HEALTH

SAN FRANCISCO'S FIRST AIDS MARCH, IN 1983

SAN FRANCISCO WAS GROUND ZERO FOR HIV IN THE U.S.

THE END

NOW IT WANTS TO BE THE FIRST CITY IN THE WORLD
WITH NO NEW INFECTIONS, NO STIGMA—

OF AIDS

AND NO DEATHS. BY ALICE PARK

Photographs by Mark Mahaney for TIME

WHEN PATRICK, A GAY MAN WHO

worked on-again, off-again as a bartender in San Francisco, developed a fever, muscle aches, and a rash that spread from his chest to his neck, he expected the worst. He hadn't been as careful as he should have been with a recent sexual partner, and he'd seen enough people get diagnosed with the virus that has ravaged his community for decades. In the summer of 2013, he went to the San Francisco City Clinic for a free HIV test. He filled out paperwork requesting five different contact numbers—his own and those of close friends or family members. Then the nurse drew blood.

What happened next did not follow the normal trajectory of any medical diagnosis, much less HIV. Patrick, 35, was between jobs at the time, without a working phone, and was crashing on an ex-boyfriend's couch when he finally logged on to a friend's computer several days later to check his email. That's when he found urgent messages from the clinic asking him to call. He also learned that doctors had been trying to track him down through his contacts, including a former lover. "They were really aggressive about finding me, which was a little off-putting," Patrick recalls.

Patrick didn't know it then, but he was the first patient in a groundbreaking program called RAPID (Rapid Antiretroviral Program Initiative for new Diagnoses), a public-health strategy launched in 2013 by the University of California, San Francisco (UCSF), San Francisco General Hospital (SFGH) and the city's public-health department, with support from local pharmacies and activists. It's a comprehensive plan meant to erase the financial and social barriers to getting tested and treated for HIV.

RAPID impels people who don't know their HIV status to get tested and tracks down those who are positive before shuttling them from HIV testing centers, which can't dispense drugs, to hospitals, which can. After that, there are follow-ups to make sure that the patients stay on their meds—and that the drugs are working.

The reason for the urgency is simple: the more HIV-positive people who know their status, the more people who can start treatment. And HIV-positive people who take their medications can bring their virus levels down to undetectable levels—a potential lifesaver for them that also leads to less virus circulating that can spread from one person to another. That, say experts, could be the key to finally putting out the fire that has claimed 36 million lives since the 1980s and continues to smolder on nearly every continent, affecting 35 million more.

RAPID lives up to its acronym. "They told me my test was positive and wanted to put me in a cab to San Francisco General Hospital that day," says Patrick. Before he even arrived, Dr. Hiroyu Hatano, an HIV expert at UCSF and SFGH, received a page that Patrick was on his way. That's RAPID at work too: ensuring that patients are paired with a permanent physician who sees them at every visit. That doctor talks to them about starting lifesaving antiretroviral (ARV) drugs—immediately—using federal and state AIDS funding to subsidize drugs for low-income and uninsured people.

Hatano is part of a new generation of HIV experts who are operating with the benefit of more than 30 years of trial and tragedy at their disposal. For years after AIDS was first identified in 1984, patients survived an average of only 18 months and—because there were no treatments—could be given only palliative care. Now doctors are much more aggressive with the virus.

While ARVs have been around since 1987 and doctors have been using them in powerful cocktails since 1996, Hatano and Dr. Diane Havlir, chief of the HIV/AIDS division at SFGH, were compelled by more recent studies that revealed that the sooner people start taking them, the healthier they would be. Someone who begins treatment as soon as possible after infection can protect his immune system from being ravaged.

And that makes RAPID something of a revolutionary program, because the treat-first approach, which SFGH began offering to patients in 2009, went against what the Centers for Disease Control and Prevention (CDC) advised physicians to do at the time. Its guidelines recommended waiting to start drug therapy until immune-cell counts dropped below a certain level—a sign that the body was beginning to lose the fight against HIV.

But Havlir and Hatano's research showed that intervening before that happened could prevent the virus from establishing beachheads in the body—dreaded reservoirs that no medication, no matter how powerful, could reach.

So when Hatano and Patrick met for the first time, Patrick recalled, "she put three pills in front of me and said, 'We want you to start them. Like, today, right now.'" He swallowed the pills while she watched.

Since Patrick downed those pills, 50 people have followed him in the program. It's now the cornerstone of San Francisco's strategy to be the first city to "get to zero"—zero new HIV infections, zero deaths from HIV/AIDS and zero stigma. "They say AIDS started here, and we want to start the end of the epidemic here too," says Havlir.

HIV TODAY *Dr. Diane Havlir, far left, with HIV-positive patient Steve Ibarra and nurse Diane Jones*

'WE HAVE THE OPPORTUNITY TO BE THE FIRST CITY TO END HIV TRANSMISSION.'

—NEIL GIULIANO, CEO, SAN FRANCISCO AIDS FOUNDATION

She has the support of city supervisor Scott Wiener, who hopes this campaign will, as he says, put the "final nail in HIV's coffin in San Francisco." It's a journey, city officials and HIV experts hope, that will finally mean meeting the epidemic head-on by aggressively employing what has proved to work in stopping HIV from spreading.

"I don't think it's outrageous or unrealistic to say we have the opportunity to be the first city to end HIV transmission," says Neil Giuliano, CEO of the San Francisco AIDS Foundation (SFAF), a nonprofit advocacy group. "When we do that, we have a clear piece of pavement that we have to go on to get to the end of AIDS."

It will take more than a few committed doctors and gumshoe HIV-testing counselors. It will require the right public-health policies that encourage universal testing, support from lawmakers who mandate coverage of not only HIV testing but treatment services as well and a community willing to embrace the idea. San Francisco is uniquely positioned to make it happen.

From Epicenter to AIDS-Free

WITHIN A FEW YEARS OF THE FIRST AIDS cases' being reported in the U.S. in 1981, San Francisco became the hub of the country's epidemic, peaking at more than 5,000 cases per year in the 1980s. The local health department opened the country's first HIV clinic and first inpatient AIDS ward, both at SFGH, which quickly filled its several dozen beds. But with no treatments and only a basic understanding of the virus, the ward became a hospice where AIDS patients went to die.

More than three decades later, the disease has killed over 650,000 Americans, and the HIV/AIDS landscape, thankfully, has changed. At its peak, there were 50,000 deaths from the virus per year; now the number is 15,000. Lately, the rate of new HIV infections has stabilized at about 50,000 annually, and more than 1 million people in the U.S. are now living with an HIV diagnosis.

PREVIOUS PAGE, FIGHTING FOR OUR LIVES: DANIEL NICOLETTA; THESE PAGES: MARK MAHANEY FOR TIME

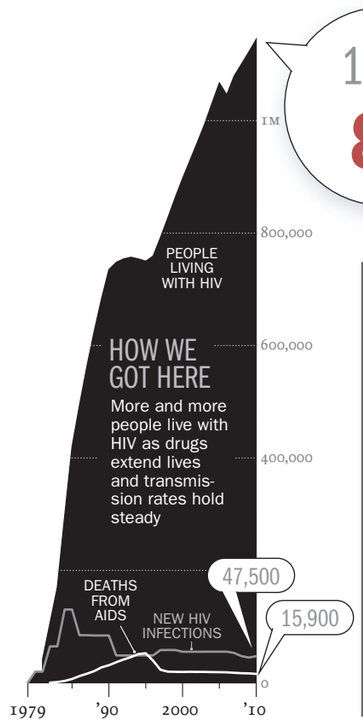
Those trends are making it possible for public-health experts to shift the conversation toward reducing, and even eliminating, HIV infections. More people are living with the virus—successfully controlling it with medication—and far fewer have the immune-system crashes, cancers and infections that can come with full-blown AIDS.

And the face of HIV today is a world away from the gaunt faces and wasted spirits brought to life in Tony Kushner's *Angels in America* and by Tom Hanks in *Philadelphia*. The reality is that it's now possible to live, for nearly an average lifetime, without any obvious physical evidence of an HIV infection.

As welcome as that about-face is, though, it comes with a price. Flattening rates of new infections and the existence of powerful drugs have nurtured complacency about HIV/AIDS, creating a sense that the worst is over. That's reflected in shrinking commitments to global funding for AIDS, including from the U.S., as well as stubbornly low rates of treatment. While rates of new infections are declining worldwide, only 37% of the global HIV-positive are taking lifesaving drugs. And there is a worry about rising rates among women.

So the fact that some experts are talking about ending the epidemic—with fewer resources, without a vaccine and without a cure—strikes others in the field as premature. "The things that will create an AIDS-free generation are things we don't have yet—a cure and a vaccine," says Dr. Warner Greene, director of virology and immunology at the Gladstone Institutes in San Francisco. "But the [get-to-zero] effort will reinvigorate the field. It's a rallying cry that I think serves a great purpose."

That purpose, argue leading voices in the Bay Area, is to ensure that we don't sit by and do nothing while waiting for a vaccine or cure. Programs like RAPID—and the recent discovery that some ARVs can be used to prevent infections in healthy people—offer a road map that goes beyond safe-sex messaging, free condoms and needle exchanges. "We know how to end the epidemic. We just have to put things together in a way that engages people, makes the services available when and where they are needed," says Dr. Robert Grant of UCSF. "It becomes a practical challenge."



1.1 MILLION PEOPLE IN THE U.S. LIVE WITH HIV, BUT ONLY

84% have been diagnosed

37% have received regular medical care

33% take anti-HIV drugs

25% have reduced HIV levels to be less infectious

SAN FRANCISCO'S SUCCESS STORY

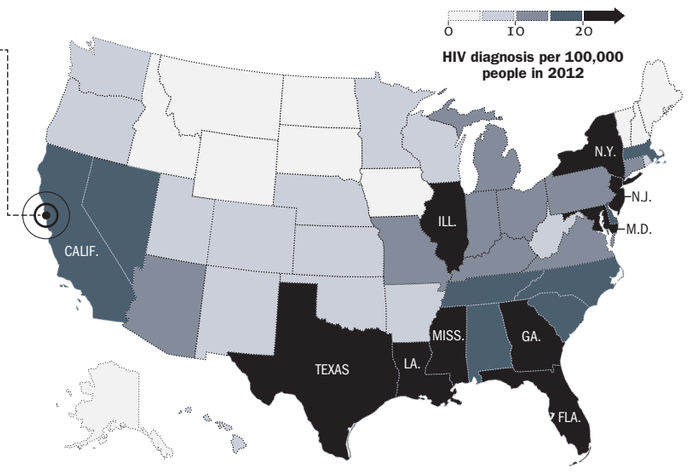
The city tests high-risk populations and starts treatment quickly. This has produced better results compared with the national figures, above

94% have been diagnosed

58% have regular medical care

54% take anti-HIV drugs

52% have reduced HIV levels to be less infectious*



WHO GETS HIV

Rates of HIV are growing fastest among gay, bisexual and black men, according to the CDC. Here's a closer look at all U.S. HIV cases

DEMOGRAPHICS

76% **MALE**

44% **BLACK**

33% **WHITE**

24% **FEMALE**

19% **HISPANIC**

TRANSMISSION

53% **MALE-TO-MALE SEX**

27% **MALE-TO-FEMALE SEX**

15% **INJECTION DRUG USE**

*Figure is based on those receiving regular care. Sources: CDC; San Francisco Department of Public Health; AIDS.gov

'WE KNOW HOW TO END THE EPIDEMIC ... IT BECOMES A PRACTICAL CHALLENGE.'

—DR. ROBERT GRANT, PROFESSOR OF MEDICINE, UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

A Voluntary Breakthrough

SAN FRANCISCO HAS BEEN CONFRONTING this challenge for several years, ramping up its efforts in the past 12 months, and so far that's been paying dividends. Since 2010 the percentage of HIV-positive people in the city who are taking ARVs and have undetectable levels of HIV in their blood—which means they are unlikely to pass on the virus—has increased, from 56% to 68% in 2012. Nationally, only 25% to 28% of patients fall in this category. And because San Francisco patients are starting on their ARVs sooner, they are suppressing the virus more quickly. In 2004 it took the average patient nearly three years of daily pill popping to reach undetectable virus levels; in 2013 it took about three months.

Much of the recent progress began as the AIDS epidemic did, in an area southwest of downtown called the Castro, a hub for gay men, who still make up 80% of the city's new HIV cases. And a central spot in the Castro—for HIV screening and, increasingly, for a number of other things too—is a place called Magnet.

Magnet occupies an old theater in the heart of the neighborhood. Its vintage marquee advertises art shows, but the space is best known for its free HIV services. Even before it opened in 2003, Magnet attracted both controversy and curiosity; its glass storefront—where drop-ins can be seen by anyone walking by—was a first for an HIV clinic. It has morphed over time from being a place to get a free HIV test into an art gallery, a dance studio and an open-mike venue, and every Wednesday it doubles as an acupuncture office.

"It doesn't seem taboo at all to be here," says Chris Thurman as he signs in for his regular HIV test. The $12 tests are free for anyone who requests one, thanks to the city's health department, which subsidizes them. (SFAF contributes to operational expenses.) Magnet sees about 60 to 80 people a day and performs about 9,000 HIV tests annually, nearly half the city's tally. On a typical morning, more than a dozen people are lined up waiting for the center to open.

It wasn't always this way. In the 1990s and 2000s, an estimated 20% of those who were HIV-positive in the city never made an appointment to get tested, and 25% who tested positive never came in to get their results. Laws requiring written consent for the test, counseling and a weeklong "contemplation" period all stood between a simple blood test and a person's finding out his or her HIV status.

That was particularly frustrating for Dr. Jeffrey Klausner, then the deputy health officer with the San Francisco department of public health, who knew that drug cocktails could save these patients' lives. So he asked his counselors to gingerly query patients about whether doctors could follow up with them if they tested positive but didn't return for their results.

Most said yes, and in 2006 the city was the first to drop the pretest-counseling requirement and allow people to provide oral consent for the test. Rates of new HIV diagnoses fell from nearly 500 in 2008 to 359 in 2013. Today 94% of HIV-positive people in the city are aware of their status, compared with 84% nationwide.

Four months after San Francisco made these changes, the CDC followed. That's when the agency issued guidelines that voluntary HIV testing be made available to all adults in the U.S.—minus the pretest counseling or written requirements.

No New Infections

PEOPLE KNOWING THEIR HIV STATUS IS JUST one step in getting to zero. In the past decade, potent drugs have transformed HIV from a nearly always fatal infection to a chronic one resembling diabetes: it requires medical management, but those with the disease can live a relatively healthy life. The drugs that help keep HIV-infected people healthy also turn out to be a potent form of prevention. San Francisco is taking full advantage of the opportunity.

Called by the unwieldy name pre-exposure prophylaxis, it's better known as PrEP. Studies spearheaded by Grant show that among gay men, those who don't have HIV can lower their risk of getting it by over 90% if they take Truvada for at least a few days before and after exposure to the virus. The idea is to flood the body with the drug, which interferes with HIV's ability to copy itself and spread. Ongoing studies are investigating the optimal dosing regimens.

It's such a potentially powerful tool for reducing new HIV infections that San Francisco's board of supervisors recently voted 10-1 to provide PrEP to all at-risk residents who requested it, regardless of their ability to pay. Detractors, however, argue that supplying preventive drugs to the otherwise healthy would give people a license to live dangerously and undo the advances that safe-sex campaigns have made.

But early studies of gay men who were given PrEP if they asked for it showed no evidence that those users became more promiscuous. And those taking the once-a-day pill for three months were less likely to have multiple sexual partners than those who weren't.

For many in the city, particularly those

with an HIV-positive partner, PrEP is a potential lifesaver. "It's like a wonder drug," says Andrew Giddens, a local sous-chef who asked about PrEP during his routine HIV test at Magnet in August after starting a relationship with someone who has HIV. "How come every single person in the gay community doesn't know about this?"

But better information and stronger drugs are just the first steps in what experts call the treatment cascade. Once patients are diagnosed, they need to find a doctor who can treat them with ARVs. Then they need to take those drugs every day for the rest of their life.

That's why RAPID employs full-time social workers who meet the patients to work out any obstacles that might prevent them from keeping their appointments. Those include psychological issues, such as depression or denial, and substance abuse. It's also their job to make sure cost doesn't prevent people from filling their prescriptions after their five-day starter pack runs out. For patients like Jose, an unemployed retail manager who was brought to RAPID the day after he was diagnosed in May, figuring out how to pay for the drugs was a top concern. "What was going through my head wasn't my health," he says, "or that I was going to die, but would I have to use everything I worked for in order to save myself from this disease?"

In three days, his social worker had enrolled Jose in the AIDS Drug Assistance Program, with federal and state funds covering the $3,000-a-month meds. Jose, like Patrick, chose to use a pseudonym: his parents and five siblings don't know about his diagnosis. And for now, they might not have to. Three months after he started taking ARVs, his virus was undetectable.

TO BE CLEAR *The glass storefront of the Magnet clinic in San Francisco's Castro district; the center does half the city's HIV tests*

MARK MAHANEY FOR TIME

Ending the Stigma

EVERY EPIDEMIC, HOWEVER DEVASTATING, has a beginning and an end. The Black Death that swept from China to Europe in the 1300s peaked over five years. The influenza epidemic of 1918 ripped through nearly every country on the planet, leaving an estimated 50 million dead in its wake. But nearly as quickly as it came, it disappeared after about 12 months.

However dark the circumstances seem at the start, history teaches us that eventually there is an end. And a critical feature of that denouement is often eliminating the stigma of a disease—and then applying solid science, when it's available.

> ZERO INFECTIONS IS 'A LAUDABLE GOAL,' BUT THE RHETORIC IS A DISSERVICE TO PREVENTION.
>
> —PAUL HARKIN, HIV COUNSELOR, GLIDE, SAN FRANCISCO

Achieving that goal may be the most challenging chapter in the story of the end of AIDS, even in a city as liberal as San Francisco. "We will not reach the goal of zero new infections if we don't stop stigma and discrimination," says Françoise Barré-Sinoussi, a co-winner of the Nobel Prize for her work in discovering HIV. That won't happen overnight. But just as Magnet set a new standard by making HIV services as commonplace as any other health screening, San Francisco is reorienting itself toward a new view of HIV—and other cities in the U.S. and abroad may follow its lead. Certainly, San Francisco's experimentation is having an impact elsewhere. In 2012 the CDC changed its guidelines and now recommends ARVs for anyone diagnosed with HIV, regardless of their immune-cell count.

Next year Magnet will reopen in a glitzy health-and-wellness center in the Castro, for which it is raising $10 million from private donors. It will be a one-stop shop for drug, mental-health and HIV support. The center will significantly expand the number of people the city serves.

The new Magnet will be part of proving that RAPID can work—and be scaled outside the Castro. "I haven't seen anywhere close to zero infections in the community I work in," says counselor Paul Harkin, who heads HIV services at Glide, a center in the more hardscrabble Tenderloin neighborhood. "I think it's a laudable goal, but I think the rhetoric should get toned down, because it's a disservice to the whole idea of prevention." At his clinic, men don't come in for testing as they do at Magnet. Volunteers have to make the rounds in the neighborhood to get people to visit the center.

Even so, notes Giuliano, that doesn't negate the opportunity RAPID has created. "I contend that when we show we can do this even in one community impacted by HIV, then it is proof of concept for work that needs to be done in other groups," he says.

When Patrick moved to New York City, Hatano gave him a list of doctors and counselors there who signed him up for benefits so he wouldn't stop taking his daily ARVs. "Knowing I would be able to continue my care after I moved was huge," he says. "The whole experience has been like a warm gentle hug since that first day."

More than three decades ago, HIV began patient by patient. Now San Francisco hopes to march toward the beginning of the end of AIDS. "I'm 57, and I saw a lot of friends die," says Giuliano. "Those of us who lived through that, we're not going to just accept people being able to live well. We want to end HIV and AIDS." ■

VIEWPOINT

AN AMERICAN MIRACLE

HOW THE U.S. FOUGHT AIDS BY THINKING BIG AND STAYING SMART

BY MICHAEL ELLIOTT

Elliott, a former editor of TIME International, *is the president and chief executive officer of ONE, an international advocacy group co-founded by Bono*

AT MY HOME IN WASHINGTON, D.C., PLACED SO THAT I SEE IT every morning, is a photograph of Princess Adeyeo, a young Liberian woman I met in 2012. Princess had been a refugee during Liberia's civil war; when she returned there, she found that she was HIV-positive. But in Monrovia's John F. Kennedy Hospital she was put on a course of antiretroviral drugs (ARVs), which prevent mother-to-child transmission of the virus, and a few months before our visit she gave birth to a beautiful baby boy. He was HIV-negative, healthy.

Right now, of course, people associate Liberia with Ebola. It's right that we get mad about Ebola—mad that the world waited so long to tackle the outbreak; mad that poor, vulnerable societies don't have the resources needed to tackle infectious diseases. But we should remember too that in the past few years, Liberia—in fact, every country, rich or poor—has seen small miracles like the story of Princess and her son, and sees more of them each year.

In 2003, across all of sub-Saharan Africa, just 50,000 people were on ARVs; now more than 9 million are. There is no reason, in the next few years, that we cannot virtually end mother-to-child transmission of HIV in even the most challenging environments. Unheralded, we just passed a tipping point: in 2013, more people were added to the rolls of those on lifesaving treatment for HIV/AIDS than the number who were newly infected. That crossover of trend lines should mark the beginning of the end of AIDS.

Say those last seven words out loud and wonder at them. How did we get to a position that, had it been suggested not long ago, would have been thought impossible? Because of brave, stubborn activists; brilliant scientists and their generous funders; dedicated doctors and nurses; patients who fought for a chance to live; and officials and politicians of all political stripes and none who devised programs that gave those patients hope. And just to be clear, those countless heroes and heroines came from all over the world.

BUT WHEN, AT THE NATIONAL INSTITUTES OF HEALTH IN 2011, Hillary Clinton, then U.S. Secretary of State, said, "In the story of this fight, America's name comes up time and time again …

No institution in the world has done more than the United States government," she was speaking not hyperbole but truth.

For here is what seems like a secret but shouldn't be: in the past decade, Americans and their Presidents have done a great thing. From 2004 to 2013, the U.S. committed more than $50 billion to the global fight against AIDS, and last year accounted for some two-thirds of all international assistance to that effort. (About half the money to combat AIDS in the developing world now comes from the budgets of countries there.) Programs funded by American taxpayers have saved more than 7 million lives overseas.

Here's another thing that would surprise Americans if they knew about it: in a Washington that has become a byword for dysfunction, the war on AIDS has been a model of comity. There have been political disagreements to be sure, but thanks to the work of two Administrations of different hues and countless congressional heroes from both sides of the aisle, support for the international fight against AIDS has remained solidly bipartisan.

BREAKTHROUGH *George W. Bush pledged to commit an unprecedented $15 billion to fight AIDS in Africa during his 2003 State of the Union address*

How come? At the heart of this story are two simple and rather old-fashioned ideas. Think big, and stay with what works. For the first insight, credit the Administration of George W. Bush. The 43rd President had come into office interested in Africa's untapped potential, and in the summer of 2001 he pledged $200 million to the new Global Fund to Fight AIDS, Tuberculosis and Malaria. A year later, he committed $500 million to fight mother-to-child transmission of HIV. The next day, he called Josh Bolten, then his deputy chief of staff, into the Oval Office and told him, "Think even bigger."

Twelve years on, Bolten still muses on the various elements—strategic, managerial, religious—that made Bush so relentless in his determination to do something about AIDS. Bush plainly felt that the U.S., with all its blessings, had a duty to others less fortunate. Bolten remembers—as does Michael Gerson, then Bush's chief speechwriter—the President's frequent quotation from Luke's Gospel that "to whom much is given, much is required."

But for whatever reason, Bush thought big, and his team—Bolten; Gerson; Tony Fauci, the veteran AIDS researcher at the National Institutes of Health; and others—delivered. In his State of the Union message in January 2003, Bush announced a truly astonishing $15 billion commitment to tackle AIDS in Africa, in what became PEPFAR, the President's Emergency Plan for Aids Relief, which remains the largest program devoted to combatting a single disease that any nation has ever launched.

THE SPEECH AND THE PLEDGE WERE THE DRAMA. BUT IT IS perhaps what has happened since—the quotidian business of sticking with what works—that has been most inspiring about the U.S. effort on AIDS. On World AIDS Day in 2011, President Barack Obama paid tribute to Bush and PEPFAR and said he was "proud that we have the opportunity to carry that work forward." That the President did—working again with a bipartisan coalition on the Hill—and then some. At a time of fiscal austerity that extended to every element of the federal budget, the amount the U.S. committed to PEPFAR and the Global Fund grew from $5.8 billion in fiscal year 2008 to $6.3 billion in 2013.

PEPFAR has evolved to follow where the science leads us. We now know, for example, that antiretroviral treatment and voluntary male circumcision can serve as prevention tools, reducing the risk of passing HIV on to others. So the program has scaled up its efforts in those areas while also targeting its resources to the regions of greatest need. But what Obama said in 2011 remains true: "The fight against this disease has united us across parties and across Presidents."

Long may it do so. Sustained American leadership remains vital. But wherever the funding comes from, there will still be challenges. Already, the disease is concentrated among vulnerable populations, some of them hard to reach and treat for reasons of social stigma or isolation, including men who have sex with men, injection-drug users, female sex workers, adolescent girls and the disabled. Other developed nations need to step up and join the U.S. in its commitment, and national governments in the developing world need to keep their promises to spend more on health.

But given what has been done in the past few years, it would be churlish to assume the worst. In the past decade, in HIV/AIDS policy, science and treatment, the world has seen miracles: big ones, involving millions of people on lifesaving drugs, and small ones, like a mother with the disease giving birth to a healthy child.

Most miracles are a mystery. These aren't. Thank you, America. ■

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