

COVID-19 Response and Capabilities

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Photo: Patrick Adams/RTI International

For more than 25 years, RTI International experts have helped clients build resilient health systems and improve public health. In response to the COVID-19 pandemic, we are working quickly to lessen its impact. Although COVID-19 is a novel virus presenting unprecedented challenges, RTI offers broad and deep experience to address a variety of public health threats—including Ebola, Zika, tuberculosis, malaria, and HIV—and improving the underlying systems where they occur and the effects they leave in their wake.

RTI's COVID-19 Rapid Response

- Conducted a [nationally representative survey](#) to understand Americans' knowledge, attitudes, and opinions about the virus.
- Developed a [model that details patient movement](#) through health care facilities to forecast surge and capacity issues. This model leverages RTI's Synthetic Household Population and is informing policy decisions in North Carolina.
- Used [geotagged Twitter data](#) in the early phase of the outbreak to analyze movement patterns of people to predict the possible spread of cases. It showed that 74% of cases would occur outside of China.
- Developed and shared a [library of resources for student resiliency](#) during the COVID-19 crisis with our entire client portfolio. We also host peer networks of superintendents and chief academic officers who are sharing COVID-19 resources, strategies, communication materials, and policy updates.
- Conducted a situation report on COVID-19 in Ecuador through USAID's Regional Disaster Assistance Program.
- [Identified 6 suppliers of filter media alternatives](#) that are available and warehoused in the United States for N95 respirators.
- Quantifying the impacts of COVID-19 on economies, and assessing the impacts through trade, transport, disruptions in business, and other economic activity.
- Reinstated legacy capabilities for testing fabrics, removing aerosols, and testing masks and filter canisters; these will soon be available to test face masks, N95 masks, and respirators.
- Participating on a Biomedical Research Collaborative at the request of NIH Director Francis Collins.

RTI's Crosscutting Capabilities

Epidemiology

- Mapping Disease Burdens
- Impact and Disease Surveillance
- Case Management

Economics

- Health Policy and Program Analysis
- Healthcare Financing and Payment
- Economic Impact Analyses
- Cost-Benefit Analyses
- Financial Market and Trade Risk Analyses

Care Delivery

- Health Care Delivery Design including Telehealth
- Population Health
- Health IT and Informatics
- Procurement for Large-Scale Programs

Data Generation and Analysis

- Survey Research
- Data Collection and Acquisition
- Data Coordination and Management
- Data Analytics
- Modeling and Predictive Analytics
- Data Science
- Geospatial Analysis

Consulting, Implementation, and Assessment

- Monitoring and Evaluation
- Training and Technical Assistance
- Operational Research
- Technology Scouting
- Public Private Partnerships
- Implementation Science

Community-Based Research Communication Science

Examples of Relevant Past Performance

Laboratory Research on Viruses

Conduct research on the fate, transport, and viability of viruses in the environment, including these research areas:

- Air and surface contact movement within and between environments
- Risk of inhalation exposure from breath, coughs, and sneezes
- Effectiveness of air cleaner systems and decontamination methods.

Clients: CDC, DARPA, DTRA, DHS, and EPA

Economic Impact

- Assess the costs of increasing countries' security against infectious disease and creating analytical tools to evaluate the costs associated with increased surveillance and improved response. *Clients: Multiple*
- Characterize the costs and benefits of new technologies, public health practices, and ways of working, including for electronic case reporting, monitoring and tracking, and program delivery. *Clients: CDC, APHL, ASTHO*

Military Health and Justice Research

- Working on a networked human wearables system for early identification of respiratory illness. *Client: DARPA*
- Supported modeling efforts for chemical and biological protective garments since 1985. *Client: DoD*
- Developed aerosol systems and test methodologies for aerosol challenge tests. *Client: DoD*
- Collect data for national victimization and criminal justice system surveillance studies. *Clients: Multiple*
- Study and evaluate promising reentry initiatives to support successful reintegration in society. *Clients: Multiple*

Behavioral Health and Substance Use

- Examined the use of telehealth to treat substance use disorders in rural areas. *Client: ASPE*
- Conducted the National Survey on Drug Use and Health for over 30 years. *Client: SAMSHA*
- Evaluating the delivery of medication-assisted treatment for opioid use disorders. *Client: CDC*
- Study programs that aim to promote mental health and resiliency among young people. *Clients: Multiple*
- Examining evidence-based suicide prevention practices. *Client: NIH*

Education Research

- Conduct large, national education studies including the Baccalaureate and Beyond Longitudinal Study, Beginning Postsecondary Students Longitudinal Study, and Middle Grades Longitudinal Study. *Client: Department of Education*
- Conducted an evaluation of a \$41 million investment to improve broadband access for local government, hospitals, and schools in rural Appalachia. *Client: Appalachian Regional Commission*

Count on Proven Experts

RTI offers a deep bench of cross-functional experts including epidemiologists, data scientists, public health workers, psychologists, educators, physicians, survey methodologists, evaluation specialists, trainers, economists, engineers, innovation experts, and others who offer unique perspectives and solutions to complex problems, like the COVID-19 crisis.

Public Health Communications

- Design, deliver, and evaluate health communication programs—including those related to HIV and Zika—that capture attention, promote better decision-making, and motivate behavior change. *Clients: Multiple*

Strengthening Health Systems—Domestic and International

- Tested, for the Frontier Community Health Integration Project, alternative strategies for telehealth, nursing home care, and ambulance services in 10 frontier critical access hospitals. *Client: CMS*
- Developed and implemented large public payer payment models that provide incentives to improve care coordination, quality, access, and costs. *Client: CMS*
- Helping transform care delivery systems in 17 states through the State Innovation Models initiative. *Client: CMS*
- Leading the data coordinating center for a multi-country blood research program that also supports surveillance of viral infections. *Client: NIH*
- Help improve access to and the quality of health services in 32 provinces in the Philippines. *Client: USAID*
- Supported and developed programs that build health worker capacity on 3 continents. *Clients: Multiple*
- Evaluated the impact of global health security programs in 15 countries since 2017. *Client: CDC*
- Supported health governance interventions in 10 countries. *Client: USAID*

RTI's Rapid Response to Other Recent Outbreaks (Ebola and Zika)

- During the 2014–2016 Ebola outbreak in Guinea, we provided technical assistance to the government to strengthen surveillance and health systems. *Client: CDC*
- From 2015–2019, we improved health facility triage and screening protocols and increased health worker capacity in Guinea to detect and respond to Ebola outbreaks. *Client: CDC*
- We developed a public health campaign targeted at pregnant women and health care workers in several U.S. territories to increase awareness and use of personal protective behaviors. *Client: CDC*
- We conducted Zika virus monitoring throughout Latin America. *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.

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