HIV and COVID-19: Getting HIV Care Back on Track

Lessons learned from HIV have informed the response to COVID-19, but has the new focus derailed HIV services?

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Those following the news about COVID-19 have no doubt seen some familiar faces. From National Institutes of Allergy and Infectious Diseases director Anthony Fauci, MD, and Centers for Disease Control and Prevention (CDC) director Rochelle Walensky, MD, PhD, to veteran AIDS activists around the world, prominent names in HIV are now leading the response to the new pandemic.

Even as the crisis stage of COVID-19 begins to wind down for some people in the United States thanks to highly effective vaccines, these experts remain focused on familiar health disparities in this country and the need for health equity worldwide, drawing parallels to and applying lessons learned from HIV. One of these lessons is the key role of affected communities in responding to a health emergency.

“When officials couldn’t meet the needs of people with HIV in the beginning of the AIDS epidemic, activists formed community organizations to help patients, raise awareness, teach prevention and advocate for more government assistance,” says Monica Gandhi, MD, MPH, medical director of the Ward 86 HIV clinic at Zuckerberg San Francisco General Hospital, who has become a widely quoted expert on COVID-19. “Their efforts transformed the country’s response to the HIV epidemic and showed the vital role communities play in responding to health crises.”

Another lesson is the importance of services that meet people where they are and recognize that they have complex life histories and needs that impact their overall health and well-being. It was never just about HIV—and today, it’s not just about COVID-19.

When she was doing AIDS fieldwork in Africa, Diane Havlir, MD, chief of the University of California at San Francisco’s Division of HIV/AIDS, Infectious Diseases & Global Medicine, and her team brought HIV testing and rapid treatment, integrated with other health services, directly to people in migratory fishing communities in Kenya and Uganda, rather than requiring people to come to them.

Years later, when it became clear that COVID-19 was hitting San Francisco’s Latino community hard, Havlir teamed up with retired HIV nurse Diane Jones—one of the founders of the country’s

first dedicated AIDS ward at San Francisco General Hospital—and the city's Latino Task Force to create Unidos en Salud (United in Health).

The group developed a community-facing program in the city's Mission District that included walk-up coronavirus testing and door-to-door outreach. It generated data on the importance of asymptomatic infection, the high risk among Latino frontline workers and the utility of rapid testing to break chains of transmission. Unidos en Salud has vaccinated more than 24,000 individuals, 85% of them people of color. What's more, the program provides food and supplies to people who test positive and need to quarantine and helps arrange financial support through the city for those who have to miss work.

"Our work in HIV taught us that genuine partnerships between community, scientists and policymakers are absolutely critical for an effective pandemic response," Havlir says. "We also know that a one-size-fits-all approach does not work, and we need to work hand in hand with communities to make sure advances in science are reaching the most affected populations."

HIV and COVID-19

Although much remains to be learned about interactions between HIV and SARS-CoV-2, the coronavirus that causes COVID-19, being HIV positive itself does not appear to have as much of a direct effect on COVID-19 outcomes as some initially feared. But data are mixed.

Some studies have found that people with HIV are at greater risk for more severe illness and are more likely to die from COVID-19 than their HIV-negative counterparts. One meta-analysis, which pulled together data from 22 studies that included nearly 21 million people in North America, Europe, Africa and Asia, found that HIV-positive people had a 78% higher risk of death from COVID-19 than HIV-negative people. Another meta-analysis of 19 studies showed a moderately increased risk. But other researchers have seen little or no difference.

What is clear is that people living with HIV have a high prevalence of underlying health conditions and other cofactors—including being Black or Latino and over age 50—that put people at risk for poor COVID-19 outcomes. Several studies have shown that a majority of HIV-positive people have at least one comorbidity, such as obesity, diabetes or cardiovascular disease. In particular, people who are not on antiretroviral treatment, those who currently have a low CD4 T-cell count and those who had a very low CD4 count in the past may be at especially high risk.

"Sometimes risk only becomes apparent after adjusting for age—an HIV-positive person who is age 50 or 60 might have a risk equivalent to an HIV-negative person who is 70 or 80," says Simon Collins of the London-based treatment activist group HIV i-Base. "When we overlay other factors, the cumulative risks start to become much higher for some people than others."

The prospect of worse outcomes has led health officials and clinicians to urge people with HIV to get a COVID-19 vaccine as soon as they can. The good news is that the three vaccines authorized in the United States are safe and effective for most people living with HIV. Thanks to the efforts of advocates, HIV-positive people were included in vaccine clinical trials, though their numbers were

small and those with compromised immunity were excluded.

Although the vaccines have not been studied in HIV-positive people with a low CD4 count, it is known that people over age 80, organ transplant recipients and people on cancer chemotherapy can have weaker responses. It is therefore important for immunocompromised people to receive both doses of the Pfizer-BioNTech or Moderna vaccine on schedule, and researchers are studying whether adding additional booster doses might improve response.

Diane Havlir, MD, at a Unidos en Salud COVID-19 testing site in San Franciso's Mission DistrictCourtesy of Barbara Reis/UCSF

Profound Effects

Whether or not HIV itself worsens COVID-19 outcomes, it's increasingly clear that the pandemic has had a detrimental impact on people living with HIV in other ways. COVID-19 has disrupted HIV services nationwide and around the world, threatening to set back recent progress in the fight against HIV/AIDS.

"I think the effects have been profound," says Gandhi. "There are three pillars of HIV control—prevention, testing and treatment—and all three of those were affected during COVID-19. I'm really concerned that the impact of this pandemic may stop us from keeping our eyes on the goal of combating HIV."

Early in the pandemic, people were advised to stay home and minimize contact with the health care system. What's more, medical providers, clinics and hospitals, and laboratory facilities have

diverted resources to the COVID-19 response. As a result, in-person appointments decreased, testing for HIV, viral hepatitis and sexually transmitted infections (STIs) declined, fewer people started or stayed on pre-exposure prophylaxis (PrEP), viral load monitoring was less frequent and people received less support to stay on antiretroviral treatment.

The Fenway Institute in Boston, for example, saw an 85% decline in HIV and STI testing from January to April 2020. In San Francisco, both HIV testing and viral load monitoring declined by more than half after the city imposed its shelter-in-place order. A large commercial lab processed nearly 700,000 fewer HIV tests nationwide from March to September 2020—a 45% drop. And a CDC analysis revealed a 78% decrease in office visits at eight HIV outpatient care sites from January to June 2020. Although testing and in-person appointments rose again after the initial crisis, they haven't returned to pre-pandemic levels.

Not everyone has had less sex during lockdown, and among those who remain at risk, some have had trouble accessing PrEP services. At Fenway, PrEP starts fell by 72% and unfilled PrEP prescriptions rose by 191% from January to April 2020. A survey by the American Academy of HIV Medicine found that although most people who stopped PrEP felt they no longer needed it, others did so because they lost their health insurance or did not have access to the required monitoring tests.

In response, some providers have adopted new ways to help people get the care they need, including telemedicine visits, self-testing, mobile services, home delivery of medications, longer PrEP prescriptions with an extended interval between monitoring tests and STI treatment based on a description of symptoms without in-person exams or confirmatory tests.

But telehealth isn't for everyone. Many vulnerable individuals do not have a cell phone or computer, can't afford data plans for fast internet access or lack privacy and are worried about others overhearing their calls or seeing their texts.

At San Francisco General Hospital, Gandhi's HIV clinic, which serves a largely disadvantaged population, pivoted to telephone visits during the city's shelter-in-place order. But before long, she and her team saw the likelihood of viral suppression decrease by 31%; homeless people were especially likely to have a detectable viral load. "Telehealth didn't end up working well for our population," Gandhi says. "That connection to a human being matters."

After seeing this drop, Gandhi reinstated in-person visits, against the wishes of the city's health department, with precautions in place to ensure the safety of clients and staff. "We kept ourselves safe, we were able to see almost all of our patients in person and we saw our outcomes improve," she says. "I think closing down in-person care—especially for vulnerable patients—is one of the things we did completely wrong."

This experience informed her determination to focus on the full range of people's medical, economic and social needs, not solely on COVID-19. Another example she cites is the detrimental impact of the pandemic on people who use drugs: Last year, San Francisco saw three times more deaths from drug overdoses than from COVID-19.

In fact, Gandhi suggests, harm reduction is one area where the pandemic response has not taken into account lessons learned from HIV. “We didn’t tell people who were essential workers or who wanted to see family and friends how they could keep themselves safe. Instead, it was ‘Just say no.’” Harm reduction will become even more important now that a growing number of experts agree that SARS-CoV-2 will probably stick around as an endemic virus, like HIV.

Monica Gandhi, MD, MPH, director of the HIV clinic at Zuckerberg San Francisco General HospitalCourtesy of Monica Gandhi

Getting Back on Track

In the short term, experts fear that reducing HIV prevention and care services will lead to worse outcomes, including disease progression and increased HIV transmission.

A model based on gay and bisexual men in Baltimore estimated that disruptions in condom use, HIV testing, PrEP use, antiretroviral treatment initiation and viral suppression could lead to an 11% increase in new HIV infections over a year if sexual activity remains unchanged. Even more sobering, the model predicted that COVID-19–related declines in treatment and viral suppression could substantially increase HIV-related deaths.

One hospital in London saw an increase in admissions of people with more advanced HIV disease during the second half of 2020. This led researchers to suggest that the rise might be attributable to people having difficulty accessing health care or reluctance to visit health facilities during the first wave of the pandemic.

Beyond these immediate effects, clinicians and advocates are also concerned about the long-term impact of the pandemic on people living with HIV, including depression and other mental health issues after more than a year of social isolation, lingering financial fallout, trauma from losing loved ones and chronic symptoms known as long COVID.

The global impact may be even greater as the pandemic persists, given that the COVID-19 response in low-income countries largely relies on infrastructure put in place for HIV.UNAIDS estimates that disruptions in HIV services due to COVID-19 could result in up to 293,000 additional HIV infections and 148,000 additional AIDS-related deaths between 2020 and 2022.

“Diverting all of these resources has and will hurt people with HIV,” Gandhi says. “As the COVID-19 pandemic winds down in countries lucky enough to have access to the vaccines, we need to turn our attention to both global vaccine equity and back to HIV services. I think we’re learning—maybe more from COVID than we did from HIV—that we’re all interconnected. No one is safe until everyone is safe.”

In the United States and around the world, COVID-19 has hampered HIV research, including trials of HIV vaccines, new antiretrovirals and cure approaches. HIV science laid the foundation for our understanding of the new coronavirus, from how the immune system attacks viruses to how to design effective vaccines.

Although disruptions related to COVID-19 have partially derailed this research, experts hope that, ultimately, lessons learned from the new pandemic will in turn further the fight against HIV.

“In the face of COVID-19, the global HIV community banded together to apply lessons learned from decades of pandemic response,” says International AIDS Society president Adeeba Kamarulzaman, MBBS, who will cochair the 2022 International AIDS Conference in Montreal, where the community will once again gather in person. “It is now critical to get the HIV response back on track. We owe it to the hundreds of thousands of people we still lose to AIDS-related illnesses every year.”

POZ COVID-19 Reader Survey

POZ first surveyed its readers in June 2020 to find out how they were affected by the COVID-19 pandemic; more than 400 people responded. A follow-up survey was conducted in April 2021;

more than 300 readers responded. Most respondents were white gay men.

In the earlier survey, almost everyone was concerned about contracting the new coronavirus: 44% said they were very concerned, and the same proportion were somewhat concerned. More than half (52%) said they were moderately affected by the pandemic, 22% were slightly affected, 19% were severely affected and just 7% were not at all affected. About a quarter said they had lost their job, and 5% had lost their health insurance. While 70% rated the federal government's response to COVID-19 as poor—these earlier responses were from Donald Trump's era—51% said their local government's response was good or excellent.

The second survey revealed that 19% of respondents had had COVID-19, up from just 4% in the first round. About a third said a family member had had COVID-19, and half knew someone who had died from it. Among those with COVID-19, 45% had mild symptoms, 30% had moderate illness and 25% had severe illness; more than a third (38%) said they were still experiencing COVID-19 symptoms. Nearly a quarter of respondents said they'd had difficulty accessing health services during the pandemic, and 71% had used telemedicine to connect with providers, but most (88%) had no difficulty filling their prescriptions for HIV medications. Over 80% had already received a COVID-19 vaccine, and among the rest, about 60% planned to do so. Most respondents said they had struggled somewhat (44%) or a lot (30%) during COVID-19, and 79% reported pandemic-related stress. While a majority rated their mental health as either fair (40%) or poor (18%), 32% reported that it was good, and 10% said it was excellent.
