

2017 ANNUAL REPORT TO CONGRESS

Providing the Science to Support Military Readiness and Resilience



The 2017 Annual Report to Congress was prepared by the Community Preventive Services Task Force (CPSTF) in response to a statutory requirement.

"...providing yearly reports to Congress and related agencies identifying gaps in research and recommending priority areas that deserve further examination, including areas related to populations and age groups not adequately addressed by current recommendations." (Public Health Service Act § 399U (b) (6))

Centers for Disease Control and Prevention provides "ongoing administrative, research, and technical support for the operations of the Task Force." (Public Health Service Act § 399U(c))

NOTE: Accessible information for figures on pages 3, 4, 6, and 7, is located in Appendix D, page 14.

"Air Force Global Strike Command's most valuable resource is and will always be our Airmen. The health of our Airmen is vitally important to our mission of strategic deterrence and global strike. [The Community Preventive Services Task Force] provides data-driven recommendations our commanders can utilize to improve the health and performance of their units."

> Paul W. Tibbets IV Brigadier General, U.S. Air Force Deputy Commander, Air Force Global Strike Command

"As a United States Public Health Service Commissioned Corps officer and member of the uniformed services, I know that wellness is at the heart of the safety and security of our nation. It is estimated that 7 in 10 young people aged 17 to 24 would fail to qualify for military service due to obesity, educational deficits, or behavioral health issues/criminal history. In order to ensure a strong national defense, we need to ensure that threats to service member recruitment, retention, readiness, and resilience are mitigated. Community Preventive Services Task Force findings provide decision makers across sectors with a menu of programs, services, and policies that have been shown to protect and improve health."[1]

Jerome M. Adams, MD, MPH U.S. Surgeon General

OBESITY IMPACTS MILITARY READINESS

Obesity among active duty service members has risen 61% between 2002 and 2011.

These individuals are less likely to be medically ready to deploy.

61%





Both obesity and low levels of physical fitness increase the risk for injury among active military personnel.

When Pentagon decision makers need to know how to prevent diseases and injuries that reduce military readiness and drive up health care costs, Department of Defense (DoD) policy[2] directs them to the Community Preventive Services Task Force (CPSTF). CPSTF findings are the gold standard for what works to improve health and prevent disease and injury in service members, their families, and all Americans.[2] Employers, health systems, and policy makers also use CPSTF findings to improve the health and well-being of employees, patients, communities, and citizens. This 2017 Annual Report to Congress highlights the CPSTF's work to support the readiness, resilience, and well-being of the United States (U.S.) Armed Forces.

Health Challenges Facing the Military

Military performance is compromised if personnel are not healthy and physically fit. Obesity, tobacco use, and alcohol abuse pose a significant threat to military readiness and resilience (Figure 1). In 2010, Mission: Readiness, a non-partisan national security organization of more than 700 retired generals and admirals, sounded the alarm on the dramatic increases in obesity in young adults, rendering them unfit to enter the military.[3] The Institute of Medicine warned, in a 2009 report, that smoking "adversely affects military readiness; harms the health and welfare of military families, retirees, and veterans; and costs the nation millions of dollars in health care and lost productivity each year. Tobacco use has been implicated in higher dropout rates during and after basic training, poorer visual acuity, and a higher rate of absenteeism in activeduty military personnel in addition to a multitude of health problems." [4] Numerous reports also document that heavy drinking and alcohol abuse are more prevalent in the military than the general population, with serious consequences such as missing a week or more of duty, productivity losses, and driving while impaired.[5,6]

As a result, DoD health care costs are increasing. A 2016 report on TRICARE's fiscal year 2014 expenditures estimated the direct and indirect costs (including lost workdays and administrative costs) associated with tobacco use and obesity among active duty personnel and military families were \$2.4 billion and \$3.3 billion, respectively.[6] Direct and indirect (estimated) costs associated with alcohol-related medical problems were \$1.2 billion and \$73 million, respectively.[7]

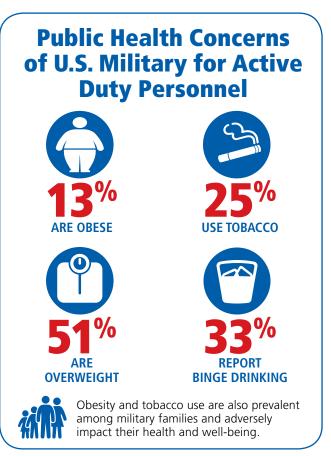


Figure 1: Source: 2011 Health-Related Behaviors Survey of Active Duty Personnel (the most recent year for which data are available).

CPSTF Evidence-Based Recommendations

Since its establishment in 1996, the CPSTF has issued over 230 recommendations and other findings about programs, services, and other interventions that are effective in addressing obesity, physical activity, nutrition, tobacco use, injury prevention, and other public health issues of importance (e.g., immunization)

to the U.S. Armed Forces, as well as the nation. CPSTF recommendations, listed in the <u>Guide to Community</u> <u>Preventive Services (The Community Guide)</u>, provide evidence-based options that military and other decision

makers can select from and implement among their populations. See Appendix A for more information on the CPSTF and to explore The Community Guide's 21 topic areas.

Intersection with Clinical Preventive Care

The CPSTF complements the work of the <u>CDC's Advisory Committee on Immunization Practices (ACIP)</u>. For example, the Air Force adheres to ACIP guidance on vaccinations and uses CPSTF recommendations to ensure active duty members and their families are immunized against infectious diseases. CPSTF-recommended intervention approaches include <u>Immunization Information Systems</u>, <u>Client Reminder and Recall Systems</u> and Provider Assessment and Feedback.

How The Military Uses CPSTF Recommendations

"In the Air Force, the health of our Airmen is a necessary precursor to executing the readiness mission of this nation. Preventive Medicine is at the forefront of enabling Airmen to achieve peak performance through staying fit, ready, and resilient. Health Promotion is utilizing The Community Guide to assist in revitalizing the squadron and the community, through incorporating practices based in evidence."

Major General Roosevelt Allen Director, Medical Operations and Research Chief, Dental Corps Office of the Surgeon General, U.S. Air Force

Air Force



The Air Force Medical Service has implemented numerous programs built on CPSTF recommendations.

The Healthy Airman Report drives interventions for improving eating

behaviors, sleep health, physical activity, and tobaccofree living. Healthcare to Health incorporates 5210 Healthy Military Children and group Lifestyle Balance which target childhood obesity and diabetes prevention, respectively. The Commanders Wellness Program is aimed at improving healthy behaviors to enhance Airmen's performance and mission readiness. The Military nutrition environment assessment tool (mNEAT) is conducted annually to assess and improve eating establishments and the nutrition environment of each base. The Smart Fueling Initiative is a multi-component approach to improving recruitment, readiness, resiliency, and retention by refining the food environment and delivering smart eating opportunities. To address overweight and obesity, the Air Force uses CPSTF recommendations for multicomponent counseling and coaching interventions and worksite programs. Other initiatives grounded in CPSTF recommendations include tobacco use interventions such as quitlines, mobile phone interventions, and smoke-free policies.[8]

Army



The Army Medicine's Health and Wellness program is transforming into a <u>System for Health</u>, that includes behavior and environmental change initiatives such as the <u>Performance</u>

Triad and Army Wellness Centers, both of which are supported by CPSTF recommendations. In 2017, the Army Public Health Center (APHC), in partnership with Installation Management Command, began working on Healthy Army Communities, a demonstration project to reduce chronic disease by transforming selected installations into healthy living communities, guided by CPSTF recommendations on tobacco, physical activity, and healthy eating. Because of the critical need for service members to be "ready to fight tonight," APHC worked with the Community Health Promotion Council at one installation to evaluate the Senior Mission Commander's policy—to reduce alcohol-related harms on the installation—that was based on a CPSTF recommendation. The policy reduced the hours of

alcohol sales on-post to align with the surrounding communities. Driving under the influence or while intoxicated and serious incident reports decreased among junior enlisted soldiers.[9]

Navy



The Navy and Marine Corps Public
Health Center (NMCPHC) uses CPSTF
findings and recommendations to drive
and support policy changes, design
interventions, and benchmark and

improve interventions to address a wide array of health issues affecting enlisted personnel.[10] As part of its workplace health promotion program, the NMCPHC provides health risk appraisals (HRA) to Sailors and Marines annually. Provider feedback was added to HRAs based on the CPSTF recommendation for assessment of health risks with feedback to improve health behaviors and conditions. Additionally, both the Navy and Marines Corps are seeing reductions in tobacco use after instituting CPSTF-recommended evidence-based interventions such as smoke-free policies and removing the discount for tobacco products (Figure 2). This is expected to improve force readiness and reduce cancer, heart disease, stroke, and respiratory disease among personnel, retirees, and dependents.

Smoking Rate Reduction in Navy and Marine Corps MARINES 6% Smoking rates among Navy and Marine Corps service members decreased between 2013 and 2016 after using

Figure 2: Source: Fleet and Marine Corps Health Risk Assessment Annual Reports, 2013-2016

CPSTF-recommended interventions for smoke-free

policies and tobacco product price increases.

"We have leaned on The Community Guide and its resources [as noted in our report to the Senate (Response to Senate Report 113-85)]. Much of the resource information the Task Force provides helped inform Operation Live Well."

CAPT Kimberly Elenberg, Director of Operation Live Well, Office of the Under Secretary for Personnel and Readiness, Department of Defense

Department of Defense



DoD uses CPSTF recommendations to enhance the individual health and readiness efforts of the Army, Air Force, Navy, and Marine Corps. DoD's <u>Total</u> <u>Force Fitness</u> (TFF) framework provides

strategic direction for the military's health promotion efforts. TFF provides a holistic vision of the health of Service members via eight domains: Behavioral, Social, Psychological, Environmental, Physical, Medical and Dental, Nutritional, and Spiritual. DoD's Operation Live Well (OLW) implements TFF by "aligning, integrating, and coordinating policies, initiatives, and business processes among the Services, the Joint Chiefs of Staff, and the Office of the Secretary of Defense to optimize the health, well-being, readiness, and resiliency of all Service members and their families."[11] Broadly, DoD Instruction 1010.10 charges the Office of the Under Secretary for Personnel and Readiness with enhancing the health of its men and women, and cites the CPSTF recommendations as a resource for these efforts.[2] This policy is being implemented through several DoD initiatives designed to promote a culture of health in the military.

One of OLW's major initiatives was the <u>Healthy Base Initiative</u>, which was launched in 2013 in 14 installations across all branches of the military. This two-year pilot included 27 evidence-based interventions, many from CPSTF findings, to encourage healthier food choices, increased physical activity, and tobacco-free living. The initiative has strengthened policies and business practices for improving nutrition and reducing tobacco use. OLW plans to share lessons learned to help inform initiatives across all of the U.S. Armed Forces.[12]

See <u>Appendix B</u> for a list of CPSTF recommendations used by the military.

CPSTF Recommendations Provide a Foundation for DoD Tobacco Reduction Initiatives

In 2016, DoD issued <u>Policy Memorandum 16-001</u>, a comprehensive tobacco policy focused on reducing tobacco use, increasing tobacco cessation, and reducing exposure to second hand smoke. According to the memo, "Department of Defense data show that the prevalence of tobacco use among new recruits, upon entering the Armed Services, aligns with the national average. However, the prevalence rate climbs well above the national average following entry level training and first units of assignment. On average, 38 percent of current military smokers initiated tobacco use after enlisting. In addition, the health and productivity impact of tobacco use in our military population costs the Department more than \$1.6 billion per year."

Examples of actions taken by DoD include:

- Restricting tobacco to outdoor areas
- Having the prices of tobacco products on base match the prevailing prices in the surrounding community
- Implementing education on harmful effects of tobacco use
- Increasing tobacco cessation programs
- Instituting smoke-free multi-unit housing and tobaccofree zones around areas frequented by children

These policies and programs are based on the CPSTF's tobacco-related recommendations. [11]

This is a Tobacco-Free Campus



Use of All Tobacco Products, Including E-Cigarettes, is Prohibited. Everywhere. Everyone. At All Times.

Note: This sign is available for public use at <u>cdc.gov</u>.

Veterans Health Administration



The Veterans Health Administration's <u>National Center for Health Promotion and Disease Prevention</u> provides nine evidence-based <u>Healthy Living messages</u> for veterans and their families. The Community Guide is used as a resource for four of these messages: <u>Be Physically Active</u>, <u>Eat Wisely</u>, <u>Strive for a Healthy Weight</u>, and <u>Be Tobacco Free</u>.[13]

Evidence Gaps Related to Military Health

Among the Community Guide review topic areas of particular interest to the military, the CPSTF identified a number of important evidence gaps. Even when enough evidence exists for the CPSTF to recommend an

intervention, information may be missing that could help military leaders and other decision makers decide if the intervention will work in their setting. (See <u>Appendix C</u> for details.)

Future CPSTF Work

With CPSTF oversight, CDC staff provide technical assistance to military department Liaisons on how to implement CPSTF recommendations. The CPSTF obtains input from military department Liaisons to determine what new review topics would be of the most value. (The CPSTF also obtains input from Liaisons to National Institutes of Health, Department of Health and Human Services Office of the Secretary, and numerous medical, public health, and health system organizations.) Topics under discussion include improving sleep and mental health. These topics are consistent with the areas ranked highly by the CPSTF in 2015—with extensive public input—as priorities for new Community Guide reviews (See box on right.).

The CPSTF continues to refine Community Guide systematic review methods and enhance technical assistance for selection and use of its findings and recommendations.

Visit <u>thecommunityguide.org</u> for details on CPSTF findings and recommendations.

Priority Areas for Future Community Guide Reviews

- Cardiovascular Disease Prevention and Control
- Environmental Health
- Injury Prevention
- Mental Health
- Obesity Prevention and Control (includes Nutrition)
- Older Adult Health
- Physical Activity
- Sleep Health
- Social Determinants of Health
- Substance Abuse (e.g., Prescription Drug Overdose)
- Violence Prevention

References

- 1. Mission: Readiness. Ready, Willing, and Unable to Serve: 75 Percent of Young Adults Cannot Join the Military. Washington, DC: Mission: Readiness; 2009.
- 2. <u>Department of Defense Instruction 1010.10</u>, April 28, 2014, incorporating Change 2, January 12, 2018. Accessed 1/19/18
- 3. Mission: Readiness. Too Fat to Fight. 2010.
- 4. Institute of Medicine (US) Committee on Smoking Cessation in Military and Veteran Populations; Bondurant S, Wedge R, editors. Combating Tobacco Use in Military and Veteran Populations. Washington (DC): National Academies Press (US); 2009. Available from: https://www.ncbi.nlm.nih.gov/books/NBK215341/
- 5. Ames, Genevieve and Cunradi, Carol. <u>Alcohol Use and Preventing Alcohol-Related Problems Among Young Adults in the Military</u>. Alcohol Research. Vol.28, No. 4, October 2004.
- 6. Bray RM, et al. Understanding Military Workforce Productivity: Effects of Substance Abuse, Health, and Mental Health. DOI 10.1007/978-0-387-78303-1_1, Springer Science and Business Media New York 2014.
- 7. Lewin Group. Cost of Tobacco Use & Exposure, Overweight and Obesity, and High Alcohol Consumption within the TRICARE Prime and Standard Population: Technical Report Update. March 2016.
- 8. Dr. Nita Hawk, Ed. D, CHES/ACSM, Air Force Medical Operations Agency (Air Force PowerPoint—internal document and personal communication), November 21, 2016.
- 9. Dr. Amy Millikan Bell, Medical Advisor, Army Institute of Public Health, US Army Public Health Command (internal document and personal communication), November 30, 2016.
- 10. William (Bill) Calvert, Deputy Director for Population Health, Navy and Marine Corps Public Health Center. (Navy and Marine Corps PowerPoint—internal document) February 15, 2017.
- 11. CAPT Kimberly Elenberg, Director, Operation Live Well (OLW), Office of the Under Secretary of Defense, Personnel and Readiness. (OLW PowerPoint presentation) February 15, 2017.
- 12. Office of the Under Secretary of Defense, Personnel and Readiness, Report to the Congressional Defense Committees on Total Force Fitness in Response to Senate Report 113-85, Department of Defense (internal document), December 6, 2016.
- 13. Kathleen Pittman, National Program Manager for Health Promotion and Disease Prevention Programs, Department of Veterans Affairs, Veterans Health Administration, Office of Patient Care Services. Personal communication, March 2017.

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Appendix A

About the Community Preventive Services Task Force

The U.S. Department of Health and Human Services established the Community Preventive Services Task Force (CPSTF), a 15-member independent, nonpartisan, nonfederal panel, in 1996 to support U.S. decision makers by making evidence-based recommendations about which community-based health promotion and disease prevention approaches work in improving health and saving lives. As defined in Section 399U of the Public Health Service Act [42 U.S.C. §280g-10], the CPSTF is charged with reviewing the scientific evidence on the effectiveness and economic benefit of community preventive services, and making recommendations for individuals and organizations delivering these services. CDC is mandated to provide scientific and operational support to the CPSTF.

CPSTF findings do not mandate compliance or spending; instead, they provide evidence-based options that decision makers can (and do) use. In addition to the U.S. military, decision makers that use CPSTF recommendations include local, state, tribal, territorial, and federal public health agencies; employers; community, professional, and non-profit organizations; schools; public health professionals; clinicians; healthcare systems; and tribal organizations.

CPSTF findings, and the systematic reviews of the evidence on which they are based, are compiled in The Guide to Community Preventive Services (The Community Guide).

Topics Addressed by CPSTF Reviews

(including number of associated recommendations*)

Cardiovascular Disease Prevention and Control** Diabetes Prevention and Control** Emergency Preparedness and Response Excessive Alcohol Consumption Health Communication and Health Information	1 1 1 27 6 6 7
Birth Defects Cancer Prevention and Control Cardiovascular Disease Prevention and Control** Diabetes Prevention and Control** Emergency Preparedness and Response Excessive Alcohol Consumption Health Communication and Health Information	1 27 6 6 1 7
Cancer Prevention and Control Cardiovascular Disease Prevention and Control** Diabetes Prevention and Control** Emergency Preparedness and Response Excessive Alcohol Consumption Health Communication and Health Information	27 6 6 1 7
Cardiovascular Disease Prevention and Control** Diabetes Prevention and Control** Emergency Preparedness and Response Excessive Alcohol Consumption Health Communication and Health Information	6 6 1 7
Diabetes Prevention and Control** Emergency Preparedness and Response Excessive Alcohol Consumption Health Communication and Health Information	6 1 7
Emergency Preparedness and Response Excessive Alcohol Consumption Health Communication and Health Information	7
Excessive Alcohol Consumption Health Communication and Health Information	7
Health Communication and Health Information	
	1
<u>Technology</u>	'
Health Disparities (<u>Health Equity</u>)**	8
HIV/AIDS, Sexually Transmitted Diseases, and Teen Pregnancy	6
Mental Health	4
Motor Vehicle-Related Injury Prevention	16
Obesity Prevention and Control** (includes Nutrition)	7
Oral Health	2
Physical Activity**	9
Tobacco Use and Second-Hand Smoke Exposure	10
Vaccination: Increasing Appropriate	13
Violence Prevention**	5
Worksite Health	3

^{*}Table only reports recommendations made on the basis of strong or sufficient evidence (n=134). Click here for a list of <u>all CPSTF findings</u>.

^{**}Asterisks indicate topics with active systematic reviews in FY 2017.

Development of CPSTF Recommendations

CPSTF recommendations are based on a rigorous, thorough, and replicable <u>systematic review process</u>. Subject matter experts from CDC, other federal agencies, academia, and practice and policy settings, conduct each systematic review under CPSTF oversight. Using transparent and publicly available methods that meet international scientific standards, all relevant, high-quality research and evaluation studies are located and appraised; no political or philosophical filters are applied.

The CPSTF examines the evidence and makes one of the following <u>findings</u>:

- Recommend an intervention based on evidence that it is effective
- Recommend against an intervention because evidence shows it is ineffective or harmful
- Insufficient evidence to determine if the intervention is, or is not, effective. This does not mean that the intervention does not work. It means that additional research and evaluation are needed to determine whether or not the intervention is effective.

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11

Appendix B

Community Preventive Services Task Force Recommendations Supporting Military and Dependent Health

Information on specific CPSTF recommendations and other findings recently used by the U.S. Armed Forces may be found by visiting the links below.

Diabetes Prevention and Control

Combined Diet and Physical Activity Promotion Programs to Prevent Type 2 Diabetes Among People at Increased Risk

Excessive Alcohol Consumption: Preventing

- Maintaining Limits on Hours of Sale
- Maintaining Limits on Days of Sale

Health Information Technology

Health Communication and Social Marketing: Campaigns That Include Mass Media and Health-Related
 Product Distribution

Obesity Prevention and Control (and Improving Nutrition)

- Technology-Supported Multicomponent Coaching or Counseling Interventions—To Reduce Weight
- <u>Technology-Supported Multicomponent Coaching or Counseling Interventions—To Maintain Weight Loss</u>
- Worksite Programs
- Meal and Fruit and Vegetable Snack Interventions to Increase Healthier Foods and Beverages Provided by Schools
- Multicomponent Interventions to Increase Availability of Healthier Foods and Beverages in Schools

Physical Activity: Increasing

- Point-of-Decision Prompts to Encourage Use of Stairs
- Built Environment Approaches Combining Transportation System Interventions with Land Use and Environmental Design

Tobacco Use and Second-Hand Smoke Exposure: Reducing

- Comprehensive Tobacco Control Programs
- Mass-Reach Health Communication Interventions
- Smoke-Free Policies
- Quitline Interventions
- Mobile Phone-Based Cessation Interventions

Worksite Health Promotion

Assessment of Health Risks with Feedback (AHRF) to Change Employees' Health—AHRF Plus Health Education

Appendix C

Evidence Gaps Specific to CPSTF Recommendations Used by the Military

Nutrition and Physical Activity

- How effective are combined diet and physical activity promotion programs delivered via the Internet, email, apps, or social networking?
- How effective are individual and group sessions?
- Why do program participants drop out and how can they be retained?
- What is the durability of these community-based programs' effects over time?
- What are effective structures for the maintenance phase of combined diet and physical activity promotion programs, following completion of these programs' core phases?

Excessive Alcohol Consumption

- What is the impact of increasing existing limits on hours of sale of alcoholic beverages at off-premises outlets?
- What is the impact of imposing new limits on days of sale of alcohol beverages?

Tobacco

- What is the impact of comprehensive tobacco programs on use of combustible tobacco other than cigarettes and noncombustible nicotine-delivery products?
- What is the impact of smoke-free policies on the initiation of tobacco use among youth?
- What is the influence of smoke-free policies on young adults as they enter the workforce?
- What are the effects of smoke-free policies on residents when these policies are implemented in multiunit housing?

By filling evidence gaps highlighted by the CPSTF, researchers and evaluators can make a major impact on the health of the military and the nation as a whole. <u>Detailed information about evidence gaps</u> is provided for every CPSTF finding.

Appendix D

Accessible Explanations of Figures and Infographics

Infographic at bottom of page 3. Obesity Impacts Military Readiness. Obesity among active duty service members has increased 61% between 2002 and 2011. These individuals are less likely to be medically ready to deploy. Both obesity and low levels of physical fitness increase the risk for injury among active duty military personnel. Source: Unfit to Serve—Obesity is Impacting National Security. Division of Nutrition, Physical Activity, and Obesity. Centers for Disease Control and Prevention. 2017.

Figure 1 on page 4. Public Health Concerns for the U.S. Military. For active duty personnel, 13% are obese, 25% use tobacco, 51% are overweight, and 33% reported binge drinking. Obesity and tobacco use are also prevalent among military families and adversely impact their health and well-being. Source: 2011 Health-Related Behaviors Survey of Active Duty Personnel (the most recent year for which data are available).

Figure 2 on page 6. Smoking Rate Reduction in Navy and Marine Corps. Smoking rates among Navy and Marine Corps service members decreased between 2013 and 2016 after using CPSTF-recommended interventions for smoke-free policies and tobacco price increases. Source: Fleet and Marine Corps Health Risk Assessment Annual Reports, 2013-2016.

"This is a Tobacco-Free Campus" graphic on page 7. CPSTF Recommendations Provide a Foundation for DoD Tobacco Reduction Initiatives. Examples of actions taken by the DoD include instituting smoke-free and tobacco-free zones with signs including information such as: To protect everyone's health, this is a tobacco-free campus. Use of all tobacco products, including e-cigarettes, is prohibited. Everywhere. Everyone. At all times. Note: This sign is available for public use at cdc.gov.

14

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