

THE MILLENNIUM COHORT STUDY  
**PROTECTING SERVICE MEMBER HEALTH**  
 APPROVED BY THE U.S. DEPARTMENT OF DEFENSE



MILLENNIUM COHORT STUDY

NEWSLETTER 2012



Through our **Experience and Dedication**  
 we are committed to helping  
**protect service member health**

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**PLEASE KEEP US UPDATED**

Have you recently moved or changed your email address?

-  Please visit our website and log in to update your information.
-  Use your **Subject ID** located below the barcode on the address side of this newsletter to log in and update your personal information.

**WELCOME!**

*Never in history has such a large group of active duty, Reservists, Guardsmen and Veterans, from all service branches, been included in a health study of this magnitude.*

*Whether you have been a member of this study for over 10 years, or if you've just been invited to participate, the time you spend completing your survey and the information you provide is extremely valuable for improving the quality of life for future service members. By participating in a study designed to last over 20 years, you are contributing to a very powerful forum. Since the Millennium Cohort Study began, the study team has been incredibly productive with providing the DoD, VA and scientific community with information from over 50 publications and 200 presentations.*

*This newsletter is intended to bring some of the exciting aspects of this study into clear view. We hope you take pride in being a part of this important research study which will provide military leadership with a comprehensive picture of our most valuable asset—you.*

Very sincerely,

Nancy Crum-Cianflone, MD, MPH  
 Principal Investigator and Military Veteran  
 DoD Center for Deployment Health Research, San Diego, CA

**WWW.MILLENNIUMCOHORT.ORG**

Questions? Please feel free to contact us at our toll-free number, 1-888-942-5222 or DSN 553-7465 or email [info@millenniumcohort.org](mailto:info@millenniumcohort.org).

## PUBLICATIONS



It's through your personal experience that we are able to understand the impact of meeting mission requirements

**Our team of clinicians, biostatisticians, and programmers are working with the latest data to publish results in peer-reviewed journals and provide briefings to military leaders. Below are a few examples of our findings. For more information, please visit the study website [www.millenniumcohort.org](http://www.millenniumcohort.org)**

### **Elevated risk for respiratory symptoms was found among Army and Marine Corps personnel deployed in support of operations in Iraq and Afghanistan**

- Findings showed that deployers had a higher rate of persistent or recurring cough or shortness of breath (14%) than nondeployers (10%)
- The study also revealed that deployment did not lead to increasing risk for asthma, chronic bronchitis, or emphysema. Follow-up studies are underway

Smith B, Wong CA, Smith TC, Boyko EJ, Gackstetter GD, Ryan MAK, for the Millennium Cohort Study Team. **Newly reported respiratory symptoms and conditions among military personnel deployed to Iraq and Afghanistan: a prospective population-based study.** *American Journal of Epidemiology*, 2009 Dec;170(11):1433-42

### **Participants reported having trouble sleeping and getting less sleep either during deployment or after returning home from deployment**

- Service members deployed to Iraq and Afghanistan experienced significant problems with their sleep. Data showed they reported shorter sleep durations and were 28% more likely to have trouble sleeping than nondeployed service members
- Our findings also showed that even after returning home from deployment soldiers have trouble sleeping, and are 21% more likely to report trouble sleeping than those who had not deployed. These results suggest that sleep problems may not quickly resolve upon returning home

Seelig AD, Jacobson IJ, Smith B, Hooper TI, Boyko EJ, Gackstetter GD, Gehrman PR, Macera CA, Smith TC, for the Millennium Cohort Study Team. **Sleep patterns before, during, and after deployment to Iraq and Afghanistan.** *Sleep*, 2010 Dec;33(12):1615-22

### **Physical activity is associated with decreased PTSD symptoms**

- Results of this study showed that physical activity, especially vigorous activity, for at least 20 minutes, 2 times a week, was associated with decreased odds of reporting PTSD symptoms
- While further research is needed, our research indicates that physical activity may be valuable to prevent PTSD among service members

LeardMann CA, Kelton ML, Smith B, Littman AJ, Boyko EJ, Wells TS, Smith TC, for the Millennium Cohort Study Team. **Prospectively assessed posttraumatic stress disorder and associated physical activity.** *Public Health Reports*, 2011 May/Jun;126(3):371-83

### **Military service members who are in the lowest 15% of health prior to combat exposure are more vulnerable to developing post deployment PTSD**

- Our research indicated that diminished mental health status before a stressful experience, such as combat exposure during deployment, might be an underlining factor that affects the reaction during the traumatic event and coping strategies after the event
- These findings are important in developing intervention services before, during, and after military deployment to those at risk

★ Awarded the prestigious 5th Annual Wilkins Award for the Naval Health Research Center's Most Outstanding Manuscript

LeardMann CA, Smith TC, Smith B, Wells TS, Ryan MAK, for the Millennium Cohort Study Team. **Baseline self-reported functional health predicts vulnerability to posttraumatic stress disorder following combat deployment: prospective US military cohort study.** *British Medical Journal*, 2009 Apr;338:b1273

## CONFERENCES & BRIEFINGS

**Team members are often invited to share research findings at military and public health conferences, as well as high-level briefings. Our research has been acknowledged by receiving numerous awards**

Force Health Protection Conference, **Phoenix, AZ**

American Public Health Association Annual Meeting & Exposition, **Denver, CO**

National Cancer Institute Cohort Consortium, **Boston, MA**

DoD/VA Deployment Health Working Group, **Washington, DC**

Navy and Marine Corps Combat and Operational Stress Conference, **San Diego, CA**

Navy Medicine Research Conference, **Bethesda, MD**

American College of Epidemiology Annual Scientific Sessions, **San Francisco, CA**

Society for Epidemiologic Research Meeting, **Seattle, WA**

Institute of Medicine Special Session, **Irvine, CA**

Military Operational Medicine Psychological Health and Resilience Conference, **Frederick, MD**

Respiratory (Pulmonary) Conference, In-Progress Review Meeting, **Frederick, MD**

**For specific conference presentations and our full list of awards, visit our website [www.millenniumcohort.org](http://www.millenniumcohort.org)**

## GETTING TO KNOW THE STUDY AND ITS TEAM

### The Study

The Millennium Cohort Study is a DoD sponsored and endorsed study with the backing of military leaders.

### The Staff

The staff is based at the DoD Center for Deployment Health Research, Naval Health Research Center, in San Diego, California. Our research staff is comprised of medical professionals, many who are active or former military members.

### The External Advisory Board

Study methods, progress, and priorities are reviewed regularly by the External Advisory Board of the Millennium Cohort Study. This group includes world-renowned academicians, research experts, and representatives from the DoD, Veterans Affairs and Veterans Service Organizations.

### The Collaborators

We work with collaborators from the Army, Navy, Air Force, Department of Veterans Affairs, and leading academic institutions, who provide their expertise to make this study successful.



## BECAUSE FAMILIES SERVE TOO

*In conjunction with this service member study, this research team is conducting a study of the impact of military service on families. If you have received notification that your spouse is eligible to participate in the Family Study, we encourage you to provide permission to the study team to contact your spouse.*

*The Family Study is designed to work in partnership with the service member study to help understand the impact of military service on family members and is a critical step in developing interventions that can build resilience and reduce stress in service members and their family members.*

*As our way of saying thanks for completing the survey, your spouse will receive a gift card of their choice to Starbucks, Subway, or Shutterfly.*

*Visit us online to see sample pages of the survey and learn more about how your participation makes a difference.*

**REFERRING  
IS EASY**

**GET A  
FREE GIFT**



Millennium Cohort  
Family Study

[WWW.FAMILYCOHORT.ORG](http://WWW.FAMILYCOHORT.ORG)

## IN THE NEWS

### MSNBC

*SLEEP SUFFERS IN THE COMBAT ZONE*

### US DoD MILITARY HEALTH SYSTEM

*RESPIRATORY CONDITIONS INVESTIGATED FOR THE DEPLOYED*

### NEW YORK TIMES

*A POSTWAR PICTURE OF RESILIENCE*

### MEDPAGE TODAY

*PRIOR MENTAL HEALTH DISORDERS MAY PREDISPOSE SOLDIERS TO PTSD*

### US MEDICINE

*WHAT WE CAN LEARN IN 21 YEARS*

### NAVAL MEDICAL RESEARCH AND DEVELOPMENT NEWSLETTER

*YOU'VE GOT MAIL! MILLENNIUM COHORT ENROLLING INVITED SERVICE MEMBERS*

### ADVANCE FOR RESPIRATORY CARE & SLEEP MEDICINE

*BRINGING MILITARY MEDICINE INTO CLEARER FOCUS*

### FORCE HEALTH PROTECTION AND READINESS

*MILLENNIUM COHORT STUDY EXPANDING TO INCLUDE SPOUSES OF SERVICE MEMBERS*

**PLEASE VISIT OUR WEBSITE FOR LINKS TO THE FULL ARTICLES  
[WWW.MILLENNIUMCOHORT.ORG](http://WWW.MILLENNIUMCOHORT.ORG)**



**The New York Times**

**Respiratory Care  
& Sleep Medicine**



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The banner features a blue background with a white American flag on the left. In the center, there is a row of eight circular seals representing different military branches: Department of Defense, Department of the Army, Department of the Navy, Department of the Air Force, Department of the Marine Corps, Department of the Coast Guard, National Guard, and Bureau of the National Guard.



endorsed by  
**GENERAL MARTIN E. DEMPSEY,**  
Chairman of the Joint Chiefs of Staff

To view General Dempsey's letter to participants, visit [www.millenniumcohort.org](http://www.millenniumcohort.org)

**TAKE ACTION**

If you haven't already, complete your survey today! By sharing your personal experiences, you can make a real difference. Log in at [www.millenniumcohort.org](http://www.millenniumcohort.org)