

Risk Communication: Emergencies and Disasters



The ability of the government or private organizations to convey complex information clearly and simply to people is critical during a terrorist attack, natural or biological disaster, or other large-scale emergency. In the event of a public emergency, the U.S. Department of Homeland Security (DHS) and other agencies will lead many aspects of the country's response. RTI International—with its breadth and depth of expertise, scientific objectivity, and high standards for excellence—can provide comprehensive, actionable research on the complex issues of risk communication to support DHS's mission to protect the United States and other countries.

An emergency event can provoke a broad national response that involves agencies on the federal, state, and local levels communicating with the public about potential risks and possible solutions for enhancing health and safety. Such communication can be challenging because the public may not receive, comprehend, or fully trust the message being disseminated. Thorough knowledge of a community's social fabric (i.e., its diversity, beliefs, attitudes, infrastructure), paired with actionable research on communication channels and preferences, can inform more effective risk communication that includes appropriate settings, message content, and sources for reaching a particular audience.

Our Expertise

RTI provides expert risk communication, consultation, and research services to DHS, as well as the U.S. Department of Defense, Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), and private-sector clients. With an extensive background in social sciences, public health, risk communication, and survey research, RTI has conducted some of the most

critical data collection efforts in the United States. Our work includes research and evaluation with military, civilian, and minority or hard-to-reach populations and on-the-ground collaboration with faith-based and at-risk communities.

RTI's risk communication research examines the knowledge, attitudes, and behaviors of various audiences and seeks answers to critical questions:

- Who are the appropriate target audiences?
- How can the target audience be meaningfully segmented?
- What information must be conveyed to change knowledge, attitudes, and behaviors?
- What resources and information are needed to build capacity?
- How can information be effectively framed or tailored for each segment?
- What messages or outreach strategies will achieve the desired outcomes?



In addition, RTI's experience supporting homeland security-related research covers community resilience, immigration, first responder training, terrorism, and cybersecurity. Our expertise enables us to

- Rapidly assess information needs to identify gaps in communication flow
- Conduct social science and modeling research on terrorism and political violence
- Research immigration issues and conduct population studies
- Use data mining and social science research to understand cybersecurity threats
- Evaluate and support broad, multiagency coordination and responses
- Provide extensive training and support in community resilience and first responder best practices.

RTI also has a broad background in health communication and epidemiology. Our researchers

- Assess social and individual factors affecting public health preparedness and environmental health communication
- Conduct research on bioterrorism, health security, and highly infectious diseases
- Develop models and conduct virtual experiments to predict and preempt national or widespread health epidemics
- Research the effects of influenza outbreaks and other pandemic diseases.

Selected Project Highlights

Building on Clues: Improving Methods for Law Enforcement Detection and Analysis of Terrorist Activity—RTI is working with DHS and the Institute for Homeland Security Solutions to develop analytic processes that U.S. law enforcement and homeland security agencies can use to pinpoint information contained in serious activity reports (SARs), which are generated by police units across the country. RTI is investigating the strengths and weaknesses of SAR data in cooperation with the Federal Law Enforcement Training Center to identify the most appropriate methods for processing, analyzing, prioritizing, and linking suspicious activity data. This research will identify the types of data

and data elements that should be collected, processes for handling SARs of varying degrees of interest, and recommended methods for filtering data to isolate records most likely associated with terrorist activity. Finally, it will inform training guidelines for practical analysis processes and methodologies for SARs.

Formative and Summative Evaluation for Pandemic Influenza Information—Under this project for CDC, RTI investigated social, psychological, and environmental issues that may influence the public's responses to an influenza pandemic. RTI conducted formative research with eight high-priority, vulnerable groups (e.g., racial and ethnic minorities, the homeless, socially isolated elderly or disabled) and the organizations that serve them. RTI also conducted testing of flu communication toolkits and usability testing of a portion of the flu.gov Web site.

Quarantine and Border Health Services Training and Education Needs Assessment—RTI worked with CDC's Division of Global Migration and Quarantine (DGMQ) to convene a stakeholder panel to discuss the training needs of border health and quarantine staff. The assessment examined perceptions and self-efficacy related to public health roles, training opportunities, and communication channels. RTI first conducted an internal assessment with CDC field staff, then conducted in-depth interviews and meetings with external stakeholders and front-line personnel in quarantine partner agencies (e.g., U.S. Customs and Border Protection, U.S. Fish and Wildlife Service, and emergency medical service providers). RTI also conducted focus groups with physicians and international travelers to examine issues related to Travel Health Alert notices.

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