

ADVANCE (Accelerate the Development of Vaccines and New Technologies to Combat the AIDS Epidemic) was a cooperative agreement with the U.S. Agency for International Development (USAID), through the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR).

Successful HIV prevention requires increased contribution to research efforts by those countries and regions hardest hit by the epidemic

The visionary ADVANCE program was intended to run until June 2026 but was terminated when USAID was disbanded in 2025. It was part of IAVI’s 25-year collaboration with USAID that significantly benefited the field of HIV vaccine R&D while accelerating the search for innovative biomedical prevention tools, including a safe and globally effective HIV vaccine. The legacy of USAID’s long-term investment in science for the world’s most at-risk populations has enabled IAVI’s unique model in Africa and India, which today continues to contribute to product development and capacity strengthening in there. The need to continue this work is clear: sub-Saharan Africa remains the region most severely affected by HIV/AIDS, with 25.6 million adults and children living with HIV/AIDS and where researchers find the most genetically diverse HIV subtypes in the world.

Committed to developing a safe, effective HIV vaccine and biomedical prevention products for global use

Worldwide, 40.8 million people are living with HIV, and HIV/AIDS killed 630,000 people in 2024. Despite advances in treatment and prevention, about 1.3 million people contracted HIV in 2024. 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 new ways to stop

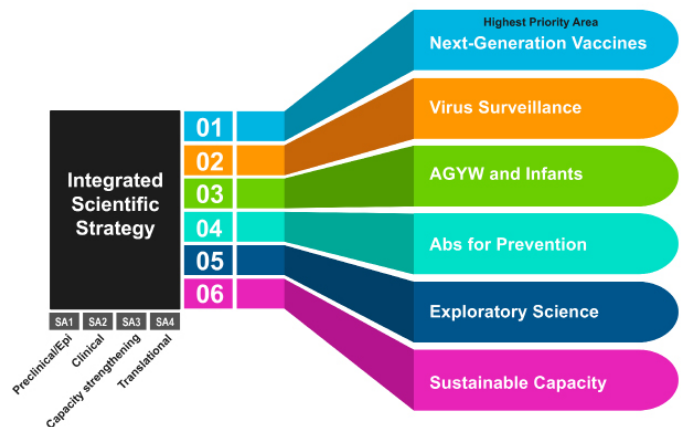
the spread of HIV while ensuring that existing and future HIV biomedical prevention tools are accessible to those most in need.

A unique model of worldwide collaboration

The ADVANCE partner network included state-of-the-art African and Indian clinical research centers, and extensive laboratory and research capabilities supported by IAVI’s Neutralizing Antibody Center, based at Scripps Research in La Jolla, California; and the HIV Vaccine Translational Research Laboratory at the Translational Health Science and Technology Institute, based in Faridabad, Haryana, India.

ADVANCE framework

Goal: Safe and globally effective HIV vaccine and biomedical prevention products developed with leadership by African and Indian stakeholders that are available and accessible for populations at risk of acquiring HIV.



Partnership was key to ADVANCE success

The ADVANCE partner network drove regional collaboration, capacity strengthening, and research to test promising HIV vaccine candidates and biomedical prevention products, while seeking a clearer understanding of the epidemic in Africa and India. ADVANCE linked African and Indian researchers with global collaborators and innovative technologies throughout all stages of product discovery, design, and development — including access to key populations; community engagement; laboratory, manufacturing, pharmacy, data management, regulatory, quality assurance and training functions; and vital efficacy trial experience to test whether a vaccine or biomedical prevention product demonstrates a health benefit over a placebo or other intervention.

ADVANCE – IAVI in partnership with:

Africa

- Aurum Institute
- Center for Family Health Research (Rwanda)
- Center for Family Health Research (Zambia)
- Desmond Tutu HIV Foundation
- KAVI Institute of Clinical Research (KAVI-ICR)
- Kenya Medical Research Institute-Wellcome Trust Research Programme (KWTRP)
- Medical Research Council (MRC)/Uganda Virus Research Institute (UVRI) – London School of Hygiene and Tropical Medicine (LSHTM)
- National Institute for Communicable Diseases
- Uganda Virus Research Institute
- University of KwaZulu-Natal, HIV Pathogenesis Programme

Indo-Africa

- Government Hospital of Thoracic Medicine
- Indira Gandhi Institute of Child Health
- National AIDS Research Institute
- Y.R. Gaitonde Centre for AIDS Research and Education

Technology transfer to accelerate HIV vaccine research in Africa

ADVANCE provided a platform to transfer technologies and lab research capacities to enable African research institutions and scientists to play key roles in the design of vaccine candidates using promising technologies such as broadly neutralizing antibodies and B cell and T cell-mediated immune responses. Examples include a B cell center at KWTRP and KAVI-ICR (Kenya); a molecular virology center at the MRC/UVRI and LSHTM (Uganda); and a mucosal immunology center at KAVI-ICR that enables understanding of early HIV immunological responses within genital tract mucosal surfaces.

ADVANCE accomplishments 2016-2023

- **17** HIV vaccine and other biomedical prevention candidates (tested by 2026).
- **20** epidemiological and other population-based studies provided data for HIV vaccine and biomedical prevention design and clinical evaluation.
- **1,867** researchers and specialists trained in good clinical practice, good clinical laboratory practice, quality and operational management.
- **42** individuals from IAVI CRC partners in Africa received fellowships to further their related studies (master's and Ph.D.).
- **54** individuals from IAVI CRC partners in Africa supported for leadership development training.
- **32** early career African and Indian scientists received research funding.
- **124** papers/peer-reviewed scientific articles published with ADVANCE support have an Africa or India-based lead author (69% of total).
- **13** health policies, plans, and practices benefited from ADVANCE epidemiological and other population-based studies or data from ADVANCE research.

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And many other generous individuals and partners around the world

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