South America

With its bold 1996 policy to offer top-of-the-line AIDS drugs to everyone in need, Brazil catalyzed the “universal access” movement. Spurred by AIDS activists and donors, many governments in South America have followed suit. Although prevention has stumbled in many countries, Brazil, Peru, and Argentina each have had innovative campaigns, and they have also supported cutting-edge HIV/AIDS research. In part because of these efforts, the epidemic has not spread far beyond high-risk groups, although there’s increasing evidence of “bridging” to the general population.

BRAZIL

Ten Years After

RIO DE JANEIRO AND SÃO PAULO, BRAZIL—In 1996, when it first became clear that potent cocktails of anti-HIV drugs could dramatically extend the life of an infected person, the $15,000-a-year price tag seemed out of reach to all but the world’s wealthiest people. Brazil, which already had a progressive prevention program, said to hell with that. A middle-income country with more HIV-infected people than any other in Latin America or the Caribbean, Brazil declared that it would provide the treatment, at no charge, to every resident who needed it. And the government would bankroll this seemingly outlandish promise in part by having Brazil’s own drugmakers produce copies of antiretroviral drugs that major pharmaceutical companies had patented.

Brazil soon became a poster child for the movement, which argues that everyone, everywhere can have antiretroviral drugs by purchasing knockoffs—outside Brazil, mostly made by generic drug companies in Asia—and by hard bargaining with Big Pharma. By the end of 2005, 1.3 million HIV-infected people in poor and middle-income countries were receiving steeply discounted drugs, up from 240,000 in 2001. Brazil today has 180,000 people on antiretroviral drugs; 20% are made in the country, and the rest are purchased from Big Pharmas—typically after the government stages heated, much publicized, negotiations to exact price breaks.

As aggressive as Brazil has been about confronting Big Pharma, a growing number of insiders are criticizing the country for going soft and too readily acceding to Big Pharma’s wishes. Brazil manufactures only eight antiretroviral drugs, all of them older preparations. Fourteen newer drugs offer many advantages, such as fewer side effects, more potency, and effectiveness against many drug-resistant viruses. Although Brazil has repeatedly threatened to break patents and make copies of these newer drugs, each time push has come to shove, government officials have backed down and cut deals with the Big Pharmas that have made some leading Brazilian AIDS researchers and activists blanch. “This has been a huge disappointment for us,” says Pedro Chequer, who twice headed Brazil’s national AIDS program and now works for the Joint United Nations Programme on HIV/AIDS (UNAIDS). Alexandre Granjeiro, another former head of the AIDS program, says Brazil must violate patents and risk incurring the wrath of Big Pharma and other industries that hold fast to intellectual-property regulations. “It’s important to the world,” says Granjeiro, who is director of the São Paulo State Health Institute. “If we make this ball roll here, it will make the ball roll everywhere.”

Turnaround?

In 1992, the World Bank predicted that Brazil would have 1.2 million infected people by 2000. But because Brazil meshed aggressive prevention efforts with its pioneering treatment program, this dire prediction has not come true. According to UNAIDS estimates, at the end of 2005, 620,000 Brazilians were infected with HIV. The adult HIV prevalence in the country is a modest 0.5%, but because it is the most populous country in Latin America with 188 million residents, Brazil still accounts for more than one-third of the HIV/AIDS cases in the region.

As in North America and Europe, AIDS first surfaced in Brazil in upper-middle-class gay men, many of whom were politically active in the democracy movements that blossomed when 2 decades of military rule
ended in 1985. “The community movement became extremely well organized, more than in the United States,” says Ezio Tavora dos Santos Filho, a prominent AIDS activist who learned of his infection that year. In 1988, when Brazil rewrote its constitution, it declared that health care was a right, and 3 years later, the country offered HIV-infected people free AZT—then the only antiretroviral drug on the market.

By 1992, the virus had spread far and wide, with equal numbers of AIDS cases that year occurring in gay and bisexual men, heterosexuals, and people who injected cocaine—but still, it did not take off to the degree once feared. It’s difficult to untangle precisely why, although Chris Beyrer, an AIDS epidemiologist at Johns Hopkins Bloomberg School of Public Health in Baltimore, Maryland, and co-author of a 2005 World Bank case study of Brazil, credits aggressive prevention campaigns. The Ministry of Health alone tripled the number of condoms it distributed between 2000 and 2003, the report notes, and government and nongovernmental organizations alike boldly reached out to gay men, sex workers, and injecting drug users.

Other factors contributed as well, says Beyrer. Antiretroviral treatment lowers the level of virus, likely making recipients less infectious. And the availability of treatment encouraged people to undergo HIV tests, which in turn can lead those who are infected to take more precautions. A change in drug-use trends—injecting cocaine largely fell out of fashion as many users switched to smoking the drug—contributed to the declining spread of HIV, too. “Brazilians hold on to how severe their epidemic is, but the bottom line is it could have been much worse,” says Beyrer. And because Brazil controlled HIV’s spread early on, he says, it made offering state-of-the-art treatment to everyone in need much more feasible.

Brazil became an icon for HIV-infected poor people everywhere—and a punching bag for critics—following its 1996 decision to offer its residents cocktails of three antiretroviral drugs that had just become available. One of the strongest naysayers was the World Bank, which by then had committed a whopping $750 million to help Brazil combat its AIDS epidemic. “We received a lot of pressure to not implement combination therapy,” remembers Valdívia Veloso, who now directs the Evandro Chagas Clinical Research Institute at Fundação Oswaldo Cruz (Fiocruz), a biomedical research center run by the Ministry of Health. Formerly with the national AIDS program, Veloso says bank representatives urged them to put more money into prevention instead. “They all argued it was a crazy decision to offer triple therapy in Brazil because of the complexity, the cost,” she says.

Objections came from within the country, too. “I was very skeptical,” acknowledges Mauro Schechter, a leading AIDS researcher at Federal University in Rio de Janeiro. Because of limitations in the country’s health care infrastructure and clinician training, Schechter worried that many infected people would not adhere to the complicated treatment regimens, leading to widespread drug resistance. “I was obviously wrong,” says Schechter now. Brazil’s Ministry of Health reports that between 1996 and 2002, AIDS mortality dropped 50%, and an estimated 90,000 deaths were averted. The government says it saved $1.2 billion that would have been spent on hospital admissions and treating the opportunistic infections of AIDS.

Nor have the disaster scenarios of the rapid spread of drug-resistant strains come to pass. “We don’t have any evidence of primary resistance increasing,” says Amílcar Tanuri, who runs a molecular biology lab at Fundação Isla in Rio, a branch of the Federal University, referring to the spread of resistant strains between individuals. Yet Tanuri notes that “secondary” drug resistance, which develops while on treatment, is becoming more widespread, requiring many to change their medicines. “There’s no way around it,” he says. Combine that with the growing number of people on treatment, and Brazil is now faced with importing an increasing quantity of ever-more-expensive drugs. “The cost of treatment is going up and up and up,” says Tanuri. More people on treatment also means more work for already-overstretched clinics. “Brazil has not done the homework over the past 10 years,” complains Schechter, who would like to have seen the government use research to assess how best to use its limited resources. “I’m really concerned about the sustainability of the program.”
Free Drugs ≠ Quality Care

RIO DE JANEIRO, BRAZIL—Thanks to the persistence of a niece, Luis Silva, 50, made his way to the highly regarded AIDS clinic at the Evandro Chagas Clinical Research Institute one morning in June. After suffering persistent fevers and night sweats, Silva in August 2005 had sought medical care at a clinic near the poor neighborhood where he lives. An HIV test indicated that he had been infected, but Brazilian regulations require a second, confirmatory test before doctors order expensive immune tests, which in turn are needed before they can prescribe antiretroviral drugs. The doctors treated what they thought was a pulmonary infection, and for a time Silva’s condition improved, so he skipped the second test. But then the slightly built man lost 20 kilos and developed a hacking cough, which led him to several other doctors, who offered little help. Finally, his niece, who is a nurse, brought him here.

A chest x-ray taken that day showed strong evidence of tuberculosis, and Silva’s doctor said she was all but certain that he has AIDS. Still, even she had to wait 10 days for the lab to determine his HIV status, as only pregnant women have access to the rapid test that can give results in a few hours. The clinic’s director, Valdívia Veloso, notes that many other facilities in Brazil routinely run out of HIV test kits. “It’s crazy,” says Veloso. “It would have been much better for the government to have made the decision about rapid tests years ago.”

As progressive a stance as Brazil has taken on HIV/AIDS prevention and care, it remains a middle-income country offering uneven health care services. “In Rio, it’s not uncommon to receive in the emergency room HIV-infected people who were not treated,” says Pedro Chequer, who twice headed the country’s national AIDS program and now works for the Joint United Nations Programme on HIV/AIDS. “The health care system here is collapsing.”

Activist Ezio Tavora dos Santos Filho recently completed a report of the tuberculosis care offered in Brazil, which he notes is in the “shameful position” of being 15th on the World Health Organization’s list of 22 countries that have a high TB burden. “It’s indefensible,” says Tavora. According to his report, federal, state, and city TB programs are only now beginning to work together, as officials recognize that 12% of HIV-infected people are coinfected with TB.

Solangue Cesar Cavalcante, who heads the TB program for Rio, notes that unlike HIV/AIDS, TB is not a “sexy” topic and so far has not mobilized affected communities. Says Cavalcante, “Tuberculosis is trying to learn from the AIDS program.”

Delayed reactions. Luis Silva (left) had to jump through many hoops to see whether he was HIV infected and eligible for treatment.

Tripping on TRIPS

Between 1997 and 2004, the average annual cost of antiretroviral therapy in Brazil dropped from $6240 per patient to $1336. That decline allowed the country to treat more people without increasing its budget for AIDS drugs. But because Brazil has steadily purchased more imported drugs, in 2005 the per-patient annual cost jumped to $2500 (see graph, p. 485). Forecasts suggest that costs will continue to climb unless the country violates patents or negotiates better deals with Big Pharma.

At the crux of Brazil’s current dilemma are the World Trade Organization’s patent rules, known as the Trade-Related Aspects of Intellectual Property Rights (TRIPS). In 1996, when Brazil decided to offer HIV cocktails, it passed a law that enforced the TRIPS agreement. The new regulation meant that Brazil could legally produce anti-HIV drugs patented before the signing—but not the improved antiretroviral drugs and new classes of drugs that have come to market over the past 10 years. Today, Brazil’s Ministry of Health spends 80% of its $445 million annual budget on imported antiretroviral drugs. And the ministry estimates that between 2006 and 2011, the annual cost of purchasing just three of these drugs—Merck’s efavirenz, Abbott’s lopinavir/ritonavir, and Gilead’s tenofovir—will jump from $145 million to $248 million.

If the government instead made the drugs at the state-owned pharmaceutical company Farmanguinhos, the ministry says the country would save $769 million over that period. “If there’s no change in the price of second-line drugs, no country like Brazil will be able to afford them,” says Luiz Loures, a Brazilian epidemiologist who works at UNAIDS.

“Brazil has the technical capacity to produce all of the drugs,” says Paolo Teixeira, who ran Brazil’s AIDS program from 2000 to 2003 and now works as a consultant for São Paulo’s AIDS program. And he says that gives the country a strong negotiating tool when purchasing antiretroviral drugs in bulk from Big Pharmas. Essentially, the government has said, “If we don’t like your price, we’ll violate the patent and make the drug ourselves.” This is allowed under the TRIPS agreement, which says signatories can invoke what is known as a “compulsory license” to address public health emergencies. No country has yet done so, however, because of fear of damaging international trade relations. Brazilian President Luís Inácio Lula da Silva twice has promised to use the compulsory-license clause for anti-HIV drugs but has backedpedaled both times, complains former AIDS program head Chequer. “They were cowards by not doing that,” says activist Tavora. “That could be very useful to all of us, to the whole world.”

David Greeley, Merck & Co.’s spokesperson for Latin America, says if Brazil invokes compulsory licensing, it will ultimately harm the people the government is trying to help. “We’ve tried to convey to our counterparts in Brazil that it’s not in the long-term interest for Brazil to adopt this stance,” says Greeley. As with other Big Pharmas, Merck invests in research and development of new products because intellectual-property regulations exist, he says. “Intellectual property is an incentive to innovation, not a barrier to access,” he maintains.

Retaining the lead

In the Rio suburb of Jacarepaguá, there are clear signs that the government once again wants Brazil to lead the charge against Big Pharma with more than rhetoric. Jacarepaguá’s Estrada dos Bandeirantes has long housed the gleaming offices of international giants such as Abbott and Roche, both of which have crossed swords with Brazil over pricing of their anti-HIV drugs. In August 2005, a new resident moved into the neighborhood: Farmanguinhos, the government-owned drugmaker.

Farmanguinhos’s new factory, once owned by GlaxoSmithKline, has five times the pro-
duction capacity of its old plant on the other side of the city. Company Director Eduardo de Azeredo Costa has ambitions beyond just manufacturing more antiretroviral drugs. He says Brazil needs to start producing the active pharmaceutical ingredients used to make the drugs, which it now purchases from India and China. Costa says these are often of inferior quality, so by making its own, Farmanguinhos can both reduce costs and avoid expensive delays in production.

But even with these changes, making the new generation of antiretroviral drugs will be challenging for Brazil. “It’s a lie that if we had no patents, we just can from right today produce generic medicines for all drugs,” says epidemiologist Francisco Basto, a leading AIDS researcher at Fiocruz. “This will be a very, very complicated issue for the coming few years.”

Costa agrees but says Farmanguinhos and other drugmakers must rise to the occasion, for the sake of Brazil and other cash-strapped countries. As Costa walks around the plant’s new high-tech machines—several of which are still wrapped in plastic—he notes that representatives from two dozen countries have toured the facility in hope of following in the Brazilian government’s footsteps. “People of the world want us to be much better than we are,” says Costa. “We have to answer to this demand.”

—JON COHEN

ARGENTINA

Up in Smoke: Epidemic Changes Course

BUENOS AIRES, ARGENTINA—Stella Maris Todaro is part of a battalion of promotorios hired by the government to educate their communities about HIV/AIDS. “I started this work 15 years ago because I saw my children were addicted, shooting drugs,” says Maris, who lives in a poor neighborhood called a villa miseria. Whereas most countries in Latin America then had AIDS epidemics concentrated in homosexual men, Argentina, like its neighbors in the Southern Cone of South America, had an equally large problem in injecting drug users (IDUs) who shot cocaine. As it turned out, Maris’s two sons both became infected by sharing syringes and died from AIDS. Although she was not an IDU herself, a sometime partner was, and in 1995, Maris learned that she, too, was HIV-positive.

Today, Maris, 52 and a grandmother, better characterizes the average HIV-infected person in Argentina than do her sons. In a dramatic shift seen across the Southern Cone, IDUs largely have either died from AIDS or stopped injecting cocaine and switched to smoking the much cheaper pasta base de cocaína, or paco, a low-grade paste. “We have a great change of the use of drugs in Argentina,” says epidemiologist Claudio Bloch, head of the HIV/AIDS program for the city of Buenos Aires. Bloch, like many other experts, contends that paco’s rise in popularity is a result of “the crisis,” the sharp devaluation of the peso that occurred in 2001 and 2002, although the same shift has occurred in other Southern Cone countries that did not suffer an economic collapse.

By December 2005, HIV had infected 130,000 people in Argentina, or 0.6% of all adults, a percentage that has remained steady for several years. Ministry of Health figures from 2004 show that 50.7% of the people with AIDS had been infected through heterosexual sex, whereas men who have sex with men (MSM) accounted for only 18%, and IDUs were at 16.6%. A similar analysis from 1982 to 2001 shows that 40.1% of the AIDS cases were IDUs—more than either MSM or heterosexuals. In Buenos Aires, the evidence is more telling still: IDUs accounted for only 5.2% of the new infections between 2003 and 2005. Now, says Bloch, the new infection rate in men and women is almost the same. “The heterosexualization of the epidemic is so strong,” he says.

As more women become infected, Maris’s services become increasingly valued. “I’ve learned a lot of things from Stella,” says Sara Tapia, 33, a mother of four who lives in this villa miseria. "In life, we have to be what we are. We mustn’t pretend. We’re always going to be that.” One of Tapia’s most difficult challenges, she says, is that her husband refuses to get tested: “It’s not something he
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Editor's Summary

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