

# WRIISC *Advantage*

FALL 2024

Airborne Hazard  
Concerns

Environmental  
Exposures

Women Veterans

VA Centers  
of Excellence

Quality Care at  
WRIISC Facilities





This edition of War Related Illness and Injury Study Center (WRIISC) Advantage Newsletter focuses on celebrating the 5 year anniversary of the Airborne Hazards and Burn Pits Center of Excellence (AHBPCE), updates from the other Centers of Excellence (COEs) housed at the WRIISC, and more.

## ▶ DIRECTORS' CORNER

Since its creation in 2001, WRIISC has aimed for excellence in clinical, education, and research services in post-deployment and exposure-related health within the Veterans Health Administration (VHA). Fast forward to present day, and the WRIISC is proud to house three VA COEs. Each COE serves a specialized need for Veterans with military exposure concerns. The AHBPCE advocates for Veterans who have concerns about potential adverse health outcomes related to airborne hazard exposures through clinical work, education, and research; Women's Operational and Military Exposure Network Center of Excellence (WOMEN COE) provides clinical care consultation and cutting-edge research for women Veterans exposed to military environmental exposures; and the Complex Exposure Threats Center of Excellence (CETCE) provides expert care and cutting-edge research of unique and emerging complex exposure Veteran cohorts. Each COE meets the charge to provide the highest quality service for our Nation's Veterans.

*Wes Ashford, MD, PhD*  
Director, CA WRIISC

*Helena Chandler, PhD*  
Director, NJ WRIISC

*Matt Reinhard, PsyD*  
Director, DC WRIISC

## Airborne Hazards and Burn Pits Center of Excellence

### Reflection on 5 Years of Improving Exposure-Related Care for Veterans

In May 2024, the AHBPCE housed at NJ WRIISC celebrated its 5 year anniversary of being officially designated as a VA COE by Congress and the President in Public Law 115-929. Co-Directed by Anays Sotolongo, MD and Michael Falvo, PhD, under Health Outcomes Military Exposures (HOME) and located at the NJ WRIISC, the AHBPCE plays an integral role in furthering the goals of the Sergeant First Class (SFC) Heath Robinson Honoring our Promise to Address Comprehensive Toxics (PACT) Act by advocating for Veterans who have concerns about potential adverse health outcomes related to airborne hazard exposures. Through ongoing research, clinical work, and education, the AHBPCE seeks to understand and find solutions for exposure-related health issues and present information to providers and Veterans on findings that can lead to better evaluation, management, and care.



**"NOW AND IN THE FUTURE, WE ARE COMMITTED TO ADVOCATING FOR VETERANS WHO HAVE CONCERNS ABOUT POTENTIAL ADVERSE HEALTH OUTCOMES RELATED TO AIRBORNE HAZARD EXPOSURES."**

**ANAYS SOTOLONGO, MD,  
AHBPCE CO-DIRECTOR**



**"WE RECOGNIZE THERE IS MUCH MORE WORK TO BE DONE TO BRING GREATER UNDERSTANDING OF AIRBORNE HAZARDS AND OTHER MILITARY ENVIRONMENTAL EXPOSURES TO VETERANS, PROVIDERS, AND THE SCIENTIFIC COMMUNITY AT LARGE."**

**MICHAEL FALVO, PHD,  
AHBPCE CO-DIRECTOR**

## Relishing the Successes

Over the last 5 years, the AHBPCE has worked collaboratively across VA, Department of Defense (DoD), and academia to make great strides toward improving health outcomes for Veterans with military exposure-related concerns. Below are a few noteworthy accomplishments:



- ✓ Established the Post Deployment Cardiopulmonary Evaluation Network (PDCEN), a network of experts within VA from across the country, who are dedicated to furthering the understanding of deployment-related airborne hazard exposures.
- ✓ Facilitated asthma, rhinitis, and sinusitis being recognized as presumptive service-connected symptoms of military exposures.
- ✓ Created the Health Outcomes Military Exposures- Living Evidence Analysis Program (HOME-LEAP), which is an innovative multilevel logic model as a framework for synthesizing multiple streams of scientific evidence to provide a basis for VA decision-making.
- ✓ Released the Deployment-Related Respiratory Disease (DRRD) Toolkit for Providers.
- ✓ Facilitated the Airborne Hazards and Burn Pits: What you Need to Know" Veteran education class to nearly 2,700 Veterans.
- ✓ Provided 50+ invited lectures and talks at conferences and annual meetings in the last 5 years.
- ✓ Launched the AIMES collaboration with Center for Innovations in Quality, Effectiveness & Safety (IQuEST), to bring expertise in data management and analysis, implementation science, and quality improvement to the management and use of the Airborne Hazards Open Burn Pit Registry (AHOBPR).

## Looking Forward

Although AHBPCE has done so much to help improve care for Veterans with airborne hazards concerns, they are just getting started. The full report includes a description of some of these future efforts. Check out the full AHBPCE 5 year report: [https://www.warrelatedillness.va.gov/WARRELATEDILLNESS/docs/AHBPCE\\_5YearReport\\_508Compliance.pdf](https://www.warrelatedillness.va.gov/WARRELATEDILLNESS/docs/AHBPCE_5YearReport_508Compliance.pdf)

## Important: VA Airborne Hazards and Open Burn Pit Registry Changes

On August 1, 2024, the U.S. Department of Veterans Affairs (VA) launched the redesigned Airborne Hazards and Open Burn Pit Registry (AHOBPR) after seeking extensive feedback from Veterans and service members. The registry is an important research tool that enables VA to identify and study health challenges spanning the Veteran and Service member population as a whole, providing Veterans and Service members of this generation an opportunity to help improve the care and benefits of Veterans and Service members in generations to come. Ultimately, the registry is a database that combines Veteran and Service member data to help VA better understand, research, and ultimately improve treatment and benefit options for the health challenges experienced by Veterans and Service members exposed to airborne hazards and burn pits during their military service.

Important updates to the registry include:

- The automatic inclusion of Veterans and Service members who meet criteria based on DoD records. To learn more, visit <https://www.publichealth.va.gov/exposures/burnpits/registry.asp>
- The removal of a cumbersome 144-question registry questionnaire.
- Establishment of an easy registry opt-out process.

It is important for Veterans to know that participation in the registry is optional and has no impact on, nor will it determine eligibility for, VA health care and benefits. Those who do not wish to be included in the registry can opt out by submitting an "opt out inquiry" at <https://vethome.va.gov/BurnPitRegistryOptOut/>. Veterans can check their status by contacting their environmental health coordinator at <https://www.publichealth.va.gov/exposures/coordinators.asp>. To learn more about the AHOBPR visit <https://www.publichealth.va.gov/exposures/burnpits/registry.asp>.



# Announcing the New Complex Exposure Threats Center of Excellence

On September 3, 2024, Under Secretary of Health Shereef Elnahal approved the CETCE as a new VA COE. CETCE, housed at the DC WRIISC, is now poised to lead the VA in knowledge discovery around novel, emerging military exposure concerns and address the health needs of Veterans with complex exposure occupations through its targeted Veteran cohorts.

Multifaceted environmental exposures, new weapons technology, and highly hazardous military occupations are dynamic and evolving threats for Service members. These exposures may cause novel illnesses or injuries with unspecified and adverse health outcomes for Veterans. Operating as a vital sub-center of the DC WRIISC since October 2022, CETCE is VA's dedicated team focused on complex emerging exposure health threats and the associated needs of those Veterans.

CETCE's interdisciplinary team of health care professionals, research scientists, and environmental health experts includes many Veterans. Their experience and subject matter expertise guide CETCE's innovative strategies for health threat detection, exposure cohort management, comprehensive clinical evaluations, cutting-edge research, and education. The Center currently focuses on the unique military occupational and environmental exposure health concerns of Explosive Ordnance Disposal personnel and Veterans experiencing poorly understood symptoms possibly related to Anomalous Health Incidents (or Havana Syndrome). The Center also addresses longitudinal health surveillance needs and exposure concerns of historical military exposure cohorts including Veterans exposed to Chemical Warfare Agents and sodium dichromate at Qarmat Ali, Iraq. CETCE is uniquely positioned with strong federal (e.g., DoD and National Institutes of Health (NIH)) and academic (e.g., University of Maryland) partnerships to provide diverse services to proactively anticipate and evaluate emerging exposure threats and their health effects.

**CETCE efforts align with the DoD to help the VA be at the forefront of understanding new military exposure concerns. As a newly designated COE and nationally recognized program, CETCE's clinical, educational, and research discoveries are key in preparing the VA for new and emerging exposure health threats to Service members and the health trajectory of Veterans.**



DR. JOSE (JOE) ORTIZ  
CETCE ASSOCIATE DIRECTOR

## Research Matters

**WRIISC continues to conduct research that relates to Veterans' health. Below is a study conducted by the NJ WRIISC research team.**

**PUBLICATION TITLE:** Prevalence and Risk Factors of Post-Acute Sequelae of Sars-Cov-2 (PASC) Among Veterans in The Airborne Hazards and Open Burn Pit Registry: A Prospective, Observational, Nested Study

**QUESTION:** Are there potential risk factors among Veterans enrolled in the national AHOBPR for developing post-acute sequelae of SARS-CoV-2 (PASC)?

**FINDINGS:** Neither exposure to airborne hazards or to burn pits augmented risk for PASC.

**MEANING:** PASC is highly common among Veterans enrolled in the AHOBPR, but we did not observe any unique military risk factors (e.g., airborne hazards exposure) that augmented the risk of PASC. Our findings may provide guidance to clinicians in the VHA network to administer appropriate care for Veterans experiencing PASC.

**ADDITIONAL INFORMATION:** This publication appears in the journal PLOS One in May 2023. Authors from the NJ WRIISC included: Nisha Jani, Jacquelyn C. Klein-Adams, Duncan S. Ndirangu, and Michael J. Falvo.  
<https://bmcinfectdis.biomedcentral.com/articles/10.1186/s12879-024-09730-1>



# Updates from the Women's Operational and Military Exposure Network Center of Excellence

The WOMEN COE at the CA WRIISC studies the effects that deployment exposures have on women and follows the WRIISC's model of advancing post-deployment health care through clinical assessment, educational offerings, and novel research. WOMEN COE's clinical team, directed by Dr. Jennifer Jennings, coordinates multisymptom assessments and provides diagnostic and treatment recommendations that cross a wide spectrum of symptoms and body systems. By coordinating assessments across specialties, WOMEN COE address the totality of the woman Veteran's concerns and improves their lives in a comprehensive way. The WOMEN COE research team, led by Dr. Maheen Mausoo Adamson, studies the epidemiology of military exposures and its effects on women Veterans. Based upon the epidemiology, the team will then advance the study of the effectiveness of treatments and rehabilitation. Finally, WOMEN COE provides focused educational resources to health care providers (VA and non-VA) as well as Veterans and their families.

An example of some of WOMEN COE's latest efforts include a focus on serving rural Veterans. Rural Veterans may be more at risk of greater health outcomes, such as cardiovascular disease and poor mental health, in part due to limited access to health care. WOMEN COE recently examined the effect of rural dwelling status on health and well-being through a VA pilot study awarded to Dr. Colleen Mills-Finnerty. The study used a dataset of almost 600 people collected remotely (429 civilians, 170 Veterans) all of whom had one or more COVID-19 infections. WOMEN COE evaluated differences in civilians and Veterans in health status and health care access and found that rural Veterans had higher anxiety and depression symptoms, and more mental health conditions, than non-rural civilians. These findings emphasize the need for mental health services that are accessible to rural Veterans, such as through telehealth. WOMEN COE provides telehealth consultations for women Veterans anywhere in the Nation who have questions about military environmental exposures, including telehealth consultations with staff psychiatrists and psychologists with expertise in both military environmental exposures and women Veteran health. Through research on rural health disparities and clinical programs that maximize accessibility through telehealth, WOMEN COE hopes to bridge gaps in care and increase understanding of the unique challenges faced by rural Veterans.



DR. JENNIFER JENNINGS  
WOMEN COE, CLINICAL  
DIRECTOR



DR. MAHEEN ADAMSON  
WOMEN COE, RESEARCH  
DIRECTOR

**WOMEN COE will continue to work collaboratively on Veteran deployment health concerns with AHBPCE and CETCE and other VA, DoD, and academic partners.**

## HIGHLIGHTING WRIISC'S COLLABORATING PARTNERS

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

Dr. Gemmae Fix is an anthropologist and investigator at the VA Center for Health Optimization and Implementation Research (CHOIR), co-located at the Boston and Bedford VA Medical Centers and an Associate Professor at Boston University Chobanian & Advisian School of Medicine. As of February 2024, Dr. Fix and her team have been working with the AHBPCE and the Exposure Related Care Transformation Center (EXPRC) to develop an educational tool for Veterans who have concerns about deployment-related respiratory disease. The Airborne Hazards Education and Awareness via Co-Design with Veterans (AHEAD with Veterans) project utilizes a unique approach to designing educational products through co-design. This approach actively involves Veterans in the design process. Educational products created through co-design are more likely to resonate with Veterans and meet their needs, which is an important priority for the WRIISC. The co-design team is composed of VA researchers (including Anna Barker, Sarah McDannold, and Josh Jordan) and nine Veterans. The final product is estimated to be completed in early 2025.



# Around the WRIISC News

## NJ WRIISC

Dan Wilhite, PhD, Joins the AHBPC Team

The NJ WRIISC's AHBPC is thrilled to welcome team member Dan Wilhite, PhD. Dr. Wilhite recently completed his postdoctoral research fellowship at the Institute for Exercise and Environmental Medicine in Dallas, Texas. During this time, he investigated the effects of obesity on respiratory function, exercise intolerance, and dyspnea on exertion. Prior to his postdoctoral work, he earned a PhD in Exercise Physiology/Human Performance from Indiana University, where he studied cardiorespiratory limitations to exercise performance in trained athletes.

Dr. Wilhite's future work at NJ WRIISC's AHBPC will focus on uncovering critical links between respiratory mechanics and exertional dyspnea— a significant concern for many Veterans exposed to airborne hazards during deployment. A significant proportion of these Veterans report unexplained exertional dyspnea, a symptom that continues to challenge clinicians due to the often inconclusive results of standard pulmonary function tests.



Dr. Wilhite's research aims to bridge this knowledge gap, in part by investigating the role of small airways disease, which is prevalent among airborne hazards-exposed patients. While this condition is well-documented, its specific contribution to the onset and severity of exertional dyspnea

remains unclear. Understanding how small airways disease may impact exertional dyspnea in this cohort of Veterans could pave the way for more targeted and effective clinical interventions.

Additionally, Dr. Wilhite's future work will incorporate the exacerbating effect of obesity into research on deployment-related respiratory diseases. This approach will provide a more comprehensive understanding of how these complex factors interact and, ultimately, inform the development of more personalized and effective treatment strategies for Veterans struggling with exertional dyspnea.

*"I am incredibly excited to begin my appointment as an investigator at the VA and to contribute my knowledge and expertise to better serve our Veterans."*

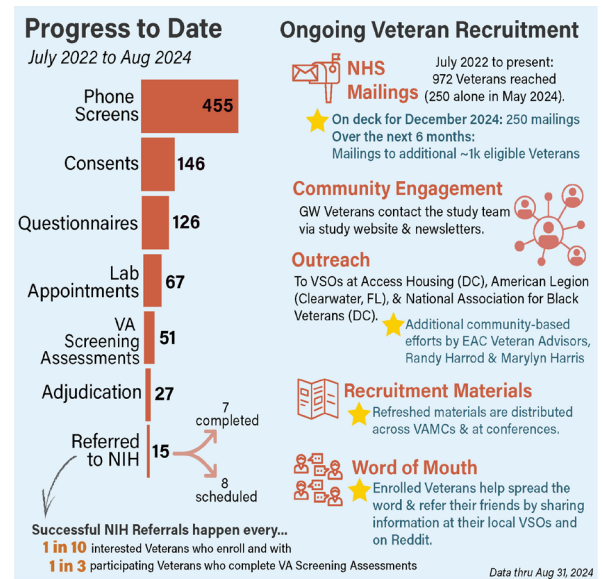
Dan Wilhite, PhD

Stay tuned for updates about Dr. Wilhite's work and other news from the AHBPC!

## DC WRIISC

Ongoing VA-NIH Partnership Approved for Project Cost Extension

In recognition of the successful nationwide remote recruitment, screening, and evaluation of Gulf War Veterans (GWV) for referral to the NIH Clinical Center, the Investigative Deep Phenotyping of Gulf War Veterans Health VA-NIH collaboration was approved for project funding extension until 2027. Close partnership, innovative methods and high throughput operations have moved this high-impact study closer to the aim of understanding the biological causes of Gulf War Illness (GWI)— a chronic, poorly understood condition that impacts about one-third of Veterans who served in the 1990-1991 Persian Gulf War. Launched in July 2022, Project IN-DEPTH is on track to meet the goal of acquiring granular phenotypic (i.e., deep phenotyping) knowledge about GWI through referral of 75 GWV (50 with GWI and 25 healthy controls) to NIH. The graphic below illustrates project recruitment in just over a 2-year period and outreach out to nearly 1,000 Veterans. As of September 2024, 15 Veterans have been determined eligible for the project and were referred to the NIH. Over the next 6 months, they aim to reach another 1,000 Veterans.



A Veteran Advisor from Project IN-DEPTH's External Advisory Committee, the group that concurred with VA Office of Research and Development's approval of the project cost extension, expressed, "Project IN-DEPTH is a unique study that truly goes deeper than any other study I've been involved with. For the first time since my GWI diagnosis, this study gives me hope that they will find real, tangible results that my fellow Gulf War Vets and I are looking for."

For more information: call 202-286-4826 or email [VHAWAS.INDEPTH@va.gov](mailto:VHAWAS.INDEPTH@va.gov)





## CA WRIISC

The Military Health Systems Research at WOMEN Center of Excellence

This year, WOMEN COE gave an oral presentation on the gender differences of unit cohesion and neurobehavioral health symptoms in Veterans for the annual Military Health Systems Research Symposium (MHSRS) Conference. This conference took place in Kissimmee, FL from August 26-29 with over 3,500 attendees.

WOMEN COE presented on a study with 226 male and 60 female Veterans who were active-duty during the time of their military environmental exposure. WOMEN COE measured unit cohesion and neurobehavioral health symptom severity through questions in the WRIISC Intake Packet, which is a questionnaire about Veterans' deployment experiences, and their health concerns. The team found that symptom severity varies by gender.



Men reported more severe neurobehavioral symptoms than women. Independent of gender, unit cohesion had a significant impact on symptom severity. Veterans with low unit

cohesion reported more severe symptoms than those with high unit cohesion. When looking at the interaction between unit cohesion, symptom severity, and gender, higher unit cohesion was associated with less severe symptoms severity among women. This suggests that unit cohesion could have a protective effect for women. For men, while unit cohesion was still an important predictor of health outcomes, other factors may be impacting their symptom severity. This was an important study because unit cohesion extends beyond military service and provides a foundation for recovery and adjustment back into civilian life. Furthermore, women Veterans make up a growing Veteran population and have been underrepresented for most military-based research.

WOMEN COE and WRIISC continue to work to understand gender differences and use this information to help clinicians and patients understand how military experiences may influence physical and mental health.

# WRIISC Advantage

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