

A National Newsletter for Veterans and their Health Care Providers

WRIISC *Advantage*

SPRING/SUMMER 2023

Complementary Integrative
Health &

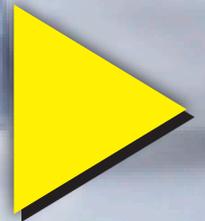
Gulf War Illness

Questions & Answers

WRIISC Research

ENRICHING CARE

For Veterans with Military
Environmental Exposures



This issue of **WRIISC Advantage** focuses on refining care for Veterans with environmental exposure concerns and highlights some of our latest research...

▶ DIRECTORS' CORNER

Department of Veterans' Affairs (DVA) recognized National Public Service Week in May. This provided the opportunity for War Related Illness and Injury Study Center (WRIISC) staff to reflect on the pride we feel as public servants to have the opportunity to serve Veterans. Our mission is to continuously advance VA's system of care for deployment-related exposure concerns, and while passage of the PACT act has accelerated progress, implementing our mission involves much more than just responding to legislation. It incorporates action and commitment by individuals dedicated to making a difference in health outcomes for Veterans with military exposure concerns on a day-to-day basis. It calls for specialized attention to Veterans with unique needs, such as women or Veterans who served in explosive ordnance disposal units. It involves listening to our providers and Veterans, so we remain responsive to evolving needs. From administrative staff to clinicians, all the rewarding work done by professionals at the WRIISC is toward the common goal of enhancing health care for Veterans with deployment-related health concerns. ***Serving Veterans is WRIISC's greatest commitment.***

Wes Ashford, MD, PhD
Director, CA WRIISC

Helena Chandler, PhD
Director, NJ WRIISC

Matt Reinhard, PsyD
Director, DC WRIISC

Enriching Care

for Veterans' Military Environmental Exposure

Recognizing the critical need to train more clinical and public health providers (inside and outside of VA) on the topic of military environmental exposures, VA's Health Outcomes Military Exposures (HOME) and WRIISC partnered with the American College of Occupational and Environmental Medicine (ACOEM) to provide an intensive interactive training. This 10-hour symposium on military environmental exposures and risk communication was held at the annual ACOEM conference on April 14-15, 2023.

The training included case-based learning, expert panels, and lectures from prominent VA experts in this field including several from the WRIISC. Honorary invitees included Art Frank, MD, PhD, chair emeritus of Drexel Dornsife School of Public Health and retired Public Health Service Officer, who spoke on his international work in asbestos and epidemiology in military populations. Karen Flaherty-Oxler, MSN, RN, the Medical Center Director of the Corporal Michael J. Crescenz VA Medical Center, was another honored speaker.

As a 38-year Veteran of the U.S. Navy (retired) Rear Admiral Flaherty-Oxler is well versed in the challenges Veterans face when navigating the health care system. There were representatives from 5 VA agencies, academia and private sector, which increased visibility of the issues at hand among VA stakeholders.

Events such as these and collaboration among experts in the field are critical to developing best practices when caring for Veterans with military environmental exposure concerns.

For more information on ACOEM and upcoming events visit: acoem.org



WRIISC PRESENTER, DR. MICHELLE ROBERTSON, OCCUPATIONAL AND ENVIRONMENTAL MEDICINE PHYSICIAN

Focus on Improving Health Outcomes for Women Veterans with Exposure Concerns - CA WRIISC



In 2023, DVA's "Office of Women's Health- State of Reproductive Health Report" listed the frequency of reproductive and sexual health diagnosis among women and gender-diverse Veterans. The most frequently reported conditions were urinary conditions (e.g., incontinence) and disorders with reproductive organs, such as fibroids and ovarian cysts, reported by 12% and 11.5% of women and gender-diverse Veterans, respectively. Menstrual disorders, as well as sexually transmitted illnesses and pelvic inflammatory conditions, followed close behind at 7% and 6%, respectively. Other reported issues included, but were not limited to, osteoporosis, abnormal breast conditions and menopausal disorders. Many of these health conditions can cause both physical and psychosocial symptoms. At the WRIISC, many women Veterans' express concerns about the above conditions and wonder if their time in the service and deployment-related exposures could have contributed to the development of any of the above diagnoses.

The newly formed Women's Operational Military Exposure Network, WRIISC-WOMEN, is a sub-center at the CA WRIISC with a goal to understand the impact of environmental exposures for women. Women Veterans tell us that they are concerned about how their possible exposure to military exposures may affect their health, and especially how it may affect their reproductive health. These substances can be environmental (e.g., exhaust, dust, smoke), chemical (e.g., insecticides, solvents), and/or other hazardous material. Women and gender-diverse Veterans have expressed concerns that what they experience during their military service affects their health uniquely, in ways that manifest differently from these seen in male Veterans.

One of the many goals of WRIISC-WOMEN is to target the underlying causes of exposure risk(s) and to improve treatment options for women Veterans which would lead to better health outcomes. [↪](#)

News from the Airborne Hazards and Open Burn Pits Center of Excellence



IN LINE WITH VA's top priority to provide appropriate and timely benefits for Veterans who were exposed to military environmental hazards, the Airborne Hazards and Open Burn Pits Center of Excellence (AHBPCE) is moving toward efficient evaluation of evidence for health care and policy decision making. Along with Dr. James Scott Parrott (Rutgers University) and VA's HOME, the AHBPCE has developed what is being called the Health Outcomes Military Exposures-Living Evidence Analysis Project (HOME-LEAP). The project provides a platform and process designed to increase the efficiency (speed and accuracy) of evidence synthesis of research on military environmental exposure and associated health risks. Over 1,000 research papers have already been examined in the project's first 6 months. This initial review is on interstitial lung disease and results are expected to be available by late August 2023. A review of the association between airborne hazard exposure and autoimmune conditions will begin in 2024.

Research Matters

WRIISC continues involvement in research that relates to Veterans' health. Below is a study published by the DC WRIISC.

PUBLICATION TITLE:

Gulf War Illness: A Randomized Controlled Trial Combining Mindfulness Meditation and Auricular Acupuncture



QUESTION:

Does the combination of two complementary integrative health (CIH) therapies, iRest® mindfulness meditation and auricular acupuncture, potentially improve multiple symptoms of Gulf War Illness (GWI) in comparison to an active control group receiving Gulf War (GW) Health Education only?

FINDINGS:

- Veterans receiving the combined CIH intervention had less fatigue, depression, and overall severity of GW symptoms as well as greater mental health-related functioning at endpoint compared to the health education group.
- Pain interference and fatigue decreased significantly at endpoint compared to baseline with the reduction in fatigue being clinically significant. No changes were observed in the health education group for either outcome.

MEANING: These findings suggest that the combination of mindfulness meditation with auricular acupuncture had a possible beneficial effect on overall severity of GW symptoms and individual symptoms related to mood/cognition, pain and fatigue. The combination of two or more CIH approaches may be useful in targeting multiple symptoms in difficult to treat conditions like GWI.

ADDITIONAL INFORMATION: This publication appears in the journal of Global Advances in Integrative Medicine and Health in May 2023. Authors from the DC WRIISC included: Charity B Breneman, Matthew J Reinhard, Nathaniel Allen, Timothy Chun and Lucas Crock. ↪

WRIISC Research Questions and Answers

Are you a Veteran interested in participating in WRIISC research? Here are some questions and answers that will help you determine next steps.

QUESTION: How do I find out about getting involved in research about Veterans?

ANSWER: You can look at 2 web sites [Clinicaltrials.gov](https://clinicaltrials.gov) and [Warrelatedillness.va.gov](https://warrelatedillness.va.gov). For [Clinicaltrials.gov](https://clinicaltrials.gov): go to find a study and you can type in key words like Veteran, Gulf War Illness, Agent Orange, Airborne Hazards and review the trials. Go to warrelatedillness.va.gov Research and then go to Volunteering for Research and then select any site CA WRIISC, DC WRIISC, NJ WRIISC. Each site has an 800 number to call for additional questions.

QUESTION: If I have a specific condition that I'm interested in finding out about research on how do I go about finding it?

ANSWER: Please look at one of the following sites: WRIISC: [Warrelatedillness.va.gov](https://warrelatedillness.va.gov), VA Office of Research and Development: research.va.gov, Pubmed: ncbi.nlm.nih.gov/pubmed, Google Scholar: scholar.google.com. You can search for key words, look up specific condition, or exposures.

QUESTION: How has recent WRIISC Research helped Veteran's directly?

ANSWER: In one example, recent WRIISC research on airborne hazard exposure helped develop additional presumptive diagnoses to assist with service connection.

WRIISC looks forward to your participation. Participation in research may or may not help you directly, but it helps other Veterans and the Veteran community in entirety. Participating in research is your chance to make a difference!

HIGHLIGHTING WRIISC'S COLLABORATING PARTNERS

Center for Clinical Systems Biology (CCSB)

Partnering with individuals and teams across VA, Department of Defense (DoD) and other federal agencies, as well as universities and research foundations is critical to advancement in the field of Veterans health.



The mission of the newly developed Complex Exposure Threats Center (CETC) at the DC WRIISC is to evaluate and study the full scope of complex exposures with unknown resulting health effects and take a closer look at how the use of new technologies contribute to these. CETC uses a network of experts to accelerate its impact on Veterans' health and lead VA's response evaluating and offering better care for toxic exposure concerns and emerging threats.

The task of understanding human biology combined with data from multiple, ongoing studies in current literature is crucial to connecting health outcomes associated with military exposures.

A key partner of the CETC is the Center for Clinical Systems Biology (CCSB) of Rochester Regional Health/General Hospital Research Institute in Rochester, NY. CCSB employs cutting-edge computing, clinical, engineering and life science tools to answer critical research questions relevant to military/Veteran populations. CETC's collaboration with the CCSB

enables VA scientists and clinicians to work closely with academic leaders in natural language processing (NLP), the branch of computer science associated with giving computers the ability to understand text in spoken words, the same way in which humans do. NLP in research is primarily used to extract knowledge from millions of peer reviewed publications and assemble scientific teams to investigate specific connections.

CETC's partnership with CCSB led to the development of several conference presentations/publications. Focus areas of research for Veterans with complex military exposures have included abnormal health incidents/Havana Syndrome and the impact of accelerated biological aging.

Future CETC/CCSB Conference Presentations:

1. Neuropsychological Signatures and Concomitant Exposures in Explosive Ordnance Disposal Veterans. To be presented at the American Psychological Association conference in Washington, DC (August 2023).
2. Rapid Prototyping of a Biological Mechanistic Network Explaining Neurocognitive sequelae of Anomalous Health Incidents. To be presented at the American Psychological Association conference in Washington, DC (August 2023).

CETC/CCSB Manuscript Under Review

1. A Regulatory Pathway Model of Neuropsychological Disruption in Havana Syndrome. *Frontiers in Psychiatry* (2023).

Collaboration with CCSB remains critical in creating opportunities for intervention and recovery for veterans whose health has been impacted by environmental exposure. A big thank you to CCSB staff!

Around the WRIISC News

NJ WRIISC

Developing a New Measure of Provider Confidence in Treating Military Exposure-Related Conditions

The 2022 PACT Act is the largest expansion of VA coverage in history and mandates all VA providers receive training in caring for military exposure-related health problems. There are few measures, however, to assess the success of trainings in military exposures. Drs. Laura Lesnewich and Lisa McAndrew at the VA NJ WRIISC aim to fill this gap by developing a new self-report measure for VA providers. This brief questionnaire, called the “Military Exposures Care Confidence Scale” (MECCS), will assess VA health care providers’ self-efficacy, or confidence, in caring for exposure-related health problems. Providers with greater self-efficacy in caring for military exposures are more likely to apply their knowledge to help patients, resulting in better patient outcomes. We have already developed the first version of the MECCS. It asks providers about



their confidence in caring for health problems related to six exposure categories: Agent Orange, airborne hazards, Gulf War exposures, Camp Lejeune exposures, ionizing radiation, and general military exposures (e.g., solvents, chemicals, lead). Our next step is to seek feedback on the items from an independent group of experts to revise and strengthen our measure. Then, we will administer the revised measure to approximately 300 VA providers to validate the measure. Our ultimate goal is to disseminate the MECCS across VA to evaluate trainings for military exposures and empower leaders and stakeholders to improve care for exposure-related conditions.

DC WRIISC

Complex Exposure Threats Center (CETC) Submits First Grant

The first grant from the DC WRIISC’s Complex Exposure Threats Center (CETC) was submitted to the VA Merit Review Award for the Military Exposure Research Program (MERP) in March 2023.



The grant’s primary goal is to examine the biological impact of military occupational exposures to better help Veterans with complex military exposure histories. Measuring Veterans exposure-induced biological response while they perform military training activities is key to VA improving its understanding of the impact of toxic agents on physiology and ultimately to improve care.

To develop the grant proposal, Drs. Michelle Costanzo and Matthew Reinhard, both from the DC WRIISC, collaborated with military and academic partners. This included Dr. David Lary, an expert in wearable technology for environmental threats, Dr. Gordon Broderick an expert in computational systems biology; and Dr. Michael Roy who lent his operational research expertise.

By bringing in a wide range of experts, the project can integrate diverse information to understand a wide range of exposures. The team also relied on their extensive experience working with the explosive ordnance device community, including the Explosive Ordinance Device Warrior Program which operates out of the Washington DC VA Medical Center.

Check out WRIISC’s website for upcoming exposre educational classes for Veterans!
warrelatedillness.va.gov



CA WRIISC

Mayo Clinic's 19th Annual
Women's Health Update Conference

Members from WRIISC-WOMEN at the CA WRIISC attended the recent Mayo Clinic's Annual Women's Health Update held in Phoenix, AZ, in March 2023. The esteemed speakers covered important updates on issues of reproductive health, cancer, nutrition (including over-the-counter supplements), menopause, sexual health, urinary tract health, trauma, cardiovascular health, hormone replacement therapy (HRT) and long COVID. A key point regarding menopause and HRT was that every case is different and continued and precise conversations with gynecologists are necessary to determine the need, type or dosage of the hormone.

**"He who has health has
hope, and he who has
hope has everything."**

**~ Arabian proverb
(Thomas Carlyle)**

The speakers also talked about the importance of diet, which can play a major role in reducing effects of chronic disease. When accessible, foods that fight inflammation, including fruits/vegetables, herbs/spices (e.g., polyphenols like turmeric), and omega-3 fatty acids found in fatty fish, flaxseeds and its oil, and other seeds/nuts, are helpful in reducing an array of chronic health problems. Did you know how you cook foods can impact a food's nutrient availability and absorption, including food's impact on inflammation? For instance, slow cooking (e.g., sous vide) is a healthy alternative to air fryer cooking, which should be used less often due to its rapid high heating. Rapid high heating can increase Advanced Glycation End Products which are naturally occurring in many animal-based foods and can lead to increased inflammation in the body. A registered dietitian at your home VA can help you sort through your individual nutrition needs for your overall health. 

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Produced by the
War Related Illness and Injury Study Center

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