

The world needs an HIV vaccine



Translating science
into global health impact

An HIV vaccine would dramatically accelerate progress to end the HIV epidemic. IAVI and partners are closer than ever to this goal.

AIDS isn't over

Worldwide, 39 million people are living with HIV, and HIV/AIDS killed 630,000 people in 2022. Despite advances in treatment and prevention, about 1.3 million people contracted HIV in 2022. We need new ways to stop HIV transmission and believe a vaccine is the tool that would make the biggest public health impact. Even with the advances made in other HIV prevention tools, including PrEP, we have yet to see a reduction in HIV incidence in countries with generalized epidemics. That's why IAVI is committed to developing a safe, effective HIV vaccine for global use.

We must prevent HIV transmission, but prevention isn't reaching the most vulnerable

Although some highly effective HIV prevention tools are available, the epidemic continues. This is partly due to the challenges people face when trying to adhere to effective prevention options. But it's also because key populations — men who have sex with men, people who inject drugs, sex workers, and adolescent girls and young women, who account for nearly half of all new infections — are less likely to access existing treatment and prevention services. We need to ensure that HIV prevention tools are accessible to those most in need. We also need new ways to stop the spread of HIV.

HIV treatment is not enough: It's not widely available enough and it's too expensive

- HIV treatment doesn't reach everyone who needs it, and not everyone can adhere to regimens.
- More people require costly lifelong treatment every year — a huge burden on low-income countries.
- The spread of drug-resistant HIV strains could add to the cost of HIV treatment programs and, when treatments fail, result in more deaths.

HIV/AIDS by the numbers



38.4 million
people are living with HIV/AIDS



1.3 million
people contracted HIV in 2022



25% of people
living with HIV don't have
access to treatment and
can infect others



\$29 billion
needed for global HIV/AIDS
response by 2025



20+ HIV vaccine
clinical trials are ongoing

A vaccine will accelerate progress to end AIDS

- Vaccines typically provide long-lasting protection.
- Vaccines can be given broadly to a wide range of people, leading to community immunity.
- Vaccines could eliminate adherence and stigma problems associated with HIV treatment.
- Vaccines will likely be cost-effective when compared with a lifetime of treatment.

No human disease has ever been eradicated without a vaccine. We need one to end AIDS.

Innovation fuels progress in HIV vaccine research

Researchers have made great progress in the quest to develop an HIV vaccine. Their findings have led to a new generation of vaccine strategies aiming to stimulate production of powerful antibodies able to block a wide range of HIV variants. This approach and others that target different aspects of the immune system harness advanced molecular engineering and computational tools that have arisen during decades of research on HIV. Many experts agree that not only is vaccine possible, but also that we're closer to one than ever before.

HIV vaccine research has broad benefits

HIV vaccine research benefits the HIV prevention and treatment field broadly. It has made fundamental contributions to scientists' understanding of the biology of HIV infection, including the human immune response to infection. Vaccine-focused research into HIV-blocking antibodies has resulted in those antibodies being investigated as standalone prevention products. Beyond HIV/AIDS, the investment in HIV vaccine research capacity has strengthened health systems. And HIV vaccine research has contributed to medical advances for other diseases, leading to longer, healthier lives for people all over the world.

IAVI's HIV vaccine pipeline

IAVI sponsored

Preclinical development



2 programs

mRNA-based germline-targeting vaccines; replicating viral vector-based (VSV) T-cell vaccine

Clinical trials



2 trials

Phase 1 trials of candidates to induce antibodies

IAVI supported



6 trials

Phase 1/2 trials of prime-boost candidates and a T-cell vaccine

IAVI Product Development Center



20 programs

HIV prevention programs advanced to clinical trials

IAVI gratefully acknowledges the generous support provided by the following major funders:



Biomedical Advanced Research and Development Authority (BARDA) | Foundation for the National Institutes of Health | National Institute of Allergy and Infectious Diseases | amfAR, The Foundation for AIDS Research | Broadway Cares/Equity Fights AIDS | Cancer Research UK | The City of New York, Economic Development Corporation | Congressionally Directed Medical Research Program (DoD) | GSK | The Hearst Foundations | Keith Haring Foundation | Merck & Co., Inc., Kenilworth, NJ, USA (known as MSD outside the USA and Canada)

And many other generous individuals and partners around the world

As of July 2024