

## Five Insights from national survey data

# The Canadian Tobacco & Nicotine Survey, 2020-21

### Background

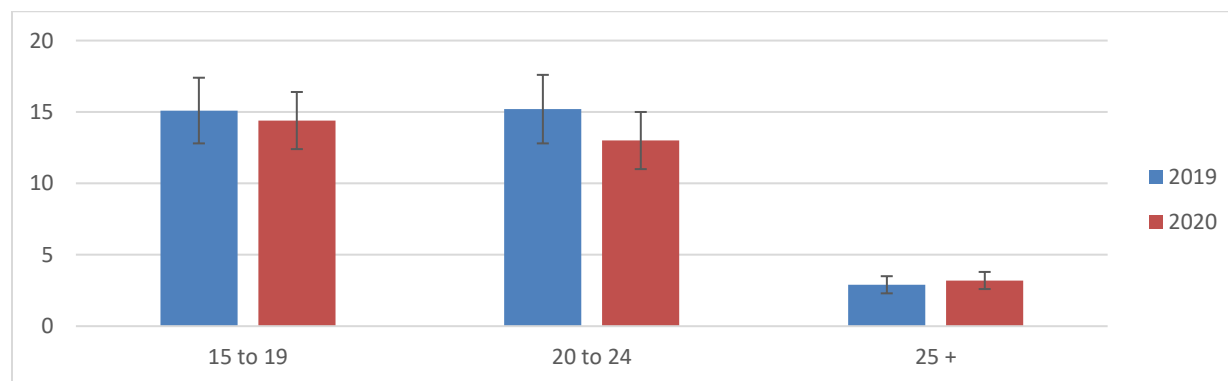
In March 2021, Statistics Canada released some results from the 2020 wave of the Canadian Tobacco and Nicotine Survey (CTNS). This is second round of a survey first conducted in October to December 2019 and repeated in December 2020 to January 2021. In 2020 the survey was taken by 8,112 Canadians, and only 41% of those who were asked to participate agreed to do so.<sup>1</sup>

The first results of the CNTS 2020 were released by Statistics Canada on March 17, 2021.<sup>2</sup> Health Canada subsequently released some tables, and in July, Statistics Canada released the Public Use Microfile for this survey.<sup>3</sup> The graphs and tables below are drawn from these data sources.

## 1. Vaping rates have stabilized in Canada between 2019 and 2020.

There is little difference in the estimates of the proportion of Canadians who have vaped in the past month between late 2019 and late 2020.

FIGURE: PREVALENCE OF PAST-MONTH VAPING BY AGE GROUP CTNS 2019 AND 2020



Estimated percentage of Canadians who vaped in the past 30 days (with confidence limits).

	15 to 19 years	20 to 24 years	25 and over	All age
<b>2019</b>				
Male	16.1 (12.7 – 19.5)	18.0 (14.2-21.8)	3.8 (2.8-4.7)	5.8 (4.9 – 6.7)
Female	13.6 (10.6 – 16.7)	11.8 (8.6-15.0)	2.1 (1.5 - 2.7)	3.6 (3.0 – 4.2)
Both	15.1 (12.8 – 17.4)	15.2 (12.8-17.7)	2.9 (2.3-3.5)	4.7 (4.2 – 5.3)
<b>2020</b>				
Male	14.9 (12.3 - 18.1)	15.4 (12.5-18.8)	3.8 (3.0 – 4.8)	3.6 (3.0-4.3)
Female	14.0 (11.1 - 17.5)	10.0 (7.6-12.9)	2.3 (1.7 – 3.1)	5.5 (4.7-6.4)
Both	14.4 (12.4 - 16.8)	13.0 (11.0 – 15.2)	3.2 (2.6 – 3.8)	4.6 (4.1-5.2)

Physicians *for a* Smoke-Free Canada

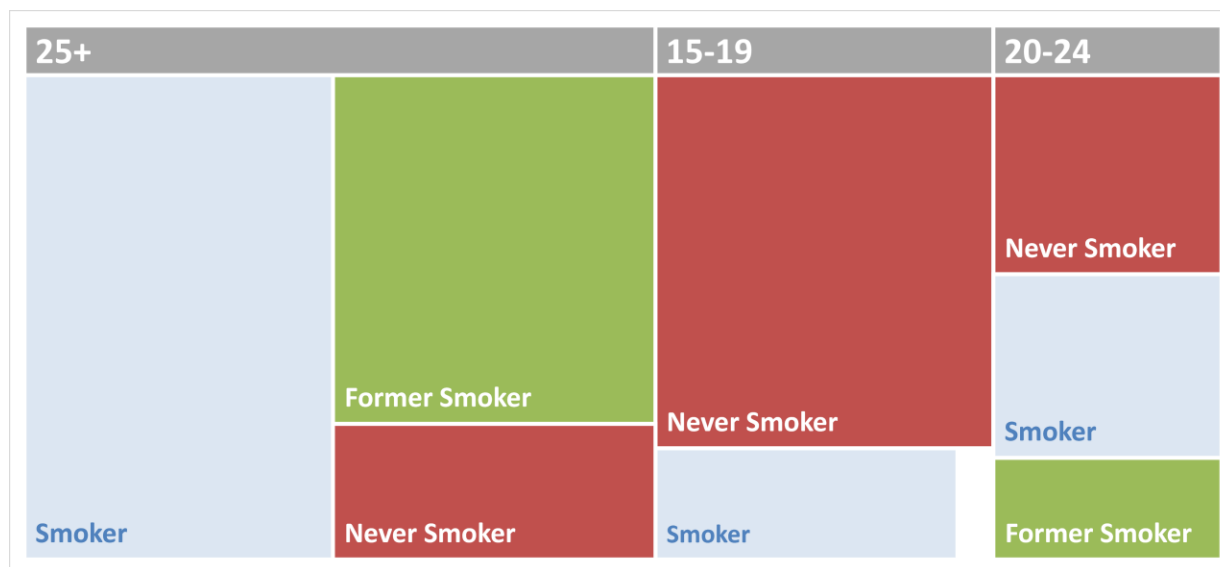
134 Caroline Avenue ♦ Ottawa ♦ Ontario ♦ K1Y 0S9  
www.smoke-free.ca ♦ psc @ smoke-free.ca

## 2. One-fifth of Canadian vapers are teenagers

The CTNS survey results show that although Canadian youth and young adults (aged 15 to 24) make up only 15% of the surveyed population, they represented 40% of those who vape.<sup>4</sup>

In the fall-winter of 2020-2021 there were about 1.46 million Canadians who had vaped in the past month. Of these, one-third (485,100) were "former smokers." The remainder were "never smokers"(438,500, 30%) or "current smokers" (532,400 dual users, 38%).

**FIGURE: SMOKING STATUS OF CANADIAN VAPERS BY AGE GROUP CTNS 2020**



**TABLE: ESTIMATED POPULATION OF CANADIAN VAPERS BY AGE GROUP AND SMOKING STATUS. CTNS 2019 AND 2020**

	Past month vapers				Did not vape in past month			
	Smoker	Former Smoker	Never Smoker	Total vapers	Smoker	Former Smoker	Never Smoker	Total Population
<b>2019</b>								
<b>15 to 19</b>	83,500	Sup.	314,100	425,300	Sup.	Sup.	2,317,700	2,814,400
<b>20 to 24</b>	104,100	57,600	113,000	274,700	135,700	36,400	1,354,700	1,801,500
<b>25 and over</b>	372,000	279,600	108,800	760,400	2,878,300	7,145,000	15,479,800	26,263,400
<b>Total</b>	559,700	364,800	535,900	1,460,400	3,070,800	7,196,000	19,152,300	30,879,300
<b>2020</b>								
<b>15 to 19</b>	52,500	Sup.	214,800	290,169	Sup.	Sup.	1,705,000	2,015,900
<b>20 to 24</b>	88,200	55,000	168,700	311,900	113,300	79,100	1,886,800	2,391,000
<b>25 and over</b>	391,700	407,200	55,000	853,900	2,570,700	7,171,000	16,274,700	26,016,400
<b>Total</b>	532,400	485,100	438,500	1,456,000	2,694,700	7,260,000	19,866,600	31,277,100

Sup = data suppressed due to low cell count.

### 3. For every 100 people who have tried vaping, 14 became daily users.

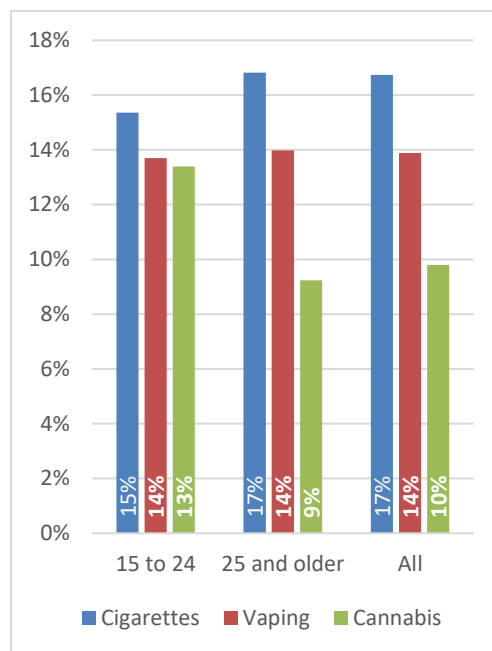
A great accomplishment for tobacco control has been establishing an environment where young people do not try smoking cigarettes -- even once. CTNS data reflects that progress: Four-fifths of young people (15 to 24 years of age) reply "no" to the question "Have you ever smoked a whole cigarette," compared with fewer than one-half of those in previous generations (over 25 years of age).

But among those who have ever smoked a cigarette, the proportion who became daily (likely addicted) smokers is the same at every age. More than one in six (17%) of those who ever smoked a whole cigarette were smoking daily in 2020, regardless of their age group. This speaks to the addictive power of cigarettes and nicotine.

For vaping, about one in seven (14%) of those who had ever used these products were using them daily in the fall-winter of 2020-2021. In this case, however, the pattern is reversed in comparison with smoking: it is the younger generation who had much higher rates of experimentation than older Canadians. Just more than one in ten adults (13%) had ever tried vaping, compared with two-fifths of youth and young adults (40%).

For cannabis, the rate of experimentation was essentially the same for all age groups (40%), although young people were more likely to be daily users. Overall, the rate of daily use was about 9%, consistent with other estimates of rates of addiction to cannabis.

**FIGURE: PERCENTAGE OF EVER USERS WHO NOW USE DAILY, CTNS 2020**



**TABLE : NUMBER OF EVER USER AND DAILY USERS, CTNS 2020**

	Cigarettes		Cannabis		Vaping	
	Ever used	Use daily	Ever used	Use daily	Ever used	Use daily
<b>All ages</b>	14,866,500	2,487,900	12,593,700	1,234,100	5,192,100	721,000
<b>15 to 24 years</b>	872,800	134,000	1,704,800	228,300	1,745,300	239,100
<b>25 years and older</b>	13,993,700	2,354,000	10,888,900	1,005,800	3,446,800	481,900

**TABLE : PREVALENCE OF EVER USE AND DAILY USE, CTNS 2020**

	Cigarettes			Cannabis			Vaping		
	Ever used	Use daily	Daily/Ever	Ever used	Use daily	Daily/Ever	Ever used	Use daily	Daily/Ever
<b>All ages</b>	47%	8%	17%	40%	4%	10%	17%	2%	14%
<b>15 to 24 years</b>	20%	3%	15%	39%	5%	13%	40%	5%	14%
<b>25 years +</b>	52%	9%	17%	40%	4%	9%	13%	2%	14%

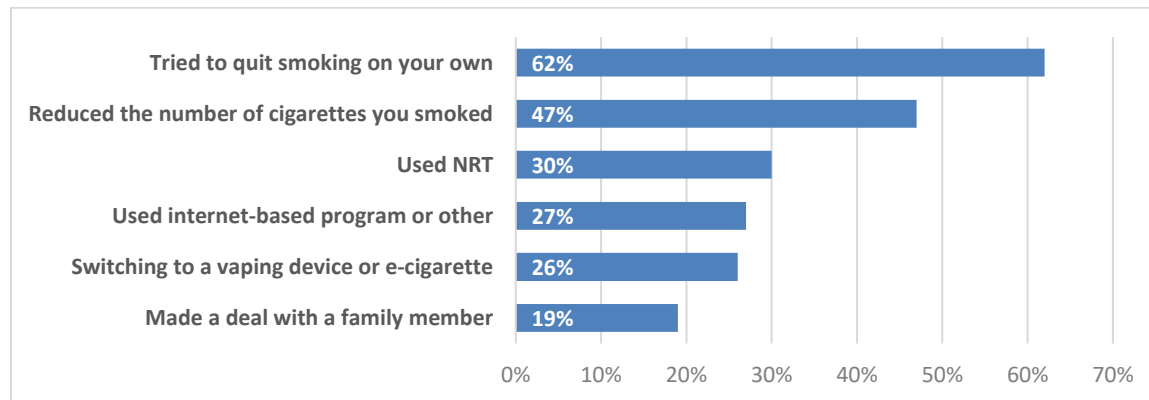
#### 4. Forty percent of smokers made a quit attempt over the past year. One-third of these used a cessation aid.

Smokers and former smokers who said they had quit in the past year were asked how many times they had stopped smoking for at least one day as part of a quit attempt and were also asked whether they had used any specific quit methods. Two-fifths (42%) identified making at least one quit attempt, with almost one-third (30%) trying two or more times.

When asked whether they had tried to quit using specific approaches, the majority (62%) said they had tried to quit on their own. Almost one half (47%) said they had reduced the number of cigarettes they smoked, one-quarter (26%) said they had switched to vaping, slightly more (30%) said they had used nicotine replacement and one-quarter (27%) said they had used an internet or "other" method. Because prescription medication was not identified on the questionnaire, treatments like varenicline may be included under "other". These answers were not exclusive, and smokers may have tried more than one method during the year or even used several concurrently.

The number of smokers who reported using a Quitline or Smokers Helpline or using a smart phone app was so small that the survey result is unreportable.

**FIGURE: METHODS USED IN QUIT ATTEMPTS CTNS 2020**

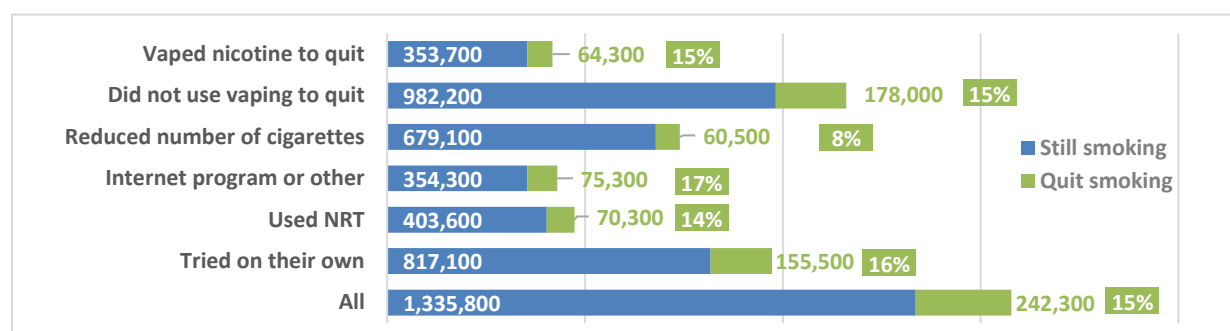


## 5. Most smokers were not successful in their quit attempts – each quit method producing comparable results.

The vast majority (85%) of smokers who reported making a quit attempt in the past year were still smoking at the time of the survey. Of the estimated 1.6 million Canadians who quit for one day or more over the past year, only 242,000 were still not smoking at the time of the survey (15%).

Differences in the outcomes for those using different cessation approaches were not tested for statistical significance but are presented below. The largest number of successful quitters were those who identified as using no quit method.

**FIGURE: METHODS USED IN QUIT ATTEMPTS, AND SUCCESSFUL QUITTING AT TIME OF SURVEY. CTNS 2020**



**TABLE: METHODS USED IN QUIT ATTEMPTS, AND SUCCESSFUL QUITTING AT TIME OF SURVEY. CTNS 2020**

	All	Tried on their own	Used NRT	Internet program or other	Reduced number of cigarettes	Did not use vaping to quit	Vaped nicotine to quit
<b>Tried to quit smoking (for at least one day) – A</b>	1,578,100	972,600	473,900	429,600	739,600	1,160,200	418,000
<b>Not smoking at time of survey - B</b>	242,300	155,500	70,300	75,300	60,500	178,000	64,300
<b>Percentage of smokers making quit attempt</b>	100%	62%	30%	27%	47%	74%	26%
<b>Success rate (B/A)</b>	15.4%	16%	14.8%	17.5%	8.2%	15.3%	15.4%

## 6. Tobacco-flavour is the only vaping flavour not attracting young people to vape.

The CTNS survey asked respondents who had vaped in the past month which flavours of vaping liquid they vaped most often. Eight options were offered: tobacco, fruit, candy, dessert, mint, or menthol, flavourless, and no usual flavour.

The survey also enquired about vapers' main reason for vaping. Of the eight options, three can be categorized as being related to recreational or drug-effect and four are related to tobacco use. The eighth option was an unclassifiable "other" reason.

### Recreation/Drug-related reasons

- Curiosity, you just wanted to try it
- Because you enjoy it
- To reduce stress or calm you down

### Tobacco-related reasons

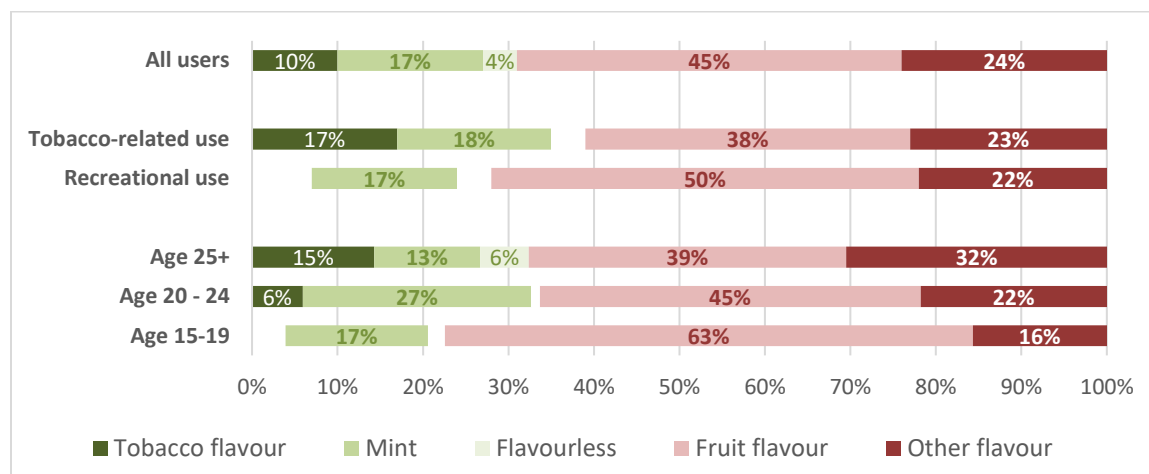
- To quit smoking cigarettes
- To cut down on smoking cigarettes
- To use when you cannot/are not allowed to smoke cigarettes
- To avoid returning to smoking cigarettes

Almost one-half (46%) give a 'recreational reasons' for vaping, saying that the main reason they vape is out of curiosity (13%) or because they enjoy it (17%) or because it reduces stress (17%). Tobacco flavours are infrequently their usual flavours (7%). About one-half of this group (50%) choose fruit, and almost one-sixth (17%) say they prefer menthol or mint flavours. One-quarter (22%) do not have a usual flavour or have one different than those listed. The profile of the 11% of vapers who give an unspecified "other" reason for vaping is similar when it comes to flavour choices.

More than four in ten vapers (43%) give tobacco-related reasons for vaping, saying the main reason they vape is to quit smoking (21%), to cut down on the number of cigarettes they smoke (8%), to avoid returning to smoking (9%) or to use when they cannot smoke cigarettes (5%). Among this group, less than one-fifth (17%) use tobacco flavours and roughly the same proportion (18%) chose mint or menthol flavours, while twice as many (38%) chose fruit.

**FIGURE: USUAL FLAVOUR CHOSEN BY VAPERS BY AGE AND REASON FOR USING. CTNS 2020**

**FLAVOURS PROPOSED TO BE PERMITTED; FLAVOURS PROPOSED TO BE PROHIBITED**



**TABLE: USUAL FLAVOUR CHOSEN BY VAPERS AND THEIR MAIN REASON FOR VAPING. CTNS 2020**

	Flavours to be permitted				Flavours to be restricted			Total
	Tobacco Flavour	Mint or menthol	Flavourless	Subtotal	Fruit	Other	Subtotal	Excl DK/NR
<b>Number of vapers</b>								
All vapers	149,300	243,000	58,366	450,700	653,800	348,000	1,001,800	1,452,600
% of vapers	10%	17%	4%	31%	45%	24%	69%	100%
<b>% Vapers by age</b>								
15 to 19	supp	17%	Supp	21%	63%	16%	79%	290,169
20 to 24	6%	27%	Supp	34%	45%	22%	66%	311,900
25 +	15%	13%	6%	33%	39%	32%	67%	853,900
<b>% Vapers by reason for vaping</b>								
Recreation/Drug-oriented	6%	16%	Supp	27%	50%	22%	73%	672,300
Tobacco/Health related	17%	18%	Supp	39%	38%	Supp	61%	623,500
Other reason	Supp	Supp	Supp	Supp				154,000

*Supp = data suppressed as cell count was below 25.*

In July 2021, Health Canada proposed regulations to restrict certain flavouring additives and promotions in vaping liquids. The only flavours that will be permitted are tobacco flavour, mint, menthol, and combinations of those three flavours.

- These survey results suggested that the permitted flavours are the preferred flavours of 31% of Canadian vapers and are more frequently favoured by those who vape for tobacco related reasons than for recreational ones (39% vs. 27%). The flavours that are proposed to be prohibited are preferred by 69% of vapers surveyed (61% of those who vape for tobacco-related reasons and 73% of those who vape for recreational reasons. These differences were not tested for statistical significance but are presented below.
- The flavours that are proposed to be banned are the preferred flavours of 80% of teenage vapers.

## References

- 1 Statistics Canada. Canadian Tobacco and Nicotine Survey (CTNS). <https://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=5305>
- 2 Statistics Canada. Canadian Tobacco and Nicotine Survey, 2020. <https://www150.statcan.gc.ca/n1/daily-quotidien/210317/dq210317b-eng.htm>
- 3 Canadian Tobacco and Nicotine Survey: Public Use Microdata File <https://www150.statcan.gc.ca/n1/pub/13-25-0001/132500012021001-eng.htm>
- 4 Note that the population estimates of the CTNS varied significantly between 2019 and 2020: the estimated population of Canadians aged 20 to 24 grew from 1.8 to 2.4 million. No explanation for this adjustment was included with the data release.

Funding for this report was provided by Health Canada's Substance Use and Addictions Program (SUAP)  
The views expressed herein do not necessarily represent the views of Health Canada