Africa Begins to Face Up to AIDS

African nations, previously reluctant to acknowledge AIDS, are now engaged in international cooperation

Naples, Italy

Up to 5 million people may be infected with the human immunodeficiency virus (HIV) on the African continent, more than twice as many as in the United States. Two years ago, however, many African scientists boycotted the first international "AIDS in Africa" conference in Brussels, complaining that their countries were being unfairly stigmatized by the Western scientific community. Even a year ago, only 7 out of 43 African nations were prepared to submit official figures of AIDS cases to the World Health Organization (WHO).

During the past 12 months, the situation has changed dramatically. Thirty-six African states have now admitted the presence of almost 5000 AIDS sufferers, and each of these, including all countries south of the Sahara, are cooperating with WHO to develop AIDS prevention programs. Almost all have acknowledged that they could already be facing a serious short-term health problem which may, in the longer term, lead to severe economic and social disruption.

Many problems and tensions remain. Because many African nations lack needed financial and technical resources, a large amount of blood is still not being screened, even though transfusion is recognized as one of the major routes of HIV transmission. The official figures of AIDS victims are widely accepted as significantly understated. Details of transmission, in particular by migrant workers and prostitutes, are generating tensions between neighboring states. And relationships between Western scientists and African governments over which data can be publicly released are still far from harmonious.

Nevertheless, to judge by the substantial number of papers delivered by African doctors, epidemiologists, and research workers at the second "AIDS in Africa" conference, held here last month, there are at least considerably fewer barriers to communication than there were 2 years ago.

"A year is a long time in an epidemic, and many attitudes have changed in this time," said Bali Kapita, chief of internal medicine at Mama Yemo Hospital in Kinshasa, Zaire, who accused African governments at a meeting in Paris last year of combining "misplaced pride" with "willful silence".

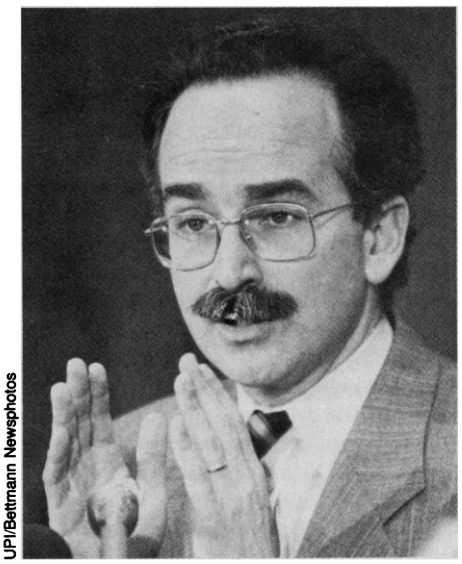
It is almost 4 years since the first reports of the presence of the AIDS virus in African populations were published in the Western scientific literature, the direct result of a search by scientists for clues about the possible origins of the disease. The African link soon generated some unflattering, and often inflammatory, headlines.

Tensions rose rapidly. Western scientists, concerned that little was apparently being done about what they felt would soon become a major epidemic, accused African governments of covering up the truth for fear of discouraging tourists. The governments in turn charged the scientists of obtaining and publishing medical and epidemiological data without permission—a "scientific black market" as one participant in the Naples meeting put it. Many also argued, at the time, that the problem of AIDS in Africa was being blown out of proportion.

Several factors have alleviated much of this mutual mistrust. One has been a growing awareness both of the potential size of the AIDS problem, particularly in parts of Central and Eastern Africa, where between 8% and 10% of some urban populations are now thought to be infected with the HIV virus, and of the rate at which the disease is spreading.

In Uganda, one of the first countries to admit to a significant AIDS problem, the number of known cases has risen from 17 in 1983 and 29 in 1984 to 1138 today. A. Ndikuyese from the University Center for Public Health in Butare, Rwanda, reported an "exponential increase" over the same period in his country, from 10 cases in 1983 to 705 at the end of 1986, 35% being children under 15. And one hospital in Zaire reports that a quarter of all its recorded deaths are now related to AIDS.

Spreading awareness of the likely social and economic costs of AIDS has permeated all countries. Because the most sexually active sectors of the population are also those who are most economically productive, many countries risk losing a significant proportion of both their white-collar and blue-collar workforce. In addition, costs of preventing the spread of the disease and caring for those already infected threaten to impose a heavy financial burden on countries that may currently spend less than $10 per head a year on health care.



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Jonathan Mann *is directing AIDS program for WHO.*

"Africa has the largest gap between the seriousness of the problem and the resources available to deal with it," says Jonathan Mann, director of WHO's AIDS program. "In that sense at least, we can say that Africa has the most severe AIDS problem of any part of the world."

Some factors have made it easier to discuss the problem of AIDS in Africa more openly than in the recent past. In contrast to Western countries, where AIDS is transmitted mainly by homosexuals and drug addicts, in Africa the spread of AIDS is identified almost exclusively with heterosexual practices, and with involuntary exposure to infection through blood transfusion.

This can itself give rise to different tensions. When Nathan Clumeck of the Univerity of Brussels suggested that one of the most important sources of infection were individuals with a large number of sexual partners, and that, among heterosexuals, these might be found more in African cities than in the West, he was immediately accused of unscientific speculation by one African health official.

However, the situation has been made easier by the fact that it is no longer possible to point definitively to Africa as the most likely origin of AIDS. "If the virus came from Africa, why were Europeans not contaminated by it before [people in] the U.S.?" asks Luc Montagnier of the Institut Pasteur in Paris. Montagnier claims that "the argu-

ments for placing the origins of the HIV virus in Africa are weak." And, hinting that new evidence may be made public shortly, he adds that "maybe we should look for [the origins] in another part of the world."

Finally, many of those attending the Naples meeting agreed that an important factor in raising an awareness of AIDS in Africa has been the activities of WHO. After a relatively late start, the Geneva-based organization is now committed to coordinating a world-wide fight against the disease with the same vigor as it led the campaign to eradicate smallpox.

Gottlieb Monekosso, director of WHO's regional office in Africa, admits that in many countries AIDS is still considered "far down on the list of health problems" when compared to more common diseases, such as malaria, measles, tuberculosis, and cholera. But, he says, recognition is growing that AIDS could become the "number one" problem within a few years. "We do not belong to another planet; we cannot afford to be the weak link in the chain of international efforts for AIDS control, which we are at the moment," he says.

An important part of the WHO program is its efforts to help each individual African country establish an effective prevention campaign. According to program director Mann, essential components include a national coordinating committee, an educational campaign involving doctors, health care workers and sociologists, and thorough epidemiological surveillance. The agency's current budget for its AIDS program is $20 million, and this is expected to increase next year to $50 million—most of it raised by special grants from member governments.

Some countries reported on national programs that are already being put into effect. I. S. Okware, for example, from the Ministry of Health in Entebbe, Uganda, described how his country has printed 3 million warning leaflets, opened 13 screening centers throughout the country, and imported 20 tons of medical equipment and supplies.

Others described the successes of grassroots prevention campaigns. Elizabeth Ngugi, who has been working with a group of prostitutes in Nairobi, Kenya, 80% of whom have been found HIV seropositive, said that the provision of free condoms, accompanied by "modest educational input," had resulted in a "dramatic increase" in their use.

However, the Naples meeting also demonstrated some of the many difficulties that remain before the problem of AIDS in Africa can be effectively tackled. One is the absence of cheap, reliable, and easy-to-use screening kits. Once HIV infection is suspected, a confirmatory test currently costs

One AIDS Problem or Two?

Does Africa have one AIDS problem or two? Ever since two separate research groups—one headed by Luc Montagnier at the Institut Pasteur in Paris and the other by Max Essex at the Harvard School of Public Health—each identified a second human immunodeficiency virus (HIV-2) early least year, a heated debate has taken place over how its biological effects compare to those of the previously identified AIDS virus, now known as HIV-1.

The debate has important implications for AIDS prevention strategies. The resources which an African nation devotes to screening for HIV-2, which is not necessarily detected by tests for HIV-1, may depend heavily on whether or not it is seen as a major threat to public health.

The Essex group has modified its initial conclusion that HIV-2 (or, as some prefer to call it, HTLV-4) is nonpathogenic. However, while now accepting that the virus can apparently cause AIDS, it argues that the association with the disease is "infrequent," implying that it may pose a considerably lower health risk.

The Montagnier group, in contrast, argues that this conclusion is premature. "Up to now, HIV-2 seems to be less pathogenic than HIV-1, but it could well evolve into something which is more pathogenic," Montagnier said in Naples last month during the second "AIDS in Africa" conference.

Evidence supporting the Essex group's conclusions was presented to the conference by Phyllis Kanki from Harvard. Epidemiological studies carried out in collaboration with scientists in France and Senegal, said Kanki, had revealed widespread HIV-2 infection in six West African countries, particularly in Guinea Bissau, Senegal, and the Ivory Coast (although none in seven Central African states).

However, the presence of the HIV-2 virus had a much lower correlation with AIDS symptoms than that of HIV-1. A study of prostitutes known to carry the HIV-2 virus in Dakar, Senegal, showed that after 2½ years none had developed generalized lymphadenopathy or any of the other signs or symptoms usually associated with AIDS; a similar study in Kenya of HIV-1–infected prostitutes found that 47% had developed the symptoms within 1 year.

"In population studies, we have failed to find an overt difference between disease groups and healthy patients exposed to the [HIV-2] virus," said Kanki. In tuberculosis patients, for example, up to 50% of whom in Central and East African countries have been shown HIV-1 seropositive, there was no significant difference from HIV-2 control cases. "We believe our studies show some of the differences that may be important in the biology of HIV-1 and HIV-2."

Similar conclusions were drawn by S. M'Boup from the Hospital le Dantec in Dakar. He reported finding only 0.1% seroprevalence for HIV-2 among hospital patients in an area of the country where the general prevalence of the infection among high risk groups was 40%. The studies, seemed to show that HIV-1 was "more pathogenic" than HIV-2.

Others attending the meeting, however, warned against excessive complacency about HIV-2. Jonathan Weber of the Institute of Cancer Research in London said that LAD symptoms had been discovered in prostitutes that had crossed from Senegal into neighboring areas of Gambia, in apparent conflict with Kanki's results.

Others stressed that it was important not to ignore the HIV-2 virus, whatever its pathogenicity turned out to be. "In several parts of Africa, we have found that HIV-1 screening fails to detect some HIV-2 infections, and there is therefore a need for HIV-2 [as well as HIV-1] screening in some countries," said Alain Georges of the Institut Pasteur in Bangui, Central African Republic.

There could also be some important implications for prevention strategies. Weber reported test results showing that although human sera from HIV-1 patients had not neutralized HIV-2 isolates, some HIV-2–specific sera were found to cross-react, and to neutralize not only HIV-2 isolates, but also HIV-1 isolates. In other words, a vaccine aimed at HIV-2 might provide protection against HIV-1, although the reverse may not be true.

As for the possible origins of the HIV-2 virus, Gerard Saimot from France's National Institute of Medical and Health Research (INSERM) suggested there was a possible link with former Portuguese colonies, such as Guinea Bissau, Cap Verde Islands, and Mozambique, and that the virus could have been carried from one colony to the other by Portuguese traders or members of the armed forces. ■ **D.D.**

about $20, more than the annual per capita spending on health care in many countries.

The lack of cheap tests is one of the main reasons that, away from urban centers, much of the blood used for transfusions is still not being screened. As Monekosso put it, a Westerner who breaks a leg in Africa and needs a blood transfusion faces a difficult choice between going to the local hospital "or dragging yourself to the airport."

Several tests are being scrutinized to see if they meet the stringent requirements that have been laid down by WHO. According to Thomas Quinn of Johns Hopkins Hospital in Baltimore, results with the latex agglutination slide-test have been "quite pleasing." But the present cost of $2 is, he says, still "too expensive," adding that WHO might play a role in negotiating a lower price with its manufacturers.

Special problems of prevention, according to several speakers at the Naples meeting, arise as a result of traditional social practices in some African countries. In many cases, the disease has arrived in remote rural regions as a result of the tradition that the widow of a dead man—who is, in the case of AIDS, herself highly likely to be a carrier of the virus—is supposed to return to her native village.

The problem of treatment of known AIDS sufferers is equally pressing. Particular difficulties arise, for example, when the sufferers are prostitutes who have come from a neighboring country, and are therefore unlikely to be received sympathetically.

Lurking in the background are the political tensions which, many observers fear, could become exacerbated as the disease strengthens its grip on impoverished countries. In many of these, according to Mann, it already threatens to reverse all improvements in health care—in particular in infant mortality—that have been achieved over the past decade, and to become the leading cause of death in the 20–40 age group.

Three pressing needs stand out in this bleak picture. "There is nothing we need more than basic scientific knowledge which has been checked and rechecked by research workers" said Monekasso of WHO. "What we need is a combination of strong national programs and strong international leadership, stimulation and coordination," says Mann of WHO. Perhaps most difficult is the need, for Western scientists to see Africa's problems through African eyes. The next conference is already planned to take place in Arusha, Tanzania next September, by which time, it is hoped, significant further progress will have been made in this direction as well as in treatment and research. ■

DAVID DICKSON

Is the Time Ripe for Welfare Reform?

New social science research is providing a sounder base for policy change, although new legislation may have to await a new Administration

EVERYBODY thinks the welfare system needs to be reformed. But this year has been the first since the days of the Carter Administration that comprehensive new initiatives have come under serious scrutiny. There are now signs of a bipartisan consensus on the direction change should take; also, a new generation of research on welfare is supplying more reliable information than has previously been available.

Bills introduced in the House and Senate last summer would revise the Aid for Dependent Children (AFDC) program, which is the biggest piece of the welfare picture that is targeted to the non-elderly and non-disabled. The House is expected to vote soon on a measure that is being incorporated into this year's budget reconciliation act. The much-touted Senate bill, authored by Daniel Moynihan (D–NY), will probably not see action this session.

The AFDC program affects 11 million people, almost 8 million of them children. The proposed measures incorporate conservative themes about self-sufficiency and parental responsibility into a basically liberal program by requiring job training for mothers of children over the age of 3. In addition, the Moynihan bill would introduce tough new measures for obtaining child support from absent parents.

Many people believe that major reforms of the welfare system stand a better chance of being enacted in the foreseeable future than at any time in the past generation (although probably not before the end of the Reagan Administration). Policy-makers from both ends of the political spectrum are increasingly united in the idea that receiving support from the state should entail some sort of responsibilities and obligations on the part of recipients. Liberals and conservatives have both yielded some ground—liberals are coming around to the notion that mothers of young children should be required to work, and conservatives are backing off from their contention that the program is riddled with fraud and abuse and only serves to foster dependency.

At the same time, new social science research on AFDC, produced within the past 5 years, is contributing some of the groundwork to the proposals. Although such research generally does not carry much weight unless it is compatible with prevailing political trends, in this case it has provided new information to limit the parameters of debate and bolster certain elements.

For example, recent studies have supplied the first reliable data on certain aspects of the AFDC population—particularly factors associated with long-term dependency and routes of "escape" from welfare. New research is also demonstrating that required work and training programs have a modest but significant effect on employment and income.

Although abundant recent publicity on welfare gives the impression that the welfare population, and particularly its proportion of young, unmarried mothers, is growing by leaps and bounds, the situation has, in fact, remained relatively stagnant since the mid-1970s. The number of people on AFDC has stayed static, primarily because benefits have shrunk in real terms by about one-third. Among blacks the proportion of women who bear children out of wedlock has grown, but the actual birthrate among blacks, as well as whites, both married and unmarried, has fallen.

One milestone of the new interest in welfare reform is a book, *Losing Ground: American Social Policy 1950–1980*, written by conservative theorist Charles Murray of the Manhattan Institute for Policy Research, who makes the case that social welfare programs of the past two decades have had no effect on poverty but have actually increased dependency by rewarding it. Although the text has been thoroughly lambasted by liberals, it has supplied a coherent and highly influential conservative critique in an area that, according to Robert Reischauer of Brookings Institution, "was pretty much the