



## Health Promotion and Wellness: Sleep Disorders Cross-Sectional Analysis Fiscal Year 2011 (October 2010 - September 2011)

Prepared by Kathleen Pillsbury Hopf, MPH

Contributors:

Paul D. Rockswold, CAPT, MC, USN

Lateef Khursheed, MS, CHES

Shanya Perkins, MA,

Cindy Richards-Myles, MS HCA, CHES

Leisel Romeo-Davis, RN, MSA

The Navy and Marine Corps Public Health Center (NMCPHC) 2011 Fleet and Marine Corps Health Risk Assessment (HRA) indicated that lack of sleep was one of the leading health risks in the Navy, Marine Corps and Coast Guard Active Duty and Reserve population.

Sleep has too often been viewed as a luxury; an activity performed when an individual becomes fatigued. However, increasing studies show that sleep is a necessity. It plays a vital role in the prevention of various chronic diseases and is important for the nervous system to function optimally. Sleep deprivation can contribute to physical and cognitive problems such as difficulty concentrating, blurred vision, difficulty focusing, memory loss, forgetfulness, and

decreased energy. It can also have mental and emotional effects including depression and irritability, all of which can be detrimental to mission readiness.

The NMCPHC, **Health Promotion and Wellness (HPW) Wounded, Ill, and Injured (WII)** department requested a Sleep Disorders Cross-Sectional Analysis to obtain data on the prevalence and distribution of sleep disorders within the active duty and reserve population, many of whom have become wounded, ill, or injured. The purpose of this analysis was to assess the current burden of sleep disorders and related comorbidities in support of HPW outreach activities and resource planning, as well as to support the recovery of affected individuals.

NMCPHC HPW solicited the Health Analysis department to provide statistics on the number of Navy and Marine Corps active duty and guard/reserve service members who received care at Military Treatment Facilities (MTFs) in Fiscal Year (FY) 2011 and were diagnosed with one of the following sleep disorders: organic sleep disorders, non-organic sleep disorders, sleep disturbances and narcolepsy. The related comorbidities of post-traumatic stress disorder (PTSD), mild traumatic brain injury (mTBI), obesity, major depression, and chronic pain were also assessed.

The analyses identified 71,312 visits by service members with sleep disorders during FY2011. These visits represented 29,008 service members with at least one sleep disorder diagnosis. Among the 71,312 visits, sleep disturbances were the most prevalent disorder at 53%, followed by organic sleep disorders at 26%, non-organic disorders at 21% and narcolepsy at 1%.

The analyses were also stratified by age, sex and rank. The greatest number of visits for sleep disorders by service members occurred within the 25-34 and 35-44 year old age groups, each accounting for 31% of the visits. The 18-24 year old age group accounted for 23% of the visits.

Among those who received a sleep disorder diagnosis, the greatest percentage was among service members 35-44 years of age (32%), followed by 25-34 year olds (30%) and 18-24 year olds (24%). Males accounted for 84% of the sleep disorder diagnoses among service members. With regards to rank, just over 50% of the sleep-disordered individuals were Enlisted-Seniors E5-E9. Enlisted-Juniors E1-E4 represented 31% of the sleep-disordered individuals.

The number of service members who were diagnosed with one sleep disorder diagnosis was 82%; 18% had more than one sleep disorder diagnosis.

Co-morbidities among service members with at least one sleep disorder diagnosis were as follows: Major Depression 16%, PTSD 11%, obesity 7%, mTBI 7% and chronic pain 4%.

The study also provided data pertaining to facilities which recorded the majority of sleep disorder visits. This article will mention only the five facilities with the highest number of sleep disorder visits. These include: Walter Reed at 15%, NMC Portsmouth at 12%, NMC San Diego at 10%, NH Camp Pendleton at 10%, and NH Camp LeJeune at 9%. It's important to note that the large numbers of sleep disorder visits at these sites may be attributed to sleep clinics embedded within these facilities, or the mere size of the population served at these facilities.

For more information related to sleep please visit:

<http://www.med.navy.mil/sites/nmcphc/wounded-ill-and-injured/Pages/sleep.aspx>

In addition to collaborative efforts with patients' health care providers, this data supports the need for additional sleep disorder-related materials including comorbidity health behavior resources and targeted educational tools. HPW products will increase awareness and provide knowledge about positive health behavior changes that will help mitigate sleep disturbances. Proper sleep is essential to maintaining mission readiness, building resiliency and improving quality of life.

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