

Military Line Leadership and Tobacco Control: Perspectives of Military Policy Leaders and Tobacco Control Managers

Walker S. C. Poston, PhD, MPH*; Richard R. Suminski, PhD, MPH†; Kevin M. Hoffman, PhD‡; Nattinee Jitnarin, PhD*; Joseph Hughey, PhD‡; Harry A. Lando, PhD§; Amelia Winsby, MA‡; Keith Haddock, PhD*

ABSTRACT Despite progress in policy changes, tobacco use rates are still high in the military. Little is known about the views of those who create and implement tobacco control policies within the Department of Defense. These individuals determine what policy initiatives will be developed, prioritized, and implemented. We conducted key informant interviews with 16 service-level policy leaders (PLs) and 36 installation-level tobacco control managers (TCMs). PLs and TCMs believed that line leadership view tobacco control as a low priority that has minimal impact on successful mission completion. They also identified cultural factors that perpetuate tobacco use, such as low cost and easy accessibility to tobacco, smoke breaks, and uneven or unknown enforcement of current tobacco policies.

INTRODUCTION

The Department of Defense (DoD) and component services, i.e., the U.S. Air Force (USAF), Army (USA), Navy (USN), and Marine Corps (USMC) have made significant efforts to reduce the negative impact of smoking on service members over the last half century. For example, cigarettes were provided to military personnel in K- and C-rations in World War II, the Korean War, and the Vietnam War, but this practice was discontinued in 1975.^{1,2} Other significant policy changes and restrictions soon followed including DoD Directive 1010.10, DeCA Directive 40-13, and DoD Instruction 1010.15, all of which instituted a number of substantive changes. These changes included barring cigarette promotions aimed at military members, restricting coupons targeting military members, school ground smoking bans, banning use by military health care providers while on duty, all services banning tobacco during basic training and some banning it during technical school training, raising the price of tobacco products to within 5% of the local civilian price, and providing free tobacco cessation services.¹⁻⁴

Policy changes were developed to address factors in the military environment that encourage tobacco use and were responsive to studies documenting the immediate and long-term impacts of tobacco use on military members (e.g., increased healthcare costs, greater absenteeism, and higher

risk for injuries, impaired fitness for duty, and discharge).^{1,5-10} These developments have led to substantial reductions in smoking prevalence among military members, from a high of 51% in 1980 (and presumably higher before 1980) to 30.5% in the 2008 DoD Survey of Health Related Behaviors Among Active Duty Military Personnel.⁶

Despite progress, significant challenges remain. Tobacco use rates are substantially higher in the Army and Marine Corps when compared to age- and gender-matched civilians.^{6,11} Rates are particularly high among junior enlisted (i.e., those typically between the ages of 18–24 years), with 40% of E1–E3 ranks reporting smoking in the last 30 days; and smoking relapse and new initiation may be a growing problem among deployed service members.^{6,12} Smith and colleagues⁴ documented resistance and even blocking of initiatives aimed at increasing the sales price of tobacco products, due to complex and conflicted interests within and outside of the DoD.

There still are aspects of the military culture that inadvertently promote, or at least do not actively discourage tobacco use.^{3,6} Bray and colleagues⁶ found that several highly rated reasons cited for smoking were related to the military culture, i.e., the large number of places to buy cigarettes on an installation, peers who smoke, and the belief that smoking is part of the military. Another study³ found that soldiers “described the Army as an environment with intense tobacco users” and “although soldiers believed that the Army did not create tobacco users, they believed that the Army played a role in handing down tobacco-use traditions, and it created an environment that was tobacco friendly.” Haddock et al.¹³ found that tobacco use was a low priority for coverage when compared to other health issues in military installation newspapers, a primary communication method to personnel for commanders. Several studies^{3,12,14} also documented cultural factors leading to smoking relapse and new initiation during deployment. They identified a number of practices that could be addressed with policy changes that military members believe continue to

*National Development and Research Institutes, Inc., Institute for Biobehavioral Health Research, 1920 West 143rd Street, Suite 120, Leawood, KS 66224.

†Kansas City University of Medicine and Biosciences, 1750 Independence Avenue, SEP 468, Kansas City, MO 64106.

‡Hoffman & Associates, 2024 Magnolia Avenue, Pensacola, FL 32504.

§University of Minnesota School of Public Health, Division of Epidemiology, 300 WBOB, 1300 S 2nd Street, Minneapolis, MN 55454.

The views expressed in this report are those of the authors and do not reflect the official policy or position of the U.S. Army, U.S. Air Force, U.S. Navy, U.S. Marine Corps, the Department of Defense, or the U.S. Government.

encourage smoking and tobacco use, such as the practice of smoke breaks, the social attractiveness of smoking areas, and the lower cost of tobacco products.

Little is known about the views of those who create and implement tobacco control policies within the DoD. These individuals determine what policies will be developed, prioritized, and implemented and also serve as opinion leaders for tobacco control efforts within the DoD. It is important to know what opinion leaders within the DoD community think about tobacco control policies and challenges because they potentially influence changes in community norms and standards.¹⁵ Furthermore, interviews with those who influence development or implementation of policy is a customary method of policy research and analysis. The purpose of this article was to gain the perspective DoD policy leaders (PLs) and installation-level tobacco control managers (TCMs) have about tobacco control challenges and their views about how military line commanders (i.e., service-level leaders) and installation commanders prioritize tobacco control. We also queried them about what impact they think commanders believe tobacco use has on the military mission culture. Finally, participants rated the likelihood that service and installation leaders would support the implementation of several proposed tobacco control policies that have been suggested for military members.

METHODS

Study Overview

Data for this study come from a larger NCI-funded grant (no. CA109153) examining the tobacco control climate in the U.S. military and describing how the industry has attempted to influence that climate. In this article we present the results of key informant interviews of service-level PLs and installation-level TCMs. Human subject approvals were obtained from investigator institutions and the study was approved by the Tricare Management Activity Institutional Review Board (IRB) Program Office. All PLs and TCMs voluntarily participated in this study and consented before their interview. As part of our agreements with the IRBs, any unique participant or installation identifying information was removed.

Participants

In collaboration with the project consultant team, which consisted of both military personnel and civilian tobacco control experts, we selected military PLs to be interviewed. PLs were involved in health policy development and/or implementation at the service level. The 16 PLs (USAF = 8, USA = 3, USN = 3, and USMC = 2) were primarily (69%) civilian employees and most (81%) had been involved in military tobacco control for more than 5 years.

We used purposive sampling of typical instances sampling strategy¹⁶ to select TCMs (individuals tasked with the day-to-day tobacco control duties at their military installation) and identified a sample that would provide a diverse perspective of how tobacco control is perceived and practiced. The 36

TCMs (USAF = 9, USA = 10, USN = 10, and USMC = 7) were primarily civilians (83%) and the majority (56%) had more than 5 years experience managing the tobacco program at their installation.

Procedures and Data Analyses

Key informant interview guides were developed for PLs and TCMs that focused on the respective service in general (i.e., USAF, USA, USN, or USMC) or on their specific installation, respectively. Semistructured interviews were conducted by phone and participants were encouraged to speak freely and were assured that their information would not be linked to uniquely identifying information. PLs and TCMs also were asked to rate the support of their service leaders or installation commanders for 11 potential tobacco control policies on a Likert scale.

Transcripts were analyzed using the qualitative data analysis software NVivo 2.0. Transcripts were coded by two different members of the investigator team and then audited by a third member to ensure the accuracy of coding.¹⁶ Responses from the policy ratings were simply tabulated for each policy strategy and the data presented as both frequencies and percentages.

RESULTS

PLs' and TCMs' Views About Service and Installation Leaders' Priorities for Tobacco Control

PLs were uniform in stating that tobacco is simply not a priority for service leaders during this time of war and that it is not clear how stopping tobacco use affects their bottom line.

"It's back burner to getting the mission done."

"...I think, right now, it's not that the health of the soldier is not important, it's just that training and getting them to a point where they can keep themselves and others alive on the front is the priority..."

TCMs also believed that commanders viewed tobacco control as a low priority compared to other health concerns. This was attributed to the lack of immediate consequences of tobacco use when contrasted with other health issues such as suicide, driving under the influence (DUIs), and physical fitness that were perceived as having more immediate and public consequences.

"Right now alcohol is a big problem for us because we've actually had more DUIs this year, so it's getting heightened attention right now... Fitness is still pretty high priority at our base as well. So I don't see it being higher priority than that one. Suicide prevention is always going to have real high priority, so it would definitely be below that one as well... We do not see tobacco as priority..."

"...There's no negative consequences for using tobacco relative to all those other activities. So if there are DUIs that are noted, then the whole installation gets

the brief and the actions and curb alcohol use. You know, lock down, whatever. There have been suicides and then, you know, the whole suicide thing gets a lot of visibility. Illegal drug use, yes, they have urine testing when they come back from holidays, breaks. And exercise and fitness, well they're tested on their physical fitness in all branches of the service twice a year. So all of those other issues, alcohol, suicide, and illegal drug use, and exercise have direct legal or objective consequences attached to them. Tobacco does not..."

Many PLs noted that service leaders believe they need more evidence about immediate costs of tobacco so they can justify making policy changes more of a priority, including ways to address resistance to greater restrictions on tobacco use.

"...The other thing that I'm not sure that they see or that is evident is the impact of tobacco on our ability to perform the mission..."

"Well, I think some of the data that's needed is to really demonstrate the occupational risk...something that demonstrated the true occupational risk associated with smoking, you know, that you're more likely to have morbidities and mortalities associated with that. And then, also better data to demonstrate the cost..."

"...The thing that usually gets a commander's attention is when there are dollars tied to it. Since the dollars are spent and lost regarding tobacco by the medical command, the medical command is very much in the forefront of tobacco control work in the Army. But the line, it doesn't cost them anything..."

However, one PL noted that there already is ample evidence available about the costs of tobacco and was not sure what further evidence would make tobacco control a greater priority.

"...You know, we put studies in front of them that show that young people, first term airmen, who are still in their teens or low 20s who smoke have an actual cost to the military from lost work time, increased medical use, and it's been documented that smoking decreases your fitness level. It has impacts on night vision, which can impact war fighting skills and performance. You know, we brief those up to the leadership and to me, you really can't do much more. So I try to imagine if we had some kind of breakthrough study that showed this or that, I really don't think that would make much of an impact at this point..."

PLs' and TCMs' Views About Service Leaders' Understanding of the Impact and Culture of Tobacco Use

PLs and TCMs noted that although leaders recognize tobacco use has an impact on the military mission, they do not believe it is compelling enough to change and subsequently enforce policies or have not made their view known.

"In general, there's not a concern that it has any impact on completing the mission."

"...I don't know that there is a strong belief that there is a true mission impact. We know that there is a bottom line, a cost impact, that is associated with our Defense health program dollars, but that doesn't really translate directly over into operational dollars..."

"...I don't think the installation commander believes tobacco use can impact your mission... I don't think we've marketed that well in the military in terms of operational readiness..."

"You know, our mission right now...is [to] support the war in Iraq. And I don't believe that the commander is real worried about our tobacco use in that mission. Because of what is going on over in Iraq, I honestly feel like the whole base is: 'If you wanna smoke, smoke right now.'"

However, some TCMs believed their installation commanders were quite aware of the impact of tobacco on mission readiness, but did not make their views public.

"I think he does believe it, but he doesn't verbalize it. And if you don't make noise about it, you don't know people believe it..."

PLs and TCMs frequently identified several practices they believed service and installation leaders did to encourage tobacco use in the military. Factors they believed encouraged tobacco use were employing cigarettes or nicotine as a reward, providing cheap and easy access to tobacco products, paying lip service to the tobacco policies—especially when deployed—by service leaders, and continuing to endorse smoke breaks.

"...when you go out to basic [training], you cannot smoke at all, and then all of a sudden you get to tech school and then you can. You know, they definitely encourage that... And then if you're selling tobacco at a cheaper price on base, that is not discouragement... And I think finally one of the things that the military leadership sees in a deployment status is this is like the one thing that they can do... It's their only vice that they get..."

"...they're changing the ban in Advanced Individual Training. I think that's sending a message that 'if you got 'em, smoke 'em.'"

"...Yeah, he smokes out in front of them, so yeah, it's encouraged."

In contrast, a few of the TCMs believed their installation commanders actively discouraged tobacco use.

"I think he's discouraged it in signing off on the med group going tobacco free and along with the fitness center and HWC [Health and Wellness Center]... And I think he discourages it by allowing us to do our prevention programs in different venues as well."

"Yeah, I think he has. He's definitely supportive of tobacco cessation programs..."

In addition, PLs acknowledged tobacco policies, as enacted by service leaders, have become more restrictive over time and that there was a consensus the military culture has gradually changed to a more antitobacco.

“Where they have control and they can do it and the leadership is strong, they will make designated areas more restrictive, less comfortable. Policy goes out or at least statements go out that talk about the professional image. I would say more of a media campaign has been launched to discourage it.”

“They have made it a little less noticeable in the commissaries. They’ve eliminated special deals because a lot of times the tobacco companies were coming on installations and passing out freebies. You know, if you buy a carton, you get a T-shirt or a hat and a lot of that kind of stuff but I think that a lot of that’s been banned. I think.”

Support for Tobacco Control Policy Implementation Ratings

Table I summarizes PLs and TCMs ratings about the likelihood that line service and installation leaders/commanders would support the implementation of a wide variety of policies that have been discussed within and outside of the DoD.

The majority of PLs believed that their line leadership would support (i.e., rated likely or very likely) banning tobacco use while the military member was in uniform (56%), but the optimism was not shared by TCMs (38%). However, PLs and TCMs were similarly optimistic that service and installation leaders would support increasing the prices of tobacco products (50% and 54%), reducing the visibility of tobacco in the commissaries (63% for both), reducing the number of designated smoking areas (50% and 60%), reducing the comfort of designated smoking areas (69% and 51%), and limiting smokers to two breaks during the duty day (69% and 51%) (see Table I).

In contrast, the majority of PLs or TCMs felt it was unlikely or very unlikely that their services leaders and installation commanders would ever support bans on smoking in military housing (69% and 54%), on military installations (87% and 62%), or that cigarette sales would be significantly restricted (82% and 57%). In addition, they were pessimistic about their line leadership supporting the addition of tobacco use status as part of the fitness evaluation score (69% and 68%; for ratings of unlikely or very unlikely) or including it on performance evaluation reports (82% and 73%; for ratings of unlikely or very unlikely).

DISCUSSION

The results of this study clearly indicate that PLs and TCMs perceive that military service and installation commanders assume tobacco control has low priority with minimal impact on successful mission completion. Both groups identified the current operations tempo and demands of ongoing deployments as top priorities for line leaders and commanders and

TCMs noted that other health issues (e.g., suicide prevention, alcohol misuse, etc.) with more public outcomes were greater priorities. PLs believed that service leaders would need more compelling evidence of the immediate, negative consequences of tobacco use on mission outcomes before it became a higher priority; however, one PL noted that it is unclear what level of evidence is needed to make the case for greater restrictions as substantial evidence about the proximal costs of tobacco already exist^{1,5,7-10} and they regularly brief them on these data. Nevertheless, it has been difficult for the DoD to implement more stringent restrictions or price increases.

Contrast this experience with the U.S. military’s swift actions against a potential risk to personnel—ephedra. Ephedra (aka “Ma Huang”), an herbal supplement, has been studied extensively as a weight loss agent, primarily in Europe.¹⁷⁻²⁰ However, in the United States, its use as an over-the-counter (OTC) weight loss product was largely unregulated. Reports of exertional heatstroke, hypertension, heart attacks, stroke, troop deaths in the military, and other fatalities led the Food and Drug Administration (FDA) to investigate and ban ephedra products in 2004.²¹ However, the sale of ephedra supplements on military installations was stopped in 2002.²² In reaction, ephedra industry supporters argued that using ephedra is a free personal choice taken in the face of ubiquitous public health warnings, and the scientific literature has not conclusively linked ephedra to serious health consequences. Neither argument won the day for ephedra, but it is notable that similar arguments have been used by the tobacco industry in support of minimizing tobacco restrictions.⁴

Health promotion issues that result in immediate, negative, and public outcomes, such as alcohol-related incidents (e.g., DUIs) and suicides, or even those that may be more cosmetic, such as being overweight while in uniform, appear to better capture the interests of line commanders, even though it is likely that their frequency of occurrence and actual costs are substantially less than tobacco use. For example, overweight and obesity were not demonstrated to be a predictor of early discharge or excess training costs²³ while tobacco use has been associated with \$18 million per year in excess training costs due to early discharge in the USAF alone and was estimated to cost all services over \$130 million per year.⁹ Similarly, Robbins and colleagues¹⁰ conservatively estimated the direct and indirect healthcare costs of smoking to exceed \$107 million in 1997 and result in 893,128 lost workdays per year for just the USAF. Contrast this with their 1997 estimate for overweight in the USAF, in which they calculated costs (\$22.8 million) and lost workdays per year (28,351) at substantially lower levels than for smoking.²⁴ Corso and colleagues²⁵ found costs of self-inflicted injuries for the entire United States in 1996 were just over \$33 million, substantially less than the costs of smoking to the USAF alone (\$107 million). Costs from smoking to the DoD that same year exceeded \$1 billion.^{9,10}

We do not suggest that the importance and priority of health issues be decided solely on the basis of their financial costs. Tragic events like suicide have myriad short- and long-term

TABLE I. PLs' and TCMs' Ratings of the Potential for Services Leaders' Support for Policy Implementation

Policy	Very Unlikely	Unlikely	Likely	Very Likely	Don't Know or N/A
Ban Smoking in Military Uniform					
PL	N = 1 (6%)	N = 5 (31%)	N = 8 (50%)	N = 1 (6%)	N = 1 (6%)
TCM	N = 4 (11%)	N = 13 (35%)	N = 9 (24%)	N = 5 (14%)	N = 6 (16%)
Ban Smoking in Military Housing					
PL	N = 4 (25%)	N = 7 (44%)	N = 3 (19%)	N = 2 (13%)	N = 0 (0%)
TCM	N = 9 (24%)	N = 11 (30%)	N = 3 (8%)	N = 6 (16%)	N = 8 (22%)
Ban Smoking Entirely on Installation					
PL	N = 5 (31%)	N = 9 (56%)	N = 2 (13%)	N = 0 (0%)	N = 0 (0%)
TCM	N = 12 (32%)	N = 11 (30%)	N = 5 (14%)	N = 3 (8%)	N = 6 (16%)
Significantly Restrict Cigarette Sales					
PL	N = 6 (38%)	N = 7 (44%)	N = 3 (19%)	N = 0 (0%)	N = 0 (0%)
TCM	N = 7 (19%)	N = 14 (38%)	N = 9 (24%)	N = 1 (3%)	N = 6 (16%)
Increase the Price of Tobacco Products					
PL	N = 3 (19%)	N = 3 (19%)	N = 7 (44%)	N = 1 (6%)	N = 2 (13%)
TCM	N = 3 (8%)	N = 9 (24%)	N = 18 (49%)	N = 2 (5%)	N = 5 (14%)
Reduce Visibility of Tobacco Products in Commissary					
PL	N = 1 (6%)	N = 4 (25%)	N = 7 (44%)	N = 3 (19%)	N = 1 (6%)
TCM	N = 1 (3%)	N = 7 (19%)	N = 18 (49%)	N = 5 (14%)	N = 6 (16%)
Reduce the No. of Designated Smoking Areas					
PL	N = 1 (6%)	N = 5 (31%)	N = 5 (31%)	N = 3 (19%)	N = 2 (13%)
TCM	N = 2 (5%)	N = 7 (19%)	N = 17 (46%)	N = 5 (14%)	N = 6 (16%)
Reduce the Comfort of Designated Smoking Areas					
PL	N = 0 (0%)	N = 3 (19%)	N = 7 (44%)	N = 4 (25%)	N = 2 (13%)
TCM	N = 4 (11%)	N = 8 (22%)	N = 17 (46%)	N = 2 (5%)	N = 6 (16%)
Limit All Military Members to 2 Smoke Breaks During the Duty Day					
PL	N = 1 (6%)	N = 4 (25%)	N = 11 (69%)	N = 0 (0%)	N = 0 (0%)
TCM	N = 1 (3%)	N = 11 (30%)	N = 13 (35%)	N = 6 (16%)	N = 6 (16%)
Make Smoking Status Part of Fitness Evaluation Score					
PL	N = 4 (25%)	N = 7 (44%)	N = 4 (25%)	N = 1 (6%)	N = 0 (0%)
TCM	N = 8 (22%)	N = 17 (46%)	N = 2 (5%)	N = 2 (5%)	N = 8 (22%)
Include Smoking Status on Performance Reports					
PL	N = 6 (38%)	N = 7 (44%)	N = 1 (6%)	N = 0 (0%)	N = 2 (13%)
TCM	N = 11 (30%)	N = 16 (43%)	N = 2 (5%)	N = 0 (0%)	N = 8 (22%)

PL, policy leader; TCM, tobacco control manager.

costs to surviving family members and society. However, morbidity and mortality related to tobacco use also have far-reaching impacts on families and society. To the extent the military is populated by persons statistically more likely to use tobacco, this will become a pressing issue with ominous effects for service members, their families, and the VA health system. We believe that tobacco use and its consequences are not viewed in the serious light that they should be, given how much tobacco adversely impacts military service members and society in general.

PLs and TCMs were able to identify factors in the military environment and culture that still promote tobacco use, such as low cost and easy accessibility, the continued tolerance of frequent smoke breaks, the often uneven or unknown enforcement of current tobacco policies, particularly during deployments, and the fact that in some training environments, tobacco use is still presented as a reward. Our findings buttress those documented and discussed in detail by other investigators^{1,3,6,12,14,26} in diverse samples of military service members using a variety of research strategies. It is clear that there is still much work to do to address aspects of the military environment and culture that continue to promote tobacco use.^{3,26}

Also to be explored is the possible role of PLs, TCMs, and service and installation leaders themselves in advocating for policy changes. In addition, more research is needed documenting how well current policies and restrictions are being implemented and enforced.^{12,26}

PLs and TCMs provided interesting insights into how much support service leaders might provide for a variety of often discussed tobacco control policies. Given PLs optimism about line support for banning tobacco use in uniform and both groups belief that service and installation commanders would support increasing the prices of tobacco products, reducing the visibility of tobacco in the commissaries, reducing the number of designated smoking areas, reducing the comfort of designated smoking areas, and limiting smokers to two breaks during the duty day, these tactics might be pursued as potential "low hanging fruit." In contrast, options they perceived as unlikely or very unlikely, e.g., bans on smoking in military housing or on military installations, restricting cigarette sales, or the addition of tobacco use status as part of the fitness evaluation score or including it on performance evaluation reports, may not be fruitful to pursue, even when evidence exists that might support making such a change. For example, it is well

established that exposure to cigarette smoke (i.e., second-hand smoke) is a significant health risk for nonsmokers in a household, particularly for young children.²⁷ In addition, recent data support the possibility of including smoking status as part of an overall fitness score;²⁸ however, given the resistance noted by PLs and TCMs, it is likely that attempting to implement this tactic would encounter substantial resistance.

In conclusion, military PLs and TCMs, as both experts on their respective military services and health policy, provided important insights about their perceptions of line service leaders' perspectives on tobacco control policy. It should be noted, however, that line service leaders and installation commanders were not interviewed directly, so these data represent the perceptions and viewpoints of service-level PLs and installation-level TCMs and should be viewed accordingly. Future research on tobacco policy in the DoD should attempt to gain access to and interview line service leaders and commanders directly, as well as those DoD employees involved in tobacco supply and sales. Understanding their perspectives on tobacco control efforts could prove useful to the design and implementation of future policies. In addition, future research should explore ways to remove existing incentives to maintain tobacco consumption by military members.²⁹

ACKNOWLEDGMENTS

This research was supported by the National Cancer Institute (grant no. CA109153; Ruth Malone, PhD, Principal Investigator).

REFERENCES

1. Conway TL: Tobacco use and the United States military: a longstanding problem. *Tob Control* 1998; 7: 219–21.
2. Joseph AM, Muggli M, Pearson KC, Lando H: The cigarette manufacturers' efforts to promote tobacco to the U.S. Military. *Mil Med* 2005; 170: 874–80.
3. Nelson JP, Pederson LL: Military tobacco use: a synthesis of literature on prevalence, factors related to use, and cessation interventions. *Nicotine Tob Res* 2008; 10: 775–90.
4. Smith EA, Blackman VS, Malone RE: Death at a discount: how the tobacco industry thwarted tobacco control policies in US military commissaries. *Tob Control* 2007; 16: 38–46.
5. Altarac M, Gardener JW, Popovich RM, Potter R, Knapik JJ, Jones BH: Cigarette smoking and exercise-related injuries among young men and women. *Am J Prev Med* 2000; 18: 96–102.
6. Bray RM, Pemberton MR, Hourani LL, et al: 2008 Department of Defense Survey of Health Related Behaviors Among Active Military Personnel: A Component of the Defense Lifestyle Assessment Program. Research Triangle Park, NC, RTI International, 2009.
7. Conway TL, Cronan TA: Smoking, exercise, and physical fitness. *Prev Med* 1992; 21: 723–34.
8. Haddock CK, Pyle SA, Poston WSC, Bray RM, Stein RJ: Smoking and body weight as markers of fitness for duty among U.S. military personnel. *Mil Med* 2007; 172: 527–32.
9. Klesges RC, Haddock CK, Chang CF, Talcott GW, Lando HA: The association of smoking and cost of military training. *Tob Control* 2001; 10: 43–7.
10. Robbins AS, Chao SY, Coil GA, Fonseca VP: Costs of smoking among active duty U.S. Air Force personnel: United States, 1997. *MMWR* 2000; 49: 441–5.
11. Haddock CK, Pyle SA, DeBon M, et al: Cigarette use among two cohorts of U.S. Air Force recruits compared with secular trends. *Mil Med* 2007; 172: 288–94.
12. Poston WSC, Taylor JE, Hoffman KM, et al: Smoking and deployment: perspectives of junior-enlisted U.S. Air Force and U.S. Army personnel and their supervisors. *Mil Med* 2008; 173: 441–7.
13. Haddock CK, Parker LC, Taylor JE, Poston WSC, Lando H, Talcott GW: An analysis of messages about tobacco in military installation newspapers. *Am J Public Health* 2005; 95: 1458–63.
14. Haddock CK, Taylor JE, Hoffman KM, et al: Factors which influence tobacco use among junior enlisted in the United States Army and Air Force: a formative research study. *Am J Health Promot* 2009; 23(4): 241–6.
15. Howard KA, Rogers T, Howard-Pitney B, Flora JA, Norman GJ, Ribisl KM: Opinion leaders support for tobacco control policies and participation in tobacco control activities. *Am J Public Health* 2000; 90: 1282–7.
16. Hill CE, Thompson BJ, Williams EN: A guide to conducting consensual qualitative research. *Couns Psychol* 1997; 25: 517–72.
17. Dwyer JT, Allison DB, Coates PM: Dietary supplements in weight reduction. *J Am Diet Assoc* 2005; 150(5, Suppl 1): S80–6.
18. Fleming RM: Safety of ephedra and related anorexic medications. *Expert Opin Drug Saf* 2008; 7: 749–59.
19. Greenway FL: The safety and efficacy of pharmaceutical and herbal caffeine and ephedrine use as a weight loss agent. *Obes Rev* 2001; 2: 199–211.
20. Shekelle PG, Hardy ML, Morton SC, et al: Efficacy and safety of ephedra and ephedrine for weight loss and athletic performance: a meta-analysis. *JAMA* 2003; 289: 1537–45.
21. U.S. Food and Drug Administration: FDA acts to remove ephedra-containing dietary supplements from market. Available at <http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/2004/ucm108379.htm>; accessed August 19, 2009.
22. Holguin J: Ephedra nixed by Army, but not by FDA. CBS News, December 5, 2002. Available at <http://www.cbsnews.com/stories/2002/12/05/eveningnews/main531881.shtml>; accessed April 10, 2009.
23. Poston WSC, Haddock CK, Talcot GW, Klesges RC, Lando HA, Peterson A: Are overweight and obese Airmen at greater risk of discharge from the United States Air Force? *Mil Med* 2002; 167: 585–8.
24. Robbins AS, Chao SY, Russ CR, Fonseca VP: Costs of excess body weight among active duty personnel, U.S. Air Force, 1997. *Mil Med* 2002; 167: 393–7.
25. Corso PS, Mercy JA, Simon TR, Finkelstein EA, Miller TR: Medical costs and productivity losses due to interpersonal and self-directed violence in the United States. *Am J Prev Med* 2007; 32: 474–82.
26. Nelson JP, Pederson LL, Lewis J: Tobacco use in the Army: illuminating patterns, practices, and options for treatment. *Mil Med* 2009; 174: 162–9.
27. U.S. Department of Health and Human Services: The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General. Atlanta, GA, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2006.
28. Suminski RR, Wier LT, Poston WSC, Arenare B, Randles A, Jackson AS: The effect of habitual smoking on predicted VO_2 max. *J Phys Act Health* 2009; 6(5): 667–73.
29. Arvey SR, Malone RE: Advance and retreat: tobacco control policy in the U.S. military. *Mil Med* 2008; 173: 985–91.