


Viewpoints

The approach taken by Canada's province of Nova Scotia to ban the sale of flavoured electronic cigarettes

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INTRODUCTION

The prevalence of Canadian adolescents aged 16-19 who engage in electronic cigarette (e-cig)/vaping use has been increasing in recent years, reaching an astonishing 37% in 2018.¹ The spike in the prevalence of e-cig use is of great concern due to the numerous health risks associated with e-cigs including exposure to microparticles, carcinogenic substances, and volatile organic materials.² Additionally, e-cig use has been shown to lead to electronic cigarette and vaping associated lung injury (EVALI).³ The symptoms of EVALI include severe lung injury, oedema in the alveoli, and respiratory system failure. EVALI has led to over 2700 hospitalizations and 60 deaths in the United States alone.³ Given the health risks that e-cigs pose to adolescents, effective policies must be implemented to curb the rapidly increasing use among this population.

While most of the research on the impact of flavoured e-cigs has focused on the toxicity of flavour additives, much less attention has been dedicated to considering how flavours can be an appealing factor for adolescents. Flavors are a major driver of e-cig experimentation among youth,⁴ and those who smoke flavored e-cigs are more likely to continue vaping in the long term, after six months.⁵ Data collected from Finland has suggested that an e-cig flavour ban may reduce the prevalence of adolescent e-cig use.⁶

On April 1st, 2020, Nova Scotia became the first Canadian province to enact legislation to ban the sale of flavoured e-cigs.⁷ This paper will focus on the policy changes that were made, an analysis of said changes, and the effectiveness thus far.

POLICY CHANGES

Results from the 2017 Canadian Student Tobacco, Alcohol and Drugs Survey (CSTAD) underscored the severity of the adolescent vaping problem in Nova Scotia. Across Canada, Nova Scotia had the highest rate of students in grades 7-12 who tried vaping.⁸ Additionally, a Smoke Free Nova Scotia survey found that 95% of young adults prefer flavoured e-cigarettes, and over 48 % of these young adults would quit if flavors were banned.^{7,8} Considering various factors, the province enacted a policy to ban the sale of flavoured e-cigs. The primary reason for this ban was to make e-

cigs less appealing and accessible to adolescents and young nonsmokers who may otherwise be attracted to the various flavors of e-cigs.

POLICY ANALYSIS

As with all public health policies, Nova Scotia's flavour ban has associated benefits and risks. A clear benefit of Nova Scotia's approach is that they have made flavoured e-cigs inaccessible to be purchased and have made e-cigs less appealing to adolescents, as the policy had intended. Given the results from the surveys noted above,^{7,8} this would likely result in these adolescents forgoing e-cig use. Adolescents may also view this policy as an official health & safety warning from the Nova Scotia government and be more cautious when considering vaping.

On the other hand, it is important to consider some of the challenges that can arise from a ban on flavoured e-cigs. One particular threat is the possibility of flavoured e-cigs being sold to young people through illegal means, such as the black market. This is concerning due to the lack of quality assurance of products, resulting in further harm to its users. In addition, research points to the potential that banning flavoured e-cigs may increase combustible tobacco use, which is more detrimental to health than vaping.^{9,10} However, a recent cross-sectional study found that a decrease in self-reported cigarette use was associated with a decrease in e-cig use.¹¹ It is important to acknowledge this is the currently available data, and future findings may change.

EFFECTIVENESS OF NOVA SCOTIA'S E-CIGARETTE FLAVOR BAN: WHAT ARE ITS IMPACTS SO FAR?

The Nova Scotia government or public health institute has yet to release a report on the effectiveness of the e-cigarette flavor ban and its impact on e-cigarette use among teens. However, the Vaping Industry has already begun its retaliation and has criticized Nova Scotia's flavor ban policy. The Vaping Industry Trades Association¹² (VITA) refuted the legitimacy of this policy and called it a "politically motivated policy" that would do more harm than good.

An example they cited was that since the introduction of the flavor ban, there had been a 5.6% increase in combustible cigarette consumption between April 1st, 2020 and March 31st, 2021.¹² However, a double-blind RCT examining vaping preferences among young adults (18-35 years) found that individuals who vaped to quit smoking may prefer flavors that resemble combustible cigarettes, suggesting smokers looking to quit combustible cigarettes may be less affected by the flavour ban.¹³

It is also important to note that cigarette purchase data alone is not an accurate indicator of the success or failure of a policy. We suggest that when evaluating the effectiveness of a policy, the reviewers would need to consider both the magnitude of reduction of e-cig use and the increase in combustible cigarette consumption. It's interesting that VITA only released information regarding a rise in cigarette consumption but failed to include data regarding whether there was a change in e-cig use and the magnitude of that change. Further, VITA is 100% funded by the tobacco industry,¹⁴ so a clear conflict of interest exists

CONCLUSION

Nova Scotia is the first jurisdiction to ban the sale of flavoured e-cigs in Canada. The government of Nova Scotia utilized data from their province to inform policy decisions, highlighting their government's clear picture of young people vaping in their province. Although there are some challenges that the policy creates, the policy is moving in the right direction for preventing adolescent e-cig use. In the long-term, it is important to consistently evaluate and monitor the efficacy of Nova Scotia's policies by contin-

uously analyzing the prevalence of adolescent e-cig and combustible cigarette use. Additionally, including an educational arm, such as through a dedicated social media campaign in the media may also help enhance Nova Scotia's public health messaging. Future research exploring adolescents' perceptions of e-cigs and the difficulty of obtaining flavoured e-cigs in the post-ban era will be important. Interestingly and recently, there appears to be a push towards national restrictions on e-cig flavours in Canada as a whole.¹⁵

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DISCLOSURE

The author completed the Unified Competing Interest form (available upon request from the corresponding author) and declares no conflicts of interest.

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