

Military Personnel and Family Research



Our national defense strategy draws on the collective expertise of military personnel and government civilians to form a total force. Alongside stand the spouses, children, and families who support these personnel and mission readiness. A number of challenges involving health and well-being, workforce development, and education require research-based solutions that better meet the readiness needs of today and tomorrow. RTI International provides research support for the Department of Defense and other U.S. government agencies to improve force readiness and the lives and working conditions of military personnel and their families.

Leadership in Innovative Military Studies Research

With nearly 30 years of experience conducting military studies, RTI understands the military culture and how to work with military and civilian defense leaders. Our work has included numerous landmark studies and products, such as

- Youth Attitude Tracking Survey
- National Vietnam Veterans Readjustment Study
- DoD Survey of Health Related Behaviors.

RTI's research staff come from a range of disciplines, including epidemiology, biostatistics, survey research, data management, economics, psychology, education and training, simulation, and virtual reality. This breadth of expertise allows RTI to address complex, multifaceted issues.

Our expertise as researchers and experience with the military bridges the divide between science and practice. Many RTI staff have prior Active Duty, Guard/Reserve, or government civilian military service. This knowledge of military culture enables RTI to begin assignments quickly, using proven management procedures, efficient scientific methods, and a large network of research personnel.

Supporting Clients and Collaborators Within the Department of Defense

RTI has a long history of providing high-quality, technically accurate, innovative solutions for our DoD customers. Our study results are used for Congressional testimony, monitoring the health of military personnel and their families, program planning and evaluation, and decision support. RTI's application of technology includes the Defense Manpower Data Center Sample Planning tool, usability testing of manpower and personnel systems aboard ships, distance learning for emergency medical care, and programs to address alcohol use, tobacco use, and weight management. RTI collaborates with a variety of DoD organizations, including

- Assistant Secretary of Defense for Health Affairs
- Naval Health Research Center
- Defense HIV/AIDS Prevention Program
- Navy Personnel Research, Studies, and Technology
- Defense Manpower Data Center
- U.S. Army Training and Doctrine Command
- Defense Advanced Research Projects Agency
- TRICARE Management Activity under Assistant Secretary of Defense for Health Affairs.

Military Health and Epidemiology

The health and wellness of Active Duty, Guard, and Reserve forces are key to military readiness. RTI's research in health behaviors and health care policy provides DoD with high-quality, precise information for decision support and novel solutions for the ever-changing landscape of military medicine.

Health Behaviors

Since 1982, RTI has been investigating health issues affecting military personnel (Active Duty and Guard/Reserve) and their families. Applying scientific knowledge to all aspects of force health protection, in both garrison and field settings, our research has focused on health care use, health behaviors, substance use, stress research, and family support.

Health and health care research capabilities include

- Designing and conducting mental health issues and health promotion research, program evaluations, prevention and intervention studies, and field trials
- Conducting research related to health care quality, evidence-based practice, and patient safety
- Designing and testing health communications materials
- Studying substance-use prevalence, prevention, and intervention
- Assessing exposure and human health risk as well as analyzing health service use.

Health Policy

Among the business consulting services and solutions RTI provides are analysis of legislation and policy, program evaluation and management, financial analysis, and analysis and implementation of outsourcing plans.

Our experts develop and help implement optimization strategies, analyze and reengineer business processes, conduct population health analyses, and evaluate and design innovative health care delivery models.

RTI can provide significant support to DoD through our services in clinical outcomes analyses, development of clinical practice guidelines, analysis of medical and legal data, and development of novel disease management solutions. Also key to force health protection is information technology, where RTI's substantial experience in information management, data standardization and analysis, enterprise-level analysis and reporting, and data management solutions can help DoD meet needs in this area.

Research Highlights

Understanding Resilience in Wounded Warriors and Their Families

RTI is assessing existing data on wounded warriors and their families to determine major stressors and resiliency factors that protect them from family dysfunction. Additionally, RTI will determine risk factors related to decreased family functioning and determine the impact of psychoeducational programming to improve family functioning. Based on this analysis, RTI will develop a simple screening tool for clinicians to aid in determination of risk factors for wounded warriors and their families so that referral to supportive services can be made. Future research will assess the value of this tool prospectively. This work will also assess the impact of educational interventions designed to boost resilience in a sample of over 1,000 National Guard men and women and their family members. Findings will make a significant step toward filling the gap in understanding issues facing wounded warriors and their families.

Basic Combat Training Mental Fitness Study

This study by the U.S. Army Medical Research Unit–Europe and the Walter Reed Army Institute of Research evaluated the efficacy of two existing Army mental fitness programs during basic combat training: Battlemind Training and the Army Center for Enhanced Performance Education Program. For this full-group randomized trial, RTI conducted on-site, group survey administration with up to 5,760 Soldiers across four battalions during 10-week basic training cycles at one Basic Combat Training Army base. Performance data were collected in addition to survey data, including extant data for all battalions (e.g., Army physical fitness test results and basic rifle marksmanship scores) and digital video from two of the four battalions. Findings will inform a more comprehensive mental health resilience training program, ensuring that Soldiers are as fit mentally and emotionally as they are physically.

Spouse Abuse, Child Abuse, and Substance Abuse Among Army Families: Co-Occurrence and Service Delivery Issues

RTI investigated co-occurrence of spouse abuse, child abuse, and substance abuse among Army families to determine if the abuse is connected and to assess the level of coordination among service providers who address these complementary problems in military settings. RTI analyzed 5 years of data on substantiated child abuse and spouse abuse and identified substance use and substance abuse treatment among Army

personnel and their families. To determine the extent to which Army service providers coordinate services to address co-occurrence, RTI conducted an Internet-based survey (with telephone follow-up) of all 700 Army substance abuse and family violence service providers and directors. To ascertain barriers to service delivery and impediments to providers when coordinating services, RTI conducted case studies of six installations, interviewing Army and civilian service providers and Army families receiving services at each installation. Findings identified opportunities for improved coordination among family advocacy and substance abuse personnel and identified populations at increased risk for domestic violence and child maltreatment, particularly during times of combat deployment by Soldier parents.

DoD Survey of Health-Related Behaviors Among Navy and Marine Corps Reserve Personnel

Teaming with the Naval Health Research Center (NHRC) and Navy Reserve Psychological Health Outreach, Office Chief of Navy Reserve/BUMED Deployment Health, RTI will conduct a population-based survey of Navy and Marine Corps reservists using a sample size of approximately 5,500 to explore the current state of the psychological health, health-related behaviors, and health care utilization by these personnel. Findings will advance the understanding of a wide range of health-related behaviors among Reserve personnel in terms of the comparative differences to 2006 population estimates and to information being first collected with the survey.

2009–2010 Health-Related Behavior Reserve Component Survey

In support of TRICARE Management Activity and the Assistant Secretary of Defense for Health Affairs, RTI will assess the prevalence of drug, alcohol, and tobacco use among Reserve personnel; progress toward meeting Healthy People 2010 objectives; general and mental health status; and access to and use of physical and mental health services. RTI will also examine gender-specific issues, oral health, and deployment. Findings will be compared to survey results from current and previous iterations of the Health-Related Behaviors–Active Duty Survey and the Health-Related Behaviors–Reserve Component Survey. Findings will advance understanding of the health behavior impact of the wars and the effect of day-to-day operations on the military as a whole, and will provide an appropriate comparison base of all Active Duty and Reserve Component branches of service.

Data Collection and Management

RTI has years of experience conducting survey research and operations led by our internationally renowned experts in survey methodology, survey operations, and health-related disciplines. Personnel surveys, quality-of-life studies, needs assessments, and program evaluations are regularly conducted, and RTI also draws on research computing capabilities that support a portfolio of national-level projects in data integration, database development, and data warehousing. Our researchers use the following data collection approaches:

- On-site survey administration
- Web and Internet-based surveys
- Telephone surveys
- Mixed-mode designs
- Focus-group interviews.

Using fixed and portable usability testing equipment, RTI captures data from a respondent's perspective to identify sources of user error and to test solutions that address them.

Statistics

RTI's research statisticians and social scientists specialize in all facets of statistical and psychometric analysis, which encompasses complex sampling designs optimized to satisfy multiple constraints and data analysis using RTI's SUDAAN® software. Our expertise consists of

- Psychometric analyses, including item response theory
- Univariate and multivariate statistics
- Structural equation modeling
- Model-based and small area estimation.

Simulation and Learning

RTI's training research and systems decrease learning time and reduce the need for and expense of tactical equipment, resulting in highly effective training and lower life-cycle training costs. Services include training, education analysis and design, interactive 3-D simulation, visualization, and knowledge discovery.

Contract Vehicles

RTI has multiple federal contract vehicles, including several task order contracts with DoD organizations.

- Mission Oriented Business Integrated Services (MOBIS): SIN 874
- Environmental Advisory Services (EAS): SIN 899
- Professional Engineering Services (PES): SIN 871
- Laboratory Testing and Analysis Services: SIN 873
- Information Technology Products and Services (IT Schedule 70): SIN 132
- Program Support Center: DHHS Contract No. 233-02-0090
- TRICARE Evaluation, Analysis, and Management Support (TEAMS): Contract No. W81XWH-08-D-0042
- Naval Health Research Center/U.S. Army Research, Development, and Engineering Command Contracting Center, Natick R&D (RDECOM-CC) Omnibus 1: Contract No. W911QY-02-D-0021

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