



Neglected Tropical Diseases

More Information

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More than 1 billion people suffer from one or more neglected tropical diseases (NTDs). A group of parasitic and bacterial diseases, NTDs cause death, illness, and severe disability among the world's poorest—and most neglected—people. Over the past decade, remarkable progress has been made against these diseases, thanks to a coordinated global effort led by the World Health Organization (WHO) and ministries of health, with unprecedented support from pharmaceutical companies and bilateral donors such as the U.S. Agency for International Development (USAID) and the UK Department for International Development. According to WHO, the population requiring treatment for at least one NTD has decreased by 337 million since 2011. The scale of these efforts is awe-inspiring: In 2017 alone, treatments to prevent NTDs reached more than one billion people worldwide.

Since 2006, RTI has served as a lead implementer of USAID's NTD projects, working in close partnership with WHO and ministries of health in over 20 countries. RTI has supported the integration and scale up of national programs to control and eliminate seven of the most common NTDs—in part by increasing the reach of mass treatment campaigns to all people at risk. Our NTD programming also focuses on alleviating suffering and disability caused by NTDs, building the capacity of national NTD programs, and strengthening health systems and processes for NTD innovation and learning.

We contribute to global fora where technical aspects of NTD programming are considered, linking programming to research needs. Our experts are also core members of NTD consultative committees, advising on key issues relevant to the global NTD agenda, as well as supporting the development of major program strategies, guidelines, and policies.



Photo: RTI International / Nabin Baral

Did you know?

\$15.9 billion
worth of medicines
have been donated
to fight NTDs in
RTI supported countries.

More than
208 million people
are no longer at risk for
lymphatic filariasis
in 19 countries currently
supported by RTI.

More than
73 million people
are no longer at risk
for trachoma
in 15 countries currently
supported by RTI.

*numbers as of April 2018

Accelerating Toward NTD Elimination

Lymphatic filariasis (LF), trachoma, and onchocerciasis can be eliminated. With consistent, high-coverage mass drug administration (MDA) and complementary efforts addressing disease morbidity, countries are effectively wiping out these diseases. Over the next several years, these efforts will impact the lives of hundreds of millions of people living in poverty, helping them to be healthier and better able to provide for themselves and their families.

As lead of USAID's global flagship NTD project, ENVISION (2011–2019), RTI works with ministries of health in NTD-endemic communities to implement, monitor, and strengthen several key areas of these NTD elimination programs.

- **Getting donated medicines to people who need them.** RTI has been a critical partner in helping more than 20 countries establish the areas in need of treatment, as well as supporting the distribution of donated medicines, training of community health volunteers and trainers, and monitoring of treatment coverage rates.
- **Determining when interventions can stop.** Through ENVISION, more than 2,300 districts have been assessed to document the impact of interventions and accurately track progress toward elimination. RTI works with global policy makers to disseminate guidance on survey requirements and supervises the use of diagnostics and sampling strategies, implementation of survey protocols, and documentation of results. RTI expertise ensures assessments are well-coordinated and of high quality.
- **WHO validation of elimination as a public health problem.** By 2018, WHO has validated 14 countries for the elimination of lymphatic filariasis as a public health problem—Cambodia, Cook Islands, Egypt, Maldives, Marshall Islands, Niue, Palau, Sri Lanka, Thailand, Togo, Tonga, Vanuatu, Vietnam, and Wallis and Futuna. Trachoma has been eliminated as a public health problem has been achieved in Cambodia, Ghana, Iran, Laos, Mexico, Morocco, Nepal, and Oman. RTI worked closely with Cambodia, Laos, Nepal, and Vietnam to consolidate their achievements into elimination dossiers. RTI is actively working with several other countries to begin preparing for this process, including providing support for data compilation, drafting narratives, and investigating remaining data questions to ensure sufficient data exist to prove elimination has been achieved.



Photo: RTI International/Nguyen Minh Duc

Building Sustainable Control Programs

National deworming initiatives are critical for controlling NTDs caused by contaminated food and water, such as schistosomiasis and soil-transmitted helminth infections. These infections pose a serious threat to a child's health and education, as they can lead to anemia, malnourishment, and impaired mental and physical development.

RTI is working with NTD-endemic countries and partners to create sustainable NTD control programs that are country-owned and provide long-term, sustainable platforms for implementation. To this end, RTI provides technical support on policy planning and governance, domestic resource mobilization, and cross-sectoral coordination. RTI also works with partners to identify integrated distribution platforms with a view to coordinating deworming with the activities of ministries of education and school health programs. In this way, national deworming activities become a long-term part of a robust health system.

Alleviating Suffering Caused by NTDs

While tremendous progress has been made in preventing NTDs worldwide, it is essential that we work to alleviate the suffering of those who are affected and help them resume healthy and productive lives. In Mozambique, RTI supports the ministry of health to prevent blindness in thousands of people with trichomatous trichiasis, the advanced stage of trachoma, which can lead to blindness. With funding from the Queen Elizabeth Diamond Jubilee Trust Trachoma Initiative, we collaborate with local partners, government, ophthalmologists, and surgeons to expand access to trichiasis surgery, which corrects in-turned eyelashes and restores vision.

In Ethiopia, RTI is partnering with the Federal Ministry of Health to provide care and services for debilitating conditions caused by trachoma and LF. This work is conducted through USAID's Morbidity Management and Disability Prevention Project, led by Helen Keller International. To date, more than 57,000 people have received trichiasis surgery through our support. We also support the Government of Ethiopia's plan for managing disability by helping to identify cases of lymphedema and hydrocele, two debilitating conditions caused by LF.

Did you know?

Accelerating progress against NTDs is critical to improving the health and livelihoods of women and girls, who are disproportionately affected by these diseases.

NTD programs lay the foundations for strong, resilient health systems by reaching people with quality health services, particularly in remote and impoverished communities.



Photo: RTI International/Timothy La Rose

Did you know?

Improving the health and productivity of poor communities strengthens their political and economic stability, building stronger diplomatic and trade partners.

Every dollar invested in NTD control and elimination produces between \$27 and \$42 worth of economic benefit.

Strengthening Systems and Processes for Innovation and Learning

Improving data quality and use for evidence-based decision making. RTI has helped USAID develop its NTD monitoring and evaluation system, designing the data collection tools used to capture the data resulting from USAID's investments. RTI has also managed the data from 25 countries supported by USAID, and conducted data analysis and interpretation to provide USAID and project teams with the necessary information to make decisions. Our team has also worked with WHO to pioneer a data quality assessment approach that evaluates the quality of reported data and data management systems at multiple health system levels. We provide recommendations to national NTD programs on data flow, data use, and information systems architecture, and strengthen their capacity to learn from their data and make appropriate programmatic adaptations.

Pioneering innovative technologies and tools. Our experts ensure that technologies—such as smartphones and open-source software—serve transformational purposes, including improving data reporting and ensuring data are used for decision making. RTI is proud to be a lead organization for Tropical Data, a WHO-endorsed system helping countries track progress toward elimination of trachoma as a public health problem. RTI manages the system's technology and supports global standardization trainings for trachoma. RTI also leads efforts to integrate other NTDs into the Tropical Data platform.

Conducting innovative operational research. RTI works with endemic countries to identify the priority knowledge gaps preventing programs from reaching their ultimate control and elimination goals. Using this information, RTI then carries out high-quality operational research to build the evidence base for effective NTD programming to reach the most vulnerable populations. The outputs of operational research are used to strengthen not only RTI's programming, but NTD programs and policies around the world. For example, we are currently trialing new diagnostic approaches for trachoma and new approaches for assessments for LF and onchocerciasis. If successful, these will enable us to better understand when countries are no longer at risk of the disease and can stop treating treatment for these diseases.

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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