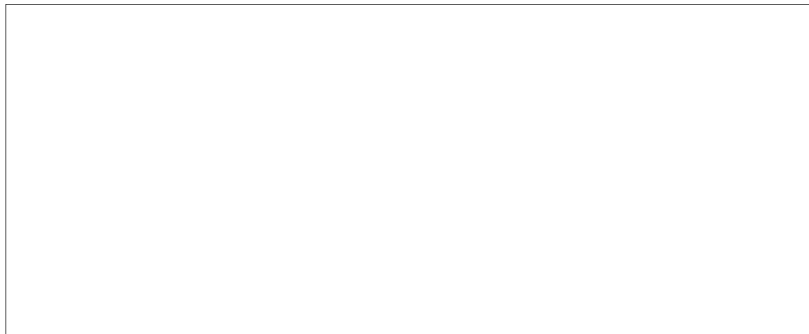
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SNIE 70/1-87

Sub-Saharan Africa:  
Implications of the AIDS  
Pandemic (C)

Information available as of 27 May 1987 was used in the preparation of this Estimate, which was approved by the National Foreign Intelligence Board on 2 June 1987.

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## PREFACE

The initially sporadic and anecdotal reporting of the AIDS pandemic in Africa—an important aspect of the increasing global AIDS problem—presented an alarming picture of a deadly disease spreading rapidly throughout the region. The volume of reporting increased immensely in 1987, driven by growing concern over the spread of the disease in the West as well as in Africa, and to a modest degree by tasking for this paper. Most of the reports remain anecdotal or based on small medical research programs lacking a strong epidemiological basis. We nonetheless feel confident in the conclusions that follow. Despite the lack of widespread scientific research, the reporting confirms that this deadly epidemic is spreading out of control in Sub-Saharan Africa.

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Rather than await more information, we feel sufficient material is available to serve as a basis for broad conclusions in examining the serious implications of the AIDS pandemic for African, Soviet Bloc, Western, and US interests. This paper projects through the next five years, although some tentative judgments extend further. A crucial assumption made here is that no vaccine or cure will be developed and distributed to Africa during this period. Medical opinion is that the virus will not mutate to a benign form.

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## KEY JUDGMENTS

During the 1980s Africa endured and continues to experience wars, insurgencies, drought, desertification, insect plagues, famines, undernourishment, diseases, dysfunctional economic policies—and now the AIDS pandemic. The combination of these adversities with AIDS will devastate generations of Africans. Over the next several years, millions will succumb to infection and disease, and the physical and intellectual development of the next generation will be severely stunted. *An estimated 50,000 Africans already have died from AIDS. Of the 2 to 5 million Africans currently infected with the virus, a minimum of 400,000 to a high of 1.5 million could develop the clinical symptoms of AIDS by 1992, with death to follow soon after.* Because a medical breakthrough in prevention, suppression, or cure, or a benign mutation of the disease are unlikely, annual African deaths from AIDS after 1992 are likely to continue to climb into the millions.

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We believe that several identifiable factors contribute to the ongoing, rapid spread of AIDS across Sub-Saharan Africa:

- Heterosexual transmission is the major mode of spreading the human immunodeficiency virus (HIV) in Africa.
- Health systems are, and will continue to be, grossly inadequate. The use of unsterile needles at health centers—a widespread practice—and countries' inability to guarantee safe blood transfusions will facilitate transmission of the virus.
- Because the fundamental AIDS problem is the immune deficiency caused by HIV, infection by the virus leads to a worsening of endemic diseases.
- The recent medical confirmation that there is a second AIDS virus, HIV-2, vastly complicates the hunt for a vaccine and will require new blood-screening tests. The second virus was confirmed in AIDS patients in West Africa, an area thought to be relatively untouched by AIDS until now, raising the possibility of an epidemic in this populous region.
- The current Western strategy of combating AIDS—information and prophylaxis—is unlikely to be effective in most of Africa. Condom use, perhaps the single best hope for lessening the catastrophic spread of the virus, is culturally unpopular and unlikely to gain widespread acceptance.

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*AIDS has an apparent 100-percent mortality, no preventive vaccine, and no cure.* The disease is spreading rapidly and is out of control, especially among some urban African populations. It hits hardest at the healthy, productive, 15-to-50 age group which composes nearly one-half of Sub-Saharan Africa's 466 million population. Rates of infection, already estimated to be as high as 15 to 25 percent in some urban groups, are rising, with little prospect that any method of intervention within the next few years will slow the epidemic. The numbers of HIV-infected people could grow to several tens of millions in ten years. [redacted]

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Affluence, mobility, and lifestyle have put a disproportionate number of urban elites at risk of infection. The World Health Organization has informally estimated that Africa stands to lose at least 15 percent of its educated people in the next 15 years. Most in the small elite establishment, if they escape the disease themselves, will be touched personally by the death of family, relatives, and friends. For example, Zambian President Kaunda recently lost a son to AIDS, and Ugandan President Museveni's brother, Army Cdr. Salim Saleh, is dying of AIDS. Leaders are helpless to prevent AIDS or treat the victims, and their sense of frustration may bring some to lash out at Western countries, or become even more vulnerable to Soviet disinformation blaming AIDS on the United States. [redacted]

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Young elites face a curtailment in educational opportunities as West European, Soviet Bloc, and some Third World countries insist on blood tests for African students and visitors, and expulsion if found to be HIV infected. Such expulsions have already occurred from a growing list of Western, Communist, and Third World countries. The next generation of African leaders, cut off from wide exposure to outside ideas and methods, could become excessively isolated and embittered over treatment they see as singling out Africans unfairly. Those who survive the AIDS crisis may carry these negative views into future dealings with the countries that rejected them and their peers. [redacted]

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Rural areas in most countries have been thought to have lower infection rates, but these areas may simply be three to five years behind the cities rather than somehow at less risk. Already, urban-to-rural spread of HIV is being traced through increasing rates of infection along major transportation routes. The lack of surveillance and diagnostic capability in rural areas may lead to low recognition of the extent of the spread of the disease. There are anecdotal accounts of near depopulation of some isolated communities in Uganda and Rwanda. [redacted]

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*The long-range impact of AIDS will be devastating. Heavily infected countries will suffer irreplaceable population losses in those groups most essential to their future development: midlevel economic*

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*and political managers, agrarian and urban workers, and military personnel.* The future may also show that neurological damage among the HIV infected is one of the virus's most destructive aspects. Increasing numbers of seemingly healthy people may be lost to the work force, or the managerial and decisionmaking abilities of leaders may be seriously impaired by progressive memory loss, motor impairment, psychiatric symptoms, chronic dementia, or other central nervous system disorders. Young mothers and their newborn babies are suffering relatively high rates of infection, and their loss could seriously undermine the traditional family, which will have to bear the brunt of caring for the ill and dying.

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Almost all African economies are under severe strain already. The impact of AIDS-related consequences—loss of trained managers and technicians, loss of tourism, and increasing disinclination of foreigners to reside in Africa—will almost certainly reinforce current capital flight and growing decline of foreign capital investment.

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Government and societal inability to combat the disease will quite likely result in a rapid rise of xenophobic and fanatic religious and political movements. Such movements will gain further strength by host government attempts to fix “blame” on exterior forces, by Communist propaganda blaming the United States, and by further economic deterioration. New leaders who blame the West for the pandemic may rise to power.

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Soviet Bloc countries are likely to alienate young African elites by their policies towards AIDS. *The testing and deportation of infected African students from Soviet Bloc countries have brought allegations of racial and political bias from African media.* These actions may also undermine the Soviet disinformation campaign blaming the spread of AIDS on the United States. African visitors who come from countries where AIDS is rampant will face increased social segregation, even if they test free of AIDS, as host country populations react to public information accounts of the magnitude of the disease in Africa.

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The Soviet Bloc faces an additional serious problem. In 1986 there were 10,000 Soviet economic technicians in Africa and nearly 4,000 military advisers. Cuba maintains about 37,500 military and 6,000 civilian personnel in Angola alone. AIDS will raise the cost for Havana and Moscow, and could eventually weaken their resolve to maintain current levels of troops and advisers in Africa, although there is no indication that the Soviet-Cuban commitment is wavering at this time. Military and civilian personnel will face rigorous testing upon return from Africa.

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*The United States and other Western countries will probably be asked to increase greatly their assistance to Africa.* A refusal to divert or create new development funds to take on the enormous costs of upgrading health infrastructures will open the doors to harsh criticism by beleaguered African countries. The Soviets will probably step up their anti-US disinformation campaign in the wake of an African backlash, and the United States will continue to need a vigorous counter to such propaganda. Renewed Soviet accusations that US military personnel spread AIDS could lead to more troublesome and contentious negotiations for military basing agreements and other military activities. Donors' calls for more openness and publication of data will provoke African leaders who believe data outlining the extent of the epidemic tarnishes their image and is used against them economically. A fall in tourist revenues, mandatory testing of African students, and the possibility of visa and immigration restrictions will inflame anti-Western rhetoric and negatively affect bilateral relations.

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## DISCUSSION

### Introduction

1. AIDS could cause greater dislocation, death, and illness in Africa than any combination of famine, drought, or war. The World Health Organization estimates that so far at least 50,000 Africans have died of the disease, and another 2 to 5 million are infected with the human immunodeficiency virus (HIV) and are capable of transmitting the virus throughout their lifetime.

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2. Of those currently infected, a minimum of 400,000 to a high of 1.5 million could develop AIDS within 5 years, with death to follow soon after the clinical symptoms appear. Conservative estimates are that 20 to 30 percent of carriers will develop AIDS within five years of initial infection. Data suggest that the risk of progression from HIV infection to AIDS increases with time: an estimated 50 to 90 percent will progress to AIDS within 10 years of infection. Only time will tell whether infection invariably leads to AIDS.

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3. The scope and intensity of the AIDS pandemic in Africa are difficult to assess precisely. The vast majority of Africans do not have access to even the most rudimentary health care; disease surveillance systems and diagnostic equipment are grossly inadequate; and African governments' defensiveness and unwillingness to face the tragedy have so far largely overridden their responsibility to collect and report those statistics that do become available. Nonetheless, the progression of the pandemic can be broadly outlined from a limited number of small surveys and published medical studies.

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4. The rapid increase in AIDS and HIV carriers in the last five years is unquestioned. For instance, if we rely only on statistics from established medical organizations where scientific testing is available, the increase in diagnosed cases and carriers among only those patients with access to medical care is deeply troubling and represents only the tip of the iceberg.

— In Uganda, hospital physicians in Kampala did not see any AIDS cases in 1981; in 1984 they saw one or two cases per month on average; in 1985, one or two cases per week; and in the first six

months of 1986, one or two cases per day. 1986 data from blood donors at a Kampala hospital show that 12.6 percent of 2,000 young male donors were HIV infected, as were 13.5 percent of 1,000 women at a maternity clinic. Early indications from 1987 studies show that well over 20 percent of Kampala blood donors were infected, and among prenatal women the rate was about 24 percent.

— At University Hospital in Lusaka, Zambia, between August 1985 and December 1986 the number of referrals for persons suspected of having AIDS doubled every eight months, a total of 1,700 patients over the period. Hospital authorities estimate that there will be about 1,000 patients per month with clinical AIDS during the first half of 1987.

— In Kenya, blood tests confirmed 10 cases in 1984 among patients suspected of having AIDS; between 100 and 200 confirmed cases in 1985; and 400 cases in the first eight months of 1986 out of 1,200 patients tested. Among blood donors at Nairobi hospital, the number of HIV carriers increased from 1.2 percent in 1985 to 2.2 percent in 1986. A documented study of 90 prostitutes, a high-risk group, found that 54 percent were HIV infected in 1985, and that the same group is now 80 percent infected. Indications are that 4 percent of pregnant women at a large Nairobi maternity hospital were carriers.

— Only a handful of Zairians sought treatment for AIDS in Europe in 1982, but today the government-established research group, Project SIDA, estimates that 8 percent of the urban population are HIV infected, with a 2-percent infection rate in the general population.

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### Factors Contributing to the Rapid Spread of AIDS

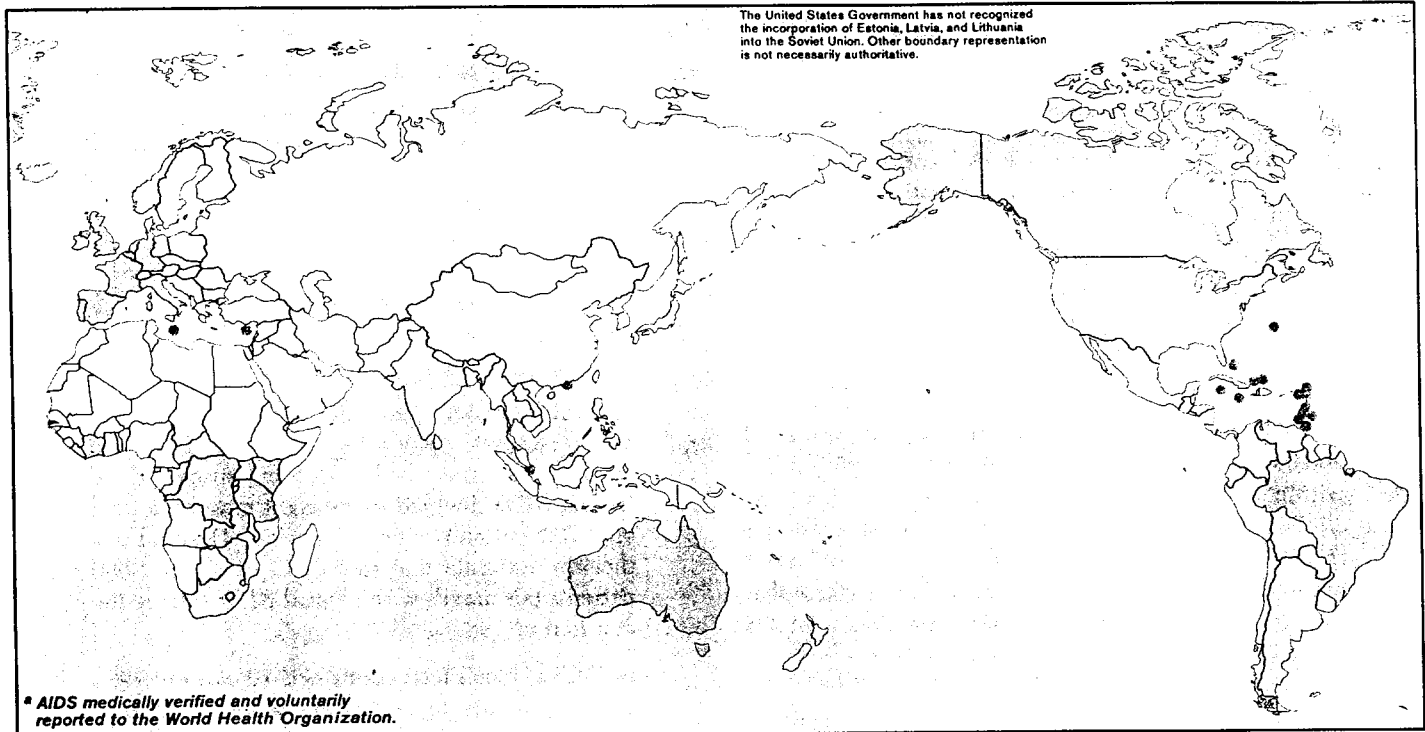
#### Sexual Mores and Cultural Factors

5. Heterosexual transmission is the major way the virus is spread in Africa, and the culturally traditional behavior of having multiple sexual partners increases the risk. Educational programs in some countries, such

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**Presence of AIDS Worldwide, 1 April 1987<sup>a</sup>**



<sup>a</sup> AIDS medically verified and voluntarily reported to the World Health Organization.

▬ Countries reporting 100 cases or more<sup>b,c</sup>

- Australia
- Belgium
- Brazil
- Burundi<sup>d</sup>
- Canada
- Central African Republic
- Congo
- France
- Haiti
- Italy
- Ivory Coast
- Kenya
- Mexico
- Netherlands
- Rwanda
- Spain
- Switzerland
- Trinidad and Tobago
- Uganda<sup>d</sup>
- United Kingdom
- United States
- Tanzania
- West Germany
- Zaire<sup>d</sup>
- Zambia
- Zimbabwe

□ Countries reporting fewer than 100 cases<sup>c</sup>

- Angola
- Antigua and Barbuda
- Argentina
- Austria
- Bahamas.The
- Barbados
- Belize
- Benin
- Bermuda
- Bolivia
- Botswana
- Cameroon
- Cayman Islands
- Chad
- Chile
- China
- Colombia
- Costa Rica
- Cuba
- Cyprus
- Czechoslovakia
- Denmark
- Dominican Republic
- Ecuador
- East Germany
- El Salvador

- Finland
- French Guiana
- Gambia.The
- Ghana
- Greece
- Grenada
- Guadeloupe
- Guinea
- Honduras
- Hong Kong
- Hungary
- Iceland
- India
- Ireland<sup>d</sup>
- Israel
- Jamaica
- Japan
- Lesotho
- Liberia
- Luxembourg
- Malawi
- Malta
- Martinique
- Mozambique
- New Zealand
- Norway
- Panama
- Paraguay
- Peru

- Philippines
- Poland
- Portugal
- Romania
- Saint Christopher and Nevis
- Saint Lucia
- Saint Vincent and the Grenadines
- Singapore
- South Africa
- Soviet Union
- Sri Lanka
- Suriname
- Sweden
- Taiwan
- Thailand
- Tunisia
- Turkey
- Turks and Caicos Islands
- Uruguay
- Venezuela
- Yugoslavia

<sup>b</sup> Number of cases reported range from 100 to 35,000.

<sup>c</sup> Due to lack of reporting and poor reporting procedures, the actual number of cases is much higher.

<sup>d</sup> Collateral data suggests high incidence of AIDS.

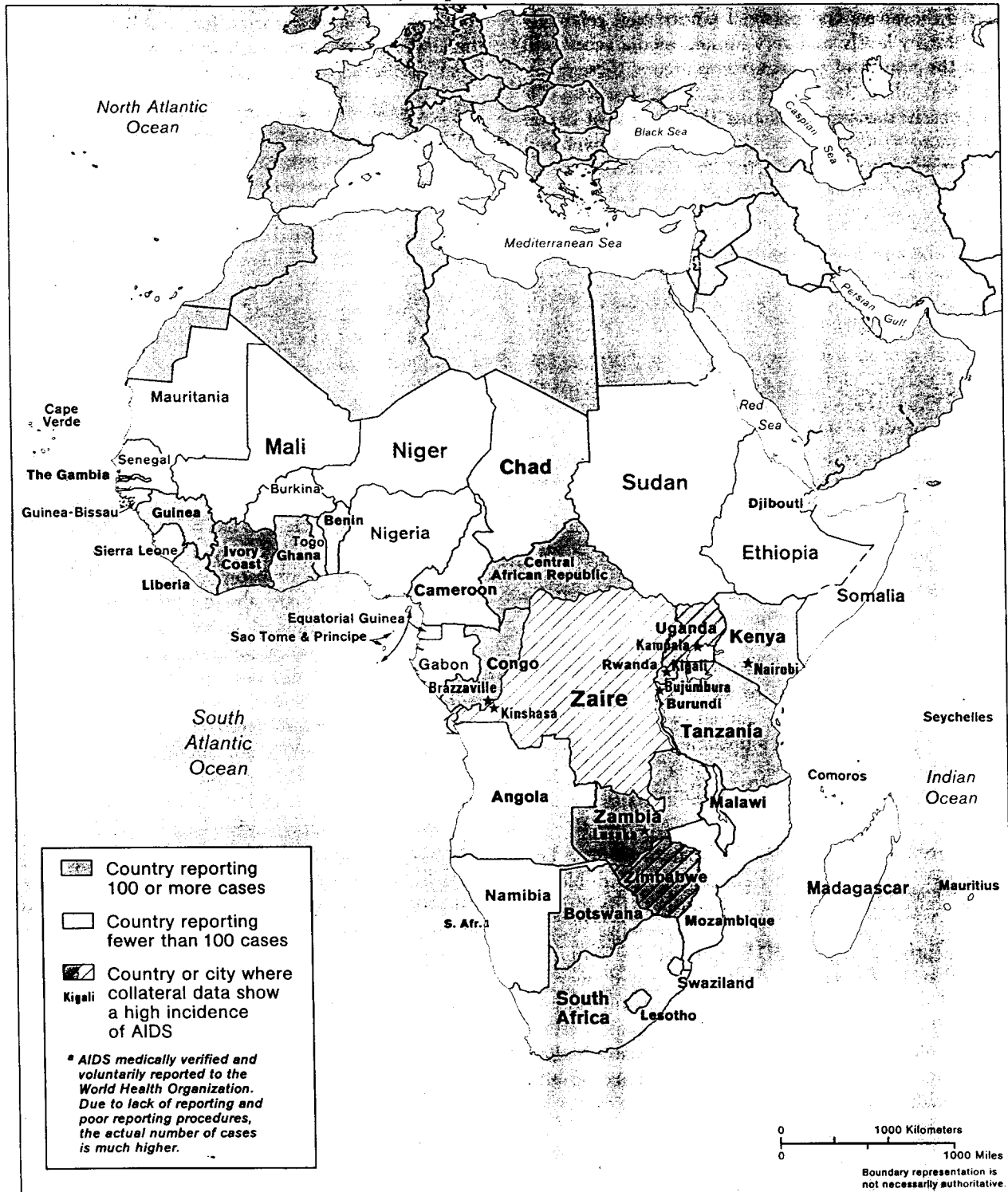
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**Presence of AIDS in Sub-Saharan Africa, 1 April 1987\***



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as in Congo, Kenya, Burundi, Uganda, and others, recommend limiting sexual contact to one partner. Openly addressing sexual behavior is new and controversial, however, and personal sensitivities, relatively low literacy levels, and very limited media access will limit the impact of the campaigns among those countries that adopt them. In Kenya, the release of a TV series early this year depicting the hazards of casual sex caused a storm of disapproval in parliament and the series was cancelled. Neither a medical breakthrough, nor a reordering of lifestyles, will come in time to change the worsening health crisis. (b)(3)

6. Condom use is perhaps the single best hope for lessening the catastrophic spread of the virus today. In many countries, however, condoms are associated with prostitutes, not with family relationships, making their universal acceptance difficult in the next five years. Only 1 percent of the world's use of condoms is in Africa. Even where there is a demand, they are often in short supply or unavailable. In Burundi a thriving black market in condoms has started, along with the sale of several "homemade" products of dubious reliability. (b)(3)

#### Inadequate Health Systems

7. Health systems are already grossly inadequate, and the further economic drain from the AIDS pandemic on financially strapped African governments will be profound. For most African countries, upgrading blood transfusion services alone is likely to cost approximately 30 times the annual per capita public health budget, according to a documented 1986 study. In Uganda, annual per capita spending on health care is \$1.60, roughly the cost of one preliminary blood test for AIDS. (b)(3)

8. Even though the costs of upgrading may be prohibitive in many countries, contaminated blood supplies rank as an important contributor to the spread of the virus. In Zaire, where blood screenings began only recently, a Project SIDA study at one hospital found that 10 percent of all blood donated over a period of one month tested positive; with a minimum of 2,000 transfusions per month, hundreds of new HIV carriers could have been generated. In contrast, the Rwanda Government ordered the screening of all blood donations in December 1985, and it now has a theoretically clean stock. (b)(3)

9. The costs of controlling the spread could be dwarfed by the bill of treating AIDS patients, and so it is probable that most will remain untreated. African governments and physicians will have to make difficult choices that are rooted in ethics. An official in

Zaire recently said on an internationally televised program that treatment of AIDS victims was out of the question if treatment of curable diseases were to continue. The cost of caring for 10 AIDS patients in the United States is greater than the entire budget of a large hospital in Zaire. (b)(3)

10. Health gains realized through vaccination programs and the acquisition of medicines by injection may be put in jeopardy. The fear that dirty needles spread the virus may lead to rejection of these medical services unless the lack of sterile needles can be overcome. In regional health clinics in northern Malawi, medical personnel say that "educated" patients, aware of the AIDS problem, insist on new needles for their injections, while syringes for "villagers" are dipped in boiling water and reused because of the short supply. (b)(3)

#### Effect of Other Endemic Diseases

11. Because the fundamental AIDS problem is the immune deficiency caused by HIV, infection by the virus leads to a worsening of endemic diseases. The survival time after diagnosis has been shorter in Africa than in Western countries, according to limited medical studies. This is probably because most people exposed to the virus are already medically compromised by malnutrition and various diseases, including hepatitis, malaria, schistosomiasis, tuberculosis, and sexually transmitted diseases, and because they seek medical help in the late stages of the disease. WHO reports that tuberculosis epidemics are occurring in areas where there are HIV epidemics. Acute malaria is often treated by blood transfusion because of severe anemia, raising the risk of HIV infection. Some treatable, slowly progressing cancers long known in Africa, such as Kaposi's sarcoma, take an aggressive fatal form in AIDS patients. Sexually transmitted diseases, especially widespread in African cities, may facilitate transmission of HIV by allowing the virus to enter the bloodstream through open genital sores. (b)(3)

#### A Second Virus

12. A second AIDS virus identified as HIV-2 could contribute to the wider spread of the AIDS epidemic, particularly in West Africa. French researchers have confirmed infection by HIV-2 in 30 West African patients, of whom 17 had AIDS. Although genetically different from the HIV virus found in other countries, HIV-2 is related and can cause AIDS. The emergence of HIV-2 vastly complicates vaccine development, and blood-screening tests will have to be modified to pinpoint the new virus. (b)(3)

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### A Description of AIDS and HIV

The geographic and biologic origins of Acquired Immune Deficiency Syndrome (AIDS) are not clear. Although serological evidence indicates that AIDS could have been present in Africa as early as 1959 and in the United States in 1977, the disease now known as AIDS was first noted in the medical literature in 1981. Several outbreaks of *Pneumocystis carinii* pneumonia and Kaposi's sarcoma, diseases usually seen only in persons with well-documented immune system compromise, occurred in previously healthy young male homosexuals in New York and California in the early 1980s. Early hypotheses on the cause of the syndrome centered on certain aspects of the lifestyle of male homosexuals, including use of recreational drugs and promiscuity. However, as more AIDS victims other than male homosexuals became known, circumstantial evidence pointed to an infectious agent, such as a virus, as being the cause of AIDS. (S)

Research conducted in the United States and France culminated in nearly simultaneous announcements from both countries in 1983 that a virus causing AIDS had been found. The agent was termed "lymphadenopathy-associated virus" (LAV) by the French, "human T-cell lymphotropic virus type III" (HTLV-III) by the Americans. Since that time, the agent also has been known as "AIDS Associated Retrovirus" (ARV), and most recently, "Human Immunodeficiency Virus" (HIV). HIV now has been accepted as standard terminology by most workers in the field. The nomenclature became more confused in 1986 by the discovery of two more human retroviruses in Africa. One, now called HTLV-IV, was found in healthy Senegalese, and the other, first called LAV-2, now HIV-2, was isolated from AIDS patients in West Africa. HIV-2 appears to cause AIDS, HTLV-IV does not. However, not all researchers are in agreement as to the relationship between these two viruses and AIDS. Also, other viruses have been isolated from monkeys in Central Africa, and genetic similarities noted between these monkey (simian) viruses and HTLV-IV point to the possible evolution of HIV from a simian virus. (S)

All agents associated with AIDS are retroviruses. The genetic information of these viruses is encoded in single-strand ribonucleic acid (RNA). In order for the virus to replicate and to become integrated into the chromosomes of an infected cell, the viral RNA first must be transcribed into double-strand deoxyribonucleic acid (DNA) by means of an enzyme, reverse transcriptase. This RNA-DNA flow of information is the

reverse ("retro") of most genetic message movement, and is the source of the virus' family name, "Retroviridae." (S)

This retrovirus family currently contains three sub-families with HIV provisionally placed in the *Lentivirinae* ("slow viruses"). The *lentivirinae* (and HIV) are characterized by a lengthy latent (incubation) period between initial infection and expression of symptoms. In the case of HIV, this incubation can last for years. The best current estimate is that 20 to 30 percent of HIV-infected individuals will progress to AIDS within 5 years of initial infection with HIV, and time will tell whether HIV infection invariably progresses to AIDS. Some authorities believe that an individual infected with either HIV or HIV-2 remains infective for life, regardless of whether AIDS symptoms are ever expressed. (S)

Although no consensus exists as to what actually triggers AIDS disease progression, most hypotheses include co-infection by another agent. Co-infection could activate the AIDS virus through continual immune stimulation. For example, samples of two groups having a high prevalence of AIDS (homosexual males in the United States and heterosexual males in Zaire) also were found to have a very high prevalence—90 to 100 percent—of hepatitis B, cytomegalovirus, and Epstein-Barr virus. Co-infection also could trigger AIDS progression via the immune system's own chemical communication system. HIV sequestered in T-lymphocytes could become activated when the lymphocytes respond to a chemical message indicating attack by another agent. (S)

Human genetic variability also could affect any AIDS activation hypothesis. Recent research indicates that an inherited factor may enhance either one's susceptibility or resistance to progression from HIV infection to AIDS. (S)

Prospects for development of either an effective cure for HIV infection or an AIDS vaccine in the near term are not good. The very nature of HIV makes the virus a difficult target. Not only does HIV sequester itself intimately in a vital portion of the human immune system, it is also genetically unstable. Although the situation is not hopeless, even optimistic medical authorities believe that any effective AIDS vaccine or therapy is at least five to 10 years away. Until then, prevention of AIDS will depend almost entirely on the effectiveness of public education programs and other measures designed to reduce risk of exposure to HIV. (S)

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13. It is possible that more HIV strains may be identified, or other transmission vectors discovered, which will add new complexities to control and prevention efforts. [redacted]

#### Prospects for Epidemic Spread

14. Clinical AIDS has an apparent 100-percent mortality, no preventive vaccine, and no cure. The AIDS menace is growing and out of control in many African countries. It will ravage the populations of central, eastern, and southern Africa, and probably will spread disastrously through relatively untouched West Africa. [redacted]

15. AIDS threatens sexually active 15-to-50-year-old males and females, nearly one-half of Sub-Saharan Africa's 466 million population. Rates of infection are rising, with little prospect that any method of intervention within the next few years will significantly slow the epidemic. The magnitude and progression of the AIDS disaster are alarming, and the future, at least for the next decade, appears grim. [redacted]

16. The number of HIV-infected people could grow to several tens of millions by the end of the century. The educated urban class is at high risk. WHO has informally calculated that Africa stands to lose at least 15 percent of its educated people to AIDS and AIDS-related illnesses in the next 15 years. Estimated rates for the cities and some high-risk groups indicate the intensity of the growing catastrophe:

- One out of five residents of Dar es Salaam, Tanzania, are estimated to be carriers, according to doctors at University Hospital.
- Researchers in Kampala, Uganda, warn that HIV infection has probably doubled every year for the past three years with possibly 1 million Ugandans infected; the sexually active urban population is estimated 25 percent infected; the Army tested 33 percent HIV infected; and HIV and AIDS prevalence may be the same in the countryside as it is in the cities.
- In Bujumbura, Burundi, infection rates have risen over the past year from 7 to 13.5 percent, according to Western researchers. Among 1,600 pregnant women at five hospitals, infection rates ranged from 12 to 30 percent.
- In Zambia, approximately 15 to 20 percent of the urban population may be HIV-infected, according to studies at Lusaka's University Hospital. Among 908 pregnant women, 8.6 percent were infected as were 93 percent of their newborn

children. Among high-risk male groups, Air Force officer blood donors were 35 percent infected, midlevel bank professionals were 25 percent infected, and, in one sizable study of infected men in the urban copperbelt, 68 percent of those infected were skilled professionals.

- In Kigali, Rwanda, the infection rate is an estimated 25 percent, up from 17 percent a year and a half ago, according to a Western research group. The Kigali researchers estimate that the above figures will mean astounding urban mortality in five to 10 years, and they further note the likelihood of increasing deaths from tuberculosis, hepatitis, and other diseases.
- Blood testing in Zimbabwe's cities resulted in estimates for urban populations ranging from a conservative 3.5 percent infected to highs of 17 percent in some areas. Over 50 percent of enlisted men, randomly selected from all Army battalions, were found to be HIV-infected in early 1987. [redacted]

17. The countryside, where infection rates are generally thought to be lower, may simply be three to five years behind the cities rather than somehow at less risk. There is little doubt that AIDS will advance into the rural areas. The advance will follow transportation routes and refugee and military movements. The lack of a capability to diagnose AIDS or test for the virus may lead to low recognition of the extent of the epidemic. In remote regions of Rwanda, the rate of 1.5 percent of a year ago has risen to 2.5 percent today, and along major roads to a high of 8.5 percent. Other countries also report an acceleration in the urban to rural spread, while anecdotal reports tell of some isolated communities in Uganda and Rwanda that have been nearly depopulated by AIDS. [redacted]

18. Increases in AIDS among infants and children can be expected. WHO estimates that at least one-half of newborns of infected mothers will be themselves infected, and that most will die within two years. Older children, previously thought to be relatively safe, are also at risk. In a northern Zambian town, a Western doctor estimates that 4 percent of 6-to-10-year-olds treated for cerebral malaria were infected by blood transfusions from relatives. Dirty needles used at clinics and for ritual scarring purposes also endanger children. [redacted]

19. It is unlikely that any country will be spared, and most are tentatively trying to address the problem. AIDS has already spread south to South Africa and to the islands of Madagascar and Cape Verde. Blood

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testing will start soon in Mozambique's provincial capitals and in all of Swaziland. Some refuse to acknowledge the magnitude of the problem. For example, Zimbabwean officials report 2 percent of blood donors infected, while medical officers privately estimate rates as high as 17 percent in some urban areas; 50 percent of a sample of Zimbabwean Army enlisted men tested HIV-infected. AIDS patients in Cape Verde and among South Africa's white population are primarily homosexual or bisexual, mirroring AIDS patterns in Western countries rather than their African neighbors; little is known of AIDS incidence in South Africa's black population. [redacted]

#### Complicating Factors

20. Present conditions are grim, and there is a strong probability that the scope of the epidemic is understated. Infection rates and cases of clinical AIDS could be much higher than have so far been estimated because of the lack of technical expertise and resources. Little is medically known about rural areas, where the majority of Africans live and where large numbers of cases could reasonably be expected to go undetected, both in countries with high incidence of the virus as well as in others that consider themselves so far unaffected. Epidemics of measles, tuberculosis, and other endemic diseases could well get a foothold in AIDS-weakened populations and spread quickly to others, raising the death toll immeasurably. [redacted]

21. The massive spread of AIDS into populous West Africa is a probability, given the presence of a new virus strain, contact with people from heavily infected areas, similar sexual mores, and a lack of urgency to start educational campaigns. The number of carriers and victims could be enormous in its large population and teeming cities, and it is no more prepared medically or economically for a health disaster than is central or eastern Africa. [redacted]

22. So far, West African countries have reported few AIDS cases, and little is known about possible HIV carriers. Ivory Coast has published the most sweeping data so far; a 1985 study showed 6.8 percent of 900 persons from all geographic regions were infected, 34 percent of 150 prostitutes, and 118 confirmed AIDS cases. Nigeria is opening blood screening centers in seven cities, and Niger, Ghana, Burkina, and others with few or no confirmed cases acknowledge the need for educational campaigns. [redacted]

23. Of increasing concern is the serious risk of HIV-related neurological disease. The future may show that neurological damage, which may occur without other symptoms of clinical AIDS, is one of the virus's most

destructive aspects. Infection of the central nervous system seems to be responsible for a variety of disorders that can be severe, including progressive memory loss, motor impairment, meningitis, encephalitis, psychiatric symptoms, and chronic dementia. Even without the full development of AIDS, increasing numbers of people—who may otherwise appear healthy—will be lost to the work force, and the managerial and decisionmaking ability of the bureaucracy and leaders could be seriously impaired. [redacted]

#### Implications

##### Africa

24. Affluence, mobility, and lifestyle have put a disproportionate number of elites at risk of infection. Most of the compact establishment in countries where AIDS is epidemic will be touched personally by the death of family or acquaintances. There will be little leaders can do in the short run to prevent AIDS or treat its victims. Some may lash out at the West for what they view as inadequate assistance, or become even more vulnerable to Soviet disinformation blaming AIDS on the United States. Governments' inability to stem the crisis and desire to find a foreign scapegoat could result in the rise of anti-Western, xenophobic religious or political movements. Existing ruling elites might co-opt such groups to further their political survival. (See annex: AIDS Disinformation Campaigns in Africa.) [redacted]

25. For young elites, a foreign education is now threatened by the AIDS epidemic sweeping through the African upper classes. Military and civilian students from Kenya, Uganda, Tanzania, Zambia, Zimbabwe, Malawi, and Zaire have been tested and sent home from Third World, Soviet Bloc, and Western countries. To avoid the perceived disgrace, leaders may curtail sending students abroad. The next generation of African leaders, cut off from wide exposure to outside ideas and methods, could become excessively isolated and embittered and carry these negative views into future dealings with the rest of the world. The attempt by some countries to restrict free international movement or disproportionately test Africans for AIDS will increase bilateral misunderstandings and add to leaders' concerns that Africans are being unfairly singled out. [redacted]

26. General commercial disarray could follow rising death tolls or incapacity in management sectors and further depress the economy. The concentration of AIDS in important mining, industrial, and population centers, and its probable spread to rural areas, will adversely affect trade, commercial activity, and agricultural production. The diminution of tourism—

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already down by 25 percent in Kenya after the Western media warned of the AIDS epidemic—will cause extensive economic damage in countries dependent on tourist revenues. [redacted]

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27. The rapid spread of AIDS also has important security implications for many African countries. The mission and capabilities of both the armed forces and internal security forces will be adversely affected by AIDS because of:

- Restrictions on the young male manpower pool.
- Loss of trained, experienced officers and technicians.
- Restrictions on military students going abroad for training.
- Restrictions on the number of foreign military advisers in-country.
- Restrictions on training and exercises with foreign forces.
- Aggravation of low morale and discipline problems.
- Problems with the military civic action role of some forces—they could actually contribute to the spread of AIDS to rural areas. [redacted]

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28. In addition, the rising incidence of AIDS could lead to both heightened tension within a state's borders and between African states. If AIDS breaks out in a particular area, travel restrictions could be imposed and certain regions of a country could become isolated, even quarantined. Potential border closings could result in tense political relations, diplomatic isolation, and the disruption of key trade and commercial links, all of which might engender a military response. [redacted]

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29. The long-range impact of AIDS will be devastating as the loss of today's productive population stunts future development. The demographics indicate that heavily infected countries will experience significant losses of economic and political middle managers, much of the urban and agrarian work force in some countries, and high proportions of their military personnel. Young mothers who have delivered in urban clinics and their babies have very high infection rates. If these estimated levels are found to apply to large numbers of women, the ensuing widespread illness and death could seriously undermine traditional families, which will need to bear the brunt of caring for the ill and dying as overburdened and underfunded health services struggle with the crisis. [redacted]

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### The Soviet Bloc

30. The testing and deportation of infected African students from Soviet Bloc countries have brought allegations of racial and political bias from African media. The Bloc countries have extensive training programs and scholarships for Africans. Their own fear of AIDS may sharply reduce any influence gained from such programs. Africans will bitterly resent efforts at social, especially sexual, ostracism, and mutual resentments and distrust will increase. Any Soviet benefits from its disinformation campaign—alleging that AIDS originated in the West as a biological weapon—may be undermined by their own actions. [redacted]

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31. Not only African government-sponsored students, but also members of African insurgent groups training in Communist Bloc countries and in Cuba are tested for the virus on arrival. Some insurgents admit the spread of the virus. [redacted]

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32. The Cuban demand for immediate quarantine of Africans arriving in Cuba until physicals can be given has been humiliating, and along with the entire testing program has led to rancorous media reports in both African countries and Havana. The Castro regime is especially vulnerable to domestic criticism of the connection between AIDS, Africa, and Havana's African adventures. Over 300,000 Cuban troops have served in Africa; many were put at risk of infection and pose a threat to their families at home. (S NF NC OC)

33. The AIDS pandemic will raise costs to Soviet, and especially Cuban, involvement in Africa, particularly if it becomes as widespread in the 1990s as we believe possible. It could eventually weaken Soviet and Cuban resolve to maintain current levels of advisers and troops in Africa, although there is no indication that the Soviet-Cuban commitment is wavering at this time. In 1986 the Soviet Bloc had 10,000 civilian technicians and nearly 4,000 military advisers in Africa, and Cuba currently has 37,500 military and 6,000 civilian personnel in Angola alone. Physical testing and quarantine for their returning nationals, and anecdotal and media stories that Angola and other African countries are the source of infection, may have increased reluctance to volunteer for African military service. Of course, these implications for the Soviets also apply to Western countries that test Africans on arrival or station their own personnel in Africa. [redacted]

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### The West

34. Controversies over mandatory testing of students, media stories that warn tourists of the dangers of AIDS in Africa, and putting high-risk cities off-limits

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to Western military personnel have already strained relations between some Western and African countries. It has been mostly Western researchers who have released detailed studies of the disease, often denied by African official spokesmen. African leaders have protested the tarnished image and economic penalties they say follow release of data on the prevalence of AIDS. With the crisis deepening, the intensity of such misunderstanding will probably increase. [redacted]

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**The United States**

35. The United States, along with other Western countries, will be asked to step up assistance to beleaguered Africa. However, development assistance resources are already scarce and the costs of upgrading low-level health systems in most countries are extremely high. The supply of basic health resources, such as condoms, syringes, and other medical goods will probably meet with cries for more far-reaching aid. Donors' calls for more openness and the collection of hard data will provoke African leaders, who believe such data are used against them. [redacted]

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36. US tourist, government, and business personnel are likely to face increased health dangers. Safe sexual practices are a major safeguard against HIV, but the risk of infection by contaminated blood transfusion or unsterile equipment during emergencies will be high. Some businesses may decide to cut risks to their personnel by curtailing or suspending operations in Africa. [redacted]

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37. Attempts to insulate Western societies from Africa's experience will serve to inflame anti-Western rhetoric, and may have a long-lasting effect on every aspect of Western-African relations. Negotiations by the West for military basing agreements, port calls, and aircraft landing privileges may become more contentious amid accusations, fed by the disinformation campaign, that Western and US military personnel carry and spread AIDS. The life and death struggle in Africa will push leaders to keep the loyalty of their populations by seeking a scapegoat. In the short term at least, the United States and Western countries appear to offer only the future hope for a vaccine or cure, while currently denying the massive assistance that would be needed to care for the victims and raise health services to developed-world standards. [redacted]

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## ANNEX

### AIDS Disinformation Campaign

#### Introduction

Moscow's AIDS disinformation campaign in Africa—part of a continuing worldwide operation begun in October 1985—took off in mid-1986. Employing a variety of anti-US themes, such as allegations that the United States was delivering AIDS-infected blood to African hospitals, Moscow's campaign has spread to 21 African countries through a variety of media—press, radio, television, magazines, handouts, and rumors. Soviet press organizations, TASS and Novosti, have been instrumental in circulating a variety of disinformation themes, and their efforts have been aided by a number of other means, such as a rumor campaign by Cuban officials in Cape Verde.

#### Themes

Drawing on its worldwide campaign, which claims that the United States developed and caused the spread of AIDS, Moscow's first African effort was an April 1986 radiobroadcast in English warning of the danger of AIDS-infected US servicemen from ships and airbases visiting Mombasa, Kenya. A variation of this theme appeared in conjunction with an April 1987 US-Zairian military exercise in which an English-language Moscow Radio broadcast to southern Africa reported that the United States was deliberately spreading AIDS in southern Zaire to test a new biological weapon.

Exploiting black African sensitivities to racism and so-called Western imperialism, Moscow has taken full advantage of regional fears, ignorance, and some careless Western statements in its efforts to provoke anti-US sentiment. For example:

- We believe Moscow probably had a hand in a campaign by a radical Nigerian youth group in July 1986 that resulted in "letters to the editor" of Kenyan, Senegalese, and Ugandan newspapers warning of AIDS-infected blood supplies from North America and Western Europe and charging that AIDS came from Fort Detrick, Maryland. The appearance of these letters before the July OAU summit may have been intended to add to the anti-US tone of the meeting.

- The most enduring contribution to the African—and worldwide—AIDS campaign has been a pseudoscientific study by East Germans Jakob and Lilli Segal and Ronald Demhlow, which appeared in Zimbabwe shortly before the Non-aligned Movement summit convened in Harare at the end of August 1986. The study asserted that AIDS could not have originated in Africa and was in fact the product of laboratory testing at Fort Detrick. Made available to a large Third World audience in Harare, this lengthy creation has since appeared in dozens of countries worldwide and been serialized for weeks in Tanzanian, Ghanaian, and other African newspapers despite frequent and repeated US denials of the Segal allegations.

- A Ghanaian newspaper reported in January 1987 that the United States intended to use Africans as guinea pigs to test AIDS vaccines.
- A Ugandan weekly newspaper in the same month alleged that CIA agents disguised as scientists and journalists were claiming that 10 percent of Ugandans have AIDS in order to prove that Africa, rather than the United States, is the source of the disease.

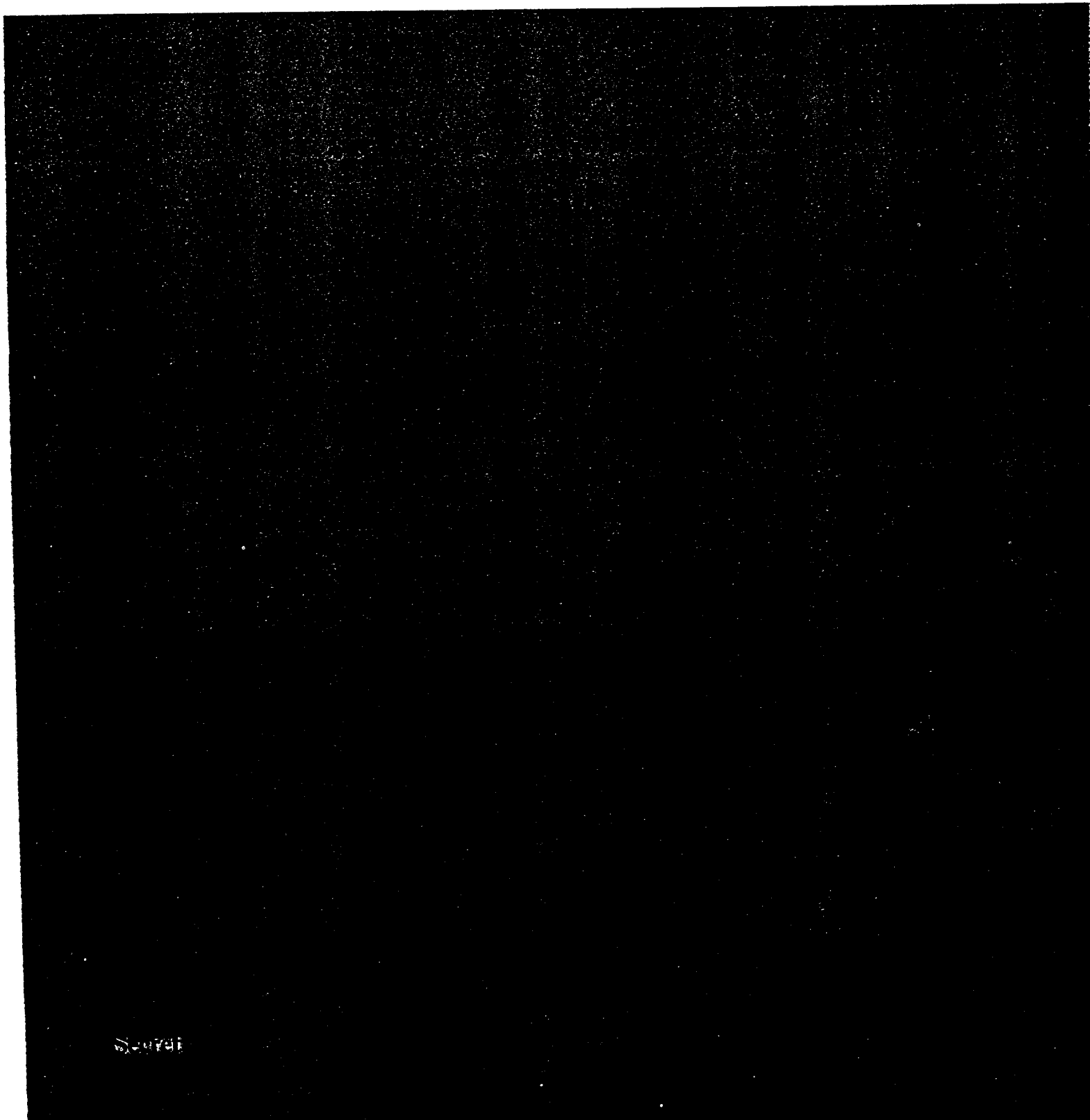
#### Implications

The Soviet AIDS disinformation campaign—like most Soviet active measures—has been highly opportunistic. In addition to introducing its own allegations, Moscow also plays back to Third World audiences events like the UK declaration of Kenya as off-limits to British military personnel on leave; this reinforces Soviet claims of Western racism and imperialism. Although there is no evidence that the AIDS fabrications have had any serious effect on African relations with the United States, a few press reports this year have focused on US military personnel and American tourists as sources of AIDS. We believe that the United States is vulnerable to an African backlash, much as Britain and others have been, not simply because of Moscow's campaign, but because of the high potential that US policy statements and media reports on AIDS will be seen by African audiences as being racially motivated.

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The Director of Central Intelligence  
Washington, D.C. 20505

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National Intelligence Council

29 May 1987

MEMORANDUM FOR: Mr. Stephen Danzansky  
Room 365, Old Executive Office Building  
National Security Council

✓ Ambassador Herman J. Cohen  
Room 373, Old Executive Office Building  
National Security Council

Mr. Eric Melby  
Special Assistant to the Undersecretary for Economics  
Room 7256, New State  
Department of State

FROM:

[Redacted]

Assistant National Intelligence Officer for Africa

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SUBJECT:

SNIE 70/1-87, Sub-Saharan Africa:  
Implications of the AIDS Pandemic (S)

1. Attached is a draft of the captioned Special National Intelligence Estimate that was coordinated by Intelligence Community Representatives on 27 May 1987. The National Foreign Intelligence Board is scheduled to approve this draft on 2 June--thus some minor changes are possible--but I thought that an advance copy might be of use to you because AIDS is on the agenda for the Venice economic summit.

2. Printed copies of the NFIB-approved Key Judgments with an annotated map of the epidemic's spread in Africa will be delivered to the NSC and the Secretary of State with the President's Daily Brief on Wednesday morning, 3 June, just before the President departs for Europe.

Att: As stated

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