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## **Middlesex-London Health Unit (Ontario) Submission to the Legislative Review of the *Tobacco and Vaping Products Act***

The Middlesex-London Health Unit (MLHU) applauds the steps that Health Canada has taken to prevent the initiation of vaping by youth, young adults and non-smokers. Since March 2019, the MLHU has made several submissions providing comments and feedback on the *Tobacco and Vaping Products Act (TVPA)* and Regulations. The MLHU is pleased to submit further comments to the Department's mandated 3-year review of the *Act* focusing on its vaping regulation sections and their ability to protect young persons from the harms of vapour products.

### **SECTION 1**

#### ***PROTECT YOUNG PERSONS AND NON-USERS OF TOBACCO PRODUCTS FROM INDUCEMENTS TO USE VAPING PRODUCTS***

- Q.1 Are the current restrictions on advertising and promotional activities adequately protecting youth?*
- Q.2 Are the restrictions within the Act and its regulations sufficient to address potential inducements to use these products by youth and non-users of tobacco products?*
- Q.3 Are there other measures the Government could employ to protect youth and non-users from inducements to use tobacco products?*
- Q.4 Does the TVPA contain the appropriate authorities to effectively address a rapidly evolving product market and emerging issues such as the observed increase in youth vaping?*
- Q.5 Has scientific evidence emerged in this area since the legislation was enacted in 2018 that points to the need for additional action or further restrictions?*

#### **Health Canada Messaging about Vapour Products**

Vaping prevalence rates have skyrocketed in recent years, particularly among youth and young adults. The nation-wide prevalence of vaping among students (grades 7-12) has doubled, rising from 10% in 2016-2017 to 20.2% in 2018-2019. (Health Canada, 2018;2019).

Since the 2018 publication of the assessment of vaping ("Public Health Consequences of E-Cigarettes") by the US National Academy of Science, Engineering and Medicine (NASEM), scientific understanding of the various harms now known to be associated with e-cigarette use by young people has significantly increased. As noted by colleagues at [Physicians for a Smoke-Free Canada](#) (PSC), the NASEM assessment was based on only one-third of the evidence available today (PSC, 2022). PSC's blogpost on the current status of Health Canada's messaging on vaping and its impact on younger users reads, in part, as follows:

*“In its 2018 assessment, the NASEM panel of experts explored the scientific evidence behind 47 conclusions finding that there was conclusive or substantial scientific evidence for only 18, moderate evidence for 8, and limited or no evidence for 21 of the conclusions. Fifteen of the 18 conclusions for which there was strong or substantial level of confidence confirmed potential harms from these products and only two conclusions related to potential benefits of vaping” (PSC, 2022). The NASEM panel of experts concluded that e-cigarette users who entirely quit using tobacco products and transition to vapour products were exposed to fewer of the chemicals found in cigarette smoke and they experienced short-term health consequences in some organ systems (PSC, 2022).*

The amount of available scientific evidence regarding the safety and dangers of vapour products is growing, and since 2018, other governments have tasked scientists to conduct reviews. There is a scientific consensus that is building that warns that vaping is dangerous and not particularly useful as a cessation method, especially when purchased and regulated as a consumer product (PSC, 2022). At present, there is no updated authoritative document that has brought together available systematic reviews, meta-analyses and reports from researchers and pertinent health/government agencies; however, according to Physicians for a Smoke-Free Canada (2022), some conclusions can be drawn that warrant significant consideration when considering public health messaging and government legislation:

1. *“E-cigarettes have increased the number of young nicotine users in some countries;*
2. *Young people who use e-cigarettes are more likely to smoke conventional cigarettes;*
3. *Dual use is common and harmful;*
4. *When purchased as consumer products, e-cigarettes are not effective cessation aids;*
5. *E-cigarettes cause damage to respiratory and circulatory systems;*
6. *Other governments have provided more recent scientific assessments.” (PSC, 2022)*

**The Middlesex-London Health Unit recommends that Health Canada’s messaging on vaping and the safety of vapour products be reviewed, revised and updated to reflect all available evidence.**

### **Vapour Product Flavouring and Additives**

The plethora of flavours in vapour products has posed significant challenges in public health efforts to halt vapour product uptake, especially by young people. Youth consider the flavour of vaping products to be the most important factor when trying e-cigarettes, and vaping initiation is more likely to occur with fruit, sweet, menthol and cherry flavoured products (Zare et al. 2018). Additionally, when non-traditional flavours are restricted and mint and menthol remain on the market, young people shift their purchasing and consumption preferences toward mint and menthol flavour (Morean et al., 2018; Diaz et al., 2020). The exclusion of menthol and mint flavours from the pending ban on flavours under the *Tobacco and Vaping Products Act* and regulations needs to be revisited. According to Al-Hamdani, Hopkins, and Davidson (2021) and the 2020-2021 Youth and Young Adult Vaping Project, almost all vapour product users consumed a flavoured vape juice both at initiation (91.9%) and at present (90.3%). In addition, in most provinces, berry, mango and mint/menthol were the most reported flavours being used (Al-Hamdani, et al., 2021).

**The Middlesex-London Health Unit highly recommends Health Canada to adopt the regulation to ban all vapour product and e-substance flavours, including mint and menthol or a combination of mint/menthol, except for tobacco flavoured products, without delay.**

### **Vapour Product Promotion and Advertising**

The current restrictions on advertising and promotional activities do not adequately protect youth. Vaping products should be brought under the same advertising and promotion control framework as tobacco. Advertising at such places as recreational facilities, restaurants, places of entertainment, post-secondary institutions, broadcast media, in print publications and online/social media should be prohibited given the potential for youth exposure. Vapour product advertising should only be information advertising or brand preference advertising, which would align the vaping product promotional framework with the approach applied to tobacco products. A 2019 national Leger poll found that 86% of Canadians believe that the government should apply the same advertising restrictions to vaping products with nicotine as it does to tobacco products in order to protect youth (Leger, 2019). Additionally, there should be a complete ban on offering free or discounted vaping products. There is a substantial body of evidence that supports price control measures and strong taxation regimes for reducing youth and young adult smoking initiation, as they are more sensitive to price increases (Public Health Ontario, 2017). According to Huang, Tauras and Chaloupka (2013) and research conducted by Corrigan and colleagues (2021), policies increasing the price of vapour products, either through a taxation regime or limiting rebates, discount pricing, and coupons/bulk buying incentives could dissuade relatively few older adult cigarette smokers from switching to e-cigarettes while at the same time, be highly effective at preventing youth and young adults from initiating the use of vapour products.

**The Middlesex-London Health Unit highly recommends that Health Canada implement a comprehensive framework that strictly regulates advertising and promotional activities in alignment with current controls in place for tobacco products. Further, the inclusion of product pricing measures and prohibitions on incentive and bulk buying programs are required.**

### **On-screen Impressions of Smoking and Vaping**

For over a decade, the MLHU has been an active member of the Ontario Coalition for Smoke-Free Movies (OCSFM) and has closely followed emerging evidence about the impact on youth when they observe tobacco and vapour product use on screen.

OCSFM's extensive experience on this issue, including frequent interactions with colleagues and researchers from the United States has led to the conclusion that frequent exposure of youth to both smoking and vaping on theatre screens, on television and on-line continuously encourages youth to try or continue using both tobacco and vapour products (Truth Initiative, 2021; Bennett et al., 2022; US Surgeon General, 2012).

Prior to the introduction of multiple viewing platforms and ubiquitous streaming services for both movies and episodic series, the on-screen presence of tobacco products was largely limited to combustibles, usually cigarettes, and usually seen in movies in theatres. Smoking impressions and tobacco imagery within movies in North America has very rarely been the subject of a "restricted" movie rating. Internationally replicated research that began in the early 2000s demonstrated that youth were often influenced to start smoking by seeing movie characters smoking on screen (Dalton et al., 2003). The American film industry has significant global influence, and the influence that tobacco imagery within movies has on youth should not be underestimated (Polansky, Driscoll and Glantz, 2019).

By 2016, researchers had confirmed and replicated their conclusions to the point that the World Health Organization called on signatories of the Framework Convention on Tobacco Control (FCTC), of which Canada is one, to implement the following policy measures, in line with the guidelines of article 13, to reduce the impact that smoking in the movies is having on youth tobacco use initiation:

- Require adult ratings for films with tobacco imagery to reduce overall exposure of youth to tobacco imagery in films;
- Certify within movie credits that film producers received nothing of value for using or displaying tobacco products in a film;
- Prohibit the display and identification of tobacco brands in films;
- Make media production companies ineligible for public subsidies and grants if they show smoking or tobacco brands, or identify a relationship with the tobacco industry; and,
- Require strong anti-smoking advertisements to be shown prior to showing films that contain tobacco imagery through all distribution channels (cinemas, televisions, online, etc) (World Health Organization, 2015).

The platforms on which youth can access movies, episodic series and other content today have multiplied since the 2000s. Streamed films and episodic series are readily accessible in the home, in theatres and on various portable media devices. While these products are often preceded by advisories about violence, drug use, explicit sexual content, or mature themes, only Netflix and Disney+ make any mention of smoking. The WHO's policies noted above are entirely disregarded. This disregard takes on even greater importance as new research from the United States shows that when youth see tobacco smoking on-screen, many youth respond by initiating the use of vapour products (Bennett et al., 2022). According to the US Truth Initiative, "...research shows **on-screen exposure to tobacco imagery makes young people more likely to start vaping**. A landmark 2020 study published in [Preventive Medicine](#), found that exposure to smoking images through episodic programming can triple a young person's odds of starting to vape nicotine" (Truth Initiative, 2022). The Truth Initiative's 2021 report, [While You were Streaming: Nicotine on Demand](#) shows that 60% of young people's top 15 favorite streaming and broadcast season shows released in 2020 featured smoking, exposing an estimated 27 million youth to tobacco imagery (Truth Initiative, 2021). The report also highlights the poor performance of Netflix, one of the most popular on-line streaming platforms with viewers of all ages. Despite efforts by the US National Association of Attorneys General to urge US streaming services and creative guilds to limit tobacco depictions in programming appealing to youth, Netflix "remains the worst offender four years in a row based on its new 2020 season releases and popular binge-worthy shows" (Truth Initiative, 2022). Canadian youth watch much the same media content as their counterparts in the United States; therefore, the latest findings should be cause for alarm as there is no evidence-based reason to conclude that Canadian youth are less-susceptible to the influence of frequent exposure to on-screen smoking and (increasingly) vaping.

At present, there are no provincial restrictions in place to prevent – or reduce the likelihood of - youth exposure to on-screen smoking or vaping. While Ontario did at one time have a legislated requirement that film advertising had to contain an advisory of tobacco use if warranted, recent legislation removed that requirement. The 2020 *Ontario Film Content Information Act* cancelled the province's previous film rating system, and now asks "exhibitors" to advise moviegoers about film content, but without prescribed regulations specifying how this requirement should be achieved.

**In light of the increasing evidence about the pervasiveness of on-screen smoking and its effect on the initiation of youth smoking and vaping, the Middlesex-London Health Unit recommends that Health Canada explores the enactment of WHO's policy options to address on-screen tobacco and vaping imagery.**

**SECTION 2*****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***

*Q.1 Are the current restrictions in the Act and its regulations sufficient to protect the health of young persons from exposure to and dependence on nicotine that could result from the use of vaping products?*

*Q.2 Are the new restrictions on nicotine concentration levels sufficient to protect youth and non-users of tobacco products from nicotine exposure? If not, what additional measures are needed?*

*Q.3 Are there other measures that the Government could employ to protect the health of young persons from exposure to and dependence on nicotine from vaping products?*

*Q.4 Has scientific evidence emerged in this area since the legislation was enacted in 2018 that points to the need for additional action or further restrictions?*

**Nicotine Concentration and Uniform Dosing Levels**

Data from the 2018-19 Canadian Student Tobacco Alcohol and Drugs (CSTADS) survey showed that 20.2% of Canadian students (approximately 418,000) had used an e-cigarette (with or without nicotine) in the past 30 days (Health Canada, 2019). Students that reported vaping (with or without nicotine) in the past 30 days were vaping regularly, with approximately 40% reporting daily or almost daily use (Health Canada, 2019). CSTADS also showed that vaping had led to an overall increase in nicotine use by youth, which suggested that vaping had not replaced smoking behaviours among young people. In fact, the total prevalence of vaping and smoking among young people was much higher than the prevalence of smoking in that population a decade ago. By far, most of the youth in Canada who vaped were using devices that contained nicotine, with 87.6% of all current grade 7 – 12 students vaping nicotine (Health Canada, 2019). In addition, according to the 2020-2021 Youth and Young Adult Vaping project, of the 3000 individuals between the ages of 16 and 24 who were interviewed, 64.3% reported using vape juice containing the highest possible concentrations of nicotine (50-60 mg/ml) (Al-Hamdani et al., 2021).

Nicotine is a highly addictive substance that poses significant risk, especially to young people. The brain continues to develop until an individual reaches the approximate age of 25. Exposure to nicotine during brain development can result in nicotine addiction, mood disorders, permanent lowering of impulse control, and changes to attention and learning (NASEM, 2018). Other health impacts include increased blood pressure, increasing risk of heart disease and stroke (Gonzalez and Cooke, 2021), and the potential for increased risk of the spread breast cancer to the lungs (Huynh et al., 2020). The adverse effects from the use of high concentrations of nicotine include vomiting, headaches, dizziness, nausea and in extreme cases, fainting and nicotine poisoning (NASEM, 2018).

As MLHU noted within its [submission in January 2020](#) to Health Canada's consultation on the [Vaping Products Promotion Regulations](#), federal regulation of nicotine levels offers consistent protection from nicotine addiction for youth across Canada, by bringing the current patchwork of provincial regulations into alignment across Canada. The MLHU strongly supported the federal regulation to limit nicotine concentration in vaping products to a maximum of 20 mg/ml. Nicotine is a highly addictive substance and reported youth preferences for products with the highest levels of nicotine (Al-Hamdani et al., 2021) justifies the requirement for Health Canada to monitor the scientific evidence on an ongoing basis and adjust product limits accordingly.

Another important factor related to nicotine concentration levels is the application of vapour product design standards to ensure the consistent and uniform dosing of nicotine to vapour product users. According to the European Union's (EU) Commission investigating the latest available evidence on vapour products, at present, vapour products are not held to design and manufacturing standards that ensure that the device delivers the same amount of nicotine per puff by the user (European Union SHEER, 2021). Given that cigarettes are engineered to deliver consistent doses of nicotine, it appears logical that e-cigarettes should do the same if they are to effectively replace nicotine delivered from cigarettes.

**The Middlesex-London Health Unit supports the immediate enactment of the 20 mg/ml nicotine concentration level maximum for vapour products, along with the development of an annual review of available scientific evidence which would allow for downward adjustments if necessary. Further, it is recommended that Health Canada impose product engineering standards to ensure uniform nicotine dosing so that users know how much nicotine they are inhaling.**

### **SECTION 3**

#### ***PROTECT THE HEALTH OF YOUNG PERSONS BY RESTRICTING ACCESS TO VAPING PRODUCTS.***

*Q.1 Are measures in the Act sufficient to prevent youth from accessing vaping products? If not, what more could be done to restrict youth access to vaping products?*

*Q.2 Are there other measures that the Government could employ to protect youth from accessing vaping products?*

*Q.3 Has scientific evidence emerged in this area since the legislation was enacted in 2018 that points to the need for additional action or further restrictions?*

#### **Retailer Prohibitions of Sales of Tobacco and Vaping Products**

Between 2020 and 2022, MLHU observed an increase in the number of tobacco youth access test shopping failures, as well as an all-time high rate of vapour product youth access test shopping failures. Prior to 2020, MLHU's tobacco and vapour product youth access compliance rates were ~99.9%. Tobacco Enforcement Officers (TEOs) within Middlesex-London are noting an alarming trend. Since October 2021, TEOs and youth test shoppers have completed 200 youth access checks for vapour products that have resulted in 21 failures (89.5% compliance rate), with more retailers yet to be inspected. The majority of the youth access failures were at non-specialty vape stores, including convenience stores and gas stations, using youth test shoppers who are between 15 and 16 years of age -- well below the legal age of 19 years in Ontario.

Under the *Smoke-Free Ontario Act, 2017 (SFOA, 2017)*, only vapour products flavoured with mint, menthol and tobacco can be sold in non-specialty vape stores (e.g. convenience stores, gas station kiosks, grocery stores, etc.); whereas, vapour products that contain other flavours must only be sold in age-restricted specialty vape stores. Furthermore, under the *SFOA, 2017*, vapour products that have a nicotine concentration of greater than 20 mg/ml can only be sold in age-restricted specialty vape stores. In the Middlesex-London area, during this latest round of youth access inspections, many of the vapour products that were sold to youth test shoppers from non-specialty vape stores were flavoured with fruit and candy-flavoured additives and had a nicotine concentration of greater than 20 mg/ml, despite the provincial legislation. The illegal sale of these products has resulted in the issuance of charges for the sale of prescribed vapour products in a prohibited place and the seizure of these products. Between June 2021 and March 2022, tobacco enforcement officers (TEOs) for MLHU have conducted a total of 5 vapour

product seizures, with estimated values ranging from \$200 - \$25,000 from each establishment. In addition to the loss of merchandise, fines under the *SFOA, 2017* are also applied for each offence; however, it has become apparent that the fines and seizures of vapour products are an insufficient deterrent.

Under the *SFOA, 2017*, routine non-compliance with tobacco sales offences results in the issuance of an automatic prohibition order under Section 22. At present, there is no automatic prohibition lever that can be applied to retailers who continue to sell vapour products to persons under the age of 19 years, nor for non-specialty vape stores that continue to sell vapour products that should only be available for sale in age-restricted stores in Ontario. Operators have shared with MLHU TEOs that the total revenue from sales of vapour products alone far exceeds both the fine amounts and the risk of product seizures and is viewed as a cost of doing business. Based on the current compliance rate and reported retailer behaviors, current vapour product regulations are insufficient.

**The Middlesex-London Health Unit recommends that Health Canada implement an automatic prohibition regime for both tobacco and vaping products under the TVPA modelled after Section 22 of the *Smoke-Free Ontario Act, 2017*, for repeated convictions against retailers who:**

- **sell tobacco and/or vaping products to persons under the legal age;**
- **sell flavoured tobacco and vaping products prohibited by law; and,**
- **sell vaping products with nicotine concentration levels that exceed 20 mg/ml.**

### **Reciprocal Relationships and Cooperation Between Federal and Provincial Inspectors**

In Ontario, the display, promotion and sale of tobacco and vaping products at retail are regulated by both provincial and federal legislation. The *TVPA* is enforced by Health Canada Inspectors exclusively, who are responsible for monitoring and ensuring compliance with the *Act* and the Regulations. In Ontario, public health unit staff are designated by the authority outlined under the *Smoke-Free Ontario Act, 2017*, to enforce the requirements and restrictions at retail under provincial legislation exclusively, with no authority under the *TVPA*.

This means that if non-compliance with the *TVPA* and/or Regulations are observed by the local public health inspectors, the only recourse available is to refer the non-compliance and possible infraction to the Health Canada Inspectorate. Given the size and scope of jurisdiction that falls to the Health Canada Inspectorate, it is difficult for their Inspectors to respond to the referral in a timely matter. This means that in many cases, vapour products, prescribed by federal law to be “illegal” and subject to federal seizure, remains within the store for continued sale. There is significant consumer demand for this product; therefore, despite warnings issued by provincial inspectors, product will remain on store shelves available for sale or for distribution through other illegal means. In Ontario, there has been some success with reciprocal relationships and collaboration between Ontario Ministry of Finance Inspectors (enforcement of the *Tobacco Tax Act*) and public health staff (enforcement of the *SFOA, 2017*). For example, if illegal tobacco products (under the *Tobacco Tax Act*) are found within a retailer, and a Ministry of Finance Inspector is not within the jurisdiction, under direction of the Ministry of Finance Inspector, the Health Unit Inspector will safely secure the product off site until the Ministry of Finance Inspector can attend to seize the product for their investigation. Not only does this reciprocal and collaborative relationship help to remove illegal products from the marketplace, but it also increases public and retailer perception of a greater enforcement presence, which contributes to greater compliance overall. It is recommended that a similar arrangement be explored between federal and provincial enforcement agencies given the continued availability of flavoured and high nicotine concentration products. Alternatively, the cross designation of provincial and federal inspectorate for sections of the *TVPA* and Regulations that pertain to retail could also be explored.

**The Middlesex-London Health Unit recommends that Health Canada engage with provincial Ministries of Health and representatives from local public health enforcement to explore the options that exist to support more timely enforcement action.**

### **Tighten Restrictions for Online Retail Marketing**

Besides the availability of vapour products at retail outlets such as convenience stores, gas stations, grocery stores, and specialty vape stores, vapour products are widely available for sale through websites and social media (Hammond, et al., 2015). While many online vendors use age-verification measures during online purchase, people under the age of 18 years are still able to purchase vapour products online (Hammond et al., 2015). In 2017, the Canadian Tobacco and Drug Survey (CTADS) indicated that more than 75% of youth age 15-19 years who tried a vaping product borrowed, shared or bought it from a friend or relative (Health Canada, 2018). In 2019, the Canadian Tobacco and Nicotine Survey showed that social access of vaping products among those aged 15-19 years had dropped to 58%, and 43% of this age group purchase from retail sources, including online vendors (Health Canada, 2019). Underage youth who purchase vaping products online either falsely claim to be of legal age when they access the website, or they are not required to show proof of age. A content analysis of internet e-cigarette vendor practices discovered that most vape vendors (over 60%) did not require age verification or relied on ineffective strategies such as checking a box to verify legal age (Williams et al., 2018). Similarly, Gaiha and colleagues (2020) found that more than a quarter of underage e-cigarette users surveyed were not required to verify their age when purchasing e-cigarettes online.

The local experience within Middlesex-London is in congruence with the evidence. Since resuming in-person learning within Middlesex-London schools in the fall of 2021, approximately 80% of youth are telling TEOs they buy vapour products online. Young people are reporting that they find it easy to get vaping products through online sources. One youth stated that the vapour products are delivered to their mailbox and that he can easily conceal the purchase from his parents because it is his responsibility to pick up the mail after school.

Some specialty vape stores that formerly operated a brick and mortar store within the Middlesex-London jurisdiction have shifted to manufacturing and wholesale, and/or to online-based operation to continue to sell flavoured and high nicotine concentration products to all ages, with less enforcement scrutiny. These products are shipped directly to customers' houses or offered through curbside pickup. This process applies the obligation of age verification to the agents/agencies used for delivery. Enforcement agencies, at both the federal and provincial levels, are challenged to be able to effectively monitor retailer compliance with youth access provisions.

Industry brand-incentive programs, like the "Vuse – Click and Collect" program, are also operating within the Middlesex-London jurisdiction. This program allows customers to place their orders online and then pick up the vapour products, including all flavours and nicotine concentrations, at select convenience stores. Programs like this appear to have been able to find legislative loopholes and they contribute to the erosion of progress that had been made to prohibit youth access to tobacco and vapour products and to restrict access to flavoured and high nicotine concentration vapour products.

The *TVPA* prohibits youth access to vaping products in a public place or in a place to which the public has access, which includes online retailing. The *Act* specifies that a person, including a retailer, must verify the age of a person purchasing vaping products, however it does not specify how age verification is to be implemented. The current system on many websites of clicking a box to attest to being of age has obvious pitfalls.



**The Middlesex-London Health Unit recommends that Health Canada works with provincial Ministries of Health to implement consistent and strict requirements to regulate online sales, including the following measures:**

- **Require online retailers to post information advising prospective customers that the sale of vaping and tobacco products are restricted to persons of legal age;**
- **Require two-step age verification for online retailing - the two-step process should involve two authentication methods performed one after the other to verify identity;**
- **Require online retailers to utilize third-party verification services;**
- **Require tobacco and vapour products to contain a label that states that age verification is required at delivery;**
- **Upon delivery, require that a signature be obtained, and packages must not be left on doorsteps;**
- **Require that delivery be restricted to prescribed carriers.**

#### **Enactment of a Tax and Vapour Product Pricing Regime**

There is unequivocal evidence documented in the tobacco control literature that price increases result in decreased demand and use of cigarettes, and increased intentions to quit smoking (SFO-SAC, 2017). Many provinces have proposed or passed legislation to tax vapour products, including British Columbia, Alberta, Prince Edward Island, Saskatchewan and Newfoundland Labrador. There exists the opportunity to enact a national tax regime on vapour products to reduce the consumption of vapour products by youth and young adults as they tend to be more price sensitive than adults (U.S. Department of Health and Human Services, 2000). The revenue from taxes from tobacco products along with the revenue from the taxation regime applied to vapour products could be used to fund comprehensive tobacco and vapour product control programming, including prevention and cessation efforts, increased compliance monitoring and enforcement, and ongoing research. A complementary measure to increase the retail price of tobacco and vapour products is to mandate a minimum pre-tax set price minimum (Feighery, et al., 2005). Setting minimum price limits inhibits the manufacturers' ability to use discount pricing and the retail sale of low-cost brands or devices to offset the price increases from taxation (SFO-SAC, 2010). Minimum price policies are effective and widely used to reduce alcohol consumption and harms (Anderson, et al., 2009). The taxation level and the set price minimums for vapour products should be set independently from tobacco products, with careful consideration being given to ensure that e-cigarettes do not become more expensive than cigarettes but set high enough to deter youth and young adult initiation. The 2021 federal budget announced the Government of Canada's intention to introduce a new taxation framework for vaping products in 2022.

**The Middlesex-London Health Unit recommends that Health Canada enact a comprehensive, national vapour product taxation and pricing regime without delay, to reduce youth and young adult consumption and associated harms from vapour product use.**

#### **SECTION 4**

##### ***PREVENT THE PUBLIC FROM BEING DECEIVED OR MISLED WITH RESPECT TO THE HEALTH HAZARDS OF USING VAPING PRODUCTS***

*Q.1 Are the current measures in place sufficient to prevent the public from being deceived or misled about the health hazards of vaping products?*

*Q.2 What additional measures would help reduce the misconceptions about the health hazards of vaping products?*

*Q.3 Has scientific evidence emerged in this area since the legislation was enacted in 2018 that points to the need for additional action or further restrictions?*

### **Appealing Vapour Product Marketing and Unsubstantiated Health Claims**

Websites selling vapour products online are ubiquitous and use marketing tactics that are appealing to youth. In 2019, the Ontario Tobacco Research Unit (OTRU) collected samples of flavoured vaping products from online Canadian vape stores and found several examples of flavoured vaping products with attractive packaging, design elements, names and descriptors with youth-appeal (O'Connor, et al., 2019). Furthermore, researchers who conducted a systematic content and legal analysis of the claims made by e-cigarette manufacturers and retailers on their websites concluded that the vast majority of websites made at least one health-related claim, focusing on potential health benefits while minimizing or eliminating information about possible harmful effects of vaping products (Klein, et al., 2016). Grana and Ling's (2014) content analysis of e-cigarette retail websites also discovered that health claims and cessation messages that are unsupported by current scientific evidence are frequently used by vapour product retailers to sell vaping products (Grana and Ling, 2014). Vaping products have not been approved by Health Canada as a smoking cessation aid because they are not currently tested, manufactured, and regulated as such in Canada. Therefore, claims about vapour product efficacy as a cessation tool should be strictly prohibited.

Enforcement reports from Health Canada inspectors reinforce the lack of compliance by online retailers with current promotion and advertising restrictions under the *TVPA*. Between July 2020 and March 2021, Health Canada inspectors conducted inspections of Instagram social media accounts to assess vapour product industry compliance, with a focus on publicly accessible online promotions. Inspectors reviewed 304 accounts on Instagram and observed non-compliance on 53% of the accounts, resulting in the issuance of a warning letter (Health Canada, 2021) Increased enforcement (issuance of fines) and stricter prohibitions on vapour product advertising are required.

**The Middlesex-London Health Unit recommends Health Canada to prohibit online vapour product retailers from making health claims, using celebrity and medical professional endorsements, and promoting e-cigarettes as a cessation aid. Increased compliance monitoring and the use of progressive enforcement measures (Part I charges and Part III summonses) are required.**

### **Vapour Product Appearance and Packaging Design**

In November 2019, Canada implemented plain and standardized tobacco product packaging regulations. With strict promotion and advertising rules in effect for tobacco products across Canada, the tobacco package became an important marketing tool, using colours, images, logos and distinctive fonts, finishes and sizing. According to Moodie, Mackintosh, Hastings and Ford, (2011), studies have determined that the colour, shape and size of a package can influence consumer behaviour and contributes to consumer perceptions of the product. Package design can make its contents appear safe to use, undermining the visibility, credibility and effectiveness of health warnings. The same body of evidence can be applied to the regulation of vapour products and packaging. Devices are being manufactured to look like small, discrete everyday objects, so that youth can vape discretely, hiding their nicotine addiction from parents, employers and teachers. Within the Middlesex-London jurisdiction, the ability to "stealth vape" in school washrooms and classrooms undermine the efforts that school staff and public health unit staff are taking to promote and enforce the *Smoke-Free Ontario Act, 2017* on school property. The devices can be customized, which complements the lifestyle messaging that youth are receiving from the internet and on social media.

**The Middlesex-London Health Unit recommends that Health Canada apply a similar plain and standardized packaging regime to vapour products that Health Canada has already applied to commercial tobacco and cannabis products.**

## **SECTION 5**

### ***ENHANCE PUBLIC AWARENESS OF HEALTH HAZARDS***

*Q.1 Have public awareness efforts been effective at educating Canadians about the health risks of vaping products?*

*Q. 2 What more could be done to educate Canadians about the health risks of vaping products?*

*Q.3 Are there still knowledge gaps to fill with regard to the health risks of vaping products? If so, what areas should research focus on?*

*Q.4 What approach should be taken to close the gap between scientific evidence and public perception so that youth and non-users of tobacco products are aware of the health risks of using vaping products, while adults who smoke are aware that they are a less harmful alternative to tobacco if they switch completely to vaping?*

### **Comprehensive Review of Available Scientific Evidence Required**

There has been a concerted effort to increase the body of scientific evidence available to assess the potential harms and potential benefits associated with vapour products, in an attempt to keep up with the ever-expanding vapour product market. According to a 2022 published report from [Grandview Research](#), the global vapour product market size was valued at \$18.13 billion USD in 2021 and is expected to expand at a compound annual growth rate of 30% between 2022 to 2030; North America dominated the global market with a share of over 40% in 2021 (Grandview Research, 2022). They note that the projected market growth expansion is due to the “rising awareness about e-cigarettes being safer than traditional cigarettes, especially among young people”. They go on to explain that the growing online retail market amid the COVID-19 pandemic is also projected to factor into the market growth (Grandview Research 2022). The increase in the availability of vapour products by youth and young adults combined with the apparent belief and pervasive messaging found online that “less harmful” means that vapour products are safe is a significant public health concern.

As noted by Physicians for a Smoke-Free Canada (2022), the 2018 NASEM assessment of evidence on e-cigarette and vapour products relied on only one-third of the evidence that is available today. Since the release of the publication, researchers have developed a greater understanding of the potential harms associated with e-cigarette use, including health harms from dual use of vapour products and cigarettes and the potential for vapour products to aid in smoking cessation. Messaging available on Health Canada web pages require review and revision to incorporate findings from the growing body of scientific evidence.

- ***Dual use of combustible cigarettes and e-cigarettes is common and harmful***

Health Canada’s webpage on Vaping and Quitting Smoking (2020) states that if an individual completely switches completely from smoking cigarettes to using vapour products, the individual will experience short-term general health improvements. The challenge with this messaging is that research has shown that in Canada, 38% of Canadian vapers are people who both smoke cigarettes and vape (PSC, 2021). In addition, the 2020 Canadian Tobacco and Nicotine Survey results showed that although youth and young adults between the ages of 15 and 24 made up only 15% of the surveyed population, they represented 40% of those who reported that they vape. The emphasis on the harm reduction approach clouds the fact that there is scientific consensus that using both vapour

products and conventional cigarettes is likely more harmful than only smoking or only using vapour products (PSC, 2022), and youth and young adults are then more susceptible to trying vapour products because ‘they aren’t as bad as smoking’.

▪ ***E-cigarettes cause damage to respiratory and circulatory systems.***

The available scientific evidence regarding the impact of vapour product use on respiratory and circulatory systems has increased substantially, with hundreds of studies examining the health harms in laboratory studies of both animals and humans.

- Researchers have concluded that the damage caused by vapour products leads to lung and heart disease and stroke (Keith and Bhatnagar, 2021). Vapour product use may also compromise the ability to remove microbial pathogens, increasing the risk of infection from viruses, fungi and bacteria (Keith and Bhatnagar, 2021).
- In another comprehensive review of cardiovascular effects, findings from Buchanan and colleagues (2020) suggest that vapour product use is associated with inflammation, oxidative stress and haemodynamic imbalance increasing risk of cardiovascular disease (Buchanan et al., 2020).
- In a review of 38 studies measuring cardiovascular effects of e-cigarettes, “most studies suggest potential for cardiovascular harm from electronic cigarette use, through mechanisms that increase risk of thrombosis and atherosclerosis” (Kennedy et al, 2019).
- A 2020 review and meta-analyses of vapour product impact on lung health showed that e-cigarette use was associated with a 39% increase in the risk of asthma and a 51% increase in the risk of developing chronic obstructive pulmonary disease; studies conducted within laboratories showed influence on biological processes that contribute to respiratory harm and illness (Wills et al., 2020).
- According to Lauren Davis and colleagues (2022), based upon a review of the pulmonary effects of long-term vaping product use, they conclude that e-cigarette use is “...likely to result in irreversible parenchymal lung tissue damage and impaired gas exchange, contributing to chronic lung conditions in long-term vapers”.

▪ ***There is insufficient evidence to support/promote vapour products as a cessation tool when sold and regulated as a consumer product.***

Health Canada’s web page on [Vaping and Quitting Smoking](#) reads that “quitting smoking can be difficult, but it is possible. Vaping products and e-cigarettes deliver nicotine in a less harmful way than smoking cigarettes”. The web page further states that “while evidence is still emerging, some evidence suggests that using e-cigarettes is linked to improved rates of success” (Health Canada, 2020). There has been a growing body of scientific evidence to evaluate the effectiveness of vapour products to help those addicted to tobacco to quit, with mixed results. Physicians for a Smoke-Free Canada (2021) compiled a [summary](#) of scientific reports published after both the release of NASEM (2018) and the release of European Union’s scientific advisors “[Final Opinion on Electronic Cigarettes](#)” (2021). The following conclusions were drawn that warrant further investigation by Health Canada:

- Published studies to date, including longitudinal data analysis, randomized control trials and meta-analysis of e-cigarettes as consumer products (i.e. not regulated or monitored in a clinical setting), when dual use of smoking and vaping was assessed, found high levels of dual use. Further, those that successfully quit smoking had a high prevalence of sustained use of e-cigarettes (PSC, 2021).

- Vapour products may be helpful as smoking cessation aids, but the available evidence indicates that this is only observed in clinical settings with strict product oversight. Vapour products may have the potential to be as effective as other approved methods for cessation (e.g. nicotine replacement therapy, varenicline, bupropion, etc.); however, they do not meet minimum threshold levels for safety for widespread use. In Canada, vapour products are regulated, marketed and sold as a consumer product (not a drug). Due to the high risk of dual use, sustained addiction to vapour products, growing scientific consensus regarding respiratory and cardiovascular harms associated with use, and the high risk of uptake of vapour products by never smokers, a precautionary approach remains prudent (PSC, 2021).

At present, vaping products have not been approved by Health Canada as a smoking cessation aid because they are not currently tested, manufactured, and regulated as such in Canada. Therefore, until an intensive review of the latest evidence is completed, Health Canada's messaging is confusing and contributing to misperceptions of perceived product safety.

**The Middlesex-London Health Unit recommends that Health Canada's messaging on vaping and the safety of vapour products be reviewed, revised and updated to incorporate all available evidence for public consumption and comprehension. Any legislated health warnings on vapour products or product promotional materials should be reviewed to ensure congruence with the growing body of scientific evidence available for vapour products.**

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