

Electronic Nicotine Delivery Systems as a Method to Decrease Harm in Military Tobacco Users

William H Cohen

The Vape a Vet Project

Abstract

The Vape a Vet Project is a 501c3 Veteran's Charity founded in 2013 to assist Veterans in their mission to conquer their tobacco addiction. To date, they have provided services to nearly 75,000 Veterans who have expressed a desire to improve their health and quit their self-destructive tobacco habit. As a part of that mission, Vape a Vet has provided Veterans with starter kits and assistance in using an electronic nicotine delivery device, then following up with them after a year to assess their level of success in transitioning away from traditional tobacco products. Our research has shown that these nicotine devices have been incredibly successful, with over 80% of their clients ceasing their use of combustible tobacco products within 12 months. Veterans have a deep historical tradition with tobacco use; with smoking being endemic to the military culture.

The Vape a Vet Project supports Altria's application for a Modified Risk Tobacco product for their iQOS device based on the principles and evidence based practice of harm reduction. A plethora of products available on the market showing a lower risk to the user, and offering a similar experience of smoking, can only help improve the public health and is of a benefit to our society.

Electronic Nicotine Delivery Systems as a Method to Decrease Harm in Military Tobacco Users

Cigarette smoking remains the leading cause of preventable disease and death in the United States today. The United States Department of Defense (DoD) spends an estimated \$2.1 billion per year for medical care associated with tobacco use (\$564 million), excess weight and obesity (\$1.1 billion), and high alcohol consumption (\$425 million). DoD incurs nonmedical costs related to tobacco use, excess weight and obesity, and high alcohol consumption in excess of \$965 million per year (Dall et al., 2007, p. 128). The Centers for Disease Control and Prevention analyzed the costs of smoking-attributable mortality and morbidity within the DoD, and reached a cost of nearly \$1 billion. This number includes both the medical care costs and lost workdays due to tobacco usage. Additionally, the financial burden isn't solely placed on the federal government either, homes with a service member that smoked were 1.5 times more likely to experience financial strain, and averaged an \$8,300 net financial deficit (Pyle, Haddock, Carlos Poston, Bray, & William, 2007, p. 461). Removing any other risk factors such as obesity and alcohol consumption, an estimated \$564 million in direct healthcare costs associated with tobacco use can be prevented. A significant portion of DoD health care resources are spent caring for smoking-attributable disease, which are preventable. This report reinforces the benefits possible from the new emphasis on wellness promotion within the DoD. Efforts are needed to prevent the initiation of smoking and encourage smoking cessation in order to reduce health care costs and increase the probability for long and healthy lives for DoD beneficiaries.

The military has had a reputation as an environment where tobacco use is accepted and even encouraged. In fact, in 1980 more than 50% of military personnel reported using cigarettes in the past 30 days. The rate of smoking steadily declined to 30% by 1998, but increased to 34% in 2002 and has remained static since then. Smokeless tobacco use actually increased in 2002 from 12–15% and has remained stable at this very high level. Those military personnel who use tobacco products (cigarettes, smokeless tobacco, cigars, and pipes) were more likely to believe that their supervisors were tobacco users. Of military personnel who smoke, almost one-third (30%) report that they started smoking after joining the military. In addition, 14% of males between 18–55 years of age reported that they started using smokeless tobacco after joining the military (Bray, Spira, Olmsted, & Hout, 2010, p. 175). Although progress has been made, tobacco use in the military remains a serious problem.

There is a clear and problematic trend in the military concerning tobacco usage. Despite the best efforts of the DoD, there does not seem to be any significant decrease in tobacco usage among enlisted servicemembers. Therefore, new tactics and tools need to be utilized to address this endemic problem. The fact that vapor products do not emit toxic smoke (but rather a vapor that dissipates within seconds) could reduce the amount of harm from nicotine usage amongst service members, reduce the fiscal impact on the DoD for caring for users of tobacco products, increase troop readiness, reduce sick days, and increase operation readiness. According to (Caponnetto et al., 2013) smoking reduction was documented in 22.3% and 10.3% at week-12 and week-52 respectively with the use of regular e-cigarette use. Complete abstinence from tobacco smoking was documented in 10.7% and 8.7% at week-12 and week-52 respectively. A substantial decrease in adverse events from baseline was observed and withdrawal symptoms were

infrequently reported during the study. In a second study by Epidemiologists at the University College of London reported almost double the rate of cessation when electronic cigarettes were used versus any other method, making them more successful than any other cessation method available to public health advocates (Brown, Beard, Kotz, Michie, & West, 2014, p. 1535).

In smokers not intending to quit, the use of e-cigarettes, with or without nicotine, decreases cigarette consumption and elicited enduring tobacco abstinence without causing significant side effects. From a purely monetary perspective, this is highly optimistic in terms of two major concerns in the United States. First and foremost, public health, and the potentially positive effects in our domestic and global economy. Dawkins, Turner, Roberts & Soar (2013) note that Seventy-four percent of participants reported not smoking for at least a few weeks since using the e-cigarette and 70% reported reduced urge to smoke. Seventy-two percent of participants used a 'tank' system, most commonly, the eGo-C (23%). Mean duration of use was 10 months. Only 1% reported exclusive use of non-nicotine (0 mg) containing liquid. E-cigarettes were generally considered to be satisfying to use; elicit few side effects; be healthier than smoking; improve cough/breathing; and be associated with low levels of craving. E-cigarettes are used primarily for smoking cessation, but for a longer duration than nicotine replacement therapy, and users believe them to be safer than smoking. And the users would be correct. According to a study by Konstantinos Farsalinos of the Onassis Cardiac Surgery Center, "Existing evidence indicates that EC use is by far a less harmful alternative to smoking. There is no tobacco and no combustion involved in EC use; therefore, regular vapers may avoid several harmful toxic chemicals that are typically present in the smoke of tobacco cigarettes... Due to their unique characteristics, ECs represent a historical opportunity to save millions of lives and significantly reduce the burden of smoking-related diseases worldwide" (Farsalinos & Polosa, 2014, p. 83).

Given that Nicotine Replacement Therapies (NRT) in the Military environment show an efficacy rate that is half (50%) that of the civilian one (Institute of Medicine (US) Committee on Smoking Cessation in Military and Veteran Populations, 2009), extra efforts need to be made to explore alternative therapies and utilization of free market and private solutions. Electronic cigarettes should be further explored as a viable option and tool that public health can, and should, use to minimize the harm from smoking in the military population while attempting to promote cessation. Prohibitive measures, under-utilization, singular preference towards using "tried and true" methods, or personal bias surrounding e-cigarette use could potentially put our Veterans in a position to go back to smoking, or die trying to find an alternative that works for them. One of the maxims of harm reduction is to accept that use of these substances will continue, but it is our duty as social workers to assist the individual in minimizing the harm to themselves and their communities, while encouraging cessation. I believe electronic cigarettes achieve these goals.

References

- Bray, R. M., Spira, J. L., Olmsted, K. R., & Hout, J. J. (2010). Behavioral and Occupational Fitness. *Military Medicine*, 175(8S), 39-56. Retrieved from <http://militarymedicine.amsus.org/doi/pdf/10.7205/MILMED-D-10-00071>
- Brown, J., Beard, E., Kotz, D., Michie, S., & West, R. (2014). Real-world effectiveness of e-cigarettes when used to aid smoking cessation: a cross-sectional population study. *Addiction*, 109, 1531–1540. <http://dx.doi.org/10.1111/add.12623>
- Caponnetto, P., Campagna, D., Cibella, F., Morjaria, J., Caruso, M., & Polosa, R. (2013, June 24). Efficiency and Safety of an eElectronic cigAreTte (ECLAT) as Tobacco Cigarettes Substitute: A Prospective 12-Month Randomized Control Design Study. *PLOS ONE*. <http://dx.doi.org/10.1371/journal.pone.0066317>
- Dall, T., Zhang, Y., Chen, Y., Wagner, R., Hogan, P., Fagan, N., & Tornberg, D. (2007, November/December). Cost associated with being overweight and with obesity, high alcohol consumption, and tobacco use within the military health system's TRICARE prime-enrolled population. *American Journal of Health Promotion*, 22(2), 120-139.
- Dawkins, L., Turner, J., Roberts, A., & Soar, K. (2013). Vaping Profiles and Preferences: An Online Survey of Electronic Cigarette Users. *Addiction*, 108(6), 1115-1125.
- Farsalinos, K. E., & Polosa, R. (2014, April). Safety evaluation and risk assessment of electronic cigarettes as tobacco cigarette substitutes: a systematic review. *Therapeutic Advances in Drug Safety*, 5(2), 67-86.

Institute of Medicine (US) Committee on Smoking Cessation in Military and Veteran Populations

(2009). *Combating Tobacco Use in Military and Veteran Populations*. S. Bondurant & R.

Wedge (Eds.). Washington (DC): National Academies Press (US).

Pyle, S. A., Haddock, C. K., Carlos Poston, W. S., Bray, R. M., & William, J. (2007, May 31).

Tobacco use and perceived financial strain among junior enlisted in the U.S. Military in

2002. *Preventative Medicine*, 45, 460-463. Retrieved from

<https://www.ncbi.nlm.nih.gov/pubmed/17604829>

Biography:

William Cohen, BSW is the Executive Director of The Vape a Vet Project, a 501c3 charity that is

focused on Tobacco Harm Reduction. Their mission statement is to “Help Veterans

Conquer Smoking,” by providing low or no cost nicotine replacement therapies, support,

and community. He is currently studying for his Masters in Social Work and Juris

Doctorate at Arizona State University. He can be contacted at will@vapeavet.org