



Written Submission to the Health Canada Consultation: *Tobacco and Vaping Products Act Legislative Review*

April 2022

Summary

The Canadian Paediatric Society (CPS) is pleased to submit the following comments as a part of the public consultation of the Legislative Review of the *Tobacco and Vaping Products Act* (TVPA). As Canada's national association of paediatricians, paediatric subspecialists and other child and youth health providers, the CPS applauds Health Canada's focused efforts to regulate the manufacture, sale, labelling and promotion of tobacco and vaping products. The high and steady prevalence of youth vaping in Canada is extremely concerning and threatens to undo decades of progress in reducing nicotine addiction in Canada. We therefore strongly support the implementation and objectives of the TVPA – particularly as they relate to protecting the health and well-being of young people.

However, in the three years since the TVPA's implementation, many of the proposed regulations under its purview have fallen short of their potential and attempts have been made to weaken its capacity to effectively regulate vaping products and their use in Canada. Strong pushback from industry, a lack of enforcement, and widespread misinformation have undermined the effectiveness of the TVPA. While the implementation of the TVPA was an extremely welcome and needed step towards addressing the growing public health concern posed by vaping, meaningful challenges still stand in the way of its full implementation or the realization of its principle objectives. We are therefore very pleased to be able to offer the following recommendations to help inform this legislative review.

Discussion Areas

A. Protect young persons and non-users of tobacco products from inducements to use vaping products

There can be little question that more needs to be done to protect young persons and non-users of tobacco from inducements to use vaping products. The number of young people in Canada vaping frequently doubled between 2017 and 2019.¹ In 2020, 14% of Canadians aged 15-19 reported past 30-day vaping and 35% had vaped at some point in their lives.² In comparison, only 3% of adults over the age of 25 reported past 30-day vaping and 13% had tried vaping at some point.³

The CPS strongly supports the full implementation of youth protection measures under the TVPA, including: a ban on furnishing vaping products to those under the age of 18; a prohibition on the promotion and sale of vaping products with design features that could reasonably be considered appealing to young persons; a prohibition on the promotion of vaping products by means of lifestyle advertising, on advertising that could be appealing to young persons, and on promotion by means of testimonials and endorsements, including through the depiction of cartoon characters; and a prohibition on the promotion of vaping products through any indication or illustration of flavour that could be appealing to youth, as well as certain flavours including confectionary, dessert, cannabis, soft drinks and energy drinks.

While the current restrictions represent a significant improvement from the regulatory landscape only a few years ago, many vaping products are still directly targeted to youth, vaping products remain easily accessible to youth under the legal age, and many flavoured vaping products are still being openly marketed in defiance of regulations or have been re-named (such as from cotton candy to "pink cloud"), so as to allow industry to claim a dessert flavour is not being promoted.

Stricter limitations on flavoured vaping products is a clear area for greater regulatory action under the TVPA and would help to reduce the marketing, appeal and use of vaping products by youth. A wide variety of youth-friendly flavours has contributed to the popularity of vaping in Canada and has placed millions of youth and non-smokers at risk of the many physical and mental health effects of e-cigarette use.⁴ Flavors are extremely common and are often named as a primary reason for e-cigarette use.⁵

Youth are much more likely than adults to vape for recreational purposes, with youth-friendly flavours including fruit and mint significantly contributing to the appeal of vaping products amongst youth.⁶ According to the CTNS 2019, of youth aged 15-19 who had vaped in the past 30 days, 51% reported using a fruit flavour most often and 17% reported using mint/menthol most often. Comparatively, tobacco was the flavour most often used by 41% of those over the age of 45.⁷ Canadian public health would be improved and the appeal of vaping to youth and non-smokers greatly reduced through a national ban on flavoured vaping products. The CPS therefore strongly supports banning all flavoured vaping products with the only exception of tobacco.

This review of the TVPA also presents an important opportunity to highlight the potential for heated tobacco products (HTPs) to appeal to youth.⁸ HTPs generate nicotine-containing aerosols by heating tobacco instead of burning it, and many are also flavoured.⁹ The intermediate risk profile of these devices (with levels of emissions typically between those of vaping aerosols and tobacco cigarettes) means that they can cause similar harms, including risk of nicotine dependence.¹⁰¹¹ While HTPs are currently used by a small proportion of youth in Canada, trends seen in other jurisdictions suggest that the strict regulation of these products is necessary to prevent an increase in use among young people.¹²¹³¹⁴

B. Protect the health of young persons and non-users of tobacco products from exposure to and dependence on nicotine that could result from the use of vaping products

The high prevalence of vaping product use among youth in Canada threatens to undermine steady decreases in nicotine addiction that has been achieved through decades of work by public health.¹⁵ While thankfully the available Canadian data to date does not show that the rise in youth vaping has been accompanied by a similar rise in youth smoking rates, the challenges of accurate data collection as a consequence of the pandemic must be recognized. It is far too early to discount the fear that vaping rates will lead to increased tobacco use in youth and non-smokers, especially with multiple recent studies demonstrating a positive correlation between ever e-cigarette use and combustible tobacco use.¹⁶¹⁷¹⁸¹⁹

Many vaping products contain significant amounts of nicotine – often at even higher concentrations than combustible cigarettes. Nicotine is a highly addictive substance and children and youth may become dependent on nicotine more rapidly than adults.²⁰ The use of nicotine has been shown to impact brain development and increase future risk for substance use and addiction to licit and illicit substances.²¹²²²³ The younger the onset of nicotine use, the greater the impact on future risk of substance use disorders.²⁴

Among youth reporting use of a vaping device, 87% have reported using nicotine-containing vaping liquids.²⁵ Consuming high amounts of nicotine through vaping, sometimes referred to as “dosing”, can lead to nicotine toxicity, a syndrome consisting of intense abdominal pain, nausea, vomiting,

palpitations, hand tremors, headaches and difficulty concentrating, and, in severe cases, seizures and arrhythmia.²⁶ Nicotine addiction through repeated vaping may also lead to withdrawal symptoms if youth quit or are temporarily unable to access vaping products.^{27,28} Withdrawal symptoms such as intense cravings, irritability, nervousness, depressed mood, headaches and insomnia may interfere with normal adolescent health and functioning, and represent an important barrier for cessation.^{29,30}

The direct and associated risks of vaping products containing nicotine are a significant risk to the health, development and well-being of Canadian youth. Consequently, the CPS continues to fully support the new *Nicotine Concentration in Vaping Product Regulations*, which set a maximum nicotine concentration of 20 mg/mL for vaping products marketed in Canada. Lowering the maximum concentration of nicotine allowed in vaping products brings Canada into alignment with many provincial and international jurisdictions who have already established 20 mg/mL as a maximum concentration level. Most importantly, national alignment with this standard will help to reduce both the appeal of, and the risks associated with the use of vaping products containing nicotine for Canadian youth. However, paediatricians working across Canada report that many youth continue to access higher concentration products, suggesting that there is still much work to be done to enforce the current nicotine concentration limit and better restrict access to illicit, higher concentration products.

In addition to the full implementation and enforcement of the new *Nicotine Concentration in Vaping Products Regulations*, the CPS would like to suggest the consideration and study of two additional restrictions:

- 1) On limiting the capacity of vaping cartridges and reservoirs; and
- 2) On limiting the number of nicotine-containing vaping cartridges that can be purchased at once.

While more research is needed to determine the most appropriate limits, these are two outstanding areas for regulatory consideration under the TVPA that could potentially help to protect young people from the dangers of nicotine poisoning, while also helping to reduce the availability of vaping products to youth under the legal age through re-selling or the grey market.

C. Protect the health of young persons by restricting access to vaping products

Among youth aged 15-19 who used a vape in the past 30 days, just half reported using social sources to access vaping products (such as buying from a friend or family member, asking someone else to buy them for you, or having a friend or family member give or lend them to you).³¹ Stricter enforcement measures are clearly needed to prohibit retail sources including vape shops, convenience stores, gas stations, supermarkets, grocery stores, drug stores and online merchants from selling vaping products to those under the legal age.

Advancements under the TVPA to restrict the access of youth to vaping products have yielded many positive results – especially in relation to reducing the willingness of brick and mortar stores to sell to those under the legal age. According to fieldwork conducted in 2019 to determine the willingness of retailers to sell vaping products to youth (15-17 years old), the overall rate of refusal was 88% - significantly higher than the rate of refusal found during a similar study conducted in 2015 (67%).³² However, a meaningful disparity was found to exist between provinces, with significantly lower than average refusal rates in Quebec (81%), Manitoba (79%) and Nova Scotia (74%).³³ Targeted efforts to

increase awareness, enforcement and compliance with regulations in these provinces would therefore be beneficial.

One of the most complex challenges to restricting the ability of those under the legal age to access vaping products is the online market. Online retailers have much weaker age verification tools and are much more likely to promote the use of vaping products using images or descriptions that contravene the TVPA. According to a 2019 study of online retailers by IPSOS, only 21% of websites had a statement before an order was confirmed indicating that age verification would be required upon purchase or delivery, and 99% of websites did not require ID verification to be uploaded.³⁴ Given such shortcomings, focused efforts are needed to ensure those buying vaping products online are over the legal age and that online retailers are not marketing or promoting their products to youth.

In conjunction with efforts to better regulate the means through which young persons access vaping products, the taxation of vaping products can also help to reduce the public health burden of vaping in Canada. The implementation of the proposed federal excise duty of \$1.00 per 2 mL (or fraction therefore) for containers with less than 10 mL of vaping liquid, or \$5.00 for the first 10 mL and \$1.00 for every additional 10mL (or fraction thereof) for larger containers, can help to reduce the availability and accessibility of vaping products to youth and non-smokers.³⁵

D. Prevent the public from being deceived or misled with respect to the health hazards of using vaping products

Significant and widespread misconceptions around what have been referred to as the “comparative health benefits” of vaping are widespread. Industry and lobby groups have spent significant amounts of money to convince the public that vaping is low-risk. Given the prevalence of misleading or unfounded statements regarding vaping, especially those framing it as low-risk or as a proven smoking cessation tool, it is especially important that all public communications from the Government of Canada be evidence-based and aligned with public health messaging.

In contrast to the perceptions of many, no vaping products have been approved by Health Canada or the U.S Food & Drug Administration for use as a smoking cessation aid and the evidence to suggest vaping is an effective cessation support among adults remains controversial.^{36,37} When speaking about youth specifically, there is currently no available evidence to support vaping as an effective smoking cessation strategy, with important risks related to increased nicotine dependence and harms associated with co-use of cigarettes and vaping devices.³⁸ Vaping should therefore not be used as a smoking cessation tool for youth, due to lack of effectiveness and evidence of harm.³⁹ Proven strategies to help those with nicotine dependence from either combustible cigarettes or nicotine-containing vapes should instead be encouraged, including behavioural interventions, and in some cases, nicotine replacement therapy (including patches, gum or lozenges).⁴⁰

E. Enhance public awareness of health hazards

Evidence suggests that interventions led by community stakeholders such as schools, local public health, community, faith and youth organizations can have a significant positive impact on preventing and reducing vaping. Educational curriculums and local health initiatives geared towards youth should be supported to teach children and youth about the risks of vaping. Pre-emptive conversations and raising

awareness about the harms associated with vaping and the increased risk of nicotine addiction in young people can help to stop the cycle of addiction before it starts.

The Government of Canada can also help to enhance public awareness by amplifying existing evidence-based resources and toolkits and supporting the creation of a wide variety of new public education campaigns led by and for a diverse set of voices including those of youth and members of the LGBTQ2IA+ and BIPOC communities.

Clearer messaging and labelling can also help to both increase the awareness of the health risks of vaping as well as to combat misinformation. For example, many users or those who may be curious to try vaping may be unaware of the differences between vaping liquids with or without nicotine. They may also be naïve to the importance of nicotine concentration levels or the comparative nicotine exposure between vaping and tobacco cigarettes. Just as the Government of Canada has invested in public awareness campaigns to inform youth and naïve users about the risks of cannabis products that are high in THC, so too is there a role for increased awareness raising about the elevated risks of using nicotine, particularly at high concentrations.

Research has shown that those who vape are exposed to many chemicals, both from aerosols inhaled directly (first-hand) and from passive (second-hand) exposures.⁴¹ Several irritating and some carcinogenic substances found in vape liquids can also cause chronic cough, bronchitis, asthma exacerbation and decreased exercise tolerance.⁴² Because vaping products are relatively new, their carcinogenic risks over the longer term compared with other tobacco or cannabis products are unknown. However, several studies have raised serious concern about vaping as a long-term risk factor for poor cardiovascular health.⁴³

Between August 2019 and March 2020, nearly 3,000 cases of vaping product use-associated lung injury (VALI) were reported in Canada and the United States, of which approximately 15% were in youth under the age of 18.⁴⁴ VALI is a sterile inflammatory pneumonitis caused by inhaling the fine chemicals found in vaping aerosols, which triggers a pulmonary immune response.⁴⁵ Clinical presentation includes cough, chest pain, and shortness of breath that can be severe and lead to hospitalization or even death.^{46,47} With such serious known and emerging health risks, every effort must be made to enhance public awareness about the health hazards of vaping and counter the false narrative of vaping as low-risk.

Conclusion

Vaping represents a significant and growing public health burden, particularly for those under the age of 25. While the TVPA has helped to spur meaningful progress, the current regulatory landscape is characterized by significant loopholes, meaningful discrepancies between jurisdictions, and an overall lack of enforceability or meaningful consequences.

Strengthened surveillance, enforcement and compliance efforts are therefore needed alongside expanded regulatory measures including:

- a. banning of all flavoured vaping products with the exception of tobacco;
- b. ensuring that HTPs are appropriately regulated to prevent an increase in their use among young people and non-smokers;
- c. ensuring that all public communications from the Government of Canada regarding vaping are evidence-based and in line with public health messaging;

- d. funding evidence-based studies that are free of conflicts-of-interest into the effectiveness of vaping as a smoking cessation tool;
- e. funding and supporting studies to increase our understanding of the long-term health impacts of vaping;
- f. fully enforcing existing regulations and enacting compliance measures on those who operate in open defiance of the TVPA, or through loopholes that clearly contravene its intention;
- g. implementing and enforcing the new *Nicotine Concentration in Vaping Product Regulations* to establish a nation-wide maximum nicotine concentration of 20 mg/mL for vaping products marketed in Canada;
- h. studying the possibility of limiting the capacity of reservoirs and the number of nicotine-containing vaping cartridges that can be purchased at once;
- i. increasing enforcement and compliance to prevent the sale of vaping products to young persons;
- j. expansion of regulation and oversight to address the relative ease through which young people can purchase vaping products online;
- k. timely implementation of the proposed federal excise duty on vaping products, and regular review to ensure the amount remains current and effective;
- l. expanded federal investment to reduce financial barriers to accessing proven smoking cessation tools including behavioural strategies and NRT;
- m. amplifying existing evidence-based resources and toolkits and supporting the creation of a wide variety of new public education campaigns about the health risks of vaping led by and for a diverse set of voices including those of youth and members of the LGBTQ2IA+ and BIPOC communities; and
- n. developing initiatives to better educate naïve or curious users of vaping products about the meaning, comparisons and associated risks of various nicotine concentrations, recognizing that “X mg/mL” is unlikely to hold much meaning to many users.

Additional Resources

In addition to the references throughout, the following recently published research and evidence may be helpful to strengthen the review and implementation of the TVPA going forward:

- Chadi, N, Hadland SE, Harris SK. Understanding the implications of the "vaping epidemic" among adolescents and young adults: A call for action. *Subst Abus* 2019;40(1):7–10.
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- Sailer S, Sebastiani G, Andreu-Fernández V, et al. Impact of nicotine replacement and electronic nicotine delivery systems on fetal brain development. *Int J Environ Res Public Health* 2019;16(24):5113.
- Struik LL, Werstuik ST, Sundstrom A et al. Factors that influence the decision to vape among Indigenous youth. *BMC Public Health* 2022;22(641).

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About the CPS

The Canadian Paediatric Society is the national association of paediatricians, committed to working together to advance the health of children and youth by nurturing excellence in health care, advocacy, education, research and support of its membership. Founded in 1922, the CPS is a voluntary professional association that represents more than 3,600 paediatricians, paediatric subspecialists, paediatric residents, and others who work with and care for children and youth. The CPS is governed by an elected Board of Directors representing all provinces and territories.

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⁴ The Society for Adolescent Health and Medicine. Protecting youth from the risks of electronic cigarettes. *Journal of Adolescent Health* 2019;66(1):127-131.

⁵ National Academies of Sciences, Engineering, and Medicine. Public health consequences of e-cigarettes. *The National Academies Press* 2018. <https://doi.org/10.17226/24952>.

⁶ Canadian Tobacco and Nicotine Survey, 2020.

⁷ Government of Canada. Canadian Tobacco and Nicotine Survey (CTNS): 2019 detailed tables, July 2020: <https://www.canada.ca/en/health-canada/services/canadian-tobacco-nicotine-survey/2019-summary/2019-detailed-tables.html> (Accessed April 21, 2022).

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⁹ Ibid.

¹⁰ Lu F, Yu M, Chen C, et al. The emission of VOCs and CO from heated tobacco products, electronic cigarettes, and conventional cigarettes, and their health risk. *Toxics* 2021;10(1):8. doi:10.3390/toxics10010008.

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¹² Kang SY, Lee S, Cho H. Prevalence and predictors of heated tobacco product use and its relationship with attempts to quit cigarette smoking among Korean adolescents. *Tobacco Control* 2021;30:192-198.

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- ²⁸ McLaughlin I, Dani JA, De Biasi M. Nicotine withdrawal. *Curr Top Behav Neurosci* 2015;24:99– 123.
- ²⁹ Volkow ND, Baler RD, Compton WM, et al. Adverse health effects of marijuana use. *N Engl J Med* 2014;370(23):2219–27.
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