HIV Research Matters for America

Ending the Epidemic and Improving America's Health Requires Continuous HIV Innovation

HIV remains a serious public health threat in the United States and globally. While we have come a long way since the mid-1990s when HIV was the leading cause of death for Americans aged 25-44, we are far from controlling and ending the HIV epidemic in the U.S. or around the world. Our progress has resulted from improvements in HIV prevention and care and other critical services, which has been underpinned by decades-long investments in HIV research at the National Institutes of Health (NIH). In FY 2024, $3.3 billion was invested by Congress in HIV research supported by the NIH.

NIH-funded HIV research over the past 40 years has contributed to or directly led to nearly all of the major milestones in understanding HIV including the discovery that HIV is caused by a virus, the development of HIV tests and other diagnostics, validation that providing sterile syringes can prevent HIV transmission among people who use drugs, and the development of effective antiretroviral therapy (ART) regimens that have saved millions of lives and converted HIV into a chronic disease, rather than a death sentence for those with access to treatment. Additionally, NIH-funded clinical trials have shown that providing ART during pregnancy can prevent onward transmission from mother to child (which led to the U.S. and several nations to achieve virtual elimination of HIV during childbirth), provided proof that early ART is better than delayed treatment, that when people with HIV can achieve and sustain durable HIV viral suppression they cannot transmit HIV sexually (a finding known as U=U or undetectable equals untransmittable), and that giving ART to HIV-negative individuals as pre-exposure prophylaxis (PrEP) is highly effective—more than 99%—at preventing HIV transmission.

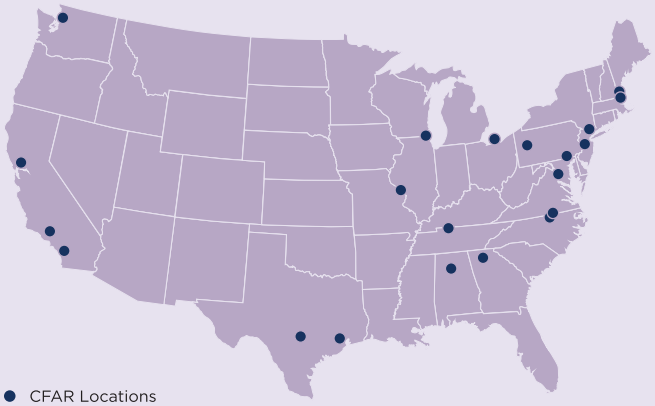
HIV research also has led to breakthrough advances in numerous other diseases. HIV research was critical to the development of PD-1 inhibitors, a key new approach to cancer treatment that enables immune cells to better recognize and attack cancer cells. HIV research facilitated the development of direct-acting antiretrovirals that provide curative treatment for Hepatitis C, a chronic liver disease that leads to liver cancer and death and afflicts an estimated 58 million people globally. The science and innovation behind new highly-sensitive PCR tests developed for diagnosing HIV are now routinely used for diagnosing other infectious diseases and are used to monitor previously undetectable levels of cancer cells in persons considered cured. Our long-term commitment to HIV vaccine research enabled the rapid development of an Ebola vaccine that was deployed in response to the 2013-2016 West African Ebola outbreak that caused more than 11,000 deaths.

These major scientific advances resulted from collaborative efforts of researchers and clinicians working with communities across the U.S. and around the world. While other parts of the Department of Health and Human Services, along with other agencies, including the Departments of Defense and Veterans Affairs, conduct important HIV research, virtually none of this would have been possible without the financial support, research infrastructure, and depth of knowledge and expertise of the NIH, including its scientific program staff and leadership, intramural researchers, and the extramural scientists it funds across the U.S. and internationally.

Dr. Jay Bhattacharya's recent confirmation as the 18th Director of the National Institutes of Health (NIH) creates an opportunity to revisit some of the early decisions of the Trump Administration including the removal of critical HIV leaders and staff, grant terminations, and the pausing or elimination of clinical trials networks. A strong and vibrant HIV research portfolio at the NIH is critical to achieving the vision of President Trump's Ending the HIV Epidemic (EHE) Initiative.

NIH CENTERS FOR AIDS RESEARCH (CFARs) FORM A NATIONWIDE NETWORK THAT CONTRIBUTES CRITICAL ADVANCES IN UNDERSTANDING OF HIV AND RELATED HEALTH CONDITIONS

While important HIV research is conducted by NIH scientists, most HIV research work takes place under the direction of twenty Centers for AIDS Research (CFARs) all across the U.S. at academic and research institutions. CFARs are supported by eleven NIH Institutes to conduct multidisciplinary research. CFARs also play an essential role in training the next generation of scientists needed to maintain America's leading role in biomedical and behavioral research.



Since the beginning of this Trump Administration, the assertion of new priorities and efforts to reduce federal spending have produced chaos at the NIH. It is normal that an Administration reviews government operations and programs and makes changes to reflect its priorities. The current actions at the NIH, however, have not articulated any clear direction beyond eliminating a focus on specific areas of health science and specific populations. The Administration's changes have been abrupt, arbitrary, and remain unpredictable. Staff have been fired, grants have been terminated, funding to partner institutions has been abruptly halted or clawed back, and clinical trials

THERE IS A NEED TO RESTORE SCIENCE LEADERSHIP AT THE NIH

Policy changes adopted by non-scientists outside of the NIH have not only been disruptive, they could eliminate the payoff from years of public investment. Since the start of the Administration:

- **At least 143 HIV research grants have been abruptly terminated totaling more than $363 million** without any clear rationale or scientific evaluation of the importance of the research (Health and Human Services Tracking Accountability in Government Grants System (TAGGS) accessed on April 3, 2025). Other informal estimates of the cuts have approached $800 million.
- The Director of the National Institute of Allergy and Infectious Diseases (NIAID) and other key HIV leaders have been removed from their positions.
- Key multi-site HIV clinical trials networks, including the Adolescent Medicine Trials Network for HIV Interventions (ATN) have been eliminated or paused. These clinical trials assess the safety and effectiveness of new treatments, preventive interventions for a range of populations in different settings.

With a Senate-confirmed Director, it is imperative that the NIH draw on internal and external expertise to re-evaluate these decisions and restore funding with the goal of maximizing the benefits for the American people.

have been stalled with little to no regard for human safety. With Director Bhattacharya in place at the NIH, it is hoped that the Administration and the Congress can move beyond disruption and that he can reassert NIH standards of evidence-based analysis and scientific leadership for setting research priorities and funding critical studies.

Tampering with NIH's HIV portfolio risks losing the ability to capitalize on exciting HIV research developments:

Finding a Cure for HIV: Globally, there are nearly 40 million people with HIV, including 1.2 million Americans. HIV can cause premature death, lead to a range of health problems, and drive national health spending. Research momentum is gathering toward an eventual functional cure in which people with HIV do not need ongoing medication but control the disease with no risk of disease progression. One area of great interest is the development of broadly neutralizing antibodies (bNAbs) that can fight a broad variety of strains of the virus including mutations. Advances in this area hold incredible promise for fighting other infectious diseases, cancer, neurological diseases and other conditions.

Longer-acting options to prevent and treat HIV: Adherence to any medication regimen over the long-term is challenging and this is complicated for prevention (PrEP) where the threat of disease progression is not ever present. Giving people more options that do not require daily pill taking, such as dosing a few times a year, offers enormous potential to improve population-level coverage of PrEP in groups at greatest need. Longer-acting options are especially important for treating HIV and maintaining viral suppression as the population of people with HIV is aging. More than half of all people with HIV in the U.S. are fifty or older. A variety of options, including those that do not need to be taken daily, is important as older people take an increasing number of medications to address various co-occurring conditions.

Translating studies into real world success: Proving that a treatment or prevention intervention works in a carefully controlled research study (efficacy) is a critical step, but interventions can fail to achieve their promise if they are not widely accepted and used by the intended population (effectiveness). Implementation studies provide critical knowledge into how to deploy an efficacious treatment or intervention so that it is widely accepted and used by different individuals, groups and localities that can benefit from it.

Addressing a broader range of health threats facing communities: HIV does not exist in isolation and the communities most heavily impacted have other challenges, including often higher rates of other infectious and chronic conditions, higher rates of mental health issues and substance use disorders, interpersonal violence, and other issues (these interrelated and overlapping conditions are called a syndemic). Research can help policymakers understand how to best deploy programs and services to improve not just HIV, but overall health.

THE TIME IS NOW

HIV research supported by the NIH extends hope, improves lives, and helps the nation to avert unnecessary health spending. HIV advances have taken a condition that was universally fatal and transformed it to where individuals can lead healthy lives throughout a normal lifespan. HIV discoveries have improved cancer care, diagnostics, vaccine development, and drug development in numerous areas. It is vital to our national interest to not unravel or undermine the successful HIV research system we have built and to continue making critical investment now and into the future.

TO LEARN MORE

For additional background information, see:

NIH, Office of AIDS Research, *FY 2021-2025: NIHStrategic Plan for HIV and HIVRelated Research*, https://www.oar.nih.gov/sites/default/files/NIH_StrategicPlan_FY2021-2025.pdf.

Treatment Action Group (TAG), 2024. *Pipeline Report*, https://www.treatmentactiongroup.org/resources/pipeline-report/2024-pipeline-report/.

O'NEILL INSTITUTE
CENTER FOR HIV & INFECTIOUS DISEASE POLICY

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MAKING AIDS HISTORY

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