



**Worried.** Luz Imelda Lucas fears that she'll lose access to the anti-HIV drugs that have saved her life.

Mayans, who are often treated as second-class citizens, than in *ladinos*. "We think that group's more vulnerable," says Arathoon. Not only do many Mayans have trouble with Spanish, complicating prevention efforts, but they also have less access to health care in general. "We think that's where the epidemic will move," says Arathoon.

A study of patients at the government-run Rodolfo Robles tuberculosis hospital in

Quetzaltenango supports that assertion. Between 1995 and 2002, HIV prevalence in TB patients at the hospital—74% of whom were Mayan—jumped from 4.2% to 12%. As of May 2005, no antiretroviral drugs were available in Quetzaltenango, the country's second-largest city.

#### Tough transitions

No one knows how many people are dying because they do not have access to antiretroviral drugs, says the National AIDS Program's Hirschmann. And even some of those taking the drugs are concerned about their continued supply because MSF announced in July 2005 that it was phasing out its program in Coatepeque, which now treats 500 people. Lucas is worried that the government will not respond adequately, and some Guatemalan AIDS clinicians and government AIDS officials share those concerns. "MSF obviously did something really good

because they brought treatment to a country that wasn't offering it," says Hirschmann. "But they have created somewhat of a panic in patients on treatment. ... I would be very afraid if I were a patient living with HIV and had to cross over to receive treatment from the government."

Frank Doerner, MSF's chief of mission in Guatemala, says those fears were unfounded. "It was calculated pressure, but it was not playing with the lives of the people," Doerner says of the charity's announcement that it would shut down its program. MSF earlier had successfully handed over a program in Guatemala City, Doerner notes, and MSF says it will stay longer in Coatepeque if the transition is not going smoothly. "After 5 years of being here and treating thousands of people, we showed how it was possible," says Doerner. "Now it's really up to the state to show that it's interested in taking over the responsibility that belongs to them."

—JON COHEN

## HONDURAS

# Why So High? A Knotty Story

SAMBO CREEK, TEGUCIGALPA, AND LA CEIBA, HONDURAS—As a small group of men and women from this impoverished fishing village watch intently, Daniel Martínez holds up a placard that shows horrific photos of diseased female and male genitals. "Syphilis!" he yells, and the group, which is sitting under a thatched-roof shelter on the beach, looks down at what amount to bingo cards that Martínez has given them. Those who have a syphilis square mark it with an uncooked bean. The HIV/AIDS education game, *Lotería Vive*, continues with pictures of other sexually transmitted diseases and cartoons of transvestites, a drunken man, and then the Grim Reaper. "Oh!" groans the crowd at the last card, but one man has bingo and yells, "*Lotería!*" Martínez, who works with the Pan American Social Marketing Organization (PASMO), hands the winner a baseball cap and two condoms.

The residents of this village are Garifuna, so-called Black Caribs who are descendents of shipwrecked Nigerian slaves and who have maintained a distinct culture for more than 200 years. The best HIV studies done in this and three other Garifuna communities—which were conducted by the Ministry of Health more than 7 years ago—found that the adult prevalence was an astonishing 8.4%. Martínez plays *Lotería Vive* in this and other Garifuna villages in the region several times each week.

Garifuna culture, discrimination against gay men, massive migration, the Cold War, and ignored prisoners all are theories that attempt to explain this country's serious epidemic

In 2005, Honduras in general had an adult prevalence of 1.5%, according to the Joint United Nations Programme on HIV/AIDS. That makes it the hardest-hit country in Central America other than relatively tiny Belize (see p. 483). The spread is mainly through heterosexual sex, which

is reflected by a nearly 1:1 ratio of male to female AIDS cases. Yet the virus has also spread widely through the community of gay men, who have a prevalence of 13%—even higher than that of female sex workers, at 9.7%. By November 2005, almost 4500 people were receiving anti-HIV



**Game theory.** PASMO dispatches Daniel Martínez to Garifuna communities to teach HIV prevention through the bingolike *Lotería Vive*.

### Mission Possible: Integrating The Church With HIV/AIDS Efforts

TEGUCIGALPA AND JUTICALPA, HONDURAS—Throughout heavily Catholic Latin America, few topics have riled those working to slow the spread of HIV more than the Vatican's opposition to condoms. Many HIV/AIDS workers have also decried what they see as the tendency by many denominations to treat as outcasts the two groups especially hard hit by the epidemic: homosexuals and sex workers. But in Honduras especially, church leaders are now trying to become part of the solution with stepped-up efforts that aim to slow HIV's spread and help the infected.

These church representatives are not, by any means, advocating the use of condoms, as Maryknoll sisters in Guatemala do with sex workers and other at-risk people they help (see p. 480). But representatives from four denominations are working with the United Nations Population Fund (UNFPA), which is famous for promoting family planning, in the year-old Interreligious Committee to contribute to Honduras's national strategic plan for confronting its HIV/AIDS epidemic. "This is the first time we've worked with faith-based organizations, and the nice thing is we put our position on the table," says Alanna Armitage, who heads the UNFPA office here. "We would not work with them if we couldn't talk about condoms or they said they weren't effective. There's no more time to fight on this."

The representatives from the Episcopal, Evangelical, Adventist, and Catholic churches do not speak with one voice about condoms; some think, for example, that they should be promoted if one partner in a marriage is HIV-infected. Nor do they exactly embrace homosexuality. "We don't have a specific program with homosexuals, but where we work, there are people with HIV/AIDS, and we treat them like anyone else," says Elvia Maria Galindo, a committee member speaking for the Episcopal church. "We're all sinners."

But Javier Medina, a gay activist here, charges that the religious community—particularly Evangelicals—have fanned the rampant



**Crossing the divide.** Padre Alberto Gauci provides many HIV/AIDS prevention and care services in Juticalpa.

homophobia in the country. He points to marches held by Evangelicals that protested the government's decision in 2004 to officially recognize his group, called Kukulcán, and two other gay organiza-

tions. "This created more hatred toward us," says Medina, adding that a few dozen gay men have recently been killed in hate crimes and that his group has received death threats. This does not reflect the opinion of other denominations, however, says Carmen Molina, the committee's Catholic representative.

Although Padre Alberto Gauci, a Franciscan, does not condone homosexuality, he's fervently trying to help thwart HIV at a men's prison in Juticalpa, 3 hours from the capital. Gauci, who favors flip-flops, jeans, and T-shirts and looks more like an aging hippie than a clergyman, is on a somewhat quixotic quest to build a new prison in Juticalpa, where he runs an HIV/AIDS orphanage and hospice. The prison, built more than 100 years ago for 90 inmates, currently holds more than 400 men who sleep at least two to a bunk. More than 5% are known to have AIDS. In December 2005, no HIV tests or anti-HIV drugs were available. "The church has to play a role because people have lost all hope with politicians here," says Gauci, a native of Malta. "Illness is spreading in the prison in a very accelerated way."

Gauci supports his efforts by running a bakery and occasionally staging hoseraces and dogfights on the grounds of his compound. "Gambling is not a sin if you're raising the money for good things," shrugs Gauci. Now that's working in mysterious ways. **-J.C.**

drugs, up from 200 three years earlier. But the national AIDS committee, CONASIDA, estimates that the drugs are reaching only about one-third of those with advanced disease.

No convincing studies explain how the virus made so much headway in Honduras, but theo-

ries abound. Epidemiologist Manuel Sierra, who headed the Ministry of Health study of the Garifuna and now works at the National Autonomous University, says in most countries in the region, the virus entered through gay men and then "incubated," which means it took a long time

to bridge into other communities. The first AIDS cases in Honduras were also gay men, he says, but HIV quickly spread through heterosexual sex, both in the Garifuna community and the country at large. "The main difference between Honduras and the rest of Central America is the incubation period," says Sierra.

A key distinguishing factor in Honduras, he contends, was the country's role during

the Cold War. Sierra notes that when the first AIDS cases were detected in the early 1980s, the Cold War was raging, and U.S. military personnel were flooding into Honduras in an attempt to influence the civil wars in neighboring Nicaragua, El Salvador, and Guatemala. "Honduras was the center used by the United States to fight all the countries," says Sierra. The influx of soldiers—including Nicaraguan contras who staged attacks from Honduras—led to a boom in sex workers, which in turn played a "major role," he says. César Núñez, a Honduran epidemiologist who heads the multicountry PASCA study of HIV prevalence in high-risk groups in Central America (see p. 480), says this is "a good hypothesis."

As in other countries, prisoners are another driver of the epidemic in Honduras. A Ministry of Health study found a prevalence of 7.6% in prisons. "That's the ideal population to spread the virus," says Sierra. "You have spouse visits, lots of homosexual sex, low access to condoms, and lots of HIV." Núñez and Sierra say rampant migration has also played a central role. In particular, the country has a large num-



**Above and beyond.** Honduras has more HIV-infected patients than any country in Central America. They frequently fill the beds at Tegucigalpa's Torax Hospital.



ber of merchant seamen, many of whom travel to Asia and Africa.

Although the Garifuna do not explain the country's high prevalence—they only number about 100,000 out of a population of 7.3 million—they are an important part of a complex story, says Sierra. When he tried to tease out why Garifuna have such a high prevalence, he found no evidence that they were more promiscuous than the *ladinos* who make up the majority in the country. Yet this has become a common belief, in part because Garifuna more openly discuss their sexual habits. “Garifuna as a group are more innocent, and they’ll give you a

straight answer,” says Sierra. “We *ladinos* have learned how to lie.”

Garifuna, some of whom make their livings as merchant seamen, also frequently migrate to the United States and other countries for work. Sierra notes that many shuttle between the large Garifuna community in New York City, which itself has a high HIV infection rate.

Garifuna have other risk factors, including widespread poverty and less access to health services. The culture also has many myths that make it more difficult for HIV-prevention educators. “They believe a spirit can enter a person and therefore that HIV is an inherited thing,” says PASMO’s

Martínez, who is half Garifuna himself. “And when a person is showing symptoms, they think it’s an ancestor asking for a religious ceremony.”

Sergio Flores, the top HIV/AIDS doctor in La Ceiba—the nearest city to Sambo Creek—wonders about highlighting the high prevalence in the Garifuna, because the population already suffers so much stigma and discrimination. “The community was essentially forgotten about, but when HIV arrived, we put our eyes on them,” says Flores. “It doesn’t seem right to me. And if you go to the street and ask the people about AIDS issues, many of them think ‘AIDS, it’s not in my house—it’s the house of the Garifuna.’” —JON COHEN

## BELIZE

# Taking It to the Streets

An unusual prevention program targets gang members, who are seen as particularly vulnerable to HIV

BELIZE CITY, BELIZE—Shortly after Douglas Hyde started working 4 years ago doing HIV/AIDS prevention work with gang members, he was welcomed with a “pint bottle” to his face that left a nasty scar above one eye. Today, Hyde, a former gang member, continues the work through a multipronged government program called Youth for the Future that attempts to link violence reduction with HIV/AIDS education.

As Hyde drives around the rough South Side streets where he grew up, he repeatedly toots the horn of his van at gang members. “What’s up, fam?” he asks a group of men and boys hanging out on one street who don’t exactly look like his family. The group gives a warm “Ya ya” to “Dougie,” who has o-n-e l-o-o-v-e inked across his fingers and barbed wire tattooed on a bicep. Several of the men wonder whether he has leads on any jobs. “I have become the job god in the street,” says Hyde.

This is Blood territory, the gang that Hyde used to run with until a showdown with the rival Crips scared him straight, and he notices the finer details of the street. The pile of used clothing for sale on the sidewalk is a front for dealing drugs. Most of the guys in this group are “strapped” with pistols. “Scopes” at second-story windows of the incongruously colorful clapboard homes are monitoring his every move. And he sees something else that may be less than obvious to outsiders: a strong link between the gang lifestyle and Belize’s high prevalence of HIV, which at the end of 2005 had infected 2.5% of adults. That’s why Youth for the Future believes that finding people legitimate jobs and encouraging them to quit gangs is a potentially powerful HIV prevention strategy.

Although many Latin American countries have problems with gangs, a 2005 report by the nonpartisan U.S. Congressional Research Service

said “the largest and most violent” ones are in Central America and Mexico. According to the report, several factors have led to an increase in gangs: weapons left over from the many civil wars in the region, the stepped-up U.S. deportation of law-breaking immigrants, and staggering



**Ganging up on HIV.** Youth for the Future’s Douglas Hyde (right) found these former gang members jobs with a company that’s clearing this junkyard.

income inequalities in Belize and its neighbors. Youth for the Future is one of the few efforts that explicitly targets gang members as “at-risk youths” for HIV infection.

Not only do gang members often share one woman, Hyde says, but “transactional sex” for a meal or protection is also the norm. “Give some, get some,” says Hyde. Condom use is also low. “And some guys in the street, especially the leaders, believe that they don’t need to take the HIV test,” says Hyde. “They believe they just need to send their girls or wives to take the test to know their status. We’re telling them that’s not true.”

Supported by the United Nations Population Fund and a grant from the OPEC Fund, Youth for the Future maintains a resource center that’s essentially a hangout for anyone, and gang members are welcome. It stages frequent HIV/AIDS prevention education sessions and has a big bowl

filled with free male and female condoms, free pamphlets on HIV/AIDS prevention, and Internet access for a small fee (free to students). “They have done tremendous work,” says epidemiologist Paul Edwards, head of the Ministry of Health’s National AIDS Program. “These kids have a lack of education and don’t make the best decisions possible.”

No study has ever assessed HIV prevalence in gang members in Belize, which has a tiny population of 280,000 people. A study done in the country’s one prison—which almost every longtime gang member knows intimately—found an HIV prevalence of 4.6%. Youth for the Future plans to start offering HIV counseling and testing, and Hyde hopes to recruit gang members to participate in a prevalence study. Meanwhile, he’s become increasingly cautious about how he conducts his business. “I’m good with everyone,” says Hyde. “But I’m very smart now to recognize when I shouldn’t be around.”

—JON COHEN

# Science

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