# Advancing Global Health Security

For more than 25 years, RTI has been a global leader in the prevention and control of infectious diseases as well as an innovator in health system strengthening, environmental wellbeing, and animal health. Combining these multidisciplinary skills, we implement and evaluate programs to strengthen systems for health security and improve resilience against existing and emerging pandemic threats. We maintain trusted, productive relationships with national and local governments, academia, private sector, and community-based organizations in the United States and in over 90 countries to foster their ownership of global health security (GHS) platforms. With a deep bench of experts, our work has played a vital role countering the threats associated with coronavirus disease 2019 (COVID-19), Ebola, Middle East Respiratory Syndrome (MERS), Zika, and other highly infectious diseases.

Areas of Expertise:

- Antimicrobial Resistance (AMR)
- Border Health
- Disease Surveillance
- Epidemiologic Modeling
- Health Information Systems
- Health Economics
- Health Systems Strengthening
- Immunization

- Laboratory Capacity Building
- Monitoring and Evaluation
- Operationalizing One Health Approaches
- Public Health Workforce Development
- Rapid Response Systems
- Research and Data Management
- Risk Communication and Community Engagement
- Zoonotic Diseases

RTI current work or registration
(includes short-term assignments or remote support)
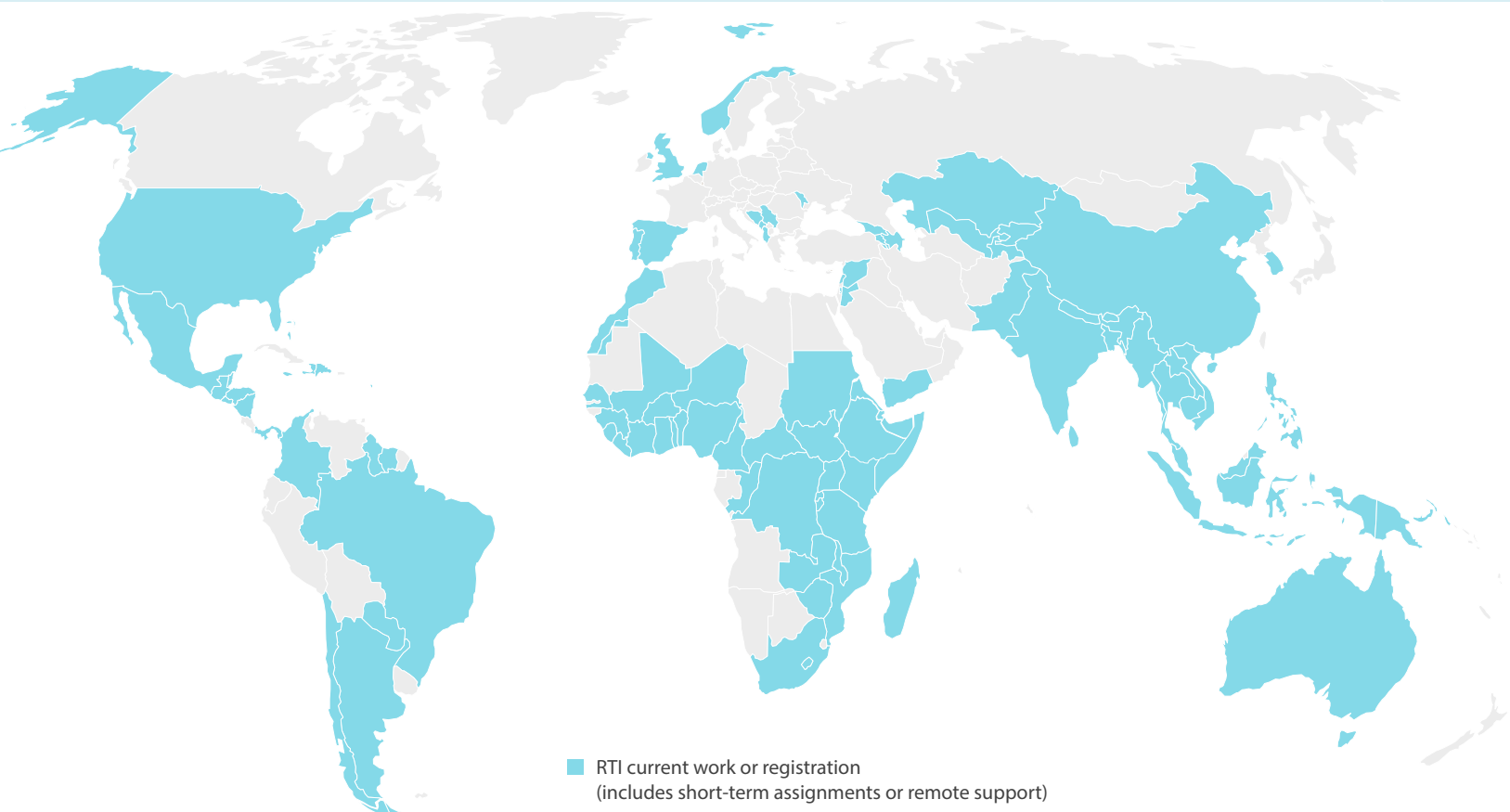
Prevent Avoidable Epidemics

- Led a **One Health assessment** in Southeast Asia to understand the priorities of the Association of Southeast Asian Nations (ASEAN), determining how the One Health approach can help (1) adjust existing policy frameworks to address the risk of zoonotic disease spillover and (2) identify entry points to facilitate ecosystem health and counter wildlife trafficking. *Client: U.S. Agency for International Development (USAID).*

- Using existing disease data and social and environmental/climate determinants to provide countries with **epidemiologic modeling services to anticipate the outcomes of potential outbreaks**, such as anticipating an increase in malaria cases after a severe climate event or planning for health risks of mass events. Results from models help health leaders forecast and plan budgets and resources accordingly for more efficient and effective preparedness and response. *Clients: Northeast Regional Center for Excellence in Vector-Borne Diseases, World Bank, RTI-funded.*

- Planning for health threats from prioritized zoonotic diseases, RTI helped the Democratic Republic of the Congo (DRC) **strengthen sentinel surveillance of priority zoonotic diseases** and conducted a multilevel surveillance evaluation of institutional and individual capacity in two provinces. *Client: U.S. Centers for Disease Control and Prevention (U.S. CDC).*

- Addressed upstream levers for viral spillover in Tanzania by **strengthening capacity for conservation and wildlife law enforcement** to tackle illegal trafficking of wildlife and reduce unsafe and unregulated wildlife consumption. Working with border control officials and conservationists, RTI supported Tanzania's safeguarding of biodiversity to prevent unhealthy interactions between humans and wildlife and reduce the potential for zoonotic viruses jumping from animals to humans. *Client: USAID.*

Detect Threats Early

- Partnering with Ministries of Health in 13 countries to **control and eliminate neglected tropical diseases** (NTDs) by strengthening capacity for resilient health systems and communities, operationalizing data reporting and management, bolstering government planning, and facilitating advocacy for domestic resource mobilization. *Client: USAID.*

- Working with the Caribbean Public Health Agency (CARPHA) to optimize their DHIS2 regional repository to **strengthen disease surveillance**, ensuring that relevant, timely, and accurate surveillance data are available to monitor the health status of member states and provide strategic information, thus enabling evidence-informed policymaking at national and regional levels. *Client: CARPHA.*

- Supported Guinea to scale up from phone- and paper-based management of surveillance data to nationwide use of eIDSR (**Electronic Integrated Disease Surveillance and Response system**) using the DHIS2 platform. This quickened Guinea's response to the COVID-19 outbreak in 2020 and led to rapid detection and containment of an Ebola outbreak in 2021. *Client: U.S. CDC.*

- Building on quality data systems, RTI maximizes data to **model outcomes of existing outbreaks**, like mpox and Ebola, to help countries assess the risk and impact of response measures such as lockdowns, school closures, and medical countermeasures. *Clients: Northeast Regional Center for Excellence in Vector-Borne Diseases, World Bank, RTI-funded.*

- Taking lessons learned from contributions to the HIV epidemic and expanding HIV systems for broader infectious disease detection, RTI galvanizes **digital health solutions for national implementation of DHIS2 for HIV surveillance and performance monitoring** in Tanzania, Zimbabwe, and South Sudan. *Client: U.S. CDC and the U.S. President's Emergency Plan for AIDS Relief (PEPFAR).*

Respond Rapidly and Effectively to Disease Outbreaks

- Supported **disaster response and disaster risk reduction for H1N1 influenza monitoring** in Costa Rica, **Zika virus monitoring** throughout the Latin America and Caribbean region, and mobilized surge support to conduct a **COVID-19 situation report** in Ecuador. *Client: USAID/Office of U.S. Foreign Disaster Assistance.*

- Leading technical monitoring (e.g., governance, workforce development, data integration and standards and data analytics) of Global Public Health Data Innovation activities to **strengthen global outbreak response and pandemic preparedness** through improved data availability and modernizing data systems in Kenya, Uganda, Zambia, Sierra Leone, Colombia, Honduras, Paraguay, Georgia, Thailand, and Ukraine. *Client: U.S. CDC.*

Enhance National and Local-level Health Security Systems

- With the Nigerian government, RTI developed the country's **preparation for the Joint External Evaluation (JEE)** and customized the JEE tools for local-level evaluation of the International Health Regulations. *Client: U.S. CDC.*

- Supported 508 community health workers and health personnel in 16 health facilities in Guinea **to develop capacity for identifying potential health threats** and alerting proper authorities. *Client: U.S. CDC.*

- Led a rapid assessment of capacity for **community-based surveillance, developed community signals and tools, and strengthened community knowledge** in the DRC. The community approach helped to build trust between communities and health facilities and raised community awareness to establish vigilant community surveillance and early detection. *Client: U.S. CDC.*

Strengthen Laboratory and Surveillance Capabilities

- Purchased and delivered specific equipment identified for regional labs in Mbandaka and Lubumbashi, in the DRC, including **equipping the laboratories with biosafety cabinets, hematology mixers, and freezers**. Regional personnel were prepped for sustainable transition of equipment for long-term maintenance. *Client: U.S. CDC.*

- Establishing a surveillance system for **laboratory testing and detection of acute febrile illness (AFI) pathogens** with unknown origins in northern and southern Nigeria; includes laboratory capacity building and clinical research for detection of emerging and re-emerging pathogens of epidemic potential. *Client: Defense Threat Reduction Agency.*

Risk Communication

- Supported **social mobilization for Ebola prevention** and reduced community resistance in Guinea thanks to relatable health communication distributed by networks of local NGOs and community health workers conducting 24,000 home visits and distributing 25,000 wash kits. *Client: U.S. CDC.*

Prevent, Detect, and Mitigate Antimicrobial Resistant (AMR) Pathogens

- As a founding member of the TB Alliance, RTI developed, tested, and acquired U.S. Federal Drug Administration approval for the multi-drug resistant TB treatment pretomanid, used in the latest World Health Organization-recommended BPaL regimen. *Client: TB Alliance.*

- Developing the prototype for a centralized AMR database and dashboard that will support the implementation of a national AMR data coordination center for veterinary medicine in the United States. *Client: Iowa State University.*

Emerging Disease Innovation: COVID-19

With the emergence of COVID-19, RTI rapidly adapted existing programs and leveraged our multidisciplinary expertise to enhance U.S. and global pandemic response across the cascade of pandemic response:

- RTI rapidly facilitated the development of the national laboratory system in Honduras and El Salvador in response to COVID-19 testing demand, updating guidelines for preventing and controlling infection and case management, improving laboratory efficiencies and testing effectiveness, training laboratory staff, and building the information systems for sharing data. *Client: USAID.*

- Through identification and data collection of risk communication and community engagement (RCCE) professionals in 25 provinces in the DRC, RTI established 1,492 COVID-19 community action committees (CAC) supported by Community Action Plans and 8,067 trained CAC members. These members helped implement RCCE activities using communication tools and materials within the national integrated communication plan co-created with RTI. *Client: U.S. CDC.*

- In the Philippines, through the USAID ReachHealth project, RTI supported the national COVID-19 response in 32 provinces, including case management and prevention, community engagement, and vaccine roll-out to 2.8 million Filipinos. *Client: USAID.*

- In Senegal, RTI built a culture of stakeholder collaboration and openness focused on strengthening the capacity of local governments to respond to citizen demands, mobilizing and improving the use of public resources for basic health services and increasing community capacity to advocate for better health services. In response to COVID-19, the project led the coordination of 17 multisectoral projects, helping galvanize key stakeholders to immediately help prevent the spread of COVID-19 and promote socioeconomic stability. *Client: USAID.*

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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.