



Military and Veteran Health Research

RTI International provides research support for the U.S. Department of Defense (DoD) and other agencies to increase overall force readiness and improve the lives of military personnel, Veterans, and the families of these individuals. We address challenges involving health, well-being, workforce development, and education that require research-based solutions to better meet the readiness needs of today and tomorrow.

Overview

The U.S. national defense strategy draws on the expertise of the military as a total, ready force; military readiness depends on the collective health and wellness of Active Duty, Guard, and Reserve personnel. With nearly 40 years of experience conducting military studies that aid in military readiness, RTI understands the military culture. Furthermore, we know the importance of developing effective partnerships with military and civilian defense leaders.

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. Our network of multidisciplinary researchers and evaluators conducts work that ultimately improves military behavioral health and well-being through its influence on military health research, practice, and policy. Our work has included numerous landmark studies and products, such as

- Department of Defense Surveys of Health-Related Behaviors
- National Vietnam Veterans Readjustment Study
- Youth Attitude Tracking Survey

RTI's research staff members 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 research experience with the military bridges the divide between science and practice; additionally, our knowledge of military culture enables RTI to begin assignments quickly by using proven management procedures, efficient scientific methods, and a large network of research personnel.



Capabilities

We apply scientific knowledge to all aspects of force health protection—in garrison, field, and other operational settings. Our research focuses on health behaviors, health care use, substance use, mental health, stress, resilience, and family support. RTI draws on the knowledge of our experts around the world who work to meet our clients' needs and solve clients' most critical challenges across a range of technical fields, including those most relevant to military and Veteran communities:

- Behavioral health and well-being
- Community and health education
- Criminal justice
- Domestic violence prevention and intervention
- Education, training, and workforce development
- Financial literacy
- Health care quality, outcomes, and evidence-based practice
- Health communications
- Housing and homelessness
- Public health economics and policy
- Risk behavior
- Substance abuse

We design and conduct prevention and intervention studies, program evaluations, and field trials. We address the complex questions and problems facing those charged with program and policy development and administration for military as well as Veteran populations. We study substance use disorders and prevention, intervention, and treatment strategies; additionally, we conduct research related to health care quality, evidence-based practice, and patient safety. RTI has substantial experience in information management, data standardization and analysis, enterprise-level analysis and reporting, and data management solutions; we use our combined expertise in these areas to meet our clients' needs related to information technology, which contributes to force health protection.

Experience

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 usability testing of manpower and personnel systems aboard ships; distance learning for emergency medical care; virtual reality for forensic training and assessment; and programs to address alcohol use, tobacco use, and weight management.



RTI collaborates with a variety of DoD and other funding organizations, including

- Defense Health Agency (DHA)
- Defense HIV/AIDS Prevention Program (DHAPP)
- National Institute on Alcohol Abuse and Alcoholism (NIAAA)
- National Institute on Drug Abuse (NIDA)
- Naval Health Research Center (NHRC)
- Navy Personnel Research, Studies, and Technology (NPRST)
- U.S. Army Medical Research and Materiel Command (USAMRMC)
- U.S. Army Training and Doctrine Command (TRADOC)
- Walter Reed Army Institute of Research (WRAIR)



Selected Projects

Evaluation of Heart Rate Variability (HRV) as a Resilience-Building Intervention (2016–present) HRV (i.e., change in the time between heartbeats) can be used to measure an individual's ability to regulate emotional responses; a higher HRV reflects more positive responses. Several mental and physical health issues (e.g., depression, anxiety, and mortality) have been associated with lower HRV. Under this DoD-funded study, we developed and are pilot testing a biofeedback-assisted resilience training protocol to (1) examine the relationship baseline HRV has to resilience, mental health, substance use, stress, and physical health measures and (2) train individuals to use biofeedback and relaxation breathing to increase HRV over time. Study outcomes will inform effective training interventions for military, Veteran, and first-responder populations that will enhance the resilience-related coping skills required to deal with the unique stressors associated with these populations.

Promoting Strong Military Families (2013–present) This NIDA-funded study seeks to improve family functioning by reducing youth problem behaviors and improving family functioning for military families. We work closely with active military members and community partners to adapt, implement, and evaluate the evidence-based Strengthening Families Program for Youth Ages 10–14 (SPF 10–14) to military families and the unique challenges they face. Potential impacts exist for military families through enhanced family functioning and reduced youth substance misuse as well as improved service member readiness, readjustment, and reintegration following deployment.

Effectiveness and Patient Acceptability of Stellate Ganglion Block (SGB) for Treatment of Posttraumatic Stress Disorder (PTSD) Symptoms (2013–present) The purpose of this DoD-funded study is to conduct a randomized controlled trial to evaluate the effectiveness of the SGB procedure for treatment of PTSD symptoms in Active Duty military service members. SGB is a standard pain management procedure in which a patient is injected in the neck with a small amount of local anesthetic near the cervical vertebrae and stellate ganglion. The study aims to accomplish many things related to treating PTSD symptoms—including (1) determining the effectiveness of SGB compared to placebo control, (2) characterizing the duration of effectiveness of SGB, and (3) describing the degree to which patients accept the procedure. If effective, the SGB procedure has the potential to improve medical readiness and to combat effectiveness and retention of highly trained Soldiers experiencing PTSD.

Stepped Enhancement of PTSD Services Using Primary Care (STEPS UP) (2009–2016) STEPS UP involved a multisite randomized effectiveness trial comparing a primary care treatment package (e.g., centralized telephonic care management with preference-based stepped care) to optimized usual primary care for Soldiers with PTSD and depression. We recruited, screened, enrolled, and longitudinally assessed Active Duty Soldiers at six Army power projection platforms. Results indicated that central assistance for collaborative telecare with stepped psychosocial management modestly improved outcomes of PTSD and depression among military personnel attending primary care.



Multimodal Unit-Level Analysis of Military Workplace Violence (MWV) (2012–2017) The MWV project used complementary retrospective and prospective studies to identify static and dynamic predictors of targeted violence in the U.S. military workplace. We used prospective survey data from nearly 1,000 Soldiers and retrospective longitudinal data on 1.9 million Soldiers and Marines to identify and test predictors of targeted MWV at multiple ecological levels and time points relative to military service and deployment. We then developed recommendations for individual-, unit-, and installation-level procedures and tools to prevent or leverage protective factors to reduce targeted violence. Results identified factors related to MWV—including mental health problems, high levels of combat exposure, sleep problems, and short dwell time between deployments.

Basic Combat Training (BCT) Mental Fitness Study (2009–2013) BCT has both physical and psychological demands that can be quite challenging, and research has demonstrated that mental health problems are one of the most common reasons for BCT attrition. Thus, mental fitness (i.e., an individual's capacity to sustain mental health and performance in a demanding environment) is key to ensuring Soldiers' resilience and psychological readiness. In collaboration with WRAIR, RTI supported the evaluation of two Army mental fitness programs—Resilience Training and the Army Center for Enhanced Performance—to determine efficacy in increasing Soldier resilience in BCT. This study established the groundwork for a comprehensive and validated program of mental fitness training through one of the first controlled trials of mental fitness training during BCT.

More Information

Dennis McGurk
Senior Account Executive
dmcgurk@rti.org

RTI International
3040 E. Cornwallis Road, PO Box 12194
Research Triangle Park, NC 27709-2194 USA

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
- One Acquisition Solution for Integrated Services (OASIS), Pool 2: GSA Contract No. GS00Q14OADU217

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.

RTI International is a trade name of Research Triangle Institute.
RTI and the RTI logo are U.S. registered trademarks of Research Triangle Institute.

RTI 12232 R1 0321

www.rti.org