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E-Cigarette and Combustible Tobacco Use: Attitudes and Behaviours

**A Synthesis of Findings from Health Canada
Public Opinion Research**

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March 2020

Citation: Jubas-Malz D. *E-Cigarette and Combustible Tobacco Use: Attitudes and Behaviours. A Synthesis of Findings from Health Canada Public Opinion Research*. Special Report. Toronto ON: Ontario Tobacco Research Unit; March 2020.

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Introduction

Canada's Tobacco Strategy aims to reduce nationwide tobacco use to less than 5% of the population by 2035. The strategy outlines specific groups at risk of tobacco uptake, such as youth and young adults. Public health often emphasizes the importance of prevention; that is, ensuring people are never exposed to a disease or its determinants in the first place. It is essential, then, that we understand the different pathways to tobacco use to aid a diverse stakeholder group in their work to identify possible points of intervention for tobacco control policy.

This report provides an updated review of current opinions, behaviours, and knowledge on tobacco and nicotine use and considers the wide range of factors that influence the decision to use these products. First, we will briefly outline groups who are more likely to smoke or vape. We will then turn to the reasons people are inclined to vape or smoke in the first place. These include:

- Vaping product features
- Using vaping to help quit smoking
- Associated social benefits of vape use
- The monetary cost of vaping relative to cigarettes
- Curiosity to vape

The remainder of the report will map out pathways to vaping and smoking uptake by considering key variables associated with use. The report will touch on social influences, vaping advertisements, and personality factors, among others.

Methodology

This report was developed by use of public opinion research data. Recent public opinion data had been pulled from [Health Canada's database](#), along with two private polls from The Angus Reid Institute and Research Co. A total of 23 reports were found and reviewed for this report. In the end, 14 of these were relevant and used in this report.

The authors of this report used an iterative approach to data extraction, reviewing articles multiple times and making amendments where necessary. First, reports were reviewed, and key findings highlighted. Reports were then re-reviewed to look for data points missed upon first read-through and to evaluate relevance of data already highlighted. All relevant data were extracted. Data were then organized according to theme which, like the data extraction process, was iterative. Themes were created, re-named, and data re-organized as the report developed. The public opinion research was reviewed one final time to find other relevant pieces of data that might fit in with the themes in their most recent form.

Notes to the Reader:

- Excluding the [Who Vapes/Smokes?](#) section, public opinion research reports will be described when first mentioned in this report. This is to ensure the reader understands important background information such as method of data collection and the populations part of the research sample. Once initially described, opinion research will be referenced using both standard APA and Vancouver formats. Sources used in this report will be included in the reference list using APA formats. Vancouver in-text citations refer to sources as listed in a chart presented in Appendix A. This chart includes key details from each reviewed research report. Throughout this report, the authors use both formats simultaneously and interchangeably.
- Definitions of key terms were drawn from reports. Some definitions were used inconsistently between reports. Below is a list of key terms relevant to this document. Citations are included in the case of a term with inconsistent definitions or to clarify the term definition with a direct quote from a report.

Key Terms

Regular Users (e.g. regular smokers/regular vapers) - those who smoked/vaped at least once a week for the past four weeks [3,15]. Some reports did not explicitly define this term.

- Daily Users (e.g. daily smokers/daily vapers) - those who smoke or vape every day
- Occasional users (e.g. occasional smokers/occasional vapers) or Infrequent users (infrequent smokers/vapers) - these were not used consistently across all polls but denoted non-daily use. Some polls [3,5,15] only made reference to occasional users (i.e. those who did smoke or vape but not on a daily basis). Others [21,22] identified occasional users as those who have used an e-cigarettes within the past 30 days but not daily and infrequent users as those who have not used an e-cigarette over the past 30 days. [6] made a distinction between occasional and infrequent vapers but did not clarify how they were different. Terms will be used in accordance with their sourced report.

One-Time Users (e.g. one-time smokers/one-time vapers) – those who have smoked/vape one time over the course of their lifetime

Ever Users (e.g. ever smokers/ever vapers) – those who have ever tried a cigarette/e-cigarette

Dual Users – those who currently smoke and vape daily or occasionally

Non-Users (e.g. non-smokers/non-vapers) - those who do not currently vape/smoke

- Never-Users (e.g. never-smokers/never-vapers) – those who have never smoked/vaped. In particular, one poll [3] defined *never* smokers as those who are “not currently smoking and have not smoked 100 cigarettes over their lifetime” (p.5)
- Former Users (e.g. former smokers/former vapers) – those who were not smokers/vapers at the time research was conducted but have used either in the past. In particular, one poll [3] defined *former smokers* as those who are “not currently smoking, but have smoked 100 cigarettes over their lifetime” (p.5)

Findings

Who Vapes/Smokes?

Vaping

- Vapers are disproportionately male and belong to younger populations [3,18]
- Within the last year, vaping use has increased among all age demographics [18]. The percentage of youth vapers have increased by 15 percent over this period [18]
- In a 2017 poll, young adults (age 20-24) were found to be more likely to have tried e-cigarettes than youth (15-19 years old) [22]. Those under the age of 35 are the largest age demographic of vapers [18]
- Vapers have more people who vape in their social circles (e.g. classmates, co-workers) [21]
- Youth ever vapers are less likely than young adults and adults to have ever smoked cigarettes (53% vs 78% vs 90%, respectively) [19]

Smoking

- Smoking rates tend to be higher among certain demographics including those who have received less education, those with an income below \$40,000/year, and Indigenous populations [2]
- Men are more likely than women to have been smoking for more than 20 years as are those without a university education [7]
- Women are more likely than men to be concerned with smoking use in general [2]
- Half of current and former smokers aged 18 and older have friends who smoke [8]

Reasons for Vaping/Smoking

This section reviews possible incentives to vape. These include features of vaping products, the perception of vaping as a smoking cessation aid, and the social benefits of vaping.

Vaping

Vaping Products

Recently, Environics Research shared a report looking at attitudes and behaviours of Canadian vapers 15 years of age or older related to vaping use [3]. Data was collected through surveys distributed between February 4 and 26, 2019. There were 2027 respondents.

In 2019, Environics Research shared their report looking at vaping attitudes and behaviours of Canadian vapers 15 years of age or older [15]. Data was collected with surveys distributed between May 27 and June 25, 2019. There were a total of 2043 respondents.

In April 2018, Environics Research Group conducted research looking into the attitudes and behaviours of Canadian current and ever vapers aged 15 and older toward vaping [19]. Researchers administered surveys in two waves: the first wave was distributed between December 15-29, 2017 and the second between February 1-14, 2018. The first wave was intended to benchmark findings (n=1312). The second had a combination of new respondents (n=950) and a portion who completed the first wave (n=779). In total, 3041 surveys were completed for this study.

In 2018, Phoenix Strategic Perspectives Inc. (Phoenix SPI) developed a report for Health Canada to help identify those at risk of smoking or vaping uptake [21]. The report used a series of qualitative group discussions and surveys to generate data. For the discussions, researchers used eight focus groups and eight triads (groups of three). Focus groups were held in Toronto and Montreal between February 12 and 13, 2018. Each city ran groups with the following populations: smokers/vapers (age 20-24), non-smokers/non-vapers (age 20-24), smokers/vapers (age 16-19), and non-smokers/non-vapers (age 16-19). Four triads with youth (age 13-15) non-smokers and non-vapers were held in Toronto and Montreal on February 24, 2018. The other four were run in Toronto and Ottawa on June 2, 2018 with smokers and vapers. A total of 88 participants were included in this stage of the research. The survey was distributed to an online sample of Canadians between 13 and 24 years of age. Data was collected between March 26 and April 24, 2018 and received a total of 3004 respondents. The sample was drawn from the Asking Canadians panel.

In 2017, Phoenix SPI looked at perceptions of e-cigarette flavours and harms of e-cigarette use through focus groups and surveys [22]. Focus groups were run in Toronto, Montreal, and Vancouver. Between January 30 and February 2, 2017. Four groups were hosted in each city, two with vapers and two with non-vapers. All participants were between 15-24 years of age. A mix of cigarette smokers and non-smokers were included in each session. The survey was distributed to Canadian residents between the ages of 15 and 24. The sample was taken from Research Now's pool. In total, 1509 Canadians responded to the survey.

Flavours are frequently identified as an incentive for vape use by those 15 years and older and: regular vapers [3,22], one-time e-cigarette users [22], former and non-smokers [3,15], dual users [15], and even non-vapers [21]. Indeed, 48% of non-vapers who said they might try vaping cited the flavours and aroma as the main enticing factors [21]. Flavours are rated more favourably by youth [3,15] and both youth (age 15-19) and young adult (age 20-24) are more likely than adults (age 25+) to say they are motivated to vape by the available flavours and smells (51%, 54%, and 30%, respectively) [19]. Ease of use was identified by 70% of respondents in one poll [3]. The convenience of vaping products (i.e. ability to vape indoors) [22], physical appearance (i.e. size and colour) [3], absence of undesirable smells [22], and the fun of vaping and ability to do tricks with vapor [3,22] had also been identified as appealing features by both non-vapers and vapers.

Smoking Cessation Aid

Earnscliffe Strategy Group gathered data on views held by Canadians on health impacts of nicotine use [2]. The final report was published in 2019 and the data collected between December 2018 and March 2019. The project used three research phases. First, 15 focus groups were held in Toronto, Halifax, Montreal, Winnipeg, and Vancouver. Three groups were run in each city and were entirely comprised of youth non-smokers (age 16-19), young adult non-smokers (age 20-24), or adult smokers (age 40-55). A total of 128 participated in these groups. The second phase used a survey of Canadians 13 years of age or older. The survey collected data from 4190 respondents. The final phase used follow-up focus groups to further explore themes from earlier research. Two focus groups were conducted in Toronto, one with youth (age 16-18) and the other with young adults (age 19-24). Members of both groups either vaped or were at-risk of trying it. Together, both groups had a total of 17 participants.

Phoenix SPI explored experiences related to smoking use and cessation among current and

former users [5]. They recruited adult smokers and former smokers to join one of 20 focus groups held in Mississauga, Winnipeg, Edmonton, Montreal, and St. John's between October 29 and November 20, 2018. Focus groups consisted entirely of current smokers or entirely former smokers. There were 164 participants in total. All participants were at least 25 years old.

In April 2018, Corporate Research Associates submitted to Health Canada their report looking to inform labelling requirements for vaping products [6]. Researchers relied on two phases to investigate this, however, only the first was relevant to the present report. Phase one relied on two focus groups in each of the following cities: Toronto, Vancouver, and Montreal. Groups were conducted between March 19 and 26, 2018. Groups were either exclusively with vapers or smokers 18 years of age or older.

Phoenix SPI prepared a report with multiple cycles in August 2019, looking at the Canadian's perceptions of various current events [16]. Vaping and smoking habits were one of the topics discussed in the third cycle. The study was conducted with Canadians 18 years of age and older between June 6-26, 2019. Twelve groups were run across Canada in Surrey, Fredericton, Sorel, Belleville, Edmonton, and Victoria. There were five groups with all male participants, five with all female participants, one with all homeowners, and one with all renters. A total of 109 Canadians participated in this project.

Many reports described in previous sections have included direct reference to participants using vaping as a smoking cessation aid, including Earnscliffe Strategy Group (2019) [2], Phoenix SPI (2018b) [5], Environics Research (2019b) [15], Environics Research Group (2018) [19], and Phoenix SPI (2017) [22]. Vaping is perceived as a smoking cessation aid by many smokers, and vapers have said they started vaping to cut down on cigarettes or quit entirely [6,15,19,22]. Nearly half of dual users vaped to reduce cigarette and forty-five percent vaped to quit smoking altogether [3,15]. In comparison, approximately two-thirds of former smokers used vaping to quit smoking [3,15] and because they believe vaping is less harmful to users and others than smoking [3,15].

Vaping is seen as a safer alternative to smoking by non-smoking, vaping, and smoking populations [2,5,6,22]. Many dual users were advised to use vaping as a tool to cut down on smoking by friends and classmates, vape shops, and even doctors and pharmacists [15]. Indeed,

the view that vaping is a harm reduction method is also pervasive among the general Canadian population who perceive vaping as a safe alternative to smoking and a cessation tool [16]. Some said vaping products are a healthier option because they have fewer toxins/chemicals [2,5], are non-carcinogenic [5], and are vaped rather than smoked [2]. In fact, a quarter of non-vapers who might be interested to vape said they would be motivated to try e-cigarettes because they are healthier than regular cigarettes [21].

Social Benefits

Vaping is viewed as a social activity that carry social benefits. These perceived benefits varied with age but were listed by youth and young adults in reports from Earncliffe Strategy Group (2019) [2], Environics Research (2019a) [3], Environics Research (2019b) [15], and Phoenix SPI (2017) [22]. Youth place more importance on “looking cool” as associated with vaping [2] and both youth and young adult vapers are encouraged by the appeal of vaping as a social activity [3,15,22] and that vaping is fun and/or exciting [e.g. by doing vape tricks; 3,15,22]. Phoenix SPI (2018a) asked non-vapers who said they might want to try vaping what might cause them to use e-cigarettes [21]. Although not among the most common responses (which highlighted available flavours and curiosity as motivating factors), a sizeable proportion of this population said they might be tempted to vape because of the perception that vaping is fun/exciting (22%) and that their friends vape (16%) [21].

Priorities vary along with vaping/smoking status. Almost a third (31%) regular vapers between the ages 15-24 vape because their friends do, because they like doing tricks with the vapor (22%), and because it is fun/exciting (21%) [22]. Out of never smokers in the same age demographic, 39% vape because it is fun/exciting, 27% vape because they can do tricks, and 20% say it helps them pass time/they do it out of boredom [3]. These were reported more frequently for never smokers than for dual users and former smokers [3].

Quantitative research presented in Environics Research (2019a) [3] found that regular vapers aged 15 and over see e-cigarettes as more socially acceptable than smoking. Regular vapers self-reported less disapproval from others than do dual users when smoking [3]. Similarly, qualitative research from Corporate Research Associates Inc. (2018a) [6] suggest that both vapers and smokers believe vaping was more socially acceptable than cigarettes. In fact, 16% of survey

participants in Environics Research (2019b) said they vape in situations where it is more socially acceptable than smoking [15]. Despite a perceived preference for vaping over smoking, the majority of youth believe that people close to them would be upset if they took up vaping [2]. Eighty-four percent of youth non-vapers (age 13-14) somewhat or strongly agreed that people close to them would be upset if they vaped, and seventy-eight percent of youth non-vapers (age 15-19) said the same [2]. A majority of young adult non-vapers (age 20-24) agreed as well, however, less frequently than youth [2].

Cost

Phoenix SPI (2019b) explored current and former smokers' attitudes and behaviours in regard to tobacco and nicotine products aside from cigarettes [8]. Data was collected between February 22 and March 14, 2019 with an online survey. The poll used Canadian current and former smokers 18 years of age or older. The sample size was 3006.

Current smokers most frequently rate the price of nicotine and tobacco products as a driving factor in their willingness to try them [8] and a substantial minority of vapers say that they vape because it is cheaper than smoking [15]. Environics Research (2019b) found 32% of former smokers vape because it is cheaper than smoking, and 23% of dual users do the same [15]. Current vapers say that vaping is cheaper than cigarette use after accounting for both the cost of the vaping device and e-liquids [6].

Curiosity

Corporate Research Associates Inc. conducted research on creative concepts for possible Health Canada designs for a 2018 report [4]. Researchers used a two-phase research approach: the first used ten focus groups conducted between September 17-20, 2018 in Vancouver, Winnipeg, Toronto, Montreal, and Halifax; and the second phase used six focus groups conducted between November 26-28, 2018 in Montreal, Toronto, and Moncton. Each focus group has either 8 or 10 participants, totaling 92 participants in phase one and 54 in phase two. The first phase held two focus groups in each location – one with youth 13-15 years old and the other with youth between 16-18 years old who do not vape or smoke but had met criteria for some at-risk behaviours as defined by the Health Canada Peer Crowd Segmentation research. During the second phase,

researchers held focus groups with youth (age 13-15), and youth (age 16-18) who do not currently smoke or vape. The findings on concept testing were not relevant to this report, however, researchers did obtain information on vaping behaviours and attitudes.

Lastly, curiosity is often cited as a motivating factor in vaping uptake [4,6,15,22]. Nearly a third (30%) of non-vapers who might want to try vaping said curiosity was a motivating factor [21].

Smoking

In 2019, Environics Research conducted quantitative and qualitative research on smoking habits and feelings of Canadian adult smokers (age 18+) who have been smoking for at least five years [7]. A quantitative survey was distributed between March 7-15, 2019 to an online panel of Canadian smokers. They received 510 responses. A subsample of 80 participants from the survey later took part in a qualitative journaling exercise between March 14-20, 2019 to gather more information.

The opinion polls reviewed in this report devoted less attention to the uptake of cigarette smoking. Factors influencing youth and young adult smoking uptake as identified by adult smokers include: curiosity, mental health/depression, for the head rush, “bad influences”, addiction (tried it because they didn’t think they would get addicted and they did), a desire to “be cool”, boredom (kills time between classes, while waiting for something), it is pleasurable, to calm themselves down/deal with stress, or because it is social. [21] Similarly, current smokers explained the role of smoking in their life. This included using smoking to cope with stress, as a social activity, or as a source of pleasure or reward [7].

How Use of One Tobacco Product May Encourage Use of Others

Across age demographics, the majority of dual users tried cigarettes before vaping, however, this is less common for younger populations [3]. As described in the [Smoking Cessation Aid](#) subsection in Reasons for Vaping/smoking, both former smokers and dual users frequently turn to vaping for cigarette cessation or to cut down [3]. On the other hand, vaping products may also act as a gateway to smoking or use of higher nicotine concentrations. An Environics Research survey found 13% of dual users aged 15 and over started vaping before smoking [3]. This may concern only a

small proportion, however, the number of those introduced to smoking through vaping is much larger among younger cohorts: about 32% of youth (age 15-19) dual users (age 15-19) vaped before smoking compared to 9% of older populations (age 25+). Reasons for wanting to try smoking after vaping are similar to the incentives to first try vaping (e.g. curiosity, doing it for fun), but others also listed nicotine cravings, finding it more enjoyable than vaping, and enjoyment for smoking as motivators to try smoking [15]. Interestingly, only a small proportion of dual users identified one of the above reasons as motivation for picking up smoking; and nearly half of these dual users could not explain to researchers why they later chose to smoke [15]. Many of those who have tried vaping but do not do so regularly (e.g. one-time or infrequent users) admitted they would use an e-cigarette again and 30% said they were unsure [22]. This suggests even single vape use may encourage future vaping.

In regard to nicotine concentration, the Environics Research survey also found that dual users (as well as former smokers) were more likely than non-smokers to have decreased their nicotine strength; however, dual users also had the highest likelihood of increasing their nicotine strength [3]. Together, these findings suggest that vaping can act as a steppingstone toward use of nicotine and/or tobacco products among non-users.

Pathways for Vaping/Smoking Uptake

This section outlines perceptions of vaping and smoking. Through various advertising methods, users and non-users have developed assumptions about the health impacts of these products. There are notable discrepancies between perceptions held by youth and adults.

Perceived Health Impacts of Vaping/Smoking

Vaping

A private poll from the Angus Reid Institute was shared in 2020. The research focused on Canadian adults' (age 18+) perspective on vaping behaviours and regulations [18]. The data was collected between December 2-4, 2019 through a survey. Respondents were sampled from the Angus Reid Forum. In total, there were 1655 survey respondents.

Vaping is perceived as a healthier alternative to smoking among younger, non-using populations [4] and many current smokers [8]. The Angus Reid Institute (2020) found that younger people are more likely to say that vaping balances good and bad qualities [18], although this was not further explored in this poll. Focus groups run with a sample of Canadian adults in [16] requested participants list perceived benefits of vaping. Participants mentioned the following benefits to vaping: helping smokers quit, preventing smoking uptake in youth, offering smokers a healthier alternative, vaping smells better than cigarettes, vaping does not create second-hand smoke, and employment opportunities from vaping shops [16]. A different research study from Phoenix SPI with vapers and non-vapers between 15-24 years old had identical findings, and participants reported that vaping is less dangerous than smoking, has a better smell, can act as a cessation tool, and vaping does not cause second-hand smoke [22]. Participants in this study added that vaping lacks the social stigma of smoking, does not yellow teeth like smoking, is soothing, has many different flavor options, and costs less than cigarettes over the long term [22]. Lastly, according to Environics Research (2019a) vaping products with nicotine are believed to help with smoking cessation among more than three-quarters of dual users and former smokers [3].

Although vaping is perceived as a safer alternative to smoking, many still see e-cigarette use as carrying risk. This varies depending on the ingredients in the vaping liquid, specifically nicotine. Indeed, the majority (70%) of regular vapers see vaping without nicotine as less harmful than with nicotine [3]. About a third of respondents, however, thought that vaping products with nicotine are less harmful than those without it [3]. This might suggest uncertainty over the role of nicotine in vaping, or the causes of different vaping products.

Substantial proportions of different populations see vape use as a problem, particularly among youth. The majority (66%) of survey respondents from Earncliffe Strategy Group (2019) [2] strongly disagreed with the statement “*I don’t see any problem with young people using vaping products with nicotine*”. Similarly, a majority of survey respondents expressed disagreement with the statement “*I don’t see any problem with young people using vaping products without nicotine*”. In comparison to youth (age 15-19), young adults, and smokers, youth (age 13-14) and non-smokers most frequently said that they strongly disagree with both statements [2].

In the qualitative focus groups run by Phoenix SPI (2017) [22] researchers asked non-users to

identify risks of vape use. Participants mentioned defective products that might “explode”, that vaping might have negative health effects, and an overall lack of information about long-term health impacts as vape-related risks [22]. Non-users also wondered about the effectiveness of e-cigarettes for smoking cessation [22].

Both Earnscliffe Strategy Group (2019) and Phoenix SPI (2018a) reported varying opinions among younger participants on the contents of vaping products. Youth and young adults believed that vaping does not have any other harmful substances aside from nicotine [2], and others did not think that vaping products can contain nicotine [21]. Youth vapers are less likely than other age groups to consider vaping without nicotine harmful [15]. Interestingly, younger age demographics more frequently disagreed that vaping is not addictive [21].

Smoking

Youth and young adult non-smokers are deterred from smoking due to the negative health impacts, monetary costs, smell, to avoid addiction, and because it is seen as socially unacceptable [2]. In general, most people understand the health impacts of smoking and nicotine, although fewer admitted to knowing the effects of the latter [2].

Peer/Social Pressure and Social Influences

Social influences are often reported as a primary factor in smoking and vaping behaviour. Friends are the most prominent influence on smoking and vaping behaviour, but other peer groups such as co-workers, classmates and family members play roles as well [3]. Many people, especially youth, can be influenced by the opinions of others and may refer to trusted sources to help guide behaviour. This signals what is safe, appropriate, “cool”, unacceptable and so on, and may encourage smoking or vaping use accordingly.

Vaping

Much like cigarette smoking, vaping primarily happens in social situations and social pressures are cited as a motivating factor in vape uptake [4,15,22]. Environics Research (2019a) [3] found that youth and young adult regular vapers have been exposed to vaping through their social networks: 80% of youth vapers have friends who vape, 73% have classmates who vape, and 15%

have parents/guardians who vape [3]; in comparison, 71% of young adult vapers have friends who vape, 50% have classmates who vape, 47% have co-workers who vape, and 15% have parents/guardians who vape [3]. Adult vapers aged 25+ have considerably less exposure to vaping through each of these networks [3]. The Angus Reid Institute (2020) found that a similar proportion of the general population have also been exposed to vaping in their social circles [18]. Alarmingly, this rate has increased by 12% from the previous year [18].

Frequent exposure is especially troubling because it creates more opportunities for non-users to try vaping. Further, Phoenix SPI (2018a) found that the most common reason youth and young adults started vaping is because friends were doing it (44%) [21]. This was followed by liking the flavours/smells (39%), because vaping products were offered to them (20%) and because it looked fun and exciting (19%) [21]. An earlier survey from Phoenix SPI (2017) observed a gap between the influence of friends on youth and adults [22]. Compared to 24% of adults, 39% of young adults said they vape because their friends do [22]. This same poll asked one-time vapers why they tried e-cigarettes and had similar findings: 43% tried vaping because their friends were doing it and 39% vaped because it was offered to them [22]. In comparison, the majority of focus group participants in Phoenix SPI (2017) claimed they were offered their first e-cigarette by someone else [22]. Interestingly, this was also true for non-users [22]. Together, this suggests substantial influence of social factors and exposure to vaping can increase the risk of uptake.

A sample of the general Canadian population said they first heard about vaping through friends/relatives or acquaintances, over social media, on the internet, in the news, seeing people vape, in vape shops, and in advertisements [16]. A different survey [19], however, found that friends were most commonly the source of first-time exposure to vaping across age groups [19]. This was highest for youth (age 15-19; 72%), then young adults (age 20-24; 61%), and adults (age 25+; 47%) [19]. Family members were the second most common source of first-time exposure for youth, young adults, and adults (11%, 14%, and 17%, respectively) [19]. Exposure to vaping through friends is considerably higher than through other mediums. The same survey identified various first-time exposure advertisement locations including social media, store signs/ads, YouTube, and news sources (e.g. TV, radio, and newspapers) [19]. When aggregated, ~12% of youth, ~19% of young adults, and ~21% of adults credited these as the source for their

first-time exposure to e-cigarettes [19].

Lastly, vaping is perceived differently across age groups as explored in the [Social Benefits](#) subsection in Reasons for Vaping/smoking. Youth have reported that they prefer vaping with others while adults prefer to vape alone [15]. Youth (age 15-19) are also motivated more than their older counterparts to vape because they perceive e-cigarettes as “cool” [19].

Smoking

More than half (56%) of youth and young adults who smoke say they started because their friends were smoking [21]. This was followed by cigarettes being offered to them (32%) and smoking to relieve stress (28%) [21]. Other research further breaks down the social influences on smoking and found distinct experiences tied to smoking uptake depending on age: A second 2018 report from Phoenix SPI found that current and former smokers often said they started smoking in adolescence and their friends were both present and acted as an incentive to try smoking [5]. Some examples of incentivization named include peer pressure, wanting to be cool or rebellious, and curiosity [5]. These social pressures maintained a similar influence on smokers who started in their twenties or later and were exercised through their work environments and romantic relationships [5]. Beyond social influences, stress, boredom, and loneliness made a unique, notable contribution to the decision to take up smoking in this population [5].

Advertisements and Social Media

Phoenix SPI (2017) reported that focus groups with vapers and non-vapers between 15-24 years old view youth and current smokers trying to quit as the main target audience of e-cigarette marketing [22].

Thirty-two percent of youth (age 15-19), thirty-seven percent of young adults (age 20-24) and twenty-four percent of adults (age 25+) recalled seeing vaping advertisements or promotional material within the past month [3]. Some e-cigarette flavours are given non-descript names and both vapers and non-vapers between 15-24 years of age believe these are intended to appeal to youth [22]. Examples discussed in research from Phoenix SPI include “island breeze”, “unicorn puke”, and “golden ticket” [22]. On social media, friends and family are main influencers youth

and young adults follow [21]. Other influencers mentioned by these groups include musicians, YouTubers, public figures, and retail brands [21]. The presence of e-cigarette companies is apparent to the majority of vapers: approximately 60% of regular vapers believe the social media content they have been exposed to were paid content from a company [3,15]. This is much higher than exposure to content created by friends (35%) and other people followed on social media (27%) [15]. This positions e-cigarette companies as a potential primary influence in perception of vaping products.

As explored in the [Vaping](#) subsection in Perceived Health Impacts of Vaping/Smoking, ads appealing to current smokers may try to market vaping as a safer alternative to smoking or a smoking cessation aid. Indeed, public opinion research has found this is a widely held belief among vapers, smokers, and non-users.

Regular vapers aged 15 and over often recall seeing ads through social media (e.g. Facebook, Instagram, YouTube, Snapchat) [22], in physical stores (e.g. vape shops, convenience stores) or through other online sources (e.g. on a website or through email) [15]. Regular vapers also recalled seeing ads through the following sources: TV/radio/streaming services, outdoor billboards/posters, newspaper/ magazines, bars, at events such as concerts or festivals, in malls, on public transit, in pharmacies, and in recreational facilities [3,15]. Recall for different forms of advertisements vary between age demographics. For example, a larger proportion of youth recalled vaping promotions through social media [3,15,19], but young adult populations more commonly saw advertisements in physical vape shops compared to youth and adults 25 years of age or older [15]. Participants from the Environics Research (2019a) [3] survey reported that they most commonly see promotion in the form of information about a particular brand of vaping device (43%), information about vaping devices in general (35%), links to online shops for vaping devices (35%), and vaping lifestyle ads (e.g. from Instagram influencers; 28%) [3]. Others include access codes for discounts on vaping products, vaping tutorials, vaping competitions, and vaping expos/meet-ups/conventions [3]. Users and non-users were asked about the contents of these advertisements during a focus group in [22]. They recalled the following: the range of different vaping products available, flavor options alongside images of fruits, positioning e-cigarettes as a smoking cessation aid or a safe alternative to smoking, ads saying

that vaping does not yellow teeth, ads demonstrating the “fun” side of vaping, and discounted vaping products [2].

Accessibility

Vape users typically purchase vaping products in-person from vape shops followed by online purchases and convenience stores [3,15,22]. This trend is also true for vapers who use nicotine and are of legal age [2]. Environics Research (2019a) found a majority of vapers are not consistently asked to prove their age when buying vape products [3]. Three in ten (29%) of vapers reported they are not always asked to provide ID and more than a third are never asked to verify their age either in-person or online [3]. An identical survey from Environics Research (2019b) found this varies substantially between age groups: youth and young adult vapers are more than twice as likely than adult vapers to be asked for proof of age [15].

Online purchases may prove an easier route to finding vape products. Most online verifications require customers scan a piece of photo identification but over a third users were only asked to click a button indicated they were at least 18 years old [3,15]. Despite the lax standards of many in-person and online sources, younger vapers may turn to others to access to these vaping products. Vapers below their province’s legal age are more likely than their older counterparts to get vaping devices and liquids from friends or may even ask an older person to buy products for them [3,15]. In contrast, vapers of legal age to purchase tobacco products are more likely than users below the legal age to buy vaping products from sources where proof of age is required (e.g. convenience stores) [15].

Influence from Health Care Providers

In late 2019, Phoenix SPI conducted research with healthcare providers to gather information on their perspectives and experiences with respect to nicotine products [23]. Researchers looked at how providers communicate nicotine-related information and relevant tools they can use to help address this with patients. Online surveys were distributed to 1125 healthcare providers and the data collected between August 2 and 30, 2019. Participants were sampled from SmartPoint Research's online panel of providers.

Among current and former smokers, health care providers such as physicians, family doctors, and nurse practitioners were most frequently identified as a source for information when thinking about switching from cigarettes to a different nicotine product [8]. This places a great deal of responsibility on health care providers for many smokers looking to quit. Indeed, over a quarter of health care providers (26%) said they have advised patients to use vaping as a last resort when trying to quit smoking [23]. In comparison, 35% said they advise their patients not to use vaping products altogether [23].

Health care providers do acknowledge potential downsides to vaping: 67% admit to patients that the long-term impacts of vaping are unclear and 55% identify harms associated with vaping [23]. The same research study, however, found that the majority of health care providers (74%) said they know little to nothing about vaping and fewer providers are comfortable talking about vaping products compared to alcohol, tobacco, and drug use [23]. Among those health care providers who are familiar with vaping products, the top recalled sources for information are: a general internet search (62%), Health Canada (47%), the Public Health Agency of Canada (42%), through a colleague or co-worker (42%), and through social media (39%) [23].

Personality Factors

This research report from Phoenix SPI categorized respondents based on responses to questions specific to smoking and vaping, as well as other demographic information. They used a factor analysis, regression analysis, and decision tree to segment their sample. Respondents were separated into one of seven groups.

A list of these groups and their respective proportions are presented below:

- Thrill Seeking Rule Breakers (24%)
- Conscientious Activists (18%)
- Defiant Partiers (16%)
- Rule Followers (15%)
- Outsiders (12%)
- Creative Conformists (9%)
- Irreverent Risk Takers (7%)

A brief description of each group is presented in Appendix B. The report labelled each category in terms of their risk of smoking and vaping. The following was taken directly from the executive summary in the report [21](p.3):

In terms of likelihood of smoking, they present the following risks:

- **Low risk:** Rule Followers, Creative Conformists, and Conscientious Activists
- **Medium risk:** Outsiders, Defiant Partiers, and Thrill Seeking Rule Breakers
- **High risk:** Irreverent Risk Takers

In terms of likelihood of vaping, they present the following risks:

- **Low risk:** Rule Followers, Conscientious Activists, and Creative Conformists
- **Medium risk:** Defiant Partiers, Outsiders, Thrill Seeking Rule Breakers, and Irreverent Risks Takers
- A majority of none of the segments represents a high risk for vaping. That said, “Irreverent Risk Takers” and “Thrill Seeking Rule Breakers” are more likely than average to present a high risk

It should be noted that not all members of a single group have equal risk of smoking or vaping uptake. Indeed, there may be a proportion of each that present greater or lesser risk than others within that same group. For example, 58% of Irreverent Risk Takers show high risk of smoking, while 40% and 2% exhibit a medium and low risk, respectively. Individual people may also fall into more than one group.

Two of the listed groups were disproportionately represented in smoking and vaping populations in this report: 58% of smokers/vapers were Irreverent Risk Takers and 25% were Thrill Seeking Rule Breakers. Other groups were represented in equal or lesser proportions in smoking and vaping populations.

The Irreverent Risk Takers and Thrill Seeking Rule Breakers groups will be briefly described here:

1. Irreverent Risk Takers make up approximately 7% of those aged 16-24 years and 58% of vaping/smoking populations. The report defines this group by its “risk behaviour and susceptibility for starting to smoke or vape, as well as the apparent lack of anti-smoking or vaping influences in their lives” (p. 68). Members of this segment are more likely to be

20-24 years old, working full-time, university graduates, male, living in the Prairies or Quebec, and from low-income households. 58% and 41% are at high risk of smoking and vaping, respectively.

2. Thrill Seeking Rule Breakers make up 24% of those aged 16-24 years and 25% of vaping/smoking populations. This group is characterized by greater preference for thrill-seeking and breaking the rules, and they score higher on the Wild Child factor. Members of this segment are more likely to be university or college graduates, male, working, part of the LGBTQ2 community, living in the Prairies, and from a lower income household. 47% and 34% are at high risk of smoking and vaping, respectively.

The remaining groups are listed and described here:

3. Conscientious Activists: make up 9% of those aged 16-24 and 4% of vaping/smoking populations. Key defining characteristics include scoring higher than average on the Rule Follower factors, Anti-vaping/smoking Peer Pressure, and Activist factors. This group is more likely to be 20-24 years old, high school graduates, university graduates, female, living in Quebec, and from a middle-income household.
4. Defiant Partiers: make up 16% of those aged 16-24 and 15% of vaping/smoking populations. Key defining characteristics include scoring highest on Thrill Seeking, Wild Child, and Social Bonds factors, and higher-than-average on the Anti-vaping/smoking Peer Pressure and Activist factors. They are more likely to be 20-24 years old, Male, in university, working full-time, living in Quebec, and from a higher income household.
5. Rule Followers: make up 15% of those aged 16-24 and 1% of vaping/smoking populations. Key defining characteristics include the highest score on the Rule Follower factor and low scores on Wild Child and Thrill Seeker factors, as well as the measure “breaking the rules”. They are more likely to be 16-19 years old, full-time students, in high school, female, living in British Columbia, and from higher income households.
6. Outsiders: make up 12% of those aged 16-24 and 1% of vaping/smoking populations. Key defining characteristics include lowest scoring on Extravert/Introvert, Friends and Family, Social Bonds, and Early Adapter/Conspicuous Consumer factors; second lowest on the Anti-vaping/smoking Peer Pressure factor, and lower-than-average on the Wild Child

factor. They are more likely to be 16-19 years old, in high school, male, living in Ontario, working full-time, part of a visible minority group, part of the LGBTQ2 community, and from lower income households.

7. Creative Conformists: makeup 9% of those aged 16-24 and 4% of vaping/smoking populations. Key defining characteristics are a higher-than-average score on the Anti-vaping/smoking Peer Pressure and Anti-vaping/smoking Activist factors. They are more likely to be 16-19 years old, full-time students, visible minorities, in high school, female, and living in Ontario.

Discussion and Conclusion

Health Canada's public opinion research suggests that vapers are often motivated to vape because of: vaping product features, use of vaping as a smoking cessation aid, social benefits of vaping, the perceived cheaper cost of vaping compared to smoking, and their curiosity to vape.

Younger audiences are disproportionately swayed by social influences, social benefits, and the “fun” side of vaping (including vaping flavours). They are more likely to be exposed to vaping advertisements over social media. Younger age demographics may have access to vaping products through in-person and online retailers as the standards for age verification are occasionally lacking, as well as through friends who already own a device.

Friends seem to play the largest role in the decision to vape, especially among younger audiences. Friends are often the first to introduce vapers to vaping products, and many vapers have said that they chose to take up vaping because their friends were doing it. This implies that social influences may play one of the most, if not the most, prominent role in vaping uptake. This may be encouraging for tobacco control interventions: initiatives that work to address vape use would also impact the transmission of vaping behaviours within social networks.

It seems much of the positive outlook toward vaping stems from how it is framed to consumers. Advertisements and promotional material have highlighted the “fun” aspects of vaping that may offer a positive framing of vape use, especially for younger audiences. Advertisements and promotional materials for vaping have been reported to highlight vaping features (e.g. flavours), “vaping lifestyle” and vaping conventions and meet-ups. When asked about reasons for vaping, users pointed to tricks, available flavours, and social bonding as key elements of vaping use. From this, we may speculate about the influence vaping advertisements have on consumers as links may be drawn between them and vaping perceptions. Most alarmingly, these reasons are rated more favourably among younger vapers, suggesting that they are more likely to be swayed by vaping marketing or the features which are marketed appeal more to younger audiences. Regardless, it is essential that regulatory bodies consider how vaping brands may adjust promotional materials as to reduce appeal to at-risk groups.

There is a common perception that vaping can be used as a smoking cessation aid. Indeed, many participants reported that vaping is a healthier alternative to smoking and have switched or are switching to vape devices to cut down on smoking or quit entirely. Advertisements and promotional materials have also been noted to feature vaping as a smoking cessation aid. In fact, the view that vaping can be used for smoking cessation is common and has found entry into different communities as participants reported they have been advised to use vaping to cut down on smoking by friends, classmates, and even healthcare providers. Despite this, many healthcare providers feel they do not know much about vaping and, while more than a quarter of providers have advised their patients to use vaping products to quit smoking, even more suggest patients avoid vaping products entirely.

Lastly, one research project reviewed for this report explored personality factors of vaping use. Irreverent risk takers, or those who are inclined toward riskier behaviours and who do not have a strong anti-vaping/smoking influence in their lives, were vastly over-represented in smoking and vaping populations. Points of intervention may further disseminate various anti-smoking and anti-vaping materials, but beyond that, regulations to limit accessibility may be a useful step in reducing vape use. Many Canadians are already in support of limiting youth access to flavoured vaping products, suggesting that a substantial portion already see vaping as a potential harm for younger demographics and are interested in policy-level action to address this concern. Youth ranked available vaping flavours as one of the main reasons they initially took up vaping and policy interventions may work to limit both their availability to youth and youth exposure to advertisements to avoid this key contributor to vaping uptake.

In all, the research suggests e-cigarette policy initiatives should consider methods of regulating vaping features that make products appear “fun” or as having social benefits to younger audiences, but also keep vaping products available as one of many harm reduction resources for current smokers interested in quitting.

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- Phoenix SPI. (2017). *Qualitative/Quantitative Research on E-cigarette Flavours and Risk Perception*. (POR 088-16). Reference number from annotated list: [22].

Appendix A – Annotated Resources List

Reference #	Code	Title	Objective	Publish Date	Research Methods	Inclusion Criteria	Sample Size	Author	Timeline	Locations
1	POR 013-18	Break It Off: Tobacco Cessation Creative Concepts Testing	This research aimed to gather feedback on the Break It off campaign, including message effectiveness.	Sep-18	Focus groups (6)	Young adult smokers (age 20-24) living in Canada	n=44	Phoenix SPI	July 24-26, 2018	St. Johns, Montreal, Saskatoon
2	POR 067-18	Qualitative and quantitative research on perceptions of nicotine: final report	The specific objectives of the research were to gather information from Canadians about their knowledge of the health hazards and risks associated with smoking and nicotine, as well as test reactions to the hypothetical concept of a very low nicotine content cigarette. The project was divided into three phases.	Mar-19	Qualitative: Phase one - focus groups (15); Phase Three - focus groups (2); Quantitative: Phase two - surveys	Phase one: youth (16-19) non-smokers; young adult (20-24) non-smokers; and, adult (40-55) smokers. Phase two: youth (aged 13-14), youth (age 15-19), young adults (age 20-24) and smokers. Phase three: youth (16-18) and young adults (19-24) who occasionally vape or may be susceptible to trying it.	Phase one, n=126; Phase two, n=3234; Phase three, n=17	Earnscliffe Strategy Group	Qualitative phase: December 3-6, 2018; follow-up quantitative phase: March 19, 2019; Quantitative phase: February 11-March 7, 2019	Qualitative phase: Toronto, Halifax, Montreal, Winnipeg, Vancouver; Quantitative phase: Canada (online); follow-up qualitative phase: Toronto
3	POR 083-18	Vapers panel survey to measure attitudes and behaviours regarding vaping products : final report	The research aimed to gather information on the attitudes and behaviours of Canadians who are regular vapers aged 15 years and older with respect to vaping products. This includes awareness and knowledge of vaping products, vaping behaviours, and devices and e-liquids used by Canadian vapers.	Mar-19	Surveys	Youth vapers (age 15-19), young adult vapers (age 20-24), and adult vapers (age 25+)	n=2027	Environics Research	February 4-26, 2019	Canada (online)
4	POR 037-18	Vaping Prevention Concepts Testing : final report	Researchers assessed reactions to concepts considered for Health Canada's Health Risks of Vaping Products Public Awareness Marketing Campaign from their target audience.	Apr-18	Focus groups	Phase one: youth 13-15, and one with non-vaper and non-smoker at-risk youth; and phase 2 used six focus groups with youth (13-15) and youth (16-18) who do not currently smoke cigarettes or vape	Phase one, n=92; Phase two, n=54	Corporate Research Associates Inc.	Phase One: September 17-20, 2018; Phase Two: November 26-28, 2018	Phase one: Vancouver, Winnipeg, Toronto, Montreal, and Halifax; Phase Two: Montreal, Toronto, and Moncton

Reference #	Code	Title	Objective	Publish Date	Research Methods	Inclusion Criteria	Sample Size	Author	Timeline	Locations
5	POR 054-18	Exploratory research on smoking cessation : final report	The purpose of this poll is to explore experiences related to smoking and cessation.	Dec-18	Focus groups	Adult smokers and former smokers	n=164	Phoenix SPI	October 29 - November 20, 2018	Mississauga, Winnipeg, Edmonton, Montreal, and St. John's
6	POR 099-17	Evaluation of possible labelling elements for vaping products - phase 1 and phase II : final report	Researchers explored regulatory requirements for the labelling of vaping products.	Apr-18	Focus groups	Smokers/vapers age 18+	Phase one, n=53; Phase two, n=46	Corporate Research Associates Inc.	Phase one: March 19-26, 2018; Phase two: June 25-28, 2018	Phase one: Toronto, Vancouver, and Montreal; Phase two: Toronto, Montreal, Vancouver
7	POR 119-18	Smoking Behaviour Journey Map	Researchers were looking at ways to prevent tobacco use and methods of support for cessation.	Mar-19	Phase one - surveys; Phase two - quantitative journaling	Adult (age 18+) daily smokers who have been smoking for at least five years, Canadian	Phase one, n=510; Phase two, n=80	Environics Research	Quantitative phase: March 7-15, 2019; Qualitative phase: March 14-20, 2019.	Quantitative phase: Canada (online); qualitative phase: Canada (online)
8	POR 093-18	Smokers and Recent Quitters' Awareness and Perceptions of Options to Minimize Harms from Tobacco Products	This research aimed to gather information on attitudes and behaviours of Canadian cigarette smokers and recent quitters toward other tobacco and nicotine products (e.g. e-cigarettes, nicotine patches).	Jun-19	Surveys	Current and former smokers at least 18 years of age	n=3006	Phoenix SPI	February 22 - March 14, 2019	Canada (online)
9	POR 126-18	Qualitative Testing of Revised Health Warnings for Cigarette Packages and on Cigarettes: 2019	This research looked at the effectiveness of different cigarette warnings to promote tobacco use awareness.	Apr-19	Focus groups (40)	Youth non-smokers aged 15-19, youth smokers aged 15-19, young adult smokers aged 20-24, or adult smokers aged 25 and older.	n=369	Corporate Research Associates Inc.	March 18-29, 2019	Toronto, Vancouver, Halifax, and Montreal

Reference #	Code	Title	Objective	Publish Date	Research Methods	Inclusion Criteria	Sample Size	Author	Timeline	Locations
10	POR 058-18	Public Opinion Research on Noticeability of Health Information Messages and Effectiveness of Health Warnings for Tobacco Labelling	The study looked at the effects of Health Information Messages and Health Warnings on impact factors such as ad recall and credibility/believability and the best way(s) to convey health hazards to improve messaging.	Mar-19	Survey	Canadians age 16+ who are daily or occasional smokers	n=3000	Environics Research	January 28 - March, 2019	Canada (online)
11	Private Poll	Three-in-Four Canadians Back Temporary Ban on Vaping Products. <i>Private Poll.</i>	This poll asked participants if they would support a ban on e-cigarettes in public spaces, want a warning sign on vaping products, and support a ban on flavoured vaping products.	Nov-19	Surveys	Canadian adults (age 18+)	n=1000	Research Co.	October 21-23, 2019	Canada (online)
12	POR 014-19	Advertising evaluation of Youth Vaping Prevention Campaign - post ACET : methodological report	Contacted Health Canada for full report. Summary not available.	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13	POR 026-19	Online qualitative testing of draft health warnings for cigars, pipe tobacco, smokeless tobacco and toxic statements for smokeless product packaging - 2019	This research looked at opinions toward health warning labels to ensure they are effective at informing Canadians on relevant hazards.	Aug-19	Focus groups (15)	Current or former cigar, pipe tobacco and smokeless tobacco users age 18+	n=111	Narrative Research	July 15-22, 2019	British Columbia, Alberta, Manitoba, Ontario, New Brunswick, Prince Edward Island, Nova Scotia, Newfoundland and Labrador, and Quebec.

Reference #	Code	Title	Objective	Publish Date	Research Methods	Inclusion Criteria	Sample Size	Author	Timeline	Locations
14	POR 025-19	Qualitative testing of new health information messages, including placement options, as well as the thematic linking of labelling elements – 2019 : final report	Participants were asked to give feedback on Health Information Messages mock-ups.	Oct-19	Focus groups (15)	Daily or occasional cigarette smokers age 15+	n=132	Quorus Consulting Group Inc.	July 13-27, 2019	Toronto, Winnipeg, Edmonton, St. John's and Quebec City
15	POR 141-18	Vapers’ Panel Survey to Measure Attitudes and Behaviours Regarding Vaping Products	Researchers aimed to receive feedback on vaping- and tobacco-related attitudes and behaviours.	Jul-19	Surveys	Canadian vapers age 15+	n=2043	Environics Research	May 27 - June 25, 2019	Canada (online)
16	POR 139-18	Privy Council focus groups asking about smoking and vaping, among other things. available in three separate reports on the National Library	The study looked at attitudes and perceptions of current events such as the environment, vaccines, and vaping. (Note, only the third cycle was included for this report.)	Aug-19	Focus groups (12)	Canadians age 18+	n=109	Phoenix SPI	June 6-26, 2019	Surrey, Fredericton, Sorel, Belleville, Edmonton, Victoria
17	POR 130-18	2019 Canadian cannabis survey	The survey looks at Canadian cannabis use and habits	Jun-19	Surveys	Canadians aged 16+	n=10,000	Advanis Inc.	April 4 - June 17, 2019	Canada (online)
18	Private Poll	Vanquishing vaping? Support for tougher regulations rise as positive views of e-cigarettes go up in smoke.	The survey looked for feedback on vaping behaviours in Canada, especially for youth.	Jan-20	Surveys	Canadian adults (age 18+)	n=1655	Angus Reid Institute	December 2-4, 2019	Canada (online)

Reference #	Code	Title	Objective	Publish Date	Research Methods	Inclusion Criteria	Sample Size	Author	Timeline	Locations
19	POR 047-17	Longitudinal Vaper Panel Survey to Measure Attitudes and Behaviours regarding Vaping Products	This project gathered information on attitudes and behaviours of Canadian vapers and ever users aged 15 and older on vaping products.	Apr-18	Surveys (two waves)	Canadian vapers and ever users aged 15+	First wave, n=1312; Second wave, n=1729	Environics Research Group	Wave 1: December 15-29, 2017; Wave 2: February 1-14, 2018	Canada (online)
20	POR 014-18	Testing of Relative Risk Statements for Vaping Products	The main objective of this research is to evaluate perceptions of risk statements that can be used in the sale of vaping products.	Sep-18	Focus groups (16)	Adult vapers (18+), adult smokers (18+), youth never-users (age 15-19), or young adult (20-24) non-users	n=124	Corporate Research Associates Inc.	August 1-16, 2018	Toronto, Vancouver, Saskatoon, Montreal
21	POR 074-17	Peer Crowd Analysis and Segmentation for Vaping and Tobacco	The report aimed to highlight groups at-risk for smoking and vaping that Health Canada can use to inform tobacco/vaping strategies. (Note, the sample was drawn from the Asking Canadians online panel.)	Nov-18	Qualitative - focus groups (8) and triads (8); Quantitative - surveys	Qualitative - smoker/vapers and non-smokers/non-vapers between 13-24 years; Quantitative - Canadians between 13-24 years	Qualitative, n=88; Quantitative, n=3004	Phoenix SPI	Qualitative: February 12-13, 2018; Triads: February 24, 2018 + June 2, 2018; Quantitative: March 26-April 24, 2018.	Qualitative: Toronto, Montreal, Ottawa; Quantitative: Canada (online)
22	POR 088-16	Qualitative/Quantitative Research on E-cigarette Flavours and Risk Perception	This study explored Canadians' perceptions on e-cigarette flavours, and perceptions of harms associated with e-cigarette use with a special focus on youth and young adults. (Note, the sample was taken from Research Now's panel of online Canadians.)	Apr-17	Focus groups (12), surveys	Vapers and non-vapers between 15-24 years of age	Focus groups, n=N/A; surveys, n=1509	Phoenix SPI	Qualitative: January 30 - February 2, 2017; Quantitative: March 1-20 2017	Qualitative: Toronto, Montreal, Vancouver; Quantitative: Canada (online)
23	POR 019-19	Health Care Providers' Views and Experiences with Smoking Cessation and Alternative Nicotine Products	Researchers wanted to gather information on perspectives and experiences of healthcare providers with respect to nicotine products. (Note, participants were sampled from SmartPoint Research's online panel of providers.)	Nov-19	Surveys	Healthcare providers	n=1125	Phoenix SPI	August 2-30, 2019	Canada (online)

Appendix B – Factors and Descriptions of Groups from Segmentation Analysis

1. Thrill Seeking

- I like to do things that frighten me
- I like new and exciting experiences, even if I have to break the rules
- I would like to take off on a trip with no pre-planned routes or timetables
- I would like to try bungee-jumping
- I prefer friends who are unpredictable
- I would like to explore new places
- I get restless when I spend too much time at home
- I see myself as: curious, daring

2. Meaningful Life and Social Bonds

- How important is: Having a fulfilling job?
- How important is: Finding purpose and meaning in life?
- How important is: Being close to family and friends?
- How important is: Having a family?
- How important is: Travelling

3. Rule Follower

- I follow the rules almost all the time.
- I see myself as: Dutiful, rule follower
- I listen to what my parents tell me to do

4. Anti-vaping/smoking Activist

- Taking a stand against vaping?
- Taking a stand against smoking?
- Living a healthy tobacco-free, drug-free lifestyle?

5. Social Responsibility and Engagement

- I would pay more for an environmentally friendly product
- Looking after the environment is important to me
- It is important to follow what's going on in government, public affairs
- How important is: Contributing to society

6. Early Adopter / Conspicuous Consumer

- I'm usually the first to have the latest technology or gadget.
- I am usually the first among my friends to wear the latest fashion trend.
- I would describe myself as brand-conscious.
- I am usually the first among my friends to try new things.

7. Extravert / Introvert

- I do not see myself as reserved or quiet
- I see myself as: sociable, outgoing
- I do not see myself as anxious, insecure
- I see myself as: leader, trendsetter

8. Anti-vaping/smoking Peer Pressure

- People close to me would be upset if I smoked
- People close to me would be upset if I vaped
- Vaping is embarrassing/not cool
- Smoking regular cigarettes is not socially acceptable

9. Importance of Family and Friends

- To keep on top of new trends, how important are: Friends
- To keep on top of new trends, how important are: Family members

10. Creative Independence

- I see myself as: Creative, imaginative
- Developing my own style of art/music/dance is important to me.

11. Religious Values

- I frequently attend religious services.
- I strive to follow traditions / customs handed down to me

12. Wild Child

- Most of my friends drink alcohol
- I like wild parties

Note: the information presented in this appendix was taken from Phoenix (2018) [21].