



# **Heart & Stroke Government of Ontario Pre-Budget Submission**

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**For more information, please contact:**

Liz Scanlon, Director, Health Policy & Systems

Email: [liz.scanlon@heartandstroke.ca](mailto:liz.scanlon@heartandstroke.ca)

Phone: 647-943-3229

Orli Joseph, Senior Specialist for Public Affairs

Email: [orli.joseph@heartandstroke.ca](mailto:orli.joseph@heartandstroke.ca)

Phone: 647-298-9022

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## **Heart & Stroke Ontario Executive Summary of Recommendations**

### **1. Invest in the FAST Signs of Stroke campaign to reduce the impact of stroke**

In light of provincial data that shows a reduction in people calling 9-1-1 when experiencing stroke symptoms during the COVID pandemic, we ask that the Government of Ontario renew their investment of \$1 million per year for the FAST Signs of Stroke public awareness campaign for the next three years.

### **2. Institute a tax on vaping products to help reduce youth vaping**

We urge the Government of Ontario to implement a value-added tax on all vaping products to help end the crisis of youth vaping and to provide much-needed revenue to address critical public health priorities.

### **3. Implement a cost recovery fee on tobacco products to create revenue for tobacco control programs**

Heart & Stroke recommends that the tobacco industry be required to fund tobacco prevention, cessation and enforcement programs through a cost-recovery fee, in order to alleviate the burden of those costs on the taxpayer.

## Heart & Stroke Recommendations (500-word submission)

### Preventing and reducing the impact of stroke

Stroke is a medical emergency with serious consequences for individuals and for the health care system. It is the third leading cause of death<sup>i</sup> and the leading cause of severe disability and hospitalization.<sup>ii</sup> The faster an individual is treated, the higher the chance of a full recovery. The Ontario stroke system is one of the best in the world, but it depends on people recognizing the signs of stroke and calling 9-1-1 immediately to be transported by ambulance to the nearest stroke centre. This is even more critical now as COVID cases are once again on the rise; at the peak of the pandemic's first wave, Ontario hospitals experienced a decrease of approximately 27 percent in stroke volumes.

Heart & Stroke (H&S) is grateful to the Ministry of Health for funding the FAST Signs of Stroke campaign over three years to address this important issue. We ask that the Government renew that investment of \$1 million a year for the next three years so we can continue this important work.

The FAST campaign has proven to be impactful in Ontario, with over **158 million impressions** over two years through TV, social, digital, print and earned media. The number of people who could identify all three signs of stroke grew by **117%** from pre- to post-campaign testing and people in the post-campaign survey who recalled seeing the ad were three times more likely to identify all three signs of stroke.

### Protect our youth by implementing a tax on all vaping products

Youth vaping is an escalating crisis; 34% of grade 7-12 students in Canada report having ever tried an e-cigarette and 20% report current use.<sup>iii</sup> Research shows that youth in Ontario vape six days a week, many times a day but only spend an average of \$15 on vape products. H&S urges that the Ontario government implement a tax on all vaping products, as emerging evidence shows that every 10 percent increase in e-cigarette prices is associated with a drop-in e-cigarettes sales of approximately 8.2 percent.<sup>iv</sup> A tax on all vaping products can discourage price-sensitive youth from vaping and recover costs associated with addressing youth vaping. The rate can be targeted to increase the price enough to help keep e-cigarettes out of reach for youth, while not discouraging adult smokers from switching from more expensive cigarettes.

### Create a tobacco cost recovery fee

Over the past year, the Government of Ontario had estimated an investment of \$44 million for enforcement, cessation and prevention programs to combat the devastating impacts of smoking. Currently, these costs are shouldered by the Government of Ontario and, by extension, the taxpayer. We recommend that, through a cost-recovery fee, the tobacco industry be required to pay for the cost of responding to this epidemic.

The fee should generate \$44 million annually to offset the estimated cost of tobacco prevention and cessation programs and the enforcement of unregulated tobacco sales. This approach would be similar to the US Food and Drug Administration's tobacco strategy fee that recovers US \$712 million annually, and to the Canadian Cannabis Annual Regulatory Fee that will recover \$112 million annually by 2021-22. There are also cannabis cost recovery mechanisms in place in six provinces/territories (BC, MB, QC, NB, YT, NWT).

## Backgrounder: Preventing and reducing the impact of stroke

### Recommendation

Heart & Stroke is grateful to the Ministry of Health for investing \$2.7 million over three years to fund the FAST campaign to raise awareness of the signs of stroke. **We ask that the Government of Ontario renew this investment of \$1 million per year over next three years.**

This message is more critical during the pandemic. Data confirms that Ontarians may delay seeking medical care when symptoms of stroke arise due to fear of contracting COVID-19. During the first wave we saw a decrease of approximately 27% in stroke presentation rates at emergency departments, leading many health care providers to ask, “*Where did the stroke patients go?*” Hesitancy to leave home for emergency care will have dire consequences for people experiencing a stroke and we are bracing to see what the second wave brings. It is critical to continue to raise awareness of stroke signs and symptoms and encourage patients to continue seeking emergency care if experiencing acute stroke symptoms.

### The issue

Stroke is a medical emergency with serious consequences for individuals, their families and the health care system. It is the third leading cause of death<sup>v</sup> and the leading cause of severe disability and hospitalization.<sup>vi</sup> In Ontario, in 2016-17, there were 39,755 visits to the emergency department and 21,065 hospitalizations for stroke.<sup>vii</sup> An estimated 170,000 individuals in Ontario are living with the consequences of stroke.<sup>viii</sup>

***Time = Brain: for every minute that treatment is delayed, 1.9 million brain cells die.***

Delays in stroke treatment can result in death, or long-term cognitive impairment, paralysis, communication and vision problems, memory loss and other complications. Delays can also result in longer hospital stays, and greater need for rehabilitation.

The potential for increased demand on the health care system as a result of delays in treatment is more devastating than ever. Conversely, the faster an individual is treated, the better the individual’s chance of full recovery, and the lower the burden of treatment and rehabilitation on the health care system.



**Heart&Stroke™**

# Learn the signs of stroke

**F**ace  
is it drooping?

**A**rms  
can you raise both?

**S**peech  
is it slurred or jumbled?

**T**ime  
to call 9-1-1 right away.

Act **F A S T** because  
the quicker you act, the more  
of the person you save.

**heartandstroke.ca/FAST**

Fund provided by the Government of Ontario



The Ontario stroke system is one of the best in the world, but it depends on people recognizing the signs of stroke and calling 9-1-1 immediately to be directed to the nearest stroke centre. Cutting-edge treatments need to be administered quickly to allow for the best possible recovery. Each twenty-minute reduction in treatment delays leads to a gain of an average of three months of disability-free life.<sup>ix</sup> FAST is a memorable, effective way to remind people to call 9-1-1 immediately when they see or experience the most common signs of stroke.

### **Our campaign generated excellent results:**

- Over two years, through TV, social, digital, print and earned media tactics the campaign had over **158 million impressions** in Ontario.
- The number of people who could identify all three signs of stroke grew by **117%** from pre- to post-campaign testing.
- People in the post-campaign survey who recalled seeing the ad were three times more likely to identify all three signs of stroke.

The impact of the campaign is borne out by the frequent appreciative messages we receive from Ontarians who knew to act fast and call 9-1-1 when their loved one showed stroke symptoms as a result of the FAST campaign. We are proud to have collaborated with the Government of Ontario on this campaign and hope we can continue our work with the government on this important initiative. The following is an example of regular feedback we receive from Ontarians who were helped by the FAST campaign.

***“I just wanted to tell you thank you for the TV commercials. Last night my husband suffered a TIA (mini stroke). Because of the commercials you posted on TV, I knew exactly what was happening to him and I called 9-1-1 immediately. Thank God there is no damage to his brain. So thank you all from the bottom of my heart. Without you I may not have known what was happening and the outcome would surely been a lot different. Thanks again.” ~ Michelle, Guelph***

## Backgrounder: Protect our youth by implementing a tax on all vaping products

### Recommendation

We are seeing a new generation of young people becoming addicted to nicotine through vaping. We **urge the Government of Ontario to respond to this growing crisis by implementing a value added tax on all vaping products** to increase the price enough to help keep e-cigarettes out of reach for youth, while not discouraging adult smokers from switching from cigarettes.

### The issue

The use of e-cigarettes (vaping) among youth is a rapidly escalating problem in Ontario. Thirty-four percent of grade 7-12 students in Canada report having ever tried an e-cigarette and 20% report current use.<sup>x</sup> Another recent study found a 74% increase of current vape use among older teenagers in Canada over one year.<sup>xi</sup> E-cigarettes are both appealing and accessible to youth.

According to Canadian student surveys from 2016-17, majority of students indicated it would be “fairly easy” or “very easy” to get an e-cigarette if they wanted one.<sup>xii</sup> Meanwhile, evidence of the physical harms presented by vaping is mounting; nicotine can damage the developing brain,<sup>xiii xiv</sup> and vaping is linked to respiratory and cardiovascular disease.<sup>xv xvi xvii</sup> Emerging evidence also indicates that there is potential for vaping to be a gateway to tobacco,<sup>xviii xix</sup> cannabis<sup>xx</sup> and nicotine addiction.<sup>xxi xxii</sup> Flavoured e-cigarettes play a huge role in enticing youth to vape, encouraging habitual use,<sup>xxiii</sup> and possibly initiating tobacco use.<sup>xxiv</sup> One study has shown that the odds of subsequent cigarette smoking were quadrupled among e-cigarette users who were otherwise at low risk of smoking.<sup>xxv</sup>

In addition to the harms of e-cigarettes themselves, there is potentially increased risk of COVID infection due to vaping; Heart & Stroke recently commissioned research that indicates that young people share their e-cigarettes with an average of twenty others and sharing of e-cigarettes was identified by the local public health unit as a factor in a recent COVID outbreak at the University of Western Ontario.

There are significant learnings from years of research that demonstrates that youth are very sensitive to price increases to tobacco products.<sup>xxvi xxvii xxviii</sup> Specifically, higher cigarette prices have been shown to prevent youth initiation,<sup>xxix</sup> prevent adolescents from becoming daily, addicted smokers and can impact the smoking behaviour of youth who are further along the smoking uptake continuum.<sup>xxx</sup> As part of our continued effort to protect young people, H&S recently funded a study of youth and young adult vapers to better understand their behaviours, experiences and preferences. The results indicate that, despite vaping on average of thirty times a day, six days a week, young vapers spend on average just under \$15.00 per week on vaping products.<sup>xxxi</sup> This is the equivalent of just over an hour of minimum wage work and less than a single pack of cigarettes. Vaping products in Ontario incur no additional taxes beyond the 13 percent HST. In comparison, cigarettes in Ontario are taxed at about 67 percent.

A tax on vaping products has already been implemented by British Columbia, Nova Scotia and Newfoundland with Alberta also committing to instituting a vaping tax. This public health crisis requires a significant government response and commitment of taxpayer dollars and a tax on e-cigarettes will create a much-needed source of revenue for the Government of Ontario.

## **Backgrounder: Cost recovery fee on the tobacco industry to recover the annual cost of the Smoke-Free Ontario Strategy**

### **Recommendation**

Heart & Stroke recommends that the tobacco industry be required to fund tobacco prevention, cessation and enforcement programs through a cost–recovery fee, in order to alleviate the burden of those costs on the taxpayer.

Our recommendation is that the fee should generate \$44 million annually to offset the estimated cost of tobacco prevention and cessation programs and the enforcement of unregulated tobacco sales. This approach would be similar to the US Food and Drug Administration’s tobacco strategy fee that recovers US \$712 million annually, and to the Canadian Cannabis Annual Regulatory Fee that will recover \$112 million annually by 2021-22. There are also cannabis cost recovery mechanisms in place in six provinces/territories (BC, MB, QC, NB, YT, NWT).

We recommend that this fee be based on each manufacturer’s market share. We appreciate that the government has inherited a difficult fiscal situation. A tobacco cost recovery fee would provide an opportunity to create a new source of revenue that would be widely publicly supported.

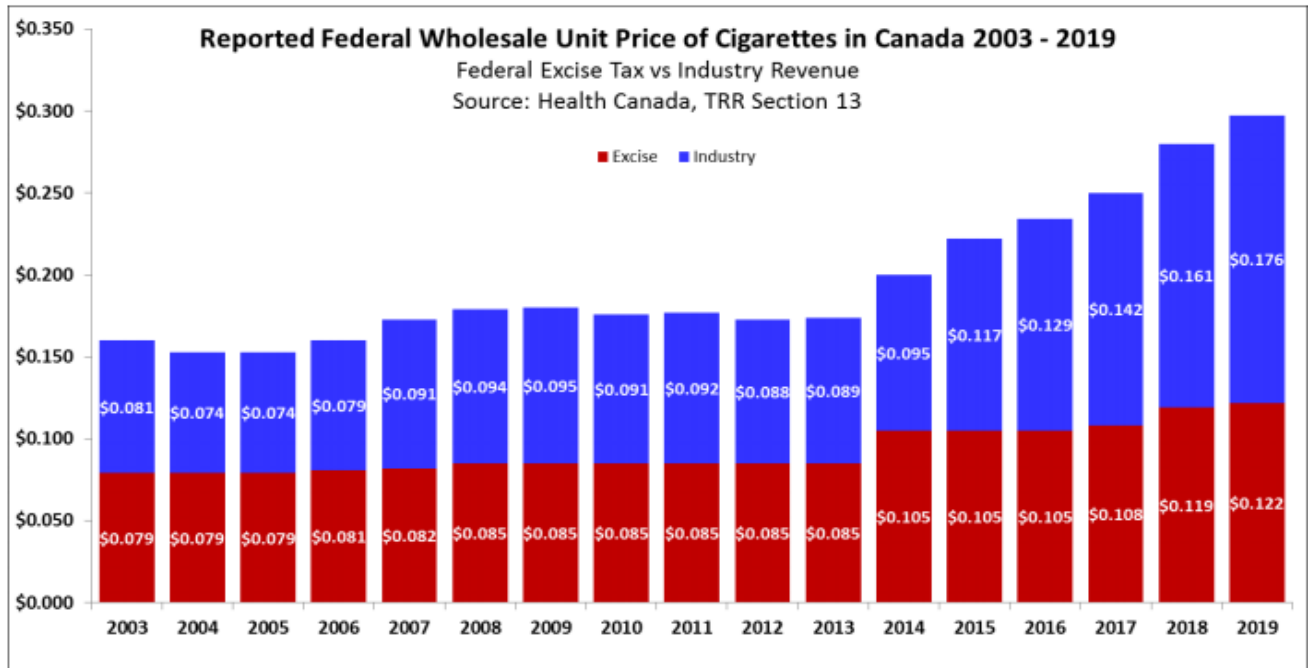
### **Rationale for a tobacco strategy cost recovery fee:**

- Just as oil companies are responsible for the costs of cleaning up an oil spill, the tobacco industry has caused the tobacco epidemic, and should be required to reimburse the government’s cost of responding to this epidemic.
- Ontarians support this measure by a margin of 83% to 17%, according to January 2018 polling by Ipsos
- The fee can be adjusted to provide appropriate revenue for the Ontario government. Companies would pay a fee based on market share.
- If tobacco companies passed along the fee in their product prices across Canada, there would be an invisible impact on retail prices of about only 0.2%. The companies may choose not pass the cost along, especially on their least expensive brands, and especially in light of the significant additional revenue to the companies from recent wholesale price increases (see chart below).

It is essential to note that if tobacco companies pass along the fee to customers through price increase, the impact would be invisible; the result would be an increase in retail prices of less than 0.1%. This is a small fraction of the price increases that industry has imposed over the last fifteen years, irrespective of taxation. Since 2013, the average wholesale cigarette price increased by 58.6% resulting in an extra \$20.86 per carton of 200 cigarettes. Federal excise increases over this period account for only \$6.80 while the remaining \$14.06 coming from industry mark up (see schedule A).



Schedule A



- <sup>i</sup> Statistics Canada. Table 102–0561 – Leading causes of death, total population, by age group and sex, Canada. CANSIM (death database) [Internet]. Ottawa (Ontario): Statistics Canada; 2017 Mar 8 [cited 2017 June 6]. Available from: <http://www5.statcan.gc.ca/cansim/a05?lang=eng&id=1020561>
- <sup>ii</sup> GBD 2015 DALYs and HALE Collaborators. Global, regional, and national disability-adjusted life-years (DALYs) for 315 diseases and injuries and healthy life expectancy (HALE), 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015. *Lancet*. 2016 Oct 8;388(10053):1603–58.
- <sup>iii</sup> [https://uwaterloo.ca/canadian-student-tobacco-alcohol-drugs-survey/sites/ca.canadian-student-tobacco-alcohol-drugs-survey/files/uploads/files/kt18\\_ecig\\_factsheet\\_on\\_final.pdf](https://uwaterloo.ca/canadian-student-tobacco-alcohol-drugs-survey/sites/ca.canadian-student-tobacco-alcohol-drugs-survey/files/uploads/files/kt18_ecig_factsheet_on_final.pdf)
- <sup>iv</sup> Stoklosa, M., Drope, J. & Chaloupka, F.J. (2016). Prices and E-Cigarettes Demand: Evidence from the European Union. *Nicotine & Tobacco Research*. 18(10):1973-1980.
- <sup>v</sup> Statistics Canada. Table 102–0561 – Leading causes of death, total population, by age group and sex, Canada. CANSIM (death database) [Internet]. Ottawa (Ontario): Statistics Canada; 2017 Mar 8 [cited 2017 June 6]. Available from: <http://www5.statcan.gc.ca/cansim/a05?lang=eng&id=1020561>
- <sup>vi</sup> GBD 2015 DALYs and HALE Collaborators. Global, regional, and national disability-adjusted life-years (DALYs) for 315 diseases and injuries and healthy life expectancy (HALE), 1990–2015: a systematic analysis for the Global Burden of Disease Study 2015. *Lancet*. 2016 Oct 8;388(10053):1603–58.
- <sup>vii</sup> Heart & Stroke’s analysis of data from the Canadian Institute for Health Information’s Discharge Abstract Database and National Ambulatory Care Reporting System for 2007-2017
- <sup>viii</sup> Hans Krueger, Jacqueline Koot, Ruth E. Hall, Christina O’Callaghan, Mark Bayley, and Dale Corbett. Prevalence of Individuals Experiencing the Effects of Stroke in Canada: Trends and Projections. *Stroke*. 2015; 46(8):2226–2231”
- <sup>ix</sup> *Neurology*. 2017 May 30;88(22):21b3-2127. Epub 2017 Apr 28. Endovascular therapy for ischemic stroke: Save a minute-save a week. Meretoja , Keshtkaran , Tatlisumak , Donnan , Churilov.
- <sup>x</sup> [https://uwaterloo.ca/canadian-student-tobacco-alcohol-drugs-survey/sites/ca.canadian-student-tobacco-alcohol-drugs-survey/files/uploads/files/kt18\\_ecig\\_factsheet\\_on\\_final.pdf](https://uwaterloo.ca/canadian-student-tobacco-alcohol-drugs-survey/sites/ca.canadian-student-tobacco-alcohol-drugs-survey/files/uploads/files/kt18_ecig_factsheet_on_final.pdf)
- <sup>xi</sup> Hammond, D., Reid, J., Rynard, V., et al. Prevalence of vaping and smoking among adolescents in Canada, England, and the United States: repeat national cross sectional surveys. 2019. *BMJ*;365:12219.
- <sup>xii</sup> Statistics Canada. Canadian Student Tobacco, Alcohol and Drugs Study, 2016-17. 2017[cited 2018 Sep 28]. Available from: <https://www.canada.ca/en/health-canada/services/canadian-student-tobacco-alcohol-drugssurvey/2016-2017-summary.htm>
- <sup>xiii</sup> Yuan M, Cross SJ, Loughlin SE, Leslie FM. Nicotine and the adolescent brain: Nicotine and the adolescent brain. *J Physiol*. 2015;593(16):3397-3412. doi:10.1113/JP270492
- <sup>xiv</sup> England LJ, Bunnell RE, Pechacek TF, Tong VT, McAfee TA. Nicotine and the Developing Human. *American Journal of Preventive Medicine*. 2015;49(2):286293.doi:10.1016/j.amepre.2015.01.015
- <sup>xv</sup> Alzahrani T, Pena I, Temesgen N, Glantz SA. Association between electronic cigarette use and myocardial infarction. *American Journal of Preventive Medicine*. 2018;55(4):455-461. doi:10.1016/j.amepre.2018.05.004
- <sup>xvi</sup> National Academy of Sciences. Public Health Consequences of E-Cigarettes.; 2018. doi:10.17226/24952
- <sup>xvii</sup> Kalininskiy A, Bach CT, Nacca NE, et al. E-cigarette, or vaping, product use associated lung injury (EVALI): case series and diagnostic approach. *The Lancet Respiratory Medicine*. 2019;7(12):1017-1026. doi:10.1016/S22132600(19)30415-1
- <sup>xviii</sup> Hammond D, Reid JL, Cole AG, Leatherdale ST. Electronic cigarette use and smoking initiation among youth: a longitudinal cohort study. *CMAJ*. 2017;189(43):E1328-E1336. doi:10.1503/cmaj.161002
- <sup>xix</sup> Soneji S, Barrington-Trimis JL, Wills TA, et al. Association between initial use of e-cigarettes and subsequent cigarette smoking among adolescents and young adults: a systematic review and meta-analysis. *JAMA Pediatr*. 2017;171(8):788. doi:10.1001/jamapediatrics.2017.1488
- <sup>xx</sup> Chadi N, Schroeder R, Jensen JW, Levy S. Association between electronic cigarette use and marijuana use among adolescents and young adults: a systematic review and meta-analysis. *JAMA Pediatr*. August 2019:e192574.doi:10.1001/jamapediatrics.2019.2574
- <sup>xxi</sup> St Helen G, Havel C, Dempsey DA, Jacob P 3rd, Benowitz NL. Nicotine delivery, retention and pharmacokinetics from various electronic cigarettes. *Addiction*. 2016;111(3):535-544. doi:10.1111/add.13183
- <sup>xxii</sup> Kandel D, Kandel E. The Gateway Hypothesis of substance abuse: developmental, biological and societal perspectives. *Acta Paediatr*. 2015;104(2):130-137. doi:10.1111/apa.12851
- <sup>xxiii</sup> Zare S, Nemati M, Zheng Y. A systematic review of consumer preference for e-cigarette attributes: Flavor, nicotine strength, and type. Cormet-Boyaka E, ed. *PLoS ONE*. 2018;13(3):e0194145. doi:10.1371/journal.pone.0194145
- <sup>xxiv</sup> Dai H, Hao J. Flavored Electronic Cigarette Use and Smoking Among Youth. *PEDIATRICS*. 2016;138(6):e20162513-e20162513. doi:10.1542/peds.2016-2513
- <sup>xxv</sup> Glantz, S. and Bareham, D. E-Cigarettes: Use, Effects on Smoking, Risks, and Policy Implications. *Annual Review of Public Health* 2018 39: 215 – 235.
- <sup>xxvi</sup> Carpenter C, Cook PJ. Cigarette taxes and youth smoking: New evidence from national, state and local Youth Risk Behaviour Surveys. *Journal of Health Economics* 2008 Mar;27(2):287-299.
- <sup>xxvii</sup> Gruber J. Youth Smoking in the U.S.: Prices and Policies. NBER Working Paper No. 7506. Cambridge, MA:

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National Bureau of Economic Research, January 2000.  
Accessed on February 27, 2018.

<sup>xxviii</sup> Chaloupka FJ, Wechsler H. Price, tobacco control policies and smoking among young adults. *Journal of Health Economics* 1997 Jun;16(3):359-373.

<sup>xxix</sup> Gruber J. Youth Smoking in the U.S.: Prices and Policies. NBER Working Paper No. 7506. Cambridge, MA:

National Bureau of Economic Research, January 2000.

Accessed on February 27, 2018.

<sup>xxx</sup> Ross H, Chaloupka FJ, Wakefield MA. Youth smoking uptake progress: Price and public policy effects. *Eastern Economic Journal* 2006 Spring;32(2):355-367.

<sup>xxxi</sup> Al-Hamdani, M., Hopkins, D.B. and Davidson, M. The 2020 Youth and Young Adult Vaping Project, September 11, 2020.