

# We are committed to helping protect service member, veteran, and family health

Dear Colleague,

We are pleased to share with you our most recent Millennium Cohort Program updates. This newsletter includes brief summaries of new scientific publications released in recent months. Topics covered in these papers include information on adverse childhood experiences among male Marines, insomnia and trauma among female service members, and cancer mortality among service members and veterans.

We are also happy to share that the Study of Adolescent Resilience (SOAR) (PI: Dr. Hope McMaster) has successfully launched. SOAR is a research study of military-connected adolescents and their parents utilizing online survey data merged with medical data and other military and civilian records for those participants who volunteer to join the study. The study is currently enrolling military-connected adolescents (11–17 years old) of parents who have participated in the Millennium Cohort Study of service members and veterans, representing all armed service branches and active duty, Reserve, and National Guard components.

Sincerely,

Rudy Rull, PhD, MPH

**Principal Investigator** 

Millennium Cohort Study

Ruh Rul

rudolph.p.rull2.civ@health.mil

Valerie Stander, PhD

Valeri Stander

**Principal Investigator** 

Millennium Cohort Family Study

valerie.a.stander.civ@health.mil

#### Self-reported Adverse Childhood Experiences among Male Marines<sup>1</sup>

In a sample of male Marines (n=3,881), five subgroups based on adverse childhood experiences were identified. One in five Marines reported moderate to elevated levels of childhood adversity. A history of varying types of childhood adversity characterized by parental absence was associated with greater PTSD and depression symptomology and lower levels of social support. When attempting to identify Marines most at-risk for mental health concerns, the identification of specific patterns of childhood adversity, particularly regarding parental absence, may be more valuable.

## Insomnia, Sexual Trauma, and Mental Health among Female Service Members<sup>2</sup>

This study used two waves of data from the Millennium Cohort Study (2011-2013, Time 1 [T1], 2014-2016, Time 2 [T2], n=26,443) to examine whether insomnia mediated the associations between recent combat experience and sexual trauma and subsequent PTSD and depression. Findings revealed that current and former service women who experienced trauma in the past 3 years had greater risk of insomnia at T1 and in turn, greater risk of PTSD and depression at T2. Screening for insomnia during military service may allow earlier identification of insomnia and referral to treatment prior to the onset of other mental health conditions.

## **Cancer Mortality in the Service Members and Veterans<sup>3</sup>**

This longitudinal study used data from the Millennium Cohort Study (2001-2018) to examine risk and protective factors for cancer mortality among service members and veterans. Compared with those who deployed without combat experiences, non-deployers were more likely to die from cancer, consistent with the healthy deployer effect.

#### References

- 1. Reed-Fitzke K, LeardMann CA, Wojciak AS, Ferraro AJ, Hamilton A, Duncan JM, Rull RP. Identifying at-risk marines: A person-centered approach to adverse childhood experiences, mental health, and social support. J Affect Disord. 2023 Jan 7;325:721-731. doi: 10.1016/j.jad.2023.01.020. Epub ahead of print. PMID: 36627058. 2. Carlson GC, Sharifian N, Jacobson I, LeardMann CA, Rull RP, Martin JL; Millennium Cohort Study Team. Contribution of Post-Trauma Insomnia to Depression and Posttraumatic Stress Disorder in Women Service
- Contribution of Post-Trauma Insomnia to Depression and Posttraumatic Stress Disorder in Women Service Members: Findings from the Millennium Cohort Study. Sleep. 2022 Dec 21:zsac313. doi: 10.1093/sleep/zsac313. Epub ahead of print. PMID: 36546353.
- 3. Sharifian N, Carey FR, Seay JS, Castañeda SF, Boyko EJ, Rull RP. Risk and Protective Factors for Cancer Mortality among United States Service Members and Veterans (2001-2018). Cancer Epidemiology and Biomarkers, & Prevention. doi:10.1158/1055-9965.EPI-22-0943.



