Millennium Cohort Family Study

John Fairbank, PhD, Duke University
Charles Marmar, MD, University of Calif. San Francisco
William Schlenger, PhD, Abt. Associates Inc.
Tyler Smith, MS, PhD, Naval Health Research Center
**Title:** Millennium Cohort Family Study  

**Abstract:** The Second Annual Trauma Spectrum Disorders Conference: A Scientific Conference on the Impact of Military Service on Families and Caregivers, 10 Dec 2009, Bethesda, MD
Few epidemiologic studies have examined the impact of deployment on family members and family functioning

Family relationships can be a source of support or stress for service members

The Millennium Cohort Study has enrolled over 151,000 members since 2001 that are surveyed every 3 years to understand the health effects of military service

A family cohort will be added to the 2010 Millennium Cohort enrollment cycle to assess the interrelated health effects of military service and deployment on service members, spouses, and co-resident children

Family survey will include topics such as impact of deployment and military service on spouse and family, services received, family cohesion, and behavior and development of children
Objectives

- Answer important health related questions about military service members and their families in the context of military deployment and other occupational exposures

- Assess the importance of family support and other factors on health outcomes
Family Study Enrollment Design

62,500 estimated to enroll in the Millennium Cohort Study 2010 enrollment

~50% married (by design)  
(n ~ 31,250)

65% estimated to give permission to contact spouse  
(n ~ 20,312)

50% estimated to respond resulting in ~10,156 spouses enrolling in the Family Cohort Study
Methodology

- 1% sample pilot testing

- Married service members will be asked to grant permission to contact spouse

- Target: Enroll ~10,000 spouses
  - Estimated half of spouses’ service member will have been deployed to OIF/OEF at least once

- Link to other military data to complement subjective measures with objective measures of exposures and health outcomes
Methodology

- Questionnaire leverages standard instruments (PHQ, PCL, SF-36V, CAGE, FACES IV, ISI, others)
- Includes measures of physical health, behavioral health, mental health, and family functioning
- Includes important exposure questions and other metrics (CAM use, sleep, etc.)
- Participants respond via secure website: www.familycohort.org
Partnering Organizations and Co-Principal Investigators

- DoD funding via Military Operational Medicine Research Program (MOMRP), administered by USAMRMC

- Cooperative Research and Development Agreement (CRADA) between NHRC and Abt Associates, Inc.

- Co-Principal Investigators:
  - John Fairbank, PhD, Duke University
  - Charles Marmar, MD, New York University
  - William Schlenger, Abt Associates Inc. and Duke University
  - Tyler Smith, MS, PhD, Naval Health Research Center
Important Partners

- Defense Manpower Data Center
- Henry M. Jackson Foundation
- Anderson Direct Mailing Company
- Others

FAMILY
Millennium Cohort Study
## Measured Health Outcomes and Impact

### Main Survey Topics

- Demographic information
- General health (including sleep)
- Spouse, family, child, and service member stress
- Impact of deployment and military service
- Family cohesion, expressiveness, and conflict
- Child behavioral, developmental, and general health
- Health services
- Alcohol and tobacco use
- Military specific questions for active-duty spouses

### Research will facilitate identification of specific interventions:

- Deployment-related stress
- Family member resilience
- Family support dynamics
- Service member and family well-being
- Force readiness
Future Direction

- In 2010, the Millennium Cohort Family Study is projected to launch and enroll spouses of military service members.

- By 2012, data collected from the Millennium Cohort Family Study would provide strategic information for DoD leadership.

- Securing funding for this longitudinal study is essential to better understand the long-term effects of military service on military member and family health.
Acknowledgments

Millennium Cohort Study Co-Investigators
COL Paul J. Amoroso, MC, USA, Dept of Clinical Investigation, Madigan Army Medical Center, Tacoma, WA
Edward J. Boyko, MD, MPH, VA Epidemiology Research Information Center, Univ Washington, Seattle, WA
Gary D. Gackstetter, DVM, MPH, PhD, Analytic Services, Inc., Washington DC
Tomoko I. Hooper, MD, MPH, Uniformed Services University of the Health Sciences, Bethesda MD
CAPT Margaret A. K. Ryan, MC, USN, Naval Hospital, Camp Pendleton, CA
Tyler C. Smith, MS, PhD, DoD Center for Deployment Health Research, NHRC, San Diego CA
Col Timothy S. Wells, USAF, BSC, Air Force Research Laboratory, Wright-Patterson Air Force Base, OH

Scientific Steering and Advisory Committee
Dr. Elizabeth Barrett-Connor, University of California, San Diego CA
Dr. Dan Blazer, Duke University Medical Center, Durham NC
Dr. Harold Koenig, Vice Admiral, US Navy (retired), Edward Martin & Associates, San Diego, CA
Mr. Michael O’Rourke, Veterans of Foreign Wars, Washington DC
Dr. Larry Palinkas, University of Southern California, Los Angeles CA
Dr. Michael Peddecord, School of Public Health, San Diego State University, San Diego CA
Mr. Joe Sharpe, The American Legion, Washington DC
Dr. G. Marie Swanson, Indiana University, Terra Haute IN

Additional Collaborators and Supporters
Scott Seggerman, Management Information Division, DMDC; Dr. Carl Castro, Dr. Dennis Goodes, Mr. Mark Bither, MAJ Pedro Bonilla-Vazquez, Dr. Joan Hall, and Dr. Kate Nassauer, MOMRP; Dr. Karl Friedl and Dr. Richard Satava, MRMC;
Dr. Charles Hoge, WRAIR; Dr. Susan Proctor and Dr. Kristin Heaton, USARIEM; COL Charles Engel, WRAMC;
Dr. William Schlenger, Abt Associates; Dr. John Fairbank, Duke University; Dr. Charles Marmar, UCSF; Dr. Seth Eisen, VA;
Dr. Roger Gibson, USUHS; Dr. Deborah Wingard, Dr. Donna Kritz-Silverstein, and Dr. Thomas Patterson, UCSD;
Dr. Caroline Macera, Dr. James Sallis, and Dr. Donald Sylmen, SDSU; Dr. Pam Keel, Univ of Iowa; Dr. Gaston Bathalon, USARIEM; Dr. Alyson Littman, Seattle ERIC; Anna Bukowinski, Sydney Lee and Carter Sevick, DoD BIHR; Dr. Chris Philips, RAP; Dr. Robin Harris, Dr. Eyal Shahar, Dr. Grant Skrepnek, and Dr. Stephen Coons, Univ of Arizona; Dr. Sarah Fortuna, AFRL; CAPT Robert Koffman, BUMED; and professionals from the Institute for Systems Biology

We are indebted to the Millennium Cohort Study members for their continued participation!