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


Researchers investigated the population prevalence of asthma, bronchitis, and sinusitis among Veterans deployed to Afghanistan and Iraq compared to nondeployed veterans (N = 20,563 veterans; 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.

Key Findings:
- Among deployed Veterans diagnosed during or after 2001, the prevalence of asthma, bronchitis, and sinusitis was 3.3%, 5.9%, and 6.9%, respectively; among nondeployed Veterans diagnosed during or after 2001, the prevalence of asthma, bronchitis, and sinusitis was 3.4%, 5.3%, and 5.6%, respectively.
- Among those diagnosed during or after 2001, deployed Veterans were 29% more likely to have been diagnosed with sinusitis compared to nondeployed Veterans. However, there was no significant difference in asthma or bronchitis risk between deployed and nondeployed Veterans.

Implications for Programs:
- Programs could include respiratory screenings as part of routine care to help monitor sinusitis in returning Veterans.
- Programs that serve post-deployment Veterans could provide education about sinusitis and treatment due to the documented increased risk among deployed Veterans.

Implications for Policies:
- Policymakers could continue to advocate for ongoing, multi-layered, comprehensive support opportunities for Service members and families.
- Funding to examine health conditions (including respiratory illness) and deployment, especially those studies that can establish causal relationships, may be helpful.

Avenues for Future Research:
- Longitudinal study designs are required to investigate the long-term respiratory effects of deployment (e.g., whether existing conditions improve or worsen over time).
- Future research could explore factors such as total number of deployments, time in service, respiratory exposures, and potential exposures during previous conflicts.
### Methodology:
- 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 the VA as well as other health care facilities.
- The data were weighted to ensure that the findings reflect the prevalence and odds of respiratory disease in the population. Smoking status, a significant predictor of respiratory disease, was measured and controlled.
- This study focused military Veterans: 54% Army, 21% Air Force, 15% Navy, 10% Marine Corps; 38% Active Duty, 27% National Guard, 35% Reserve.

### Participants:
- 20,563 Veterans (64% deployed, 36% nondeployed) participated. 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.
- Demographics: Gender- 79% Male; 21% Female; Age- 34 years or younger, 29% were 35–44 years, 28% were 45–54 years, and 15% were 54 years or older; Race/Ethnicity-70% White; 13% Black, 11% Hispanic, 6% Other.

### 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.

### Assessing Research that Works

<table>
<thead>
<tr>
<th>Research Design and Sample</th>
<th>Quality Rating:</th>
<th>☒</th>
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<tbody>
<tr>
<td>The design of the study (e.g., research plan, sample, recruitment) used to address the research question was...</td>
<td>Excellent (★★★)</td>
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<td>Appropriate (★★)</td>
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<td>Research Methods</td>
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<td>Limitations</td>
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<td>The limitations of this study are...</td>
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<td>Appropriate Few Limitations (★★)</td>
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<td>Limited Several Limitations (★)</td>
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<td>Implications</td>
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<td>The implications of this research to programs, policies and the field, stated by the authors, are...</td>
<td>Excellent (★★★)</td>
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<td>Appropriate (★★)</td>
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**Overall Quality Rating**: ★★★