DoD Responses to 2015 Defense Health Board Report: "Deployment Pulmonary Health" and Relevant Department of Veterans Affairs Initiatives

6 August 2019

Outline

- DoD responses to DHB recommendations (grouped by DHB categories)
  - Establishing pre-deployment clinical baselines and post-deployment screening for chronic pulmonary disease
  - Diagnosis of pulmonary disease
  - Surveillance for deployment-related pulmonary disease
  - Deployment pulmonary health registry
  - Deployment pulmonary health research activities
  - Deployment-related pulmonary disease prevention
- Overview of DoD & VA funded research on deployment pulmonary health
- Additional VA and DoD initiatives related to deployment pulmonary health
  - VA Airborne Hazards and Open Burn Pit Registry
  - VA & DoD outreach and education for veterans and clinicians related to airborne hazards

Focus Area: Establishing pre-deployment clinical baselines and post-deployment screening for chronic pulmonary disease

- **<u>Recommendation 1</u>: Modify pre- and post-deployment questionnaires to add respiratory questions.**

- <u>DoD response to Recommendation 1</u>:
  - In 2016, added question on wheezing to Post-Deployment Health Assessment (PDHA) and Post-Deployment Health Reassessment (PDHRA) forms.
  - In 2016, issued Department of Defense Instruction (DoDI) on the Periodic Health Assessment (PHA), and implemented PHA tool.
    - DoD requires an annual PHA (DD Form 3024) for all Service members.
    - PHA includes questions related to pulmonary health, including asthma, lung problems, wheezing, shortness of breath, and multiple questions on tobacco use (pages, 3, 4, 10, 11).
    - Data is archived at Armed Forces Health Surveillance Branch, so there is a longitudinal database; development of a protocol for analysis is underway.

Focus Area: Diagnosis of pulmonary disease

- **Recommendations 2, 4, and 5:**
  - 2 - Use a single, standardized pulmonary questionnaire for patients who present with chronic post-deployment pulmonary symptoms.
  - 4 - Use a consistent approach when evaluating chronic post-deployment pulmonary symptoms focused in Service members and veterans with unexplained dyspnea greater than three months duration.
  - 5 - Publish a clinical practice guideline (CPG) for evaluation of chronic post-deployment pulmonary symptoms, and specifically unexplained dyspnea.

  - DoD and VA responses to Recommendations 2, 4, and 5: see slides 5 and 6

Focus Area: Diagnosis of pulmonary disease (cont.)

- **DoD and VA responses to Recommendations 2, 4, 5:**

- DoD and VA have referral centers for specialized care for post-deployment pulmonary symptoms (including a focus on difficult-to-diagnose cases).
  - DoD: Brooke Army Medical Center (San Antonio); and Walter Reed National Military Medical Center
  - VA: New Jersey War Related Illness and Injury Study Center (East Orange, NJ)
  - Primary care providers can refer complex patients to these centers for intensive diagnostic evaluations.
  - These DoD and VA centers use a comprehensive, stepwise (tiered) diagnostic evaluation for chronic post-deployment pulmonary symptoms; the centers have communicated to facilitate similar diagnostic testing.
  - Each center has evaluated hundreds of patients who had post-deployment respiratory symptoms.
  - Asthma is the most common diagnosis in the patients evaluated at the centers.

Focus Area: Diagnosis of pulmonary disease (cont.)

- **DoD and VA responses to Recommendations 2, 4, 5 (cont.):**

- The DoD and VA centers are working to coordinate the development of an improved, consistent approach to evaluation of symptoms.
  - This issue was a major focus of the Fifth DoD/VA Airborne Hazards Symposium (March 2019).
  - The DoD and VA centers use the same questionnaire that was developed for the VA Airborne Hazards and Open Burn Pit Registry.
  - The centers are communicating to develop and adopt a consensus approach to standardized medical evaluations, including a systematic, step-wise approach to diagnostic testing.
  - The centers are considering the development of joint guidance on this step-wise approach for clinicians, based on the current understanding of post-deployment respiratory symptoms; the guidance would be aimed at two levels, primary care providers and pulmonary specialists.
  - VA is considering sharing data with DoD on Service members who are enrolled in the VA Burn Pit Registry; this would enable DoD to provide Registry medical exams of the active-duty, consistent with the VA medical exams.

Focus Area: Establishing pre-deployment clinical baselines and post-deployment screening for chronic pulmonary disease (cont.)

- **Recommendation 3: Evaluate the potential use of spirometry for pre-deployment screening**
- Recommendation 3a: Conduct quality assessment (QA) of baseline and follow-on spirometry.
- Recommendation 3 b and c: Implement a mechanism to enter all occupational spirometry results into a centralized electronic database; and provide the capability to graphically view key spirometry parameters to allow for individual or population-level longitudinal analysis.
- Recommendation 3d: Conduct a feasibility study assessing pre-deployment spirometry in selected groups.
- Recommendation 3e: Conduct pre-deployment baseline spirometry if significant risk of pulmonary exposure implied that this would occur at multiple sites for large-scale deployments.

- DoD response to Recommendation 3: see slides 8 and 9

Focus Area: Establishing pre-deployment clinical baselines and post-deployment screening for chronic pulmonary disease (cont.)

- **<u>DoD response to Rec. 3-Evaluate potential use of spirometry for pre-deployment screening</u>**

- DoD is actively working to assess the feasibility of adoption of SPIROLA software within medical treatment facilities (MTFs).
  - This is a NIOSH developed program for longitudinal analysis of spirometry results.
  - SPIROLA can be used for occupational medicine screening programs; and it can track the PFT results of an individual over time.
  - SPIROLA allows the user to: monitor the quality of spirometry tests, monitor longitudinal data precision, and determine if an individual has excessive lung function decline.
- DoD developed a policy that includes pre-deployment baseline spirometry for potentially at risk personnel
  - This applies to Service members with known, pre-existing pulmonary conditions and diseases.
  - DoD Instruction (DoDI) 6490.03 was published in 2019, including the following guidance:
    - "Pulmonary function testing on deploying Service members and DoD civilians who have known pre-existing pulmonary conditions and disease, but are medically ready to deploy and cleared by established policies and guidelines in DoDI 6200.06, DoDI 6025.19, and DoDI 6490.07, using spirometry in accordance with DoD Manual 6055.05."
- DoD conducted 4 studies that assessed the feasibility of pre- and post-deployment spirometry. (next slide)

Focus Area: Establishing pre-deployment clinical baselines and post-deployment screening for chronic pulmonary disease (cont.)

- **<u>DoD response to Recommendation 3d</u>: Conduct feasibility study assessing pre-deployment spirometry in selected groups.**
  - Collection and evaluation of pre- and post-deployment spirometry data in a large cohort in STAMPEDE II (Study of Active Duty Military Personnel for Environmental Deployment Exposures)
    - Morris, et al., *Respiratory Care*, May 2019
    - Prospective study at Fort Hood, TX in 2011-14
    - 843 soldiers, presumed to be healthy, underwent PFTs before deployment to Iraq or Afghanistan.
    - Pre-deployment tests with spirometry and impulse oscillometry were unable to detect any significant change after deployment.
    - The presence of pre-deployment obstruction on PFTs, self-reported asthma, smoking history, or increased body mass index did not change PFT values after deployment.
    - Conclusions: "Utilization of spirometry for the deploying military population did not identify individuals with lung disease after deployment. Routine use was not warranted before or after deployment in the absence of pulmonary symptoms."
  - 3 other DoD studies of pre- and post-deployment spirometry
    - Two studies of firefighters: no significant changes in PFTs were demonstrated after deployment (including 5 years of follow-up in one study)
    - One study of Service members diagnosed with asthma before deployment: no differences in pre- and post-deployment PFTs

Focus Area: Surveillance for deployment-related pulmonary disease

- **<u>Recommendation 6a</u>: Continue efforts to improve techniques for collecting and maintaining individual and area exposure data to enhance medical care and epidemiology studies.**

- <u>DoD response to Recommendation 6a:</u>
- Development of the first-ever Individual Longitudinal Exposure Record (ILER) is progressing.
- ILER will "mine" multiple data sources to create the exposure record (see next slide)
- ILER will:
  - provide medical providers with an available exposure record, eventually accessible via the electronic health record (EHR);
  - support epidemiological research; and
  - support VA adjudication of claims due to service-related exposures in garrison and theater.
- ILER data will be available to DoD and VA staff by 1 October 2019 ("Initial Operating Capability"), followed by additional functional development from 2020-2023 ("Full Operating Capability").

- Periodic Occupational and Environmental Monitoring Summaries (POEMS)
  - POEMS: 146 completed, as of July 2019
  - POEMS portal (public web site): https://phc.amedd.army.mil/topics/envirohealth/hrasm/Pages/POEMS.aspx

Proposed ILER Data Sources by Time of Release

Pilot

- ❑ Defense Occupation and Environmental Health Readiness System - Industrial Hygiene **(DOEHRS-IH)**
- ❑ Military Exposure Surveillance Library **(MESL)**
- ❑ Defense Medical Surveillance System (DMSS)
  - Pre-Deployment Health Assessments
  - Post-Deployment Health Assessments
- ❑ Defense Manpower Data Center (DMDC)
  - Benefits Eligibility - Defense Eligibility and Enrollment (DEERS)
  - Individual Daily Deployment Location Data
- ❑ Medical Data Repository **(MDR)**

IOC

- ❑ Expand Pilot Data Feeds
- ❑ Connection with Defense Medical Information Exchange **(DMIX)**
  - Replace MDR Data Interface
- ❑ Expand on Benefits Eligibility / Defense Eligibility and Enrollment **(DEERS)**

FOC

- ❑ Airborne Hazards and Open Burn Pit Registry **(AHOBPR)**
- ❑ DoD and VA Clinical Data Repositories **(DoD-CDR, VA-CDR)**
- ❑ Electronic Health Record Data **(MHS GENESIS)**
- ❑ Health Artifact and Image Management System **(HAIMS)**
- ❑ Pulmonary Function Test Repository **(PFTR)**
- ❑ Shipboard Hazard and Defense **(SHAD Registry)**
- ❑ VA Administrative Data Repository **(VA-ADR)**
- ❑ VA Corporate Data Warehouse **(VA-CDW)**

Focus Area: Surveillance for deployment-related pulmonary disease (cont.)

- **<u>Recommendation 6b</u>: Develop a mechanism to allow investigators access to demographic information by deployment location in the conduct of approved research and surveillance.**

- <u>DoD response to Recommendation 6b:</u>
- Defense Manpower Data Center (DMDC) processes are being developed to declassify individual deployment location data.
  - Current focus is declassification of deployment location data for the period 2002-2017, in the Southwest Asia theater of operations.
  - These data are pivotal to the development and sustainment of the ILER.
  - The declassification will allow linkage of an individual's location with available environmental exposure information, e.g., POEMS, Exposure Incident Reports.
  - The Department is considering how to make the information available to support research projects, focused on assessing potential health effects from deployment-related environmental and occupational exposures.

Focus Area: Surveillance for deployment-related pulmonary disease (cont.)

- **<u>Recommendation 7</u>: Conduct routine analyses of aggregate symptom response data from pre- and post-deployment health assessments to identify adverse trends.**

- <u>DoD response to Recommendation 7:</u>
  - Ongoing monthly analysis and reporting of post-deployment health assessments (PDHAs).
    - For example, Armed Forces Health Surveillance Branch (AFHSB) analysis of PDHA in May showed: 15% of active component reporting respiratory exposure concerns, 8% shortness of breath (SOB), 4% cough, and 42% tobacco use during deployment.
  - Ongoing quarterly analysis and reporting of post-deployment health reassessments (PDHRAs).
    - For example, AFHSB's most recent PDHRA analysis in April showed similar results: 13% with environmental exposure concerns, 7% SOB, 4% cough.
  - Ongoing quarterly analysis and reporting of periodic health assessments (PHAs).
    - AFHSB's most recent PHA data showed 2% reporting lung conditions impacting duty performance.

Focus Area: Surveillance for deployment-related pulmonary disease (cont.)

- **<u>Recommendation 8</u>: Improve International Classification of Disease (ICD) coding of electronic health records for pulmonary disease medical encounters.**

- <u>DoD response to Recommendation 8:</u>
  - ICD-10 was implemented by DoD in October 2015.
  - ICD-10 has more precise, detailed coding of lung diseases than ICD-9; codes are available for smaller categories of disease.
  - DoD provided extensive web-based training on ICD-10 to medical coders nationally, prior to implementation.
  - DHA contracted for additional ICD-10 training subsequently.
  - DHA created a Medical Coding Program Office in 2015; and DHA performs annual coding audits.
  - As of October 1, 2019, DHA will have authority over coding in all MTFs in CONUS.

Focus Area: Deployment pulmonary health registry

- **<u>Recommendation 9</u>: Implement an enterprise-wide clinical registry of deployment-related chronic pulmonary symptoms or disease.**

- <u>DoD response to Recommendation 9:</u>
- DoD has performed multiple studies of the relationship of specific pulmonary diseases with deployment, which included the entire military population.
- These studies were based on the identification of cases in the electronic medical record system, during a period of approximately ten years, including studies on:
  - Asthma (Delvecchio, et al., *Journal of Asthma*, 2015)
  - COPD (Matthews, et al., *Military Medicine*, 2014)
  - Sarcoidosis (Forbes, et al., in press)
  - Long-term pulmonary outcomes after thoracic trauma during OIF/OEF deployment (analysis underway)
  - All soldiers who have undergone a Medical Evaluation Board for disability for lung diseases (analysis underway)
  - Similar analyses could be performed on other lung diseases.

Focus Area: Deployment pulmonary health research activities

- Recommendation 10a: Conduct additional observational studies on potential associations between exposures and pulmonary outcomes.
- Recommendation 10b: Conduct a prospective cohort study of members with unexplained chronic dyspnea to characterize pulmonary outcomes over time.
- Recommendation 10c: Provide resources to ensure STAMPEDE studies are accomplished.
- Recommendation 10d: Provide resources to conduct further studies of pulmonary symptoms within the Millennium Cohort Study.

- DoD response to Recommendations 10a, b, c, d: These recommendations are being addressed in many, ongoing research projects. See research section in slides 25 to 27.

Focus Area: Deployment pulmonary health research activities (cont.)

- **<u>Recommendation 11</u>: Conduct a prospective study of all Service members who have undergone surgical lung biopsies for post-deployment pulmonary symptoms to assess long-term outcomes associated with specific diagnoses and morbidity associated with procedure itself.**

- <u>DoD response to Recommendation 11:</u>
  - DoD funded a very large research project at National Jewish Health in Denver.
    - Title: Mechanisms and treatment of deployment-related lung injury: Repair of the injured epithelium.
    - Includes evaluation of patients who received surgical lung biopsies at Vanderbilt University.
  - Walter Reed National Military Medical Center is performing a longitudinal study to track pulmonary health status over time.
    - Re-contact of 150 Service members who received systematic medical evaluations for post-deployment respiratory symptoms (but no surgical lung biopsies).

Focus Area: Deployment pulmonary health research activities (cont.)

- **<u>Recommendation 12</u>: Hold annual meetings to discuss deployment pulmonary health research.**

- <u>DoD response to Recommendation 12:</u>
  - DoD and VA have organized Airborne Hazards Symposia 5 times (2012, 2013, 2014, 2017, 2019)
  - Major topics of Symposium on March 14-15, 2019
    - Assessing, Preventing, and Recording Environmental Exposures
    - VA Airborne Hazards and Open Burn Pit Registry
    - VA and DoD Clinical Care
    - Research on Airborne Hazards
    - Education and Outreach to Service members and Veterans
  - VA/DoD Burn Pit Meeting: full-day meeting on 25 September 2018
  - DoD Military Operational Medicine Research Program: annual Pulmonary Research IPR (In Progress Reviews)

Focus Area: Deployment pulmonary health research activities (cont.)

- **<u>Recommendation 13</u>: Conduct a histopathological study of available lung tissues from deployed and non-deployed service members to determine if there are characteristic histopathological changes associated with deployment to areas with high particulate matter.**

- <u>DoD response to Recommendation 13:</u>
- DoD funded 2 Joint Pathology Center (JPC) studies to evaluate available lung tissues.
  - Pathology review was performed on 391 cases of non-neoplastic lung biopsies.
    - Comparison of 137 deployed cases and 254 non-deployed cases
    - This review yielded a broad range of pathological diagnoses, but no significant differences in the rates of specific diagnoses between deployed and non-deployed. (Madar, et al., *Lung,* 2017)
  - Second JPC study is ongoing, starting with screening of 20,000 archived lung specimens; will compare diagnoses in deployed vs. non-deployed groups.

Focus Area: Deployment pulmonary health research activities (cont.)

- **<u>Recommendation 14</u>: Continue research to develop appropriate respiratory personal protective equipment**

  and

- **<u>Recommendation 16b:</u> Continue efforts to develop better personal protective equipment to reduce hazardous exposures such as high particulate levels.**

- <u>DoD response to Recommendations 14 and 16b:</u>
  - A prototype face mask using self-regenerating, non-clogging filter material was developed under a Phase 2 Small Business Innovative Research (SBIR) Enhancement award.
  - Army Test and Evaluation Command performed a Human Factors User Assessment of the facemask (final report 13 MAR 18); and identified areas for functional and user acceptability improvement.
  - Based on ATEC report and shifting operational requirements, the company submitted a plan for developing protective equipment with improved performance and acceptability for operations in dense urban and subterranean environments.
  - A Sequential Phase 2 SBIR (Army) award was made to develop a non-clogging, comfortable, effective respiratory protection for high volume, instantaneous dust exposures in a balaclava or neck gaiter form. (funded 2019 to 2021)

Focus Area: Deployment-related pulmonary disease prevention

- **<u>Recommendation 15</u>: Provide evidence-based tobacco cessation programs.**

- <u>DoD response to Recommendations 15:</u>
  - Established the DoD Addictive Substances Misuse Advisory Committee (ASMAC) Tobacco Subcommittee.
  - Smoking on installations is now limited only to designated tobacco use areas, which must be 50 feet from building entrances and air intakes.
  - DoD has eliminated the price discount on tobacco products at exchanges and commissaries.
  - On 7 July 2019, the Surgeons General of the United States, Army, Navy, and Air Force published a joint statement addressing tobacco product use in the military.
    - Cigarette smoking has decreased considerably among Service members; and now their rate (14%) is similar to the rate in the adult civilian US population (14%).
  - Major Policy Documents and Outreach in Support of Tobacco Cessation:
    - Policy Memorandum 16-001, Department of Defense Tobacco Policy dated April 8, 2016 supports ongoing efforts in creating tobacco-free military treatment facilities and outlines resources to assist installations.
    - DoDI 1010.10, Health Promotion and Disease Prevention; AR 600-63, Army Health Promotion; and MEDCOM OPORD 15-48, Tobacco Free Living: establish that electronic nicotine delivery systems (vaping) will be treated as tobacco products and covered by tobacco-related policy.
    - “Military One Source” coaching for active duty, Guard, Reserve, and their family members.
    - “YOUCanQuit2” supplies information materials, live chat, and text messages via smokefree.mil
    - MTFs provide tobacco cessation support, including access to medications and in-person counseling.

Focus Area: Deployment-related pulmonary disease prevention (cont.)

- **Recommendation 16a: Continue efforts to better characterize and minimize harmful environmental and occupational exposures.**

- DoD response to Recommendation 16a:
  - Produced a comprehensive survey of technologies in the public, private, and academic sectors, which captured current, new, and developing technologies for detection and monitoring of occupational and environmental exposures.
  - Revising the Occupational and Environmental Health Site Assessment Tactics, Techniques and Procedures (OEHSA TTP), to characterize potential hazards better.
  - Developing the Joint Health Risk Management system to detect and analyze exposure information during deployments.
  - Developing and fielding the Individual Longitudinal Exposure Record (ILER) (see slide 10).
  - During the next 2 years, developing a "DoD Exposure Monitoring and Assessment Strategy" to guide the Department's efforts to improve monitoring, assessment, prevention and recording capabilities in the future.

- Recommendation 16b: Continue efforts to develop better personal protective equipment to reduce hazardous exposures such as high particulate levels: see slide 20
- Recommendation 16c: Improve enforcement of existing regulations on the operation of open burn pits and improve overall waste management: see slide 23

Focus Area: Deployment-related pulmonary disease prevention (cont.)

- **<u>Recommendation 16c</u>: Improve enforcement of existing regulations on the operation of open burn pits and improve overall waste management.**

- <u>DoD response to Recommendations 16c:</u>
  - Updated DoD Instruction 4715.19, Use of Open Air Burn Pits in Contingency Operations to:
    - Require approved solid waste management plans, and routine monitoring of any burn pits for compliance
    - Require completion of health risk assessments by medical authorities; standardized protocol provided
    - Implement more extensive environmental exposure sampling protocols for burn pit health assessments
  - Updated DoD Instruction 6490.03, Deployment Health to:
    - Reinforce requirements for environmental exposure monitoring, assessment, mitigation and documentation at contingency locations
  - Updating Occupational and Environmental Health Site Assessment (OEHSA) Tactics, Techniques and Procedures document:
    - OEHSAs are required for each contingency location
    - Includes compliance assessment of burn pit operations

Focus Area: Deployment-related pulmonary disease prevention (cont.)

- **Recommendation 17: Review resources available to support patients, families, and providers dealing with chronic pulmonary symptoms and disease, including those available through the VA, to identify gaps and make improvements.**

- DoD and VA responses to Recommendation 17:
  - See slides 28 to 30 on the VA Burn Pit Registry and VA and DoD outreach and education.

Overview of DoD and VA funded research on deployment pulmonary health

Defense Health Agency

Major Reports (Books) on Potential Health Effects of Airborne Hazards in Theater

- Institute of Medicine (IOM), 2011: "Long-Term Consequences of Exposure to Burn Pits in Iraq and Afghanistan"
  - Recommendations to VA and DoD
- National Academy of Medicine (NAM): "Gulf War and Health, Volume 12, Respiratory Health Effects of Airborne Hazards Exposures in the Southwest Asia Theater of Operations"
  - VA requested update of 2011 IOM report (NAM is new name of IOM)
  - First public meeting was in March 2019; report due in late 2020
- Borden Institute, 2015: "Airborne Hazards Related to Deployment"
  - Proceedings of 2012 VA/DoD Symposia on Airborne Hazards were published in the Borden Institute series of "Textbooks of Military Medicine" (33 chapters)
- Defense Health Board (DHB), 2015: "Deployment Pulmonary Health"
  - Recommendations to DoD
- National Academy of Sciences, Engineering, and Medicine (NASEM), 2017: "Assessment of the Department of Veterans Affairs Airborne Hazards and Open Burn Pit Registry"
  - Recommendations to VA

Overview of DoD and VA funded research on deployment pulmonary health (cont.)

Completed or Ongoing Human Health Studies Funded by DoD and VA (largest human studies)

- Studies by Millennium Cohort Study (published 2009, 2012, 2018)*
- Studies by Armed Forces Health Surveillance Branch (pub. 2014, 2016)
- STAMPEDE II: Pre- and Post-Deployment Evaluation of Military Personnel for Pulmonary Disease Related to Environmental Dust Exposure (pub. 2017, 2019)
- STAMPEDE III: Study of Active Military Personnel for Pulmonary Disease Related to Environmental Dust Exposure-Comprehensive Dyspnea Evaluation (pub. 2016)
- VA National Health Study for a New Generation of US Veterans. (pub. 2014, 2016)*
- Identifying and validating complex comorbidity clusters in OEF-OIF veterans. (pub. 2016) (San Antonio VAMC)
- Respiratory health and deployment to Iraq and Afghanistan (CSP #595). Boston VAMC (ongoing)

- * Research projects that were reviewed in the 2015 DHB report

Overview of DoD and VA funded research on deployment pulmonary health (cont.)

Defense Health Agency

Newly Funded Human Studies, Since 2016

- New projects funded by DoD
  - Millennium Cohort Study: 2018 updated analysis
  - Armed Forces Health Surveillance Branch: 2018 updated analysis
  - Mechanisms and treatment of deployment-related lung injury: Repair of the injured epithelium, National Jewish Health, Denver
  - Constrictive Bronchiolitis in Previously Deployed Soldiers, Vanderbilt University
  - Bronchitis in the Military: Diagnosis, Risk Mitigation, and Treatment, University of North Carolina
  - Identifying Novel Immune and Radiographic CT Imaging Signatures of Chronic Bronchiolitis, University of Michigan
  - Impact of Open Burn Pit Exposure on Respiratory and Cardiovascular Health among Military Veterans, Brown University
- New projects funded by VA
  - Pulmonary Vasculature Dysfunction after Deployment-Related Exposures, New Jersey War Related Illness and Injury Study Center

VA initiatives related to deployment pulmonary health

- VA Airborne Hazards and Open Burn Pit Registry ("Registry")
  - Launched in June 2014; Congressionally mandated
  - Eligibility: Operation Enduring Freedom/Operation Iraqi Freedom/Operation New Dawn, Djibouti, Africa on or after September 11, 2001; Operations Desert Shield or Desert Storm; or Southwest Asia theater of operations on or after August 2, 1990.
  - Two part registry process.
    - Online questionnaire allows veterans and Service members to document exposures and report concerns.
    - In-person medical evaluation links self-reported information to health data.
  - More than 180,000 veterans and active-duty have enrolled, as of July 2019.
  - Only 5% have received medical evaluations, after enrolling in Registry.
  - VA is currently making a concerted effort to call Veterans who are enrolled in the Registry, to encourage them to make a medical appointment (via Environmental Health Coordinators at the VA Medical Centers).

Additional VA and DoD initiatives related to deployment pulmonary health (cont.)

- VA and DoD outreach and education for veterans and clinicians, related to airborne hazards

- Communication and outreach focus: concerns of Service members, Veterans and Congress
  - Some Veterans have reported respiratory symptoms, pulmonary diseases, and a wide variety of cancers, which they attribute to burn pit exposure.
  - Veterans and Veteran Service Organizations (VSOs) want VA to provide presumption of exposure for OEF/OIF Veterans (for lung disease and perhaps other types of disease).

- New Jersey War Related Illness and Injury Study Center (WRIISC) designated as the VA Airborne Hazards and Burn Pits Center of Excellence
  - Develops training, education and outreach for VA staff and Veterans.
  - Provides training for residents, fellows, medical students, nurses, epidemiologists, physical and occupational therapists, social workers and others as appropriate.
  - Performs rigorous studies to improve care of Veterans affected by airborne hazards.

- Current VA efforts to improve outreach and education
  - VA recently asked VSOs to provide an assessment and input on the process to inform veterans, through VA health care providers, about the Registry and eligibility rules for enrollment.
  - VA has provided educational programs for VA health care providers and VA Environmental Health Coordinators at 2018 and 2019 conferences, as well as live webinars; one major goal has been to educate VA staff to increase the number of veterans who get a medical evaluation.

Additional VA and DoD initiatives related to deployment pulmonary health (cont.)

Defense Health Agency

❑VA and DoD outreach and education for veterans and clinicians, related to airborne hazards (cont.)

❑Informational web sites that include outreach and education:

- ❑ VA Office of Post-Deployment Health Services: information about VA Registry for Veterans and health care providers, including how to enroll and a fact sheet on steps to completion; periodic newsletters; 2 videos; fact sheets on airborne hazards (including in Spanish)
- ❑ NJ WRIISC: information about VA Registry; fact sheets on airborne hazards
- ❑ US Army Public Health Center: information about VA Registry for active-duty and health care providers; fact sheets on airborne hazards

❑ NDAA 2019 Section 1050 requires DoD to provide annual education to active-duty about the availability of the VA Registry.

- ❑DoD is working to implement this in 2019, including an initial electronic notification and physical mailing.

Summary: DoD and VA are committed to continued progress on deployment pulmonary health

- Prevention of deployment-related pulmonary disease (improved exposure monitoring, assessment, mitigation, and documentation)
- Improved diagnosis and clinical care for pulmonary disease
- Surveillance for deployment-related pulmonary disease
- Deployment pulmonary health research
- VA Airborne Hazards and Open Burn Pit Registry
- VA and DoD outreach and education for veterans, Service members and clinicians