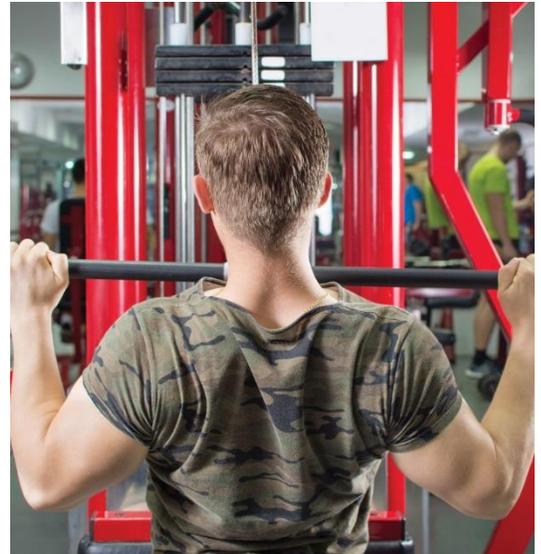


Providing Nutrition Services and Education for Active Duty Military and Veterans

Overview

The impact of the nation's obesity epidemic on the military is a matter of national security and has been largely underreported:

- a 61% rise in obesity since 2002¹
- among active duty soldiers, a 2012 Army Obesity Study found that 49.3% were overweight and 19.4% were obese²
- among 261,028 adult non-active duty beneficiaries and retirees, 63% and 86%, respectively, were overweight or obese³
- among 4,869,451 Veterans aged 18–100 who had an outpatient or inpatient physical during FY 2013, 77.8% were overweight and 40.7% were obese⁴
- Obesity alone is the reason that 1 in 4 young Americans is unable to serve in the military⁵



Overweight and obese civilian and military populations limit the ability of the Armed forces to recruit and retain a fit force as excess body weight impairs physical fitness, which is critical to the performance of daily military duties and to maintaining combat readiness.⁶ In addition, as both the largest employer and healthcare provider in the United States, the Department of Defense must address the challenges that obesity poses to the healthcare system, which not only provides care to Services members, but also to beneficiaries and retirees.⁷

While the nation's obesity epidemic is straining the health care system, for military personnel, the physical abilities of their colleagues can make a difference between life and death.⁸

The Cost of Obesity in the Military

Overweight and obese service members are less fit and more prone to injury and chronic illnesses.⁹ According to a 2007 study, the DoD spent almost **\$1.1 billion** on obesity-related diseases such as heart, liver and kidney diseases, diabetes, metabolic syndrome, osteoarthritis, obstructive sleep apnea and tooth decay.¹⁰ Considering that the number of enrollees in TRICARE Prime and the prevalence of obesity have both increased steadily over time since then, the costs to DoD are likely significantly higher today.¹¹

Recruiting and Retaining a Fit Force

Future planning for recruitment policies and active-duty standards with regard to weight requires systematic and regular reviews of trends in excess weight and body fat, scientific developments, and evidence of nutrition and wellness services utilization and effectiveness rates.

Accordingly, the Defense Health Board's November 2013 *Fit to Fight Fit For Life* report includes the following recommendations:

- DoD should require that all military healthcare personnel receive enhanced training, at appropriate levels, on effective counseling and support approaches to weight management in military patient populations.
- DoD should develop strategies to address the stigma often experienced by personnel assigned to weight remediation programs.

In 2012, the Army was forced to dismiss 3,000 soldiers and the Navy overweight and out of shape.¹² It is estimated that another **\$500 million** is spent annually to replace overweight or unfit personnel in the Army, Navy and Air Force.¹³

Consistent with national trends, high rates of overweight and obesity are significant contributors to the cost of providing healthcare services to the nation's military personnel, military retirees, and their dependents. The continued rise in healthcare costs could impact other DoD programs and potentially affect areas related to military capability and readiness.¹⁴

Role of Medical Nutrition Therapy to Treat Obesity

Medical Nutrition Therapy (MNT) is a nutritional diagnostic, therapy and counseling service for disease management. When provided by a RDN, MNT includes: 1) lifestyle, knowledge and skills assessment, 2) negotiation of individualized nutrition goals, 3) nutrition intervention, and 4) evaluation of clinical and behavioral outcomes. Research shows that MNT provided by a RDN is an effective evidence-based practice for weight loss and the long-term management of weight.

Furthermore, the Defense Health Board's *Fit to Fight Fit for Life* report found a strong level of evidence for Va/DoD clinical practice guidelines to include a combination of diet therapy, physical fitness and behavior modification counseling for weight loss success.¹⁵

Cost Effectiveness of Nutrition Services and Education

The medical costs of obesity encompass the resources devoted to managing obesity-related disorders, including the costs incurred by excess use of ambulatory care, hospitalization, medications, radiological and laboratory tests, and long-term care.¹⁶ In addition to medical costs, society incurs substantial indirect costs from obesity as a result of decreased years of disability-free life, increased morbidity before retirement, early retirement, disability pensions, and work absenteeism and reduced productivity.¹⁷

In order to address the obesity epidemic and achieve and maintain optimal readiness and performance during service, the military has the responsibility of guiding its service members in making choices that best enhance their health, including opportunities for nutrition counseling and education, healthy food options, and physical activity. Policy initiatives include:

- Evaluation of current usage rates of nutrition and wellness services by active duty service members and veterans: There are numerous nutrition and wellness services available for active duty service members and veterans, however, there

- DoD should assess the effectiveness of existing military fitness and nutrition efforts. Future campaigns should be evidence-based with clear metrics prospectively developed for assessing effectiveness.
- To ensure that Service members successfully achieve *and sustain* a healthy weight, DoD leadership at all levels should adopted the following strategies:
 - Emphasize a focus on a lifetime course of health for military personnel, addressing all of the variables that influence healthy weight.
 - Provide 24-hour access to healthy foods, physical fitness programs, and support for military personnel.
 - Set nutritional standards for food offered through DoD dining facilities and by on-base contract vendors.
 - Facilitate access to healthcare providers appropriately trained in health and wellness management.
- DoD's discharge/separation process should include a discussion about the potential for weight gain and programs and services available to prevent its occurrence. In particular, personnel diagnosed with PTSD or mental illness should receive appropriate counseling and follow-up services to prevent unhealthy weight gain.

Source:

Defense Health Board. November 22, 2013. Implications of Trends in Obesity and Overweight for the Department of Defense; *Fit to Fight, Fit for Life*. Retrieved October 3, 2016 from: http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=10&ved=0ahUKEwjX5-jCq7_PAhVE6iYKHdGVC_QQFghiMAk&url=http%3A%2F%2Fwww.health.mil%2FReference-Center%2FReports%2F2013%2F11%2F22%2FDHB-Implications-of-Trends-in-Obesity-and-Overweight-for-the-DoD-Fit-to-fight-fit-for-life&usq=AFQjCNFesXuTb_4ZGKFrPMo_L09qX8-NGA&sig2=fVaRcvSv7ZeUWe3sl12rig

is limited information available on how many active-duty service members and veterans are using those services.

- Evaluation of program effectiveness: There are numerous nutrition and wellness services available for active duty service members and veterans, however, there are few studies on their effectiveness. The limited studies available on the VA's MOVE! weight management program demonstrate small weight loss changes as a result of participation in this program.¹⁸ The studies also show that a greater number of nutrition and counseling encounters within a program is correlated with greater amounts of weight loss.¹⁹
- Continue and expand service-wide health and wellness initiatives: Health and wellness initiatives should aim to create environments that enable sustainment of healthy lifestyles, without the stigma often attached to weight loss efforts, using a multi-pronged approach that promotes healthy nutrition and physical activity.

Bottom line: The military could be a powerful partner in obesity-prevention programs in the wider population, and its approach to obesity prevention offers lessons that are equally applicable to prevention policies designed for the civilian population.

Footnotes

¹ Mission Readiness: Retreat Is Not An Option; Sept. 2014. Retrieved on September 30, 2016 from: <https://strongnation.s3.amazonaws.com/documents/5/bf7c452a-69b0-402c-8242-a8ffa1172407.pdf?1469545806>

² DoD and Dep't of Veterans Affairs, (2014). VA/DoD Clinical Practice Guidelines for Screening and Management of Overweight and Obesity. Retrieved on September 30, 2016 from: <http://www.healthquality.va.gov/guidelines/CD/obesity/CPGManagementOfOverweightAndObesityFINAL041315.pdf>

³ Id.

⁴ Id.

⁵ Mission Readiness: Retreat Is Not An Option; Sept. 2014. Retrieved on September 30, 2016 from: <https://strongnation.s3.amazonaws.com/documents/5/bf7c452a-69b0-402c-8242-a8ffa1172407.pdf?1469545806>

⁶ Defense Health Board. November 22, 2013. Implications of Trends in Obesity and Overweight for the Department of Defense; Fit to Fight, Fit for Life. Retrieved October 3, 2016 from: http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=10&ved=0ahUKEwjX5-jCq7_PAhVE6iYKHdGVC_QOFghIMAK&url=http%3A%2F%2Fwww.health.mil%2FReference-Center%2FReports%2F2013%2F11%2F22%2FDHB-Implications-of-Trends-in-Obesity-and-Overweight-for-the-DoD-Fit-to-fight-fit-for-life&usq=AFQjCNFesXuTb_4ZGKFrPMo_L09qX8-NGA&sig2=fVaRcvSv7ZeUW3s1l2rig

⁷ Id.

⁸ Mission Readiness: Retreat Is Not An Option; Sept. 2014. Retrieved on September 30, 2016 from: <https://strongnation.s3.amazonaws.com/documents/5/bf7c452a-69b0-402c-8242-a8ffa1172407.pdf?1469545806>

⁹ Dall, T.M., Zhang, Y., Chen, YJ, Wagner, R.C. Hogan, P.F. Fagen, N.K., Olaiya, s.T., Tornberg, D.N. (2007). Cost Associated with Being Overweight and with Obesity, High Alcohol Consumption, and Tobacco Use within the Military Health System's Tricare Prime-Enrolled Population. *Am J Health Promo*, 22(2), pp. 120-139 Retrieved September 30, 2016 from: <https://www.ncbi.nlm.nih.gov/pubmed/18019889>

¹⁰ Id.

¹¹ Defense Health Board. November 22, 2013. Implications of Trends in Obesity and Overweight for the Department of Defense; Fit to Fight, Fit for Life. Retrieved October 3, 2016 from: http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=10&ved=0ahUKEwjX5-jCq7_PAhVE6iYKHdGVC_QOFghIMAK&url=http%3A%2F%2Fwww.health.mil%2FReference-Center%2FReports%2F2013%2F11%2F22%2FDHB-Implications-of-Trends-in-Obesity-and-Overweight-for-the-DoD-Fit-to-fight-fit-for-life&usq=AFQjCNFesXuTb_4ZGKFrPMo_L09qX8-NGA&sig2=fVaRcvSv7ZeUW3s1l2rig

¹² Mission Readiness: Retreat Is Not An Option; Sept. 2014. Retrieved on September 30, 2016 from: <https://strongnation.s3.amazonaws.com/documents/5/bf7c452a-69b0-402c-8242-a8ffa1172407.pdf?1469545806>

¹³ Id.

¹⁴ Dall, T.M., Zhang, Y., Chen, YJ, Wagner, R.C. Hogan, P.F. Fagen, N.K., Olaiya, s.T., Tornberg, D.N. (2007). Cost Associated with Being Overweight and with Obesity, High Alcohol Consumption, and Tobacco Use within the Military Health System's Tricare Prime-Enrolled Population. *Am J Health Promo*, 22(2), pp. 120-139 Retrieved September 30, 2016 from: <https://www.ncbi.nlm.nih.gov/pubmed/18019889>

¹⁵ Defense Health Board. November 22, 2013. Implications of Trends in Obesity and Overweight for the Department of Defense; Fit to Fight, Fit for Life. Retrieved October 3, 2016 from: http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=10&ved=0ahUKEwjX5-jCq7_PAhVE6iYKHdGVC_QOFghIMAK&url=http%3A%2F%2Fwww.health.mil%2FReference-Center%2FReports%2F2013%2F11%2F22%2FDHB-Implications-of-Trends-in-Obesity-and-Overweight-for-the-DoD-Fit-to-fight-fit-for-life&usq=AFQjCNFesXuTb_4ZGKFrPMo_L09qX8-NGA&sig2=fVaRcvSv7ZeUW3s1l2rig

¹⁶ Wang, Y.C., McPherson, K., Marsh, T., et al. (2011). Health and the Economic Burden of Projected Obesity Trends in the USA and UK. *Lancet*. 378. Pp. 815-825.

¹⁷ Id.

¹⁸ Littman A.J., Boyko E.J., McDonell M.B., Fihn S.D. (2012). Evaluation of a Weight Management Program for Veterans. *Prev Chronic Dis* 9:110267. DOI: <http://dx.doi.org/10.5888/pcd9.110267> Retrieved on September 20, 2016 from https://www.cdc.gov/pcd/issues/2012/11_0267.htm; Braun, K., Erickson, M., Utech, A., List, R. Garcia, J. (2016) Evaluation of Veterans MOVE! Program for Weight Loss. *J Nutr Educ Behav.*, 48(5), pp. 299-303. doi:10.1016/j.jneb.2016.02.012. Retrieved on September 20, 2016 from <http://www.ncbi.nlm.nih.gov/pubmed/27169639>

¹⁹ Id.

The IOM has warned that obesity threaten[s] the long-term welfare and readiness of U.S. military forces.

Source:

Institute of Medicine. 2004. *Weight Management: State of the Science and Opportunities for Military Programs* Subcommittee on Military Weight Management, Committee on Military Nutrition Research. The National Academies Press: Washington D.C., p. 1

It is estimated that, among US active duty military, overweight and obesity are responsible for 658,000 missed work days (absenteeism) and the equivalent of 17,000 missed work days because of lower productivity while at work (presenteeism), for a total productivity cost of \$105.6m per year (Dall, et al., 2007). TRICARE, the US military health insurance program, spends \$1.1bn annually treating obesity-related illness (Dall, et al., 2007). For comparison, that is more than TRICARE spends annually treating illnesses related to tobacco use (\$564m) and alcohol consumption (\$425 m) combined (Dall, et al., 2007).

Source:

Dall, T.M., Zhang, Y., Chen, YJ, Wagner, R.C. Hogan, P.F. Fagen, N.K., Olaiya, s.T., Tornberg, D.N. (2007). Cost Associated with Being Overweight and with Obesity, High Alcohol Consumption, and Tobacco Use within the Military Health System's Tricare Prime-Enrolled Population. *Am J Health Promo*, 22(2), pp. 120-139 Retrieved September 30, 2016 from:

The U.S. military is facing significant recruiting challenges with nearly 1 in 4 young adults too heavy to serve, and overall ineligibility to serve above 70% in most states

Source:

Mission Readiness: Retreat Is Not An Option; Sept. 2014. Retrieved on September 30, 2016 from: <https://strongnation.s3.amazonaws.com/documents/5/bf7c452a-69b0-402c-8242-a8ffa1172407.pdf?1469545806>