



Ending the HIV Epidemic

RTI prioritizes ending the HIV epidemic through community engagement in innovative applied epidemiological and socio-behavioral research, strengthening service delivery systems, improving data systems to unlock services for key populations and the unreached, and providing effective and cost-efficient technical assistance to ensure we reach the UNAIDS 95-95-95 targets on HIV testing, treatment, and viral load suppression. For decades, we have built evidence-based prevention intervention programs by conducting clinical trials and implementing community-based programs. Our technical assistance supports strengthened demand for, and expanded access to, HIV prevention and care services; tackles systemic and structural barriers that undermine sustainable services, including gender inequality; and improves data utilization to ensure policies and programs are not only evidence based, but sustainable. Over the years, our HIV work has spanned 60+ countries around the world from the United States, sub-Saharan Africa, Central and South Asia, Latin America, and Eastern Europe. We work with and on behalf of a range of U.S. federal agencies, international health ministries, local governments, donors, foundations, and other clients seeking to control the HIV epidemic globally.

For more than 30 years, RTI International has worked on the HIV epidemic, leading cutting-edge research, providing technical assistance, institutional strengthening, and program support.

- Health information systems and technology
- Clinical, epidemiological, implementation, biomedical and socio-behavioral research
- Prevention, care and treatment, especially for key populations
- Stigma reduction
- Health systems strengthening and technical assistance

Select Global Experience

Health Information Systems Strengthening to improve access to and utilization of data for HIV surveillance and service delivery, CDC/PEPFAR (2010 - Present)

RTI's Global Public Health Informatics experts have been working for decades in low resource settings around the world, to leverage digital health solutions to increase access to high quality data for monitoring and evaluation, disease surveillance, health service delivery and health policy decision. Under PEPFAR, in collaboration with U.S. Centers for Disease Control and Prevention (CDC), USAID, Department of Defense HIV/AIDS Prevention Program (DHAPP) and country ministries of health, RTI has:

- Supported the national deployment and use of DHIS2 to support HIV surveillance and performance monitoring in Tanzania and Zimbabwe, and in South Sudan's military.
- Developed the first national electronic health record system in Zimbabwe to support HIV case-based surveillance and integrated service delivery.
- Integrated national laboratory information systems to support HIV viral load sample processing and results delivery in Zimbabwe.
- Generated data models to predict HIV viral load care and treatment outcome in Nigeria.

Public Health Information, Surveillance Solutions and Systems (PHIS³) Project, CDC/PEPFAR Nigeria (2021-2025)

RTI is working with APIN Public Health Initiatives to design, develop and deploy machine learning and artificial intelligence models to support HIV care and treatment program to use longitudinal patient data to predict adverse treatment outcomes including – Interruption in treatment, lost to follow-up, deranged viral load, HIV positivity for person exposed. To date, RTI has integrated the predictive analytics web service into the Nigeria Medical Record System (NMRS); developed a dynamic visualization and integrated it into the NMRS dashboard; and provided technical assistance to optimize performance of the lost to follow-up predictive analytic model, improving sensitivity to above 88%.

South Sudan: Improving HIV/AIDS Care and Treatment, Department of Defense/PEPFAR (2020-2024)

RTI supports the South Sudan People's Defense Force (SSPDF) to reduce the number of new HIV infections among the SSPDF personnel, their families, and surrounding communities. RTI developed the DHIS2 for patient-level data capture, guidelines for data and reporting quality assurance, and is leading DHIS2 capacity-building among colleagues and partner military leadership.

Promoting Results and Outcomes through Policy and Economic Levers (PROPEL Health), U.S. Agency for International Development (USAID) (2022–2027)

As a sub-partner, RTI works with local organizations and partners to advance family planning and reproductive health, HIV, and maternal and child health priorities by accelerating equitable access to responsive and integrated primary healthcare services and increasing uptake in priority countries like Guatemala, Kenya, and Malawi.

Spending wisely: The economic case for integrating HIV/AIDS and NCD service delivery, NCD Alliance, (2023),

RTI is conducting a systematic review of HIV and hypertension service integration. The review considers models for HIV/NCD service delivery integration along the continuum of care, assesses model cost-effectiveness for specific non-communicable diseases (NCDs) (including cancer, heart disease, diabetes, chronic lung disease, and poor mental health), generates evidence for preserving and increasing investments in HIV/NCD integration, and provides policy recommendations.

HIVST MPS Kenya, U.S. National Institute of Mental Health (NIMH) (2022-2027)

Reaching the last 20%: a targeted HIV self-test secondary distribution intervention to engage high-risk men in Kenya addresses the limited utilization of HIV services by those at highest risk continues to drive HIV transmission. In western Kenya, men who purchase sex constitute a particularly high-priority population because they face high risk of HIV infection and are inherently challenging to identify and reach with existing approaches. This project evaluates an HIV self-testing intervention that relies on sexual networks to reach men who purchase sex and promote their utilization of essential HIV services.

Select Global Experience, cont.

MOSAIC: Maximizing Options to Advance Informed Choice for HIV Prevention, USAID (2021-2026)

Funded by the US President's Emergency Plan for AIDS Relief (PEPFAR) through USAID, this global project aims to help women prevent HIV by accelerating introduction and scale-up of new and emerging biomedical prevention products. MOSAIC works across multiple countries to implement user-centered research and research translation efforts to identify, understand, and remove barriers to new product introduction, access, and use; coordinate and provide technical assistance to global, national, and subnational stakeholders to expedite product launch and scale-up; and strengthen the capacity of a wide range of local partners to perform essential functions that support the introduction of HIV prevention products.

MATRIX: Microbicide R&D to Advance the Research and Development of Innovative HIV Prevention Products for Women, USAID (2021-2026)

MATRIX aims to expedite the research and development of a range of HIV prevention products for women that will be safe and effective as well as acceptable, affordable, scalable and deliverable in the settings where they are needed most. The MATRIX pipeline of products includes implants and injectables designed to protect against HIV for six months to one year; short-acting and on-demand vaginal products meant to be used around the time of sex; and other non-systemic vaginal products designed to provide protection from one to three months at a time. As a sub-partner, RTI co-leads the MATRIX's collaborative Design to Deliver Hub which is a product-neutral consultative working group for coordinated engagement of a range of stakeholders, including end-users, service providers, key influencers and other local partners, who can provide insight into the uptake, rollout and acceptability of different HIV prevention options.

Couples Health CoOp Plus (CHC+), NIDA (2020 – 2025)

Working with couples in South Africa, RTI addresses substance use, other risk behaviors, ART, and PrEP uptake, and the impact of stigma-reduction workshops in the community. A four-arm randomized-cluster design conducted in 24 communities in Cape Town, the intervention is a cue-card delivered couples-based intervention approach based on the evidence-based Women's Health CoOp (WHC). We seeking to end HIV with a status-neutral approach with couples.

DAISY South Africa, U.S. National Institute of Allergy and Infectious Diseases (NIAID) (2022 – 2025)

The DAISY (Delivery of Antiretrovirals via Implantable System for Young children) platform addresses challenges for antiretroviral (ARV) treatment regimens in young children (ages 2-5) in the Republic of South Africa by offering an implant for long-term delivery of multiple antiretrovirals (for at least 6 months), retrievability during drug delivery, biodegradation, and discretion of use.

PULESA Uganda, U.S. National Institute of Health National Heart, Lung, and Blood Institute (NHLBI)(2022 – 2023)

RTI's Center for Non-Communicable Diseases piloted an initiative to strengthen the blood pressure care and treatment cascade for Ugandans living with HIV under the Implementation Strategies to Save Lives program.

Mentor Mothers2Mothers, (2022)

Providing interventions to pregnant mothers living with HIV and their children with services across the nurturing care framework in Eswatini. Working through clinics to provide interventions across health services, nutrition and social services, RTI developed a conceptual model for mentoring mothers living with HIV to improve neurodevelopment of children of PLHIV and the mental health of mothers.

Women's CoOp, NIDA, NIAAA, NICHD, U.S. Centers for Disease Control and Prevention (U.S. CDC) (1998 - Present)

This women-focused evidence-based HIV behavioral prevention intervention aims to develop women's personal power by reducing substance use, strengthening negotiation skills for sexual protection, preventing sexual violence, and reducing HIV acquisition. It also work to keep women living with HIV healthy. RTI has tested this intervention in numerous efficacy trials in the U.S, the Republic of Georgia, South Africa, and Russia.

Select U.S. Experience

Message Testing to End the U.S. HIV Epidemic, U.S. CDC (2022-2024)

RTI develops and tests HIV communication messages and evaluate how these messages can be adapted to conform to different channels. Message topics include HIV acquisition and transmission, HIV status neutral messaging, and priority topics for CDC's Division of HIV Prevention (DHP) such as social determinants of health; syndemics; and messaging strategies, such as message framing. Through piloting communication campaigns and data collection, RTI produces evidence on what types of messages work across key populations.

YEHE Project, NIAID (2022 – 2023)

The Automated Directly Observed Therapy Pilot: Improving the Cascade of Care Among Youth Living with HIV examines the feasibility and acceptability of delivering conditional incentives through an innovative digital platform where directly observed therapy adherence monitoring is done through artificial intelligence and facial recognition, and incentives are provided conditional on ART adherence.

iVY, NIMH (2022 – 2023)

As a sub-partner, RTI supports the technology-based intervention with an adaptive treatment strategy for youth living with HIV to test the effect of a technology-based intervention with differing levels of resource requirements (i.e., financial and personnel time) in a randomized clinical trial with an Adaptive Treatment Strategy (ATS) among 200 YLWH (18–29 years old). This piloted and protocolized intervention combines: (a) brief weekly sessions with a counselor via a video-chat platform (video-counseling) to discuss MH, SU, HIV care engagement, and other multilevel barriers to care (e.g. community resources and peer support); and (b) a mobile health application (app) designed and developed using an HCD approach with YLWH to address barriers such as ART forgetfulness and social isolation.

HIV Modeling for PrEP, U.S. CDC (2021-2023)

Under the Ending the HIV Epidemic initiative, RTI builds on the previous analysis of oral versus injectable PrEP and develops new methods accounting for the effects of COVID-19 on HIV spending and resource allocation and approaches to reducing racial/ethnic disparities in HIV diagnoses, viral suppression, and incidence to drive informed decision making on national and local policies. The project also develops modeling capacity to be able to respond in relatively short periods of time to requests from both CDC and the Department of Health and Human Services leadership for the modeling of specific policy questions.

Costs of PrEP in the U.S. HIV+Hepatitis Policy Institute (2022)

RTI provides an estimate of the costs of preexposure prophylaxis (PrEP) and reporting on each component. RTI's approach includes: 1.) Estimating the Number of People Eligible for PrEP, 2.) Estimating Costs for Each Component of PrEP, and 3.) Report and Tool on Total Costs of PrEP.

STRIDES, NIDA (2021-2024)

RTI leads the Strategies To Reduce Intersectional Drug use Stigma: A mixed-methods, human-centered approach to address barriers such as drug stigma and other forms of stigma among African American adults who use alcohol and other drugs in North Carolina while seeking HIV services.

EMPOW-HER, NIMH (2020-2023)

As a sub-partner, RTI supports the Educating Medical Providers on Women-Controlled HIV Prevention to Expand Reach to African American Women in Atlanta/Implementing PrEP into Non-Title X Settings to Reduce HIV Disparities among African American Women in the Atlanta MSA. The project adapts and pretests an online PrEP training to promote PrEP prescribing among reproductive healthcare providers in the Atlanta MSA who serve African American women. We aim to increase providers' PrEP knowledge and self-efficacy to increase PrEP access among African American women.

GODDESS, NIAAA (2022-2027)

Testing the efficacy of the Young Women's CoOp on African-American women (18 to 30 years old) in Durham and Wake Counties, NC in a two-arm randomized trial. The intervention will be adapted from previous studies, with the addition of new features to mHealth app (virtual group and gamification) and increased information about PrEP.

For more information on our capabilities please contact some of our experts:

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Relevant Resources and Quick Links

❖ RTI Practice Areas with a Focus on HIV

- [RTI Global Gender Center](#)
- [Substance Use, Gender and Applied Research](#)
- [Reproductive, Maternal, Newborn, Child and Adolescent Health](#)
- [Global Health Security](#)
- [Center for Thriving Children](#)
- [Women's Global Health Imperative](#)

❖ [HIV Pioneers: Lives Lost, Careers Changed, and Survival by Wendee Wechsberg](#)

❖ Impact Stories

- [How to Address HIV/AIDS Stigma in Health Facilities to Achieve UHC](#)
- [Long-Acting HIV Prevention Drug Takes a Step Toward Federal Regulation – a Milestone in HIV Prevention](#)
- [A Community-Based Approach to Understanding PrEP Care in Youth](#)
- [HIV-related Stigma a Barrier to Mother-to-child HIV Transmission Prevention Efforts](#)
- [Vaginal Rings are Acceptable to Women and Provide an Important Option for HIV and Pregnancy Prevention](#)
- [RTI International Helps Vietnam in Fight Against HIV and AIDS](#)

HIV Research & Publications

We conduct rigorous clinical, biomedical, behavioral and implementation research in HIV prevention, treatment, care, and structural interventions.

Utilizing our 30+ years of HIV research, we translate this knowledge into evidence-based implementation efforts and help inform the broader U.S. and global response to HIV. Scan to see the full list.



RTI International is an independent, nonprofit research institute dedicated to improving the human condition. Clients rely on us to answer questions that demand an objective and multidisciplinary approach—one that integrates expertise across the social and laboratory sciences, engineering, and international development. We believe in the promise of science, and we are inspired every day to deliver on that promise for the good of people, communities, and businesses around the world. For more information, visit www.rti.org. RTI International is a registered trademark and a trade name of Research Triangle Institute.