



U.S. Department  
of Veterans Affairs

# Update & Perspective from the Airborne Hazards & Burn Pits Center of Excellence (AHBPCE)

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## WHERE HAVE WE BEEN?

- 1990-1991- Operation Desert Shield/Desert Storm
- 2001- War Related Illness and Injury Study Centers established
- 2001- Global War on Terror begins
- 2004- NJ WRIISC establishes 'executive evaluations' for post-9/11 Veterans
- 2007- NJ WRIISC reports post-9/11 Veterans' exposure concerns, including burn pit smoke & airborne hazards/Post-deployment clinics around VHA
- 2010- NJ WRIISC conducts baseline PFT's on all post-9/11 Veterans
- 2011- NAS publishes first report on airborne hazards concerns/First DoD-VA symposium/NEJM report on constrictive bronchiolitis case series

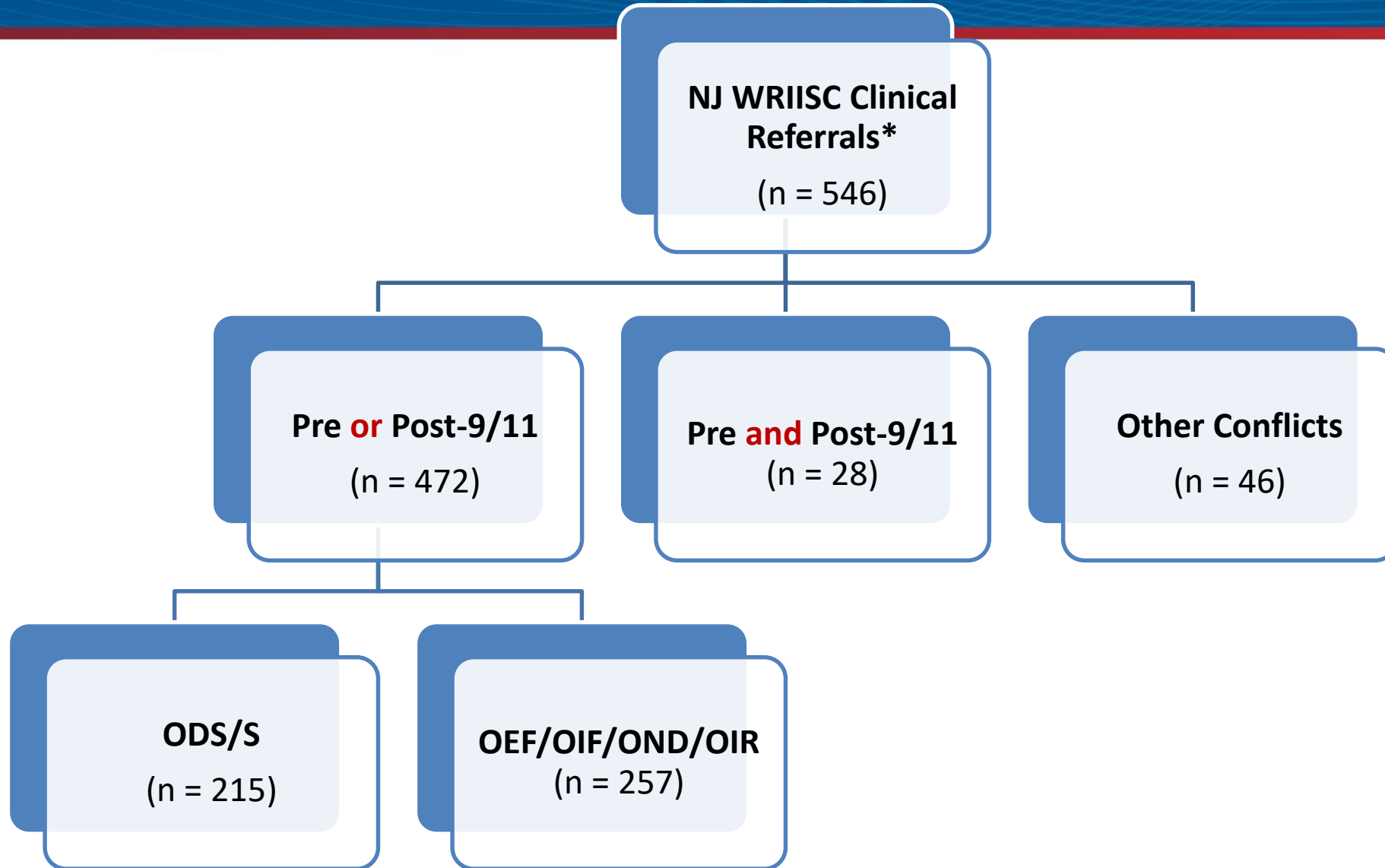


## WHERE HAVE WE BEEN?

- 2012- VA Pilot study of cardiopulmonary symptoms in Veterans funded and initiated at NJ WRIISC
- 2014- Airborne Hazards & Open Burn Pit Registry (AHOBPR) launched
- 2015- Airborne Hazards Center of Excellence (AHCE) launched at NJ WRIISC
- 2016- First NJ WRIISC AHCE case series report published/First peer-reviewed publication from AHOBPR published
- 2017- AHOBPR analysis of blast and cardiopulmonary symptoms published
- 2018- VA study of cardiopulmonary symptoms in Veterans funded & initiated at NJ WRIISC
- 2019- AHCE designated the Airborne Hazards and Burn Pits Center of Excellence (AHPCE) at NJ WRIISC



# CUMULATIVE CLINICAL EXPERIENCE AT NJ WRIISC/AHBPCE



\*Received partial or full cardiopulmonary evaluation (8/2011 – 8/2019)



## WHERE ARE WE NOW?

- Expanding the clinical evaluation capacity
- Leveraging the AHOBPR to improve access to and quality of care
- Enhancing basic and translational (T1) research with academic partners
- Launching DoD-funded linked proposals to explore blast-related lung injury in Veterans
- Mining the AHOBPR and other existing data sources to generate and test hypotheses





# AIRBORNE HAZARDS AND BURN PITS CENTER OF EXCELLENCE (AHBPCE)

- FY 19 money committed (mostly for external collaborations)
- Hiring new personnel at NJ WRIISC
- Expanding clinical, research, and education capacity
  - Partnership with VA-New Jersey HealthCare System, Post-Deployment Health Service, Office of Research & Development, Employee Education Service
- Partnering with academic affiliates
  - Rutgers University New Jersey Medical School, Robert Wood Johnson Medical School, Environmental and Occupational Health Science Institute, Ohio State University
- Building an independent identity on the WRIISC foundation



# POST-DEPLOYMENT CARDIOPULMONARY EVALUATION NETWORK

- Four charter sites: Baltimore, San Francisco, Ann Arbor, Eastern Colorado
- Core clinical evaluation modeled after AHBPCE experience
- Expands clinical evaluation capacity (100/year)
- Enhances capabilities across the VHA
- Clinical evaluation will form the nidus for prospective and retrospective clinical research (e.g., investigator initiated research projects, data & biorepository)
- AHOBPR used to identify high priority target subpopulations



# AHOBPR SUMMARY (AS OF 15SEPT2019)

- Participants: 184,494
- Number documented Registry Exam (AH note title)
  - 119 VA Medical Centers
  - 11,536 (8,845 participants)
- Health factors - Chief concerns [Top 5 (>50%)]
  - Shortness of breath
  - Chronic sinus infection
  - Runny nose
  - Gastrointestinal problem
  - Decreased exercise ability





# REPORTS

- Registrant Summary Report – Monthly
- Clinical Summary Report – Monthly
- Facility Reports – Quarterly shared with VISN leads and facility environmental health clinicians and coordinators
- Detailed AHOBPR Self Assessment Questionnaire Summary - Quarterly



# ONGOING RESEARCH

- Sarcoidosis
  - Multi-system disease which most commonly affects lungs
  - Case-control study
    - Case (n=454) 1 or more ICD code for sarcoidosis in VHA records between 2011-2018
    - Control: VHA use – Matched by age and gender
- Cancer
  - Pancreatic Cancer
  - Case-control study
    - Case (n=34) ICD 9/10 code for pancreatic cancer in VHA records between 2011-2018
    - Control: VHA use – Frequency matched by gender



# WHERE ARE WE GOING?

- Improve the Veterans' experience- access, quality, focus, and engagement
- Deeper science, relevant to the concerns of Veterans and other stakeholders
  - Etiologies- basic science/epidemiology
  - Pathophysiology- clinical research, data and biorepository
  - Prognosis- epidemiology and health services research (HSR)
  - Treatment/management- T1 translation/clinical trials/HSR (epi)
  - Implementation/effectiveness- T2 translation/clinical trials/HSR (implementation)
- Education/Dissemination/Risk Communication
- Policies



## HOW WILL THIS RESPONSE TO EXPOSURE CONCERNS BE BETTER?

- Clinical readiness- more proactive approach
- Data capture is better than for earlier cohorts
- Data science and management capabilities are better
- Molecular and 'omics research capabilities are better
- Recognition of the importance of team science and collaboration
  - Improving access to participation in observational and clinical trials
- Better Veteran engagement
- Recognition of the importance of implementation science

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# Questions?

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