# The Time Is Now to End the HIV Epidemic

In his State of the Union Address on February 5, 2019, President Donald J. Trump announced his administration's goal to end the domestic HIV epidemic. Following the announcement of the Ending the HIV Epidemic: A Plan for America initiative, the president proposed \$291 million in new funding for the fiscal year 2020 Department of Health and Human Services (HHS) budget to implement a new initiative to reduce the number of new HIV infections by 75% in the next five years (2025) and by 90% in the next 10 years (2030). This is in addition to the \$20 billion the US government already spends each year, domestically, for HIV prevention and care.

With this initiative, HHS recognizes that the time to end the HIV epidemic is now: we have the right data, the right biomedical and behavioral tools, and the right leadership. With the new resources, the goal is achievable.

This article outlines how this initiative will be accomplished through the implementation of four fundamental strategies that will be tailored by local communities on the basis of their own needs and strengths. (*Am J Public Health*. 2020;110:22–24. doi:10.2105/AJPH.2019.305380)

Brett P. Giroir, MD



See also Kapadia and Landers, p. 15; and the AJPH Ending the HIV Epidemic section, pp. 22-68.

IV has cost America too much for too long, and it remains a significant public health issue. Since 1981,1 there have been more than 700 000 deaths among people with diagnosed HIV in the United States, and approximately 1.1 million persons in the United States are currently living with HIV.<sup>2,3</sup> New HIV cases have declined significantly, from 130 000 per year in the 1980s<sup>4</sup> to about  $40\,000$  per year in the 2010s, <sup>2</sup> as a result of successful interventions, but progress in reducing new infections has stalled.

## RIGHT LEADERSHIP

Announced by President Trump in February 2019, the Department of Health and Human Services (HHS)-led plan seeks to reduce new HIV infections by 75% in the next five years and by 90% in the next decade by concentrating on high-risk regions in the United States. The initiative partners with local and state health agencies to systematically test for HIV, expand access to pre- and postinfection medications, and respond quickly to potential outbreaks. Following the announcement of the Ending the HIV Epidemic: A Plan for America initiative, the president proposed an additional \$291 million to implement this bold effort. This is in addition to the \$20 billion the US government already spends each year, domestically, for HIV prevention and care.5

With this initiative, the administration recognizes that the time to end the HIV epidemic is now: we have the right data, the right biomedical and behavioral tools, and the right leadership. With the new resources, the goal is achievable. We can target highly effective prevention and treatment resources precisely to those people and places in most need-both geographically and demographically—and our national HIV surveillance system can rapidly identify where new infections are occurring and support targeted evidence-based responses at the local level.

Landmark scientific research advances have led to the development of simple, safe, and highly effective medications for HIV treatment and prevention, such as preexposure prophylaxis (PrEP) and postexposure prophylaxis, as well as improved diagnostics and models of care for persons with HIV. In addition to the life-saving and life-extending benefits of HIV treatment, 6,7 recent data from multiple longterm, well-controlled studies have established that people with HIV who take HIV medication daily as prescribed, and maintain an undetectable viral load, have effectively zero risk of sexually transmitting HIV.8-10 The profound prevention benefit of

treatment is the foundation for a community-led campaign known as Undetectable = Untransmittable (U = U), which is also a key strategic advantage for our initiative.

## FUNDAMENTAL STRATEGIES

The initiative will be accomplished through the implementation of four fundamental strategies that will be tailored by local communities on the basis of their own needs and strengths:

- 1. Diagnose all individuals with HIV as early as possible after infection;
- 2. Treat HIV infection rapidly after diagnosis and effectively in all people who have HIV, to help them get and stay virally suppressed;
- Prevent HIV infections using proven prevention interventions, including PrEP and syringe services programs; and
- 4. Respond rapidly to potential HIV outbreaks to get prevention and treatment services to people who need them.

HHS will also work with each community to establish on-theground health care teams in fields

#### **ABOUT THE AUTHOR**

Brett P. Giroir is admiral, US Public Health Service, and the assistant secretary for health, US Department of Health and Human Services, Washington, DC.

Correspondence should be sent to Brett P. Giroir, MD, US Department of Health and Human Services, Suite 716 G, Washington, DC 20201 (e-mail: ash@hhs.gov). Reprints can be ordered at http://www.ajph.org by clicking the "Reprints" link.

This article was accepted September 10, 2019. doi: 10.2105/AJPH.2019.305380

such as epidemiology, health care systems, and disease investigation to develop and implement tailored plans for each jurisdiction. The workforce will be diverse. composed of individuals who can best reach those who need diagnosis, prevention, or treatment, but who have not yet been fully engaged and retained in care. For example, the Public Health Associate Program of the Centers for Disease Control and Prevention (CDC) will place highly motivated early-career public health professionals in interested jurisdictions.

The initiative will be implemented in three phases. The first phase will focus on resources (both human capital and financial) in the 48 counties and two cities that together account for more than 50% of all new HIV diagnoses in the United States. In addition, support will be provided to meet the specific needs of the seven states with a disproportionate occurrence of HIV in rural areas. The initiative will include close partnerships with local entities—including city, county, tribal, and state public health departments; local and regional clinics and health care facilities; clinicians and providers of medication-assisted treatment of opioid use disorder; professional associations, advocates, and community- and faith-based organizations; and academic and research institutions—to develop or enhance jurisdictional-specific plans for ending the HIV epidemic. In the second phase, efforts will be more widely disseminated across the nation to reduce new infections by 90% by 2030. In the third phase, intensive case management for those who are in care will be implemented to maintain the number of new HIV infections at fewer than 3000 per year nationwide. Although there are three formal phases (see the box on this page), we expect best

practices developed and implemented in the first phase to immediately affect the nation as a whole.

Without this initiative, there is a serious risk that the progress achieved thus far against HIV will reverse course. A primary concern is widespread injection drug use, which now accounts for 6% of new diagnoses and contributes to an additional 3% of new diagnoses among men who have sex with men who report injection drug use. 11 Second, the health care system must take steps to expand capacity and identify and implement strategies that extend the benefits of the scientific advances in HIV prevention and treatment to all people living with and at risk for HIV. Complacency in the health care system has resulted in missed opportunities to diagnose people and immediately link them to lifesaving care. In fact, in 2017, the CDC estimated that 7 out of 10 individuals diagnosed with HIV saw a health care professional within the prior 12 months, yet failed to receive diagnostic testing.12 In addition, HIV-related stigma as well as stigma related to substance use. mental health, sexual orientation, gender identity, and race and ethnicity remain a major driver of the HIV epidemic.

This initiative will leverage critical scientific advances in HIV prevention, diagnosis, treatment, and care by coordinating the highly successful programs, resources, and infrastructure of many HHS agencies and offices, including the following:

- the CDC.
- the Health Resources and Services Administration (HRSA).
- the Indian Health Service (IHS).

### ENDING THE HIV EPIDEMIC: A PLAN FOR THE **UNITED STATES**

PHASE 1: Focused effort to reduce new infections by 75% in 5 years

PHASE 2: Widely disseminated effort to reduce new infections by 90% in the following 5 years

PHASE 3: Intense case management to maintain the number of new infections at fewer than 3000 per year

- the National Institutes of Health (NIH).
- the HHS Office of the Assistant Secretary for Health, and
- the Substance Abuse and Mental Health Services Administration (SAMHSA).

The HHS Office of the Assistant Secretary for Health is coordinating this cross-agency

This is a multiyear initiative. The budget for the first year will develop and ramp up efforts within identified jurisdictions. The president's fiscal year 2020 budget proposal would provide an additional \$140 million to the CDC to strengthen the local health care workforce whose objective is to test and link persons to prevention and treatment, provide state and local support, and boost surveillance. For the HRSA, it would provide an additional \$120 million to expand Ryan White HIV/AIDS Program services to treat newly diagnosed persons with HIV, expand the capabilities of the HRSA community health center program for HIV prevention and treatment, and use these health centers as the primary sites for expanding PrEP. The IHS would receive an additional \$25 million under the president's proposed budget for enhanced support for prevention, diagnosis, and links to HIV treatment among Native Americans and Alaska Natives. To support programs

throughout the nation, the NIH has awarded approximately \$11.3 million to 23 institutionscomposed of NIH Centers for AIDS Research and AIDS Research Centers-across the United States to collaborate with community partners to ensure the Ending the HIV Epidemic initiative continues to learn from both successes and failures and scientifically rigorous evidence drives our public health practice.

The president's proposed budget will support the Minority HIV/AIDS Fund (MHAF) as well as the SAMHSA programs. In fiscal year 2019, the MHAF is providing support to the CDC and IHS to lead the development of community-specific plans for the Ending the HIV Epidemic initiative. In addition, the CDC and IHS received MHAF funding to support pilot programs in three jurisdictions (DeKalb County, Georgia; Baltimore City, Maryland; and East Baton Rouge, Louisiana), and in one rural state (Oklahoma), with a focus in the Cherokee Nation. Each of the four jurisdictions received \$1.5 million to begin immediately initiating activities related to the initiative. Successes and lessons learned from these jurisdictions will be shared nationwide to inform and support other jurisdictions' efforts to implement plans. Through the MHAF, SAMHSA will provide support for treatment of mental and substance use disorders for

those at risk for HIV or living with HIV, HIV testing with preposttest counseling and education, linking those diagnosed with HIV to care and those at risk for HIV to PrEP services, and training and technical assistance to health care providers with a goal of improving screening, assessment, and treatment of HIV and associated mental and substance use disorders for those in behavioral health programs. The MHAF provided funding to the HRSA's HIV/AIDS Bureau (HAB) for two Notice of Funding Opportunities and HRSA-HAB plans to supplement the Ryan White HIV/ AIDS Program's AIDS Education and Training Centers Program for workforce capacity development.

HHS is also actively seeking novel solutions to challenges. Many of these solutions will come through collaborations with civil society. For example, as a result of HHS discussions with Gilead Sciences, Inc, the pharmaceutical company has agreed to donate PrEP medication for up to 200 000 individuals each year for up to 11 years. The government has agreed to cover costs associated with distributing the drugs.

Different strategies will be needed in different communities. No one plan will work across every jurisdiction, and that is why this effort is so unique. Our funding and technical support will enable communities to develop and implement a plan that best fits their local needs. We need to reach diverse communities to ensure success and we plan to leverage all ongoing efforts, such as preexisting local plans, to tap into the extensive knowledge and expertise that already exists in so many areas.

This initiative should not be viewed solely as a federal effort or

a state effort, but as a "whole of society" collaborative effort. We at HHS will continue to meet with community members, patient advocates, health care providers, faith-based organizations, and others to advance the initiative. Ending the HIV epidemic is something our nation can do, but we must do it together. The Ending the HIV Epidemic initiative has the potential to be one of the greatest domestic public health achievements in our nation's history.

#### **CONFLICTS OF INTEREST**

The author reports no conflicts of interest.

#### **REFERENCES**

- 1. Centers for Disease Control and Prevention. HIV surveillance report: diagnoses of HIV infection in the United States and dependent areas, 2015. 2015; 500:25. November 2016. Available at: https://www.cdc.gov/hiv/library/reports/hiv-surveillance.html. Accessed October 16, 2019.
- 2. Centers for Disease Control and Prevention. Estimated HIV incidence and prevalence in the United States, 2010–2016. HIV Surveillance Supplemental Report 2019;24(No. 1). February 2019. Available at: http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html. Accessed October 16, 2019.
- 3. Centers for Disease Control and Prevention. HIV in the United States and dependent areas. 2019. Available at: https://www.cdc.gov/hiv/statistics/overview/ataglance.html. Accessed June 6, 2019.
- 4. Hall HI, Song R, Rhodes P, et al. Estimation of HIV incidence in the United States. *JAMA*. 2008;300(5): 520–529.
- 5. Kaiser Family Foundation. US federal funding for HIV/AIDS: trends over time. 2019. Available at: https://www.kff.org/hivaids/fact-sheet/u-s-federal-funding-for-hivaids-trends-over-time. Accessed June 14, 2019.
- INSIGHT START Study Group. Initiation of antiretroviral therapy in early asymptomatic HIV infection. N Engl J Med. 2015;373(9):795–807.
- 7. TEMPRANO ANRS 12136 Study Group. A trial of early antiretrovirals and isoniazid preventive therapy in Africa. N Engl J Med. 2015;373(9):808–822.
- 8. Rodger AJ, Cambiano V, Bruun T, et al. Sexual activity without condoms and risk of HIV transmission in serodifferent couples when the HIV-positive partner is

- using suppressive antiretroviral therapy. *IAMA*. 2016;316(2):171–181.
- 9. Rodger A, Cambiano V, Bruun T, et al. Risk of HIV transmission through condomless sex in serodifferent gay couples with HIV-positive partner taking suppressive antiretroviral therapy (PARTNER): final results of a multi centre, prospective, observational study. *Lancet*. 2019; 393(10189):2428–2438.
- 10. Bavinton BR, Pinto AN, Phanuphak N, et al. Viral suppression and HIV transmission in serodiscordant male couples: an international, prospective, observational, cohort study. *Lancet HIV*. 2018;5(8):e438–e447.
- 11. Centers for Disease Control and Prevention. Diagnoses of HIV infection in the United States and dependent areas, 2017. HIV Surveillance Report 2018. November 2018. Available at: http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html. Accessed October 16, 2019.
- 12. Dailey AF, Hoots BE, Hall HI, et al. Vital signs: human immunodeficiency virus testing and diagnosis delays—United States. *MMWR Morb Mortal Wkly Rep.* 2017;66(47):1300–1306.