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September 15, 2014

National Institute for Occupational Safety and Health
NIOSH Docket Office
1090 Tusculum Avenue
MS C-34
Cincinnati, OH 45226

Re: CDC-2014-0013; NIOSH-274

Dear Sir or Madam:

On behalf of the American Heart Association (AHA), including the American Stroke Association (ASA) and more than 22 million volunteers and supporters, we appreciate the opportunity to provide comments on the draft Current Intelligence Bulletin (CIB): Promoting Health and Preventing Disease and Injury through Workplace Tobacco Policies.

We are very pleased that the National Institute for Occupational Safety and Health (NIOSH) is creating a new CIB focused on tobacco use in the workplace. The draft document expands upon the Institute's previous work in this area and will be a valuable resource to employers who want to ensure that their workplaces are tobacco-free.

Overall, AHA strongly supports the draft CIB. The document does a good job of summarizing the dangers of tobacco use and exposure to secondhand smoke, providing updated data on the prevalence of tobacco use in the workplace, and offering interventions that can be used to facilitate tobacco cessation. The draft CIB also includes strong recommendations that call for the complete elimination of tobacco from the workplace, an important advancement from previous CIBs which did not go as far.

There are, however, two areas of the document that should be strengthened: 1) the recommendations related to Electronic Nicotine Delivery Systems (ENDS), and 2) the use of incentives and disincentives to modify tobacco use behavior. We expand upon these areas below.

Electronic Nicotine Delivery Systems

The draft document contains several brief descriptions related to ENDS, including prevalence of use (page 6, lines 30-45), potential health effects (page 13, lines 10-30; page 14, lines 1-20), and recommendations from the World Health Organization and others to prevent secondhand exposure (page 20, lines 7-19). However, ENDS are not mentioned in two of the most important sections of the document where NIOSH offers its conclusions and recommendations. It is unclear if this was intentional or an oversight, but we urge NIOSH to incorporate ENDS into your recommendation statements.

As the Institute acknowledges earlier in the document, the use of ENDS or electronic cigarettes has increased significantly in recent years. And while e-cigarettes appear to contain lower amounts of harmful chemicals than combustible cigarettes or smokeless tobacco, studies have found that e-cigarette users can be still be exposed to toxins, metals (tin, iron, nickel, and chromium) from the heating coils,[1,2] ceramics, plastics, rubber, filament fibers, and foams, which may be aerosolized and inhaled.[3] Studies have also found contaminants such as non-pharmaceutical grade propylene glycol[4] and prescription weight loss and erectile dysfunction drugs in certain e-cigarette liquids.[5] There are also concerns about the potential toxicity of flavorings that are used in e-liquids. Most e-cigarettes also deliver nicotine, which is a highly addictive chemical.

There is also concern that exposure to e-cigarette aerosol could have an adverse impact on bystanders. Although the constituents in e-cigarette aerosol have not been found to be as deleterious as those in cigarette smoke,[6] there is still some level of passive exposure to organic compounds, nicotine and ultrafine particles.[7,8,9] Some studies have found very low concentrations of air pollutants across different types, liquids, puff durations, and nicotine concentrations.[10,11] The levels of particle and nicotine exposure does differ based on the composition of the liquids, the age and type of e-cigarette, size of the room, puff duration,

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[1] Brown, CJ and JM Cheng, Electronic cigarettes: product characterisation and design considerations. Tob Control, 2014. 23 Suppl 2: p. ii4-10.
[2] Williams, M, et al., Metal and silicate particles including nanoparticles are present in electronic cigarette cartomizer fluid and aerosol. PLoS One, 2013. 8(3): p. e57987.
[3] Ibid.
[4] Palazzolo, DL, Electronic Cigarettes and Vaping: A New Challenge in Clinical Medicine and Public Health. A Literature Review. Front Public Health, 2013. 1: p. 56.
[5] Ibid.
[6] McAuley TR, et al. Comparison of the effects of e-cigarette vapor and cigarette smoke on indoor air quality. Inhal Toxicol: 2012; 24(12): 850-857.
[7] Williams M, et al. Metal and silicate particles including nanoparticles are present in electronic cigarette cartomizer fluid and aerosol. PLoS One: 2013; 8(3): e57987.
[8] Schripp T, et al. Does e-cigarette consumption cause passive vaping? Indoor Air: 2013; 23(1): 25-31.
[9] Kleinstreuer C, et al. Lung deposition analyses of inhaled toxic aerosols in conventional and less harmful cigarette smoke: a review. Int J Environ Res Public Health: 2013; 10(9): 4454-4485.
[10] McAuley TR, et al. Comparison of the effects of e-cigarette vapor and cigarette smoke on indoor air quality. Inhal Toxicol: 2012; 24(12): 850-857.
[11] Kleinstreuer C, et al. Lung deposition analyses of inhaled toxic aerosols in conventional and less harmful cigarette smoke: a review. Int J Environ Res Public Health: 2013; 10(9): 4454-4485.

and interval between puffs and the number of users.[12] Nevertheless there is concern that non-smokers will be involuntarily exposed to nicotine, which could be substantial where there is heavy e-cigarette use in confined spaces. Accordingly, we recommend that you make a clear statement in the recommendations that ENDS should be considered tobacco products and should be included in comprehensive smoke-free worksite policies.

(For more information on electronic cigarettes and the need to include e-cigarettes in smoke-free policies, please see the recently published "Electronic Cigarettes: A Policy Statement from the American Heart Association".)

If the CIB does not include ENDS in its recommendation statements, it may send the wrong message to employers and their workers. They may mistakenly believe that the CIB and its recommendations only apply to cigarettes and smokeless tobacco – the only two products mentioned frequently in the draft document. They may also assume that ENDS are risk-free and do not need to be included in workplace tobacco-free policies, that ENDS users do not need to be encouraged to quit or provided with cessation services.

We urge NIOSH to revise the document to ensure that readers understand that the recommendations apply to all tobacco products, including ENDS. For example, the first recommendation statement (page 26, lines 12-20) should be revised to read:

Establish and maintain tobacco-free workplaces for all employees, allowing no use of any tobacco products, including but not limited to cigarettes, cigars, pipes, electronic cigarettes, and smokeless tobacco products by anyone at any time in the workplace. Ideally, this should be done in concert with an existing tobacco cessation support program. At a minimum, the tobacco-free zone should encompass all indoor areas with no exceptions and no indoor smoking areas of any kind (including separately enclosed and/or ventilated areas), as well as areas immediately outside building entrances and air intakes, and all work vehicles. Optimally and whenever feasible, the entire workplace campus, including all outdoor areas, should be established as tobacco-free. All tobacco-related restrictions and prohibitions should be equally enforced.

Electronic cigarettes should also be referenced in the section on dual use (page 5, lines 4-12). Electronic cigarettes, like smokeless tobacco, can be used to help smokers maintain their nicotine habit in areas where smoking is prohibited.

Incentives and Disincentives to Modify Behavior

The draft CIB includes a discussion on the use of incentives and disincentives to discourage tobacco use, such as increasing insurance premiums for tobacco users or offering a reward for participating in a cessation program (pages vi-vii, pages 23-25). The document, however, cautions employers that any program must be carefully designed to help employees quit tobacco, not simply shift health care costs to tobacco users. The CIB also warns that care

[12] Ibid.

must be taken to avoid unintended consequences such as smokers concealing their smoking and avoiding seeking cessation assistance (page vii, lines 10-16).

AHA appreciates the inclusion of this cautionary language. In general, we have significant concerns about the use of rewards or penalties tied to an individual's health status or ability to achieve a specific outcome. A higher insurance premium for tobacco users could, for example, jeopardize an employee's ability to afford health care coverage. In addition, there is little evidence that financial incentives or disincentives are successful in motivating long-term behavior change.[13]

Instead, employers should focus on offering comprehensive tobacco cessation programs to their employees and allow for multiple quit attempts. Research shows that clinical tobacco cessation services offered without cost-sharing can lead to successful cessation. Employees who enroll and participate in a tobacco cessation program should not be subject to a financial penalty. We encourage NIOSH to place greater emphasis on this alternative in the CIB.

For employers who elect to hold their employees accountable for their tobacco use, the Institute should provide guidance on how tobacco use should be assessed. Because tobacco users may face a significant penalty such as a tobacco surcharge or higher insurance premium, tobacco use should be precisely and narrowly defined. When defining "tobacco use", it is important to determine what tobacco products are to be included in the definition (cigarette, cigar, smokeless tobacco, e-cigarette, etc.) and the amount of tobacco use that meets the threshold for use.

Determining what tobacco products should be included in the definition of "tobacco use" can be complicated. There is no uniform, widely used definition of tobacco use today and the issue is becoming more complex as the tobacco industry continues to introduce new products to expand its market share.

Determining the amount of tobacco that constitutes "use" is also difficult; there are no consistent standards for what constitutes regular tobacco use among health plans and health status surveys. While regulations promulgated under the Affordable Care Act define "tobacco use" as an average of four of more times per week within no longer than the past six months, this definition has not been uniformly adopted because states have the ability to alter the federal thresholds, requiring a higher per week frequency and a shorter look-back period of time.[14] To ensure that employees are not held to unreasonable standards (e.g., one time per week sometime within the past 12 months), employers and insurers should be instructed to adopt a definition of "use" that complies with the federal thresholds.

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[13] Mattke S. Schnyer C. Van Busum KR. A review of the U.S. workplace wellness market. Rand Corporation. 2012.

[14] Patient Protection and Affordable Care Act: Health Insurance Market Rules; Rate Review. CMS-9972-F / RIN 0938-AR40. February 22, 2013.

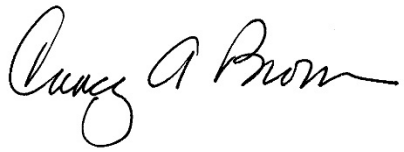
AHA is currently participating in a multi-organizational effort to develop guidance to employers on e-cigarettes, covering smoke free air policy, incentives/disincentives, health screening, programming and cessation benefits with the Health Enhancement Research Organization (HERO), the American College of Occupational and Environmental Medicine (ACOEM), the American College of Preventive Medicine (ACPM), researchers, employers, and vendors. We hope to complete this work by the end of the year and would be glad to provide you the paper when it is complete.

In closing, AHA again expresses our strong support the draft document. We appreciate NIOSH's decision to issue a new CIB focused on tobacco use in the workplace, and we are extremely pleased that the document urges employers to keep all workplaces tobacco-free.

We do, however, recommend that NIOSH make two changes. First, the Institute should clarify that the recommendations apply to all tobacco products, including ENDS such as electronic cigarettes. Second, NIOSH should strengthen the cautions against using disincentives or incentives to modify tobacco-use behavior, especially if the program ties penalties or rewards to an employee's ability to quit. A more reasonable standard would be based on an individual's enrollment and participation in a comprehensive, employer- or community-sponsored tobacco cessation program at no cost to the employee.

Thank you for consideration of our comments. If you have any questions, please contact Susan K. Bishop at (202) 785-7908 or susan.k.bishop@heart.org.

Sincerely,



Nancy Brown
Chief Executive Officer