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Factors associated with changes in vaping behaviour during 2020

Final Report

Prepared for Health Canada

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Canada

Factors associated with changes in vaping behaviour during 2020 - Final report

Prepared for Health Canada by Environics Research

March 2022

This public opinion research report presents the results of a qualitative and quantitative research program conducted by Environics Research on behalf of Health Canada, comprising:

- A series of fifteen 90-minute online focus groups with Canadians in various age cohorts who vaped during the year 2020 and may or may not currently vape.
- An online survey with 3,653 Canadians aged 15 or older in 2020 and vaped regularly (vaped at least once a week for four consecutive weeks) at any time in 2020 and may or may not currently vape, conducted from February 3 – March 3, 2022.

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Executive summary

A. Background and objectives

The *Tobacco and Vaping Products Act* (TVPA) came into force on May 23, 2018, to regulate the manufacture, sale, labelling and promotion of tobacco products and vaping products sold in Canada. The TVPA created a legal framework for regulating vaping products to protect young persons from nicotine addiction and tobacco use, while allowing adults to legally access vaping products as a less harmful alternative to tobacco. This Act applies to a range of devices and substances, such as e-liquids, and covers vaping products with and without nicotine. The Act bans the sale and promotion of all vaping products to persons under 18, prohibits the promotion of flavours that appeal to youth, and creates regulatory authority to mandate the display of health-related labels on vaping devices and refill packages.

The Canadian Tobacco and Nicotine Survey (CTNS) provides nationally representative information on changes in prevalence that occurred in 2020 but does not explain the reasons individuals changed their vaping or smoking behaviours. Health Canada therefore commissioned public opinion research on the factors associated with these changes. This research will be used to inform ongoing regulatory and program activities.

The main objective of this research was to understand patterns of use at the individual level among Canadians aged 15 and older who vaped regularly (defined as at least once a week for a month) in 2020 and may or may not have been doing so at the time of data collection. The research also gathered attitudes, behaviours and the impacts of key restrictions in 2020 on their vape use patterns.

Specific research objectives include, but are not limited to, the following:

- To measure changes in use among those who vaped regularly in 2020;
- To understand factors influencing changes in use (e.g., provincial regulation changes, health concerns etc.);
- To understand changes in patterns of use among current co-users (those who smoke and vape) in 2020;
- To understand the impacts of the COVID-19 pandemic on vaping behaviour.

B. Methodology

This research study consisted of two separate, but complementary, phases (described below).

A note about age groups: The groups of interest were youth (15-19 years old), young adults (20-24 years old) and adults (25 years and older) that vaped regularly (defined as at least once a week for four weeks) in 2020. Thus, participants were in the 16-20 years, 21-25 years, and 26 years and older age groups, respectively, at the time of the research in 2021-2022.

1. Qualitative phase

Environics Research conducted a series of fifteen 90-minute online focus groups with Canadians in various age cohorts who vaped regularly (defined as at least once a week for four weeks) at some point during the year

2020. Nine of the sessions were conducted with people who vaped in 2020 from provinces where restrictions on the sale of vape flavours were introduced in 2020 (Nova Scotia, Ontario and British Columbia). Given that the restrictions primarily affected access to vaping products for youth, all three age groups (youth aged 15-19 years in 2020, young adults aged 20-24 years in 2020, and adults aged 25+ in 2020) were studied separately. Six focus groups were conducted with people who vaped in 2020 from the remaining provinces where no such restrictions were introduced in 2020; youth and young adults were combined in those sessions.

Participants were each offered a \$100 incentive to thank them for their time. Environics invited eight participants to each session. The sessions were hosted using the Zoom conferencing platform. The 15 focus groups were conducted between December 6 and 15, 2021. Thirteen sessions were conducted in English and two were conducted in French.

Group #	Date and time	Composition
1	Monday, December 6, 5:00-6:30pm EST	Adults (26+) who vape - Ontario
2	Monday, December 6, 4:00-5:30pm PST)	Adults (26+) who vape - B.C.
3	Tuesday, December 7, 5:00-6:30pm EST	Young adults (21-25) who vape - Ontario
4	Tuesday, December 7, 4:00-5:30pm PST	Young adults (21-25) who vape - B.C.
5	Wednesday, December 8, 5:00-6:30pm EST	Youth (16-20) who vape - Ontario
6	Wednesday, December 8, 4:00-5:30pm PST	Youth (16-20) who vape - B.C.
7	Thursday, December 9, 5:00-6:30pm AST	Adults (26+) who vape - NB/PEI/NL/QC (English)
8	Thursday, December 9, 6:00-7:30pm CST/ 5:00-6:30pm MST	Adults (26+) who vape - Prairies
9	Friday, December 10, 4:00-5:30pm AST	Adults (26+) who vape - Nova Scotia
10	Monday, December 13, 5:00-6:30pm AST	Young adults (21-25) who vape - Nova Scotia
11	Monday, December 13, 7:00-8:30pm AST	Youth (16-20) who vape - Nova Scotia
12	Tuesday, December 14, 6:00-7:30pm AST	Youth/Young adults (16-25) who vape - NB/PEI/NL/QC (English)
13	Tuesday, December 14, 6:00-7:30pm CST/ 5:00-6:30pm MST	Youth/Young adults (16-25) who vape - Prairies
14	Wednesday, December 15, 5:00-6:30pm EST	Youth/Young adults (16-25) who vape - Quebec (French)
15	Wednesday, December 15, 4:00-5:30pm PST	Adults (26+) who vape - Quebec (French)

Statement of limitations: Qualitative research provides insight into the range of opinions held within a population, rather than the weights of the opinions held, as would be measured in a quantitative study. The results of this type of research should be viewed as indicative rather than projectable to the population.

2. Quantitative phase

Environics conducted a national online survey of 3,592 Canadians who were aged 15 or older in 2020 and who vaped at least once a week for four consecutive weeks at any time in 2020. The survey was conducted from February 3 – March 3, 2022. The sample was stratified by age group within region to allow for meaningful

coverage of lower population areas, particularly for regions of interest where vaping flavour restrictions had been implemented in 2020. As this online survey utilized an opt-in panel, it is a non-probability survey and no margin of sampling error should be calculated. The following completions were achieved:

Provinces	15-19	20-24	25+	Total
Provincial restrictions - 2020				
Ontario	240	488	473	1,201
British Columbia	85	199	205	489
Nova Scotia	32	73	134	239
Provincial restrictions - 2021				
PEI	6	13	13	32
New Brunswick	23	61	75	159
Saskatchewan	26	46	37	109
No provincial restrictions				
Newfoundland and Labrador	15	39	53	107
Quebec	157	337	241	735
Alberta, Manitoba, Territories	112	203	206	521
Total	696	1,459	1,437	3,592

C. Contract value

The contract value was \$249,397.36 (including HST)

Report

This report begins with an executive summary outlining key findings and conclusions, followed by a detailed analysis of the focus group findings and a detailed analysis of the survey data. Provided under a separate cover is a detailed set of “banner tables” presenting the results for all questions by population segments as defined by region and demographics. These tables are referenced by the survey question in the detailed analysis.

In this report, quantitative results are expressed as percentages unless otherwise noted. Results may not add to 100% due to rounding or multiple responses. Net results cited in the text may not exactly match individual results shown in the tables due to rounding.

Qualitative findings cannot be quantified numerically. References in the report to views expressed by “most” or to “a majority” of participants refer to well over half of participants. References to views expressed by “some” refer to about half of participants. References to views expressed by “a few” indicates a minority of participants.

People who smoke, had formerly smoked, and vape are referred to as smokers, former smokers, and vapers, respectively, in the interest of brevity.

At the time of the fieldwork, the provinces and territories can be categorized as follows according to vaping restrictions they have introduced (in addition to existing federal regulations):

- Restricted to tobacco flavour only: Nova Scotia (introduced 2020), New Brunswick and Prince Edward Island (2021)

- Access to flavours restricted to age 19 and older in vape stores only: Ontario and British Columbia (2020), Saskatchewan (2021); mint/menthol or tobacco flavours can be sold outside of specialty shops in Ontario and Saskatchewan while only tobacco flavour can be sold outside of speciality shops in B.C.
- No additional restrictions: Newfoundland & Labrador, Quebec, Manitoba, Alberta and the territories

Use of findings of the research. Data from this research will allow the Tobacco Control Directorate to understand and contextualize any recent changes in vaping prevalence.

D. Key findings – qualitative phase

Reasons and drivers for vaping

- The reasons why people started vaping varied by age. Youth and young adults who vaped in 2020 described starting vaping while in high school and being primarily motivated to start through peer pressure and by a perception that vaping was "modern," "clean" and "cool," especially compared to smoking.
- While a few youth participants also said they started to vape as a way of transitioning out of smoking cigarettes, this was a far more common phenomenon among young adults and (especially) adults who vaped in 2020.
- Many of the adults began vaping as a way to wean themselves from smoking. They found vaping was a more convenient way to satisfy their need for nicotine. Vaping, unlike smoking, was described as being almost odourless, something that could be done inside, and more discreet.
- Most could not identify what would typically drive or trigger them to vape, both in general and in the past 30 days. Some mentioned specific events, such as being stressed during exams in high school or university; having a breakup with a partner or a fight with a friend that caused stress; breaking an arm and using vaping to reduce pain; and having to work from home and being able to vape more than when in the workplace.
- When asked about what drives vaping in general, it was clear most participants did not maintain a constant vaping routine – it tended to be incidental and event-driven. Examples included being at a party, stressful situations, being alone, and being bored.

Vaping routines

- The pandemic had varied impacts on people's vaping routines. Those who primarily vaped in social situations reported they vaped less than they did a few years ago since they didn't socialize as much. On the other hand, many had increased their vaping because they were now either more idle or working more from home, which made it easier to vape whenever they wanted.
- Participants reported using a wide variety of vaping devices. Many youth used disposable vapes, such as Ghosts, or would share vaping devices with friends. Young adults and adults tended to have their own devices, and many spoke of having bought a Juul or having a "pen" with liquid cartridges or other types of "e-cigarettes."

- Many reported that, when they vaped, they did not think of it as a “vaping session.” Instead, they would simply vape from time to time throughout the course of the day.

Flavours and nicotine content

- Flavoured vaping liquids were fairly popular, especially among youth and young adults. Many described how the fruit and dessert flavours of liquids had been something that attracted them to vaping in the first place, and were a topic of conversation with their friends.
- Many of the adults who reported they preferred the “golden tobacco” or plain nicotine flavours of vaping juice also previously smoked. They already liked the taste of tobacco and associated it with smoking – so when they switched to vaping, it felt like less of a transition.
- Many participants struggled to quantify their vaping habit in the way people could with smoking. The ways in which nicotine is measured vary, and it was hard to say what amount of vaping would be equivalent to smoking a pack of cigarettes.
- It was noted there were now restrictions on what concentrations of nicotine could be sold in Canada as well. Some participants reported trying to wean themselves to lower concentrations of nicotine.

Where vaping products are obtained

- Participants obtained their vaping devices and liquids in a variety of ways, and the responses varied somewhat by age and region. Most adults reported they usually obtained their products at specialty vape shops where there is a much wider selection of products. It was noted that, in some provinces such as Ontario and B.C., flavoured vaping liquids are only available at specialty stores; outside of these speciality stores (e.g., gas stations or convenience stores), tobacco flavour is available in B.C., and mint/menthol and tobacco flavours are available in Ontario.
- Some obtain their vaping products at convenience stores and gas stations, though these stores have limited availability and variety of products, and often cannot sell any flavours (depending on the provincial regulations) or higher nicotine concentrations. Some adults and young adults also reported they were increasingly ordering their vaping products online.
- Youth participants often reported they would get older friends to buy liquids for them; or that they would go to certain convenience stores or vape stores known to not ask for any ID or willing to sell to minors under the table.

Vaping and smoking

- There is a complex relationship between vaping and smoking. Many of the adults had turned to vaping after having smoked for many years. In some cases, they ceased smoking altogether and now only vaped; in other cases, they were still smoking as well as vaping.

- Vaping was seen as more convenient, “cleaner” and better smelling for indoor use. Cold weather also motivated some to vape rather than smoke cigarettes because they didn’t need to get dressed to go outside and can vape inside the home.
- Youth in particular felt smoking is now stigmatized and “looked down upon” in a way that vaping is not. Vaping did not involve all the “baggage” that comes with smoking, such as the smell and the ashes, etc.
- Most of the youth participants did not smoke at all and had started vaping without ever having smoked. It was notable that most of these younger participants reported smoking was now quite rare in their age group and was a very stigmatized practice.
- Vaping was also preferred because it was far less expensive than smoking. To the extent that people chose to smoke instead of vape, it was often in more social situations, such as outdoor parties, where people were also drinking.

Health impacts and quitting

- Participants had ambivalent attitudes toward the health risks and impacts of vaping. Many adults and some young adults had quit smoking, so their point of comparison was to the health impacts of vaping compared to smoking tobacco. Youth were more likely to never have smoked, so they were less likely to compare vaping with smoking, and instead looked at how vaping impacts their health compared to not inhaling anything at all.
- Most thought vaping was likely somewhat less harmful than smoking given the evidence about the harms of smoking. But there was always a subtext of suspicion that vaping was likely more harmful than people want to believe.
- It was noted the effects of smoking were well-known, while vaping is a relatively new phenomenon and, as a result, little is known about its long-term impacts. Several people mentioned hearing anecdotal stories about vaping causing “popcorn lung” or about someone young who had died and how it had possibly been due to vaping.
- To the extent that participants had an opinion on the health impacts of vaping and how it may or may not compare to the health risks of smoking, their opinions were almost entirely based on personal experience, as opposed to reading or hearing about any scientific studies.
- A few participants reported they had quit vaping in the past year or were trying to quit vaping. These participants were primarily motivated to quit for health reasons. Adults who had previously been smokers were less likely to report any plans to quit vaping. Many felt moving from smoking to vaping was a big enough step.
- Those who had quit or who were trying to quit vaping found it challenging because of the addictive nature of the nicotine, and because of being surrounded by friends who also tended to vape.

Impact of flavour restrictions

- Awareness of the new restrictions on flavours varied. Participants of all ages from Nova Scotia were aware of the restrictions on flavours in that province, because it was an across-the-board ban on all flavours (except tobacco flavour) that also applied to vaping specialty stores. Awareness of the restrictions was much lower in Ontario and B.C., where the restrictions only applied to flavours sold at gas stations or convenience stores.
- Many participants also confused restrictions on vaping flavours with other restrictions on the allowable nicotine content in vaping liquids.
- The impact of the flavour restrictions also varied by province and by age group. Youth and, to a lesser extent young adults, in Nova Scotia were most likely to report having been affected by the ban on flavours. Most of them found other ways to get flavours, such as homemade flavours being sold at school, or buying flavours from people at school who ordered them online. Some also reported they would buy flavours from stores that still sold them under the table.
- Adults in Nova Scotia were less affected by the restrictions, since many had previously smoked and preferred tobacco vaping flavour and others procured flavoured products online or by driving to a neighbouring province.
- In Ontario and B.C., where flavours were still widely available in vaping specialty stores, most reported the restrictions had little impact on them. Most indicated they tended to buy their vaping liquids at specialty stores or online, as opposed to convenience stores, so they still had easy access to flavours. The lack of available flavours seemed more noticed by youth than by adults (although they did not necessarily connect it to provincial regulations), but otherwise did not appear to have impacted them.
- Those living in major urban centres (such as Toronto or Vancouver) tended to not be affected much by the restrictions on flavours, as vape specialty stores selling flavours are abundant in those cities. Some participants in rural areas were more affected, because they were more likely to buy nicotine products from gas stations that typically have minimal or fewer vape flavour options.
- Very few participants reported restrictions on flavours making them want to quit vaping altogether, but some younger participants noted they might never have begun to vape if the flavours had not been available to them.

Behavioural changes in 2020

- Since early 2020, reported changes in vaping patterns were often linked to the impact of the COVID-19 pandemic. Many reported their vaping had increased in the early months of the pandemic, mostly because they were now working or studying from home, had been laid off and had nothing else to do or were in lockdown, which also led to idleness.
- For those who tended to only or mostly vape in social situations, the seclusion and idleness brought on by pandemic restrictions led to a reduction in vaping because they were no longer in social situations.

- Pandemic-related lockdowns made it more difficult for some participants to obtain their vaping products. Youth were often not able to easily switch to other ways of getting products, such as online purchases or going to specialty vape stores which were sometimes stricter about ID checks.
- Most felt any vaping habits they had picked up during the pandemic would fade away over time. Some who had developed a routine of vaping almost constantly while working or studying at home indicated this was something they might not be able to roll back in the future.
- Other types of personal events leading to an increase in vaping included loss of employment, relationship issues, a death in the family, moving back in with parents and not being able to smoke (but can hide their vaping from their family), online schooling, and working from home.
- Some mentioned events in their lives that had caused them to vape less or quit, such as pregnancy, death or respiratory illness in the family, or wanting to save money to make a major purchase.
- It was difficult for participants to quantify the relative impact of different factors on their vaping in 2020 – and those factors were often interrelated. The pandemic triggered lifestyle changes which in turn led to relationship challenges and financial issues.
- Among participants in provinces where flavours were restricted in 2020, the major direct and indirect impacts of the pandemic were greater factors on their reported vaping behaviour than flavour restrictions.

E. Key findings – quantitative phase

The purpose of the quantitative survey was to measure, in a structured way, change in vaping behaviours over the course of the COVID-19 pandemic, and better understand the factors influencing that behaviour change – including change in access to vaping products due to the pandemic or to the introduction of provincial flavour restrictions, health concerns, or other factors.

This survey was conducted in early 2022, and thus relied on respondent recall of their behaviours going back two years to February 2020. Research-on-research has demonstrated that people do not recall past events or behaviours with great accuracy, even for “habitual” behaviours such as vaping or smoking. Moreover, other longitudinal research conducted for Health Canada has revealed considerable change over time in vaping and smoking behaviours among individuals, which, compounded by the unique situation of the pandemic, speaks to the complexity of accurately retrieving memories going back two years. Therefore, these survey results are best interpreted as the target audience’s *perceptions* of whether or not they changed their vaping behaviours, and the reasons why.

The survey covered the following three time periods, chosen to anchor survey respondents’ recall and also reflect meaningful intervals in time:

- February 2020 (the month before the COVID-19 pandemic was confirmed in Canada)
- The rest of 2020 (from March to December 2020 after the pandemic was confirmed)
- Early 2022 (during the survey data collection period, almost two years into the pandemic)

A. Perceived behavioural change and influencing factors over time

- Almost all (95%) participants identify themselves as current vapers back in February 2020; the remainder would have been a regular vaper at some point in 2020, but not necessarily in February. A majority (56%) were current co-users, meaning they also smoked cigarettes in February 2020, although this skewed higher among young adult and adult vapers versus youth.
- This target audience reported a substantial amount of change in their vaping and smoking use between February and the rest of 2020. This included half (52%) who changed their nicotine vaping use, and close to four in ten who changed their non-nicotine vaping (40%) and smoking (45%) behaviours. Roughly similar proportions also reported changes to these behaviours between January 2021 and 2022. The direction of change tended to reflect increasing or fluctuating use, rather than declining use or cessation.
- The data suggests that provincial flavour restrictions may have played a role in reported behavioural shifts. Restricting vaping flavours to tobacco may have contributed to reported declines (or at least, to reduced propensity for increases) in nicotine vaping use. Similarly, reported use of fruit flavours was lower in provinces restricted to tobacco flavour. However, there was no substantial shift in where vapers sourced their liquids or devices that can be conclusively linked to provincial flavour restrictions; the only finding of note is that purchasing of vaping liquids at convenience stores was more common in provinces with no flavour restrictions whatsoever.
- Those who changed their vaping behaviour over the past two years linked it primarily to change in routine due to the pandemic and to increased stress, followed by fewer social gatherings and greater mental health concerns – moreover, these factors were more widely mentioned by those reporting increases in nicotine vaping. In turn, those who report decreases in their vaping or cessation suggested that physical health concerns (both COVID and non-COVID related), as well as a decrease in their stress levels, were contributing factors to this behaviour change. Notably, individuals living in provinces with flavour restrictions were no more likely than those without flavour restrictions to say that finding it harder to get vaping products contributed to behaviour change.
- In terms of age groups, there was considerable reported behaviour change for all three age groups. For youth, the most prominent reported change was an increase or fluctuation in nicotine vaping (by comparison, fewer used non-nicotine vaping or smoked cigarettes in the past two years). Young adults reported similar changes to their nicotine vaping use, as well as an increased propensity to quit smoking or not smoke at all between 2021 and 2022. Adults are as likely as youth and young adults to report behaviour change, but also relatively more likely to say no change occurred (with relatively fewer who say they do not use these substances).
- There is no clear evidence from the research about change in reported use of vaping flavours (such as fruit and candy) over time among youth and young adult vapers. The sources of vaping liquids and devices have changed for youth, with declining reliance on family/friends and increased self-purchases at either a vape shop or convenience store. For young adult and adult vapers, there appeared to be a bump up in online purchasing of devices and liquids over the past two years.

B. *Vaping flavour and device shortages and habit changes*

- Just under half of vapers have experienced times since February 2020 when they have been unable to obtain either a vape flavour or device they wanted. Those experiencing shortages adjusted mainly by shopping online, switching to an available flavour, finding another store in their province where the products they wanted were available or purchasing from a friend or family member. Notably fewer mention other adaptations, including reducing or quitting vaping, finding an out-of-province store, or replacing vaping with cigarette or other substance use.

C. *Attitudes about vaping and smoking*

- Of a series of statements about the experience of vaping, vapers are most likely to agree vaping calms them down when stressed or upset or that they enjoy vaping too much to give it up, and least likely to agree they have the kind of genetic makeup that allows them to vape without it causing health problems, or that the medical evidence that vaping is harmful is exaggerated. Vapers who currently smoke respond similarly to identical statements about smoking.

F. Political neutrality statement and contact information

I hereby certify as senior officer of Environics that the deliverables fully comply with the Government of Canada political neutrality requirements outlined in the Communications Policy of the Government of Canada, and Procedures for Planning and Contracting Public Opinion Research. Specifically, the deliverables do not include information on electoral voting intentions, political party preferences, standings with the electorate, or ratings of the performance of a political party or its leaders.

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Introduction

The *Tobacco and Vaping Products Act* (TVPA) came into force on May 23, 2018, to regulate the manufacture, sale, labelling and promotion of tobacco products and vaping products sold in Canada. The TVPA created a new legal framework for regulating vaping products to protect young persons from nicotine addiction and tobacco use, while allowing adults to legally access vaping products as a less harmful alternative to tobacco. This Act applies to a range of devices and substances, such as e-liquids, and covers vaping products with and without nicotine. The Act bans the sale and promotion of all vaping products to persons under 18, prohibits the promotion of flavours that appeal to youth, and creates regulatory authority to mandate the display of health-related labels on vaping devices and refill packages.

The Canadian Tobacco and Nicotine Survey (CTNS) provides nationally representative information on changes in prevalence that occurred in 2020 but does not explain the reasons individuals changed their vaping or smoking behaviours. Public opinion research was designed to collect detailed information on the factors associated with these changes, such as the impacts of flavour and access restrictions on vaping products implemented in certain provinces, and the COVID-19 pandemic. This information will be used to inform ongoing regulatory and program activities.

Objectives

The main objective of this research was to understand patterns of use at the individual level among Canadians aged 15 and older who vaped (defined as at least once a week for a month) and/or quit vaping (defined as no longer vaping at least once a week for at least a month) in 2020. The research will also gather attitudes, behaviours and the impacts of key restrictions in 2020 on their vape use patterns.

Specific research objectives include, but are not limited to, the following:

- To measure changes in use among vapers in 2020;
- To understand factors influencing changes in use (e.g., provincial regulation changes, health concerns etc.);
- To understand changes in patterns of use among current co-users (those who smoke and vape) in 2020;
- To understand the impacts of the COVID-19 pandemic on vaping behaviour.

About this report

This report begins with an executive summary outlining the key findings of the qualitative and quantitative phases of the research, followed by a detailed analysis and breakdown of the results for those two phases. Detailed descriptions of the qualitative and quantitative methodologies used to conduct this research are presented in Appendices A and B, the qualitative research instruments are on Appendices C and D, and the survey questionnaire is provided in Appendix E.

Qualitative findings cannot be quantified numerically. References in the report to views expressed by “most” or to “a majority” of participants refer to well over half of participants. References to views expressed by “some” refer to about half of participants. References to views expressed by “a few” indicates a minority of participants.

Quantitative results are based on the entire sample unless otherwise noted. **Results may not add to 100% due to rounding or multiple responses.**

People who smoke, had formerly smoked, and vape are referred to as smokers, former smokers, and vapers, respectively, in the interest of brevity.

At the time of the fieldwork, the provinces and territories can be categorized as follows according to vaping restrictions they have introduced:

- Restricted to tobacco flavour only: Nova Scotia (introduced 2020), New Brunswick and Prince Edward Island (2021)
- Access to flavours restricted to age 19 and older in vape stores only: Ontario and British Columbia (2020), Saskatchewan (2021); mint/menthol or tobacco flavours can be sold outside of specialty shops in Ontario and Saskatchewan while only tobacco flavour can be sold outside of specialty shops in B.C.
- No additional restrictions: Newfoundland and Labrador, Quebec, Manitoba, Alberta and the territories

Provided under a separate cover is a detailed set of “banner tables” presenting the results for all survey questions by subgroup segments. These tables are referenced by the survey question in the detailed analysis.

I. Detailed findings – qualitative phase

A. Vaping stories

At the start of each session participants were asked to describe their stories regarding vaping. This included how long ago they had taken up vaping and their reasons for doing so, their frequency of vaping and their preferences in terms of flavours, nicotine levels and devices, and where they tended to purchase their vaping supplies.

1. *Reasons for vaping*

Most participants, of all ages and from all regions, described having begun vaping several years ago. The reasons for vaping varied by age. Youth and young adults that vaped in 2020 described starting vaping while in high school and being primarily motivated to start vaping through peer pressure, by a desire to experiment with a new product, and to fit into the social scene at school. Many talked of having started vaping in Grade 10 and being introduced to it by friends. Many noted that smoking had become quite uncommon and stigmatized by the time they were in high school, but that vaping had become somewhat of a “fad” and was “trendy.” Several youth participants spoke of how vaping seemed “modern,” “clean” and “cool,” especially compared to smoking, and that the variety of vaping flavours added to the appeal of vaping.

While a few youth participants also said they had started to vape as a way of transitioning out of smoking cigarettes, this was a far more common phenomenon among young adults and especially adults who vaped in 2020. Many of the participants of all ages explained that they primarily vaped because they enjoyed it and it was a social activity for them. Some also said they felt addicted to vaping due to the nicotine.

“Around Grade 10, a lot of my friends started drinking and going out, vaping started at same time... it came into schools, I’d go to bathrooms during break. Never felt addicted, it was there, and would do it when my friends were around. Now, I don’t have a device and might use someone’s once or twice at a party.” - BC Youth

“When I was 15 in grade 10, people I hung with went to parties, drinking, got me into vaping.” - Ontario Youth

“In high school, everyone was doing it, so I got involved with it. After high school, it just grew. No reason, just do it. Now it’s just on weekends when I go out.” – Nova Scotia Youth

“I started vaping because of work. Smoking was too smelly for a work environment and vaping seemed cleaner and more ‘polite.’” – Prairie Youth/Young Adults

When the young adults and (especially) adults described their vaping stories, it was typically in the context of wanting to quit smoking. Some took up vaping as a perceived safer and more convenient alternative to smoking. Many of the adults who vaped described having smoked heavily for many years and how vaping was a way to wean themselves from smoking. It was notable that these participants tended to focus less on the long-term health consequences of smoking and more on how it made them feel in the moment in terms of coughing, heaviness in their lungs and shortness of breath. Some also wanted a more convenient way to satisfy their need for nicotine. It was often noted that smoking cigarettes “smelled bad”, people around them could easily tell they

had smoked a cigarette, and they often had to go outside to smoke. Vaping, in contrast, was almost odourless, could be done inside, and was more discreet and easier to hide.

Some participants also mentioned that they had switched from smoking to vaping as a way of saving money, since vaping was less expensive. Adults who vaped had, for the most part, quit smoking; although, some still smoked cigarettes from time to time. Like their younger counterparts, some adults who vaped explained that they felt addicted to some aspect of vaping, whether it be to the nicotine or to the routine of putting something in their mouth.

“Used it (vaping) to quit smoking. Really enjoyed smoking and didn’t want to give it up, but knew I needed to what with working in health care. Vaping satisfied my need for nicotine.” – Ontario Young Adult

“I chose it (vaping) thinking it would be safer than smoking. It was a way to stop chain smoking like I used to and to get away from the craving for a cigarette... but still feel relaxed.” – Prairie Adult

“I started vaping because I saw it as a healthier way to feed my habit – my need to have something in my hand and put something in my mouth and get my nicotine fix.” - BC Adult

“I bought a new car and I switched from smoking to vaping as a way of off-setting the car payments. Vaping costs were about one quarter what smoking cost me.” - Nova Scotia Adult

2. Frequency of vaping

When asked about their frequency of vaping, there was more consistency among adults. They tended to describe having a routine around vaping that had been locked in for years – though, as noted later in the report, those routines were sometimes disrupted by the pandemic. Some mentioned having a vape at their desk almost constantly, while other would go out for a “vape break” a couple of times and day. Others would vape more occasionally in more social settings with friends.

Among youth, there was more of a split with just as many reporting that they vaped more often when they were younger as those who reported that they were vaping more now than before. There was a pandemic effect here. Those who primarily vaped in social situations reported that they vaped less than a few years ago since they didn’t socialize as much. Others reported that they had increased their vaping because they were now either more idle or working more from home, both of which made it easier for them to vape whenever they wanted.

3. Vaping devices

Participants reported using a wide variety of vaping devices. It was notable that, among youth – many of whom were still in high school – many either used disposable vapes such as Ghosts, or would share vaping devices with friends. Young adults and adults tended to have their own devices, and many spoke of having bought a Juul or having a “pen” with liquid cartridges or other types of “e-cigarettes.” Common brands mentioned include Vuse, STLTH and Ghost MAX. Several mentioned having used a Juul in the past but not recently.

Most participants, of all ages, said they are using disposable vapes and pods that are just as easily obtained from vape shops as from gas stations and corner stores. Participants appreciated their compact nature, the variety of

flavours available and their affordability compared to larger vapes, for which pods had become expensive. A few also explained that the nicotine concentration is higher in smaller devices, and they generally taste better. Few participants have had any problems or challenges with their devices or liquids, though some mentioned that they often find the devices get dirty or break. But it was noted that devices are relatively cheap to replace, and that over time people get used how to use the vaping liquids/juice and cartridges or other devices.

“People are always losing their devices, but vapers are always very generous. I just smoke other people’s vapes.” – BC Youth

“Bought 2-3 disposables over the years and promptly lost them. Bought lots of kinds, never stuck with one. They break all the time.” – Ontario Adult

4. Flavour preferences

Flavours were fairly popular among vapers, especially among youth and young adults. Most had a favourite flavour but tended to change from time to time. A few explained that this was an important part of their vaping experience, including as a topic of discussion with friends. Many listed a variety of flavours they liked that often were fruity or that sounded like desserts, such as “blue raspberry,” “unicorn milk,” or apple, pear, cherry or mango. Some participants in Nova Scotia spontaneously mentioned that they had really liked the fruit-flavoured vaping juices before they were banned. It was clear that, for people who had started vaping at a young age, the availability of flavours was part of the appeal. Many participants spoke how much they liked the fruit flavours and how vaping after a meal was almost like “having dessert.” For those who had never smoked in the first place and who had no attachment to the smell or taste of tobacco, flavoured vaping liquids were something that made vaping more palatable and attractive.

Many of the adults who had previously smoked reported that they preferred the “golden tobacco” or plain nicotine flavours of vaping juice. They already liked the taste of tobacco and associated it with smoking – so when they switched to vaping, it felt like less of a transition. Those who had smoked menthol cigarettes often switched to menthol vaping liquids.

Many of the adults who had once smoked also reported having tried some of the fruit-flavoured vaping juices and liked them. It was notable that women often mentioned liking to vape with fruit flavours. It was mentioned that the smell is quite pleasant and, unlike the smell of tobacco from smoking, doesn’t bother people who do not vape.

5. Nicotine content

Participants were hard pressed to estimate how much nicotine was contained in each puff. Some used the information on the packaging as their guide – so if the product contained 20 mg/ml, then they believed this might be the amount contained in each puff. Some did some quick math and estimated about 0.2 to 0.5 mg in each puff. In general, those who vape had a challenging time quantifying their habit in the way people could with smoking. The ways in which nicotine is measured vary, and it was hard to say what amount of vaping would be equivalent to smoking a pack of cigarettes.

Nicotine content was also an important part of vaping, with many vaping in order to get the nicotine “fix” or “buzz.” There was a lack of clarity on the units of measurement for vaping liquids, with some participants referring to “15, 20 or 50 mg,” and others referring to 2.5 or 3 or 5 “per cartridge” (without clarifying unit of

measurement). Most seemed to vape the highest level allowable (20 mg/ml) or something close (such as 18 mg/ml). Those who only vaped in social situations or on very rare occasions were less likely to recall the nicotine concentration in their vapes. A few still vape 50 mg/ml juice but admitted that they get it from a “friend” or from certain vape shops that were still selling it to “exhaust their leftover stock.” It was noted that there were now restrictions on what concentrations of nicotine could be sold in Canada as well. Some vapers reported trying to wean themselves to lower concentrations of nicotine.

6. Where vaping products are obtained

When participants were asked to describe how and where they tended to obtain their vaping devices and liquids, the responses varied somewhat by age and region. Most participants, particularly those over the age of majority, mentioned that they usually obtained their products at specialty vape shops. It seemed that, particularly in urban areas, these vape shops are quite ubiquitous, and participants generally found it quite convenient to purchase their vaping supplies there. The adults and those with more vaping experience noted that specialty vape shops had a much wider selection of products. Furthermore, in some provinces such as Ontario and B.C., flavoured vaping liquids are only available at specialty stores, and not at gas stations or convenience stores. Participants who drive would often mention picking up vaping products at gas stations.

Some participants who lived close to an interprovincial border (e.g., between Nova Scotia and New Brunswick) mentioned driving to a neighbouring province to obtain flavoured products that were no longer available in their province.

Convenience stores and gas stations were also mentioned as convenient locations at which to buy certain types of vape products, particularly late at night. But it was often noted that these stores have limited availability and variety of products, and often cannot sell any flavours or higher nicotine concentrations. Many have realized that their preferred products are only available at vape shops. Some adults and young adults also reported that they were increasingly ordering their vaping products online. It was noted that, during the pandemic, people had become increasingly accustomed to ordering many products online, and that they could sometimes save money through online shopping and buying vaping products in bulk. Some adults in Nova Scotia, where flavoured vaping liquids cannot be sold at all, reported buying flavoured vaping products online as well. Some mentioned having ordered Juuls online in the past.

The youth had quite different experiences when it came to how they obtained their vaping products. In most provinces, people have to be 18 or 19 years of age or older to be legally allowed to buy vaping products or even to enter a vaping specialty store. As a result, underage participants often reported that they would get older friends to buy liquids for them; or that they would go to certain convenience stores or vape stores that were known to not ask for any ID and would sell to minors under the table.

“I never go to stores myself since I’m underage and have a baby face. I get it through friends, or I get it online through people I know who are ordering.” – Ontario Youth

“In high school, I’d use a fake ID and go to a vaping store that was right near my school.” Nova Scotia Youth

7. *Vaping and smoking*

The relationship between vaping and smoking can be complex. As noted earlier, many of the adults had turned to vaping after having smoked for many years. In some cases, they ceased smoking altogether and now only vaped; in other cases, they were still smoking as well as vaping, and whichever they chose to do would depend on the circumstances. For instance, vaping was seen as more convenient, “cleaner” and smelled better for indoor use. Cold weather also motivated some to vape rather than smoke cigarettes because they didn’t need to get dressed to go outside and can vape at home.

Those who had smoked before, or who still used both, often noted that when they smoked, it affected their breathing and made them smell, while vaping did not affect them in these ways. Youth in particular felt that smoking was now stigmatized and looked down upon in a way that vaping was not. Vaping did not involve all the “baggage” that comes with smoking, such as the smell and the ashes, etc.

Most of the younger participants did not smoke at all and had started vaping without ever having smoked. It was notable that most of these younger participants reported that smoking was now quite rare in their age group and was a very stigmatized practice. They reported that, in high school, very few people smoked tobacco, and that those who did were regarded as “outcasts” and very marginalized. It was much more common for students to vape or to smoke cannabis. Youth that vaped also noted that if they smoked, it was difficult to hide from parents and friends due to the smell, while vaping could be done much more discreetly. Vaping was also preferred because it was far less expensive than smoking. To the extent that people chose to smoke instead of vape, it was often in more social situations, such as outdoor parties, where people were also drinking.

“When I drink, I’d much rather have a cigarette.” – Atlantic Adult

“Our parents grew up on smoking, the way our generation grew up on vaping. Society is moving to vaping.” – Ontario Youth

“Rarely see anyone at university smoking unless it’s at a party. Some international students smoke, but you never see Canadian students smoke. Vaping is not as tedious – you can do it inside, it’s cheaper, doesn’t stain your fingers, doesn’t smell...” – Prairie Young Adult

“Vaping is more affordable, and you don’t need as much to get a kick from it. Smoking goes with partying; vaping is more of an individual thing.” – BC Adult

“Smoking and vaping both scratch the same itch, but they are different as well. I can vape at my desk while I work, but would never smoke in the house. People really look down on you when you smoke, but when you vape it’s more socially acceptable.” – Ontario Young Adult

B. Vaping routines

Participants were asked to describe their day-to-day routines around vaping in greater detail.

1. *Typical vaping session*

Many participants reported that when they vaped, they did not think of it as a “vaping session.” Instead, they would simply vape from time to time throughout the course of the day. This was particularly true for those who vaped at home while they worked or studied. They would typically take one or two puffs each time, lasting about two to five seconds, repeatedly throughout the day. A recurring theme was the ease and convenience of vaping, and how one did not need an ashtray or a lighter, or have to get dressed to go outside the way one would in order to smoke. Some said they would go outside 10 to 15 times a day for three or four hits from their vape.

Those who vaped in social circumstances also felt it was difficult to describe what their typical “vaping session” looked like. For these participants, their session was pretty much the entire evening/event, involving countless puffs lasting indeterminate lengths of time. Some tended to vape at specific moments during the day (e.g., on their breaks at work, between classes at school, etc.) – for these people, vaping sessions typically involved three to five puffs, each lasting two to five seconds.

“At work, I’d go into the bathroom to vape when I’m stressed.” – Quebec Adult

“On an average day I vape on my own, I’ll do it for three or four minutes with 25 seconds in between – maybe twice a day.” – Prairie Adult

“During exams, I do enough vapes to make me feel relaxed.” – Ontario Young Adult

“I only vape when I’m with friends. I got rid of my devices and just ask for a hit from a friend.” – BC Youth

“Pretty much every day, all the time. If I sit at my computer, I’m constantly vaping. It’s just a steady drip of nicotine.” – BC Youth

2. *Vaping drivers*

Participants were asked about what would typically drive or trigger them to vape both in general and also focusing on the past 30 days. Most could not identify what had happened just in the past month to make them vape more or less than usual, but some mentioned specific events such as being stressed during exams in high school or university; having a breakup with a partner or a fight with a friend that caused stress; breaking an arm and using vaping to reduce pain; and having to work from home and being able to vape more than when in the workplace. One participant mentioned that seeing a relative suffering from COPD in the last month had made them vape less and try to quit; and another mentioned quitting vaping very recently upon finding out she was pregnant.

When asked about what drives vaping in general, it was clear that most participants did not maintain a constant vaping routine – it tended to be incidental and event-driven. For most, there were events or situations that presented themselves that made them vape more or less than usual. Examples included the following:

- A party or some sort of social gathering always made people vape more than usual, especially if alcohol was involved. Similarly, a “weekend getaway” would have the same effect.
- Stressful situations, such as schoolwork, exams or a stressful personal event, would lead to more vaping.
- Being alone and bored, either working or studying at home.
- For a few, not only would anxious times lead to more vaping, but so would idle times.
- The only situations that seemed to lead to less vaping were medical procedures, pregnancy or other health-related event requiring a hospital stay.

Some comments about drivers of vaping were quite notable:

“What drove me to vape was curiosity. Literally everyone around me was vaping. Partying was the big driver for me, people sharing vapes and comparing flavours.” – Ontario Youth

“I vape when I’m bored and stuck at home and would like to smoke, but don’t want to go outside.” – Nova Scotia Young Adult

“When I drink, I have an urge to vape as well.” – Quebec Young Adult

“When I need to decompress after a stressful day at work dealing with mean customers and a mean boss.” – BC Young Adult

C. Vaping health impacts and quitting

1. Perceived health impacts of vaping

Participants of all ages had mixed attitudes toward the health risks and impacts of vaping. They noted that vaping was a relatively new phenomenon and, as a result, little was known about its long-term impacts. Many adults and some young adults had quit smoking cigarettes, so their point of comparison was of the health impacts of vaping compared to smoking tobacco. Youth were more likely to never have smoked, so they were less likely to compare vaping with smoking, and instead looked at how vaping impacted their health compared to not inhaling anything at all.

Many participants had a cynical attitude toward the health benefits or risks of vaping. They were suspicious of the accuracy of any claims made by vape product manufacturers, and there was a subtext of suspicion that vaping was likely more harmful than currently known. Youth and young adults reported having learned virtually nothing about the health impacts of vaping in school. Very few had had conversations about this with a healthcare professional or had done any personal research. However, many explained that the limited amount of evidence on the long-term effects of vaping and their current experience of no major impact on their health left them feeling that they were not exposing themselves to anything particularly dangerous – or at least not dangerous enough to convince them to curtail an activity that they enjoy.

That said, for the most part, participants generally assumed that vaping was not good for their health. They simply assumed that inhaling vapour into their lungs was less than ideal, although the exact consequences were

not clear to them. Some did feel that their lung capacity had been reduced since they began vaping; a few had developed a cough and a few also mentioned that they occasionally had yellowish phlegm. Several people mentioned hearing stories about vaping causing “popcorn lungs” or had heard an anecdote about someone dying from vaping. In the end, out of concern for their health, a sizable number of participants were interested in reducing how much they vape; although few were overly concerned in the short-term.

While many agreed that vaping was not healthy, almost all felt it was certainly healthier than smoking cigarettes given the overwhelming evidence of the harms of smoking. Participants explained how the effects of smoking were well-known and had been taught to them from an early age. Those who used to, or still do, smoke cigarettes could not easily isolate the impact that vaping alone was having on their health. They tended to feel that whatever issues they were experiencing were most likely attributable to their cigarette smoking. Some felt that vaping and smoking were both harmful since they both involve inhaling substances into the lungs. But quite a few also noted that, when a person smokes, they are inhaling something being burned – and there was some awareness that this was more harmful than inhaling vapour from a vape.

It was notable that, to the extent that participants had an opinion on the health impacts of vaping and how it may or may not compare to the health risks of smoking, their opinions were almost entirely based on personal experience, as opposed to being based on having read or heard of any scientific studies. The focus was very much on how vaping affected them in the immediate term. Some notable and representative comments included:

“We are the guinea pigs; we’ll see what kind of health issues I have in 20 years from my vaping. There are no real studies. It has not been around enough. I think vaping is less harmful than smoking, but who knows?” – BC Adult

“Lots of people I know think vaping has all the pros of smoking, without any of the cons – that it’s not anywhere near as bad for you.” – Ontario Young Adult

“There is not much research on vaping, so we just don’t know. But lately, I’ve heard stories about vaping harming people, so it may not be much better than smoking.” – Prairie Youth/Young Adult

“I think a year ago, there were stories about people in hospital from vaping. That scared a lot of people, since it was about teens who had only vaped for a couple of years and were now in critical condition.” – Atlantic Youth

“Since I switched from smoking to vaping, my lungs feel better. I can run faster without being winded and I don’t cough up as much phlegm.” – Prairie Adult

“It’s a healthier habit. I feel significantly better than when I smoked.” – Nova Scotia Adult

“Vaping has a façade of being less harmful. But you can count the number of cigarettes you smoke, and you lose track of how much vaping you do or how much nicotine you are getting.” – BC Young Adult

“I think of vaping as being like Diet Coke and smoking is like regular Coke. People want to believe it’s less harmful, but we really don’t know.” – Nova Scotia Youth

2. **Quitting vaping**

A few participants reported that they had quit vaping in the past year or were trying to quit vaping. These participants were primarily motivated to quit for health reasons. Although they had not experienced severe health issues related to their vaping, they sensed that their health was in some way impacted by vaping, and they wanted to stop. Some youth and young adults mentioned that they now felt that their vaping was a bit of a high school habit, and they wanted to stop now that they were thinking of starting a family. A couple of participants quit for very specific reasons, such as pregnancy or a death in the family that was linked to smoking. Other participants had no immediate plans to quit vaping. Some adults who had quit smoking seemed to feel that just moving from smoking to vaping was a big enough step for now.

By and large, those who had quit or who were trying to quit explained that it was not easy to do. They attributed this difficulty mostly to the addictive nature of the nicotine and because of being surrounded by an entourage of friends who also tended to vape. Those who felt it was relatively easy to quit explained that it was mostly because their vaping was infrequent or occasional in the first place. A few had tried to quit in the past, in some cases repeatedly. Many participants also believed, or at least hoped, that their vaping will slow down or completely stop over the next few years. Although a few felt that vaping was getting expensive, most were motivated to quit for health reasons.

D. Impact of regulations restricting the sale of vape liquid flavours

As noted in the methodology, nine of these focus groups were conducted in provinces that introduced restrictions on the sale and availability of flavoured vaping liquids in 2020. These included Ontario and B.C., both of which limited the availability of most flavoured vaping liquids to vaping specialty stores; and Nova Scotia, which banned the sale of flavoured vaping liquids in all locations except for tobacco flavour. Mint/menthol or tobacco flavours can be sold outside of specialty shops in Ontario while only tobacco can be sold outside of specialty shops in B.C.

Some other provinces, such as New Brunswick, Prince Edward Island and Saskatchewan, also introduced restrictions on the sale of vaping flavours more recently in 2021; but that was not a focus for this research project and was only discussed when mentioned spontaneously by participants from those provinces.

1. Awareness of the restrictions on the sale of vape flavours

Awareness of the restrictions on the sale of vape flavours varied by age, by original flavour preferences and by province. Participants of all ages from Nova Scotia were generally well aware of the restrictions on flavours in that province because of the impact on all non-tobacco flavours, not just in gas stations and convenience stores, but also in vaping specialty stores.

“Not allowed any type of flavour anymore. It’s been a while now. Sucks because I like flavoured ones. I don’t need government to step in to regulate that if I’m an adult using vapes to quit smoking.” – Nova Scotia Young Adult

Awareness was much lower in Ontario and B.C., where most participants were not buying vaping liquids at gas stations or convenience stores.

“Yes, I was aware of that. Vape flavours now have to be sold in their own separate stores and not in convenience stores. But some people are finding loopholes.” – Nova Scotia Youth

“No, hadn’t heard about that. I’ve never purchased vaping stuff at a gas station.” – BC Young Adult

It was also notable that there seemed to be more awareness of restrictions that banned the sale of higher-strength nicotine liquids. Also, some participants spontaneously mentioned Juul recalling their own products.

2. Impact of the restrictions on the sale of vape flavours

The impact of the restrictions also differed by province and, to some extent, by age group.

Nova Scotia

Youth and, to a lesser extent, young adults in Nova Scotia were more likely to report having been affected by the ban on flavours, since so many of them liked the flavours. Most of them found other ways to get flavours, such as homemade flavours being sold at school, buying flavours from people at school who ordered them online. Some also reported that they would buy flavours from stores that still sold them under the table. One young adult bought a large supply before the ban took effect. Others reluctantly switched to the flavourless vaping liquids that were available. One participant said the ban on flavours was a factor in trying to quit vaping altogether. Some adults in Nova Scotia had more creative ways of getting around the ban, such as driving to New Brunswick or PEI, where (until recently) flavours were still available, or simply switching to online purchasing. Some also mentioned how they would pool an online order for flavours with friends and buy in bulk.

It was also notable that many of the adults, who were also formerly smokers, were less likely to have used the flavours. Many of them preferred the “golden tobacco” flavour because, as smokers, they liked (and were accustomed to) the tobacco taste. As a result, the flavour ban did not affect them.

“I couldn’t get what I wanted as easily, so I get flavours in NB, which is 10 minutes away, or when travelling to visit family in PEI”. – Nova Scotia Adult

“I like flavours better, but the ban hasn’t affected how much I vape. I just switched to tobacco-flavoured juice. I don’t like it as much but I still do it.” – Nova Scotia Adult

“It was very minor impact. Tried some flavours right before the ban, they were kind of okay. When they banned it I just went back to golden tobacco flavour.” – Nova Scotia Young Adult

Ontario and B.C.

In contrast to Nova Scotia, the impact of the restrictions on the sale of flavours were very different in Ontario and B.C., where flavours were still widely available, even if only in vaping specialty stores. Most participants in these provinces reported that they tended to buy their vaping liquids at specialty stores or online, as opposed to convenience stores – so they noticed little, if any, change. Several participants who tended to buy their products at gas stations or convenience stores reported that they knew of outlets that were still selling the flavours “under the table” to known customers. Some in Ontario used mint/menthol flavoured vape juice and, since mint/menthol was not covered by the restrictions in Ontario, they were not affected.

“If they didn’t have flavours, I just wouldn’t get it and would get the tobacco flavour or go to a vape store. My roommate loves blue raspberry flavour, and now has to go out of his way to get it at a vape store.” – Ontario Young Adult

It was also notable that participants living in major urban centres (such as Toronto or Vancouver) tended to not be affected by the restrictions on the sale of flavours. Vape specialty stores are abundant in those cities, so it was rarely much of an inconvenience to buy flavours. Many reported preferring vape shops because of the larger selection and more knowledgeable staff. Some participants in rural areas were more affected because they may or may not have a vape shop nearby, and were more likely to buy nicotine products from gas stations while driving longer distances.

“One friend would smoke cigarettes instead of flavoured vapes because he was a truck driver, super inconvenient to go to a vape store.” BC Adult

“I have friends in smaller towns like Kamloops – they were telling me it was a big issue because it is a smaller city. In Vancouver, vape stores are on almost every corner. They would come to Vancouver and buy flavours in bulk.” – BC Young Adult

Adults and young adults often speculated that the restrictions on the sale of flavours might help make vaping less attractive to teenagers.

“This probably has a direct influence on getting kids not to vape. They are not going to vape something that tastes/smells like tobacco, and you have to be 19 to go into vape stores. Some convenience stores might not card them, and they would be able to buy fruit flavours.” – Ontario Adult

Youth in these provinces were somewhat more aware of the restrictions, at least in passing. Some had noticed that there was no longer any flavours at the gas station they used to shop at and wondered what had happened. For the most part, they reported that they simply went to a vape store to buy flavours instead. As is the case with adults and young adults, many of the youth also mentioned that they never bought vaping liquids at gas stations, so the ban had no impact on them. A few participants, though, were still buying flavours "under the table" at convenience stores.

“No impact I know of on people my age. Never known people to go to a convenience store or gas station.” – BC Youth

“Honestly, I don’t think this has any impact on vapers my age. I have friends who vape, and I can ask them to grab something for me from a vape store.” – Ontario Youth

“If they didn’t have fruity flavours, I wouldn’t like it. I would never have started vaping if just menthol and nicotine were available. Now, I get flavours at a vape shop.” – Ontario Youth

E. Evolution of vaping since early 2020

1. Pandemic impacts

Since early 2020, reported changes in vaping patterns were often linked to the impact of the COVID-19 pandemic. Many participants reported that their vaping increased in the early months of the pandemic, mostly because they were now working or studying from home, had been laid off, and/or were in lock-down which generally contributed to more opportunities to vape and/or vaping due to boredom. The stressful and uncertain nature of the pandemic also compelled some to vape more than usual. At the same time, lockdowns made it more difficult for some participants to obtain their vaping products, especially youth (i.e., they typically relied on others to procure their vaping products from retail locations or online).

For those who tended to only or mostly vape in social situations, the seclusion brought on by pandemic restrictions led to a reduction in vaping because they were no longer in social situations. However, vaping tended to pick back up as restrictions on social gatherings lifted in the summer of 2020, and then slowed back down as the second wave gained momentum in the fall of 2020.

Most participants seemed to think that any vaping habits they had picked up during the pandemic would fade over time. However, some who had developed a routine of vaping almost constantly while working or studying at home acknowledged that this was something they might not be able to reduce in the future.

The boredom and stress of the pandemic also seemed to lead to increased use of cannabis and alcohol, especially in the earlier months of the pandemic in 2020.

“I blame everything on the pandemic. Before the pandemic, I barely drank, since I was an athlete. Then the pandemic hit, and I had all time in world and filled that time with substances. Being isolated and bored, vaping was on a list of things I did.” – Prairie Youth/Young Adult

“Being stuck at home made me do more of what I was already doing. Started vaping more, especially when I started dating a guy who was vaping, and the pandemic took it to a little different level.” – BC Young Adult

“For me, the big thing was working from home. Started vaping a lot more, since I can do it whenever I want and don’t have to go outside.” – Ontario Adult

“Didn’t have reliable source for vaping during the lockdown and didn’t want to buy online. So switched from vape cartridges to cannabis.” – BC Youth

“I was not moving around as much and was indoors more. It was easier to vape and smoke cannabis, so both increased exponentially. But now as things are opening up again, my use has gone down a bit, but not to where it was before.” – BC Adult

“At the start of the pandemic, I was not vaping, then I was vaping heavily and then stopped. I started again because I went to a party and hit a vape, and forgot how good it was. Got rid of it because it was making me sick, I was over it. Then I started seeing a girl who was vaping a lot, started again, and then we broke up, stopped vaping again.” – Nova Scotia Young Adult

“The pandemic made me do everything 300% more because of the stress and other issues. I had a lot going on and was working from home.” – Quebec Youth/Young Adult

2. Other impacts on vaping

As noted earlier, stressful personal events also typically led to an increase in consuming many substances, including vaping. In addition to the underlying stress brought on by the pandemic, other types of personal events that led to an increase in vaping included the loss of employment, relationship issues, a death in the family, online schooling, and working from home.

For a few, vaping tended to be seasonal, with spikes during the summer months, and then slowing back down for the fall and winter months.

Some participants also mentioned events or issues in their lives in the last two years that had caused them to vape less or quit. These included pregnancy, death or respiratory illness in the family, and in some cases wanting to save money to make a major purchase. Some also started to vape less for reasons that were indirectly connected to the pandemic, such as moving back home with parents and not being allowed to vape anymore.

“Biggest motive was money. A year ago, I switched from smoking to vaping to save money for a car. Now, cleaner smoke.” – Nova Scotia Adult

“I was in a car accident. I couldn’t leave the house and could not smoke anything at home, so vaping was all I could do.” – Prairie Youth/Young Adult

It was difficult for participants to quantify the relative impact of different factors on their vaping in 2020 – and those factors were often interrelated. The pandemic was mixed with lifestyle changes, relationship challenges, and financial issues. Among participants in provinces where the sale of vape flavours was restricted in 2020, it was clear that those sale restrictions had negligible impacts on most people’s level of vaping, particularly in comparison with the major direct and indirect impacts of the pandemic on reported vaping behaviour.

II. Detailed findings – quantitative phase

F. Behavioural change and influencing factors over time

1. Profile of population in February 2020

Almost all participants were current vapers in February 2020, and a majority were current co-users (i.e., also smoked cigarettes). Vaping use is relatively recent by comparison to cigarette use (among those who smoke).

The starting point for the survey was to identify the vaping and smoking habits of this population in February 2020, that is, the month before the COVID-19 pandemic was confirmed in Canada. This served as the baseline time period, against which we can compare how reported habits changed.

Almost all (95%) were current vapers in February 2020 (i.e., they vaped with or without nicotine at least once in that month). A small proportion (4%) were not vaping at all in February 2020 (the remaining 1% were not sure how often they vaped with and without nicotine in that month). To qualify for the survey, respondents had to have been a regular vaper (i.e., vaped at least once a week for four consecutive weeks) at some point in 2020, but not necessarily in February 2020.

A majority were current co-users in February 2020, meaning they were both a current vaper and a current smoker. Most of the remainder (39%) were a current vaper only (i.e., not a current smoker) at that time. Current co-use increased with age, from more than one-third (37%) of youth to almost two-thirds (64%) of adults.

The proportion neither vaping nor smoking in February 2020 was higher among youth (8%) than among young adults (3%) and adults (2%).

Vaping and smoking status in February 2020

Status	Total	Youth (15-19)	Young adult (20-24)	Adult (25+)
Current vaper*	95%	92%	96%	95%
Non-vaper*	4%	7%	3%	4%
Co-user (current vaper and current smoker)	56%	37%	52%	64%
Vaper only (not current smoker)	39%	55%	44%	31%
Smoker only (not current vaper)	2%	<1%	1%	3%
Neither	4%	8%	3%	2%

* Current vaper and non-vaper does not equal 100% because it excludes respondents who were “not sure” how often they vaped with and without nicotine in February 2020 (i.e., 1% of sample).

Base: all respondents

In general, current vapers in February 2020 had not been vaping long prior to that time. It had been less than a year for three in ten (29%) and between one to two years for another three in ten (28%). One in four (23%) had vaped for three or more years, which skews higher among adult vapers (28%).

Length of time vaped prior to February 2020

Length of time	Total (n=3,379)	Youth (15-19) (n=850)	Young adult (20-24) (n=1,222)	Adult (25+) (n=1,307)
<1 year	29%	33%	32%	26%
1 year or more (net)	51%	46%	47%	53%
1-2 years	28%	31%	28%	26%
3-4 years	13%	11%	13%	13%
5+ years	10%	4%	5%	15%
Not sure	21%	21%	20%	21%

Q11. Prior to February 2020, for how long had you been vaping? Base: Those who vaped in February 2020

By comparison, both current and former smokers tended to have a longer history of cigarette use, with roughly one-third each who had smoked for 10 years or more. Former smokers tended to have quit in the past 10 years, including one in five very recent quitters who say they quit in the year prior to February 2020.

Length of time used/quit cigarettes prior to February 2020

Length of time	Current smokers – length of time smoked (n=1,906)	Former smokers – length of time smoked (n=533)	Former smokers – length of time since quit (n=533)
<1 year	17%	15%	19%
1 year or more (net)	62%	60%	59%
1-9 years	28%	24%	46%
10-19 years	13%	13%	8%
20+ years	21%	22%	5%
Not sure	22%	24%	23%

Q9. Prior to February 2020, for how long had you smoked cigarettes? Base: Current smokers only

Q10a. Your responses indicate that you were not smoking in February 2020, but that you had smoked prior to then. Prior to February 2020, for how many months/years had you stopped smoking cigarettes? Base: Former smokers only

Q10b. And before that, for how many months/years had you been smoking cigarettes? Base: Former smokers only

2. *Reported behavioural shifts period-over-period*

This target audience reports a substantial amount of behaviour change in vaping and smoking between February 2020 and 2022. Overall, the reported direction of change favours increased or fluctuating use over time rather than declining use or quits. However, the data suggest the propensity for increased nicotine vaping use is lower in provinces that have restricted vaping flavours.

How the questions were asked. The next section of the survey was designed to identify self-perceptions of how vaping and smoking behaviours have changed (or not) over time. That is, rather than compare their reported frequency of use in each time period to measure change, we directly asked respondents to tell us if and how their vaping and smoking use changed.

The survey was conducted in early 2022, and thus relied on respondent recall of their behaviours going back two years to February 2020. Research-on-research has demonstrated that people do not recall past events or behaviours with great accuracy, even for “habitual” behaviours such as vaping or smoking. Moreover, other longitudinal research conducted for Health Canada has revealed considerable change over time in vaping and smoking behaviours among individuals, which, compounded by the unique situation of the pandemic, speaks to the complexity of accurately retrieving memories going back two years. Therefore, these survey results are best interpreted as the target audience’s *perceptions* of whether or not they changed their vaping behaviours, and the reasons why.

These behaviour change questions were intentionally asked of the total sample, and were not filtered to various specific situations (e.g., former vapers were shown the same response list that included the category of “I started (for the first time)”), due to the complexity of programming for every single possibility. However, that means there are occasions where self-reported responses period-over-period appear inconsistent or illogical. Another potential explanation is the long time frames involved, during which (for example) someone may attempt to quit and relapse several times (but only one response was allowed to describe their “behaviour change” per time period).

Results. Perceptions of behaviour change are widespread. Half (52%) of this target audience reported a change in their nicotine vaping behaviour between February and the rest of 2020; substantial minorities also reported changes in non-nicotine vaping (40%) and smoking (45%) behaviours in the same period.

For all three substances, reported behaviour change was at about the same level in the period between January 2021 and 2022, when we consider both those who reported a behaviour change as well as the increased proportions who indicated they no longer vaped or smoked (i.e., indicating some quitting behaviour that was not categorized as having “stopped altogether”).

In general, the direction of change appeared to reflect increased or fluctuating use rather than declining use or quits. In both time periods, there were also small proportions who reported starting use (for the first time) or relapsing (after a period of quitting).

Reported change in vaping and smoking behaviour – by time period

Change in behaviour	Vaping with nicotine		Vaping without nicotine		Smoking cigarettes	
	In rest of 2020	From Jan 2021 to now	In rest of 2020	From Jan 2021 to now	In rest of 2020	From Jan 2021 to now
Did not do this at all	16%	21%	33%	36%	32%	34%
Use stayed the same (no change)	28%	34%	20%	22%	19%	20%
NET: Behaviour change	52%	42%	40%	36%	45%	42%
Use increased and stayed higher	21%	13%	12%	9%	12%	11%
Use fluctuated up and down	14%	12%	11%	10%	11%	10%
Use decreased and stayed lower	7%	8%	7%	8%	8%	8%
Stopped altogether (quit)	3%	6%	4%	6%	8%	9%
Started (for first time)	4%	1%	3%	2%	2%	2%
Relapsed (had quit, but started up again)	3%	2%	3%	1%	3%	3%
Not sure	4%	3%	7%	6%	5%	4%

Q16. Which of the following best describes how your vaping and smoking (if applicable) changed, if at all, in the rest of 2020 after the pandemic was declared in Canada? Base: All respondents

Q25. Which of the following best describes how your vaping and smoking (if applicable) changed, if at all, from January 2021 to now? Base: All respondents

Behaviour change by flavour restrictions. A key research question was whether provincial restrictions on vaping flavours can be shown to have played a role in behavioural shifts (that is, do reported shifts differ or not in provinces where restrictions were introduced). While it is difficult to draw conclusions, the data suggest that propensity towards *increased use of nicotine vaping* between February and the rest of 2020 was lower in provinces restricted to tobacco flavours (15%) compared to provinces without restrictions (23%).

Reported change in vaping and smoking behaviour – between February and rest of 2020

Behaviour change	Vape with nicotine			Vape without nicotine		
	Restricted to tobacco flavour (n=430)	Flavours restricted to vape shops (n=1799)	No restrictions (n=1363)	Restricted to tobacco flavour (n=430)	Flavours restricted to vape shops (n=1799)	No restrictions (n=1363)
Did not do this at all	16%	17%	14%	41%	31%	35%
Use stayed the same (no change)	32%	28%	28%	22%	20%	19%
NET: Behaviour change	47%	52%	54%	30%	42%	39%
Use increased and stayed higher	15%	20%	23%	10%	12%	11%
Use fluctuated up and down	11%	15%	13%	4%	13%	10%
Use decreased and stayed lower	8%	8%	7%	5%	7%	8%
Quit	4%	3%	4%	4%	4%	5%
Started (for first time)	6%	4%	4%	4%	3%	2%
Relapsed	4%	3%	4%	2%	2%	3%

Q16. Which of the following best describes how your vaping and smoking (if applicable) changed, if at all, in the rest of 2020 after the pandemic was declared in Canada? Base: All respondents

Moreover, the propensity to report decreased use (11%) or quitting (10%) of nicotine vaping between January 2021 and 2022 was also higher in provinces restricted to tobacco flavours compared to the provinces that restricted flavours to vape shops (7% and 5%, respectively) or had no restrictions (7% in both cases).

Reported change in vaping and smoking behaviour – between January 2021 and 2022

Behaviour change	Vape with nicotine			Vape without nicotine		
	Restricted to tobacco flavour (n=430)	Flavours restricted to vape shops (n=1799)	No restrictions (n=1363)	Restricted to tobacco flavour (n=430)	Flavours restricted to vape shops (n=1799)	No restrictions (n=1363)
Did not do this at all	18%	21%	20%	43%	34%	38%
Use stayed the same (no change)	31%	34%	35%	24%	23%	21%
NET: Behaviour change	47%	41%	42%	29%	38%	34%
Use increased and stayed higher	11%	13%	13%	7%	9%	10%
Use fluctuated up and down	10%	13%	11%	6%	12%	8%
Use decreased and stayed lower	11%	7%	7%	5%	8%	7%
Quit	10%	5%	7%	5%	6%	6%
Started (for first time)	2%	1%	1%	4%	2%	2%
Relapsed	4%	1%	2%	2%	1%	1%

Q25. Which of the following best describes how your vaping and smoking (if applicable) changed, if at all, from January 2021 to now? Base: All respondents

Behaviour change by age group. Youth were most likely to report a behaviour change in their nicotine vaping behaviour, relative to non-nicotine vaping or smoking. In both time periods, the reported change in nicotine vaping was most likely an increase or fluctuation in use; moreover, this increase in nicotine vaping was more widely reported by youth in both time periods (25% and 15%) than by adults (19% and 12%). However in the second time period, a greater proportion said their use decreased, they had quit or did not use nicotine vaping at all.

Youth were much less likely to report change in non-nicotine vaping or smoking behaviours, because many (between four and five in 10 in each time period) were not using these substances; this non-use was significantly more common among youth than among young adults and adults. For non-nicotine vaping, the data seems to suggest that increased or fluctuating use was more prominent among youth between February and the rest of 2020, while between 2021 and 2022, an increasing number reported declining use, outright quits or non-use. However, for smoking, the degree of change was quite consistent from period-to-period.

Reported change in vaping and smoking behaviour – youth

Youth (15-19 in 2020) (n=932)	Vape with nicotine		Vape without nicotine		Smoking cigarettes	
	In rest of 2020	From Jan 2021 to now	In rest of 2020	From Jan 2021 to now	In rest of 2020	From Jan 2021 to now
Did not do this at all	14%	19%	41%	45%	48%	49%
Use stayed the same (no change)	22%	29%	15%	15%	11%	11%
NET: Behaviour change	61%	49%	35%	34%	36%	36%
Use increased and stayed higher	25%	15%	11%	8%	9%	9%
Use fluctuated up and down	14%	12%	8%	7%	7%	6%
Use decreased and stayed lower	8%	10%	6%	9%	6%	6%
Quit	4%	9%	5%	7%	9%	10%
Started (for first time)	5%	1%	3%	2%	2%	2%
Relapsed	4%	2%	2%	1%	3%	3%

Q16. Which of the following best describes how your vaping and smoking (if applicable) changed, if at all, in the rest of 2020 after the pandemic was declared in Canada? Base: All respondents

Q25. Which of the following best describes how your vaping and smoking (if applicable) changed, if at all, from January 2021 to now? Base: All respondents

The pattern of reported behaviour change is similar for young adults, with overall change most widespread for nicotine vaping between February and the rest of 2020. However, compared to youth, there also appears to be more reported overall change in smoking habits among young adults, with an increased proportion who had quit or did not smoke at all between 2021-2022 (relative to the previous time period).

Reported change in vaping and smoking behaviour – young adults

Young adult (20-24 in 2020) (n=1283)	Vape with nicotine		Vape without nicotine		Smoking cigarettes	
	In rest of 2020	From Jan 2021 to now	In rest of 2020	From Jan 2021 to now	In rest of 2020	From Jan 2021 to now
Did not do this at all	15%	23%	29%	33%	34%	37%
Use stayed the same (no change)	24%	31%	18%	22%	12%	15%
NET: Behaviour change	58%	43%	47%	41%	47%	45%
Use increased and stayed higher	22%	13%	12%	10%	14%	12%
Use fluctuated up and down	15%	12%	14%	10%	10%	10%
Use decreased and stayed lower	10%	8%	10%	10%	8%	7%
Quit	4%	7%	6%	7%	9%	12%
Started (for first time)	4%	<1%	3%	2%	3%	2%
Relapsed	3%	2%	3%	2%	4%	2%

Q16. Which of the following best describes how your vaping and smoking (if applicable) changed, if at all, in the rest of 2020 after the pandemic was declared in Canada? Base: All respondents

Q25. Which of the following best describes how your vaping and smoking (if applicable) changed, if at all, from January 2021 to now? Base: All respondents

In both time periods, adults were *more likely* than youth and young adults to report no change in their nicotine vaping, non-nicotine vaping and smoking (e.g., nicotine vaping in the rest of 2020 stayed the same for 32% of adults vs. 22% of youth and 24% of young adults), and relatively *less likely* to say they are not doing any of these things.

In turn, adults were *as likely* as youth and young adults to report overall behaviour change for both their nicotine vaping and smoking habits (and less so for non-nicotine vaping, due to fewer who report using it overall). Once again, the direction of change seems to favour increased or fluctuating use, rather than decreased use, quits or non-use.

Reported change in vaping and smoking behaviour – adults

Adults (25+ in 2020) (n=1377)	Vape with nicotine		Vape without nicotine		Smoking cigarettes	
	In rest of 2020	From Jan 2021 to now	In rest of 2020	From Jan 2021 to now	In rest of 2020	From Jan 2021 to now
Did not do this at all	16%	20%	32%	35%	26%	28%
Use stayed the same (no change)	32%	37%	22%	25%	23%	25%
NET: Behaviour change	48%	39%	39%	35%	47%	44%
Use increased and stayed higher	19%	12%	12%	9%	13%	11%
Use fluctuated up and down	13%	12%	11%	10%	13%	10%
Use decreased and stayed lower	7%	7%	7%	7%	9%	9%
Quit	3%	5%	4%	5%	7%	8%
Started (for first time)	3%	1%	3%	2%	1%	2%
Relapsed	3%	2%	3%	1%	3%	3%

Q16. Which of the following best describes how your vaping and smoking (if applicable) changed, if at all, in the rest of 2020 after the pandemic was declared in Canada? Base: All respondents

Q25. Which of the following best describes how your vaping and smoking (if applicable) changed, if at all, from January 2021 to now? Base: All respondents

Frequency of use. In addition to self-reported perceptions of change, the survey also measured the target audience's recall of their frequency of nicotine and non-nicotine vaping and smoking, from period to period. Overall, respondents recalled more frequent use of all three substance types in February 2020 than in subsequent time periods. The proportion who say they did not use each substance (at all) increased steadily between February 2020, the rest of 2020 and early 2022.

Frequency of use – by time period

Type	NET: At least weekly	Every day	At least once a week, but not every day	Less than once a week (i.e., once or twice a month)	Not at all	Not sure
Vape with nicotine						
In February 2020	69%	38%	31%	14%	16%	2%
Over rest of 2020	63%	34%	29%	12%	23%	2%
Early 2022	54%	31%	24%	12%	32%	2%
Vape without nicotine						
In February 2020	35%	12%	23%	17%	43%	4%
Over rest of 2020	34%	10%	23%	14%	48%	4%
Early 2022	30%	10%	20%	13%	53%	3%
Smoke cigarettes						
In February 2020	41%	26%	15%	17%	40%	2%
Over rest of 2020	38%	23%	15%	13%	46%	3%
Early 2022	36%	21%	15%	11%	50%	3%

Q7. How often did you do each of the following in the month of February 2020? Base: all respondents

Q19. Over the rest of 2020, how often did you do each of the following? If your use changed during this time, please indicate your peak (highest) use. Base: all respondents

Q28. Thinking about now (early 2022), how often did you do each of the following over the past four weeks? Base: all respondents

3. Changes in flavour use

Reported use of fruit flavours was lower in provinces limited to tobacco flavour only, suggesting flavour restrictions may have had an impact.

Current vapers were asked what flavours they vaped most often in each of the three time periods. The general pattern indicates declines across most flavours, most notably for fruit flavours. This may be due a methodological factor: respondents were on average reporting fewer flavours in each subsequent time period due to the repetitive nature of the questions.

Flavours vaped most often - by time period

Flavours	In Feb 2020 (n=3,379)	In rest of 2020 (n=3,096)	Now in 2022 (n=2,715)
Fruit	58%	53%	49%
Candy	33%	32%	29%
Mint	31%	30%	29%
Menthol	25%	23%	22%
Tobacco flavour	24%	23%	22%
Dessert	19%	21%	19%
Coffee/tea	14%	13%	11%
Alcohol flavour	8%	7%	9%
Flavourless	5%	5%	4%
Other	3%	2%	2%
Not sure	1%	1%	2%

Q13. What flavour(s), if any, did you vape most often in February 2020? Base: Current vapers in February 2020

Q22. What flavour(s), if any, did you vape most often in the rest of 2020? Base: Current vapers in rest of 2020

Q31. What flavour(s), if any, do you vape most often now? Base: Current vapers in 2022

Provincial flavour restrictions introduced in 2020 and 2021 may have played a role, although it cannot be definitively concluded from the survey data. That is because reported use of fruit flavours declined between the three time periods in areas both *with* and *without* restrictions.

However, there was lower reported use of fruit flavours in provinces that restricted flavours to tobacco only (NS in April 2020, NB and PEI in 2021) for *all three* time periods, including in February 2020 before restrictions were put in place. While this pattern suggests the very existence of restrictions has influenced recall of flavours used, it cannot be ruled out that restricting vaping flavour availability to tobacco may have contributed to lower use of fruit flavours.

Provinces where flavours are restricted to vape stores (ON, BC, SK) showed no significant difference in flavour use in 2022 relative to provinces with no flavour restrictions.

Flavours vaped most often - by provincial restrictions

Flavours	In Feb 2020	In rest of 2020	Now in 2022
Fruit			
Provinces restricted to tobacco flavour	52%	49%	42%
Provinces restricting flavours to vape stores	57%	52%	49%
No flavour restrictions	60%	55%	51%
Candy			
Provinces restricted to tobacco flavour	30%	31%	24%
Provinces restricting flavours to vape stores	34%	32%	31%
No flavour restrictions	32%	31%	29%
Tobacco flavour			
Provinces restricted to tobacco flavour	31%	29%	29%
Provinces restricting flavours to vape stores	25%	23%	20%
No flavour restrictions	21%	21%	22%

Q13. What flavour(s), if any, did you vape most often in February 2020? Base: Current vapers in February 2020

Q22. What flavour(s), if any, did you vape most often in the rest of 2020? Base: Current vapers in rest of 2020

Q31. What flavour(s), if any, do you vape most often now? Base: Current vapers in 2022

By age. In all time periods, reported use of fruit, candy, and dessert flavours were consistently higher in youth and young adult vapers than among adults 25+, who in turn, had relatively higher use of tobacco, coffee/tea and alcohol flavours. These patterns are consistent with previous vaping research conducted for Health Canada.

No conclusions can be drawn about the decline in reported use of fruit and candy flavours among youth and young adult vapers over time, which do not trace back to a corresponding increase in another flavour – and thus likely reflect fewer overall flavours reported in each subsequent time period due to the repetitive nature of the questions.

Flavours vaped most often - by age in 2020

Flavours	In Feb 2020	In rest of 2020	Now in 2022
Fruit			
Youth	75%	70%	66%
Young adult	69%	65%	59%
Adult	49%	44%	41%
Candy			
Youth	44%	46%	39%
Young adult	46%	39%	37%
Adult	25%	25%	24%
Tobacco flavour			
Youth	11%	12%	10%
Young adult	15%	12%	11%
Adult	30%	30%	29%

Q13. What flavour(s), if any, did you vape most often in February 2020? Base: Current vapers in February 2020

Q22. What flavour(s), if any, did you vape most often in the rest of 2020? Base: Current vapers in rest of 2020

Q31. What flavour(s), if any, do you vape most often now? Base: Current vapers in 2022

4. Changes in source of vaping device and liquids

Purchases of both vaping devices and vaping liquids largely occurred at vape shops, although this appears to have declined since February 2020 with a slight increase in online purchasing. There was no substantial shift in where vapers sourced their liquids or devices that can be conclusively linked to the provincial flavour restrictions; the only finding of note is that reported purchasing of vaping liquids at convenience stores was more common in provinces with no flavour restrictions.

Vaping device. Current vapers were by far most likely to report buying their device in-person at a vape shop; this proportion declined slightly from period-to-period, due to a slight bump in online purchasing (22% in February 2020 to 24-25%) as well as a small group who continued to use the same device and did not buy a new one (6%).

Source of vaping device – by time period

Source	In Feb 2020 (n=3,379)	In rest of 2020 (n=3,096)	Now in 2022 (n=2,715)
Bought them yourself at a vape shop (in person, not online)	63%	57%	55%
Bought them yourself at a gas station, pharmacy or convenience/grocery store	24%	25%	24%
Bought them yourself online	22%	25%	24%
Gave friend/family member money to buy them for you	13%	12%	12%
Friend/family member gave or loaned them to you	12%	12%	10%
Continued using same device from before	n/a	6%	6%
Other	2%	1%	1%
Not sure	1%	1%	2%

Q14. From where did you get the vaping device(s) you were using in February 2020? Base: Current vapers in February 2020

Q23. From where did you get the vaping device(s) you were using in the rest of 2020? Base: Current vapers in rest of 2020

Q32. From where did you get the vaping device(s) you are currently using? Base: Current vapers in 2022

The survey did not pick up substantial shifts in where vapers sourced their devices that can be linked to the introduction of provincial flavour restrictions. For instance, vapers in provinces that restricted flavour purchases to vaping stores (ON and BC in 2020 and SK in 2021) did not report increased use of vape stores for sourcing devices period-over-period; in fact, their buying habits for devices were very similar to provinces with no restrictions whatsoever.

Source of vaping device – by provincial restrictions

Source	In Feb 2020	In rest of 2020	Now in 2022
Bought them yourself at a vape shop (in person, not online)			
Provinces restricted to tobacco flavour	69%	62%	64%
Provinces restricting flavours to vape stores	62%	55%	55%
No flavour restrictions	63%	57%	54%
Bought them yourself at a gas station, pharmacy or convenience/grocery store			
Provinces restricted to tobacco flavour	22%	19%	19%
Provinces restricting flavours to vape stores	24%	25%	23%
No flavour restrictions	24%	25%	24%
Bought them yourself online			
Provinces restricted to tobacco flavour	25%	24%	22%
Provinces restricting flavours to vape stores	23%	27%	25%
No flavour restrictions	20%	23%	24%

Q14. From where did you get the vaping device(s) you were using in February 2020? Base: Current vapers in February 2020

Q23. From where did you get the vaping device(s) you were using in the rest of 2020? Base: Current vapers in rest of 2020

Q32. From where did you get the vaping device(s) you are currently using? Base: Current vapers in 2022

Patterns in vaping device purchases over time changed most noticeably for those who were youth (aged 15-19) in 2020: reliance on friends/family members declined (from 52% in Feb 2020 to 37% in 2022).

There was also a decline in reported purchases of vaping devices at vape shops among young adult and adult vapers after February 2020. For adult vapers, there appears to have been a corresponding increase in online purchasing (from 23% in Feb 2020 to 27% in 2022) (for young adults, the bump in online purchasing appears to have been temporary).

Source of vaping devices – by age in 2020

Source	In Feb 2020	In rest of 2020	Now in 2022
Bought them yourself at a vape shop (in person, not online)			
Youth	50%	48%	50%
Young adult	72%	63%	60%
Adult	65%	58%	55%
Bought them yourself at a gas station, pharmacy or convenience/grocery store			
Youth	19%	21%	19%
Young adult	28%	29%	28%
Adult	24%	24%	24%
Bought them yourself online			
Youth	15%	15%	17%
Young adult	23%	27%	23%
Adult	24%	27%	27%
From friend/family member			
Youth	52%	44%	37%
Young adult	23%	21%	23%
Adult	16%	18%	17%

Q14. From where did you get the vaping device(s) you were using in February 2020? Base: Current vapers in February 2020

Q23. From where did you get the vaping device(s) you were using in the rest of 2020? Base: Current vapers in rest of 2020

Q32. From where did you get the vaping device(s) you are currently using? Base: Current vapers in 2022

Vaping liquids. Consistent with their device-buying habits, current vapers were by far most likely to report buying their vaping liquids in-person at a vape shop; this proportion declined slightly (from 60% in February 2020 to 55% subsequently), which can be linked back to a bump in online purchasing (from 23% to 25-26%) as well as a small group who continued to use the same liquids and did not buy new ones (3-4%).

Source of vaping liquids – by time period

Source	In Feb 2020 (n=3,379)	In rest of 2020 (n=3,096)	Now in 2022 (n=2,715)
Bought them yourself at a vape shop (in person, not online)	60%	55%	55%
Bought them yourself at a gas station, pharmacy or convenience/grocery store	24%	24%	24%
Bought them yourself online	23%	26%	25%
Friend/family member gave or loaned them to you	13%	13%	11%
Gave friend/family member money to buy them for you	13%	12%	11%
Continued using same liquids from before/didn't get more	n/a	4%	3%
Made your own	2%	3%	4%
Other	1%	1%	2%
Not sure	1%	2%	2%

Q15. From where did you get the vaping liquid(s) you were using in February 2020? Base: Current vapers in February 2020

Q24. From where did you get the vaping liquid(s) you were using in the rest of 2020? Base: Current vapers in rest of 2020

Q33. From where are you getting vaping liquids currently? Base: Current vapers in 2022

Consistent with patterns around the purchase of vaping devices, the survey did not pick up substantial shifts in where vapers source their vaping liquids that can be conclusively linked to the introduction of provincial flavour restrictions. For instance, vapers in provinces that restricted flavour purchases to vaping stores (ON and BC in 2020 and SK in 2021) actually reported a decline in use of vape stores for sourcing liquids (from 60% in February 2020 to 54% in 2022), but also a slight increase in online sourcing (from 24% to 26-27%).

However, in 2022, vapers in provinces with no flavour restrictions were relatively more likely than their counterparts in other regions to buy liquids at a gas station, pharmacy or convenience store (26% vs. 19-22%), suggesting the lack of flavour restrictions may be contributing to slightly different buying habits.

Source of vaping liquids – by provincial restrictions

Source	In Feb 2020	In rest of 2020	Now in 2022
Bought them yourself at a vape shop (in person, not online)			
Provinces restricted to tobacco flavour	65%	61%	62%
Provinces restricting flavours to vape stores	60%	55%	54%
No flavour restrictions	60%	54%	54%
Bought them yourself at a gas station, pharmacy or convenience/grocery store			
Provinces restricted to tobacco flavour	21%	19%	19%
Provinces restricting flavours to vape stores	24%	24%	22%
No flavour restrictions	24%	25%	26%
Bought them yourself online			
Provinces restricted to tobacco flavour	21%	27%	24%
Provinces restricting flavours to vape stores	24%	27%	26%
No flavour restrictions	21%	24%	24%

Q15. From where did you get the vaping liquid(s) you were using in February 2020? Base: Current vapers in February 2020

Q24. From where did you get the vaping liquid(s) you were using in the rest of 2020? Base: Current vapers in rest of 2020

Q33. From where are you getting vaping liquids currently? Base: Current vapers in 2022

Patterns in vaping liquid purchases over time were similar to patterns evident for devices. Sources of vaping liquids changed most noticeably for those who were youth (aged 15-19) in 2020: reliance on friends/family members declined (from 53% in Feb 2020 to 35% in 2022); self-purchases at a vape shop declined after Feb 2020 and then went back up again; and, self-purchases at a gas station/convenience store increased.

On the other hand, reported purchases of vaping liquids at vape shops declined for young adult and adult vapers after February 2020. For adult vapers, there appears to have been a corresponding increase in online purchasing (from 25% in Feb 2020 to 29% subsequently).

Source of vaping liquids – by age in 2020

Source	In Feb 2020	In rest of 2020	Now in 2022
Bought them yourself at a vape shop (in person, not online)			
Youth	49%	46%	51%
Young adult	66%	60%	58%
Adult	63%	56%	55%
Bought them yourself at a gas station, pharmacy or convenience/grocery store			
Youth	17%	19%	21%
Young adult	29%	27%	28%
Adult	24%	25%	23%
Bought them yourself online			
Youth	14%	16%	15%
Young adult	24%	26%	25%
Adult	25%	29%	29%
From friend/family member			
Youth	53%	46%	35%
Young adult	24%	22%	22%
Adult	18%	18%	17%

Q15. From where did you get the vaping liquid(s) you were using in February 2020? Base: Current vapers in February 2020

Q24. From where did you get the vaping liquid(s) you were using in the rest of 2020? Base: Current vapers in rest of 2020

Q33. From where are you getting vaping liquids currently? Base: Current vapers in 2022

5. Factors contributing to change in vaping behaviour

Those who changed their vaping behaviour linked it primarily to changes in routine due to COVID-19 and increased stress, followed by fewer social gatherings and mental health concerns. Relative to other groups, those who reported decreases in nicotine vaping or outright quits suggested that physical health concerns (both COVID and non-COVID related), as well as a decrease in stress levels, were contributing factors to behaviour change.

Vapers who reported a change in their vaping behaviour between time periods were asked about factors that contributed to that change. Vaping changes between February 2020 and the rest of 2020 were most commonly associated with a change in routines (58% contributed a lot or a little) or increase in stress levels (57%), followed by fewer social gatherings due to COVID restrictions (51%) and mental health concerns (49%).

Vaping changes between 2021 and 2022 were linked to the same top factors, but by slightly smaller proportions in most cases, suggesting the factors contributed somewhat less to changes in 2021 than in 2020. The exception was physical health concerns, which were a contributing factor for a larger proportion in 2021 (42% vs. 39% in 2020).

Factors contributing to a lot or a little to reported change in vaping behaviour – by time period

Factors	Between Feb and the rest of 2020 (n=2,509)	Between Jan 2021 and current (2022) (n=2,111)
Change in routines due to COVID	58%	52%
Increase in stress levels	57%	51%
Less gathering with other people due to COVID restrictions	51%	44%
Mental health concerns	49%	44%
Concerns over an increased risk of severe illness or complications from COVID-19	42%	40%
Physical health concerns (not related to COVID)	39%	42%
Change in job status	38%	34%
Harder to get the vaping products I prefer	36%	35%
Decrease in stress levels	33%	33%
Harder to find opportunity to vape	32%	32%
Change in relationship status	30%	32%

Q18. Please indicate which of the following factors contributed to the change in your vaping use between February (pre-pandemic) and the rest of 2020? Base: Reported a change in vaping behaviour between February and the rest of 2020

Q27. Please indicate which of the following factors contributed to the change in your vaping use between January 2021 and now? Base: Reported a change in vaping behaviour between January 2021 and 2022

- Individuals living in provinces with flavour restrictions were no more likely than those without flavour restrictions to say that finding it harder to get vaping products contributed to behaviour change.
- Those with school-age children (elementary, secondary or postsecondary) living at home with them during 2020 were no more likely than others to identify increased stress levels as a factor that contributed to their behaviour change.

- Propensity to identify several factors as contributors to vaping behaviour change, including increased stress levels, mental health concerns, physical health concerns (non-COVID related) and job changes, was higher among those reporting moderate-to-poor physical health, moderate-to-poor mental health or moderate-to-very high isolation, anxiety or depression.

We can look at the reasons given for behaviour change for key subgroups, to explore what factors influenced them (i.e., what was going on at the time that contributed to their behaviour change). In the table below, we look at key behaviour changes in nicotine vaping between February 2020 and the rest of 2020.

For example, increases in nicotine vaping were more widely attributed to several factors, including changing routines, increases in stress, fewer social gatherings, mental health concerns and job changes; stress and mental health concerns were also linked to relapses. Increased nicotine vaping and relapses were also linked to physical health concerns (non-COVID related), echoing the qualitative results that some vapers use vaping to help relieve physical symptoms. In turn, relative to other behaviour changes, decreased use of nicotine vaping and quits during 2020 was more widely linked to concerns over COVID-19 related illness.

Factors contributing to a lot to reported change in vaping behaviour – between Feb and the rest of 2020, by reported change in nicotine vaping

Factors in behaviour change between Feb and rest of 2020	By reported change in nicotine vaping behaviour					
	Use increased and stayed higher (n=783)	Use fluctuated up and down (n=493)	Use decreased and stayed lower (n=284)	Stopped altogether (quit) (n=137)	Started (for the first time) (n=148)	Relapsed (n=130)
Change in routines due to COVID	38%	27%	24%	29%	28%	32%
Increase in stress levels	47%	32%	12%	16%	28%	43%
Less gathering with other people due to COVID restrictions	27%	21%	22%	17%	17%	18%
Mental health concerns	29%	20%	18%	22%	19%	38%
Concerns over an increased risk of severe illness or complications from COVID-19	18%	14%	23%	27%	16%	20%
Physical health concerns (not related to COVID)	16%	13%	17%	29%	10%	26%
Change in job status	21%	15%	11%	13%	10%	20%
Harder to get the vaping products I prefer	12%	13%	14%	17%	8%	21%
Decrease in stress levels	13%	14%	9%	14%	7%	17%
Harder to find opportunity to vape	11%	12%	12%	20%	5%	21%
Change in relationship status	14%	10%	10%	13%	10%	20%

Q18. Please indicate which of the following factors contributed to the change in your vaping use between February (pre-pandemic) and the rest of 2020?
Base: Reported a change in vaping behaviour between February and the rest of 2020

Several of the same patterns were evident for changes in nicotine vaping during the period of January 2021 to 2022. Once again, increases in nicotine vaping were more widely attributed to several factors, including increases in stress, less social gathering and mental health concerns. Quitting nicotine vaping was linked to physical health concerns (non-COVID related), while relapses were more widely linked to job changes. Decrease in stress levels was also linked to lower nicotine vaping use and quits.

Factors contributing to a lot to reported change in vaping behaviour – between January 2021 and 2022, by reported change in nicotine vaping

Factors in behaviour change between January 2021 and 2022	By reported change in nicotine vaping behaviour					
	Use increased and stayed higher (n=476)	Use fluctuated up and down (n=417)	Use decreased and stayed lower (n=302)	Stopped altogether (quit) (n=270)	Started (for the first time) (n=39)	Relapsed (n=83)
Change in routines due to COVID	28%	18%	23%	18%	19%	25%
Increase in stress levels	41%	27%	17%	11%	33%	29%
Less gathering with other people due to COVID restrictions	24%	17%	17%	16%	5%	12%
Mental health concerns	29%	18%	20%	18%	14%	16%
Concerns over an increased risk of severe illness or complications from COVID-19	15%	14%	20%	18%	21%	16%
Physical health concerns (not related to COVID)	14%	12%	22%	32%	17%	17%
Change in job status	16%	11%	10%	13%	12%	24%
Harder to get the vaping products I prefer	16%	10%	14%	15%	5%	10%
Decrease in stress levels	9%	8%	16%	14%	7%	15%
Harder to find opportunity to vape	10%	10%	16%	12%	12%	20%
Change in relationship status	17%	8%	14%	6%	14%	15%

Q27. Please indicate which of the following factors contributed to the change in your vaping use between January 2021 and now? Base: Reported a change in vaping behaviour between January 2021 and 2022

G. Vaping flavour and device shortages and habit changes

1. Vaping flavour and device accessibility since February 2020

Just over four in ten vapers have experienced times since February 2020 when they could not get a vape flavour or device they wanted. This was most often due to a temporarily store closure or a flavour no longer being available.

Just over four in ten vapers say they have in fact experienced times since February 2020 when they have been unable to obtain either a vape flavour or device they wanted; just under six in ten have not. These proportion are similar regardless of whether or not vapers live in a location with provincial restrictions.

If vaping flavours or devices have ever been unavailable since February 2020

If since February 2022 vaping flavours or devices have been unavailable	All vapers (n=3,592)	Restricted provinces (n=2,229)	No restrictions (n=1,363)
Yes	45%	44%	46%
No	55%	56%	54%

Q34 Since February 2020, was there ever a time you could not get a vape flavour or device you wanted?

There is no clear pattern by February 2020 vaping or smoking status, except those who were non-vapers at that time (25%) and those who were non-vapers in the rest of 2020 (16%) are the *least* likely to say they have not been able to get a flavour or devices since that time.

Having experienced flavours or devices not being available is higher among young vapers (53% aged 15-24 in 2020) compared to adults (39%). It is also higher among those in lower socioeconomic strata (47% with under university education vs. 39% with a degree or higher, and 47% with household income under \$80,000 vs. 39% \$100,000 or more).

Those who say they have experienced times since February 2020 when they have not been able to obtain a vape flavour or device (45%, n= 1,729) were asked why they were unable to get what they wanted. Six possible reasons were provided, and respondents could type in others. Multiple responses were permitted.

Of the offered responses, the most selected is that a store was temporarily closed (43%); one-third (34%) say the flavour they wanted was no longer available, and two in ten each say it was too expensive or a store closed permanently. Just over one in ten say their favourite device was no longer available.

Finding that their favourite flavour was no longer available is more widely reported in provinces that introduced flavour restrictions, regardless of whether they limited sales to tobacco flavour only (42% for NS/NB/PEI) or limited flavours to vaping specialty stores (37% for ON/BC/SK).

Reasons why vaping flavours or devices were unavailable

Reasons why vaping flavours or devices were inaccessible	Those who say vaping flavours or devices have been inaccessible (n=1,729)	Restricted to tobacco flavour (n=225)	Flavours restricted to vape stores (n=863)	No provincial restrictions (n=641)
Store closed temporarily (e.g., COVID-19-related lockdown)	43%	33%	39%	50%
My favourite flavour was no longer available	34%	42%	37%	29%
Too expensive/couldn't afford it	22%	20%	23%	22%
Store closed permanently	20%	18%	19%	21%
My favourite device was no longer available	11%	10%	12%	10%
My age (I was too young)	6%	7%	7%	6%
Other	5%	9%	5%	4%
Not sure	2%	3%	3%	2%

Q35 What was the reason you couldn't get the vape flavour or device you wanted?
BASE: Those who could not get a vape flavour or device they wanted (N=1,729)

Responses are generally similar across the country and subgroups of the vaping population, with the following being the most likely to provide each response:

Store closed temporarily (e.g., COVID-19-related lockdown)

- Quebec (58%),
- Unrestricted locations (50% vs. 38% in jurisdictions with restrictions),
- Adults age 25+ (48%) and young adults (42%) vs. youth (35%),
- University degree (51%),
- Child in school (47% vs. 39%), and

- Legal tobacco age in jurisdiction (44% vs. 30%).

Favourite flavour no longer available

- Atlantic region (42%),
- Restricted provinces (38% vs. 29% not restricted), and
- Women (41% vs. 30% men).

Too expensive/couldn't afford it

- Prairies (27%), and
- Household income under \$100,000 (25% vs. 14% \$100K+).

Store closed permanently

- University degree (26% vs. 18% with less education), and
- Child in school (24% vs. 16%).

2. Adjustments made when vaping flavours or devices have ever been inaccessible

The main ways vapers adjusted to lack of availability of preferred products are online shopping, switching flavours or finding another store in their jurisdiction.

The 45 percent who say a vaping flavour or device had been inaccessible at some point since February 2020 were asked how they adjusted to this. The top response is they shopped online (35%); one-quarter each also mention switching to an available flavour (26%) or finding another store in their province where the products they wanted were available (24%). Two in ten (19%) also mention purchasing from someone else (a friend or family member). Fewer mention other adaptations, including reducing or quitting vaping (14%), finding an out-of-province store (11%), or replacing vaping with cigarette use (11%) or another substance (5%).

There are a few differences in reported adaptations by whether or not someone lives in a province with restrictions. Those in restricted provinces are more likely to mention switching to an available flavour (33% restricted to tobacco flavour and 29% flavours restricted to vape stores) than those who live where there are no restrictions (22%). Finding another in-province store is more widely reported where flavours have been restricted to vape stores (26%) than where flavours have been restricted to tobacco only (15%); in turn, this latter group is more likely to report switching to cigarette use (16%).

Adaptations done when vaping flavours or devices were unavailable

How adapted when vaping flavours or devices were inaccessible	Those who say vaping flavours or devices have been inaccessible (n=1,729)	Restricted to tobacco flavour (n=225)	Flavours restricted to vape stores (n=863)	No provincial restrictions (n=641)
Shopped online	35%	34%	35%	36%
Switched to a flavour that was available	26%	33%	29%	22%
Found another store in my province	24%	15%	26%	24%
Bought from someone else (e.g., a friend, family member, etc.)	19%	14%	20%	20%
Reduced/quit vaping	14%	14%	13%	15%
Found a store in another province	11%	10%	9%	13%
Replaced with cigarette use	11%	16%	9%	12%
Replaced with another substance (e.g., alcohol, cannabis)	5%	4%	5%	5%
Other mentions	2%	2%	1%	2%
Not sure	2%	3%	2%	2%

Q36 When the vape flavour or device you wanted was not available, how did you adjust?
 BASE: Those who could not get a vape flavour or device they wanted (N=1,729)

The following subgroup differences are noted for the most mentioned adaptations.

Shopped online

- A top response across the country, ranging from a low of 27% in the Prairies to a high of 42% in Quebec,
- Higher among young adults/adults (38%) than youth (27% who were 15-19 in 2020),
- University degree (43%),
- Child in school (40% vs. 30%),
- Legal tobacco age in jurisdiction (36% vs. 25%), and
- Those in good physical (40%) or mental (43%) health in 2020.

Switched to an available flavour

- Similar across the country, but lower in Quebec (16%),
- Higher among youth (34% who were 15-19 in 2020) than young adults (26%) or adults (22%),
- Women (34% vs. 22% of men),
- High school or less education (30% vs. 20% with a university degree),
- No child in school (31% vs. 20% with a child), and
- Not of legal tobacco age in jurisdiction (38% vs. 25% legal age).

Found another store in same province

- Legal tobacco age in jurisdiction (25% vs. 16%).

H. Attitudes about vaping and smoking

1. Agreement with statements about vaping among current vapers

Current vapers are most likely to agree vaping calms them down or that they enjoy it too much to give it up.

Current vapers were asked to indicate their level of agreement with a series of statements about vaping. Majorities of at least 51 percent agree to some extent with most statements, with the exception being that they 'have the kind of genetic makeup that allows you to vape without it causing health problems' (42% net agreement).

Current vapers are most likely to strongly agree vaping calms them down when stressed or upset (31%) and that they enjoy vaping too much to give it up (20%). Two in ten (21%) current and former vapers also strongly agree 'vaping is no more risky than lots of other things people do'.

Level of agreement with statements about vaping

Level of agreement with statements about vaping	Net agree	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	Not sure
<i>Current vapers (n=2,715)</i>						
Vaping calms you down when you are stressed or upset	78%	31%	47%	13%	6%	2%
You enjoy vaping too much to give it up	61%	20%	40%	24%	12%	4%
Vaping helps you concentrate better	58%	18%	40%	22%	12%	8%
Vaping makes it easier for you to socialize	57%	17%	39%	22%	15%	6%
Vaping is an important part of your life	53%	16%	37%	27%	16%	4%
You've got to die of something, so why not enjoy yourself and vape	51%	16%	36%	24%	19%	5%
You have the kind of genetic makeup that allows you to vape without it causing health problems	42%	13%	29%	24%	19%	15%

Q37 Overall, please indicate how much you agree or disagree with the following statements about **vaping**.
BASES: Current vapers

Responses are generally fairly similar across the country and most subgroups. There are two statements for which overall agreement is higher among those living in locations with restrictions:

- Vaping helps you concentrate better (61% with restrictions, 54% without).
- Vaping makes it easier for you to socialize (60% with restrictions, 53% without).

Men are also more likely than women to agree with several statements:

- Vaping helps you concentrate better (60% vs. 55% of women).
- You've got to die of something, so why not enjoy yourself and vape (53% vs. 48% of women).

- You have the kind of genetic makeup that allows you to vape without it causing health problems (46% vs. 35% of women).

2. Agreement with statements about smoking among current smokers

As with the statements about vaping, vapers who are current smokers are most likely to agree smoking calms them down or that they enjoy it too much to give it up.

When vapers who currently smoke are asked to indicate level of agreement with nearly identical statements about smoking, an extremely similar pattern emerges to when they are asked about vaping, which follows as they are a subset of the same population. Majorities of at least 53 percent agree to some extent with many of the statements, with the exception being that they have the kind of genetic makeup that allows them to smoke without it causing health problems (39% net agreement).

One-third (34%) of vapers who currently smoke strongly agree smoking calms them down when they are stressed or upset, and just over one-quarter (27%) strongly agree they enjoy smoking too much to give it up.

Level of agreement with statements about smoking

Level of agreement with statements about vaping	Net agree	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	Not sure
<i>Current smokers (n=1,259)</i>						
Smoking calms you down when you are stressed or upset	81%	34%	47%	11%	6%	2%
You enjoy smoking too much to give it up	66%	27%	39%	21%	10%	3%
Smoking helps you concentrate better	62%	21%	41%	21%	13%	5%
Smoking is an important part of your life	60%	24%	36%	25%	12%	3%
Smoking makes it easier for you to socialize	59%	20%	39%	21%	15%	4%
You've got to die of something, so why not enjoy yourself and smoke	53%	20%	34%	20%	21%	6%
You have the kind of genetic makeup that allows you to smoke without it causing health problems	39%	14%	25%	21%	29%	11%

Q38 Overall, please indicate how much you agree or disagree with the following statements about **smoking**
BASES: Current smokers

As with the similar vaping statements, opinions are generally similar across the country and most subgroups. In the following cases, overall agreement is higher among those living in locations with vaping restrictions:

- Smoking helps you concentrate better (65% with vaping restrictions, 57% without).
- Smoking is an important part of your life (64% with vaping restrictions, 54% without).

3. Agreement with statements about vaping and smoking

Close to six in ten agree to some extent that vaping is no more risky than lots of other things people do.

All respondents, regardless of their current vaping or smoking status, were asked to indicate their level of agreement about the risks associated with vaping and smoking.

Echoing other Health Canada research, there is a greater tendency to downplay the risk associated with vaping than with smoking. A majority of 58 percent agree to some extent that ‘vaping is no more risky than lots of other things people do’, which is notably higher than the level of agreement with a similar statement about smoking (43%). A minority agrees ‘the medical evidence vaping is harmful is exaggerated’ (44% net agreement), again higher than the 33 percent who agree this is the situation for smoking.

Level of agreement with statements about vaping and smoking

Level of agreement with statements about vaping	Net agree	Strongly agree	Somewhat agree	Somewhat disagree	Strongly disagree	Not sure
<i>Total sample (n=3,592)</i>						
Vaping is no more risky than lots of other things that people do	58%	21%	38%	24%	11%	6%
The medical evidence that vaping is harmful is exaggerated	44%	16%	28%	28%	16%	13%
Smoking is no more risky than lots of other things that people do	43%	16%	27%	24%	28%	5%
The medical evidence that smoking is harmful is exaggerated	33%	12%	21%	22%	39%	6%

Q37 Overall, please indicate how much you agree or disagree with the following statements about **vaping**.

Q38 Overall, please indicate how much you agree or disagree with the following statements about **smoking**.

BASES: Total sample

Responses are generally fairly similar across the country and most subgroups. The proportion who downplay the risk associated with vaping (“no more risky than other things”) is higher among those who currently vape (61% of co-users and 59% of only vapers) than those who only smoke (55%) or do neither (53%). Co-users are also the most likely to agree with the other three statements:

- The medical evidence that vaping is harmful is exaggerated (49% co-users, vs. 43% who only vape, 35% who only smoke, and 40% who do neither).
- Smoking is no more risky than lots of other things that people do (48% co-users, vs. 41% who only vape, 43% who only smoke, and 37% who do neither).
- The medical evidence that smoking is harmful is exaggerated (40% co-users, vs. 28% who only vape, 33% who only smoke, and 29% who do neither).

Overall agreement with the following statements is higher among those living in locations with vaping restrictions:

- Vaping is no more risky than lots of other things that people do (60% with restrictions, 56% without).
- The medical evidence that vaping is harmful is exaggerated (46% with restrictions, 41% without).
- Smoking is no more risky than lots of other things that people do (46% with restrictions, 39% without).

Men are also more likely than women to agree the medical evidence that vaping is harmful is exaggerated (47% vs. 39% of women).

4. *Reasons for vaping*

Vapers are most likely to say they vape because they enjoy it or because it helps reduce stress.

Current vapers were asked to give their main reason for vaping; former vapers were also asked for their motivation while they were vaping. Seven possible reasons were provided, and people could specify another; only one response was permitted. One-quarter each cite enjoyment or stress reduction. Around one in six each say it was to quit smoking, or out of curiosity/just wanting to try it. One in ten say it was to cut down on smoking, and an additional small proportion (3%) say it was to avoid returning to smoking.

Main reason for vaping

Reasons	Current or former vapers (n=3,116)
Because you enjoy it	27%
To reduce stress or calm you down	26%
To quit smoking cigarettes	16%
For curiosity, you just wanted to try it	15%
To cut down on smoking cigarettes	9%
To avoid returning (relapsing) to smoking cigarettes	3%
To use when you cannot or are not allowed to smoke cigarettes	3%
Other	2%

Q39 *[IF 2022 CURRENT VAPER] Currently, what is your main reason for vaping?*
[IF 2022 FORMER VAPER] When you were vaping, what was the main reason you did so?

Indicating *enjoyment* as the main reason for vaping is a top response across the country and most subgroups, but is somewhat higher among those who were youth in 2020 (33% vs. 27% young adults and 25% of adults). It is also mentioned more by those who are ongoing vapers (29%) than former vapers (13%).

Stress reduction is also a top reason across many subgroups, but is lower among older vapers (22% vs. 30% of youth and 33% young adult vapers in 2020). It is also higher among ongoing vapers (27%) than former vapers (17%).

Quitting smoking is a top reason for vaping for higher proportions of the following:

- Atlantic Canadians (22%),
- Older vapers (20% who were 25+ in 2020 vs. 6% age 15-19),
- College/some university (19% vs. 13% with less or 14% with more education),
- Child in school (19% vs. 13%),
- Former smokers in February 2020 (28%) or during the rest of 2020 (28%), compared to those who were smokers in February 2020 (16%) or who were smokers in the rest of 2020 (16%), and
- Legal tobacco age (16% vs. 5% not of legal tobacco age).

Curiosity/just wanting to try it is higher among:

- Youth (21%) and young adults (19% vs. 12% of adults),
- Former vapers (38%), compared to current vapers (12%), and
- Not of legal tobacco age (21% vs. 15% of legal tobacco age).

Appendix A: Qualitative methodology

Environics Research conducted a series of 15 90-minute online focus groups with Canadians in various age cohorts who either currently vape or vaped during the year 2020. Nine of the sessions were conducted with vapers from provinces where restrictions of flavours of vaping products were introduced in 2020 (Nova Scotia, Ontario and British Columbia) and six were conducted with vapers from the remaining provinces where no such restrictions were introduced in 2020.

1. *Recruitment*

Environics developed the recruitment screener (Appendix C) and provided it to Health Canada for review prior to finalizing. While qualitative research does not give every member of the target population a chance to participate, and its results are not intended to be statistically representative of the broader target population (i.e., those who vaped in 2020), it does aim to collect information that is broadly reflective of the target population. Potential participants were screened to reflect a distribution of factors to ensure a wide variety of perspectives. Factors included gender, age, ability to attend the online focus group session, and willingness to share feedback on the topic.

Environics subcontracted Trend Research to recruit the focus group participants. In total, there were 120 participants invited to take part in the 15 focus groups, 106 of whom participated.

Environics recruited participants via a combination of industry-standard methods to ensure participation in all the sessions across all provinces. All participants were offered a \$100 honorarium to encourage participation and thank them for their commitment. Environics invited eight participants to each session. The sessions were hosted using the Zoom conferencing platform. Participants were screened to ensure that all exclusions and specifications required by the Government of Canada were followed.

2. *Moderation and conduct*

Derek Leebosh, Vice President – Public Affairs at Environics Research, moderated 11 of the sessions; and Rick Nadeau moderated the other four sessions, including the two in French. Each focus group session lasted approximately 90 minutes and was conducted according to a discussion guide (Appendix D) developed in consultation with Health Canada. All qualitative research work was conducted in accordance with professional standards and applicable government legislation (e.g., PIPEDA).

All groups were video- and audio-recorded for use in subsequent analysis by the research team. During the recruitment process, participants provided consent to such recording and were given assurances of anonymity. Environics arranged for the screener and discussion guide to be translated into French. Industry and Government of Canada standards for qualitative research were followed.

3. *Group composition*

Group #	Date and time	Composition
1	Monday, December 6th 5:00-6:30pm EST	Adults (26+) who vape - Ontario
2	Monday, December 6th 4:00-5:30pm PST)	Adults (26+) who vape - B.C.
3	Tuesday, December 7th 5:00-6:30pm EST	Young adults (21-25) who vape - Ontario
4	Tuesday, December 7th 4:00-5:30pm PST	Young adults (21-25) who vape - B.C.
5	Wednesday, December 8th 5:00-6:30pm EST	Youth (16-20) who vape - Ontario
6	Wednesday, December 8th 4:00-5:30pm PST	Youth (16-20) who vape - B.C.
7	Thursday, December 9th 5:00-6:30pm AST	Adults (26+) who vape - NB/PEI/NL/QC (English)
8	Thursday, December 9th 6:00-7:30pm CST/5:00-6:30pm MST	Adults (26+) who vape - Prairies
9	Friday, December 10th 4:00-5:30pm AST	Adults (26+) who vape - Nova Scotia
10	Monday, December 13th 5:00-6:30pm AST	Young adults (21-25) who vape - Nova Scotia
11	Monday, December 13th 7:00-8:30pm AST	Youth (16-20) who vape - Nova Scotia
12	Tuesday, December 14th 6:00-7:30pm AST	Youth/Young adults (16-25) who vape - NB/PEI/NL/QC (English)
13	Tuesday, December 14th 6:00-7:30pm CST/5:00-6:30pm MST	Youth/Young adults (16-25) who vape - Prairies
14	Wednesday, December 15th 5:00-6:30pm EST	Youth/Young adults (16-25) who vape - Quebec (French)
15	Wednesday, December 15th 4:00-5:30pm PST	Adults (26+) who vape - Quebec (French)

4. *Statement of limitations*

Qualitative research provides insight into the range of opinions held within a population, rather than the weights of the opinions held, as would be measured in a quantitative study. The results of this type of research should be viewed as indicative rather than projectable.

Appendix B: Quantitative methodology

The results of the quantitative phase are based on an online survey conducted with Canadians who were aged 15 and older in 2020 and who vaped at least once a week for four consecutive weeks at some point in 2020.

1. *Sample design and weighting*

The sample was designed to achieve completed surveys with a minimum of 3,400 Canadians in the target audience, maximizing the number of youth (15-19 years old in 2020) and young adult (20-24 years old in 2020) respondents, among provinces with and without flavour restrictions. The following unweighted sample sizes were achieved:

Unweighted sample size

Provinces	15-19	20-24	25+	Total
Provincial restrictions - 2020				
Ontario	240	488	473	1,201
British Columbia	85	199	205	489
Nova Scotia	32	73	134	239
Provincial restrictions - 2021				
PEI	6	13	13	32
New Brunswick	23	61	75	159
Saskatchewan	26	46	37	109
No provincial restrictions				
Newfoundland and Labrador	15	39	53	107
Quebec	157	337	241	735
Alberta, Manitoba, Territories	112	203	206	521
Total	696	1,459	1,437	3,592

Soft quotas were also used for gender (60% male and 40% female).

To allow for the inclusion of youth under 18 years of age, the invitation was sent to panellists who were profiled as parents of children aged 16-17. They were then asked to provide consent for their child's participation before having their child complete the survey.

After the data were collected, weighting was used to ensure the sample is representative of regular vapers in Canada per the 2020 Canadian Community Health Survey (CCHS). The weighted data set matches the CCHS data very closely in terms of age, region and gender:

Demographic group	% of regular vapers	Unweighted sample size	Unweighted proportion	Weighted proportion
Region				
Atlantic	8%	537	15%	8%
Quebec	26%	735	20%	26%
Ontario	30%	1201	33%	30%
MB/SK/AB	20%	615	17%	20%
BC/Territories	15%	504	14%	16%
Age group				
15-19	17%	932	26%	21%
20-24	20%	1283	36%	19%
25+	63%	1377	38%	60%
Gender				
Male	66%	1696	47%	66%
Female	34%	1817	51%	33%
Gender diverse	-	59	2%	1%

2. Questionnaire design

Environics worked with Health Canada to develop a questionnaire that ensured the research objectives were met and all questions were appropriately worded, and that it adhered to federal government standards for public opinion research. Upon approval from Health Canada, the questionnaire was translated into French. The final study questionnaire is included in Appendix E.

3. Pre-test

Prior to the launch of this survey, Environics arranged to conduct pretests in both official languages. For the pretests, Environics selected a limited number of records and conducted a “soft launch” in each language. These preliminary surveys included standard Government of Canada pretest probing questions at the end, to ascertain the survey length and language was appropriate. The English pretest took place on February 3rd and achieved 75 responses. The French pretest was conducted on February 7th and achieved 36 responses. Following each of the language pretests, very minor adjustments were made to the questionnaire.

4. Fieldwork

The online survey was conducted from February 3-March 3, 2022. The final average survey length was 11.12 minutes.

The surveys were conducted by Environics using a secure, fully featured web-based survey environment. Environics’ data analysts programmed the questionnaires then performed thorough testing to ensure accuracy in set-up and data collection. This validation ensured that the data entry process conformed to the surveys’ basic logic. The data collection system handles sampling invitations, quotas and questionnaire completion (skip patterns, branching, and valid ranges).

Environics assumed overall responsibility for all aspects of the survey fieldwork. The survey was conducted according to the following steps:

- Environics programmed and hosted the online survey on a secure server. All data were stored on Canadian servers and Canadian back-up servers located and only accessible in Canada, and physically independent from all other databases, directly or indirectly, that are located outside Canada.
- Invitation e-mails including a unique URL link (to ensure only one version of the survey is accepted per respondent) were sent to panel members.
- Technical support was provided to online survey respondents as required. Steps were taken to assure (and also guarantee) complete confidentiality and anonymity of survey responses.
- All survey responses were electronically captured as they were submitted and combined into an electronic data file that was coded and analyzed (including open-ended responses).

All respondents were offered the opportunity to complete the surveys in their official language of choice. All survey respondents were informed of Government of Canada's sponsorship of the research, that their participation was voluntary, and that information collected was protected under the authority of privacy legislation.

Survey respondents, who were drawn from panels of individuals who have agreed to participate in online surveys, were rewarded for taking part in the survey per the panel's incentive program. The reward was structured to reflect the length of survey and the nature of the sample.

All research work was conducted according to best practices in the industry, such as the Standards for the Conduct of Government of Canada Public Opinion Research – Online Surveys (<http://www.tpsgc-pwgsc.gc.ca/rop-por/enligne-online-eng.html>) as well as applicable federal legislation (Personal Information Protection and Electronic Documents Act, or PIPEDA). Environics is a founding member of the Canadian Research Insights Council (CRIC) and registered the survey with CRIC's Research Verification System, which permits the public to verify a survey call, inform themselves about the industry and/or register a complaint. For more information about CRIC: <https://www.canadianresearchinsightscouncil.ca/>

5. Data coding and tabulation

Following data collection and prior to analysis, data analysts performed a data-cleaning and validation process, in accordance with the highest industry standards. Open-ended question data were coded and Environics designed banner tables in consultation with the project authority. Data tables were submitted in CSV format.

The data from this survey are statistically weighted to ensure the sample is as representative of this population as possible according to the most recently available Census information.

6. Completion results

The completion results for survey are presented in the following table.

Online survey contact disposition

Disposition	N
Broadcasts delivered (c)	125,257
Completed (d)	3,592
Qualified respondent break-off (e)	2,601
Disqualified (f)	13,654
Did not respond (g)	103,790
Quota filled (h)	1,620
Contact rate (d+e+f+h)/c	17%
Participation rate (d+f+h)/c	15%

Appendix C: Recruitment screener

December 21, 2021

Environics Research Group Limited
Focus Groups on Changes in Vaping Behaviour
Health Canada
PN11224
Recruitment for Online Group Discussions - English

Respondent Name: _____

Home #: _____

Business #: _____

Group #: _____

Recruiter: _____

GROUP 1 Vapers 26+ (English) Ontario Monday, Dec. 6 5-6:30 pm EST	GROUP 2 Vapers 26+ (English) BC Monday, Dec. 6 4-5:30 pm PST	GROUP 3 Vapers 21-25 (English) Ontario Tuesday, Dec. 7 5-6:30 pm EST	GROUP 4 Vapers 21-25 (English) BC Tuesday, Dec. 7 4-5:30pm PST
GROUP 5 Vapers 16-20 (English) Ontario Wednesday, Dec. 8 5-6:30 pm EST	GROUP 6 Vapers 16-20 (English) BC Wednesday, Dec. 8 4-5:30 pm PST	GROUP 7 Vapers 26+ (English) NB/NL/PEI/QC English Thursday, Dec. 9 4-5:30pm EST 5-6:30pm AST	GROUP 8 Vapers 26+ (English) Prairies Thursday, Dec. 9 6-7:30pm CST/ 5-6:30 MST
GROUP 9 Vapers 26+ (English) Nova Scotia Friday, Dec. 10 4-5:30pm AST	GROUP 10 Vapers 21-25 (English) Nova Scotia Monday, Dec. 13 5-6:30 pm AST	GROUP 11 Vapers 16-20 (English) Nova Scotia Monday, Dec. 13 7-8:30 pm AST	GROUP 12 Vapers 16-25 (English) NB/NL/PEI/QC English Tuesday, Dec. 14 5-6:30pm EST 6-7:30pm AST
GROUP 13 Vapers 16-25 (English) Prairies Tuesday, Dec. 14 6-7:30pm CST/ 5-6:30 MST	GROUP 14 Vapers 16-25 (French Quebec/NB Wednesday, Dec. 15 5-6:30pm EST 6-7:30pm AST	GROUP 15 Vapers 26+ (French Quebec/NB Wednesday, Dec. 15 7-8:30pm EST 8-9:30pm AST	

Hello/Bonjour, my name is _____ from Trend Research, a partner of Environics Research. We are conducting a series of online video-conference focus group discussions among people in your region on behalf of Health Canada, which is a department of the Government of Canada. Would you like to continue this discussion in English? / Voulez-vous continuer cette conversation en français?

Your participation in the research is completely voluntary and confidential and your decision to participate or not will not affect any dealings you may have with the Government of Canada. No attempt will be made to sell you anything or change your point of view.

The format will be a video-conference call discussion using the Zoom platform led by a research professional from Environics that will involve you and some other people from your region. May we have your permission to ask you or someone else in your household some further question to see if you/they fit in our study? This will take about 5 minutes.

Yes ----- 1 – **CONTINUE**

No ----- 2 – **THANK AND TERMINATE**

The session will last a maximum of 1.5 hours and you [OR YOUR CHILD AGED 16-17] will receive a cash gift of \$100 as a thanks for attending the session.

A recording of the session will be produced for research purposes. The recording will be used only by the research professional to assist in preparing a report on the research findings and will be destroyed once the report is completed. All information collected, used and/or disclosed will be used for research purposes only and administered as per the requirements of the Privacy Act. Environics Research has a privacy policy which can be consulted at <https://environicsresearch.com/privacy-policy/>

IF ASKED: For more information about privacy practices, please contact Health Canada's Privacy Coordinator at 613-948-1219 or privacy-vie.privee@hc-sc.gc.ca"]. If you have questions about the legitimacy of the research, you can e-mail Nancy Farrell at Health Canada nancy.farrell@hc-sc.gc.ca.

Environics is a member of the Canadian Research Insights Council (CRIC) and adheres to all its standards; the project is registered with the CRIC with the number [INSERT].

NB: If a participant asks for information on the research company conducting the research they can be told: Environics Research is located at 33 Bloor Street East, Suite 900, Toronto Ontario and can be reached at 416-920-9010.

FOR PARENTS OF 16-17 YEARS OLD PARTICIPANTS, READ AND ASK Q. 1-2, OTHERS SKIP TO PREAMBLE TO Q. 3

EXPLAIN TO ANY PARENTS OR GUARDIANS OF YOUTH 16-17 YEARS OLD:

We are conducting a research study for Health Canada that includes youth 16 to 17 years of age. The study is being conducted to help gain a better understanding of the phenomenon of vaping (or use of e-cigarettes) among youth. For this study, we're organizing online discussion groups which are scheduled to run for 1.5 hours. The discussion groups involve a small number of youth who will be asked to share their views on vaping and vaping behaviors. All opinions will remain anonymous, and participation is voluntary.

Those who take part will receive \$100 for their time. The information collected will be used for research purposes only and handled according to the *Privacy Act* of Canada. The full name of your child will not be provided to the government or any other third party.

1. May we have your permission to ask your child some questions, including questions about his or her possible vaping behaviours, if any, to see if he or she qualifies for the discussion group which will take place on [INSERT DATE] at [TIME]?

Yes ----- 1

No ----- 2 – THANK AND TERMINATE

Yes but not available ----- 3 – RESCHEDULE

2. What is your child’s first name? RECORD: _____

Thank you. Now I would like to speak to [INSERT NAME OF CHILD] to make sure [SHE/HE] is qualified, interested and feels comfortable about taking part in a group discussion.

YOUTH 16-17 YEARS OLD: Hi [INSERT NAME OF CHILD], I'm [RECRUITER] of [RESEARCH FIRM], a Canadian research company. Your mother/father/guardian gave me permission to talk to you about a research study. We are conducting research with young people for Health Canada, to help them gain a better understanding of vaping among youth over the last couple of years. Please know that your responses to this call or your opinions during the focus group will not be shared with anyone, including your parents.

THOSE 18 AND OVER: We are conducting this research project for Health Canada, to help the department gain a better understanding of the phenomenon of vaping/use of e-cigarettes over the last couple of years.

ASK ALL

3. Are you or is any member of your household or your immediate family employed in:

Type	No	Yes
A market research, communications or public relations firm, or an advertising agency	O	O
Media (Radio, Television, Newspapers, Magazines, etc.)	O	O
Health Canada or a provincial health department	O	O
A tobacco or e-cigarette company	O	O
A cannabis-related company	O	O

IF YES TO ANY OF THE ABOVE – THANK AND TERMINATE

4. Thinking back to last year, which was the year 2020, did you “vape” at all? By vaping I mean did you ever use any vaping products such as an e-cigarette, vape, vape pen, tank, or mod

Yes **CONTINUE**

No **TERMINATE**

5. When you vaped in 2020, what products did you vape? Were they... READ

Nicotine products	CONTINUE
Products with only flavours, without nicotine	CONTINUE
Cannabis products	IF THESE ONLY: THANK AND TERMINATE

NB: PARTICIPANTS MUST HAVE VAPED NICOTINE OR NICOTINE-FREE FLAVOUR PRODUCTS, WE DO NOT WANT PEOPLE WHO ONLY VAPE CANNABIS

The next questions are about your use of vaping products with or without nicotine but **excluding** cannabis products.

6. Would you say that you vaped regularly (i.e., at least once a week) for at least a month in 2020?

Yes	CONTINUE
No	THANK AND TERMINATE

7. Thinking back to the time or period last year (in 2020) when you vaped the most, about how frequently did you “vape” using an e-cigarette (vape, vape pen, tank, or mod)? Would you say that for the most part you were vaping...

Every day	1
At least once a week, but not every day	2
Less than once a week (i.e., once/twice a month)	3 THANK AND TERMINATE
Less than monthly	4 THANK AND TERMINATE

8. Do you still vape now, or have you quit? IF QUIT: Did you quit in 2020 or this year in 2021?

Still vape now	1 REGULAR USER in 2020
Quit last year (in 2020)	2 FORMER USER in 2020
Quit this year (2021)	3 FORMER USER IN 2021

9. What province and city do you currently live in?

SEE REGIONAL BREAKS FOR GROUPS

10. Which official language do you speak most often at home?

English	1 GROUPS 1 through 13
French	2 GROUPS 14 and 15

11. INDICATE:

Male	1	GET MIX IN EACH SESSION
Female	2	

12. We have been asked to speak to participants from all different ages. So that we may do this accurately, may I have your exact age please? _____. WRITE IN

Under 16		TERMINATE
16-17 years of age	1	GROUPS 5, 6, 11, 12, 13 or 14
18-20 years of age	2	GROUPS 5, 6, 11, 12, 13 or 14
21-25 years of age	3	GROUPS 3, 4, 10, 12, 13 OR 14
26-30 years of age	4	GROUPS 1, 2, 7, 8, 9 or 15
31-40 years of age	5	GROUPS 1, 2, 7, 8, 9 OR 15
41-50 years of age	6	GROUPS 1, 2, 7, 8, 9 OR 15
51 years or more	7	GROUPS 1, 2, 7, 8, 9 OR 15

13. Could you please tell me what is the last level of education that you completed? GET MIX

Some High School only.	1
Completed High School	2
Trade School certificate	3
Some Post secondary	4
Completed Post secondary	5
Graduate degree	6

14. Participants in group discussions are asked to voice their opinions and thoughts, how comfortable are you in voicing your opinions in front of others? Are you... (read list)

Very comfortable	1- MINIMUM 5 PER GROUP
Fairly comfortable	2
Not very comfortable	3 TERMINATE
Very uncomfortable	4 TERMINATE

15. Have you ever attended a focus group or a one-to-one discussion for which you have received a sum of money, here or elsewhere?

Yes	1	MAXIMUM 5 PER GROUP
No	2	(SKIP TO Q.17)

IF YES ASK:

16. When did you last attend one of these discussions?

(TERMINATE IF IN THE PAST 6 MONTHS)

17. How many focus groups or one-to-one discussions have you attended in the past 5 years?

(SPECIFY)

IF 5 OR MORE, TERMINATE

18. This focus group will require participants to join a video-conference using the Zoom platform using a desktop or laptop computer or a tablet. You will need internet access in a private and quiet location to take part in the study. We cannot provide this technology for you. Will you be able to access the Internet for a 1.5-hour audio-visual discussion using a desktop or laptop computer or tablet?

Yes 1 CONTINUE

No 2 TERMINATE

NOTE: A MOBILE PHONE WILL NOT WORK FOR THIS EXERCISE

19. The focus group will take place using a video-conference platform called Zoom. If you are not already a user, Zoom may request you to install some software at the site <https://zoom.us/download> . You can delete it after the focus group if you wish. How experienced and comfortable are you with using Zoom video-conferencing?

Very comfortable 1 CONTINUE

Somewhat comfortable 2 CONTINUE

Somewhat uncomfortable 1 THANK AND TERMINATE

Very uncomfortable 2 THANK AND TERMINATE

20. Sometimes participants in the online focus group are also asked to type their responses to questions in the "chat" function. Is there any reason why you could not participate? If you need glasses to read or a hearing aid, please remember to have them handy.

Yes 1 TERMINATE

No 2

21. I would like to invite you to attend the focus group session where you will exchange your opinions in a moderated discussion with other participants. The session will be recorded, and some other members of the research team may also observe the session, but your participation will be confidential. If you attend the session, you will receive \$100 to thank you for your time. It will be sent to you electronically. Do you consent to take part in the focus group? By agreeing to participate you are giving your consent to these procedures

Yes 1 CONTINUE

No 2 TERMINATE

22. We will contact you again before the date of the session to confirm your attendance. Do you consent to this?

Yes 1 CONTINUE

No 2 TERMINATE

23. The session is about an hour and a half (i.e., 90-minutes), but we are asking that all participants log into the Zoom online meeting 5 minutes prior to the start of the session. Are you able to log-in about 5 minutes prior to the start time?

Yes 1 CONTINUE

No 2 TERMINATE

24. Could you please confirm your email address so I can send you login details for the Zoom web conference application?

Email address: _____

PLEASE RE-READ THE FULL ADDRESS BACK TO CONFIRM CORRECT SPELLING.

(NB: We will send the links to you early next week)

PLEASE ENSURE PARTICIPANTS ARE TOLD THE TIME OF SESSION IN THEIR TIME ZONE

SEE TIMES AND DATES ON PAGE 1

Appendix D: Discussion guide

December 7, 2021

**Environics Research Group Limited
Focus Groups on Changes to Vaping Behaviour
Health Canada
PN11224**

1.0 Introduction to procedures (10 minutes)

Hello everyone, my name is [NAME] and I work for Environics Research, a public opinion research company. Welcome to this online focus group. I will be moderating the session. This is one of a series of online focus groups we are conducting on behalf of Health Canada with people from across the country. The session should last no more than 90 minutes.

We want to hear your opinions so please feel free to agree or disagree with one another. For the most part I will be showing you materials and asking you questions. You don't have to direct all your comments to me; you can exchange opinions with each other as well.

I want to inform you that we are recording this session to help me write my report. The recording will only be used internally to analyse the research and will not be released to anyone else. **MODERATOR TO PRESS "RECORD" ON ZOOM SCREEN**

There are also some observers from the research team and from Health Canada who are observing the session and taking notes while muted. I would also like to remind you that anything you say here will remain confidential and anonymous and any comments you make will not be linked to you by name in any reporting we do on this project.

I'm sure most of you are quite familiar with how Zoom works – especially over the last few months! For the most part we will be video chatting, but I will also be sharing my screen to show you some things and we will also use the "chat" function from time to time when I ask you to react to things in writing. I will type "hello" in the chat – can everyone see that and respond "Hi" to "everyone" just to make sure that the "chat" feature works for everyone?

I also want to say that if you feel you didn't have a chance to express your opinion on anything during the session, you can feel free to comment in writing in the "chat." Chat with "everyone" unless you feel you need to send me a private message.

Before we get started, I just wanted to also say that if you think there may be a lot of noise at your end (i.e., kids, dog barking etc.) please click the "mute" button and just "unmute" when you want to say something. You will get the cash compensation gift we promised you electronically in the next week or two.

Let's go around the imaginary table and introduce ourselves. Tell us your name and a bit about yourself such as where you are calling from, what sort of work you do or if you are in school and how you would describe the composition of your household (family, pets etc.).

2.0 Vaping stories (20 minutes)

As you know from the questions we asked you when we invited you to this focus group, we are going to be talking about vaping. I know that all of you currently vape or you at least vaped last year in 2020, even if you might have quit since then.

I'd like to ask each of you to tell us a bit about your "vaping story." We are going to use the **CHAT** feature in Zoom. I will type in the question "*What's your vaping story?.*" Could you each type in the **CHAT** things like how long ago you started vaping, how often you vape, what device you use...

NB: If you have quit vaping, you can type in how often you vaped when you did vape, how long you vaped, and when you quit?

Please elaborate a bit on your vaping story.

PROBE: What was the main reason (or reasons) why you started vaping? Do those reasons still apply today?

What vaping devices do you own? Do you ever change devices? Why?

PROBE: Do you ever have any problems, challenges, or issues with your vape devices or liquids?

What about vape flavours? Which ones do you use? Do you ever change flavours?

What concentration of nicotine is in your liquids?

Where do you usually get your vaping products (i.e., devices, liquids)?

PROBE IF NOT MENTIONED: retail stores? Online? Borrowing from friends? Do friends or family ever buy products for you? What about "vape shops"? do you ever go to them to buy your vape products? Why or why not?

Do any of you also smoke cigarettes or did you used to smoke cigarettes? **IF YES:** When did you started? how often do you smoke? [if quit] when did you quit?

Some people smoke cigarettes or vape for different reasons and on different occasions. For those that have done both, how would you compare them? Are there reasons why you would smoke a cigarette instead of vaping or vice versa?

3.0 Impact of restrictions on flavours (15 minutes)

ONTARIO, NOVA SCOTIA AND BC GROUPS – OTHER GROUPS SKIP TO SECTION 4.0

Do any of you know of any restrictions in your province on flavours of vaping products and where they can be sold? **IF YES:** What do you know?

In 2020, some provinces brought in bans or limits on the sale of flavoured vaping products.

ONTARIO GROUPS: In Ontario since July 2020, the sale of vaping flavours has been limited to specialty stores. Only tobacco and mint/menthol flavours can be sold in non-specialty stores, such as gas stations and convenience stores.

BC GROUPS: In BC since July 2020, the sale of vaping flavours has been limited to specialty stores. Only tobacco flavour can be sold in non-specialty stores, such as gas stations and convenience stores

NOVA SCOTIA GROUPS: In Nova Scotia since April 2020, all flavours have been banned with the exception of tobacco flavour.

Did you notice these bans, or limits on availability of flavoured vaping products when they came into effect in 2020?

Did those bans, or limits on flavoured vaping products have any impact on your vaping behaviour? How so?

PROBE: Did they make any of you quit or decrease your vaping?

Did they make any of you simply switch to the available flavour(s)?

Did any of you find other ways to get flavours you want? (e.g., buy in another province, make your own, buy online, going to a specialty store, other ways)?

Did the restrictions make you smoke more instead?

What about other people you know who vape? Do you think the restrictions on flavours had any impact on their vaping behaviour? How so?

Thinking back over the last two years, what do you think has had a bigger impact on your vaping habits and routines – these restrictions on vaping flavours or other things happening in your life, including the pandemic?

4.0 Vaping routines - deeper dive, health impacts (15 minutes)

I'd like to learn more about what your vaping "routine" if you have one. **NB:** For example, how many puffs do you take? How long do you inhale for? How long is a vape session? Are you usually alone or with people when you vape? Are you inside or outside? etc.

For those that have nicotine in your vaping liquid, about how much nicotine do you think is in each puff?

Thinking just of the past month, was there anything that made you vape more or less than you usually do? **IF YES:** What was it? Can you elaborate?

PROBE: Stress, celebration, alcohol, social event, it was easier or harder to get your usual vape products, etc.

In general, what would you say is the biggest "driver" of your vaping? For example, is it a routine, or is it tied to feeling stressed, or wanting to celebrate something, or is it an alternative to smoking?

What do you know about the health impacts of vaping? Does vaping have any health impacts?

IF YES: Is that based on what you have read or heard or is it based on your own experience or how you feel when you vape?

How does vaping compare to smoking in terms of the impact on your health?

5.0 Changes in vaping and smoking since 2020 (25 minutes)

I want everyone to think back to whether and how your habits or routines around vaping and smoking have changed over the last two years, in other words since early 2020, before the pandemic. I'm mostly interested in hearing about vaping and smoking but if you choose to mention other substances that's OK too. Let's go around the table.

PROBE: How have your vaping habits changed since 2020? What about smoking? Anything else?

Did you start to do these things in different places than before?

What about the people you vape with? Has that changed or remained the same?

What would have caused these changes in your vaping behaviour and/or smoking over the past two years?

Can you each tell us about anything that has happened in your life since early 2020 – positive or negative – that might have had any impact at all on your vaping or smoking? This could include anything to do with health, relationships, your job, or financial situation etc.

What about the COVID pandemic? Did it cause your vaping behaviour to change at all? **IF YES:** How so and why?

PROBE: Were the changes in your vaping because of COVID-related health concerns or because of the restrictions we had due to COVID? For example:

- Concerns over how vaping (or smoking) could increase the risk of severe illness and complications from COVID
- Change in routines due to COVID lockdowns
 - It was harder to get the vaping products you prefer
 - It was easier to get the vaping products you prefer (such as more flavours online, a store opened up near you)
 - It was easier or harder to find opportunities to vape
 - Avoiding gathering with other people affected vaping

What about any impacts of use of one substance on another? For example, during the pandemic did you smoke more because you were vaping less – or vice versa?

Do you think any changes in your vaping routine during the pandemic will be lasting changes or will they go away once the pandemic is over?

6.0 Conclusion (5 minutes)

Let's go around the room one last time. Is there anything else you'd like to share on this topic?

On behalf of Health Canada, I would like to thank you for taking part in this focus group discussion. The cash incentive we promised you will be sent electronically in the coming week. The report on this project will be available on the Library and Archives Canada website in later in 2022.

THANK YOU

Appendix E: Survey questionnaire

Health Canada
Factors associated with changes in vaping behaviour during 2020
FINAL Questionnaire

*Online survey of n=3,400 Canadians aged 15 or older in 2020 and were a regular vaper (vaped at least once a week for four consecutive weeks) in 2020.
15-minute average length*

Context:

- Per CCHS, smoking declined in 2nd half of 2020 (i.e., pandemic) and vaping was stable in 2020 (and remains concentrated among youth & young adults)

Objectives: what explains the trends we saw in 2020? What factors are influencing vaping behaviours – pandemic (limiting access to products or where they can vape/home vs outside home), smoking cessation, flavour restrictions, health concerns? Note: the goal is NOT to replicate the behaviour data found in the CCHS data (because with a different methodology and timing, it is very possible we may not pick up the same trends). Instead, we will measure people’s perceptions of whether or not they changed their behaviours, and why.

LANDING PAGE

Please select your preferred language for completing the survey / Veuillez sélectionner la langue de votre choix pour remplir le sondage.

01–English / Anglais

02–Français / French

Background information

INVITATION FOR PARENTS AND LEGAL GUARDIANS OF 15-17 YEAR OLDS

As a parent of or legal guardian to a youth living in your household, we are requesting your permission for your 15- 17-year old teenager to participate in an important survey being conducted for Health Canada.

The purpose of the survey is to understand Canadians’ experiences with and opinions about vaping. This feedback will be used by Health Canada to develop regulations related to vaping and to design public education materials.

Since privacy is important while respondents answer this survey, we request that your teenager be able to complete the survey in a setting where his/her/their answers will not be seen by others. All answers will remain anonymous and confidential.

How does the online survey work?

- Your child is being asked to give their opinions about vaping.
- Your child's participation is completely voluntary.
- Your decision on whether or not to allow your child to participate will not affect any dealings you may have with the Government of Canada.

What about your child's personal information?

- The personal information your child will provide to Health Canada is governed in accordance with the *Privacy Act* and is being collected under the authority of section 4 of the Department of Health Act in accordance with the *Treasury Board Directive on Privacy Practices*. We only collect the information we need to conduct the research project.
- **Purpose of collection:** We require your child's personal information such as demographics (e.g., age, gender) to better understand the topic of the research. However, your child's responses are always combined with the responses of others for analysis and reporting; your child will never be identified.
- **For more information:** This personal information collection is described in the standard personal information bank Public Communications – PSU 914, in Info Source, available online at infosource.gc.ca.
- **Your child's rights under the *Privacy Act*:** In addition to protecting your child's personal information, the *Privacy Act* gives your child the right to request access to and correction of their personal information. For more information about these rights, or about our privacy practices, please contact Health Canada at hc.privacy-vie.privee.sc@hc-sc.gc.ca. Your child also has the right to file a complaint with the Privacy Commissioner of Canada if they think their personal information has been handled improperly.
- Your child's personal information will be collected, used, retained and disclosed by Environics in accordance with the applicable provincial privacy legislation or the Personal Information Protection and Electronic Documents Act (PIPEDA). Please click [here](#) to review Environics' privacy policy.
- Your child's survey answers will remain anonymous and will not be attributed to him/her in any way.

What happens after the survey?

- The final report written by Environics will be available to the public from Library and Archives Canada (<http://www.bac-lac.gc.ca/>).

This study has been registered with the Canadian Research Insights Council's Research Verification Service, so that you may validate its authenticity. If you would like to enquire about the details of this research, you can visit CRIC's website www.canadianresearchinsightscouncil.ca. If you choose to verify the authenticity of this research, you can reference project code `20220201-EN203.

If you agree to allow your teen to participate in this survey, please provide the survey link to him/her/them.

Your teen can also access the survey by copying the following URL into his/her/their browser:

Thank you for your support of this important research.

[LINK GOES TO "INTRODUCTION FOR ALL RESPONDENTS" BELOW](#)

ALL RESPONDENTS

Thank you for agreeing to take part in this short **15-minute** survey being conducted by Environics, a Canadian public opinion research firm, on behalf of Health Canada.

The purpose of the survey is to understand Canadians' experiences with and opinions about vaping. This feedback will inform the implementation of Canada's Tobacco Strategy.

16-17-YEAR-OLDS ONLY: Your parent or legal guardian has given permission for you to participate in this very important study. Your participation is voluntary, so it is up to you to decide whether you are willing to answer, but we hope you do! You can do the survey on your computer, laptop, tablet or phone. You can stop at any time if you feel uncomfortable or choose not to answer certain questions. Your answers will not be shown to your parent(s), legal guardian(s), teachers or anyone else, so please be as honest as

How does the online survey work?

- You are being asked to give your opinions about vaping.
- Your participation is completely voluntary.
- Your decision whether or not to participate will not affect any dealings you may have with the Government of Canada.

What about your personal information?

- The personal information you provide to Health Canada is governed in accordance with the *Privacy Act* and is being collected under the authority of section 4 of the Department of Health Act in accordance with the *Treasury Board Directive on Privacy Practices*. We only collect the information we need to conduct the research project.
- **Purpose of collection:** We require your personal information such as demographics (e.g. age, gender) to better understand the topic of the research. However, your responses are always combined with the responses of others for analysis and reporting; you will never be identified.
- **For more information:** This personal information collection is described in the standard personal information bank Public Communications – PSU 914, in Info Source, available online at infosource.gc.ca.
- **Your rights under the *Privacy Act*:** In addition to protecting your personal information, the *Privacy Act* gives you the right to request access to and correction of your personal information. For more information about these rights, or about our privacy practices, please contact Health Canada at hc.privacy-vie.privee.sc@hc-sc.gc.ca. You also have the right to file a complaint with the Privacy Commissioner of Canada if you think your personal information has been handled improperly.
- Your personal information will be collected, used, retained and disclosed by Environics in accordance with the applicable provincial privacy legislation or the Personal Information Protection and Electronic Documents Act (PIPEDA). Please click [here](#) to review Environics' privacy policy.
- Your survey answers will remain anonymous and will not be attributed to you in any way.

What happens after the survey?

- The final report written by Environics will be available to the public from Library and Archives Canada (<http://www.bac-lac.gc.ca/>).

This study has been registered with the Canadian Research Insights Council's Research Verification Service, so that you may validate its authenticity. If you would like to enquire about the details of this research, you can visit CRIC's website www.canadianresearchinsightscouncil.ca. If you choose to verify the authenticity of this research, you can reference project code 20220201-EN203.

[CONTINUE TO SCREENING]

< PROGRAMMING NOTE: All questions are mandatory.>

Eligibility/Screening

1. We are interested in people's vaping habits since the start of the COVID-19 pandemic in 2020. Did you **vape** at all in 2020, meaning did you use any vaping products such as an e-cigarette, vape, vape pen, tank, or mod?

01–Yes

02–No **THANK AND TERMINATE**

2. Did you vape **at least once a week for four consecutive weeks** at any time in 2020?

01–Yes

02–No **THANK AND TERMINATE**

3. When you vaped at least once a week for four consecutive weeks in 2020, which of the following did you do?

Select all that apply

01-Vaped with nicotine

02-Vaped without nicotine

03-Not sure if vaped with or without nicotine

04-Vaped cannabis/marijuana/THC **IF EXCLUSIVELY SELECTED, TERMINATE**

4. In what year were you born?

RANGE: 1930 ONWARD–SCREEN OUT IF 2006-2021 (15 OR YOUNGER): Thank you for your interest in this survey but we are looking to speak to individuals who are 16 years of age or older.

Year

5. In what province or territory do you live?

Select one only

DROP DOWN LIST

- 01–Alberta
- 02–British Columbia
- 03–Manitoba
- 04–New Brunswick
- 05–Newfoundland and Labrador
- 06–Northwest Territories
- 07–Nova Scotia
- 08–Nunavut
- 09–Ontario
- 10–Prince Edward Island
- 11–Quebec
- 12 – Saskatchewan
- 13–Yukon

6. How do you identify yourself?

Select one only

- 01-Female gender
- 02-Male gender
- 03-Gender diverse
- 99-Prefer not to answer

NEW PAGE INTRO: In this survey, we want to understand how people’s vaping (and smoking, if applicable) changed or not since the start of the COVID-19 pandemic in 2020. For the questions about vaping, please exclude vaping with cannabis.

We’d like you to think about your vaping (and smoking, if applicable) during the following time frames:

1. February 2020 (what you were doing the month before the COVID-19 pandemic was confirmed in Canada)
2. The rest of 2020 (what you were doing from March to December 2020 after the pandemic was confirmed in Canada)
3. Early 2022 (what you are doing now almost two years into the pandemic)

Period #1- February 2020

(Baseline pre-pandemic to determine if any subsequent changes)

For this next set of questions, please think back to February 2020, the month before the pandemic was confirmed in Canada.

7. How often did you do each of the following in the month of February 2020?

ASK IN ORDER SHOWN/DO NOT RANDOMIZE

Activity	Every day	At least once a week, but not every day	Less than once a week (i.e., once or twice a month)	Not at all	Not sure
a. Vape with nicotine	01	02	03	04	99
b. Vape without nicotine	01	02	03	04	99
c. Smoke cigarettes	01	02	03	04	99

8. Did you smoke at least 100 cigarettes (about 4 packs) in your life any time prior to February 2020?

01-Yes

02-No

PROGRAMMING NOTE – CLASSIFY FEB 2020 STATUS:

Current vaper: Q7a or 7b=01-03

Non-vaper (in Feb 2020): Q7a and 7b=04

Current smoker (past 30 days): Q7c=01-03

Daily smoker (in Feb 2020): Q7c=01

Occasional smoker (in Feb 2020): Q7c=02 or 03

Former smoker: (Q7c=04 or 99) and Q8=01

Never smoker: (Q7c=04 or 99) and Q8=02

9. **[IF CURRENT SMOKER]** Prior to February 2020, for how long had you **smoked cigarettes?**

IF LESS THAN ONE YEAR, PLEASE ENTER NUMBER OF MONTHS _____ **[RANGE 1-11]**

or

IF ONE YEAR OR MORE, PLEASE ENTER NUMBER OF YEARS _____ **[RANGE 1-99]**

999 – Not sure

10. **[IF FORMER SMOKER]** Your responses indicate that you were not smoking in February 2020, but that you had smoked prior to then. **SHOW A AND B ON SAME PAGE**

a. Prior to February 2020, for how many months/years had you stopped smoking cigarettes?

IF LESS THAN ONE YEAR, PLEASE ENTER NUMBER OF MONTHS _____ **[RANGE 1-11]**

or

IF ONE YEAR OR MORE, PLEASE ENTER NUMBER OF YEARS _____ **[RANGE 1-99]**

999 – Not sure

b. And before that, for how many months/years had you been smoking cigarettes?

IF LESS THAN ONE YEAR, PLEASE ENTER NUMBER OF MONTHS _____ **[RANGE 1-11]**

or

IF ONE YEAR OR MORE, PLEASE ENTER NUMBER OF YEARS _____ **[RANGE 1-99]**

999 – Not sure

11. **[IF CURRENT VAPER]** Prior to February 2020, for how long had you been **vaping**?

IF LESS THAN ONE YEAR, PLEASE ENTER NUMBER OF MONTHS _____ **[RANGE 1-11]**

or

IF ONE YEAR OR MORE, PLEASE ENTER NUMBER OF YEARS _____ **[RANGE 1-20]**

999 – Not sure

12. REMOVED

13. **[IF CURRENT VAPER]** What flavour(s), if any, did you vape **most often** in February 2020?

Select all that apply

RANDOMIZE LIST

- 01–Fruit
- 02–Candy
- 03–Coffee/tea
- 04–Dessert
- 05–Mint
- 06 – Menthol
- 07–Tobacco flavour
- 08 – Alcohol flavour
- 09 – Flavourless/no flavour in descriptor **[ANCHOR]**
- 97 – Other **[ANCHOR, DO NOT SPECIFY]**
- 99 – Not sure **[ANCHOR AT BOTTOM, SINGLE PUNCH]**

14. **[IF CURRENT VAPER]** From where did you get the vaping **device(s)** you were using in February 2020?

Select all that apply

- 01–Bought them yourself at a vape shop (in person, not online)
- 02–Bought them yourself at a gas station, pharmacy or convenience/grocery store
- 03–Bought them yourself online
- 04–Gave friend/family member money to buy them for you
- 05–Friend/family member gave or loaned them to you
- 97–Other
- 99–Not sure

15. **[IF CURRENT VAPER]** From where did you get the vaping **liquids** you were using in February 2020?

Select all that apply

- 01–Bought them yourself at a vape shop (in person, not online)
- 02–Bought them yourself at a gas station, pharmacy or convenience/grocery store
- 03–Bought them yourself online
- 04–Gave friend/family member money to buy them for you
- 05–Friend/family member gave or loaned them to you
- 06–Made your own
- 97–Other
- 99–Not sure

Period #2-Rest of 2020

(Probe perceptions of whether vaping habits changed & why, then ask specifically about behaviour/flavour/access etc. by end of 2020)

Now please think about the **rest of 2020**, after the COVID-19 pandemic was declared in Canada.

16. Which of the following **best describes** how your vaping and smoking (if applicable) changed, if at all, in the rest of 2020 after the pandemic was declared in Canada?

DO NOT RANDOMIZE COLUMNS

Select one response per column. If you quit, started for the first time, or relapsed after a period of quitting, please record below using those specific answers.

	a.	b.	c.
<i>Between February and the end of 2020...</i>	Vaping with nicotine	Vaping without nicotine	Smoking cigarettes
I did not do this at all (not applicable)	01	01	01
My use stayed the same over these months (no change)	02	02	02
My use increased and stayed higher than February 2020 levels	03	03	03
My use fluctuated up and down	05	05	05
My use decreased and stayed lower than February 2020 levels	07	07	07
I stopped altogether (quit)	08	08	08
I started (for the first time)	09	09	09
I relapsed (had quit, but started up again)	10	10	10
Not sure	99	99	99

ASK Q17 UP TO THREE TIMES: ONCE FOR EACH ITEM Q16a-c WITH CODES 03-10

17. You said that your [PIPE: vaping with nicotine / vaping without nicotine / cigarette smoking] [PIPE Q16 ANSWER – SEE WORDING BELOW]. What were the main reasons for this? Please be as detailed as possible.

CODE 03: increased and stayed higher

CODE 05: fluctuated

CODE 07: decreased and stayed lower

CODE 08: stopped altogether

CODE 09: started for the first time

CODE 10: started up again

77–[Open-ended response]

99–Not sure

18. [IF Q16a OR Q16b=03-10] Please indicate which of the following factors contributed to the change in your vaping use between February (pre-pandemic) and the rest of 2020.

RANDOMIZE – KEEP TOGETHER A/B, D/E	This contributed a lot to change in your vaping use	This contributed a little to change in your vaping use	You experienced this, but it did not impact your vaping use	You did not experience this	Not sure
a. Concerns over an increased risk of severe illness or complications from COVID-19	01	02	03	04	99
b. Physical health concerns (not related to COVID)	01	02	03	04	99
c. Mental health concerns	01	02	03	04	99
d. Increase in stress levels	01	02	03	04	99
e. Decrease in stress levels	01	02	03	04	99
f. Change in routines due to COVID	01	02	03	04	99
g. Harder to get the vaping products I prefer	01	02	03	04	99
h. Harder to find opportunity to vape	01	02	03	04	99
i. Change in job status	01	02	03	04	99
j. Change in relationship status	01	02	03	04	99
k. Less gathering with other people due to COVID restrictions	01	02	03	04	99

19. Over the rest of 2020, how often did you do each of the following? If your use changed during this time, please indicate your peak (highest) use.

ASK A-C ONLY IF Q16 <>01 OR 08. OTHERWISE AUTOMATICALLY CODE AS 04.

Activity	Every day	At least once a week, but not every day	Less than once a week (i.e., once or twice a month)	Not at all	Not sure
a. Vape with nicotine	01	02	03	04	99
b. Vape without nicotine	01	02	03	04	99
c. Smoke cigarettes	01	02	03	04	99

PROGRAMMING NOTE – CLASSIFY STATUS:

Vaped in Pandemic 2020: (sum of 3 groups below)

Ongoing vaper: Current vaper in Feb 2020 and (Q16a/b=any 02-07)

New: Non-vaper in Feb 2020 and Q16a/b=09 (if only one=09, the other one=01 or 99)

Relapsed: Non-vaper in Feb 2020 and (Q16a/b= 03,05,10)

Quit vaping in Pandemic 2020: Current vaper in Feb 2020 and (Q16a/b=01 or 08/no other codes at Q16a or Q16b)

Non-vaper in Pandemic 2020: (Q16a=01 or 08) and (Q16b=01 or 08)

Smoked in Pandemic 2020: (sum of 3 groups below)

Ongoing smoker: Current in Feb 2020 and Q16c=02-07

New: Never smoker in Feb 2020 and Q16c=09

Relapsed: Former smoker in Feb 2020 and Q16c=03,05,10

Former smoker in Pandemic 2020: (sum of 2 groups below)

Ongoing former: Former smoker in Feb 2020 and Q16c=01-02

New/quit since Feb 2020: Current smoker in Feb 2020 and Q16c=08

Never smoker in Pandemic 2020: Never smoker in Feb 2020 and Q16c=01-02

20. [IF NEW SMOKER] Did you smoke at least 100 cigarettes (about 4 packs) by the end of 2020?

01–Yes

02–No

21. REMOVED

22. **[IF VAPED IN PANDEMIC 2020]** What flavour(s), if any, did you vape **most often** in the rest of 2020?

Select all that apply

RANDOMIZE LIST

- 01–Fruit
- 02–Candy
- 03–Coffee/tea
- 04–Dessert
- 05–Mint
- 06–Menthol
- 07–Tobacco flavour
- 08–Alcohol flavour
- 09–Flavourless/no flavour in descriptor **[ANCHOR]**
- 97–Other **[ANCHOR, DO NOT SPECIFY]**
- 99–Not sure **[ANCHOR AT BOTTOM, SINGLE PUNCH]**

23. **[IF VAPED IN PANDEMIC 2020]** From where did you get the vaping **device(s)** you were using in the rest of 2020?

Select all that apply

- 01–Bought them yourself at a vape shop (in person, not online)
- 02–Bought them yourself at a gas station, pharmacy or convenience/grocery store
- 03–Bought them yourself online
- 04–Gave friend/family member money to buy them for you
- 05–Friend/family member gave or loaned them to you
- 06–Continued using the same device(s) from February 2020
- 97–Other
- 99–Not sure

24. **[IF VAPED IN PANDEMIC 2020]** From where did you get the vaping **liquids** you were using in the rest of 2020?

Select all that apply

- 01–Bought them yourself at a vape shop (in person, not online)
- 02–Bought them yourself at a gas station, pharmacy or convenience/grocery store
- 03–Bought them yourself online
- 04–Gave friend/family member money to buy them for you
- 05–Friend/family member gave or loaned them to you
- 06–Made your own
- 07–Continued using same liquids from February 2020/didn't get more liquids
- 97–Other
- 99–Not sure

Period #3- Now (Early 2022)*(Repeat of Quad #2 questions)*

The next set of questions are about what you are doing now, in early 2022.

25. Which of the following **best describes** how your vaping and smoking (if applicable) changed, if at all, from January 2021 to now?

DO NOT RANDOMIZE COLUMNS

Select one response per column. If you quit, started for the first time, or relapsed after a period of quitting, please record below using those specific answers

<i>From January 2021 to now...</i>	a.	b.	c.
	Vaping with nicotine	Vaping without nicotine	Smoking cigarettes
I did not do this at all (not applicable)	01	01	01
My use stayed the same over these months (no change)	02	02	02
My use increased and has stayed higher	03	03	03
My use fluctuated up and down	05	05	05
My use decreased and has stayed lower	07	07	07
I stopped altogether (quit)	08	08	08
I started (for the first time)	09	09	09
I relapsed (had quit, but started up again)	10	10	10
Not sure	99	99	99

ASK Q26 UP TO THREE TIMES: ONCE FOR EACH ITEM Q25a-c WITH CODES 03-10

26. You said that your [PIPE: vaping with nicotine / vaping without nicotine / cigarette smoking] [PIPE Q25 ANSWER – SEE WORDING BELOW]. What were the main reasons for this? Please be as detailed as possible.

- CODE 03: increased and stayed higher
- CODE 05: fluctuated
- CODE 07: decreased and stayed lower
- CODE 08: stopped altogether
- CODE 09: started for the first time
- CODE 10: started up again

77–[Open-ended response]
 99–Not sure

27. [IF Q25a OR Q25b=03-10] Please indicate which of the following factors contributed to the change in your vaping use between January 2021 and now.
 RANDOMIZE – KEEP TOGETHER A/B, D/E

Factors	This contributed a lot to change in your vaping use	This contributed a little to change in your vaping use	You experienced this, but it did not impact your vaping use	You did not experience this	Not sure
a. Concerns over an increased risk of severe illness or complications from COVID-19	01	02	03	04	99
b. Physical health concerns (not related to COVID)	01	02	03	04	99
c. Mental health concerns	01	02	03	04	99
d. Increase in stress levels	01	02	03	04	99
e. Decrease in stress levels	01	02	03	04	99
f. Change in routines due to COVID	01	02	03	04	99
g. Harder to get the vaping products I prefer	01	02	03	04	99
h. Harder to find opportunity to vape	01	02	03	04	99
i. Change in job status	01	02	03	04	99
j. Change in relationship status	01	02	03	04	99
k. Less gathering with other people due to COVID restrictions	01	02	03	04	99

28. Thinking about now (in early 2022), how often did you do each of the following over the past four weeks?
ASK A-C ONLY IF Q25 <>01 OR 08. OTHERWISE AUTOMATICALLY CODE AS 04.

Activity	Every day	At least once a week, but not every day	Less than once a week (i.e., once or twice a month)	Not at all	Not sure
a. Vape with nicotine	01	02	03	04	99
b. Vape without nicotine	01	02	03	04	99
c. Smoke cigarettes	01	02	03	04	99

PROGRAMMING NOTE – CLASSIFY STATUS:

2022 Current vaper: sum of 2 groups below

2022 Ongoing current vaper: Ongoing, new or relapsed vaper in Pandemic 2020 and Q25a/b=any 02-07

2022 Relapsed vaper: Quit vaping in Pandemic 2020 and Q25a/b=03,05,10

2022 Former vaper: sum of 2 groups below

2022 Ongoing vaping quit: Quit vaping in Pandemic 2020 and Q25a/b=01 or 08/no other codes at Q25a or Q25b

2022 New vaping quit since Pandemic 2020: Vaped in Pandemic 2020 and Quit vaping in 2022 (Q25a/b=01 or 08/no other codes at Q25a or Q25b)

2022 Non-vaper: Q25a=01 and Q25b=01

2022 Current smoker: sum of 3 groups below

2022 Ongoing smoker: Ongoing, new or relapsed smoker in Pandemic 2020 and Q25c=any 02-07

2022 New smoker: Never smoker in Pandemic 2020 and Q25c=09

2022 Relapsed smoker: Former smoker in Pandemic 2020 and Q25c=03,05,10

2022 Former smoker: sum of 2 groups below

2022 Ongoing former smoker: Former smoker in Pandemic 2020 and Q25c=01-02

2022 New smoking quit: Current smoker in Pandemic 2020 and Q25c=08

2022 Ongoing never smoker: Never smoker in Pandemic 2020 and Q25c=01-02

29. **[IF 2022 NEW SMOKER]** Did you smoke at least 100 cigarettes (about 4 packs) by the end of 2021?

01–Yes

02–No

30. **REMOVED**

31. [IF 2022 CURRENT VAPER] What flavour(s), if any, do you vape **most often** now?

Select all that apply

RANDOMIZE LIST

- 01–Fruit
- 02–Candy
- 03–Coffee/tea
- 04 – Dessert
- 05–Mint
- 06–Menthol
- 07–Tobacco flavour
- 08–Alcohol flavour
- 09–Flavourless/no flavour in descriptor [ANCHOR]
- 97 – Other [ANCHOR, DO NOT SPECIFY]
- 99 – Not sure [ANCHOR AT BOTTOM, SINGLE PUNCH]

32. [IF 2022 CURRENT VAPER] From where did you get the vaping **device(s)** you are currently using?

Select all that apply

- 01–Bought them yourself at a vape shop (in person, not online)
- 02–Bought them yourself at a gas station, pharmacy or convenience/grocery store
- 03–Bought them yourself online
- 04–Gave friend/family member money to buy them for you
- 05–Friend/family member gave or loaned them to you
- 06–Continued using the same device(s) from 2020
- 97–Other
- 99–Not sure

33. [IF 2022 CURRENT VAPER] From where are you getting vaping **liquids** currently?

Select all that apply

- 01–Bought them yourself at a vape shop (in person, not online)
- 02–Bought them yourself at a gas station, pharmacy or convenience/grocery store
- 03–Bought them yourself online
- 04–Gave friend/family member money to buy them for you
- 05–Friend/family member gave or loaned them to you
- 06–Made your own
- 07–Continued using same liquids from 2020/didn't get more liquids
- 97–Other
- 99–Not sure

General behaviour/attitudes

ASK ALL

Moving on...

34. Since February 2020, was there ever a time you could not get a vape flavour or device you wanted?

01–Yes

02–No

35. [If Q34=YES] What was the reason you couldn't get the vape flavour or device you wanted?

Select all that apply

01–Store closed permanently

02–Store closed temporarily (e.g., COVID-19-related lockdown)

03–Too expensive/couldn't afford it

04–My favourite flavour was no longer available

05–My favourite device was no longer available

06–My age (I was too young)

98–Other (please specify)

99–Not sure

36. [If Q34=YES] When the vape flavour or device you wanted was not available, how did you adjust?

Select all that apply

01– Shopped online

02–Found another store in my province

03–Found a store in another province

04–Bought from someone else (e.g., a friend, family member, etc.)

05–Reduced/quit vaping

06–Switched to a flavour that was available

07–Replaced with cigarette use

08–Replaced with another substance (e.g., alcohol, cannabis)

98–Other (please specify)

99–Not sure

37. Overall, please indicate how much you agree or disagree with the following statements about **vaping**.

RANDOMIZE – CAROUSEL – SHOW ONE AT A TIME

- a. [2022 CURRENT VAPER] You enjoy vaping too much to give it up
- b. [2022 CURRENT VAPER] Vaping calms you down when you are stressed or upset
- c. [2022 CURRENT VAPER] Vaping helps you concentrate better
- d. [2022 CURRENT VAPER] Vaping is an important part of your life
- e. [2022 CURRENT VAPER] Vaping makes it easier for you to socialize
- f. [2022 CURRENT VAPER] You have the kind of genetic makeup that allows you to vape without it causing health problems
- g. [2022 CURRENT VAPER] You've got to die of something, so why not enjoy yourself and vape
- h. [ALL] The medical evidence that vaping is harmful is exaggerated
- i. [ALL] Vaping is no more risky than lots of other things that people do

01–Strongly agree

02–Somewhat agree

03–Somewhat disagree

04–Strongly disagree

99–Not sure

38. Overall, please indicate how much you agree or disagree with the following statements about **smoking**.

RANDOMIZE – CAROUSEL – SHOW ONE AT A TIME

- a. [2022 CURRENT SMOKER] You enjoy smoking too much to give it up
- j. [2022 CURRENT SMOKER] Smoking calms you down when you are stressed or upset
- k. [2022 CURRENT SMOKER] Smoking helps you concentrate better
- l. [2022 CURRENT SMOKER] Smoking is an important part of your life
- m. [2022 CURRENT SMOKER] Smoking makes it easier for you to socialize
- n. [2022 CURRENT SMOKER] You have the kind of genetic makeup that allows you to smoke without it causing health problems
- o. [2022 CURRENT SMOKER] You've got to die of something, so why not enjoy yourself and smoke
- p. [ALL] The medical evidence that smoking is harmful is exaggerated
- q. [ALL] Smoking is no more risky than lots of other things that people do

01–Strongly agree

02–Somewhat agree

03–Somewhat disagree

04–Strongly disagree

99–Not sure

39. [2022 CURRENT VAPER] Currently, what is your **main reason** for vaping?

[2022 FORMER VAPER] When you were vaping, what was the **main reason** you did so?

Select one only.

- 01–For curiosity, you just wanted to try it
- 02–Because you enjoy it
- 03–To reduce stress or calm you down
- 04–To quit smoking cigarettes
- 05–To cut down on smoking cigarettes
- 06–To use when you cannot or are not allowed to smoke cigarettes
- 07–To avoid returning (relapsing) to smoking cigarettes
- 08–Other (SPECIFY) [DO NOT CODE]

40. Overall, how would you rate your physical and mental health in 2020?

RANDOMIZE

Rating	Very poor	Poor	Moderate	Good	Very good	Not sure
a. Physical health	01	02	03	04	05	99
b. Mental health	01	02	03	04	05	99

41. Overall, how would you rate each of the following in 2020?

RANDOMIZE

Rating	Very low	Low	Moderate	High	Very high	Not sure
a. Stress level	01	02	03	04	05	99
b. Feelings of isolation	01	02	03	04	05	99
c. Anxiety	01	02	03	04	05	99
d. Depression	01	02	03	04	05	99

Demographics

The following are a few questions about you and your household, for statistical purposes only. Please be assured all of your answers will remain completely anonymous.

42. What is the highest level of formal education you have completed?

Select one only

- 01–Less than a high school diploma or equivalent
- 02–High school diploma or equivalent
- 03–Registered Apprenticeship or other trades certificate or diploma
- 04–College, CEGEP or other non-university certificate or diploma
- 05–University certificate or diploma below bachelor's level
- 06–Bachelor's degree
- 07–Postgraduate degree above bachelor's level
- 99–Prefer not to answer

43. Which of the following best describes your total household income for 2020, before taxes, from all sources for all household members?

Select one only

- 01—Under \$20,000
- 02—\$20,000 to just under \$40,000
- 03—\$40,000 to just under \$60,000
- 04—\$60,000 to just under \$80,000
- 05—\$80,000 to just under \$100,000
- 06—\$100,000 to just under \$150,000
- 07—\$150,000 and above
- 99—Prefer not to answer

44. Which of the following categories best describes your own employment status in each of the following time periods? If your employment status changed during the timeframe, select the status that accounted for the largest portion of the timeframe.

Please provide one response per timeframe (column)

Employment status	February 2020	Rest of 2020 after the pandemic was declared	Now (early 2022)
Worked full-time, 30 to 40 hours per week	01	01	01
Worked part-time, less than 30 hours per week	02	02	02
Worked more than 40 hours per week	03	03	03
Unemployed, but looking for work	04	04	04
A student in school full-time (online or in-person)	05	05	05
A student in school part-time (online or in-person)	06	06	06
Retired	07	07	07
Not in the workforce (Full-time homemaker, unemployed but not looking for work)	08	08	08
Other	09	09	09
Prefer not to answer	99	99	99

45. **ASK IF AGE 18+:** Are you the parent or legal guardian of children in the following age groups who were living at home with you all or part of the time in 2020? (Note: please do not include siblings or roommates)

Parent or guardian	Yes	No	Prefer not to answer
a. Elementary school age	01	02	99
b. Secondary school age	01	02	99
c. College/university age	01	02	99

46. Did you move at any time during 2020?

01-Yes

02-No

99-Prefer not to answer

47. [IF Q46=02 or 99] Please provide the first three digits of your postal code in 2020. This will help us align the survey data with regional COVID data.

[IF Q46=01] Please provide the first three digits of your postal code for the residence you lived in longest during 2020. This will help us align the survey data with regional COVID data.

This completes the survey. On behalf of Health Canada, thank you for your valuable input. In the coming months, the results of this survey will be available on the Library and Archives Canada website.