The Caribbean
After sub-Saharan Africa, the Caribbean has the highest HIV/AIDS prevalence in the world. At the end of 2005, adult prevalence in the Caribbean was 1.6%—nearly three times higher than the United States, according to U.N. figures. More than 85% of the HIV-infected people in the region live on the heavily populated island of Hispaniola, home to both Haiti and the Dominican Republic. Heterosexual sex and migration drive the spread throughout the Caribbean, save for Puerto Rico’s and Bermuda’s serious HIV problems in injecting drug users.

Haiti
Making Headway Under Hellacious Circumstances
This impoverished, conflict-ridden country is staging a feisty battle against HIV

PORT-AU-PRINCE, CANGE, AND CHAMBO, HAITI—Banners hang across the main thoroughfares in Port-au-Prince urging residents to report kidnappings. Blue-helmeted U.N. troops patrol the city in armored personnel carriers. The slums that border the once-elegant downtown have names like Cité Soleil and Bel Air that seem to mock their poverty and violence.

At an AIDS clinic called GHESKIO that sits at the edge of two of these slums, Cité L’Eternel and Cité de Dieu, the staff jokingly refers to the neighborhood as Kosovo. But the mood at GHESKIO (pronounced “jess-key-oh”) is anything but hostile. The guards at the gates have no weapons, and as GHESKIO’s founder and leader Jean “Bill” Pape likes to boast, “we have not lost one pencil” in the more than 20 years the clinic has operated there.

Pape climbs the stairs of the main clinic and enters the waiting room. About 100 patients, many spiffily dressed, sit in neat rows.

“Bonjour,” says Pape.

“Bonjour!” the patients reply in unison.

Improbable as it seems, today is a good day for many of the people here, who receive antiretroviral drugs and state-of-the-art care they otherwise couldn’t afford. It’s also in many ways a good moment in the HIV/AIDS struggle in the country at large. The poorest country in the Western Hemisphere, Haiti has more HIV/AIDS patients per capita than any locale outside sub-Saharan Africa. Yet HIV-infected people here often receive better care than many in the Caribbean and Latin America, thanks largely to GHESKIO and another widely celebrated program, Zanmi Lasante—Creole for “Partners in Health”—started by medical anthropologist Paul Farmer of Harvard Medical School in Boston. And recently, encouraging signs have emerged that the epidemic in Haiti is shrinking.

Then again, combating HIV/AIDS in Haiti, where the ever-changing and crisis-plagued government has largely handed off its responsibilities to GHESKIO and Zanmi Lasante, remains an uphill battle. And it’s a steep hill.

4H club
In 1982, a year after AIDS had first been diagnosed but not yet named in a cluster of homosexual American men in Los Angeles, the U.S. Centers for Disease Control and Prevention in Atlanta, Georgia, reported that a group of recent immigrants from Haiti had the strange opportunistic infections and immune problems that characterized the disease. Fears rose with reports of similar immune deficiencies among Haitians who still lived in that country. Soon, the mysterious ailment was being referred to as “the 4H disease,” as it seemed to single out Haitians, homosexuals, hemophiliacs, and heroin users. “It was a disaster,” says Pape, who at the time ran a rehydration clinic for children in conjunction with colleagues from Weill Medical College of Cornell University in New York City. “The tourism industry died. Nobody
wanted to come here. Even Haitians in the United States were afraid to come.”

With help from Warren Johnson of Weill Cornell, Pape started GHESKIO (which stands for Groupe Haitien d’Etude du Sarcome de Kaposi et des Infections Opportunistes). In 1983, Pape, Johnson, and co-workers published a landmark report in The New England Journal of Medicine (NEJM) that described how Haitians with AIDS had the same risk factors as Americans: men having sex with men, recipients of blood products, links to sex workers, and high rates of venereal diseases. Still, the notion that Haitians were somehow at a higher risk of contracting the disease persisted; theories flourished about links to voodoo or the predominance of swine flu. Worse yet, speculation surfaced that Haiti was responsible for the spread of AIDS to the United States. “There was all this prejudice against Haiti,” says Pape, who still is visibly riled that epidemiologists pointed a finger at Haitians.

Although both Pape and Farmer have argued that HIV likely came to Haiti from the United States—gay men once flocked to the island as a tourist resort—molecular biological evidence suggests that HIV did arrive in Haiti earlier than anywhere else in the hemisphere. Further evidence connects the Haitian isolates to some found in Congo, a French-speaking country that recruited skilled Haitians after it gained independence in 1960. Two independent groups have published studies that date six early HIV isolates from Haitians to 1966–67, whereas the earliest non-Haitian samples in the United States trace back to the following year. “Both give the merest suggestion of Haiti being earlier—but with overlap in the error estimates,” says Bette Korber, whose group at Los Alamos National Laboratory in New Mexico did one of the analyses.

Michael Worobey of the University of Arizona, Tucson, has recently recovered five “fossil” samples of HIV from Haitians diagnosed in the United States in the early 1980s that he says provide “absolutely crystal-clear evidence that the virus was in Haiti first.” Worobey contends that understanding HIV’s evolution may one day help vaccinmakers tailor preparations for specific regions. “All the B-subtype virus outside of Haiti comes from a single introduction that got into the heterosexual population in the States and then Europe and went wild. And it required that raging wildfire to be seen.”

Regardless of how HIV came to Haiti, the virus thrived, and by the end of 2001, the Joint United Nations Programme on HIV/AIDS (UNAIDS) estimated that 6.1% of the adults were infected. Studies by Pape and his co-workers in Haiti and at Weill Cornell have demonstrated that the vast majority of GHESKIO patients became infected through heterosexual sex. Disease progressed much more rapidly than in wealthy countries (7.4 years from infection to death versus 12 years), TB—which speeds HIV replication and thus immune destruction—was the most common AIDS-defining illness, and 6% of those coinfected with HIV and TB had dangerous, multidrug-resistant strains of the bacterium.

By the end of 2005, reports UNAIDS, Haiti’s adult prevalence had dropped to 3.8%. Pape contends that behavior change has led to this decline. Annual condom sales, he notes, jumped from less than 1 million in 1992 to more than 15 million a decade later. And GHESKIO studies show that sexually transmitted infections such as chancroid and genital ulcers, which can facilitate HIV transmission, have fallen steeply in their patients.

Analysis of these and other data conducted by Eric Gaillard of the Futures Group, a consulting firm funded by the U.S. government to help Haiti set HIV/AIDS policy, suggests that disease prevalence in the country has indeed dropped. But the researchers note that new infection rates—the incidence as opposed to the prevalence—started to decline about 15 years ago. This means that these behavior changes may have had less to do with the prevalence drop than other factors. “Overall, people died at a faster rate than others became infected,” Gaillard and colleagues write in a paper in the April issue of Sexually Transmitted Infections. They also note that the prevalence drop coincides with the country’s effort to prevent HIV transmission through blood transfusions (see graphs, p. 472).

**Town and country**

As a psychologist meets with rape victims in one of GHESKIO’s cramped offices, lab techs in a nearby classroom watch a PowerPoint presentation about how HIV is transmitted. In another office, volunteers offering to join a trial of an experimental AIDS vaccine made by Merck take a test to make sure that their consent is truly informed. Technicians test samples of Mycobacterium tuberculosis for drug resistance in a lab outfitted with a special ventilation system. In another, sophisticated machines measure the level of the CD4 white blood cells that HIV preferentially targets and destroys. A long line of people, worried that they may have contracted HIV, syphilis, or another sexually transmitted infection, wait to have their blood drawn.

GHESKIO has slowly grown from a research-oriented AIDS clinic into something of an academic medical center that receives substantial funding from the U.S. National Institutes of Health. Pape ascribes part of GHESKIO’s success to the fact that it’s not part of the government. “If we were part of the Ministry of Health, we would have been dead,” says Pape, explaining that it’s had 24 ministers since 1986.

More than 3000 patients now receive anti-HIV drugs through GHESKIO. One of them is Elizabeth Dumay, a counselor and nurse assistant there. “Look at me,” says an obviously robust Dumay, 42, who came to GHESKIO after losing her husband and father to AIDS. At the time, her CD4 count was a mere 73 (600 to 1200 is normal). Today, Dumay has 603 CD4s, and virus levels in her blood are undetectable.

As the GHESKIO clinicians described in a December 2005 NEJM article, 90% of the 1000 AIDS patients they treated with potent antiretroviral drugs were alive after 1 year. Without the treatment, studies suggest that 70% of them would have died.
Pape has received a slew of accolades, including France’s Legion of Honor. So has Farmer, who pioneered AIDS treatment in Haiti’s rural Central Plateau. Farmer, who lives part-time in Haiti, is a MacArthur fellow, the subject of a popular biography, and the recipient of generous support from philanthropists. His group, Zanmi Lasante, now also has projects in Peru, Mexico, Guatemala, and Rwanda.

For more than 2 decades, Farmer has focused on improving health care in an impoverished part of the country that is only 56 kilometers from Port-au-Prince—but is a 3-hour journey by car on the rutted, mountainous roads. In 1998, Farmer launched an “HIV Equity Initiative” and began to treat poor, HIV-infected Haitians with antiretroviral drugs. When starting Zanmi Lasante, Farmer and his co-workers assailed the then-common wisdom that costs and lack of infrastructure made it impractical to use these medicines in poor countries. And, they wrote, if they can provide antiretroviral drugs “in the devastated Central Plateau of Haiti, it can be implemented anywhere.”

Zanmi Lasante today has a sprawling medical campus in the rural town of Cange, which has been visited by the likes of Bill Gates Jr. (who flew in by helicopter). Farmer and his team of Haitian and Harvard doctors now provide antiretroviral treatment to 2000 patients at Cange and seven other sites. Zanmi Lasante also provides inpatient care, which GHESKIO doesn’t. And, in an innovation borrowed from TB treatment, Zanmi Lasante assigns accompagnateurs of health care workers, and they perform a combined 75,000 HIV tests each year.

Although their agendas overlap and they have much admiration for each other’s work, Farmer and Pape have never published a paper together. “They have a research focus and we have a service focus,” says Farmer, who has mainly written on issues of social justice and providing quality care in poor settings and whose group also offers comprehensive maternal care and builds new homes for people who live in shacks made of corrugated tin or wattte. “We’re just using AIDS as our battle horse to get at poverty reduction. If we had the capacity to deliver the same quality of service we do now and do clinical trials, we would. One day, we’re going to get there.”

Meeting demand

Shortly before dawn on a March morning at the Zanmi Lasante campus, a few hundred people who have spent the night sleeping on the concrete benches and sidewalks that meander around the hilly grounds begin to rise. Some spent the night at this odd oasis—that features clinics, a hospital with two operating rooms, laboratories, training classrooms, a primary school, a church, and a warehouse filled with pharmaceuticals—because they saw a doctor too late in the day to return home; others wanted a good spot in line this morning. “We’re being overwhelmed,” says Farmer. “That’s been the hardest part of our work.”

At a new clinic that Zanmi Lasante recently opened about an hour’s drive from Cange in Chambo, patients jam the waiting room all day for a chance to see one of two doctors on staff. Many of the patients are infected with HIV, but most have the same complaint: stomach pains. “I think it’s just hunger,” says Louise Ivers, a native of Ireland who treats HIV-infected people both in Haiti and at Massachusetts General Hospital in Boston. And her patients don’t mince words. “I’m going to die if I don’t get food to take with my medicine,” complains an HIV-infected 24-year-old mother with three children in tow. A one-armed boy suddenly barges into the room unannounced. “The doctors told me to talk to you,” says the boy, who explains that he lost his arm and his father in a car accident. Ivers refers him to the clinic’s social worker. “It’s very hard to know what to do,” she says.

The inpatient hospital at Cange presents more wrenching dilemmas. The facility has several adults in the late stages of AIDS who are not eligible for anti-HIV drugs because Zanmi Lasante only offers antiretroviral drugs to people who live in areas where the group has accompagnateurs. “Until there’s good care all across the country, we’re going to get people coming from all over—and more from Port-au-Prince, ironically, than anywhere else,” says Farmer. Last year, Zanmi Lasante’s staff had 1.1 million visits with patients at clinics, and the accompagnateurs made 1.4 million more trips to patients’ homes.

Although Zanmi Lasante has steadily won donor support and attracted local and foreign
MONTE PLATA, DOMINICAN REPUBLIC—

SANTO DOMINGO, SAN PEDRO DE MACORÍS,

SOUTH AMERICA—Haiti's wealthier next-door neighbor is struggling to provide antiretroviral drugs to many HIV-infected people, and the problem's especially acute on the border, where that sharing of island life is also a source of friction, locally known as the 'bateyes'—shantytowns that have sprung up next to the sugar cane fields on the Dominican side of the island. And when HIV/AIDS programs in both countries that have well-established programs—Haiti, for example, has the highest life expectancy in the Caribbean—begin to falter, the Haitian neighbors' frustration is heightened.

According to the most recent figures from the Pan American Health Organization (PAHO), 40% of Haiti's population—2.5 million people—lives in the Dominican Republic, a country that is just dying without health care. And the Dominican Republic's Ministry of Public Health, which has had a record high of 260,000 registered patients, is struggling to keep pace. The government's response to the epidemic has been slow, with a lack of funding and little coordination between the various programs that have been set up over the years.

Yet the situation in Haiti is just as dire. In 2005, Haiti had the highest HIV prevalence in the world, with 1.1% of the population infected. Even though the government has been trying to increase access to antiretroviral drugs, the country is still far behind its goal of reaching 10,000 people with the drugs. And in 2006, the Dominican Republic's Ministry of Public Health has set a goal of reaching 25,000 people with the drugs, a target that is still far from being met.

The situation in both countries is worsened by the fact that the epidemic is spreading rapidly, with new cases being reported daily. In Haiti, where the epidemic began, the number of new cases has been increasing steadily, with a projected peak of 100,000 cases in 2010. In the Dominican Republic, the situation is even more dire, with an estimated 20,000 new cases being reported each year.

In the face of these challenges, both governments are working to increase access to treatment, with the Dominican Republic launching a new program to provide antiretroviral drugs to all who need them. In Haiti, the government has set up a number of clinics and programs to provide treatment, but the challenges of serving a population of 10 million people remain daunting.

The situation is further complicated by the fact that the two countries share a border, with a large number of people crossing back and forth each day. This has led to a surge in cross-border transmission, with cases being reported in both countries.

Despite these challenges, both countries are making progress, with the Dominican Republic setting itself a goal of reaching 25,000 people with antiretroviral drugs by 2010. In Haiti, the government is working to increase access to treatment, with a goal of reaching 10,000 people with the drugs by the end of the year.

The situation is a stark reminder of the challenges that many countries face in the fight against HIV/AIDS, with the need for increased funding and coordination to ensure that all who need treatment are able to access it.
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