Comment to Government of the Northwest Territories
Regarding Restricting the Sale of Flavored E-Cigarettes and Vapor Products
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Thank you for allowing the opportunity to discuss the issue of restricting the sale of flavored vapor products. We represent the Consumer Center at the Taxpayers Protection Alliance (TPA). TPA is a non-profit, non-partisan organization dedicated to educating the public through the research, analysis and dissemination of information on the government's effects on the economy.

As governments attempt to address the critical issue of youth use of age- restricted products (including electronic cigarettes and vapor products), many have put forward policies that would restrict adult access to tobacco harm reduction products. Although addressing youth use is laudable, policymakers should refrain from policies that would restrict adult access to tobacco harm reduction products. Rather than limit adult access of such products, policymakers in the Northwest Territories should engage in a more robust tobacco control policy to prevent youth use.

Tobacco and Vapor Product Use Among Canadian Adults

The most recent data on tobacco and vapor product use among Canadian adults comes from the 2019 Canadian Tobacco and Nicotine Survey (CTNS).[1] In 2019, according to CTADS, 12 percent of Canadian adults smoked cigarettes, amounting to approximately 3.7 million smokers. This is a 20 percent decrease from 2017 when 15 percent of Canadian adults were current smokers and a 22.1 percent decrease from 2015, when 15.4 percent of Canadian adults were smokers. [2] Daily smoking prevalence continues to decline. In 2019, nine percent of adults smoked every day, an 18.2 percent decrease from 2017 when 11 percent of adults were daily smokers.

Among 15- to 19-year-old Canadians, smoking rates decreased by 37.5 percent from eight percent in 2017 to five percent in 2019. Further, smoking rates among 20- to 24-year-old adults decreased by 18.8 percent, from 16 percent in 2017 to 13 percent in 2013.

In 2019. regarding e-cigarette and vapor product use, an estimated 16 percent "of Canadians aged 15 years and older had ever tried an e-cigarette." This was a 6.7 percent increase from 2017 and a 23.1 percent increase from 2015.

In fact, five percent of Canadians aged 15 or older reported using a vapor product in the 30 days prior to the survey. This is a 66.7 percent increase from 2017 when three percent reported past month e-cigarette use. Among past month users, 38 percent were current smokers, 25 percent were former smokers and 37 percent were never smokers. Nearly two-thirds of past month e-cigarette users (63 percent) were current and/or former smokers.

Overwhelmingly, current e-cigarette users report using the products to refrain from smoking. In 2017, among current e-cigarette users, 69 percent reported using vapor products to help them quit smoking cigarettes. Further, among current and former smokers, 32 percent, 1.1 million Canadians, "reported using e-cigarettes as a cessation aid the past two years."

Tobacco and Vapor Product Use Among Canadian Youth

According to data from the 2018-19 Canadian Student Tobacco, Alcohol and Drugs Survey, combustible cigarette use among Canadian youth is at record lows.[3] In 2018-2019, 19 percent of Canadian students in grades 7 to 12 had ever tried smoking. Among students in grades 7 to 9, nine percent had ever tried cigarettes and among grades 10 to 12, 29 percent reported ever use of cigarettes.

Three percent of students in grades 7 to 12 reported current cigarette use, and 0.9 percent reported daily use in 2018-19. Daily cigarette use has declined by 30.8 percent from 2016-17, when 1.3 percent of students in grades 7 to 12 used cigarettes.

In 2017, one percent of Canadians in grades 7 through 9 reported current smoking, and only 0.4 percent reported smoking daily.[4] Daily smoking had decreased by 76.9 percent from 1991, when 3.9 percent of Canadians in grades 7 through 9 reported daily cigarette use.

Regarding e-cigarette use, 20 percent of students in grades 7 through 12 reported using an e-cigarette on at least on occasion in the 30 days prior to the survey.

Regarding sources for e-cigarettes, in 2018-2019, 65 percent of students in grades 7 to 12 reported using social sources to get their e-cigarettes including "friends, family, and others." This was a 16.1 percent increase from 2016-17, when 56 percent of current youth e-cigarette users reported using social sources to obtain e-cigarettes. Moreover, only 25 percent of students reported obtaining e-cigarettes at retail locations, and this has remained unchanged from 2016-2017 figures.

The Role of Flavors in Tobacco Harm Reduction

Flavors are an essential component of e-cigarettes and vital to helping many smokers cease using combustible tobacco.

A 2013 internet study concluded that flavors in e-cigarettes "appear to contribute to both perceived pleasure and the effort to reduce cigarette consumption or quit smoking."[5] The study consisted of over 4,600 participants with a mean age of 40 years. The most commonly used flavor among survey respondents was fruit flavors, followed by sweets. A majority of respondents indicated restricting flavors would make vaping "less enjoyable."[6] A 2015 online survey conducted by the Consumer Advocates for Smoke-Free Alternatives Association (CASAA) examined 27,343 Americans over the age of 18. Seventy-two percent of the respondents "credited tasty flavors with helping them give up tobacco."[7] Of the respondents that were still smoking, "53% say interesting flavors are helping move them toward quitting."

A 2017 study discovered older adults "use of an e-cigarette flavored with something other than tobacco (69.3%) was … significantly higher than the same at initiation (44.1%)."[8] Thus, e-cigarette users often first consume tobacco flavored e-liquids and products but then transition to other flavors, helping aid their cessation of combustible cigarettes.

Another 2017 study examined the impact of a flavor ban in electronic cigarettes and vaping devices. The authors concluded banning flavors "would result in increased choice of combustible cigarettes," and they said they expect e-cigarette use to decline by approximately 10 percent if flavors are banned.[9]Additionally, a 2018 "systematic review of research examining consumer preference" for flavors concluded adults "in general also preferred sweet flavors."[10]

A 2018 survey of nearly 70,000 American adult vapers "found flavors play a vital role in the use of electronic cigarettes and vaping devices."[11] Some 83.2 percent and 72.3 percent of survey respondents reported vaping fruit and dessert flavors, respectively, "at least some of the time."[12]

A longitudinal study published in June, 2019, examined changes in flavor preference among 383 adult participants. The authors found that "[p]reference for tobacco and menthol or mint [flavors] decreased over time; preference for fruit remained stable, but chocolate/candy or other sweets preference significantly increased.[13] Further the authors found that "exclusive e-cigarette users preferred sweet flavors more commonly than [poly-tobacco] users did."

A 2020 study found an association between flavors and smoking cessation. In a cohort study of over 17,900 participants, the authors found that "adults who began vaping nontobacco-flavored e-cigarettes were more likely to quit smoking than those who vaped tobacco flavors."[14]

Moreover, research by Dr. Edward Anselm, R Street Institute senior fellow and medical director of Health Republic Insurance of New Jersey, concludes the presence of flavorings in e-cigarettes greatly helps smokers quit using traditional tobacco cigarettes. Anselm also notes concerns over "flavoring as a tool to recruit children are overblown," and he rightly points out there are no

specific “kids flavors” for e-cigarettes.[15] There is no “evidence that suggests children are drawn to tobacco products specifically because of flavor.”

E-Cigarettes and Vapor Products 101

E-cigarettes were first introduced in Canada in 2004.[16] These devices provide users with an experience that simulates smoking traditional tobacco cigarettes. Cig-alikes are typically composed of three parts: a cartridge that contains an e-liquid, with or without nicotine; an atomizer to heat the e-liquid to vapor; and a battery.

In later years, manufacturers added second-generation tank systems to e-cigarette products, followed by larger third-generation personal vaporizers, which vape users commonly call “mods.”[17] These devices can either be closed or open systems.

Closed systems, often referred to as “pod systems,” contain a disposable cartridge that is discarded after consumption. Open systems contain a tank that users can refill with e-liquid. Both closed and open systems utilize the same three primary parts included in cigalikes—a liquid, an atomizer with a heating element, and a battery— as well as other electronic parts. Unlike cig-alikes, “mods” allow users to manage flavorings and the amount of vapor produced by controlling the temperature that heats the e-liquid.

Vape Stores in U.S. Are Good at Not Selling to Minors

The U.S. Food and Drug Administration (FDA) regularly performs tobacco products compliance checks, in which the agency “closely monitors retailer, manufacturer, importer, and distributor compliance with Federal tobacco laws and regulations and takes corrective action when violations occur.”[18]

From October 12, 2010 to September 30, 2019, FDA issued more than 1 million compliance inspection decision letters across tobacco retailers in the U.S. states and territories. Between September 22, 2016 and September 26, 2019, the FDA issued 9,100 warning letters, complaints, and/or monetary penalties to US tobacco retailers that had sold an e-cigarette or vapor product to a minor.

Of these, 610 (3.4 percent of e-cigarette violations and 0.06 of all compliance checks) were issued to retailers that had “vape” or “vapor” or “vaping” in their retail name. Of the vaping retailer violations, only 58 (9.5 percent of vape shop violations and 0.6 percent of all e-cigarette violations) were issued civil monetary penalties, which are issued for repeat violations and 0 were issued no-tobacco-sales orders.

Effects of Flavor Bans

Flavor bans have had little effect on reducing youth e-cigarette use and may lead to increased combustible cigarette rates, as evidenced in San Francisco, California.[19]

In April 2018, a ban on the sale of flavored e-cigarettes and vapor products went into effect in San Francisco and in January, 2020, the city implemented a full ban on any electronic vapor product. Unfortunately, these measures have failed to lower youth tobacco and vapor product use.

Data from an analysis of the 2019 Youth Risk Behavior Survey show that 16 percent of San Francisco high school students had used a vapor product on at least one occasion in 2019 – a 125 percent increase from 2017 when 7.1 percent of San Francisco high school students reported using an e-cigarette.[20] Daily use more than doubled, from 0.7 percent of high school students in 2017, to 1.9 percent of San Francisco high school students reporting using an e-cigarette or vapor product every day in 2019.

Worse, despite nearly a decade of significant declines, youth use of combustible cigarettes seems to be on the rise in Frisco. In 2009, 35.6 percent of San Francisco high school students reported ever trying combustible cigarettes. This figure continued to decline to 16.7 percent in 2017. In 2019, the declining trend reversed and 18.6 percent of high school students reported ever trying a combustible cigarette. Similarly, current cigarette use increased from 4.7 percent of San Francisco high school students in 2017 to 6.5 percent in 2019.

An April 2020 study in *Addictive Behavior Reports* examined the impact of San Francisco's flavor ban on young adults by surveying a sample of San Francisco residents aged 18 to 34 years.[21] Although the ban did have an effect in decreasing vaping rates, the authors noted "a significant increase in cigarette smoking" among participants aged 18 to 24 years old.

Other municipal flavor bans have also had no effect on youth e-cigarette use.[22] For example, Santa Clara County, California, banned flavored tobacco products to age-restricted stores in 2014. Despite this, youth e-cigarette use *increased*. In the 2015-16 California Youth Tobacco Survey (CYTS), 7.5 percent of Santa Clara high school students reported current use of e-cigarettes. In the 2017-18 CYTS, this *increased* to 10.7 percent.

Further, studies have found that banning flavors in e-cigarettes leads to subsequent combustible cigarette use. A 2018 study published in *Tobacco Control* found that banning flavored "e-cigarettes alone would likely increase the choice of cigarettes in smokers."[23] A July, 2021 survey in *Nicotine & Tobacco Research* found that one-third (33.2 percent) of survey respondents would "likely switch to [combustible] cigarettes" if flavors were banned in e-cigarettes.[24]

In August 2021, an article in *American Journal of Public Health (AJPH)* co-authored by 15 past presidents of the Society for Research on Nicotine and Tobacco (SRNT). This prime academic global organization involved with nicotine and tobacco evidence-based research warned that: "Because both youth and adult smokers find e-cigarette flavors attractive, banning all (or most) flavors risks reducing smokers' use of e-cigarettes to quit smoking at the same time that it reduces youth vaping."[25]

Health Effects of Electronic Cigarettes and Vapor Products

Despite recent media reports, e-cigarettes are significantly less harmful than combustible cigarettes. Public health statements on the harms of e-cigarettes include:

> **Public Health England:** In 2015, Public Health England, a leading health agency in the United Kingdom and similar to the FDA found "that using [e-cigarettes are] around 95% safer than smoking," and that their use "could help reducing smoking related disease, death and health inequalities."[26] In 2018, the agency reiterated their findings, finding vaping to be "at least 95% less harmful than smoking."[27]
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> As recent as February 2021, PHE provided the latest update to their ongoing report on the effects of vapor products in adults in the UK. The authors found that in the UK, e-cigarettes were the "most popular aid used by people to quit smoking [and] … vaping is positively associated with quitting smoking successfully."[28]
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> **The Royal College of Physicians:** In 2016, the Royal College of Physicians found the use of e-cigarettes and vaping devices "unlikely to exceed 5% of the risk of harm from smoking tobacco."[29] The Royal College of Physicians (RCP) is another United Kingdom-based public health organization, and the same public group the United States relied on for its 1964 Surgeon General's report on smoking and health.
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> **The National Academies of Sciences, Engineering, and Medicine:** In January 2018, the academy noted "using current generation e-cigarettes is less harmful than smoking."[30]
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> **Cochrane Review:** Researchers at the Tobacco Addiction Group analyzed studies that examined the effects of e-cigarettes in helping smokers quit. The researchers found 61 studies that had over 16,700 adults that had smoked. The studies compared the instances of quitting smoking using e-cigarettes to other nicotine replacements including nicotine replacement therapy, nicotine-free e-cigarettes, behavioral support and others. Of the available evidence, the authors found that more people "probably stop smoking for at least six months using nicotine e-cigarettes than using nicotine replacement therapy … or nicotine-free e-cigarettes." The authors also found that e-cigarette "may help more people to stop smoking than no support or [behavioral] support only."[31]
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> **Society for Research on Nicotine and Tobacco:** An article in August 2021 co-authored by 15 past presidents of the SRNT reported that "Many scientists have concluded that vaping is likely substantially less dangerous than smoking". Furthermore, they found that "A growing body of evidence indicates that vaping can foster smoking cessation" and warned "Studies have found that policies intended to restrict e-cigarette use may have unintentionally increased cigarette smoking".[32]

A 2017 study in *BMJ*'s peer-reviewed journal *Tobacco Control* examined health outcomes using "a strategy of switching cigarette smokers to e-cigarette use … in the USA to accelerate tobacco

control progress."[33] The authors concluded that replacing e-cigarettes "for tobacco cigarettes would result in an estimated 6.6 million fewer deaths and more than 86 million fewer life-years lost."

Robust Tobacco Control Policy

Rather than limiting flavors in e-cigarettes and vapor products, public officials in Canada ought to invest in a robust tobacco control plan that includes education and prevention measures.

According to the Canadian Cancer Society, Canada invests $18 million per year on funding the Federal Tobacco Control Strategy.[34] Of this, $11 million is directed to Health Canada, $3 million is allocated to the Public Health Agency of Canada, $3 million for Public Safety and $2 million to the Royal Canadian Mounted Police. $18 million is less than one percent (0.002) of the $8.3 billion in cigarette taxes that the Canadian federal government and provinces collected in 2018.

$18 million in tobacco control funding is approximately $3.91 per adult smoker in 2017 and is about $0.40 for the nation's 44.5 million youth aged 19 years or younger. Tobacco control is woefully underfunded. This is troublesome as "comprehensive tobacco control programs lead to an 8% short-term relative reduction [in smoking rates], increasing to a 12% long-term relative reduction in smoking prevalence through the greater impact on youth smoking."[35]

Positive tobacco control campaigns to address youth use of vapor products could include media campaigns and education courses, regulatory oversight of retailers of products to ensure no youth access and working in tandem with education and public health agencies to develop programs to address youth vapor use. Nonetheless, such programs need adequate funding.

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Conclusion and Policy Implications

- Canadian youth use of combustible cigarette rates is at an all-time low. And while youth use of vapor products is troubling, many youths are not overwhelmingly using e-cigarettes. In 2018-19, 20 percent of students in grades 7 to 12 reported using e-cigarettes on at least one occasion in the 30 days prior to the survey.
- Youth are not using retail stores to obtain vapor products. In 2018-19, 65 percent of Canadian students in grades 7 to 12 reported using a social source to obtain e-cigarettes. This is a 16.1 percent increase from 2016-17.
- Only 25 percent of students in grades 7 to 12 reported using retail stores to obtain vapor products.
- Flavors are essential in helping smokers quit smoking, and remain smoke-free. Although youth use of any age-restricted product deserves to be addressed, policies must not limit adult access to tobacco harm reduction products.
- Local flavor bans in the United States have failed to reduce youth vapor product use, and worse, have led to an increase in combustible cigarette use.

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- Canada woefully underfunds tobacco control programs. Indeed, in 2018, Canada spent only $18 million on tobacco education and prevention efforts. This amounts to only $3.91 per adult smoker in 2017 and is about $0.40 for the nation's 44.5 million youth aged 19 years or younger.

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[1] Government of Canada, "Canadian Tobacco and Nicotine Survey (CTNS): summary of results for 2019," July 7, 2020, https://www.canada.ca/en/health-canada/services/canadian-tobacco-nicotine-survey/2019-summary.html.
[2] Government of Canada, "Canadian Tobacco, Alcohol and Drugs Survey (CTADS): summary of results for 2017," 2017, https://www.canada.ca/en/health-canada/services/canadian-tobacco-alcohol-drugs-survey/2017-summary.html#n2/
[3] Government of Canada, "Summary of results for the Canadian Student Tobacco, Alcohol and Drugs Survey 2018-19," December 23, 2019, https://www.canada.ca/en/health-canada/services/canadian-student-tobacco-alcohol-drugs-survey/2018-2019-summary.html.
[4] School of Public Health and Health Systems, "Tobacco Use in Canada," University of Waterloo, 2017, https://uwaterloo.ca/tobacco-use-canada/e-cigarette-use-canada.
[5] Konstantinos Farsalinos *et al*., "Impact of Flavour Variability on Electronic Cigarette Use Experience: An Internet Survey," *International Journal of Environmental Research and Public Health*, December 17, 2013, https://www.mdpi.com/1660-4601/10/12/7272/htm.
[6] *Ibid.*
[7] Vape Ranks, "Large Survey Finds E-Cigarettes Do Help Smokers Quit," January 12, 2016, https://vaperanks.com/large-survey-finds-e-cigarettes-do-help-smokers-quit/.
[8] M.B. Harrell *et al*., "Flavored e-cigarette use: Characterizing youth, young adult, and adult users," *Preventative Medicine Reports*, March 2017, pp. 33-40, https://www.sciencedirect.com/science/article/pii/S2211335516301346.
[9] John Buckell, Joachim Marti, and Jody L. Sindelar, "Should Flavors Be Banned in E-Cigarettes? Evidence on Adult Smokers and Recent Quitters from a Discrete Choice Experiment," National Bureau of Economic Research, September 2017, http://www.nber.org/papers/w23865.pdf.
[10] Samane Zare *et al.*, "A systematic review of consumer preference for e-cigarette attributes: Flavor, nicotine strength, and type," *PLoS ONE* 13(3): e0194145. https://doi.org/10.1371/journal.pone.0194145.
[11] Lindsey Stroud, "Research & Commentary: Largest Vaping Survey Finds Flavors Play Important Role in Tobacco Harm Reduction," *Research & Commentary*, The Heartland Institute, October 2, 2018, https://www.heartland.org/publications-resources/publications/research--commentary-largest-vaping-survey-finds-flavors-play-important-role-in-tobacco-harm-reduction.
[12] Ali Anderson, "Ex Smokers Prefer Fruity E-Liquids Says Doctor's FDA Survey," *Vaping*, August 14, 2018, https://vaping.com/blog/news/ex-smokers-prefer-fruity-e-liquids-says-doctors-fda-survey/.
[13] Ping Du *et* al., "Changes in Flavor Preference in a Cohort of Long-Term Electronic Cigarette Users," *Annals of the American Thoracic Society*, June 21, 2019, https://www.atsjournals.org/doi/full/10.1513/AnnalsATS.201906-472OC.
[14] Abigail S. Friedman and SiQing Xu, "Associations of Flavored e-Cigarette Uptake With Subsequent Smoking Initiation and Cessation," *JAMA Network*, June 5, 2020, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7275248/.
[15] Edward Anselm, "The Role of Flavoring in Tobacco Harm Reduction," *R Street Policy Study*, R Street Institute, December 2015, https://2o9ub0417chl2lg6m43em6psi2i-wpengine.netdna-ssl.com/wp-content/uploads/2018/04/RSTREET49-1.pdf.
[16] Adam Miller, "The science behind why vaping is becoming so popular in Canada," *CBS News Canada*, September 20, 2019, https://www.cbc.ca/news/health/the-science-behind-why-vaping-is-becoming-so-popular-in-canada-1.5290520.
[17] WHO Framework Convention on Tobacco Control, "Electronic Nicotine Delivery Systems and Electronic Non-Nicotine Delivery Systems (ANDS/ ENNDS)," August 2016, http://www.who.int/fctc/cop/cop7/FCTC_ COP_7_11_EN.pdf.

[18] U.S. Food and Drug Administration, "CTP Compliance & Enforcement," December 1, 2021, https://www.fda.gov/tobacco-products/compliance-enforcement-training/ctp-compliance-enforcement.
[19] Lindsey Stroud, "Vaping Up, Smoking Increasing Among Teens in San Francisco – Despite Bans," *Tobacco Harm Reduction 101*, July 28, 2020, https://www.thr101.org/research/2020/vaping-up-smoking-increasing-among-teens-in-san-francisco-despite-bans.
[20] Centers for Disease Control and Prevention, "San Francisco, CA 2017 Results," *High School Youth Risk Behavior Survey*, 2017, https://nccd.cdc.gov/youthonline/App/Results.aspx?LID=SF.
[21] Yong Yang et *al.*, "The Impact of a Comprehensive Tobacco Product Flavor Ban in San Francisco Among Young Adults," *Addictive Behavior Reports*, April 1, 2020, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7186365/#!po=0.961538.
[22] Lindsey Stroud, "Flavor Bans Do Not Reduce Youth E-Cigarette Use," *Tobacco Harm Reduction 101*, 2019, https://www.thr101.org/research/2019/flavor-bans-do-not-reduce-youth-e-cigarette-use.
[23] John Bukell, Joachim Marti, and Jody L. Sindelar, "Should flavours be banned in e-cigarettes? Evidence on adult smokers and recent quitters from a discrete choice experiment," *Tobacco Control*, May 28, 2018, https://tobaccocontrol.bmj.com/content/tobaccocontrol/28/2/168.full.pdf.
[24] Heather Posner *et* al., "Reactions to sales restrictions on flavored vape products or all vape products among young adults in the US," *Nicotine & Tobacco Research*, July 31, 2021, https://academic.oup.com/ntr/advance-article-abstract/doi/10.1093/ntr/ntab154/6332852?redirectedFrom=fulltext.
[25] David J. K. Balfour, et al. "Balancing Consideration of the Risks and Benefits of E-Cigarettes", *American Journal of Public Health* 111, no. 9 (September 1, 2021): pp. 1661-1672. https://ajph.aphapublications.org/doi/10.2105/AJPH.2021.306416
[26] A. McNeill *et al*., "E-cigarettes: an evidence update," Public Health England, August, 2015, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachm.
[27] A. McNeill *et al*., "Evidence review of e-cigarettes and heated tobacco products 2018," Public Health England, February 2018, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/684963/Evidence_review_of_e-cigarettes_and_heated_tobacco_products_2018.pdf.
[28] A. McNeill *et* al., "Vaping in England: an evidence update including vaping for smoking cessation, February 2021," Public Health England, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/962221/Vaping_in_England_evidence_update_February_2021.pdf.
[29] Royal College of Physicians, *Nicotine without Smoke: Tobacco Harm Reduction*, April, 2016, https://www.rcplondon.ac.uk/projects/outputs/nicotine-without-smoke-tobacco-harm-reduction-0.
[30] Committee on the Review of the Health Effects of Electronic Nicotine Delivery Systems, "Public Health Consequences of E-Cigarettes," The National Academies of Science, Engineering, and Medicine, 2018, https://www.nap.edu/catalog/24952/public-health-consequences-of-e-cigarettes.
[31] Hartmann-Boyce J. *et* al., "Can electronic cigarettes help people stop smoking, and do they have any unwanted effects when used for this purpose?," *Cochrane Review*, September 14, 2021, https://www.cochrane.org/CD010216/TOBACCO_can-electronic-cigarettes-help-people-stop-smoking-and-do-they-have-any-unwanted-effects-when-used.
[32] David J. K. Balfour, et al. "Balancing Consideration of the Risks and Benefits of E-Cigarettes", *American Journal of Public Health* 111, no. 9 (September 1, 2021): pp. 1661-1672. https://ajph.aphapublications.org/doi/10.2105/AJPH.2021.306416
[33] David T. Levy *et al.*, "Potential deaths averted in USA by replacing cigarettes with e-cigarettes," *Tobacco Control*, October 2, 2017, http://tobaccocontrol.bmj.com/content/early/2017/08/30/tobaccocontrol-2017-053759.info.
[34] Rob Cunningham, "CCS applauds strengthened Federal Tobacco Control Strategy, higher tobacco taxes in federal budget," Canadian Cancer Society, February 27, 2018, https://www.cancer.ca/en/about-us/for-media/media-releases/national/2018/federal-budget/?region=on#:~:text=The%20strengthening%20of%20the%20Federal,by%20the%20Canadian%20Cancer%20Society..

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[35] David T. Levy, PhD., *et* al., "The Impact of Implementing Tobacco Control Policies: The 2017 Tobacco Control Policy Scorecard," *Journal of Public Health Management and Practice*, January 17, 2018, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6050159/.