

# Putting Research to Work for Military Families



**Focus:**  
Multiple  
Branches

## A Comparison of Obesity Prevalence: Military Health System and United States Populations, 2009-2012

Eilerman, P. A., Herzog, C. M., Luce, B. K., Chao, S. Y., Walker, S. M., Zarzabal, L. A., & Carnahan, D. H. (2014). A comparison of obesity prevalence: Military health system and United States populations, 2009-2012. *Military Medicine*, 179(5), 462-470. doi:10.7205/MILMED-D-13-00430

**SUMMARY:** This descriptive report, for 2009-2012, compares the prevalence of overweight and obese children and adults in the Military Health System (MHS) population to rates of the general U.S. population. Among children (between ages 2 and 17), trends show reductions in both groups, but that the prevalence for MHS children was significantly lower than the general U.S. population. Among adults, non-Active Duty participants had stable and comparable results in the overweight and obesity categories to their peers in the general population, but interestingly, Active Duty members were more likely to be overweight and less likely to be obese than the general U.S. population. However, both the MHS population and the general U.S. populations still had too many children and adults in the overweight and obesity categories.

### KEY FINDINGS:

- Compared to the U.S. population by gender and age, MHS children generally had lower overweight and obesity prevalence.
- MHS Active Duty adults had higher overweight and lower obesity prevalence compared to the U.S. population.
- Non-Active Duty MHS adults had rates of overweight and obesity generally comparable to the U.S. population.

### IMPLICATIONS FOR PROGRAMS:

Programs could:

- Educate Service members and their families about preventing the health risks associated with being overweight or obese
- Engage older Service members in workshops that provide strategies for increasing long-term health
- Provide workshops in which Service members and their families learn skills (e.g., cooking, meal planning, physical activities) to support their physical well-being

### IMPLICATIONS FOR POLICIES:

Policies could:

- Continue to support programs that aim to prevent obesity while helping Service members maintain adequate military readiness
- Promote the development of programs that encourage habits and behaviors that lead to long-term health
- Encourage collaboration among DoD and community-based programs that offer recreational activities or events to military families to promote physical activity and reduce to risk of obesity

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## METHODS

- Participants' Body Mass Indexes (BMIs), as reported in medical records, were used to categorize individuals as overweight or obese.
- Children were considered overweight if their BMIs were between the 85th and 95th percentile and obese if their BMIs were above the 95th percentile.
- Adults were considered overweight if their BMIs were between 25.0 and 30.0 and obese if their BMIs were greater than 30.0.

## PARTICIPANTS

- The MHS population in the study included 2.2 million individuals per year; 60% were men, 22% were children, and 42% were Active Duty Service members.
- MHS child population was 52% boys with an average age of approximately nine years old.
- No ethnic/racial, socio-economic, income, education level, or deployment stage information was reported.

## LIMITATIONS

- This study reported prevalence of overweight and obesity; it did not investigate any predictors or possible interventions.
- Because obesity is a disqualifying condition for entry into U.S. military service, the Active Duty population may contain an artificially low percentage of obese individuals.
- BMI has been shown to misrepresent muscular adults as overweight due to the increased weight of muscle tissue compared to fat tissue.

## AVENUES FOR FUTURE RESEARCH

Future research could:

- Explore MHS demographic subgroups to identify relevant risk factors and potentially modifiable health behaviors for overweight and obese individuals
- Investigate the differences in overweight and obese prevalence in military subgroups in order to guide program development and implementation
- Replicate this study using more preferred methods of measuring being overweight and/or obese (body fat percentage or waist circumference)

## ASSESSING RESEARCH THAT WORKS



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