

THE NEW YORK TIMES, 19 September 1990

# Uganda Confronts Reality of the Overwhelming Spread of AIDS

By ERIK ECKHOLM

Special to The New York Times

KAMPALA, Uganda — "It all started as a rumor," Dr. Sam I. Okware, a senior health official, said of hazy reports in 1982 that a new affliction was causing Ugandans to waste away. "Then we found we were dealing with a disease."

"Then we realized it was an epidemic," he continued. "And now, we've accepted that it's a tragedy."

Dr. Okware was describing a process hauntingly similar to the stages, from denial to acceptance, that people go through when they learn they have a fatal disease. But he was describing an entire country, one that perhaps more than any other has begun to confront the meaning of

wholesale invasion by a deadly, sexually transmitted virus.

Uganda's AIDS epidemic may be no more enormous than that in several other countries, but it seems to have started a bit earlier. More important, the country has for years been one of the most forthright in acknowledging the crisis.

As a result, in its problems and in its thinking about AIDS, if not always its carrying out of programs, Uganda is a bellwether for Africa, a case study of the future. The strange new questions Ugandans are brooding over will soon preoccupy people in many countries.

## Long Poverty and Warfare

Kampala is already a city where, as a secretary said, "everyone is scared," a city where a roadside coffin maker says he sells more of his product for burying young adults than the elderly.

"When you go out in the evening for a chat with your friends," said Robert Sempagala, a graphic artist in his 20's, "you talk about the most recent death. It's very regular now."

When someone dies in southern Uganda, a woman in Masaka said, "you don't have to ask why." In many villages there, almost-daily AIDS funerals are becoming a major burden.

Coping with death on a large scale is nothing new in a country of acute

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poverty struggling to recover from 20 years of ruthless rulers and civil wars. There is no doubting, as President Yoweri K. Museveni has stressed in his frequent references to AIDS, that the society will survive this calamity too. The streets of Kampala remain vibrant.

But if death is familiar, the silent infection of a large share of the healthy with an incurable virus is a new kind of plague.

The Government estimates that a million Ugandans of a total of 16 million are infected with the AIDS virus. That is one of every

eight people 15 years old and over nationwide, men and women from all sectors of society. In the United States, a comparable rate would mean 25 million infected people, instead of the estimated one million.

In Kampala, close to one in four adults carries the virus, an infection level that several other African cities appear destined to reach if they have not already.

Among literate Ugandans, at least, the awesome implications are beginning to register. Terrifying issues arise, questions about testing and behavior and planning that few groups anywhere, except perhaps gay men in cities like New York and San Francisco, have had to confront with any real urgency.

The Government has urged people to "love carefully," and many young people say they want to marry early. A women's legal-aid group has even called for reducing traditional bride prices to make it easier.

But some people are starting to realize that given the infection rate, even marriage carries risks. And they agonize over the possibility that they might already be infected. Some say they have entered a frightened celibacy, afraid to date or marry. The issue of personal testing for the AIDS virus, not widely considered until now in Africa, is on many minds.

"Unless I find someone who will agree to go together with me for an AIDS test, I won't get married," said John Matovu, a student at a technical college here who has had one brother die and "so many cousins, nieces and nephews."

Like other African governments, Uganda has not encouraged AIDS-virus testing, arguing that it would only demoralize people who could not be helped. And most people in Kampala who make blood donations, for example, still say they do not want to know their result.

But the resistance is fading as counseling services, developed by private groups, spring up. An enormous pent-up demand was revealed in February, when Africa's first anonymous testing site opened in Kampala.

The AIDS Information Center, in the basement of a downtown office building, sees 90 clients a day, six days a week. Anxious young men and women crowd its hallways, waiting to be counseled and leave a blood sample, or to hear the results that may ruin their lives.

"More and more people want to know their status," said Lydia M. Barugahare, director of the center, which was established with help from the United States Agency for Inter-



"We've accepted that it's a tragedy," said Dr. Sam I. Okware, a senior health official in Uganda, of the AIDS epidemic.

**national Development and the Experiment in International Living, a private American aid group.**

The center insists that testing remain totally anonymous and voluntary. But sometimes, Mrs. Barugahare said, she must fight for those principles. Prospective sisters-in-law, for example, may bring in a young woman, demanding that she be tested before their brother marries her.

"We send them away, and see if the girl really wants to be tested," she said.

The center has also rebuffed requests from priests who say they will not marry couples unless they get tested.

One advocate of voluntary testing is Noirine Kaleeba, founder of TASO, the AIDS Support Organization, a private group that helps patients and trains counselors.

"We feel that if people know early, they will make responsible choices, and they can also take better care of themselves," said Mrs. Kaleeba, whose husband was an early casualty of the epidemic.

If widespread premarital testing does catch on, an inevitable new social problem will come more clearly into focus. Many of those found infected may still face 5 or 10 years or more of reasonably healthy life. Whether their status is public or secret, they will form a stranded caste of unmarriageables in a culture where marriage and family mean everything.

With such a big slice of society infected and destined to fall ill, some leaders are thinking hard about how to maintain morale, of the victims and the survivors.

## Urging the Patients To Go On With Life

While doctors here have precious little to offer AIDS patients, TASO and other groups have promoted "positive living" for those diagnosed with AIDS or the viral infection. In counseling, patients are told that though their infection is incurable, they may have years of productive life if they adopt healthy habits and keep a positive outlook.

"Positive living is a form of ideology," said Dr. Sam Kalibala, a 30-year-old doctor who helped form a TASO branch in Masaka. "It's a force that gives them a reason for living. They begin to care for themselves, they aren't so depressed, and they begin to eat better."

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*More special reports about AIDS in Africa will appear in the coming weeks.*

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Otherwise, many patients give up too soon, he said, adding, "They see their partner has died, and they think, 'I don't want to live.'"

If fatalism reigns among the public, officials fear, prevention programs will be undercut as well.

"Many of my friends think 'I probably already have it, or eventually I'll get it anyway, so what's the use of changing,'" said Deusdedit Kayemba, a student at Makerere University.

As Mr. Kayemba's comment suggested,

fear of AIDS does not always produce safe behavior. Uganda, in 1987, was the first African country to start a major anti-AIDS education campaign, using posters, radio, schools and pamphlets in 22 languages. The campaign is pervasive and awareness seems universal, but no one knows how much difference it is making.

There are many hints of real change. The notorious nightclubs and pick-up bars of Kampala have lost their luster, with men and women sometimes sitting at separate tables talking quietly among themselves. Once rowdy nights in AIDS-infested truck stops like Lyantonde, on the highway from Kenya to Zaire, have given way to almost placid evenings. Many young people say they are



"We feel that if people know early, they will make responsible choices," said Noirine Kaleeba, who founded TASO, the AIDS Support Organization, in Uganda.



# Medicine and Soothing Talk In the Houses of the Dying

By **ERIK ECKHOLM**

Special to The New York Times

MASAKA, Uganda — On a recent day Maureen Nakimera, a social worker from an AIDS support group, visited several clients in their homes in the countryside. Her aims, she said, were "to see how things are going, what their needs are, and if the family is O.K."

Here in southern Uganda, a fertile rolling land of green banana trees and deep poverty, is where AIDS was first noticed in the country, in 1982. Along with adjacent areas of Tanzania, this is one of the places hardest hit by the disease. A recent survey in Rakai district, just south of Masaka, found 12 percent of adults in rural villages and 35 percent in market towns infected with the AIDS virus.

Medical services are scarce in this backwater, and hospitalization is in any case no answer for those dying of "slim," as AIDS is known here. In an approach pioneered by St. Joseph's Catholic mission hospital in nearby Kitovu, the AIDS support group, called TASO, has started sending medical and social workers out to patients' homes. They provide medicines, social aid and, above all, soothing talk.

Sometimes the needs are simple. Relatives may be happy to provide care but cannot afford a blanket or soap. Other problems are more complex: finding guardians for soon-to-be orphaned children, or helping pay the \$60 to \$100 in fees to keep them in school.

## The Visit Itself Helps

For one of the clients this day, a frail woman who coughed violently on her bed, the unexpected visit was heartening.

"I was so worried," she said. "I thought you had left me." The patient was in her father's home, the mud walls adorned with pictures of Mary and Jesus.

The talk was not about illness but about the fate of the children. The patient's mother, who lives in a village to the south, had traveled here to try to sort things out.

The patient, who is 36 years old, had two daughters by two men, both of whom died of AIDS. When her husband died, his relatives took all the property. The 7-year-old, by the other man, is with her father's relatives. The 5-year-old is with the patient's sister, but there is no money, the grandmother said.

"Can't TASO just take the girl?" the

grandmother said.

"We can't," Mrs. Nakimera said. "Maybe, if we get more money, we can help pay school fees."

## Finding Reasons to Laugh

A second client, in another nearby town, sat on the floor of her attractive brick house, a 1-year-old girl at her breast, another little girl in a ragged white dress at her side. She and the nursing baby are both infected with the AIDS virus; the husband died of AIDS last year. Mrs. Nakimera gave her an antibiotic for the baby and, as with all her clients, made a point of touching her as they talked, and finding reasons to laugh together.

A friend in another town had just died of AIDS, the woman said. Though she is feeling weak, she said, she would travel to the funeral the next day.

Her husband had three wives, all of whom are infected, and a total of 18 children, one of whom has died of AIDS. None are in school.

The woman pointed to the house with pride, and Mrs. Nakimera explained.

"Her husband built it when he was already sick, whenever he had the strength to work," she said. "He really struggled, at his last stages, to finish this house."

## 13 Orphans Left Behind

A third client is a sick boy of 8 who has lost his parents. He lives with his grandmother and an uncle. Mrs. Nakimera checks to see whether he is getting food, and provides some cream for his skin rash. The uncle is the sole surviving child of the grandmother; two other sons and one daughter, the sick boy's mother, have died of AIDS, and so have their spouses. Thirteen orphans were left behind.

The surviving son, who is 44, has two wives and 15 children. The man drove a taxi, but, he said, he used up all his money caring for his sick siblings, and now a broken-down car sits amid the banana trees and sweet-potato plants that feed the family. Not one of those 28 children is in school.

So the day went, one client's story more difficult than the last, a routine day's work in a place where extremes of distress have become commonplace.

"I sometimes get depressed," Mrs. Nakimera said. "But I don't think this effort is wasted. Everyone must die sometime."



REACHING OUT

*Maureen Nakimera of TASO, the AIDS Support Organization, visits a 53-year-old patient in his home near Masaka.*

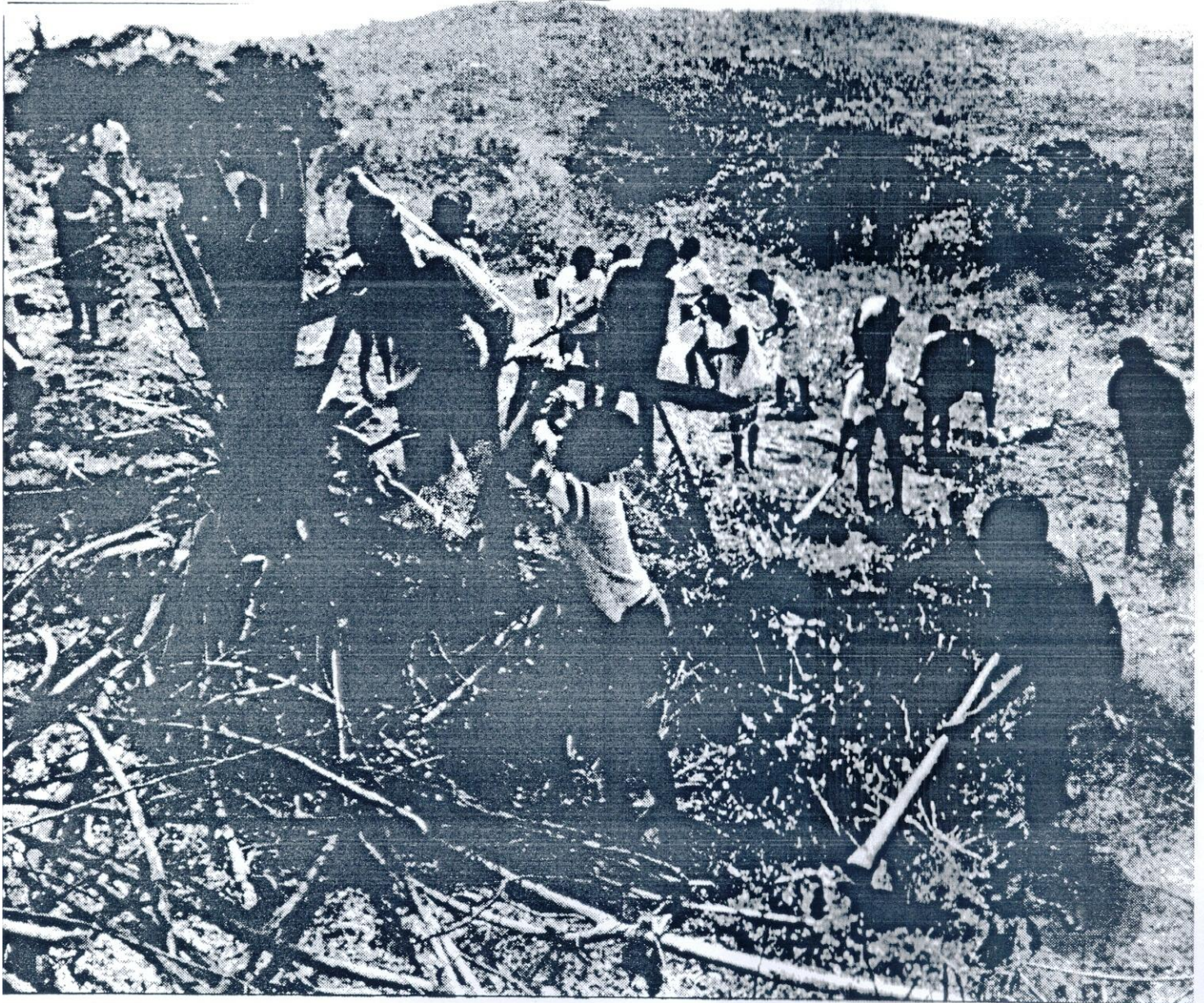
ARMY IN PERIL

*Soldiers, considered at high risk, have been a focus of AIDS education.*



ORPHAN AID

*Orphaned children who live with relatives and receive help with school fees work together on a farm project.*



# Scenes From Uganda's Struggle

Photographs by Sara Krulwich

## A GRIM BUSINESS BOOM

*A roadside coffin maker  
says more of his product goes  
for young adults than for  
the elderly.*

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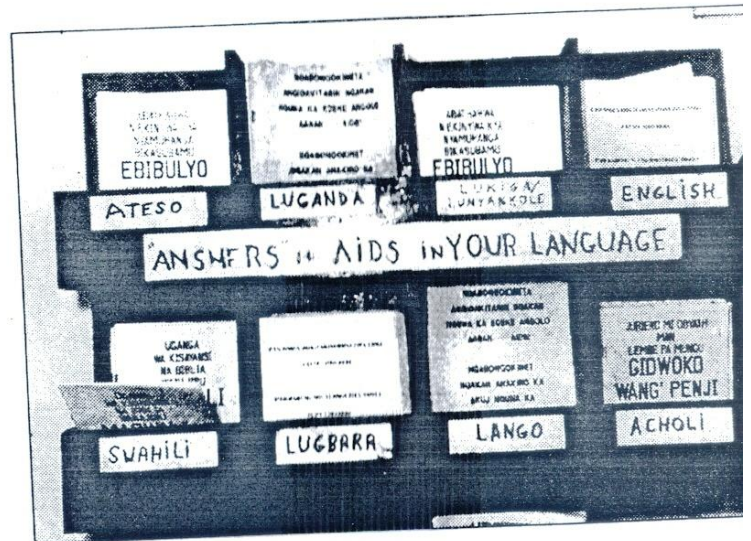


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**HIGHWAY OF DEATH**

*Truck drivers have been prolific spreaders of AIDS along the Pan African Highway.*



**THE LANGUAGE BARRIER**

*Educating Ugandans about AIDS is complicated by the large number of tribal languages.*



# With 'Social Marketing,' Condoms Combat AIDS

By JOHN TIERNEY

Special to The New York Times

KISANGANI, Zaire — Vangu Tsumbu, a former auto-parts salesman, arrived a recent morning to distribute condoms for one of Africa's most successful AIDS-prevention programs. He came as part missionary, part capitalist — a promising blend, although one that has been in disrepute around here since Joseph Conrad found the "Heart of Darkness" near the waterfall.

It was a century ago, in September 1890, that Conrad reached the end of the line on the 1,000-mile trip up the Congo River. He came here to retrieve a dying man named Klein, an ivory agent for a Belgian company that claimed to be working solely for the "moral and material regeneration" of the jungle's natives.

## 'Vilest Scramble for Loot'

Conrad saw it differently. He stood on his steamer's deck at night smoking a pipe, listening to the waterfall and morosely reflecting, as he later recalled, on "the vilest scramble for loot ever to disfigure the history of human conscience."

In his story, the company's inner station became the "Heart of Darkness" and Klein became Kurtz, the proselytizer from the International Society for the Suppression of Savage Customs who turns into the Congo's

## A Continent's Agony

Third of four articles.

most zealous ivory collector. He takes to decorating the station with the skulls of uncooperative natives, which even his profit-conscious regional manager finally acknowledges to be an "unsound method."

## A More Refined Technique

Mr. Vangu, who reached Klein's riverbank by airplane and dugout canoe, brought a more refined technique for inducing behavioral change. He was using an innovation called social marketing, one of the many strategies in the vast effort to stop the spread of AIDS in Africa.

The basis of all the strategies is education, which is taking place in the press, churches, medical clinics, workplaces and schools. The AIDS message has been featured in a Zambian comic book and a Zairian television mini-series, on billboards in Benin and T-shirts issued by the Ugandan Army. Dozens of governments are regularly preaching to their citizens about proper sexual behavior.

Mr. Vangu shared this public-spir-

# 'Social Marketing' of Condoms Helps Combat AIDS in Zaire

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ited desire to enlighten, but he also had some private financial concerns as he summoned the villagers living near the waterfall. They emerged from mud huts and climbed down from the lattice of poles in the rapids where they fish with rattan baskets.

"Do you know there is a new disease for which there is no cure?" Mr. Vangu shouted above the roar of the water. The villagers nodded. They had heard about AIDS and knew it was being carried upriver by people on the barges. But they looked skeptical when Mr. Vangu announced that sexual monogamy was the best way to avoid it.

"That is difficult," one fisherman replied. "If a man eats nothing but cassava leaves day after day, imagine what will happen when he sees a new food."

## Demonstrating In 'Friendly Ambience'

Mr. Vangu could well imagine. He reached inside his plastic bag to pull out a box of condoms. To be precise, he pulled out a point-of-purchase gravity-feed dispenser containing 15 widely advertised packages with a name, logo, color scheme, slogan and price determined by market surveys, focus-group sessions and customer-intercept research.

"This is Prudence, an excellent brand that will protect against AIDS," Mr. Vangu said. He pointed out the logo of the black panther and demonstrated how to open a packet without ripping the condom. Then, to complete the demonstration and create what Mr. Vangu calls "a nice friendly ambience," he flourished a cylinder of brown wood with arresting anatomical detail.

The men gathered in closer and shooed away the giggling barefoot children. Mr. Vangu patiently showed how to apply Prudence, held up the sheathed wood, and pointed downstream toward Kisangani, the town formerly named Stanleyville.

"You will find this in all the stores — at a price anyone can afford!" he announced just before the men mobbed him for free samples. Then Mr. Vangu, a salesman working on commission, set off looking for more customers for the country's fastest-selling condom.

Until Prudence was introduced three years ago, the total number of condoms of all brands given away or sold in Zaire was perhaps 500,000 a year. Last year 4 million Prudence condoms were sold, and this year sales are expected to exceed 9 million. Zairians are starting to use Prudence as a generic term for a condom, just as they call any ballpoint pen a Bic.

Prudence's success, which is inspiring similar programs across the continent, has nothing to do with the quality of Mr. Vangu's condoms. It has to do with the marketing campaign run by PSI, a nonprofit American company distributing the condoms in cooperation with Zaire's national committee on AIDS.

Mr. Vangu's product came from the world's most generous donor of condoms, the United States Agency for International Development. Since 1968 A.I.D. has given 7 billion condoms to developing countries, but it is anybody's guess how many have actually been used.

## Many Condoms Have Been Lost

The consultants and officials distributing those condoms all seem to have tales of vast quantities that were sent to governments and ended up decaying in warehouses. Some were pilfered or forgotten. Sometimes there were no government trucks to deliver the condoms, or no fuel for the trucks, or no passable roads to clinics in remote villages, or no one at the clinics to hand them out.

The distribution obstacles might have seemed insuperable except for a fact that struck some public-health experts visiting rural clinics. No matter how primitive the country's infrastructure, no matter how remote the region, down the road from the clinic there was always a villager distributing imported soft drinks, cigarettes and beer.

Why not subsidize that enterprising villager to sell something healthy? The concept was called social marketing, a blend of philanthropy and capitalism based on the premise that it is often easier to sell something than to give it away.

Not surprisingly, this idea caught on most quickly among officials in the nation that sold the world Coca-Cola. America is sponsoring social marketing programs for condoms and other products, such as oral rehydration formula for children, in dozens of countries, exposing them to Madison Avenue's latest techniques.

In Zaire, A.I.D. has paid for market re-

search and a promotion campaign, and by donating the condoms it enables wholesalers and merchants to sell for a low price while still making a profit. A dozen Prudence condoms cost the equivalent of about 35 cents, less than half the price of a bottle of beer.

"Social marketing is the ultimate answer for many of Africa's health problems," said Peter Lamptey, a Ghanaian doctor who is the director of Aidstech, a program financed by A.I.D. that oversees projects around the continent to control AIDS. "Poor countries can't afford to give away enough condoms for everyone. Social marketing recovers some of the costs, and it shifts health care away from the public sector, which tends to be the least efficient part of their economies."

## Signs of Progress: Sales and Awareness

No one knows precisely what effect Prudence is having on Zaire's AIDS epidemic — in a country of 30 million, 9 million condoms a year can only do so much — but the sales figures are one of the few clear signs of progress against AIDS in Africa.

Another sign is the widespread awareness of the disease. Just as Mr. Vangu discovered among the villagers at the waterfall, surveys show that the vast majority of Africans have heard about AIDS and know that it is being transmitted sexually. Several years ago, by contrast, many Africans and their governments were denying that AIDS was a problem on the continent.

"There's been a revolution in perspective since 1985," said Jonathan Mann, the American who formerly directed the World Health Organization's global AIDS control program. "African countries deserve credit for moving quickly, although none of them has had the external support and the internal commitment to do what would really be needed to stop AIDS. It would take a society willing to

take on the challenge as if it were a war."

Dr. Mann and other officials point to isolated success stories so far: Zaire's Prudence sales, Kenya's program to educate prostitutes, Zambia's network of clinics to treat sexually transmitted diseases. Most other countries are only starting to imitate these programs, but virtually all governments at least have national committees to coordinate efforts against AIDS.

Zambia's committee has sponsored newspaper advertisements and comic books featuring a fanged yellow blob that says: "I am the AIDS virus. I am very small. I am very dangerous." More than 500 Zambian high schools now have an extracurricular activity called the anti-AIDS club, whose members sponsor lectures, visit AIDS patients, and publish poetry about viruses and monogamy.

In Cameroon, a group of prostitutes educate their colleagues by putting on a play about AIDS. The Ivory Coast produced posters of a skeletal man with the slogan, "Don't Die of Ignorance." Uganda went for a softer "Love Carefully" poster featuring a heart. Congo issued AIDS postage stamps.

Starting next month, Congolese schoolchildren will learn English by reciting conversations beginning, "Tony, let us speak about AIDS again," and proceeding to "You should wear a sheath if you don't know your partner." They will take reading comprehension tests with true-or-false questions like, "Choosing only beautiful partners is good behavior."

Many people say this preaching has caused them to change their behavior, and there is some supporting evidence. In Zambia, for instance, the reported incidence of sexually transmitted diseases has declined 15 percent each of the last three years. Condom sales are increasing throughout Africa, especially in countries with social-marketing programs.

More than a dozen nations have recently started or are planning such programs, but in many places condoms are still available only in pharmacies or at government clinics, and

there is resistance to the idea of hawking them like any other commodity.

## Marketing Aims At Encouraging Use

"Some governments and foreign-aid donors are still a little suspicious of people making a profit off public health," said Carlos Ferreros, the director of the Prudence program in Zaire. "It might seem more generous to give away condoms to the very poor, but people often distrust things given away by the government. They attach more value to something they buy, so there's a better chance they'll use the condom, and they don't have to put up with the hassles of going in to a clinic during the day. We want them to be able to get one anywhere at any time."

Mr. Ferreros, a Filipino who spent 12 years in Asia and Latin America selling products such as Vick's cough drops and Gillette razors, has been using the same marketing techniques with Prudence. To reach new outlets — groceries, hotels, bars, street vendors — he sends out agents like Mr. Vangu armed with promotions like Prudence key rings, bartender aprons, calendars, hats and signs.

He is planning Prudence rock concerts offering half-price admission to anyone with a Prudence pack, and he is negotiating to sponsor a professional soccer team so Prudence's logo will appear during televised games — thus circumventing a Government ban on broadcasting condom advertising.

America's social marketers have put AIDS on the radio by paying to produce songs by some of Zaire's biggest stars. One song, called "Evil Virus," has a chorus warning: "AIDS, anybody can contract it. AIDS, everybody can avoid it." Another song, Mr. Ferreros' favorite, issues its warning with the words, "Prudence, prudence."

All this promotion is expensive, and the revenues from condom sales hardly pay the bills. The Prudence program is getting \$600,000 this year from A.I.D. in addition to the free condoms. The condoms' retail price, three cents apiece, does not even cover the manufacturing cost.

Some public-health officials worry that the low prices will get Zairians addicted to American subsidies, and Prudence's managers say they hope eventually to raise prices and make the program self-supporting. For now, though, they are mainly concerned with introducing condoms to people who have never used them before.

Marketing researchers took questionnaires on the two-week barge trip up the Congo River from the capital, Kinshasa. The results convinced Mr. Ferreros to start selling Prudence on the boats. There were potential customers not only in the villages along the way but also on the barge itself, a floating community of 3,000 people that includes working prostitutes.

Mr. Vangu, a 23-year-old Zairian, was sent to start setting up a regional distribution center at the barge's last stop here in Kisangani. It is at Africa's center, equidistant from the Atlantic and Indian oceans, midway between Cairo and Cape Town, a dilapidated town carved out of the jungle.



The New York Times

The day he arrived was oppressively hot, bright and moist — at high noon a rainbow formed a perfect ring around the sun, and locals who ventured out carried black umbrellas for shade — but Mr. Vangu did not seem to notice the weather. He was the fastest-moving body in town as he searched for clients.

He made his pitch to pharmacists and other vendors, and he provided a dispenser for display at the front desk of the Hotel Wagenia. In the hotel's bar he gathered a group of women, including some prostitutes who told him they were already using Prudence condoms imported from the capital.

"Now tell me the truth, not what you think I want to hear," he said to them. "What do you really think of our brand?"

## Nothing Distracts Him From His Mission

All said Prudence was their favorite except for one woman, who complained that it sometimes broke. Mr. Vangu said she was using it improperly and used his cylinder to demonstrate. Later that evening she appeared uninvited at his hotel room.

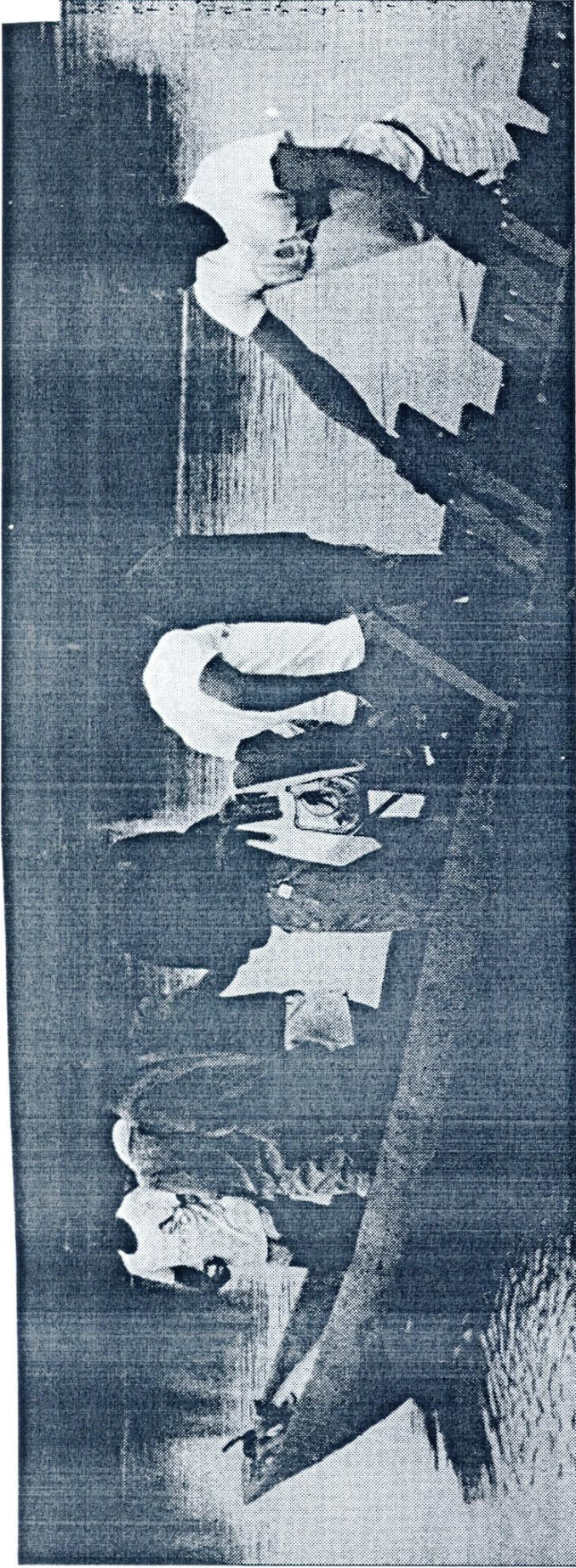
"I declined to offer her a more personal demonstration of the product," he said the next morning, "but the fact that she came to the room makes me happy. My presentation must have persuaded her that Prudence is a good brand."

Nothing distracted him from his mission. Greed can make men do terrible things, as Conrad saw, but there is something to be said for the wonderful way that sales targets and commissions concentrate the mind, as Mr. Vangu demonstrated when crossing the river to the villagers by the waterfall.

The dugout canoe was at the edge of the rapids when it struck a rock and the boatmen suddenly had difficulty steering. They frantically yelled at one another and struggled with the oars. Passengers glanced nervously at the growing pool of water inside the canoe, and more nervously at the edge of the waterfall downstream.

Mr. Vangu suddenly nudged the passenger in front of him.

"You know," he said, "I sold almost 20 cartons yesterday."



John Tierney/The New York Times

Vangu Tsumbu is part missionary and part capitalist, selling condoms for one of Africa's most successful AIDS-prevention programs. Mr. Vangu, holding bag at center, recently passed out samples to boatmen in a dugout canoe on the Congo River near the spot where Joseph Conrad's "Heart of Darkness" was set.



Sara Krulwich/The New York Times

As AIDS proliferates in Africa, so do efforts to educate people about its dangers. In Zambia, a health-care worker talked to girls who giggled at his references to sex.

# Cooperation by Prostitutes in Kenya Prevents Thousands of AIDS Cases

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By **ERIK ECKHOLM**

Special to The New York Times

NAIROBI, Kenya — A partnership between health workers and prostitutes here has multiplied the women's use of condoms, preventing thousands of AIDS cases.

While anti-AIDS campaigns for the general public are vital, programs aimed more narrowly at "high-frequency transmitters" of sexually spread diseases, like prostitutes and their frequent customers, may be the most cost-effective weapons of all, doctors say.

But the experience here shows that a draining long-term investment of empathy as well as money is required to gain the cooperation of vulnerable people.

Since 1985, more than 1,000 women in Pumwani, a dense slum of tin-roofed shacks of mud or plaster, have enrolled in a program to fight sexually transmitted diseases and AIDS. Many tend to come and go from rural homes, and on any given day, about 400 are working in the neighborhood.

Because the streets are so dangerous after dark, Pumwani prostitution is a daytime affair. It is also a low-paying one. The women sit before their shacks, ready for a quick encounter at a price of 45 cents. They average four customers a day.

Dr. Elizabeth N. Ngugi, an expert in social work from the University of Nairobi, began working with Pumwani prostitutes in the

early 1980's, before anyone knew about AIDS and before a majority of the women became infected with the virus.

## 'Dignity' Is Stressed

"The key to the program is giving them dignity and self-respect," said Dr. Ngugi, who has become something of a mother figure among the prostitutes. "They have the same needs as anyone else: shelter, food and love. They want to belong, to feel they are part of society."

Most have children, who often live in a distant village with relatives. "They will do anything," Dr. Ngugi said, "to make sure their children have a better life."

Through large public meetings and one-on-one contacts, Dr. Ngugi and the women's own elected leaders keep in touch with every prostitute in the neighborhood. They call for universal use of condoms, and hand them out for free. A clinic, situated next to a raucous market where vendors hawk bright heaps of used clothing, provides the women with another major benefit: free medical care.

Dr. Ngugi urges the women to leave prostitution. But decent earnings are scarce, and few women have switched.

According to the women's own accounts, condoms are now used in 80 percent of encounters. Critics question the self-reported numbers, but data on condom distribution in

the neighborhood and other evidence indicate that condom use is high, almost certainly more than 50 percent, said Dr. Stephen Moses of the University of Manitoba, which cooperates in studies here.

## Thousands of Cases Prevented

In a new report, Dr. Moses and others calculate that the Pumwani project is preventing between 6,000 and 10,000 new cases of AIDS virus infection a year among male customers, at a cost of between \$7 and \$11 for each case averted.

Often the prostitutes serve, in effect, as health educators. Jeni Mugura, 36 years old, who has been selling sex here for 19 years and is an elected leader, described the obstacles.

"Before," she said, "the men were very difficult. They would say 'You are sick, that's why you want a condom,' and walk away." Now, with more AIDS awareness, some men are grateful for the suggestion.

But poverty creates vulnerability. If the day is drawing to an end, a woman has had no business and a potential customer refuses to use a condom, Miss Mugura said, "you're bound to accept him no matter what."

The bullheaded recklessness of some men has been evident in a related project, led by Dr. Job Bwayo of the University of Nairobi, aimed at long-distance truck drivers.

## Empathy, as well as money, is required.

Twice a week at the Athi River weighing station outside Nairobi, doctors try to persuade drivers to visit a tent for a free examination and treatment for sexually transmitted diseases. Those who consent are also tested for the AIDS virus; about one in four are positive. Condoms are handed out by the dozen, but getting the men to use them faithfully is another matter.

"They know about AIDS, but some of them are very stubborn," Dr. Bwayo said. "They just don't want to use condoms." About 30 percent say they sometimes use them, but many who make that claim return repeatedly with venereal diseases.

Medical testing of the Pumwani prostitutes shows that even an extraordinary effort can only do so much. Even as condom use rose, the proportion of women infected with the AIDS virus climbed from 4 percent in 1983 to more than 80 percent in the late 80's. These women are exposed to AIDS so often that

eventual infection is almost unavoidable.

It would be no surprise if many women, knowing they were already infected with the AIDS virus, lost interest in badgering recalcitrant customers. This is where Dr. Ngugi's care and trust have paid off.

Infected women are told they have a self-interest in avoiding exposure to diseases, which might hasten their illness. But many women also seem altruistic.

Mwana Idi Hassan, 38, divorced and a mother of five boys, has been a prostitute in Pumwani since 1978. She has continued serving as a block leader even as AIDS destroys her own health.

Weak and coughing on a recent day, grimacing in despair as she talked softly about AIDS, Mrs. Hassan brightened when asked why she donated her time.

"Many of the other women didn't know how to avoid disease," she said. "I thought it was my responsibility as an elected official to help them."

The project is entering a difficult new phase as more women become ill. They get good medical care, but new social problems are emerging as women become too sick to work and their children face orphanhood.

Even as their health fails, many of the women keep working. "I know what I should do," Mrs. Hassan said. "If I had the means, I would quit today."



Sara Krulwich/The New York Times

AIDS confronts Africans not only with death but with challenges to traditions. Sanford Mweupe of Lusaka, Zambia, was required by tribal tradition to have sex with the widows of his brother, who had died of AIDS.

## *AIDS Tears Lives of the African Family*

By JOHN TIERNEY

Special to The New York Times

LUSAKA, Zambia — Sanford Mweupe now looks back wistfully on the uncomplicated days when he had only two wives to worry about. So do the two wives. Domestic life has been strained ever since the events delicately referred to in the household as "the confusion."

Last year, after his brother died, Mr. Mweupe was chosen by the family's elders to perform a ceremony called ritual cleansing. According to that tribal tradition, the brother's two widows had to be purged of their husband's spirit by having sex with a member of his family.

The problem was that Mr. Mweupe's brother had died of AIDS, and the widows quite possibly were infected as well. Mr. Mweupe's wives pleaded with him not to go ahead, but the elders insisted he cleanse the widows and then also take them as his wives. He heard warnings from modern doctors, but a traditional healer assured him it would be safe.

### **5th of Adults May Be Infected**

So Mr. Mweupe became confused, a not uncommon reaction on a continent where a virus has suddenly intruded into tens of millions of lives. Fatal diseases are never simple anywhere, but it is hard to imagine any quite as complex as AIDS in Africa.

### **A Continent's Agony** *Second of four articles.*

In places like this capital city, where it appears that a fifth of the adults are infected, AIDS is a family disease that touches virtually everyone in some way. It confronts Africans not only with death but with challenges to their cultural foundations: their ancestral beliefs, their marital roles and familial obligations, their conceptions of morality and sexuality.

"What could I do?" Mr. Mweupe, a soft-spoken 52-year-old, said one recent afternoon in his living room. "I was bound by tradition."

### **Runs a Video Parlor**

Mr. Mweupe, crisply dressed in a khaki safari suit and heavy black shoes, looked to be one of the more prosperous men along his dirt road in the Chipata shanty compound. His four-bedroom concrete house, which was accommodating 15 people, was one of the few in the neighborhood with windows, electricity and a water faucet in the yard.

Born on a farm in northern Zambia, he came to the capital to work as a boilerman in a factory and then went into business for himself. He imported grain from the

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AIDS has become a preoccupation for Sanford Mweupe since he married the widows of his brother, who had died of AIDS. Mr. Mweupe posed with some of his sons at the bar he owns and runs in Lusaka, Zambia.

provinces, recharged car batteries, and owned a thriving bar next to his home. He had just opened a video parlor, where neighbors paid to sit on the floor and watch offerings like "The Spirit of Kung-Fu" and a kung-fu movie and Janet Jackson music videos.

Like other successful men in Africa, or America, for that matter, he had not limited himself to his first wife. After eight years of marriage and seven children, he divorced her and married Frida, an 18-year-old, in 1968. They had eight children.

Then, after 15 years with the second Mrs. Mweupe, he proposed to her 21-year-old sister, Mary. The younger sister, a Jehovah's Witness, had religious scruples about the African tradition of polygamy, and she had qualms about pushing her sister out of the master bedroom. But she was strapped for money to finish secretarial school, and she accepted.

"My sister persuaded me to come," the third Mrs. Mweupe said. "She said if he brought another wife in, it was better for it to be her sister. She knew if she were sick or away from home, I would look after her children."

#### Her 3d Child, His 18th

Mary Mweupe was pregnant with her third child — her husband's 18th — when Mr. Mweupe's brother died in February 1989. She and her sister promptly united against the idea of Mr. Mweupe performing the ritual cleansing of the brother's widows.

"We went in there to the bedroom with him," said Mary Mweupe, pointing from the yard, where she and her sister were crouched barefoot, scrubbing laundry in a bucket. "We tried to explain to him in so many ways how bad it is to have this disease. He got very angry and answered us harshly. Because he is a man, he knows he can do what he wants."

"We wanted to leave him," her sister said. "But we had to think of the children."

Mary Mweupe said she tried arguing with Mr. Mweupe's elder relatives. "But they are uneducated farmers, and they just replied, 'It is the tradition.'"

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Photographs by SARA KRULWICH/The New York Times

Frida Mweupe, right, and Mary, his second and third wives, with some of their children at their house. Because of fear of AIDS, they tried to persuade Mr. Mweupe not to have sex with his brother's widows.

#### Some Precautions Taken

The wives' warnings did persuade Mr. Mweupe to take some precautions. He took his brothers' widows to a traditional healer, who gave them injections and said they were free of AIDS. He also brought some condoms over to his brother's house on the day the families gathered for the ceremony.

"I wanted to use them," he said. "But the grandmother of one of the widows saw them, and she said this would not be according to the tradition. She said the widows would not be cleansed. I was afraid she would tell other people and make me a laughingstock, so I did not use them."

After the families drank beer in his brother's yard, Mr. Mweupe and the two widows retired inside. He stayed with them for a week. He agreed to go beyond his cleansing duties and take them as his wives, assuming responsibility for their five children, as well as a sixth who was born nine months after the ceremony.

When Mr. Mweupe went home at week's end to the second and third Mrs. Mweupes, the reunion was less than warm — on that everyone agrees. But there is disagreement over exactly what happened.

"I told my wives that I should not sleep with them because of the possibility of infection," Mr. Mweupe said. "But after a time they insisted. They said I was their only husband — who else could they sleep with?"

#### He Finally Insisted

Both sisters said that their husband did indeed make that suggestion, and that it was followed for some months. But eventually, they said, he was the one who insisted.

"I wanted to wait for three years," Mary Mweupe said. "I would like to have more children, but I prefer not to risk this infection until I see that he is all right. But I cannot refuse the big man."

The consequences of all that are still unclear, because Mr. Mweupe and the two sisters have not been tested for the AIDS virus.

"I have tried to tell him we should all go in for a test," Mary Mweupe said. "But he always says he is too busy."

Was she angry with him?

"Sometimes I am," Mrs. Mweupe said. "I worry about this disease. When I feed my baby I am afraid my milk will infect her. He

should have listened to us, but I cannot be too angry with him. He is a good man. The problem was the confusion."

Her sister professed not to be concerned, although the discussion of AIDS made her uncomfortable.

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## Prostitute Quits But Too Late

"I do not think I have the infection," Frida Mweube said, looking at the ground and rubbing her forearm nervously. "He is still looking healthy. If he was sick, then maybe I would be worried."

Mr. Mweube was definitely worried. He wondered if some recent pains in his joints were a symptom of AIDS, and he was contemplating selling some property to raise money for a trip to Kenya to buy Kemron, the experimental anti-AIDS drug recently developed there.

He said he was planning to be tested soon for the AIDS virus. No matter what the result, he said, he would not be paying any more overnight visits to his fourth and fifth wives.

"I have told them they are free to marry someone else, but until they do I will continue supporting their families," he said. "If I die of this disease, I would like my brother to take care of my children, but I would advise him to stay with his own wives."

### Nonsexual Rituals Used

That conclusion has been reached by other Zambians as a result of the AIDS epidemic. In many villages, chiefs have recently banned the ritual and replaced it with what might be called safe cleansing: nonsexual rituals that were also used in the past on widows or widowers.

In some ceremonies, the families gather and a relative of the deceased sprinkles maize or animal blood on the spouse. Sometimes the two step over a cow together, or the relative sits on the spouse's lap and slides down the spouse's legs.

Mr. Mweube said he wished that his family had heard of those alternatives last year. He said he wished he had acted differently then. In fact, he said, he had second thoughts about one of his other actions, and he had recently tarted going to a Christian church.

"In the beginning God gave Adam only one wife," Mr. Mweube said. "I think that is the tradition we should follow."

NAIROBI, Kenya — Ann Kanini, 30 years old, still lives in the same Nairobi slum where she worked for five years as a prostitute. She quit a year ago, knowing it was too late. "I was already getting sick," she said. Quitting, she knew, would at least stop the steady exposure to other sexually transmitted diseases that might hasten her death.

She was thin and weak on a recent day, when financial desperation led into the clinic where she could seek the advice of a friend and social worker.

Ms. Kanini has five children. The youngest, who is 5, lives with her, while the others stay with relatives in her village.

When she switched careers last year, she started buying sacks of beans and used clothing to sell in the local market. For a while, things went well. "I managed to buy two goats and some rabbits to keep back in the village," she said proudly, mustering a wan smile.

But the last few weeks she had been so sick she couldn't even walk around to collect money she was owed, for beans she sold on credit. She and her boy needed money for food, and she came to the clinic for advice, and maybe a small loan.

"I'm not feeling well now," she said, "but I'm sure I'll be back on my feet next week."

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## A Nursing Nun With an Insight

ABIDJAN, the Ivory Coast — Catherine Mausen, a 57-year-old Belgian nun, has worked in hospitals here in the Ivory Coast for the last seven years, and in a local prison for six years before that. Nowadays, she spends most of her time at Treichville Hospi-

tal tending AIDS patients and their families. She gives the first checkup to patients visiting the new outpatient AIDS clinic, and together with a social worker tries to help destitute and abandoned patients in the infectious disease ward. "But some people just come to talk," she said.

"I myself am seropositive," Sister Catherine added without blinking. She received a transfusion during an operation here in 1983, before anyone knew AIDS was in this part of Africa. She had her first symptoms in 1988, and was not surprised to learn her test results. "I'd seen enough cases," she said.

She spoke of a man who lay critically ill, an immigrant from Cape Verde whose wife and children huddled around his bed. "When I come he says, 'Sister, let's pray, I know I'm going to die.' He starts confessing to me."

"I try to help him, and say that God is good," she said. "My relationship with him is at all levels, you understand?"

The man's wife, too, has tested positive for the virus, but neither the doctor nor Sister Catherine feels it is time yet to tell her. "It's better to let the husband die first," she said. Now she needs to take care of him.

"Later, it will be better," she said. "I'll work towards it. I'll ask, 'Are you afraid of dying?' She is a woman, and I am a woman, and we can cry together."

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## He Can't Tell Wife or Mother

KAMPALA, Uganda — He is 22 years old, has been searching for work since an injury cost him his hotel job several months ago and is bursting with guilt and dread. A few months ago, he read about a place where AIDS virus tests were offered, no names asked.

"It took me a long time to get the courage to go," he recalled. "When I got my positive result I got angry, and told them it must be a mistake. They did the test again."

"I couldn't tell my wife," he said. His wife, 17, sells tomatoes in a street stall. Their baby is 18 months old.

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This 28-year-old Zambian woman found out she had AIDS last year when she visited a hospital after falling ill. She still has not told her husband.

"I can't tell my mother either," he said. His father is dead, and his mother is counting on him, the firstborn son, to help support the whole family. When he was working, he paid school fees for his siblings.

He has no way of knowing if his wife is also infected, and cannot bring himself to suggest that she go for a test. He figured out a subterfuge for her protection.

"I told her that I think we should wait until our daughter is five before we have another child," he said. "Until then, I told her, I think we should use condoms." She suggested the pill instead, but he convinced her that it might make her sick.

"I'm so worried about our baby girl," he said. "I brought her to the test center, but they said I would have to bring my wife too before they would test her."

He met a doctor who claimed to have a drug that might cure him of the AIDS virus. Meeting the doctor's price would require selling off the family land.

"I thought about it," he recalled. "What if it didn't work? Then my mother would have nothing."

## Blaming Husband And His Beer

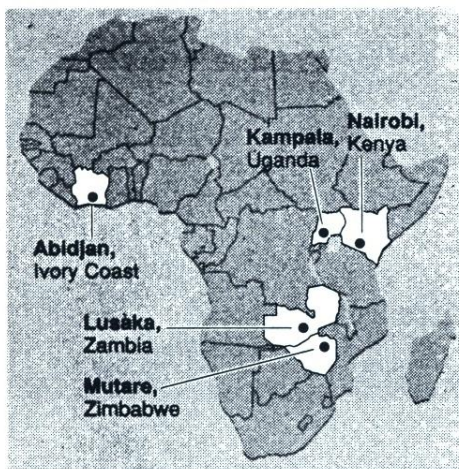
LUSAKA, Zambia — She knew she carried the AIDS virus, and she had been advised to tell her husband so he could be tested, but she was reluctant. She said their marriage already had enough problems.

"They told me my blood was not good," the 28-year-old woman said, recalling her visit to a Lusaka hospital last year, when she fell ill at her farm in the hills 20 miles southeast of the city.

"I told my husband there was a problem with my blood, but I did not tell him exactly what it was. He did not say anything. It did not seem to worry him. He is a careless man about most things. There is too much beer in his life."

She blamed his attitude and his beer for her infection — "he would go out drinking and not come home at night" — and for her

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decision to move back to her parents' home earlier this year. She and her baby had been thin and ill, she said, but her husband showed no interest in taking care of them.

Neighbors intervened, persuading the husband to make peace with her and bring her home. Now she felt stronger, she said, and the baby girl was looking plump. There was still a chance that the 13-month-old carried the AIDS virus — doctors cannot tell until she is older — but the mother was optimistic.

"I have hope in the Lord," she said, standing outside her thatched-roof hut, her baby tied on her back with a scarf. "Maybe the baby and I will be all right."

Her husband, 36, was spending the morning down the road drinking home-brewed beer with other men. He attributed their earlier problems to bad advice he got from friends, who had urged him to divorce her and find a healthy wife who could bear him children.

Things were better between them now that his wife seemed healthier, he said, and they were trying to have more children. He knew she still had some kind of illness, but he was unsure of the cause.

"I am very suspicious it was witchcraft by someone," he said.

Did he have any idea what kind of witchcraft?

"No," he said with a shrug. "It is just a thought."

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## He Thought He Was Safe

MUTARE, Zimbabwe — "I used to mess around quite a lot with the girls," said the 23-year-old, a tall and rangy man with a mustache. "But I didn't really believe that somebody like me could get HIV."

Once a test revealed he was infected with the AIDS virus, he said, "it was working on my mind all the time." He quit his job as a graphic artist and left town, finding work as a bus conductor. Once when he had a cough, colleagues joked that it was AIDS. "I thought they knew about me and were making fun," he said, "but they didn't."

But then he was sick and weak for a while and could not lift the bags, and had to quit. He returned to Mutare and his graphics work, renewed his Christianity and began speaking to student groups about the danger of AIDS, though he does not reveal his affliction for fear of discrimination.

"Small things seem so big," he continued. "Last time I started feeling sick, I realized I hadn't put aside any money for my burial. Especially at night I think about dying, how it's going to be all black like that."

"Last year, and maybe this was criminal, I met a girl, we started going out, and we got married," he said. "I wanted to, and didn't want to, carry on a relationship."

He told her about his infection. "She also had led quite a risky life," he said, but she has refused to go for a test.

"We know it wouldn't be right to have a baby," he said.

What the couple has done instead is take in his wife's infant sister. "It's another mouth to feed, but we are happy to be bringing someone up. It's a substitute for not having our own child."

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*These articles were prepared by Erik Eckholm and John Tierney.*

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Sara Krulwich/The New York Times

In Africa, AIDS is devastating young adults like this dying 28-year-old woman, right, near Masaka, Uganda. She was comforted by Maureen Nakimera, a social worker with an AIDS support group.

## AIDS in Africa: A Killer Rages On

By **ERIK ECKHOLM**  
with **JOHN TIERNEY**

Special to The New York Times

NAIROBI, Kenya — The AIDS epidemic continues to course through Africa, outracing the prevention campaigns that have now been started by every government.

In many cities the spread of the deadly AIDS virus among young adults, the parents and breadwinners, has reached astonishing levels. In several — including Lusaka, Zambia, and Kampala, Uganda — more than 20 percent of adults are infected. In many other cities where 5 percent of adults now carry the virus, as in Nairobi, or 10 percent, as in Abidjan, the Ivory Coast, the numbers are still rising steadily.

Once thought to be largely confined to urban areas of central and eastern Africa, AIDS spread rapidly in the late 1980's to huge new parts of the continent and, ominously, from city to countryside, where most people live.

### Men and Women, Rich and Poor

In contrast with the pattern in the United States, AIDS in Africa is spreading mainly through heterosexual intercourse, propelled by long-neglected epidemics of venereal disease that facilitate viral transmission. It is striking men and women alike, the rich and the poor, portending social effects on a scale unmatched anywhere else.

### A Continent's Agony *First of four articles.*

In the United States, gay men and residents of a few inner-city pockets face comparable devastation, but overall, fewer than 1 percent of adults are believed to be infected with the AIDS virus.

In Africa, the growing misery was evident during weeks of reporting in seven countries.

At the main hospital in Lusaka, women enter with suitcases on their heads bearing supplies for a sick relative, then emerge moments later, having heard the final news, issuing ritual wails that are audible a block away.

Perhaps no scene in Africa today is sadder than the elderly in the unnatural activity of burying their grown sons and daughters.

"I'm already weak, and we are too poor," said a despairing 68-year-old woman near Masaka, Uganda, who has lost three of her four children to AIDS. She faces her final days with one surviving son and 28 grandchildren, some of whom have AIDS too.

Strange new issues are in the air. Where the disease spread earliest and large numbers have already died, as in Uganda, frightened young men and women are starting to

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realize that even marriage may be risky.

"The Government says have one partner," said Dr. Sam Kalibala, a 30-year-old doctor who volunteers much of his time to treatment of AIDS patients. "But even if you get married, you have a one in four chance your partner will be infected. So marriage is not really a solution."

Because so many people were infected so recently and the virus often takes years to kill, the worst lies ahead. With more than five million adults carrying the virus, and hundreds of thousands of infants, disease rates will soar.

Dismayed leaders are beginning to ask what the loss of large numbers of people in their prime years will do to society — economically, politically, spiritually.

"We need to start thinking about how to deal with social grief, communal grief," said Rev. Chad Gandiya, chairman of a fledging AIDS counseling group in Zimbabwe, a country just beginning to acknowledge its AIDS nightmare.

"How do you counsel whole communities?" he asked.

Vast social change is in store. Across a continent not accustomed to open discussion of such things, men's and women's roles are being questioned, ancient customs like polygamy and bridal prices are under new debate, and sexual mores are becoming a matter of public pronouncement.

This summer in Zimbabwe, in one sign of the questioning times, Mrs. Tsungiraya Hungwe, a Deputy Minister for Political Affairs, appealed to Parliament: "Let us be brave and change our life style. Let us stick to our single partners and stop over-indulging."

"If we cannot do it, let us use condoms," she told her fellow legislators. Anticipating a commonly voiced male complaint, she announced, "We must be prepared to take a shower wearing a raincoat."

## The Numbers

### Infection Soaring And Spreading

While data on the spread of AIDS remain far from complete, hundreds of valid studies of one group or another have now been completed, often confirming the worst fears.

"There's virtually only bad news," said Dr. Peter Piot of the Institute of Tropical Medicine in Antwerp, Belgium, who was one of the first doctors to describe AIDS in Africa. "With every conference I'm becoming more pessimistic. There are new groups infected, new countries, increases in the infection rates."

In 1987, the World Health Organization's working estimate was that 2.5 million adults in Africa were infected with the AIDS virus. But now, as experts evaluate the dismal numbers pouring in, they are doubling or tripling their figures for many countries, a reflection both of past underestimates and the continuing rapid spread of the virus.

A "very conservative" estimate of infected African adults as of 1989 is five million, said Dr. James Chin, chief of AIDS surveillance at W.H.O. In no other continent is the burden nearly so great. Africa accounts for more than half of an estimated worldwide total of eight million virus carriers.

In the mid-1980's, as the world first became aware of the new epidemic in Africa, experts in their more optimistic moments could hope that AIDS might be contained within certain social and geographic boundaries. It appeared largely confined to cities, and to several adjacent countries of central and eastern Africa. In these regions, for reasons nobody knows from a source that remains unidentified, AIDS began to explode sometime in the late 1970's, about the same time the virus began to race through the homosexual population in the United States.

Now, the boundaries have been breached.

Cities are still the hardest hit. Indeed, the virus has continued surging in many urban areas. The infection rate among pregnant women in Blantyre, Malawi's largest city, jumped from only 2 percent in 1984 to 22 percent in early 1990; in Lusaka, from 11 percent in 1987 to 22 percent. In Kigali, Rwanda, there is hope that the infection rate is stabilizing at about 30 percent. Rates among pregnant women are often the best available indicator of adult infections and also, because 30 to 40 percent of infected women's babies are born with the virus, of the pediatric toll.

## The Victims

### Rich and Poor, Urban and Rural

Far from being a special burden of elites, as some once predicted, AIDS is reaching everyone. If anything, say doctors in the Ivory Coast, the disease appears to be taking the harshest toll among the working class and the poor.

Prostitutes and their reliable customers, like soldiers, migrant workers and long-distance truck drivers, tend to have the highest infection rates of all. In Zambia, so many soldiers are dying that nurses in a military hospital, with the grim humor many Africans adopt to keep going, refer to their workplace as "the departure lounge."

Inevitably, the disease has begun to infiltrate rural areas, which are often closely linked to cities by back-and-forth migration and family ties. From half to over four-fifths of the people in African countries live in rural villages.

A rural hospital in southern Zambia finds 8 percent of pregnant women to be infected, and in a rural area of Rwanda, 5 percent carry the virus. In southwestern Uganda, 12 percent of villagers and 35 percent of people in market towns are infected. Nearly every family has already lost members to "slim disease," as AIDS is known there; one couple has watched seven sons die. The neighboring districts of Tanzania are similarly blighted.

To the south of the older AIDS belt, Zimbabwe discouraged research and publication of data until a few months ago. But limited data and clinical experience suggest the AIDS virus is spreading rapidly and may already infect at least 10 percent of urban adults.

Farther south, AIDS has gained a solid foothold among the black population of South Africa, showing up among patients in clinics for sexually transmitted diseases. AIDS

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among whites there has largely involved homosexual men. Health experts are now wondering anxiously whether that country, caught up in wrenching political change, will be able to fight decisively against this invisible new foe.

One of the worst surprises has been the experience of the Ivory Coast, in the heart of West Africa. There, "the spread of AIDS has been very recent and very quick," said Dr. Kevin M. De Cock of the Centers for Disease Control, who directs a research project in Abidjan.

In West Africa the situation is complicated by the presence of two distinct AIDS viruses: HIV-1, the virus known throughout most of Africa and elsewhere, and HIV-2, discovered in West Africa in 1986.

It now seems likely that HIV-2 has been circulating in the region since at least the 1960's. It has reached the highest concentration, oddly, in the small former Portuguese colony of Guinea-Bissau, where nearly 10 percent of adults carry the virus. While some evidence suggests that HIV-2 spreads less easily and is less quickly destructive of immune defenses than HIV-1, there is no doubt that it can cause disease and death.

But now HIV-1 has also begun to climb in West Africa, eclipsing HIV-2 in many countries. In Abidjan, Ivory Coast's cosmopolitan capital, which is host to millions of immigrants from neighboring countries, 7 percent of adults now carry HIV-1, and 3 percent more HIV-2 or both. Dr. De Cock's team has found, by studying records at city morgues, that AIDS-related illness is already the leading cause of adult deaths in Abidjan.

And in this country, which has good roads and many large commercial farms worked by migrants who are visited by busloads of prostitutes after payday, rural areas are vulnerable too. Recent surveys in the countryside found infection by one or the other AIDS virus in 5 percent of adults.

As surprising as the sudden spread in the Ivory Coast has been the lack of a runaway epidemic in Nigeria, Africa's most populous country, whose 120 million people account for more than a fifth of all sub-Saharan Africans. AIDS is lurking in the population, with infection rates of a few percent recorded in some recent surveys at clinics for sexually transmitted diseases, for example. But the overall rate is still below 1 percent.

Another encouraging development has been the apparent leveling off of the epidemic in Kinshasa, Zaire, which was one of the earliest places to report AIDS. Surveys over the last five years suggest that the adult infection rate in this city of three million has stabilized at 7 or 8 percent. Why is a mystery; the leveling off began well before any significant prevention campaigns.

Looking at the more severely affected countries, experts are wondering where the "saturation point" will be. Where will the infection rate level off as most of those engaging in riskier behavior fall prey: 30 percent? 40 percent?

## The Response

### Help Is Growing But Not Enough

The world has not watched Africa's travail without responding. Annual spending by the W.H.O.'s global aids program rose from \$20 million in 1987 to a projected \$90 million this year, with close to half that devoted to Africa. Total external funds for AIDS in Africa, including other agencies and private groups, will probably total \$60 million to \$70 million this year, said Dr. Michael H. Merson, director of the W.H.O. program.

The buildup of aid has been swift, but it remains "greatly inadequate," Dr. Merson said.

By now, every country in sub-Saharan Africa has begun a control program — a marked improvement over the mid-1980's, when many countries denied they even had a problem, and as Dr. Piot put it, "valuable years were lost." Candor about the disease has varied, from the relative openness of Uganda and the Ivory Coast to the secrecy of Zaire and Zimbabwe.

Today, unlike a few years ago, a majority of medical transfusions in Africa are screened for the AIDS virus. In perhaps the biggest success so far, mass education campaigns have worked, in the sense that most people in Africa now know about AIDS and how it spreads. But awareness does not always mean changes in behavior, and condoms are still not widely available in many countries.

"You can improve their knowledge," said Dr. Warren Naamara, director of Uganda's AIDS control program. "But how many people are behaving differently at night — that is the big question."

Belatedly, aid donors and governments are turning attention to the unavoidable consequences of the spread of AIDS: the soaring numbers of patients and orphans.

Already, at least half a million Africans have become ill with diseases brought on by the AIDS virus, and most of them have already died. Much of the toll has gone unreported. Sick men, women and babies die quietly in their huts, desperate attempts to exorcise angry spirits having failed. Some die in city hospitals, where AIDS patients now take up a third or more of the medical beds and where only the lucky get even simple antibiotics and salves.

Many Africans still do not realize how pervasive AIDS is because families of victims, worried about the stigma, conceal the cause of death.

"People will accuse a victim of running around with too many partners, or they will say that it was caused by witchcraft from someone in the spouse's family," said Pascal Kwapa, an AIDS counselor in Lusaka.

In one Zambian dialect, AIDS is called "the disease of shame." One result of the stigma is rampant rumors as Africa's newspapers carry more and more announcements of deaths of political and military leaders, entertainers, businessmen and others "due to a short illness."

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Where the disease has been percolating longer, the toll cannot be hidden. "In Kampala, everybody knows somebody who's died of AIDS," said Noirine Kaleeba, director of TASO, The AIDS Support Organization, one of Africa's first patient assistance and counseling groups. Mrs. Kaleeba helped found the organization in 1987 after her husband died of AIDS. She also has two sisters ill with AIDS now, and she says her family is not unusual.

Still, the epidemic has scarcely begun.

"The clinical avalanche will be in the 1990's," said Dr. Chin of W.H.O. Those with AIDS-related diseases — the wasting away and ferocious diarrhea, the tuberculosis and pneumonias and cancers and eye and skin diseases patients in Africa repeatedly suffer until they die — will double or triple in the next five years alone, and climb still higher in the late 1990's.

And those projections do not include the children. A half million African babies may already have been born with the AIDS virus, and most have already died from it, Dr. Chin said. By the end of 1992, at least half a million more babies will be born with the virus.

Recent successes in reducing infant mortality, achieved through vaccination programs and educating mothers how to prevent deaths from diarrhea, are being undermined by the new epidemic of AIDS. Uganda, where measles was a leading cause of death at the beginning of the 1980's, has essentially conquered that killer. The old measles ward at the public hospital in the city of Masaka has been reopened as an AIDS clinic and counseling center.

In Zimbabwe, efforts over the last decade have pushed infant mortality to one of the lowest levels in Africa. But now, AIDS has emerged as the leading cause of death among children in urban hospitals and pediatricians predict a rise in the mortality rate.

## The Effects

### Jammed Hospitals; A Wave of Orphans

As medical institutions are strained by AIDS, care for other diseases, too, is beginning to suffer. In Abidjan's Treichville Hospital, by no means one of Africa's worst-equipped hospitals, the infectious-disease ward has been jammed year round since 1988, when the number of AIDS cases soared, said Dr. Jacques Moreau, a French doctor who has just completed some 15 years of work in Abidjan.

Half to two-thirds the patients in the ward are infected with the AIDS virus. Six or eight beds are crammed into each room, the wasting patients surrounded by caring relatives who wear colorful prints and sad faces, sleep on straw mats and try to pull together the money to buy drugs prescribed for their loved ones.

"Actually we are overwhelmed at the moment," Dr. Moreau said recently. "I can't admit some patients I want to. I have to send home patients with other serious diseases such as hepatitis or typhoid fever."

Whether or not they ever receive hospital care, most AIDS patients go home to die, usually to villages where they have family. "I've heard about people in San Francisco making big efforts to form support teams for AIDS victims," said Tahebisa Chaava, a social worker at Chikankata Hospital in southern Zambia who visits sick villagers. "Here we've already got a support team: the extended family."

The relatives of dying patients must often take on more lasting responsibilities too. While many children will be born with the AIDS virus, still more offspring of infected mothers will be born free of it. These babies and their older brothers and sisters will soon see their mothers die, and usually their fathers and some siblings too. They will join the ranks of AIDS orphans.

In a group of 10 countries of central and eastern Africa, three to six million children, from 6 percent to 11 percent of all those under 15, will lose one and usually both parents to AIDS in the 1990's, according to a new study by Elizabeth A. Preble, AIDS adviser to Unicef.

Relatives have traditionally cared for orphaned children and, fortunately, are taking in most of the current wave of orphans. But many of the surviving adults are poor, and the orphans are often the first to suffer when food or money are scarce. A surge in street urchins appears inevitable.

The death of so many parents is also giving rise to unusual new households with dim prospects — teen-agers heading families of siblings, elderly grandparents caring for a dozen grandchildren.

Bad as the numbers are, the impact of AIDS is no more readily visible in Lusaka, Kinshasa or Kampala than in New York or San Francisco. People are not dying of AIDS in the streets, and bustling life goes on. The disease will only slow, not reverse, Africa's high rate of population growth.

## The Outlook

### Economic War Of Attrition

AIDS is a catastrophe, but a slow one, more like a long war of attrition. The social and economic costs will be felt in many different ways, some more tangible than others. What does it mean if a mine loses 20 percent of its skilled workers, an army 20 percent of its troops? How far is society set back when many scarce teachers, doctors and engineers die prematurely?

Malawi has suffered a major economic blow even before it bears the full brunt of illness. The Government has refused to allow AIDS virus testing that South Africa requires of workers headed for its mines, foreclosing a valued employment opportunity. In 1986, 31,500 Malawian workers sent home \$21 million; today, only a few thousand Malawian workers remain in South Africa, according to Alan Whiteside, a research fellow at the University of Natal.

Continued ...



Photography by SARA KRUI WILU/The New York Times

#### TRAGEDY FOR FAMILIES

*Beatrice Habeenzy of Hamuntamba, Zambia, has left her husband, who she thinks gave her AIDS. She has lost one child, and the baby she is nursing may be infected.*

In Zimbabwe, said Dr. Timothy Stamps, the Health Minister, the death rate is rising among those aged 20 to 35. "It's very worrying," he said. "They've been educated, and they have something they can give back to the country. But just when they reach that point, they depart this life."

Intricate family and communal ties will help Africa persevere. But these ties can also magnify the repercussions of disease.

"Here, nobody is born as an individual," said Dr. Sam I. Okware, deputy director of medical services in Uganda. "If an important person dies, it's not one individual dying; it's a community."

Dr. Okware himself, for example, pays the school fees for almost all the children of his home village. "If I go," he said, "the whole village is gone."



LE MONDE, 6 September 1990

Le traitement du sida**L'AZT pourra être administré  
à un plus grand nombre de séropositifs**

Le ministère de la santé a décidé, le 29 août, d'étendre les indications de l'AZT (zidovudine), un médicament antiviral utilisé dans le traitement du sida, à certains patients séropositifs ne présentant pas de symptômes.

Les nouvelles indications prévues par le ministère de la santé s'inspirent directement du rapport officiel d'un groupe d'experts rendu public en juillet dernier (*le Monde* du 4 juillet) sur la prise en charge et le traitement des personnes séropositives. Ce rapport, rédigé sous la direction du professeur Jean Dormont, formulait une série de recommandations, compte tenu de l'efficacité thérapeutique de l'AZT, mais aussi de ses risques toxiques.

En mars 1987, l'AZT avait été autorisé, pour les manifestations sévères des infections à HIV, chez les patients atteints de sida

ou d'ARC (un ensemble de signes cliniques caractéristiques qui précèdent habituellement le développement du sida). Aujourd'hui, le ministère de la santé décide d'étendre les indications de ce médicament à certaines personnes infectées par le virus, mais qui ne présentent pas forcément de symptômes. Plus précisément, les personnes concernées sont, d'une part, celles qui présentent des manifestations précoces de l'infection par le virus HIV (amaigrissement, candidose buccale, diarrhée inexplicite et persistante,...), dont le taux de lymphocytes T4 est inférieur à 500 par millimètre cube; d'autre part, ce sont les patients totalement asymptomatiques, mais dont les marqueurs biologiques de l'évolutivité de la maladie sont en progression, en particulier lorsque les lymphocytes T4 sont inférieurs à 200 par millimètre cube ou lorsqu'ils sont compris entre 500 et 200 par millimètre cube et en diminution rapide.

□ **Choléra : grave épidémie au Maroc.** - Le ministère de la santé marocain a annoncé, lundi 3 septembre, qu'une grave épidémie de choléra sévissait dans le pays, mais il s'est refusé à donner de plus amples informations, en particulier quant au nombre exact de personnes décédées. En revanche, plusieurs journaux de l'opposition font état de plusieurs centaines de cas et d'au moins trente morts, principalement dans les provinces de Fès, Taza et Meknes. Pour leur

part, les autorités sanitaires de Ceuta, une enclave espagnole située au nord du Maroc, ont recommandé aux habitants de s'abstenir de voyager au Maroc, « tant que l'Organisation mondiale de la santé n'aura pas déterminé la dimension réelle de l'épidémie ». Les autorités de Ceuta ont, en outre, recommandé à la population de s'abstenir de consommer des aliments en provenance du Maroc. - (AFP, Reuter.)