

# Putting Research to Work for Military Families



**Focus:**  
Multiple  
Branches

## Prevalence of Respiratory Diseases among Veterans of Operation Enduring Freedom and Operation Iraqi Freedom: Results from the National Health Study for a New Generation of U.S. Veterans

Barth, S. K., Dursa, E. K., Peterson, M. R., & Schneiderman, A. (2014). Prevalence of respiratory diseases among Veterans of Operation Enduring Freedom and Operation Iraqi Freedom: Results from the National Health Study for a new generation of U.S. veterans. *Military Medicine*, 179(3), 241-245. doi:10.7205/milmed-d-13-00338

**SUMMARY:** The population prevalence of asthma, bronchitis, and sinusitis were investigated among Veterans deployed to Afghanistan and Iraq compared to nondeployed Veterans (N = 20,563; 64% deployed, 36% nondeployed). Data for this study came from the National Health Survey for a New Generation of U.S. Veterans, a population-based longitudinal health survey. Deployed veterans exhibited an increased risk for sinusitis compared to nondeployed Veterans.

### KEY FINDINGS:

- Among deployed Veterans diagnosed during or after 2001, the prevalence of asthma, bronchitis, and sinusitis was 3%, 6%, and 7%, respectively; among nondeployed Veterans diagnosed during or after 2001, the prevalence of asthma, bronchitis, and sinusitis was 3%, 5%, and 6%, respectively.
- Among those diagnosed during or after 2001, deployed Veterans were 29% more likely to have been diagnosed with sinusitis compared to nondeployed Veterans.
- There was no significant difference in asthma or bronchitis risk between deployed and nondeployed Veterans.

### IMPLICATIONS FOR PROGRAMS:

Programs could:

- Disseminate information on the importance of respiratory screenings as part of routine care to Service members and their families
- Host support groups for Service members who have respiratory conditions to help them improve their coping and management of their conditions
- Partner with community organizations to offer referrals and resources to Service members and their families who are retiring from military service

### IMPLICATIONS FOR POLICIES:

Policies could:

- Continue to support for ongoing, multi-layered, comprehensive support opportunities for Service members and families
- Promote reintegration programs that include attention to assisting Service members' families in adjusting to the Service member's changes in functioning after deployment
- Recommend education for service providers around the possible effects of deployment on Service members' physical health

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## METHODS

- A 2009–2011 population-based health survey of 60,000 Veterans (34% response rate) asked about the history of doctor-diagnosed respiratory disease. The sample includes Veterans who use Veteran Affairs (VA) as well as other health care facilities.
- Smoking status, a significant predictor of respiratory disease, was measured and controlled for in the statistical analyses.
- The data were weighted to ensure that the findings reflect the prevalence and odds of respiratory disease in the population.

## PARTICIPANTS

- Participants included 20,563 Veterans (64% deployed, 36% nondeployed). Subsamples were similar except deployed Veterans were more likely to be male and to have served in the Army and National Guard than nondeployed Veterans.
- Participants were mostly male (79%), 44 years or younger (57%), and White (70%).
- Veterans represented the following branches: 54% Army, 21% Air Force, 15% Navy, and 10% Marine Corps. In addition, Veterans represented the following components: 38% Active Duty, 27% National Guard, and 35% Reserve.

## LIMITATIONS

- The study used self-report measures, which may introduce recall bias. Hence, over- or underreporting of disease may have affected the calculation of prevalence estimates.
- Given the 34% response rate, selected participants may differ from non-participants in a way that was not measured, but affected the outcome variables (e.g., participants may be functioning better than non-participants).
- Without longitudinal studies, causality cannot be established between deployment and respiratory disease.

## AVENUES FOR FUTURE RESEARCH

Future research could:

- Use longitudinal study designs to investigate the long-term respiratory effects of deployment (e.g., whether existing conditions improve or worsen over time)
- Explore factors such as total number of deployments, time in service, respiratory exposures, and potential exposures during previous conflicts on the impact of respiratory conditions
- Examine psychosocial risk factors (e.g., education level, socioeconomic status, etc.) that may impact the prevalence of respiratory conditions in Service members

## ASSESSING RESEARCH THAT WORKS



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