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**RE: SUBMISSION TO HEALTH CANADA CONSULTATION ON THE PROPOSED  
CONCENTRATION OF NICOTINE IN VAPING PRODUCTS REGULATIONS (CNVPR)**

Dear Sir or Madame;

The Middlesex-London Health Unit shares Health Canada's concerns regarding the rapid increase in vapour product use by young people caused in part by the availability of high-nicotine concentration vaping products in Canada. The Middlesex-London Health Unit commends Health Canada for its commitment to work with provincial and territorial partners to enhance national collaborative and cooperative efforts to reduce youth vaping.

In Ontario, local Public Health Units play an important role in working with parents, schools, community and social service agencies, and municipalities to prevent youth, young adults, and non-tobacco users from using vaping products, and to promote compliance and ensure enforce the provisions outlined under the *Smoke-Free Ontario Act, 2017*. The enactment of the proposed *Concentration of Nicotine in Vaping Products Regulations (CNVPR)*, published in the Canada Gazette, Part I on December 19, 2020 would be an important step forward to help reverse the increase in youth initiation of vaping in Canada. The Middlesex-London Health Unit welcomes the opportunity to provide comments on how to strengthen the proposed *Concentration of Nicotine in Vaping Products Regulations*. Our submission is attached for your consideration.

While the proposed regulations along with the recommended improvements we have suggested will help to prevent youth, young adults and non-smokers from initiating vapour product use, additional regulatory, legislative and policy changes are needed to effectively curb the rapidly growing epidemic of youth vaping. The Middlesex-London Health Unit looks forward to continuing to work in partnership with our federal public health partners to address this emerging public health issue of significant concern. For more information or to discuss further, please do not hesitate to contact me or Donna Kosmack, Program Manager for Chronic Disease Prevention and Tobacco Control at (519) 663-5317 ext. 2302.

Sincerely,



Christopher Mackie, MD, MHSc, CCFP, FRCPC  
Medical Officer of Health

*Attachment*

February 19<sup>th</sup>, 2021

## **Comments on the Proposed *Concentration of Nicotine in Vaping Products Regulations***

The Middlesex-London Health Unit (MLHU) applauds Health Canada's efforts to prevent the initiation of vaping by youth, young adults, and non-smokers by limiting the concentration of nicotine in vaping products to a maximum of 20 mg/ml and welcomes the opportunity to provide feedback on the proposed *Concentration of Nicotine in Vaping Products Regulations*. The proposed regulations would offer consistent protection from nicotine addiction for youth across Canada by aligning a patchwork of provincial regulations, many of which do not currently meet this standard of protection.

This maximum limit has already been implemented in British Columbia and Nova Scotia, as well as 33 other countries, including the United Kingdom and all European Union member nations.

### **The Youth Vaping Crisis in Canada**

Overall, the regulations, once implemented, will help to reduce youth vaping and will be a significant advancement to the status quo; however, the timeliness of enactment is imperative. Data from the 2018-19 Canadian Student Tobacco Alcohol and Drugs survey (CSTADS, 2019) shows that 20.2% of Canadian students (approximately 418,000) had used an e-cigarette (with or without nicotine) in the past 30 days. Students that reported vaping (with or without nicotine) in the past 30 days are vaping regularly, with approximately 40% reporting daily or almost daily use (Health Canada, 2019).

This same research has indicated that vaping has led to an overall increase in nicotine use by youth, which suggests that vaping has not replaced smoking behaviours among young people. In fact, the total prevalence of vaping and smoking among young people today is much higher than the prevalence of smoking in that population a decade ago. By far, the majority of youth in Canada who vape are using devices that contain nicotine; 87.6% of all current grade 7 – 12 students who vape use nicotine, and that number rises to 91.2% among students in grade 10 – 12. Young people also make up a disproportionate percentage of vapers in Canada; 48% of those who vape are between the ages of 15-24. The measures outlined in the proposed regulations will help reverse the increase in youth initiation of vaping in Canada and should be adopted as soon as possible.

### **The Health Impacts of Nicotine**

Along with the rise in prevalence of youth vaping has come a rise in the popularity of products with very high nicotine concentrations, with many products on the market today containing three times the proposed maximum. Health Canada has reported that in 2016, only 10% of the Canadian market was comprised of products with a nicotine concentration of higher than 20 mg/ml; by 2019, this had increased to 62%.

In addition to being highly addictive, nicotine has negative impacts on health, increasing blood pressure which is a leading risk factor for heart disease and stroke. Other health impacts include the potential for increased risk of the spread of breast cancer to the lungs, impacts on adolescent brain development, and adverse effects of the use of high concentrations of nicotine, including vomiting, headaches, dizziness, nausea and in extreme cases, fainting and nicotine poisoning.

Another significant concern is the potential for vaping to lead to increased rates of youth smoking. Substantial research has indicated that the use of nicotine vaping products make youth more prone to smoking.

The Regulatory Impact Assessment Statement (RIAS) identified high nicotine products as one of the key factors contributing to the rapid rise in youth vaping.

### **Other Proposed Policy Options**

Health Canada inspections have revealed widespread non-compliance by specialty vape stores regarding federal legislative provisions applying to e-cigarettes. The Health Canada Vaping Compliance and Enforcement Report for July-September 2019 found that fully 83% of specialty vape stores inspected were non-compliant with federal legislation. For October-December 2019, fully 84% of specialty vape stores were found to be non-compliant.

In addition to the outright ban of products over 20 mg/ml implemented in Nova Scotia and British Columbia, other provinces have taken measures to limit access to high nicotine products. In Ontario, for example, products containing more than 20 mg/ml have been limited for sale to specialty stores accessible only to those over 19 years of age. The MLHU has noticed that this measure has not gone far enough to protect young people from obtaining vape products with higher concentrations. It is not uncommon that MLHU receives complaints from the public that store operators are selling illegal products to familiar under age customers to avoid being caught by a test shopper. This makes it very difficult for tobacco enforcement to use test shopping practices to ensure compliance. Additionally, MLHU has had numerous accounts of individuals of legal age, including parents, who are purchasing products to sell or supply to underage individuals.

Therefore, the MLHU strongly support the proposed federal Regulation to limit nicotine concentration in vaping products to a maximum of 20 mg/ml.

### **Vaping Products and Smoking Cessation**

One common argument against limits on nicotine concentrations higher than 20 mg/ml is the potential for vaping products to support smoking cessation. One systematic review, which indicates a moderate level of evidence that vapes may be effective cessation devices, is often cited to support this argument. However, four of the five randomized control trials in this review used products with nicotine concentrations of less than 20 mg/ml, with the moderate level of effectiveness. A 20 mg/ml threshold therefore would be supported by current evidence around the use of vaping products by smokers for the purposes of cessation.

### **Implementation, Compliance and Enforcement**

According to the enforcement standards outlined in this consultation, retailers and manufacturers would have 15 days from publication of the final regulations in Canada Gazette II to move to the new regulations. After the 15-day period, the final regulations would come into force. The MLHU is strongly supportive of the 15-day transition period following publication of the final regulations in Canada Gazette II and of the testing method as described in the Canada Gazette I and compliance surveillance that would occur once regulations are in force.

## Conclusion

The current patchwork of provincial regulations around nicotine concentrations does not offer sufficient protection to youth across Canada. The proposed Regulation to create a maximum 20 mg/ml limit is well supported by evidence. Not only is this proposed regulation well supported by the evidence it would ensure that young people across Canada all experience the same level of protection from the harms of high nicotine concentrations.

As of January 7, 2020, there have been 15 cases of confirmed or probable vaping-related severe pulmonary disease in Canada. A growing number of these incidences and a lack of confirmed evidence regarding the specific cause of these illnesses, suggests there is a need to increase awareness about the potential consequences of vaping. The MLHU supports the continued regulation of vapour products to help curb the initiation of youth vaping as the body of evidence regarding the health consequences of vaping grows. However, the health unit also encourages Health Canada to also continue and increase educational efforts regarding the potential dangers of using these products.

## Additional Comments

The proposed regulations, along with the recommendations outlined within this submission, will help to prevent the initiation of vapour product use by youth, young adults and non-smokers; however, further regulatory and legislative changes are needed. This Regulation should be followed swiftly by other policy measures such as limiting online sales, and flavours.

- Many youth who vape report that they obtain these products online. Online vendors may be both less able and less inclined to take effective measures to limit sales to minors; some online vendors accept a simple declaration of a client's age. Strict age-verification measures are required for online sales, including age-verification at time of purchase and proof of legal age at delivery. Active enforcement of online sales to assess compliance with age restriction laws is also required.
- "Flavor is a multisensory perception" that involves taste, aroma, and feelings of cooling and burning within the mouth and throat (Small, D.M. and Green, B.G., 2012). Youth and young adults are particularly influenced by flavours (Mennella, J.A., Pepino, M.Y., and Reed, D.R., 2005). Due to pervasive marketing and promotion tactics, and the addition of attractive candy and fruit flavours to vapour products, sales of e-cigarettes are growing rapidly across Canada and around the world, with over one thousand e-liquid flavours available in the marketplace under the banner of 460 different brands (Euromonitor International, 2015). The MLHU recommends that Health Canada strengthens the current approach to regulating flavoured e-substances to include tighter prohibitions on the manufacturing and sale of e-substance flavours that are attractive to youth and adolescents, with an overall reduction/market cap on the number of flavours available for sale in Canada. Nicotine replacement therapy is only available in a limited number of flavours; therefore, the inventory of vapour product flavours should be limited.

The MLHU applauds the continued efforts of Health Canada to introduce timely and responsive legislation to prevent youth vaping initiation. The MLHU looks forward to continuing to work in partnership to reduce the negative impact that tobacco and vaping product use is having on our community.

## References

- Health Canada. Canadian student tobacco, alcohol and drugs (CSTADS) survey 2018-2019. aem. Published December 19, 2019. <https://www.canada.ca/en/health-canada/services/canadian-studenttobacco-alcohol-drugs-survey/2018-2019-detailed-tables.html>
- Health Canada. Canadian student tobacco, alcohol and drugs (CSTADS) survey 2016-2017. aem. Published June 12, 2018. Accessed January 16, 2020. <https://www.canada.ca/en/healthcanada/services/canadian-student-tobacco-alcohol-drugs-survey/2016-2017-supplementary-tables.html>
- Canadian Tobacco and Nicotine Survey, 2019.
- Regulatory Analysis Impact Statement, *Canada Gazette, Part I*, Dec. 19, 2020, p. 4200.
- U.S. Department of Health and Human Services. How tobacco smoke causes disease: The biology and behavioral basis for smoking-attributable disease. Published online 2010:727. doi:10.1037/e590462011-001
- Tyagi A, Sharma S, Wu K, et al. Nicotine promotes breast cancer metastasis by stimulating N2 neutrophils and generating pre-metastatic niche in lung. *Nat Commun*. 2021;12(1):474. doi:10.1038/s41467-020-20733-9
- Dwyer JB, McQuown SC, Leslie FM. The dynamic effects of nicotine on the developing brain. *Pharmacol Ther*. 2009;122(2):125-139. doi:10.1016/j.pharmthera.2009.02.003
- American Lung Association. What It Means to Be Nic-Sick. American Lung Association. Published October 11, 2019. Accessed February 26, 2020. <https://www.lung.org/about-us/blog/2019/10/nicsick.html>
- Farrelly MC, Duke JC, Crankshaw EC, et al. A Randomized Trial of the Effect of E-cigarette TV Advertisements on Intentions to Use E-cigarettes. *Am J Prev Med*. 2015;49(5):686-693. doi:10.1016/j.amepre.2015.05.010
- Barrington-Trimis JL, Berhane K, Unger JB, et al. The E-cigarette Social Environment, E-cigarette Use, and Susceptibility to Cigarette Smoking. *J Adolesc Health*. 2016;59(1):75-80. doi:10.1016/j.jadohealth.2016.03.019
- Leventhal AM, Strong DR, Kirkpatrick MG, et al. Association of Electronic Cigarette Use With Initiation of Combustible Tobacco Product Smoking in Early Adolescence. *JAMA*. 2015;314(7):700. doi:10.1001/jama.2015.8950
- Primack BA, Soneji S, Stoolmiller M, Fine MJ, Sargent JD. Progression to Traditional Cigarette Smoking After Electronic Cigarette Use Among US Adolescents and Young Adults. *JAMA Pediatr*. 2015;169(11):1018. doi:10.1001/jamapediatrics.2015.1742
- Health Canada, Vaping Compliance and Enforcement Report July – September 2019 <https://www.canada.ca/en/health-canada/services/smoking-tobacco/vaping/compliance-enforcement/quarterly-report-july-september-2019.html>
- Health Canada, Vaping Compliance and Enforcement Report October – December 2019 <https://www.canada.ca/en/health-canada/services/smoking-tobacco/vaping/compliance-enforcement/report-october-december-2019.html>
- Vaping Industry Trade Association of Canada. Reduce the Harm. [https://www.reduceharm.ca/en/?utm\\_source=nnw&utm\\_medium=display&utm\\_campaign=sa%20-%20reduce%20the%20harm&utm\\_content=quit#](https://www.reduceharm.ca/en/?utm_source=nnw&utm_medium=display&utm_campaign=sa%20-%20reduce%20the%20harm&utm_content=quit#)
- Hartmann-Boyce J, McRobbie H, Lindson N, et al. Electronic cigarettes for smoking cessation. *Cochrane Database Syst Rev*. 2020;(10). doi:10.1002/14651858.CD010216.pub4