

This edition of the War Related Illness and Injury Study Center (WRIISC) Advantage Newsletter highlights health conditions related to Vietnam era service and where Veterans can find more information and much more...

DIRECTORS' CORNER

The War Related Illness and Injury Study Center (WRIISC) works alongside VA's Health Outcomes Military Exposures (HOME) to refine long term strategies and goals aimed towards enhancing Veterans health. Early this year, WRIISC and HOME leadership carved out time to meet and make key decisions about important issues or challenges affecting clinical, education and research operations for WRIISC and decide how to best proceed to maximize positive health outcomes for Veterans. A large focus was on maintaining an organizational structure that enables us to learn from past center activities and improving best practices for Veterans care. Communicating with stakeholders and how to best share those practices also remained a central focus, as this is an important step in refining clinical care for Veterans. Veterans of all eras and branches of service differ but have one thing in common- they are all considered to be National heroes. The WRIISC continues to be committed to serving Veterans with post-deployment health concerns and unique health care needs.

Wes Ashford, MD, PhD
Director, CA WRIISC

Helena Chandler, PhD Director, NJ WRIISC Matt Reinhard, PsyD Director, DC WRIISC

Vietnam Veterans Special Health Issues

Service during the Vietnam War, November 1, 1965 - April 30, 1975, may have included exposure to a variety of environmental and chemical toxins. These toxins can carry potential health risks. Vietnam Veterans can discover more about these conditions and take steps to obtain the care they deserve.

If you are a Vietnam Veteran, it is important to be aware of the following exposures and health conditions that have been linked to Vietnam service:

- Diseases related to Agent Orange: Agent Orange is a toxic chemical used to clear trees and plants during the war that can cause long-term health effects. See https://www.va.gov/disability/eligibility/hazardous-materials-exposure/agent-orange/ for details.
- Hepatitis C: An infectious disease that can harm your liver.
- Hearing problems caused by noise: Harmful sounds from guns, explosives, rockets, heavy weapons, jets and aircraft, and machinery that can cause or contribute to hearing loss and tinnitus (ringing in the ears).
- Illnesses or injuries caused by occupational (jobrelated) hazards: Chemicals, paints, radiation, and other hazards you may have come in contact with through your military job.

If any of these health conditions or concerns apply to you, we recommend following the steps below:

- ✓ Talk to your primary health care provider or your local VA environmental health coordinator about health concerns related to your military service. Find your local VA environmental health coordinator: https://www.publichealth.va.gov/exposures/coordinators.asp
- ✓ Ask your local VA environmental health coordinator about getting a free Agent Orange Registry health exam. Learn more about the exam: http://www.publichealth.va.gov/exposures/agentorange/benefits/registry-exam.asp
- ✓ Find out if you can get disability compensation (monthly payments) and other benefits if you have an illness or injury caused—or made worse—by your active-duty service. See if you qualify for disability benefits due to:
- Conditions related to Agent Orange: https://www.va.gov/disability/eligibility/
 hazardous-materials-exposure/agent-orange/
- 2. Contact with hazardous materials: https://www.va.gov/disability/eligibility/ hazardous-materials-exposure/

Take the next steps to seek assistance for your health conditions and concerns related to Vietnam Service.

Question and Answer (Q & A): Can I be tested for Agent Orange exposure?



Q: As a Vietnam-era Veteran, you may wonder if there is an examination or medical test to find out if you have been exposed to Agent Orange or your level of exposure.

A: Although your concerns about potential exposure to Agent Orange are valid, it is important to understand that the main components of tactical herbicides do not stay in the body long and would not be detected several decades after an exposure. The contaminant dioxin that was present in some tactical herbicides does remain in the body for years; however, because this chemical is widespread in the environment, there could potentially be several different sources of exposure to dioxin over an individual's lifetime. Therefore, there are no exams or tests that would confirm your exposure to Agent Orange or other herbicides.

If you served during certain times and at particular locations, VA presumes that you were exposed to Agent Orange or other herbicides. If you have a presumptive disease and served during the designated time and location, you will automatically be considered eligible for VA benefits. If you feel that you were exposed to Agent Orange or herbicides and have a health condition other than those listed as presumptives that you believe is related to your exposure, VA encourages you to submit a claim for disability benefits. Learn more about submitting a claim for disability benefits at www.benefits.va.gov/ benefits or call 1-800-827-1000.

VERSION 2.0 OF EXPOSURE ED MOBILE APP NOW **AVAILABLE**

VA has updated the Exposure Ed app, a free mobile app that helps health care providers have informed discussions with Veterans about their military environmental exposures and health concerns. Veterans can also download this publicly available app.

With the Exposure Ed app, users can:

- Look up information by exposure, conflict, or date and location of military service.
- Find local VA services and information on VA policies and programs related to exposures; and
- Print or email helpful information about exposures directly from the app.

Version 2.0 of Exposure Ed was launched on November 27, 2023, and includes several new and important updates, such as:

- Updated content throughout the app, increasing providers' confidence in the accuracy of data when consulting with Veterans.
- Easier access to points of contact at VA, which will improve the communication and coordination of care for Veterans: and
- Access to recent exposure-related announcements from VA HOME to keep users up to date with the latest information.

To learn more about the app and to download it on your Android or iOS device, please visit https:// mobile.va.gov/app/exposure-ed.

WRIISC Educates Healthcare Professionals on **Exposures during Virtual Day of Learning**

THE WRIISC CONTINUES to work diligently to educate healthcare professionals across VA on caring for the health outcomes of military environmental exposures. In February 2024, WRIISC provided a full day of training on military environmental exposures to healthcare professionals across the nation. Experts in the field of military environmental exposures presented on topics such as Agent Orange, Gulf War exposures, Airborne Hazards, toxicology, how to effectively communicate with Veterans about exposures, and exposure-related benefits and presumptive conditions. Over 980 healthcare professionals attended this day of learning. Positive feedback included that the presentations relayed a wealth of information and were appreciated. Learners also expressed that they learned a lot and would recommend the training to others. Statements from attendees included:

"Such an **INFORMATIVE** day of learning!"

"BEST CONFERENCE I have attended at the VA in the 3 years I, have worked here. Was SPECTACULAR and VERY RELEVANT.

WRIISC remains enthusiastic in the process of making a difference in the care of Veterans with exposure concerns, and will continue to educate healthcare staff to ensure all clinicians are able to provide exposure-informed care.

Research Matters

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

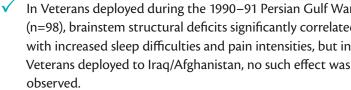
PUBLICATION TITLE: The Role of the Brainstem in Sleep Disturbances and Chronic Pain of Gulf War and Iraq/ Afghanistan Veterans.

OUESTION: Does comparing the brain imaging findings and neuropathology in Gulf War and Iraq/Afghanistan Veterans help improve clinical management and treatment strategies for modern war-related chronic multisymptom illness (CMI)?

FINDINGS: Using magnetic resonance imaging (MRI) and diffusion tensor imaging measures, we found:

Compared to age-matched healthy controls, Veterans presented with substantially smaller volumes in brainstem subregions, accompanied by greater gray matter volumes

- Compared to age-matched healthy controls, Veterans showed poorer integrity of the brainstem-spinal cord tracts and the brainstemsubcortical tracts.
- ✓ In Veterans deployed during the 1990–91 Persian Gulf War (n=98), brainstem structural deficits significantly correlated with increased sleep difficulties and pain intensities, but in Veterans deployed to Iraq/Afghanistan, no such effect was



MEANING:

- Structural deficits in the brainstem neurons and tracts may reflect the Multiple Symptom Illnesses in Veterans who returned from the Gulf War and Iraq/Afghanistan Wars.
- Veterans deployed to the Gulf show further breakdown of the brainstem structures as the severities of sleep difficulty and pain increase, suggesting that this may be specific to Gulf War Illness (a particular type of CMI).
- Evidence from this study and other groups seem to point to the brainstem damage as a crucial part of the development of CMI in general.

ADDITIONAL INFORMATION: Researchers from CA WRIISC include Yu Zhang, Matthew Moore, Jennifer S Jennings, David J Clark, Peter J Bayley, J. Wesson Ashford, & Ansgar J. Furst. Available at: https://pubmed.ncbi.nlm.nih.gov/38260809/.

ATTENTION VA RESEARCHERS

Opportunity to Further Research on Health Effects Related to Airborne Hazards Exposure

The VA's Airborne Hazards and Burn Pits Center of Excellence (AHBPCE) recently established the Oscar Auerbach Visiting Scholar Program. This program is intended to provide multi-year support to highly accomplished VA investigators who are working to pursue research questions pertaining to long-term health outcomes (i.e., cancer or other noncommunicable diseases) among Veterans with military environmental exposure. We are particularly interested in applications that leverage the Airborne Hazards and Open Burn Pit Registry (AHOBPR).

The Visiting Scholar Program is named in honor and memory of Dr. Oscar Auerbach, a physician scientist who most notably conducted seminal pathological studies on the relationship between tobacco smoke and lung cancer. His work also included studies on exposures related to asbestos and mining of uranium. Dr. Auerbach's pioneering work was featured prominently in the 1964 U.S. Surgeon General Report, which officially linked smoking to lung cancer. This work was conducted at the East Orange Campus of the VA New Jersey Health Care System and the current site of the AHBPCE.

Learn more about the program, eligibility, and application requirements visit: https://www.warrelatedillness.va.gov/WARRELATEDILLNESS/AHBPCE/ Visiting_Scholar_Program.asp

Researchers interested must submit full proposals by 11:59 p.m. ET April 15, 2024.



DR. OSCAR AUERBACH, A PHYSICIAN SCIENTIST WHO STUDIED AND PROVED THE RELATIONSHIP BETWEEN SMOKING AND THE DEVELOPMENT OF LUNG CANCER.

COURTESY: GEORGE F. SMITH LIBRARY OF THE HEALTH SCIENCES/ **RUTGERS UNIVERSITY**

HIGHLIGHTING WRIISC'S COLLABORATING PARTNERS

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.

Haley Moss, MD, MPH, serves as the director of Breast and Gynecologic Cancer System of Excellence for the US Department of VA Oncology Program, working to increase the use of telemedicine services and treatment for Veteran women. She received her MD/MBA from the University of Pennsylvania in 2012 and completed her residency at New York University School of Medicine in 2016. She obtained a Gynecology Oncology fellowship in Obstetrics and Gynecology from Duke University in 2019 and is currently a practicing gynecologic oncologist at the Duke Cancer Institute (DCI) since 2021. She has a faculty appointment as Assistant Professor for the DCI Department of Obstetrics and Gynecology. Her research focuses on addressing the physical, financial, and social ramifications of different reproductive cancers during the varied stages of diagnosis and its impact on policy. Her most recent publication (December 2023) analyzed the effect of cryocompression therapy (cold temperatures) on peripheral neuropathy from chemotherapy.

Since 2023, Dr. Haley Moss has served on the Scientific Advisory Board for Women's Operational and Military **Exposure Network Center of Excellence (WOMEN**

CoE) and has collaborated with the organization on projects and has reviewed the organization's grant submissions. Dr. Moss is an incredible resource for the organization and



has contributed greatly to the success of WOMEN CoE. Through her guidance, WOMEN CoE has been able to understand the pressing needs of women Veterans that will propel necessary research forward and address their health needs. (See CA's Around the WRIISC News feature for more information about WOMEN CoE).

Thank you, Dr. Moss, for collaborating with WOMEN CoE and providing valuable input on how to best improve the healthcare experiences for our women Veterans!

Treatment and Life Goals Among Gulf War Veterans

Insight from a recent WRIISC study

A recently published article examined treatment and life goals among Gulf War Veterans with Gulf War Illness (GWI). Understanding Veteran goals is important. A better understanding of patient-generated goals among Veterans with GWI can promote a person-centered approach to care, which may be vital in implementing effective treatment. For example, identifying Veteran goals can help providers and Veterans develop a shared understanding of the best approaches to address these goals. The results of the study showed that Gulf War Veterans reported treatment goals in four main categories: 1) Get better/healthier, 2) Improve quality of life, 3) Obtain validation of GWI symptoms, and 4) Don't know/Don't have any. Results also showed that Gulf War veterans reported life goals in six main categories: 1) Live a fulfilling life, 2) Live a happy life, 3) Live a healthy life, 4) Be productive/financially successful, 5) Manage GWI, and 6) Don't know/Don't have any. These findings provide a guide that may be helpful to providers when exploring goals with Veterans with GWI. While each Veteran's unique goals should be assessed, these themes could be helpful for providers to keep in mind as potential areas to explore. The full paper is available here: https://journals.plos.org/ plosone/article?id=10.1371/journal.pone.0295168.

Around the WRIISC News

NJ WRIISC

Furthering the Health of Gulf War Veterans Through Research

A new study entitled "Mechanisms of oxidative stress during N-Acetyl Cysteine (NAC) supplementation in Veterans with Gulf War Illness (GWI)" is underway at the NI WRIISC/CA WRIISC. Chronic oxidative stress has been linked to Gulf War Illness in Veterans and affects a part of our cells called mitochondria. One of the root causes of this condition may be cellular depletion of glutathione (also known as GSH), a powerful antioxidant found in the body. The goal of this clinical trial is to determine the effects of an FDA-approved supplement called N-Acetyl Cysteine (NAC) on GSH levels and symptoms of Gulf War Illness. Participants will take NAC orally for 8 weeks and complete on-site visits prior to starting NAC and after completing the 8 weeks. Onsite visits include completing questionnaires, cognitive testing, blood and urine sampling, and physical examination. There are



additional assessments that can be conducted remotely (via phone or videoconferencing) and these occur every 2 weeks until week 16. Veterans of the 1990-1991 Gulf War (Operations Desert Storm and Desert Shield) experiencing symptoms of Gulf War Illness (GWI) may be eligible to participate. If you are interested in learning more about this study or how to be a study participant call (800) 225-5170 and ask about the "NAC Study".

DC WRIISC

Welcome New Associate Director for Clinical Operations

DC WRIISC is pleased to introduce Dr. Stephen Fischer to the WRIISC team. He joins DC WRIISC after 20-years of service with the US Department of the Navy and US Marine Corps, and most recently, three years working with the Smithsonian Institution. Dr. Fischer earned a Navy Scholarship to complete an MD at the New York University School of Medicine in 1999.



In his most recent military career years, he served in the Marine Expeditionary Force, Camp Pendleton, and deployed to Afghanistan with the Marines. From 2014 to 2020 he then served in the

Naval Medical Research & Development Enterprise and Walter Reed National Military Medical Center. After retiring from the Navy in 2020, he provided medical support for the Smithsonian Institution across 23 museums and research centers during the COVID-19 pandemic. Dr. Fischer is board-certified, Fellow of the American College of Occupational & Environmental Medicine, Fellow of the American College of Preventive Medicine, Associate Fellow of the Aerospace Medical Association, and life member of American Society of Tropical Medicine & Hygiene.

With his impressive military career, Dr. Fischer holds a wealth of knowledge in preventative medicine and environmental and occupational exposures that will inform, expand, and improve clinical care at DC WRIISC.

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War Related Illness & Injury Study Center



CA WRIISC

WRIISC WOMEN Center of Excellence Announcement

In October 2022, the Department of Veterans Affairs (VA) established the Women's Operational and Military Exposure Network (WOMEN) in response to the growing needs of women Veterans with military environmental exposures (MEE; e.g., airborne hazards and open burn pits, volatile organic compounds, endocrine-disrupting chemicals, blast exposure, tactile herbicide and biological/chemical weapon exposure) and related health concerns. VA's WOMEN, in collaboration with CA WRIISC, provides clinical consultations, disseminates community and patient educational services, and conducts innovative research to improve the health of women Veterans.

On February 6th, 2024, Dr. Shereef Elnahal (Under Secretary for Health), approved WOMEN as a Center of Excellence. This meaningful designation will ensure the long-term support of innovative research agendas undertaken by WOMEN CoE staff, such as:

- Examining the health effects of exposure to endocrine-disrupting chemicals (EDCs) (which may be present in burn pit smoke, jet fuels, solvents, contaminated food and water, and chemical and biological weapons).
- ✓ Determining the MEE risk factors that increase the risk of reproductive cancers (i.e., breast, ovarian and fallopian tube, endometrial, and cervical cancers) in women Veterans.
 - Understanding how hormonal disruptions affect fertility and menopause in women Veterans.
- Exploring how military service characteristics affect women Veteran's cognitive health.

WRIISC WOMEN CoE Staff are enthused to be recognized as members involved in the VA's efforts towards obtaining excellent health for Veterans. Stay tuned for future announcements from the VA's WOMEN CoE.

WRIISC Advantage

WINTER 2024

Produced by the War Related Illness and Injury Study Center

Editor/Graphic Artist Christina Rumage-Miller, MSPH

> Co-Editor: Nicole Sullivian, PhD

Contributors:
Stephanie Green Eber, MPH
Ansgar Furst, PhD
Peter Bayley, PhD
Abou Ibrahim-Biangoro, MPH
Jennifer Jennings, MD
Lindsey Proctor, MS, RDN, LDN
Gina Piehl
Stacy Moeder, MHA, MBA
Dylan Jester, PhD, MPH
Mehret Assefa, PhD, MPH
G. Marina Veltkamp, PhD
Ryan Brewster, PhD

1-800-722-8340
War Related Illness and Injury Study Center
Department of Veterans Affairs
Washington, DC VA Medical Center
Room 3B 203, Mail Stop 127
50 Irving St., NW
Washington, DC 20422-0002

1-888-482-4376
War Related Illness and Injury Study Center
Department of Veterans Affairs
Palo Alto Health Care System
3801 Miranda Ave.
Mail Code 151Y
Palo Alto, CA 94304-1290

1-800-248-8005
War Related Illness and Injury Study Center
Department of Veterans Affairs
New Jersey Health Care System
385 Tremont Ave.
Mail Stop 129,11th floor
East Orange, NJ 07018-1023

For comments or concerns regarding this newsletter, please contact us at:

1-800-248-8005 or email:

njwriiscedteam@va.gov







VA's Airborne Hazards and Open Burn Pit Registry



Intended for:

- VA leadership
- Research groups internal and external to VA
- Environmental health clinicians and coordinators
- Advocates of Veterans

10 Year Anniversary Symposium

More details will be posted at:

