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2024 Youth and Young Adult Vaping Survey: Progress or Persisting Problems?

Myles Davidson, MSc
PhD Student
Public Health Ontario Webinar
December 9, 2024

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Learning Objectives

1. Describe the 2020 Youth and Young Adult Vaping Project, including its findings and how its recommendations led to legislative changes.
2. Understand key preliminary findings from the 2024 Youth & Young Adult Vaping Survey, including current vaping use patterns, product access, use of flavours, advertising, social media exposure, experiences with cessation, and tobacco use.
3. Understand to what extent current vaping legislation in Nova Scotia has impacted vaping among youth and young adults, as well as what additional measures may be needed.

Background

The 2019 Youth and Young Adult Vaping Survey aimed to better understand vaping among 16-24-year-old e-cigarette users in Nova Scotia

Three expansions followed in 2020:

- The 2020 Youth and Young Adult Vaping Project – national expansion (included COVID data)
- Survey of former vapers aged 16-24 from NS in 2020
- Vaping during COVID survey in 2021

Six policy recommendations based on the findings:

- Full flavour ban
- Nicotine concentration cap
- Increase in taxation
- Stronger enforcement of sales regulations
- Increasing the minimum legal age to 21
- Increasing awareness vaping-to-smoking link

Background



In April 2020, Nova Scotia became the first province to enact sweeping vaping legislation:

- Full flavour ban (except tobacco)
- Nicotine concentration cap (20mg/mL)
- Increases to taxation on devices and e-juice
- Licensing requirements for retailers



Since being introduced, prevalence of past 30-day vaping among youth in NS went from 37% in 2019 to 33% in 2022



Aim and Objectives

- Despite downward trends in vaping behaviour, it remains unknown whether Nova Scotia's legislation has had an impact on vaping in young people
- The purpose of this survey was fourfold:
 - Collect follow up data to the 2019 NS survey
 - Collect data on previously unassessed aspects of youth and young adult vaping (e.g., nicotine pouches)
 - Make inferences about the effectiveness of the NS vaping legislation
 - Determine key areas in need of further attention

Method

Online Qualtrics survey of $N = 380$ youth (aged 16-18) and young adults (Aged 19-24)

$N = 68$ (18%) youth; $n = 312$ (82%) young adults

$n = 279$ (73%) current vapers; $n = 101$ (27%) former vapers



Participants asked questions about vaping behaviour, product information, expectancies, advertising exposure, social media exposure, and tobacco use history

Current vapers also asked about e-cigarette dependence

Former vapers also asked about vaping cessation



Ethics approval provided by Dalhousie University

Method

- Advertising was done primarily on TikTok, Facebook, and Instagram
- Advertisements were in the form of video reels and still images
- Anyone who clicked the link in the advertisement was redirected to the LungNSPEI website
- Participants were entered into a draw for 1-of-4 \$250 CAD Amazon gift cards



Method

- Primary data analyses consisted of generating descriptive statistics
- Group comparisons made using independent-samples *t*-tests and chi-square tests of independence
- Content analysis will be employed in the future to analyze details of vaping advertisements and social media vaping content
- Three total waves of analyses
 - Full sample
 - Current vapers vs former vapers
 - Youth vs young adults



Results

Demographics



70% female



75% currently employed



77% used alcohol in past month

64% used cannabis in past month



72% reported good-to-excellent physical health

62% reported less than good mental health

Vaping Behaviour

- Average age of onset was 15.5
 - Current vapers (15.3) and youth (13.3) started significantly younger than former vapers (15.9) and young adults (15.9)
- 50% of youth participants reported that their parents knew they vaped
- Strongest influence to start vaping was friends (58%)
 - Cited significantly more frequently by former vapers (72%) than current vapers (53%)
- Average spending per week on vaping was \$28.31
 - Up substantially from \$14.79 in 2019
- Source of money for vaping products was most often a job (86%)
 - Significantly more young adults (91%) than youth (66%) got their money this way

Vaping Behaviour

| Variable |
|--------------------------|
| Days vaped per week |
| Vaping episodes per day |
| Puffs per vaping episode |

Current vapers had more vaping episodes per day than former vapers did before they quit

Vaping Behaviour

Most purchased their vaping products themselves (81%)

Source of both vaping devices (47%) and e-juice (38%) was primarily through specialty vape shops in NS

- Significantly more youth purchased their products from someone they knew; however, 25-35% still accessing products from specialty vape shops and other retail locations

Vaping Behaviour

- Of those who did not buy their own products, most accessed them through a friend of legal age (70%)
 - Significantly more youth (75%) reported this method of access than young adults (64%)
 - 40% of all youth surveyed used this method
- Source of both vaping devices (41%) and e-juice (32%) was primarily through speciality vape shops in NS
 - Significantly more current vapers (27%) than former vapers (4%) reported that others purchase their devices for them outside NS
 - Significantly more former vapers (60%) than current vapers (27%) reported that others purchased their devices for them within NS
 - These findings may suggest a shift to accessing restricted products from out of province

Vaping Behaviour – Current Vaper Questions

Average score on the E-Cigarette Dependence Scale was 1.4 (low)

High rates of sharing behaviour

94% had shared their vape with someone else

98% had been offered someone else's vape

Over half (67%) had tried quitting at least once (average of 3.3 quit attempts)

Percentage who tried quitting up from 52%, number of attempts down from 4.8 in 2019

Of youth current vapers, only 5 reported buying their vapes close to their school

Vaping Behaviour – Former Vaper Questions

- Average of 3.6 quit attempts before successfully quitting (no change from 2020 survey)
- Most (77%) had been in maintenance for at least one month
- Quitting cold turkey (45%) was the most common quit method used
- The most endorsed reason for quitting was potential long term health effect (36%)
- Sensory vaping cues (i.e., head rush), stress, and other substance use were the main relapse triggers
 - In 2020, social influences was the most endorsed trigger
- Free NRT was endorsed as the most helpful cessation aid for other vapers trying to quit (68%)

Product Information



Pods most popular an initiation (47%)

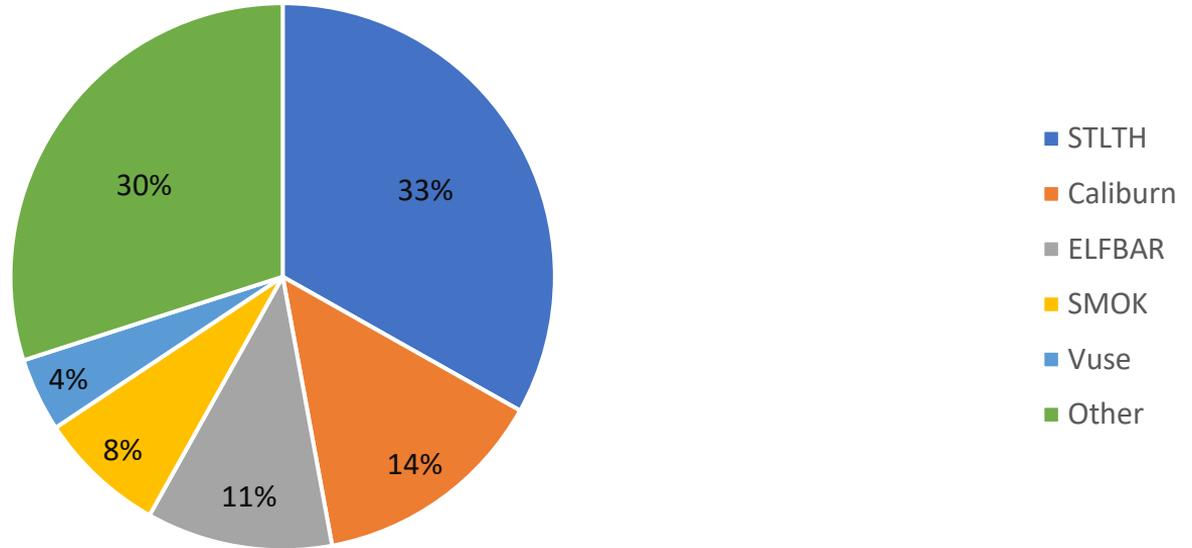
Significantly more young adults started with pods at uptake compared to youth – demonstrates shift in market



Disposables most popular at present (57%)

Notable as disposables were uncommon in 2019

Popular Brands



Note. "Other" consisted of 42 distinct brands.

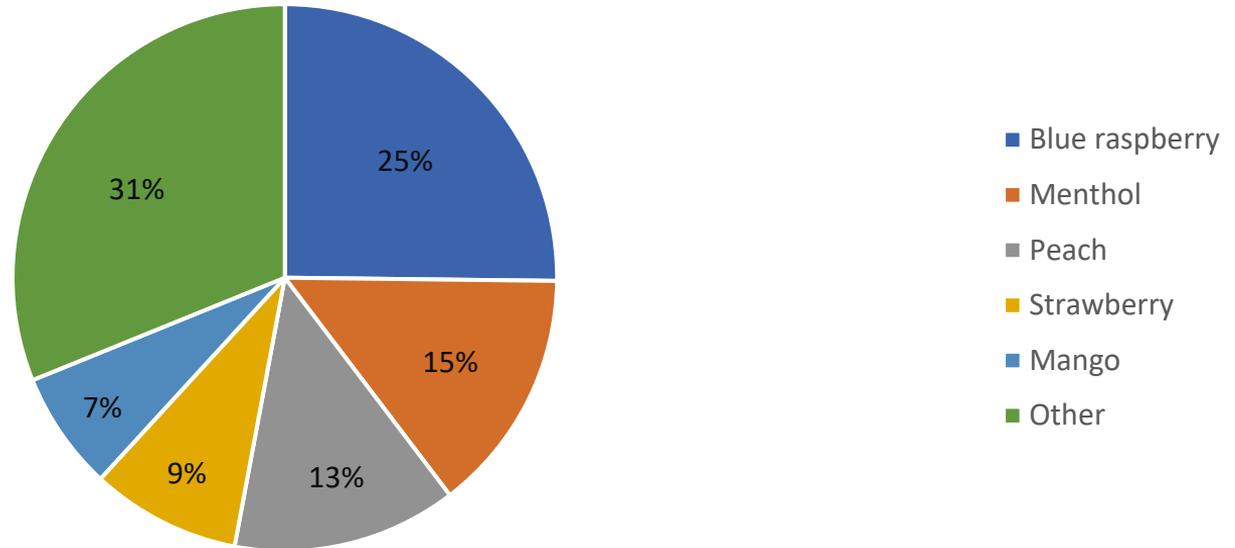
Product Information

- 87% used vape juice with nicotine at uptake; 91% used nicotine at present/at cessation
- Most common nicotine concentration used at uptake (34%) and at present (54%) was 20-35mg/mL
 - 30% still using nicotine concentrations above 35mg/mL
 - In 2019, 92% were using nicotine concentrations above 35mg/mL, 70% above 50mg/mL

Product Information

- 96% used flavours at uptake
- 90% still using flavours
- Flavoured vape juice accessed most often through specialty vape shops in NS (37%) and other retail locations in NS (20%)
 - Only 22% accessed flavours from a source outside NS
 - Significantly more youth (35%) than young adults (8%) access flavours through someone they knew

Popular Flavours



Note. "Other" consisted of over 50 distinct flavours.

Expectancies

Most endorsed best aspects of vaping were mood enhancement (39%), nicotine rush (28%), and flavours (9%)

Only 5% of participants endorsed vaping as a smoking alternative as being the best aspect (one of the top aspects in 2019)



Most endorsed worst aspects of vaping were potential long-term health effects (33%), negative side-effects (20%), and addiction (19%)



54% of participants had experienced negative side-effects

Of these, over 70% reported respiratory- and nicotine-related side-effects

Advertisement Exposure

41% of participants were exposed to vaping advertising

- Down substantially from 80% in 2019
- Significantly more youth (54%) were exposed to ads than young adults (38%)

Top platforms for advertising exposure were Instagram (55%), TikTok (46%), and Facebook (37%)

Advertisements most often posted by vaping brands (69%), vaping retailers (46%), and influencers (40%)

Social Media Exposure

- 58% of participants reported exposure to vaping content on social media
 - Significantly more youth (77%) were exposed to vaping content on social media than young adults (54%)
- Top platforms for social media exposure (non-advertising) were TikTok (84%), Instagram (67%), and Snapchat (63%)
- Social media content most often posted by influencers (68%), friends (56%), and strangers (56%)
 - Lower prevalence of exposure to content from health promotion orgs (30%), the government (21%), and pro-vaping orgs (6%)

Tobacco Use

Participants' tobacco use history was as follows:

- 13% never used (down from 28% in 2019)
- 70% formerly used (up from 57% in 2019)
- 17% currently used (up from 15% in 2019)

Most common tobacco products tried were cigarettes (97%), cigarillos (38%), and chewing tobacco (15%)

- Average cigarettes smoked per week was 21; up from 18 in 2019

Tobacco Use

- Temporal relationship between smoking and vaping was as follows:
 - 32% started smoking before vaping (down from 66% in 2019)
 - 26% started smoking and vaping concurrently (up from 15% in 2019)
 - 42% started smoking after vaping (up from 19% in 2019)
- Significantly more current vapers (47%) started smoking after vaping compared to former vapers (30%)
 - May suggest more current vapers used vaping as a gateway to smoking
- Significantly more former vapers (39%) started smoking and vaping concurrently compared to current vapers (21%)
 - May suggest more former vapers used vaping to quit smoking

Tobacco Use

- Of those currently using tobacco who started smoking first, 50% had tried vaping to quit smoking
- Of those who formerly used tobacco and who started smoking first, 60% had used vaping to quit smoking
- Of those who started smoking either concurrently or after vaping, curiosity (53%; 61%), peer pressure (24%; 35%), and cigarettes being more accessible (20%; 29%) were the main reasons
 - Significantly more former vapers reported peer pressure (49%) and the accessibility of cigarettes (40%) as the main reason compared to current vapers (26% and 34%, respectively)

Tobacco Use

- 57% of participants knew someone who started smoking after vaping (up from 31% in 2019)
 - The main reasons were cigarettes being more accessible (36%), lower cost of cigarettes (27%), and curiosity (26%)
 - Significantly more youth (35%) knew someone who did so because of peer pressure compared to young adults (18%)
 - Significantly more young adults (39%) knew someone who did so due to the accessibility of cigarettes compared to youth (18%)

Nicotine Pouches

47% of participants had tried a nicotine pouch

Main reasons for trying a nicotine pouch were curiosity (78%), to reduce vaping frequency (32%), and better accessibility compared to vaping products (20%)

55% of participants had been exposed to nicotine pouch ads

- Most common sources of nicotine pouch ad exposure were social media (82%), inside stores (53%), and on billboards (11%)

Has the Legislation Worked?



Flavour ban – no

- 76% reported no impact on vaping behaviour
- Prevalence of flavour usage unchanged since 2019
- Hypothesis of flavours being accessed from out of province not supported by sourcing data
- In-person retailers in NS still selling flavours



Nicotine cap – somewhat

- 71% reported no impact on vaping behaviour
- Prevalence of those using 50+mg/mL has decreased substantially; however, many still accessing illegal concentrations



Taxation – no

- 70% reported no impact on vaping behaviour
- Spending per week has doubled in 5 years; however, usage patterns remain unchanged
- Lower cost of cigarettes was frequently reported as a reason for smoking after vaping



Federal advertising ban – somewhat

- 89% reported no impact on vaping behaviour
- Exposure to advertising has decreased substantially in 5 years
- Ads are reaching youth more frequently than young adults (role of social media - esp. influencers)

What Next?

More in-depth
analyses (e.g.,
gender
differences)

Expand the survey
to a national scope

Evaluate the
impact of Age 21
in PEI

Continue
advocating for
additional
measures

Close gaps in
legislation through
better
enforcement

Limitations

Smaller than anticipated sample size

Significant overrepresentation of females, young adults, current vapers

Small group sizes will prevent certain nuanced analyses (e.g., very few youth former vapers)

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