RTI INTERNATIONAL

Capabilities Overview

Prepared by RTI International

RTI International Profile

RTI International is one of the world's leading independent nonprofit research institutes, dedicated to improving the human condition by turning knowledge into practice. With projects in more than 40 countries and a staff of more than 2,600, RTI offers innovative research and technical services to governments and businesses worldwide in the areas of health and pharmaceuticals, education and training, surveys and statistics, advanced technology, democratic governance, economic and social development, energy, and the environment.

Why Choose RTI?

Reputation for Excellence	For nearly 50 years, RTI scientists and researchers have provided our federal and private-sector clients with independent, objective, and scientifically rigorous research and consulting services. Adherence to these high standards ensures we provide unquestionable results and quality work products that you, our clients, can trust. We routinely publish our research findings in peer-reviewed journals, raising the credibility of our work and our clients.
Multi-disciplinary Approach	At RTI International, we combine the intellectual talents of leading scientists and researchers in more than 130 disciplines to form world-class research and project teams. Building research teams using our expert staff reduces project management costs and increases collaboration among those conducting your research. The results are creative, efficient research solutions and technical services to meet your specific project needs.
Project Management Capacity	RTI International has significant experience managing complex national, international, and multipartner/site research studies and projects. RTI serves as the data coordinating center for some of the nation's largest studies and longitudinal research programs, including the National Survey on Drug Use and Health (NSDUH) and the National Survey of Child and Adolescent Well-Being (NSCAW). RTI also created a 30,000-participant World Trade Center Health Registry of those who lived or worked near the World Trade Center on 9/11. Additionally, RTI researchers are collecting and managing a 10,000-participant registry of construction workers building a new containment system for the Chernobyl nuclear reactor in Ukraine.
University Affiliations	RTI International maintains close working relations with some of the world's leading research universities, including Columbia, Harvard, Johns Hopkins, Emory, MIT, the University of Michigan, and our three founding universities—Duke, North Carolina State, and the University of North Carolina. Many of our staff members also serve as faculty members at these universities.
Independent Nonprofit Status	As an independent, nonprofit research organization, our primary objective is to provide our clients with the highest possible quality research and consulting services. Our scientists and researchers are committed to the highest standards of scientific integrity, impartiality, and objectivity.
A Preferred Employer	RTI International attracts and retains the world's leading scientists, researchers, and business professionals. When you hire RTI, you will be served by an experienced and stable research team with a long-term commitment to you and your research project.
Client Focused	At RTI International, we are dedicated to providing our clients, large and small, with first-rate research and customer support. Our corporate management team is available at any time to discuss challenges and propose creative solutions.
Financial Strength	RTI International is a thriving research company with annual revenues of more than $500 million. When you work with us, you are working with a research organization that has the infrastructure, financial/risk management systems, and other resources necessary to ensure we provide you with world-class research and technical services.
Global Presence	Headquartered in Research Triangle Park, NC, RTI International maintains offices in the United States and around the world to support our ongoing research projects and emerging client needs. RTI also has a major presence in the Washington, DC, area, with more than 150 local staff and offices in the District and Rockville, MD. We have conducted projects in more than 135 countries and have more than 30 years of international experience. Our expanding international capabilities can accommodate your global research needs.

Highlights of RTI Expertise and Capabilities

Health Informatics

- Construct advanced network portals that provide linkage and accelerate the free exchange of information among researchers, clinical practitioners, and the community
- Provide centralized scientific data management, modeling and simulation, and analysis and visualization capabilities to help disseminate, explore, and share results across various groups of stakeholders

Evidence-Based Practice

- Foster the development and dissemination of systematically developed, authoritative evidence reports and technology assessments
- Work with science partners to improve clinical practice and patient health and well-being
- Enhance methodologies for evidence reports and technology assessments and determine their effects on health care practices and patient outcomes

Individual Health Behaviors

- Conduct applied, theory-based research and evaluate programs and interventions designed to change intrapersonal and interpersonal factors that affect behavior
- Emphasize effects of system and environmental changes on behaviors that promote health or reduce risk
- Provide content expertise across the spectrum of chronic disease prevention and health promotion domains, including cardiovascular health, nutrition, physical activity, diabetes, asthma, cancer control, and tobacco control

Community Systems—Health Promotion

- Conduct evaluations of federal, state, and community-based interventions targeting behavioral and environmental antecedents of chronic disease
- Use culturally competent partnership methods to involve stakeholders in intervention design, implementation, and evaluation

Community Systems—Public Health Policy

- Conduct research on the effectiveness and cost-effectiveness of public policy and programmatic strategies that promote positive health behaviors and reduce health risk behaviors
- Recognize the importance of social and environmental contexts that influence health behavior and the impact of policies and programs on those contexts and on individual and group behavior

Health Communication and Marketing

- Use science-based, theory-driven approaches to health behavior change
- Apply core social marketing principles and techniques
- Create and evaluate evidence-based interventions
- Apply plain language expertise

Health Economics

- Perform cost-effectiveness analyses
- Estimate cost-of-illness
- Calculate program costs
- Understand patients' willingness-to-pay and risk trade-offs for alternative treatments
- Link claims data to clinical events

Data Capture and Integration

- Develop and use state-of-the-art software systems to improve data quality
- Develop cost-efficient and effective procedures for all components of data capture

Health Statistics

- Conduct multisite medical studies and clinical trials
- Analyze data on disease progression and treatment
- Conduct epidemiological research on the incidence, prevalence, risk factors, and etiology of diseases

Health Informatics

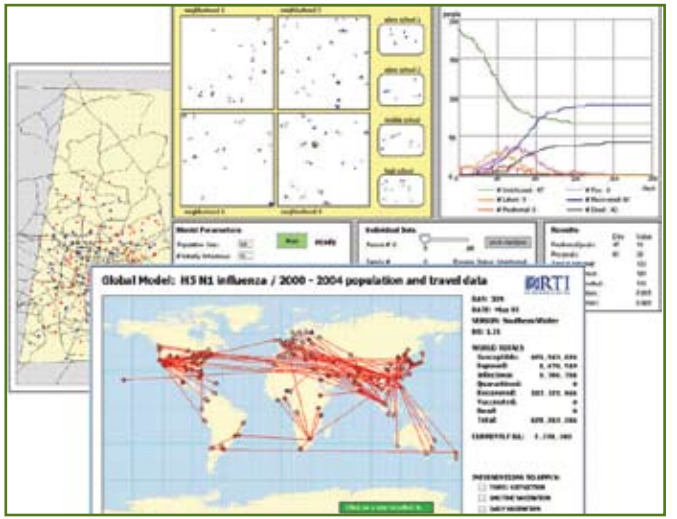
Health Informatics research at RTI includes clinical trials; natural history studies of disease progression, including the modeling of its spread across the population; national and international epidemiological research on the incidence, prevalence, risk factors, and causes of diseases; and health promotion and disease prevention research. The increasingly demanding computational requirements of this research have led RTI to focus on the development of high-performance computing (HPC) capabilities to deal with both the massive amounts of data and the extensive calculations involved in these types of analyses. Web portals and knowledge networks are obvious methods for accessing and manipulating those computational capabilities because they provide the information technology that links scientists and their findings globally and instantaneously.

Relevant Expertise

- Construct network portals that provide the linkage and free exchange of information among researchers and clinical practitioners
- Construct knowledge networks using a secure, multilevel, scalable architecture that serves medical professionals, the public health system, and the community, with interfaces tailored to the needs of each user group
- Develop systems that enable access to personalized health care environments that allows the individual to make informed, healthy, lifestyle choices
- Provide knowledge management tools that can help translate the latest research findings into practice and disseminate information into the community
- Develop systems that facilitate information exchange so that experience gained in communities can inform and focus clinical research and vice versa

Sample Projects

- Providing resources for independent research projects conducted by outside investigators by establishing a core database system integrating all data from various data centers, performing extensive quality checks on data, leading the development of common data standards, providing data and analyses to approved investigators upon request, and assisting investigators with study design
- Housing biological materials collected in large clinical studies of diabetes, consolidating all data to offer a centralized location for data access and sharing, and helping new and ongoing studies develop databases that will be reposited in the future and made available to other researchers
- Assisting in the response to epidemics by developing large-scale computational resources to support complex models of the spread of pathogens; creating information and knowledge management tools; formulating analytical and statistical approaches for validating and comparing model results; creating an archival repository of models, model outputs, and documentation; acquiring a variety of data relevant to modeling; and testing and validating models



Evidence-Based Practice

RTI International is a leader in evidence-based practice development, including the development of clinical practice guidelines. RTI and the University of North Carolina at Chapel Hill have combined forces to create and expand the RTI–UNC Evidence-based Practice Center (EPC). The center combines RTI's research and data coordinating capabilities with the clinical resources of the five UNC health sciences schools—Medicine, Nursing, Dentistry, Pharmacy, and Public Health—coordinated through the Cecil G. Sheps Center for Health Sciences Research.

The RTI–UNC center can call upon nearly 450 clinical, substantive, and methods experts to conduct studies and activities for the federal Agency for Healthcare Research and Quality (AHRQ) and its partners, for other public-sector agencies at both the federal and state levels, and for private-sector organizations, such as professional societies and associations, patient and consumer groups, managed care organizations and insurers, and pharmaceutical firms.

Relevant Expertise

- Develop and disseminate authoritative evidence reports (or technology assessments) on critical health care topics affecting all population groups
- Provide partners with critical information to improve clinical practice and patient health and well-being
- Enhance methodologies for evidence reports and technology assessments
- Determine the effects of such materials on health care practices and patient outcomes

Sample Projects

- Reviewed the effectiveness of community- and population-based interventions to prevent tobacco use and to increase consumer demand for and implementation of effective cessation interventions; the impacts of smokeless tobacco marketing on smoking, use of those products, and population harm; and directions for future research
- Reviewed the efficacy of treatment for anorexia nervosa, bulimia nervosa, and binge eating disorder, harms associated with treatments, factors associated with the treatment efficacy and with outcomes of these conditions, and whether treatment and outcomes for these conditions differ by sociodemographic characteristics
- Assessed community-based participatory research with regard to research methodology and community involvement, evidence of success, and review criteria for grant applications
- Reported on evidence-based practice study methods concerning distinguishing efficacy from effectiveness, developing and implementing systematic reviews of economic analyses, rating the strength of scientific evidence, and updating clinical practice guidelines

Individual Health Behaviors

RTI's health behavior program uses multidisciplinary qualitative and quantitative approaches to study individual-level psychosocial mechanisms related to health risk and protective behaviors, to evaluate the extent to which these mechanisms motivate health behavior change, and to identify best practices that can be applied at a population level to promote health and wellness.

Relevant Expertise

- Develop theory-based models of individual behavior
- Conduct behavioral surveillance studies
- Conduct intervention research
- Evaluate process, efficacy, and outcome of public health programs
- Evaluate health behavior change as it relates to
  - cardiovascular health
  - obesity prevention
  - diabetes prevention and control
  - tobacco prevention and control

Sample Projects

- Conducting a weight management demonstration project using a three-armed randomized controlled trial of a cognitive/behavioral intervention in a four-state region in the United States
- Directing an evaluation of state efforts to engage in policy, community, media, and medical interventions to prevent obesity
- Conducting a community randomized controlled trial of an obesity-prevention social marketing campaign aimed at low-income, inner-city residents in a major U.S. metropolitan area
- Completed an evidence-based practice review that systematically reviewed the efficacy of interventions to influence dietary behavior
- Conducting randomized trials to develop and test home-based, parent-child interventions for primary prevention of tobacco use; translating this intervention strategy to modify parenting practices that affect child energy balance and risk of unhealthy weight gain

Health Promotion

RTI investigators conduct comprehensive evaluations of multilevel programs, employ a collaborative approach to community health evaluation and research, and emphasize the direct involvement of community stakeholders in partnerships that strengthen intervention implementation and promote sustainability.

Relevant Expertise

- Promote community capacity building
- Promote sustainable intervention
- Identify disparities in community health promotion
- Facilitate stakeholder engagement and partnership formation
- Develop intervention dissemination methods
- Develop culturally competent intervention and evaluation methods
- Conduct multilevel data collection and analysis

Sample Projects

- Developed a logic model and evaluation plan for the National Cancer Institute's Center to Reduce Cancer Health Disparities Community Networks Program
- With the American Legacy Foundation, conducted the cross-site evaluation of the community-based Youth Empowerment tobacco control program
- With the Division of Cancer Prevention and Control at the Centers for Disease Control and Prevention, developing an evaluation tool to measure community capacity for public health intervention and the sustainability of public health interventions

Public Health Policy Research

RTI's public health policy investigators conduct research on the effectiveness and cost-effectiveness of public policy and programmatic strategies that promote positive health behaviors and reduce health risk behaviors. They evaluate social and environmental contexts that influence health behavior and the impact of policies and programs on those contexts and on individual and group behavior.

Relevant Expertise

- Evaluate the effectiveness and cost-effectiveness of public health policies and programs that emphasize health promotion and chronic disease prevention
- Conduct econometric analyses of the effect of macro-level changes, such as economic development, on health disparities and chronic disease
- Develop simulation models to project the impact of public health policies and programs among different populations

Sample Projects

- Conducted national evaluation of the truth® smoking prevention media campaign implemented by the American Legacy Foundation
- Performed independent evaluation of the comprehensive state-level tobacco control program implemented by the New York Bureau of Tobacco Use Prevention and Control
- Studied variation in the effects of macro-level variables (taxation, smoking policies) on smoking prevalence by race, gender, and income

Health Communication & Marketing

RTI's health communication expertise encompasses the entire spectrum of health communication and marketing activities—from audience segmentation and formative research to creative message and materials development, intervention design and implementation, and comprehensive evaluation. RTI researchers

- Use science-based, theory-driven approaches to health behavior change
- Apply core social marketing principles and techniques
- Create and evaluate evidence-based interventions
- Apply plain language expertise.

These rigorous research activities, materials, and evidence-based campaigns target individuals, families, health professionals, and policy makers and are designed to promote informed health decision making and healthy behavior change. RTI professionals understand the importance of an audience-centered approach and carefully consider different information needs, preferences, health literacy levels, and cultural factors when designing and evaluating programs.

Relevant Expertise

- Conduct audience segmentation and analysis
- Develop and test formative messages, including tailoring and framing
- Develop products using a variety of media and channels
- Provide communication planning and execution
- Evaluate process and outcome
- Provide creative design and development

Sample Projects

- Determining promising practices in heart disease and stroke prevention
- Assessed the experience of smokers, lung cancer survivors, and physicians related to lung cancer screening
- Developing, implementing, and evaluating the efficacy of a multimodal, community-based health education intervention to provide men with the information, skills, and reinforcement needed to make informed decisions about prostate cancer screening
- Conducting formative research to inform the development of HIV social marketing campaigns to make HIV testing a routine part of medical care, to encourage health professionals to screen HIV-positive patients for transmission behaviors and offer a brief prevention message, and to offer HIV testing as an opt-out practice for pregnant patients

Health Economics

Health economists at RTI study the costs, cost-effectiveness, and benefits of public health interventions and treatments and their wider impact on the national economy. In examining diverse medical problems, including diabetes, cardiovascular disease, lead poisoning, and substance abuse, RTI researchers help society make better decisions about how to allocate personal, technical, and financial resources to improve public health and the human condition.

The RTI and University of North Carolina at Chapel Hill Center of Excellence in Health Promotion Economics unites economics with public health practice to advance the field of health promotion economics by developing economic methods and training economists and public health practitioners. The center develops improved methods and performs studies that enable researchers and decision makers to most efficiently deploy scarce resources to promote health and prevent disease, disability, and injuries. Established in 2004, the Center is one of two Centers of Excellence in Health Promotion Economics funded by grants from the Centers for Disease Control and Prevention (CDC).

Relevant Expertise

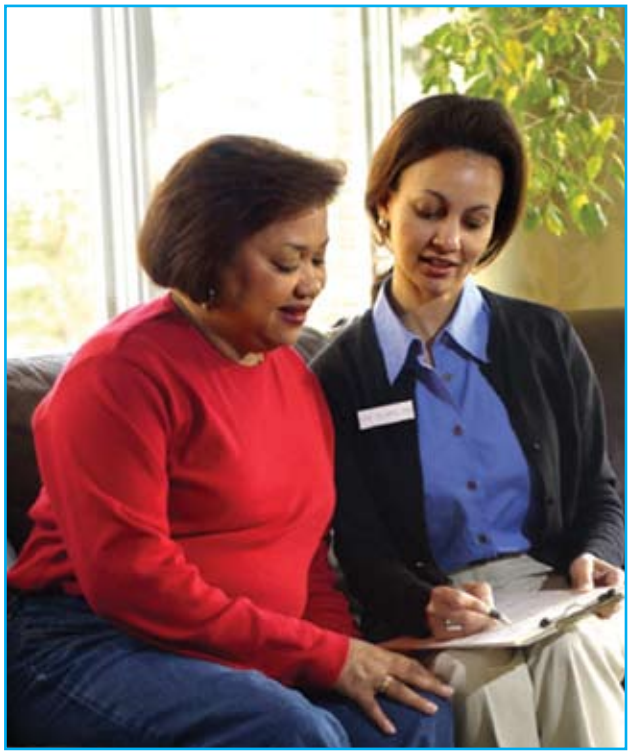
- Perform cost-effectiveness analyses
- Estimate cost-of-illness
- Calculate program costs
- Understand patients' willingness-to-pay and risk trade-offs for alternative treatments
- Link claims data to clinical events

Sample Projects

- Using a diabetes cost-effectiveness model developed for the CDC, assessing the benefits and cost-effectiveness of the polypill for preventing cardiovascular disease
- Measuring the burden of disease caused by intimate partner violence and child maltreatment
- Developed stand-alone software package that applies RTI's existing research in obesity in a format for use by employers, insurers, and policy makers
- Developed, pilot-tested, and evaluated a tool for use by state health departments in allocating HIV prevention funding

Data Capture & Integration

RTI has more than 40 years of experience providing our clients with a full range of data collection services from one-on-one personal interviewing to leading-edge, computer-assisted methodologies. Using a wide range of data collection tools and systems, our researchers and technicians gather and process information for government, industry, and education alike. We use both standard and state-of-the-art instruments and apply them to meet the unique requirements of every client.



Relevant Expertise

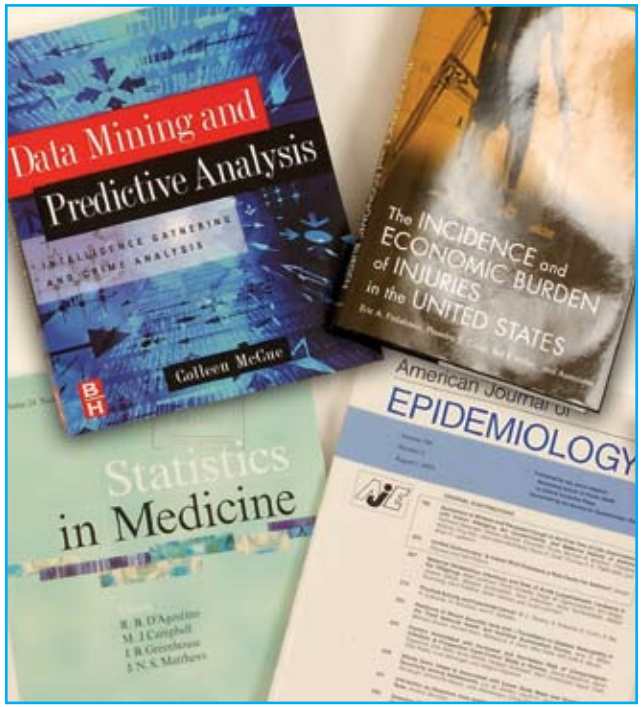
- Conduct computer-assisted interviewing
- Conduct telephone interviewing
- Conduct face-to-face interviewing
- Design and conduct Web-based interviewing and Web panels
- Conduct mail surveys
- Conduct mixed-mode surveys
- Perform records abstraction
- Conduct focus groups
- Conduct electronic data capture for clinical studies
- Perform biospecimen operations

Sample Projects

- Collecting and analyzing clinical, laboratory, and family pedigree data, as well as biological specimens, on approximately 3,500 patients receiving treatment for aortic aneurysms, aortic dilatation, aortic insufficiency, heart failure, or aortic valve repair in whom a genetic component is suspected
- Developed a population database through a population survey consisting of interviews and respondent medical measurements for the Dallas Heart Disease Prevention Program
- Developed a central, unified registry of persons most highly exposed to the smoke, dust, and debris following the World Trade Center disaster on 9/11
- Since 1988, conducting the National Survey on Drug Use and Health (NSDUH), an annual national population survey in which data are collected from some 67,500 persons on their use of tobacco, alcohol, illicit drugs, and nonmedical use of prescription drugs

Health Statistics Research

RTI is a world leader in health statistics research. We have served as the data/statistical coordinating center for a variety of U.S. and international multisite studies and networks in such areas as infectious disease (including HIV), cardiovascular disease, oncology, pulmonary disease, obstetrics / gynecology / neonatology, and child health and development capabilities. We also offer services in every aspect of survey design and analysis, including sample design, design optimization, questionnaire design, experimental design, nonresponse analysis and weight adjustment, item imputation, and analysis techniques. RTI also has expertise in the fields of bioinformatics and the analysis of genetic and proteomic data, and we have created innovative software packages for the analysis of complex statistical data.



Relevant Expertise

- Conduct multisite medical studies and clinical trials
- Analyze data on disease progression and treatment
- Conduct epidemiological research on the incidence, prevalence, risk factors, and etiology of diseases
- Conduct lifestyle practice/behavior research and analysis
- Conduct mental health research
- Perform environmental exposure studies and assessment methods
- Apply small area estimation

Sample Projects

- Created an online analysis tool, RTI Analyst℠, that enables researchers, scientists, and policy makers to process data and view the results in a context-appropriate format
- Designed and developed SUDAAN®, a software product for analyzing correlated data arising in many applications
- Coordinating data and statistical analysis for a multisite clinical network studying health interventions for low-birth-weight infants
- Researching interventions to improve the health of women and children worldwide as the statistical and data analysis coordinating center for an international network of clinical research sites
- Conducted multicenter randomized clinical trials comparing treatments of acute myocardial infarction

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