



Fighting Infectious Diseases

Global progress against infectious diseases such as malaria and HIV has been significant, culminating in goals to end these mass killers in our lifetime. The need to maintain momentum, while also responding to the emergence of recent Ebola and Zika outbreaks, has demonstrated the importance of building sustainable health systems that will both prevent, control, and eventually eliminate infectious diseases.

For more than two decades, RTI International has been a global leader in the prevention and control of infectious diseases. Our innovators and implementers carry out complex, multi-sector projects that strengthen national and local systems to plan, implement, monitor, and evaluate infectious disease programs. We prioritize close collaboration and partnership with Ministries of Health, local counterparts, and community-based organizations, and we are committed to building local capacity to ensure ownership and sustainability.

More Information

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Photo: Patrick Adams

Key Impacts

Guinea: *StopPalu+*

The project recently organized three rounds of the 2019 seasonal malaria chemoprevention (SMC) campaign in eight districts to increase malaria prevention among children ages 3–59 months. The project trained trainers, supervisors, community health workers, and community mobilizers in the SMC campaign implementation strategy, identification of eligible children, use of data collection tools, and key message on SMC to mobilize and promote community participation. The team produced and distributed all the communication materials and data management tools reaching more than 350,000 children, or 95% of the target population, for each round.

Inform Asia: USAID's Health Research Program

The program conducted a cost-benefit analysis in 2019 which found that continuing to invest in malaria elimination in Thailand could have a return on investment of up to \$15 for every \$1 spent and the potential to prevent up to 3.11 million malaria cases from 2017 to 2036.

Strengthening Malaria Control Programs Around the Globe

RTI has partnered with U.S. and multilateral donors, governments, and the private-sector to scale up the global fight against malaria. Working with 20 national malaria programs in Africa, Asia, and Latin America, RTI has strengthened approaches to prevention, vector control, case management, and surveillance while supporting sustainable platforms for country-led programs. RTI is a lead partner in international forums where technical aspects of malaria programming are considered, and our staff are members of consultative expert and advocacy committees.

Highlights from Recent Work

In Guinea, the **USAID *StopPalu+*** project (2017–2022) supports the national malaria program to strengthen malaria prevention, case management, and control. During 2019, **3.5 million LLINs were distributed** across half the country, representing almost 95% of targeted households. **StopPalu+ also supports over 2,000 community health workers on malaria case management**—a community-centered effort that the government has been using as a model to strengthen the country's health system and increase access to health services.

For over 10 years, RTI has supported malaria vector control efforts in Tanzania,

a country that has emerged as a success story in malaria control. Through the Tanzania Vector Control Scale-up Project (USAID, 2006-2016) and the USAID *Okoa Maisha Dhibiti* Malaria Activity—Save Lives, End Malaria (2018–2023), our integrated control, surveillance, and response activities have **protected up to 8.5 million people from malaria** each year. In Zanzibar, surveillance officers have been using an RTI-developed software platform called ***Coconut Surveillance*** to track and respond to more than 10,000 malaria cases reported in the public and private sector, ensuring cases are managed promptly and effectively.

Supporting the Achievement of Global HIV Targets

RTI prioritizes capacity-building and community engagement, and we also focus on building systems that will ensure we reach 90-90-90 targets on HIV testing, treatment, and viral load suppression. Our technical assistance supports strengthened demand for, and expanded access to, HIV services; tackles structural barriers that undermine sustainable services; and improves data utilization to ensure policies and programs are evidence based.

Highlights from Recent Work

RTI led an international process to develop and pilot a global brief tool **to measure stigma and discrimination** among health



facility staff. Two instruments are now available in English, Chinese, Arabic, Spanish, Swahili and French. We have provided technical leadership in addressing systematic HIV-related stigma and discrimination, such as working with the national AIDS control and national AIDS commissions in **Thailand, the People's Democratic Republic of Lao, Ghana, Jamaica and Tanzania** to implement and test a comprehensive package for reducing stigma.

RTI created a comprehensive, **geospatially enabled database of HIV prevention and treatment** facilities in **Kazakhstan, Kyrgyzstan and Tajikistan**. This system provides users with better understanding of the level and distribution of facilities, serving key populations within the region.

We are **developing and testing the use of a thin-film polymer device that delivers antiretroviral agents** under the skin that can prevent HIV for up to 3 months. This innovative device offers a safer and simpler long-acting prevention for young and vulnerable populations.

In **South Sudan**, RTI is **supporting the military to achieve the UNAIDS 90-90-90 targets** among its troops, with notable success—including providing HIV testing services, antiretroviral treatment, and patient follow-up and circumcising male troops to enhance HIV prevention.

Deploying a Rapid and Flexible Response to Emerging Threats

As a leader in health systems strengthening and capacity development, we help countries and clients reinforce global health security through our expertise in disease surveillance, public health workforce development, governance, health information systems and integration, antimicrobial resistance, zoonotic diseases, and reporting.

We play a vital role in counteracting the threats associated with Ebola, MERS, Nipah, Zika, and other highly pathogenic infectious diseases. As a member of the Global Health Security Agenda Consortium, we join with other stakeholders to help make the world safe and secure from threats posed by infectious diseases.

The **Epi-déetecte** project (U.S. Centers for Disease Control and Prevention, 2015–2020) is supporting Guinea to strengthen surveillance and health information systems, Integrated Disease Surveillance and Response, and capacity of the public health workforce to detect and respond to infectious disease outbreaks.

Key Impacts

Uganda: Expanding Access to Quality HIV Prevention, Care and Support Services in the Ugandan Military

More than **440,000 people** received HIV testing and counselling, along with their results. At project close, nearly **20,000 people** living with HIV were enrolled in treatment at RTI-supported HIV clinics, about half of whom were newly enrolled by the project.

Georgia: HIV Prevention Project

The project supported the development of an Anti-drug National Strategy and Action Plan, championed the development of the first policy for HIV testing and counseling in penitentiaries, and institutionalized training curricula on HIV prevention, stigma, and ethics for media and leading medical schools.

New Tuberculosis Medicine Approved

Pretomanid, a treatment for extensively drug-resistant TB, was recently approved by the US Food and Drug Administration. The drug was developed by TB Alliance, a non-profit public-private partnership that RTI helped to form in 2000.

Crosscutting Areas of Expertise

Provision of Services and Interventions

We manage high-impact, integrated health service delivery projects at global, regional, and bilateral levels.

Mapping disease burdens. RTI has assessed the distribution and burden of malaria and neglected tropical diseases (NTDs) in more than 20 countries.

Managing procurement for large-scale programs. RTI's experienced team of global supply chain, logistics, and procurement experts purchase and deliver health commodities, including diagnostics, drugs, and bed nets. As of April 2019, \$18.8 billion worth of medicines have been donated to fight NTDs in RTI-supported countries.

Strengthening case management. Whether in health facilities, communities, or as part of large-scale disease surveys, RTI strengthens services and systems that improve access and adherence to, as well as coverage of, high-quality diagnostic and treatment services. This includes reducing stigma and discrimination toward HIV-infected individuals accessing health services, supporting community health workers to provide rapid diagnostic tests and treatment for malaria, and developing social behavior change messaging to ensure patients adhere to treatment.

Leading vector control. RTI-managed vector control programs have protected more than 75 million people from malaria in more than 20 countries. RTI has extensive experience managing large-scale indoor residual spraying (IRS) of households with insecticide, insecticide-treated bed net distribution, environmental compliance, entomological surveillance, and insecticide resistance monitoring.

Health Systems Strengthening and Policy Reform

RTI works to strengthen all aspects of health systems to respond effectively to infectious diseases—from supporting national strategies and goals for health sector reform, to building local and national government capacity.

Strengthening local policies and systems. To improve health outcomes, RTI builds government and civil society capacity to plan, manage, and deliver high-quality services. To improve delivery of family planning and maternal, newborn, and child

health services in Nepal, the Health for Life project (USAID, 2012–2018) supported the testing and roll-out of national policies, and assisted local-level health committees and officials to create and implement health plans.

Integrating governance approaches into the health sector. RTI's health governance interventions prioritize country-owned participatory processes, strengthen civil society knowledge and participation, and enhance government accountability.

Developing and deploying flexible and adaptable health planning and financing tools. RTI tools, such as the Tool for Integrated Planning and Costing, enable governments to cost out health programs, plan funding streams, and identify programmatic gaps.

Monitoring, Evaluation, Research, Learning, and Adoption (MERLA)

Learnings from monitoring, evaluation, and operations research are used to refine and improve program implementation. Highlights include the following:

Conducting data quality assessments. RTI-developed protocols and tools evaluate the quality of reported data and data management systems at multiple health system levels.

Assessing impact and disease surveillance. Working with host country governments and stakeholders, we demonstrate impact and document progress toward country and global goals.

Conducting operational research. Multidisciplinary teams generate evidence on the programmatic effectiveness and impact of tools, interventions, and approaches.

Expanding the use of information and communications technologies. Our experts ensure technologies—such as mobile phones/smartphones and open-source software—serve transformational purposes, including improving data collection and reporting, and ensuring data are used for evidence-based decision-making.

Turning data into actionable insights. Using predictive analytics, modeling, and data visualization, our data scientists use historic and real-time data to predict future events, inform decisions, and classify new observations to guide actions and interventions.

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.

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