

## **CMA Submission:**

***CMA's Recommendations for Bill S-5: An Act to amend the Tobacco Act and the Non-smokers' Health Act and to make consequential amendments to other Acts***

**Submission to the Senate Standing Committee on Social Affairs, Science and Technology**

**April 7, 2017**

**ASSOCIATION  
MÉDICALE  
CANADIENNE**



**CANADIAN  
MEDICAL  
ASSOCIATION**

The Canadian Medical Association (CMA) is the national voice of Canadian physicians. Founded in 1867, the CMA's mission is helping physicians care for patients.

On behalf of its more than 85,000 members and the Canadian public, the CMA performs a wide variety of functions. Key functions include advocating for health promotion and disease/injury prevention policies and strategies, advocating for access to quality health care, facilitating change within the medical profession, and providing leadership and guidance to physicians to help them influence, manage and adapt to changes in health care delivery.

The CMA is a voluntary professional organization representing the majority of Canada's physicians and comprising 12 provincial and territorial divisions and over 60 national medical organizations.

## Introduction

The Canadian Medical Association (CMA) is pleased to provide this submission to the Senate Social Affairs, Science and Technology Committee for its study of Bill S-5, *An Act to amend the Tobacco Act and the Non-Smokers Health Act and to make consequential amendments to other Acts*. We support the government's effort to implement a new legislative and regulatory framework to address vaping products and related matters. Vaping products, such as electronic cigarettes (or e-cigarettes) replicate the act and taste of smoking but do not contain tobacco. We also recognize that the federal government is attempting to find a balance between regulating vaping devices and making them available to adults.

Canada's physicians, who see the devastating effects of tobacco use every day in their practices, have been working for decades toward the goal of a smoke-free Canada. The CMA issued its first public warning concerning the hazards of tobacco in 1954 and has continued to advocate for the strongest possible measures to control its use. The CMA has always supported strong, comprehensive tobacco control legislation, enacted and enforced by all levels of government, and we continue to do so. Our most recent efforts centred on our participation in the 2016 Endgame Summit, held late last year in Kingston, Ontario.

This brief will focus on three areas: supporting population health; the importance of protecting youth; and, the promotion of vaping products.

## Overview

Tobacco is an addictive and hazardous product, and a leading cause of preventable disease and death in Canada. Smoking has been on the decline in Canada the most recent Canadian Community Health Survey reports that 17.7% of the population aged 12 and older were current daily or occasional smokers in 2015 (5.3 million smokers); that is down from 18.1% in 2014.<sup>1</sup> Many strong laws and regulations have already been enacted but some areas remain to be addressed and strengthened especially as the tobacco industry continues to evolve. Electronic cigarettes and vaping represents the next step in that evolution.

While Canada is to be congratulated on its success to date, it needs to maintain an environment that encourages Canadians to remain tobacco-free if smoking prevalence is to be reduced further in Canada. The CMA believes it is incumbent on all levels of government in Canada to keep working on comprehensive, coordinated and effective tobacco control strategies, including vaping products, to achieve that goal.

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<sup>1</sup> Statistics Canada. Smoking, 2015 *Health Fact Sheets* Canadian Community Health Survey, 2015 82-625-X March 22, 2017

## Supporting Population Health

The arrival of vaping products in Canada placed them in a “grey zone” with respect to legislation and regulation. Clarification of their status is crucial from a public health perspective because of their growing popularity, particularly among youth.<sup>2</sup> E-cigarettes have both defenders and opponents. Proponents say they are safer than tobacco cigarettes since they do not contain the tar and other toxic ingredients that are the cause of tobacco related disease. Indeed, some believe they serve a useful purpose as a harm reduction tool or cessation aid (though it is forbidden to market them as such since that claim has never been approved by Health Canada).

Opponents are concerned that the nicotine delivered via e-cigarettes is addictive and that the cigarettes may contain other toxic ingredients such as nitrosamines. Also, they worry that acceptance of e-cigarettes will undermine efforts to de-normalize smoking, and that they may be a gateway to the use of tobacco by people who might otherwise have remained smoke-free. This issue will be addressed later in this brief.

This difference of opinion certainly highlights the need for more research into the harms and benefits of vaping products and the factors that cause people to use them.<sup>3</sup> Encouraging smokers to move from combustible tobacco products to a less harmful form of nicotine may be a positive step. However the current available evidence is not yet sufficient to establish them as a reliable cessation method.

A systematic review published by M. Malas *et al.* (2016) concluded that while “a majority of studies demonstrate a positive relationship between e-cigarette use and smoking cessation, the evidence remains inconclusive due to the low quality of the research published to date.”<sup>4</sup> Indeed, some are helped by these devices to quit smoking but “more carefully designed and scientifically sound studies are urgently needed to establish unequivocally the long-term cessation effects of e-cigarettes and to better understand how and when e-cigarettes may be helpful.”<sup>5</sup> The authors found that the evidence examining e-cigarettes as an aid to quitting smoking was determined to be “very low to low.”<sup>6</sup> A similar result was found for their use in reducing smoking; the quality of the evidence was revealed as being “very low to moderate.”<sup>7</sup>

This conclusion is supported by another review conducted by the University of Victoria (2017). It too indicates that there are not enough studies available to fully determine the

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<sup>2</sup> Czoli CD., Hammond D., White CM., Electronic cigarettes in Canada: Prevalence of use and perceptions among youth and young adults. *Can J Public Health* 2014;105(2):e97-e102

<sup>3</sup> Filippou FT., Laverty AA., Gerovasili V, *et al.* Two-year trends and predictors of e-cigarette use in 27 European Union member states. *Tob Control* 2017;26:98-104

<sup>4</sup> Malas M., van der Tempel J., Schwartz R., *et al.* Electronic cigarettes for smoking cessation: A systematic review. *Nicotine & Tobacco Research* 2016, 1-12 doi:10.1093/ntr/ntw119

<sup>5</sup> *Ibid*

<sup>6</sup> *Ibid*

<sup>7</sup> *Ibid*

efficacy of vaping devices as a tobacco cessation device.<sup>8</sup> This review also noted that there is “encouraging evidence that vapour devices can be at least as effective as other nicotine replacements.”<sup>9</sup>

Another review by R. El Dib *et al.* (2017) reinforces these findings. Limited evidence was also found with respect to the impact of electronic devices to aide cessation. They also noted that the data available from randomized control trials are of “low certainty” and the “observational studies are of very low certainty.”<sup>10</sup>

The wide range of devices available makes it very difficult to test which are the most effective in helping cessation efforts. Many of the studies are on older devices so it is possible that as second-generation technology becomes available they will prove to be more successful. In view of this uncertainty, the CMA calls for more scientific research into the potential effectiveness and value of these devices as cessation aids. Physicians need to be confident that if they recommend such therapy to their patients it will have the desired outcome. To that end, we are pleased that Health Canada will continue to require manufacturers to apply for authorization under the *Food and Drugs Act* to sell products containing nicotine and make therapeutic claims.

### *Risk and Safety*

In addition to the discussion concerning the usefulness of vaping devices as cessation devices, concerns from a public health standpoint involve the aerosol or vapour produced by heating the liquids used in these devices, and the nicotine some may contain. The tube of an e-cigarette contains heat-producing batteries and a chamber holding liquid. When heated, the liquid is turned into vapour which is drawn into the lungs. Ingredients vary by brand but many contain nicotine and/or flavourings that are intended to boost their appeal to young people.

The CMA is concerned that not enough is known about the safety of the ingredients in the liquids being used in vaping devices. While it is the case that because e-cigarettes heat rather than burn the key constituent, they produce less harmful toxins and are much safer than conventional cigarettes. Research in the UK suggested that “long-term Nicotine Replacement Therapy (NRT)-only and e-cigarette-only use, but not dual-use of NRTs or e-cigarettes with combustible cigarettes, is associated with substantially

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<sup>8</sup> O’Leary R., MacDonald M., Stockwell T., & Reist D. (2017) Clearing the Air: A systematic review on the harms and benefits of e-cigarettes and vapour devices. Victoria, BC: Centre for Addiction Research for BC

<sup>9</sup> *Ibid*

<sup>10</sup> El Dib R. Suzumura EA., Akl EA, *et al.* Electronic nicotine delivery systems and/or electronic non-nicotine delivery systems for tobacco or reduction: A systematic review and meta-analysis. *BMJ Open* 2017;7: e012680. Doi10:1136/bmjopen-2016-012680

reduced levels of measured carcinogens and toxins relative to smoking only combustible cigarettes.”<sup>11</sup> However, this study has been criticized because “it only looked at a few toxins and didn’t test for any toxins that could be produced by e-cigarettes.”<sup>12</sup>

The variety of flavourings and delivery systems available make it imperative that the risks associated with these products be fully understood. As one study noted “analysis of e-liquids and vapours emitted by e-cigarettes led to the identification of several compounds of concern due to their potentially harmful effects on users and passively exposed non-users.”<sup>13</sup> The study found that the emissions were associated with both cancer and non-cancer health impacts and required further study.<sup>14</sup>

There is another aspect of the public health question surrounding vaping devices. There is data to support the idea that “nicotine exposure during periods of developmental vulnerability (e.g., fetal through adolescent stages) has multiple adverse health consequences, including impaired fetal brain and lung development.”<sup>15</sup> Therefore it is imperative that pregnant women and youth be protected. There is not enough known about the effects of long-term exposure to the nicotine inhaled through vaping devices at this time.<sup>16</sup>

### **Recommendations:**

- 1) Given the scarcity of research on e-cigarettes the Canadian Medical Association calls for ongoing research into the potential harms of electronic cigarette use, including the use of flavourings and nicotine.
- 2) The CMA calls for more scientific research into the potential effectiveness and value of these devices as cessation aids..
- 3) The Canadian Medical Association supports efforts to expand smoke-free policies to include a ban on the use of electronic cigarettes in areas where smoking is prohibited.

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<sup>11</sup> Shahab L, Goniewicz M., Blount B., *et al.* Nicotine, carcinogen, and toxin exposure in long-term e-cigarette and nicotine replacement therapy users. *Annals of Internal Medicine* doi:10.7326/M16-1107 7 February 2017

<sup>12</sup> Collier R. E-cigs have lower levels of harmful toxins. *CMAJ* 2017 February 27;189:E331. doi: 10.1503/cmaj.1095396

<sup>13</sup> Sleiman M., Logue J., Montesinos VN. *et al.* Emmissions from electronic cigarettes : Key parameters affecting the release of harmful chemicals. *Environmental Science and Technology* July 2016 doi:10.1021/acs.est.6b01741

<sup>14</sup> *Ibid*

<sup>15</sup> England LJ., Bunnell RE., *et al.* Nicotine and the developing human. *Am J. Prev Med* 2015

<sup>16</sup> Editorial. Use of Electronic Cigarettes by Adolescents. *Journal of Adolescent Health* 57 (2015) 569-570

## Protecting Youth

The CMA is encouraged by the government's desire to protect youth from developing nicotine addiction and inducements to use tobacco products. Young people are particularly vulnerable to peer pressure, and to tobacco industry marketing tactics.

The CMA supports continued health promotion and social marketing programs aimed at addressing the reasons why young people use tobacco and have been drawn to vaping devices, discouraging them from starting to use them and persuading them to quit, and raising their awareness of tobacco industry marketing tactics so that they can recognize and counteract them. These programs should be available continuously in schools and should begin in the earliest grades. The “cool/fun/new” factor that seems to have developed around vaping devices among youth make such programs all the more imperative.<sup>17</sup>

The CMA recommends a ban on the sale of all electronic cigarettes to Canadians younger than the minimum age for tobacco consumption in their province or territory. We are pleased to see that Bill S-5 aims to restrict access to youth, including prohibiting the sale of both tobacco and vaping products in vending machines as well as prohibiting sales of quantities that do not comply with the regulations.

In fact, the CMA recommends tightening the licensing system to limit the number of outlets where tobacco products, including vaping devices, can be purchased. The more restricted is availability, the easier it is to regulate. The CMA considers prohibiting the promotion of flavours in vaping products that may appeal to youth, such as soft drinks and cannabis, to be a positive step.

A recent report published by the World Health Organization and the US National Cancer Institute indicated that websites dedicated to retailing e-cigarettes “contain themes that may appeal to young people, including images or claims of modernity, enhanced social status or social activity, romance, and the use of e-cigarettes by celebrities.”<sup>18</sup> We are therefore pleased that sales of vaping products via the internet will be restricted through prohibiting the sending and delivering of such products to someone under the age of 18. This will be critical to limiting the tobacco industry's reach with respect to youth.

There have also been arguments around whether vaping products will serve as gateways to the use of combusted tobacco products. The University of Victoria (2017) paper suggests this isn't the case; it notes that “there is no evidence of any gateway

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<sup>17</sup> Khoury M., Manlhiot C., *et al* Reported electronic cigarette use among adolescents in the Niagara region of Ontario. *CMAJ* 2016 DOI:10.1503/cmaj.151169

<sup>18</sup> U.S. National Cancer Institute and World Health Organization. The Economics of Tobacco and Tobacco Control. National Cancer Institute Tobacco Control Monograph 21. NIH Publication No. 16-CA-8029A. Bethesda, MD: U.S. Department of Health and Human Services, National Institutes of Health, National Cancer Institute; and Geneva, CH: World Health Organization; 2016.

effect whereby youth who experiment with vapour devices are, as a result, more likely to take up tobacco use.”<sup>19</sup> They base this on the decline in youth smoking while rates of the use of vaping devices rise.<sup>20</sup> Others contend that vaping is indeed a gateway, saying it acts as a “one-way bridge to cigarette smoking among youth. Vaping as a risk factor for future smoking is a strong, scientifically-based rationale for restricting access to e-cigarettes.”<sup>21</sup> Further, in a “national sample of US adolescents and young adults, use of e-cigarettes at baseline was associated with progression to traditional cigarette smoking. These findings support regulations to limit sales and decrease the appeal of e-cigarettes to adolescents and young adults.”<sup>22</sup>

However, there may be a role for vaping products in relation to young users. A New Zealand study conducted among young adults that examined how electronic nicotine delivery systems (ENDS) were used to recreate or replace smoking habits. It found that study participants “used ENDS to construct rituals that recreated or replaced smoking attributes, and that varied in the emphasis given to device appearance.”<sup>23</sup> Further, it was suggested that ascertaining how “ENDS users create new rituals and the components they privilege within these could help promote full transition from smoking to ENDS and identify those at greatest risk of dual use or relapse to cigarette smoking.”<sup>24</sup> The CMA believes that further research is needed on the question of the use of vaping products as a gateway for youth into combustible tobacco products.

### **Recommendations:**

- 1) The Canadian Medical Association recommends a ban on the sale of all electronic cigarettes to Canadians younger than the minimum age for tobacco consumption in their province or territory.
- 2) The Canadian Medical Association calls for ongoing research into the potential harms and benefits of electronic cigarette use among youth.
- 3) The Canadian Medical Association recommends tightening the licensing system to limit the number of outlets where tobacco products, including vaping devices, can be purchased.

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<sup>19</sup> *Op cit.* O’Leary R., MacDonald M., Stockwell T., & Reist D. (2017) Clearing the Air: A systematic review on the harms and benefits of e-cigarettes and vapour devices.

<sup>20</sup> *Ibid*

<sup>21</sup> Miech R., Patrick ME., O’Malley PM., *et al* E-cigarette use as a predictor of cigarette smoking: results from a 1-year follow-up of a national sample of 12<sup>th</sup> grade students. *Tob. Control* 2017;0:1-6. doi:10.1136/tobaccocontrol-2016-053291

<sup>22</sup> Primack BA., Soneji S., Stoolmiller M., *et al* Progression to traditional cigarette smoking after electronic cigarette use among US adolescents and young adults. *JAMA Pediatr.* 2015;169(11): 1018-1023. doi:10.1001/jamapediatrics.2015.1742

<sup>23</sup> Hoek J., Thrul J. Ling P. Qualitative analysis of young adult ENDS users’ expectations and experiences. *BMJ Open* 2017;7:e014990. doi:10

<sup>24</sup> *Ibid*

## Promotion of Vaping Products

The CMA has been a leader in advocating for plain and standardized packaging for tobacco products for many years. We established our position in 1986 when we passed a resolution at our General Council in Vancouver recommending to the federal government “that all tobacco products be sold in plain packages of standard size with the words “this product is injurious to your health” printed in the same size lettering as the brand name, and that no extraneous information be printed on the package.”

The CMA would like to see the proposed plain packing provisions for tobacco be extended to vaping products as well. The inclusion of the health warning messages on vaping products is a good first step but efforts should be made to ensure that they are of similar size and type as those on tobacco as soon as possible.

The restrictions being applied to the promotion of vaping products is a positive step, especially those that could be aimed at youth, but they do not go far enough. The CMA believes the restrictions on promotion should be the same as those for tobacco products. As the WHO/U.S. National Cancer Institute has already demonstrated, e-cigarette retailers are very good at using social media to promote their products, relying on appeals to lifestyle changes to encourage the use of their products.

The CMA is also concerned that e-cigarette advertising could appear in locations and on mediums popular with children and youth if they are not prohibited explicitly in the regulations. This would include television and radio advertisements during times and programs popular with children and youth, billboards near schools, hockey arenas, and on promotional products such as t-shirts and ball caps.

As efforts continue to reduce the use of combustible tobacco products there is growing concern that the rising popularity of vaping products will lead to a “renormalization” of smoking. In fact, worry has been expressed that the manner they have been promoted “threaten(s) to reverse the successful, decades-long public health campaign to de-normalize smoking.”<sup>25</sup> A recent US study indicated that students that use vaping products themselves, exposure to advertising of these devices, and living with other users of vaping products is “associated with acceptability of cigarette smoking, particularly among never smokers.”<sup>26</sup> Further research is needed to explore these findings.

### Recommendations:

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<sup>25</sup> Fairchild AL., Bayer R., Colgrove J. The renormalization of smoking? E-cigarettes and the tobacco “endgame.” *N Engl J Med* 370:4 January 23, 2014

<sup>26</sup> K. Choi *et al.* Electronic nicotine delivery systems and acceptability of adult smoking among Florida youth: Renormalization of Smoking? *Journal of Adolescent Health* (2016) 1-7

- 1) The Canadian Medical Association recommends similar plain packaging provisions proposed for tobacco be extended to vaping products.
- 2) Health warning messages on vaping products should be of similar size and type as those on tobacco as soon as possible
- 3) The Canadian Medical Association believes the restrictions on promotion of vaping products and devices should be the same as those for tobacco products.

## Conclusion

Tobacco is an addictive and hazardous product, and a leading cause of preventable disease and death in Canada. Our members see the devastating effects of tobacco use every day in their practices and to that end the CMA has been working for decades toward the goal of a smoke-free Canada. The tobacco industry continues to evolve and vaping represents the next step in that evolution.

The CMA believes it is incumbent on all levels of government in Canada to keep working on comprehensive, coordinated and effective tobacco control strategies, including vaping products, to achieve that goal. Bill S-5 is another step in that journey. Researchers have identified potential benefits as well as harms associated with these products that require much more scrutiny. The association of the tobacco industry with these products means that strong regulations, enforcement, and oversight are needed.

## Recommendations:

- 1) Given the scarcity of research on e-cigarettes the Canadian Medical Association calls for ongoing research into the potential harms of electronic cigarette use, including the use of flavourings and nicotine.
- 2) The CMA calls for more scientific research into the potential effectiveness and value of these devices as cessation aids..
- 3) The Canadian Medical Association supports efforts to expand smoke-free policies to include a ban on the use of electronic cigarettes in areas where smoking is prohibited.
- 4) The Canadian Medical Association recommends a ban on the sale of all electronic cigarettes to Canadians younger than the minimum age for tobacco consumption in their province or territory.
- 5) The Canadian Medical Association calls for ongoing research into the potential harms and benefits of electronic cigarette use among youth.

- 6) The Canadian Medical Association recommends tightening the licensing system to limit the number of outlets where tobacco products, including vaping devices, can be purchased.
- 7) The Canadian Medical Association recommends similar plain packaging provisions proposed for tobacco be extended to vaping products.
- 8) Health warning messages on vaping products should be of similar size and type as those on tobacco as soon as possible
- 9) The Canadian Medical Association believes the restrictions on promotion of vaping products and devices should be the same as those for tobacco products.