

# The world needs an HIV vaccine



Translating science  
into global health impact

The only way to end the HIV epidemic is with an HIV vaccine. 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. Even worse, experts warn that these numbers could increase significantly due to demographic changes. We need new ways to stop HIV transmission and chief among these is a vaccine. 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 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



**39 million**  
people are living with HIV/AIDS



**1.3 million**  
people contracted HIV in 2022



**24% 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

Sources available at [iavi.org/fact-sheets-sources](https://iavi.org/fact-sheets-sources)

## Only a vaccine will 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

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