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# ***Vaping Panel Surveys and Interviews 2022-2023***

## **Executive Summary**

### **Prepared for Health Canada**

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**Canada**

## **Vaping Panel Surveys and Interviews 2022-2023 – Executive Summary**

Prepared for Health Canada by Environics Research

August 2023

This public opinion research report presents the results of a quantitative and qualitative research study conducted by Environics Research on behalf of Health Canada, comprising two, return-to-sample online surveys with 693 Canadians aged 15 or older who vaped regularly at the time of the baseline survey, and 379 interviews conducted with people who vape or who formerly vaped and had completed the Wave 2 survey. The Wave 2 survey was conducted from December 15, 2022, to January 22, 2023, and the Wave 3 survey was conducted from April 6, 2023, to June 1, 2023. The individual interviews were conducted from January 4 to February 1, 2023.

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## Executive summary

### A. Background and objectives

The *Tobacco and Vaping Products Act* (TVPA) regulates the manufacture, sale, labelling and promotion of tobacco products and vaping products sold in Canada. The TVPA creates 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. Health Canada identified a need for transitional data to provide key insights into how changeable (or not) an individual's use behaviour can be over time, any factors influencing those changes (e.g., biases), and any factors that could be influenced by those changes (e.g., health self-ratings).

The main objective of this research is to understand patterns of use over time at the individual level with respect to vaping products. The research will also gather attitudes and behaviours of Canadians who were regular vapers aged 15 years and older in the baseline survey and examine any changes over time that could be associated with changes in use.

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

- To establish patterns of use among those who vaped regularly in the baseline survey
- To understand factors driving changes in vaping status, including quit attempts and vaping cessation
- To understand changes in patterns of cigarette use, including starting or quitting smoking
- To measure level of awareness and knowledge around vaping products among Canadians who vape, including product evolution
- To gather information on the vaping devices and e-liquids currently being used by Canadians who vape.

## B. Methodology

This research study consisted of three parts:

- **Wave 2 return-to-sample survey:** A quantitative online return to sample (RTS) survey of 693 Canadians who vape. The sample was drawn from a 2022 baseline survey (Wave 1) of 4,815 Canadians aged 15 or older who vaped.
- **Qualitative individual interviews (IDIs):** IDIs were conducted with 39 survey participants drawn from the Wave 2 survey, before the Wave 3 survey was fielded.
- **Wave 3 return-to-sample survey:** A second quantitative online RTS survey of 379 Canadians drawn from Wave 2 participants.

This study is a follow-up to the [Vapers Panel Baseline Survey 2022](#) (Wave 1) with 4,815 Canadians aged 15 or older who identified as regular vapers, conducted from March 4 – April 8, 2022.

The Wave 2 survey was conducted from December 15, 2022, to January 22, 2023, and the Wave 3 survey was conducted from April 6 to June 1, 2023. Waves 2 and 3 used an RTS approach, attempting to recontact all participants from the previous wave (i.e. Wave 2 is drawn from Wave 1, Wave 3 is drawn from Wave 2). Note that the original sample was designed to (a) reflect the demographic composition of the current vaping population by age, gender, and province, and (b) to maximize the subsample of youth (15-19 years) and young adults (20-24 years) who vape, for adequate analysis in subsequent waves (despite expected attrition).

|                     | Dates                          | Sample size |
|---------------------|--------------------------------|-------------|
| Wave 1 (POR-097-21) | March 3 to April 10 2022       | 4,815       |
| Wave 2              | December 15 to January 22 2023 | 693         |
| Wave 3              | April 6 to June 1 2023         | 379         |

To note: the incidence of regular vaping among Canadians 15+ is 3.4 percent nationally (per Canadian Tobacco and Nicotine Survey [CTNS] 2020 data). As this online survey utilized an opt-in panel, it is a non-probability survey and no margin of sampling error should be calculated. Reported percentages are not generalizable to any group other than the sample studied, and therefore no formal statistical inferences can be drawn between the sample results and the broader target population it may be intended to reflect.

The following completions were achieved in Wave 2:

| Age          | 2020 Population | Regular vaping incidence (CTNS 2020) | Proportion of vaping population | Unweighted sample size | Proportion of total sample | Weighted sample size |
|--------------|-----------------|--------------------------------------|---------------------------------|------------------------|----------------------------|----------------------|
| 15-19        | 2,102,402       | 9.0%                                 | 17%                             | 56                     | 8%                         | 121                  |
| 20-24        | 2,484,313       | 8.7%                                 | 20%                             | 134                    | 19%                        | 136                  |
| 25+          | 27,408,756      | 2.5%                                 | 63%                             | 503                    | 73%                        | 437                  |
| <b>Total</b> | 31,995,471      | 3.4%                                 | 100%                            | 693                    | 100%                       | 693                  |

The following completions were achieved in Wave 3:

| Age          | 2020 Population | Regular vaping incidence (CTNS 2020) | Proportion of vaping population | Unweighted sample size | Proportion of total sample | Weighted sample size |
|--------------|-----------------|--------------------------------------|---------------------------------|------------------------|----------------------------|----------------------|
| 15-19        | 2,102,402       | 9.0%                                 | 17%                             | 26                     | 7%                         | N/A                  |
| 20-24        | 2,484,313       | 8.7%                                 | 20%                             | 75                     | 20%                        | N/A                  |
| 25+          | 27,408,756      | 2.5%                                 | 63%                             | 278                    | 73%                        | N/A                  |
| <b>Total</b> | 31,995,471      | 3.4%                                 | 100%                            | 379                    | 100%                       | N/A                  |

### C. Contract value

The contract value was \$256,013.03 (including HST).

#### **Report**

This report begins with an executive summary outlining key findings and conclusions, followed by a detailed analysis of the survey data and the qualitative interviews. 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. Notable differences between subgroups are noted based on Z-test results at 95% probability for comparing proportions and based on two-tailed T-test results at 95% probability for comparing means. Comparisons are based on differences between exclusive sub-groups, and not on differences compared to the total or groups that overlap.

The report uses certain terminology to differentiate between certain sub-groups of quantitative respondents based on their vaping behaviour, transitions, and smoking. The following groups are discussed throughout the report:

- **Past 30 day vaping:** Respondents who vaped with or without nicotine on a daily, weekly, or monthly basis in the 30 day time period leading up to the survey. In some instances in the narrative they are referred to as *still vaping*. Excludes cannabis vaping.
  - **Status quo vaping:** A subset of past 30 day vaping who were vaping continuously from Wave 1 until Wave 3 without detectable quitting, reducing, or increasing. In some instances in the narrative they are referred to as *vaping at the same rate* or similar wording to differentiate from others.
  - **Relapsed:** A subset of past 30 day vaping who quit between Wave 1 and 2, but were vaping again in Wave 3.
  - **Reduced:** A subset of past 30 day vaping who had reduced their vaping frequency between Wave 1 and Wave 3.

- **Increased:** A subset of past 30 day vaping who had increased their vaping frequency between Wave 1 and Wave 3.
- **Quit vaping:** Respondents who had not vaped in the 30 day time period leading up to the survey. In some instances they are referred to as having *formerly vaped*.
  - **Newly quit:** A subset of those who quit vaping who were still vaping in Wave 2, but had quit by Wave 3.
  - **Longer-term quitting:** A subset of those who quit vaping who had quit in Wave 2, and were still not vaping in Wave 3.
- **Past 30 day smoking:** Respondents who had smoked in the 30 day time period leading up to the survey.
  - **Alternating use:** A subset of past 30 day vaping who were both smoking and vaping in the past 30 days leading up to the survey.
  - **Smoking only:** A subset of past 30 day smoking, who had quit vaping.
- **Quit smoking:** Respondents who had not smoked in the 30 day time period leading up to the survey. In some instances they are referred to as having *formerly smoked*.
  - **Newly quit:** A subset of those who quit smoking who were still smoking in Wave 2, but had quit by Wave 3.
  - **Longer-term quitting:** A subset of those who quit smoking who had quit in Wave 2, and were still not smoking in Wave 3.
- **Never smoked:** Those who never smoked on a regular basis according to their survey responses.

Results are also analyzed by demographic sub-groups, mainly region, age, and gender; in some instances, other sub-groups are included in the analysis to illuminate the findings where relevant. To the extent possible, sub-group differences are noted for Wave 2 and Wave 3.

The nature of RTS sampling presents some complications when analyzing data across waves, including where sub-group differences are concerned. Due to the diminishing sample sizes from wave to wave, and changes in behaviour among respondents, some associations are present in one wave but not another. Regardless of their presence in one wave or the other, statistical differences between sub-groups are noted where they are interpreted to be important and relevant to the analysis.

**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

### *Key findings - Quantitative*

**Starting with the baseline study in 2022, through to Wave 3 in spring of 2023, transitions away from vaping are rare.** After three survey waves, eight in ten (83%) of those who vaped at the beginning of the baseline study were vaping in Wave 3, and a vast majority did not quit at any point between survey waves (75%). While the proportion of those not vaping in Wave 2 (18%) and Wave 3 (17%) was similar, nearly half of those who had stopped vaping in Wave 2 were vaping again by Wave 3 (8% relapse).

**Even at a more granular level, changes in vaping frequency are limited.** Among those who vape, the proportion vaping on a daily basis was virtually unchanged from Wave 1 (52%) through to Wave 3 (48%). Where shifts did occur, they were often toward more vaping, rather than less. By Wave 3, while those who were vaping *weekly* in Wave 1 were somewhat more likely to stop vaping than those vaping *daily*, they were more likely to vape *daily* than not at all.

**Those who vaped to stop smoking vape frequently and longer-term.** In terms of smoking behaviour and past smoking, by Wave 3, daily vaping is more prevalent among those who *formerly smoked* (55%), and particularly in those who *quit smoking on a long-term basis* (56%) in comparison with those who *never smoked* (36%). Further, by Wave 3, daily nicotine use was much more prevalent among those who *stopped smoking on a long-term basis* (63%) compared to those who had *newly quit smoking* (37%), those who had *relapsed smoking* (38%), and those who had *never smoked* (38%). Those who *stopped smoking on a long-term basis* are also likely to vape with nicotine within 30 minutes of waking (67%) and often vape continuously throughout the day (36%). Those who vape daily also tend to vape solitarily (80% to 81% alone / mostly alone), and usually with nicotine (80% to 84%); there are very few who vape daily without nicotine.

**Those who vape show little motivation or interest in quitting vaping.** Just one in three are trying to stop vaping (29% to 34%), similar proportions see quitting vaping as important (25% to 29%), or are confident that they will one day quit vaping for good (30% to 37%). This dovetails with the attitudes expressed in the qualitative interviews, where participants were largely uninterested in quitting vaping.

**In addition to using vaping to help them quit smoking, those who vape often do so to avoid relapsing back to smoking, and tend to see vaping as the lesser of two evils.** Looking specifically at people's reasons for vaping, avoiding returning to smoking is a distinct reason for one in three who vape (30% to 33%), and almost as many say they vape because it is less harmful than smoking (27% to 29%). Comparing vaping to several other potentially risky behaviours like smoking and alcohol, just one in three respondents saw vaping with nicotine as harmful; for comparison, twice as many saw smoking as harmful. This is further supported by the qualitative research, which found a high degree of concern that quitting vaping would mean resuming smoking, and a general belief that vaping was not risky.

**The health effects that people who vape experience and are aware of are not sufficient alone to drive quit attempts suggesting other benefits of quitting may need to be emphasized in messaging.** One theme that emerged in the qualitative interviews was the sense that if strong and reputable research were to be done which showed serious negative health effects of vaping, respondents would be more motivated to quit. In the quantitative research, among those who had not continued vaping health-related motivations for quitting (65% take responsibility for my own health) tended to resonate with respondents more strongly than other motivations like shame, social pressure, or affordability. However, while still one of the stronger hypothetical motivators to quit for those currently vaping (48% take responsibility for my own health), only about one in three would quit if there was evidence it was worse for their health than they thought (37%) or if they had a health scare (36%). While those who vape are sometimes skeptical about possible harms (for example, one in four currently vaping agree that the medical evidence against vaping is exaggerated), many are open to hearing more information that might dissuade them from vaping. Given that a majority of those who vape, or used to vape, report having at least one health symptom (from a given list of symptoms that can be related to vaping) suggests that health impacts alone won't be sufficient to drive a quit attempt.

**Flavour choices, particularly with nicotine, point to differences between those vaping for smoking cessation, and those vaping for social or recreational reasons.** While fruit flavours are used most often in general (32% to 35%), they are used more often by who had never smoked (50% to 52%), compared to those smoking in both waves (26% to 29%). Tobacco flavour which ranks second overall for use (18%), tends to be used more often by

those who alternate vaping and smoking (24%), with little use by those who never smoked (5%) or formerly smoked (12%). Fruit flavours were used by nearly half (45%) of those who *increased* their vaping between Waves 2 and 3. Similar patterns are noted in results for vaping flavour preferences.

**Differences between age groups illustrate the role vaping plays in the lives of adults, who mainly use it for smoking cessation, in contrast with younger people who tend to do it for social or recreational reasons.**

Consistent with the findings from the baseline study in 2022, there are numerous ways where adults differ from younger cohorts in terms of their vaping behaviour, history of smoking, and attitudes towards vaping. Adults are more likely to be smoking, or to have a history of past smoking in general. In Wave 2, adults are more likely than youth and young adults to give smoking-related reasons for vaping, for example, they often say they vape to quit smoking (49% adults, 31% youth and young adults) or to avoid a return to smoking (41%, compared to 23%). Also of note, one in four adults (27%) say they smoke because of addiction, compared to just 9 percent of youth and young adults.

**Even though vaping is often explicitly stated as a way to stop smoking, smoking is more common among those who still vape than it is among those who stopped vaping over the course of the study.** Those with past 30-day vaping are more likely to have smoked in the past 30 days (51% to 52%) compared to those no longer vaping (18% to 34%). Smoking is most common among those vaping weekly (58% to 68%), rather than daily or monthly, which may indicate vaping as an occasional stand-in for cigarettes. Even those who reduced their vaping in both waves are more likely to have smoked (49% to 60%) than those who had quit vaping in each wave (18% to 34%).

**Those who relapse to exclusive smoking smoke more compared to those who alternate smoking and vaping, and have lower interest in vaping in the future.** Those who are *no longer vaping but still smoke* are more likely to report daily smoking (72% to 73%) compared to those *still vaping* in each wave (40% to 48%). Additionally, those with past 30 day vaping (i.e., alternating use) tend to smoke fewer cigarettes per day (76% to 85% smoking 10 or fewer), compared to those who are *no longer vaping but still smoke* (50% to 55%). Those with a history of smoking, but who no longer vape, also showed lower interest in vaping in their responses to other questions; most did not try to talk to anyone about using vaping as a smoking cessation technique (54% to 72%), compared to those with past 30 day vaping (11% to 36%). This cohort was also notable for its confidence that they would quit vaping for good (70%, compared to just 27% of those still vaping), suggesting that they do not see vaping as a smoking cessation technique.

**While affordability has potential to drive quitting for some people who vape, serious concern about its affordability appears to be limited despite the pressures of inflation.** About one in four (27%) agreed that if they were to stop vaping, it would be because they couldn't afford devices and liquids, but only about one in ten (8% to 14%) see vaping as unaffordable. With average monthly spend on vaping sitting around \$70, most (59% to 61%) are neutral about affordability, rating it between 4 and 7 on a 10-point scale where 10 is most affordable. This is still despite the fact that over half of those who vape say they have noticed an increase in vaping product prices (55%), and two in three say that inflation has impacted their ability to afford those products (67%). When those who vape were asked how they fit vaping into their budget, they most often said they weren't doing anything at all (30%), and a few even specifically said that vaping was their budgeting solution to offset the cost of smoking (3%).

**Disposal of vaping products and device components is often done through means that are environmentally unsound.** Vaping products contain many potentially harmful chemicals, including nicotine and other compounds in vaping liquid, and metals in the devices themselves, so they should be treated cautiously for disposal. Unfortunately, many of those who vape have inappropriate habits around disposal, including putting items in the garbage or recycling. Disposable vaping devices, pre-filled cartridges, and liquid bottles in particular are most



likely to end up in the garbage (51%, 51%, 47% respectively). It is worth noting that about half dispose of batteries to appropriate facilities (47%).

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### ***Key Findings – Qualitative***

**Almost all participants smoked cigarettes in addition to or prior to beginning vaping.** Most interviewees had come to vaping as a smoking cessation or reduction aid, and many of them had even been successful in their attempts to quit smoking. While the primary function of vaping for most respondents was to help them quit or reduce smoking, many also saw vaping as a stress reliever, a habit, or an addiction itself.

**Vaping was seen as highly related to smoking cigarettes and drinking alcohol, but participants did not see a relationship between vaping and cannabis.** Vaping was almost unanimously viewed as a healthier alternative to smoking cigarettes. Those who said they drink alcohol often noted that vaping and drinking tend to go hand-in-hand, but the same observation did not hold true for those who use cannabis, which was seen as serving an entirely different purposes in their lives.

**Most interview participants lacked a serious intention to quit vaping, although some were trying to reduce either their vaping frequency or nicotine content.** Only a handful had ever tried to quit vaping, and four no longer vaped at the time of the interview. Many expressed a fear that if they quit vaping, it might lead them back to smoking; for two of the four who had stopped vaping, this was indeed the case. Others didn't perceive vaping as harmful enough for them to seriously consider a quit attempt, and a few simply enjoyed vaping.

**Even if they had only vague intentions to quit, participants varied considerably on what a successful quit attempt would mean to them.** Some would consider vaping occasionally in social situations to be success, while others considered complete abstinence from vaping with or without nicotine to be the only true version of success. Some additionally defined success as total cessation of nicotine in all forms. For those who had a stronger desire to quit, they envisioned themselves being free from cravings and taking control of their own health.

**Participants indicated that health concerns and affordability were potential motivators that would convince them to quit vaping.** Many suggested that if they or someone they knew experienced a vaping-related health scare, or if reputable research was published which showed provable and strong negative effects of vaping, this would be enough to drive their first quit attempt. Others indicated that if prices increased to the point where vaping was no longer an affordable option for them, they would have to seriously consider quitting.

**For those who did plan on quitting, getting away from nicotine and vaping was seen as a long-term process, as opposed to an all-in decision.** When asked about their intentions to quit, a common pattern emerged where most of those who saw a nicotine or vape-free future for themselves intended to wean themselves off slowly. They hoped to gradually reduce the nicotine content in their vaping liquids, as well as the frequency with which they vaped, to eventually reach their goals. While the slow approach was common, a few saw going "cold turkey" as the preferable quitting method, believing that their own internal motivations would be enough to succeed. Only a few mentioned the use of nicotine replacement therapies such as patches or gum.

**Social supports were not seen as important factors in the quitting process, as most believed their own willpower would be enough to see them through.** Quitting was seen as a personal decision driven by internal motivation, and few expected to seek support from others in the event they decided to quit.

**Continued vaping was largely attributed to habit, smoking cessation attempts, addiction, and stress relief.** Some participants acknowledged that they knew vaping was bad for them and did not understand why they hadn't

stopped. Others simply saw vaping as a much healthier alternative to smoking, and had found no reason to be seriously concerned about the health effects of vaping.

**Interviewees emphasized the need for more research to be done on the potential negative health effects of vaping.** Many felt that there was simply not enough reputable data available to make an informed decision based on health concerns, and hoped that Health Canada would take action to fill this knowledge gap.

**Vaping was seen as a valuable method for adults trying to quit smoking.** A number of participants expressed fears that higher taxes and bans on devices and flavours would deprive them of this option, which many relied on to keep them away from smoking. This perception does not necessarily align with the objective realities of their experiences.

**There was significant concern about youths picking up the habit without ever having smoked.** To combat this, participants suggested targeted advertising and strict regulations on the sale of vaping products to minors. The hope was that this trend could be slowed or reversed while still allowing adults to legally access vaping as a smoking cessation aid.

## **E. 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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