

Strategies to address youth vaping

Webinar Recap

Overview of Webinar

Building upon the findings and recommendations of the **2023 National Conference on Tobacco and Vaping**, this interactive webinar series aimed to bring together professionals working in the tobacco control and vaping sectors to provide practical areas for collaboration and action across Canada.

This webinar, made possible through an unrestricted educational grant from Kenvue Canada Inc., explored policy and programmatic strategies to prevent and reduce youth e-cigarette use in Canada. Drawing upon evidence from international strategies to reduce youth vaping and approaches from other areas (e.g. tobacco prevention) that could be applied, participants had the opportunity to consider various approaches to addressing youth vaping in their provinces and/or communities. address youth vaping

Learning Objectives

- To increase knowledge of:
 - the current landscape of tobacco cessation goals
 - the relationship between nicotine use and achieving total cessation goals
 - trends in teen vaping and teen vaping reduction targets
 - policies and evidence-based programs that reduce youth initiation of vaping
 - effective approaches to youth e-cigarette cessation

Presenters

Dr. Trisha Tulloch is an Assistant Professor in the Department of Paediatrics at the University of Toronto and a Paediatric Subspecialist in Adolescent Medicine. She is currently a Staff Physician and Project Investigator at the Hospital for Sick Children in the Division of Adolescent Medicine and a Physician within the Intrepid Lab at CAMH.

Les Hagen is the executive director of Action on Smoking & Health (ASH) Canada, one of the country's leading tobacco control organizations. He is also an adjunct professor at the School of Public Health at the University of Alberta.

Rosa Dragonetti is the Project Director of Addictions Education and Research at CAMH. She led the development of an extensive online program offering several courses to support the certificate program, and developed treatment protocols and manuals.



“43% of secondary school students who vaped in the past year report that they initiated vaping before grade 9”
(Boak & Hamilton, 2024)



Dr. Trisha Tulloch
Speaker, CAMH



Les Hagen
Speaker, ASH
Canada



Rosa Dragonetti
Moderator, CAMH

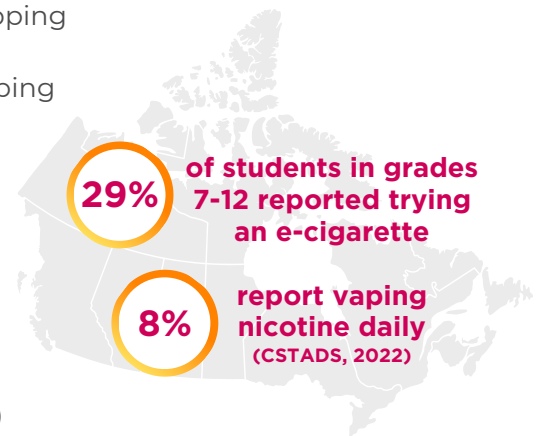
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Impacts of Tobacco & Demographics

Tobacco costs the healthcare system \$5.4 billion and has an \$11.2 billion impact on the economy. (CCSA, 2023)

- 80% of smokers are addicted by age 18. As of 2022, there are 43,000 school-aged smokers in Canada (CSTADS, 2022)
 - 2% of youth in grades 7-12 are current smokers
 - 7% of youth aged 16-19 are current smokers
- Tobacco results in over 46,000 deaths annually - more than all other forms of substance use combined
- Past-30-day vaping among youth (grades 7-12) was 13.6% (CSTADS, 2022)
- Youth who vape daily report challenges with reducing/stopping their use (CSTADS, 2022)
 - 44% of adolescents (age 12 to 17) reported interest in vaping cessation;
 - 25% were unsuccessful past year cessation attempts
- **Reasons teens reported using e-cigarettes:**
 - Reduce stress (30.5%)
 - For curiosity (27%)
 - Because they enjoy it (22.9%)
- **Motivations teens reported for cessation of e-cigarettes:**
 - Health implications (current and future) (Lindpere et al., 2023)
 - Financial cost was the second most common reason (22%) (CTNS, 2022)



Health Effects of Vaping on Youth:



Heart and Lungs

- Increases heart rate
- Increases blood pressure
- Toxins promote inflammation and exacerbate disease states
- Increase of self reported symptoms consistent with asthma
- EVALI: e-cigarette or vaping use-associated lung injury



Physical Injuries

- Severe burns or injuries to hands, face and groin/hip
- These injuries are increasing in frequency and severity.



Neurocognitive and Mental Health

- Significantly lower scores in higher-order cognitive functions
- Early initiation of use associated with lower area and volume in the prefrontal cortex
 - Impaired capacity to maintain attention
 - Poor impulse control
- These changes may increase the risk of developing psychiatric disorders and cognitive impairment in later life

(Dai et al., 2022; Yuan et al., 2015; Kaltenborn et al., 2023; Banks et al., 2023)



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In a study of 1,436 students who reported vaping, 68% had tried to quit in the past year.

The most common reported approaches:

- No resources (63%)
- Peer support (14.2%)
- Internet (6.4%)
- Mobile app or text messaging (5.9%)
- Parent support (5.8%)

Tools for engaging youth in a dialogue about e-cigarette use:

- Readiness Ruler Worksheet
- CRAFFT+N Questionnaire
- E-cigarette Dependence Scale

(Amato et al., 2021)

Nicotine Replacement Therapy (NRT) dosing:

Dose is calculated based on estimated daily nicotine use using volume and concentration

$$\begin{aligned} &\text{Concentration of nicotine liquid (mg/mL)} \\ &\quad \times \\ &\text{Volume of nicotine liquid used daily (mL/day)} \\ &= \\ &\text{Estimated daily nicotine use (mg/day)} \end{aligned}$$

(Hannah, Fadel & Tulloch, 2024)

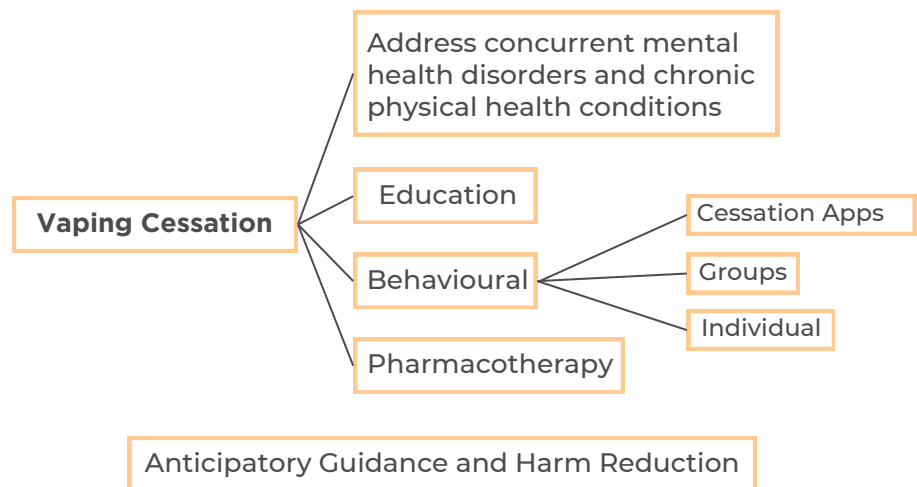
Tools to Support Cessation:

- Peer support or social contracts
- Pan-Canadian, provincial or territorial Quit Lines
- Coaches (online programs, text support, or phone services)
- Speak with a health professional
- Behavioural vaping cessation interventions (e.g., "CATCH My Breath")
- In addition to behavioural interventions, adolescents can be offered nicotine replacement therapy (NRT)
 - Evidence supports the safety of NRT in adolescents and low potential for nonmedical use (AAP, 2023)

Multidisciplinary and Multipronged Approach to Cessation:

CAMH Vaping Cessation Guidance Resource: [Download here](#)

- 1 Diagnostic clarification: comorbid physical, mental health conditions
- 2 Education
- 3 Therapies
- 4 Behavioural interventions
- 5 Pharmacological interventions along with behavioural approaches



(Tulloch, 2024)

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**Priority Recommendation to Address Youth Vaping:
Align public policies on tobacco and vaping products to the greatest extent possible.**

(Hagen, 2024)

Existing Federal Legislation to Address Vaping

- Ban on confectionary flavours
- Ban on sales to minors under age 18
- Ban on most forms of promotion and advertising (not on Internet)
- Nicotine limit of 20mg/mL
- 20% Federal vaping tax and provincial collection
- Text-based health warnings

Many of these policies are in reaction to the legalization of vaping products in 2018. Youth vaping rates have remained unchanged since 2018/2019.



What can schools or boards do?

- Ensure that vaping restrictions are aligned with smoking restrictions
- Adopt a gold-standard tobacco policy
- Provide effective tobacco prevention education for all grades K-9
- Provide stop-smoking supports
- Urge the Federal and Provincial governments to take further action



What can municipalities do?

- Prohibit smoking and vaping in public places frequented by youth
- License and regulate vape shops and tobacco retailers
- Conduct regular compliance checks with underage test shoppers
- Urge the Federal and Provincial governments to take further action

(Hagen, 2024)

Supporting Resources

Canadian Public Health Association: cpa.ca/resources

INTREPID Lab at CAMH: intrepidlab.ca/en

ASH Canada: ash.ca

Kenvue: kenvue.com



Made possible through an unrestricted educational grant from Kenvue Canada Inc.

