

Trends in smoking and vaping among young people

FINDINGS FROM THE ITC YOUTH & YOUNG ADULT TOBACCO AND VAPING SURVEY, 2017–2023

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Foreword

The International Tobacco Control Policy Evaluation Project (ITC) Youth Tobacco and Vaping Survey examines use of tobacco and vaping products among youth in countries with differing policy environments. The first national surveys in Canada, England and the United States were conducted in 2017, with annual waves in subsequent years (and additional semi-annual waves in 2020 and 2021). New Zealand was added in 2023.

The current report summarizes findings among youth respondents aged 16–19 in the four countries, including trends between 2017 and 2023 where possible. Additional details are available upon request.

Visit the study website for more information:
<https://davidhammond.ca/projects/tobacco-vaping/itc-youth-tobacco-ecig/>



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Methods

OVERVIEW

The ITC Youth & Young Adult Tobacco and Vaping Survey is a repeat cross-sectional survey conducted annually since 2017 (and semi-annually in 2020 and 2021) in Canada, England, and the United States (US), and beginning in 2023 in New Zealand (NZ), to examine trends in tobacco use and vaping. This report summarizes key indicators from the youth surveys, with a focus on 2023.

SAMPLE

Respondents included youth aged 16–19 years in all waves, as well as young adults aged 20–29 years in 2020, 2022, and 2023, recruited through the Nielsen Consumer Insights Global Panel in Canada, England and the US, Dynata and TGM in NZ. The Nielsen panel in each country is recruited using both probability and non-probability sampling methods. Recruitment targets at each wave included 4,500 respondents aged 16–19 and 1000 respondents aged 20–29 per country, with some variation in NZ.

Respondents received remuneration in accordance with their panel's usual incentive structure. The current report summarizes findings from youth surveys over nine waves between 2017 and 2023.

SURVEY

All data was collected via self-completed online surveys. The survey covers the following content areas:

- prevalence and patterns of smoking and vaping;

- specific products and brands;
- sources and purchasing of cigarettes and vaping products;
- perceptions of risk and social norms around smoking and vaping;
- exposure to health warnings and public education campaigns;
- exposure to e-cigarette marketing;
- awareness and use of other tobacco products;
- substance use and other risk behaviours; and
- socio-demographics and socio-economic status.

DATA ANALYSIS

Post-stratification survey weights were created using age-by-sex-by-region groups, and calibrated to Wave 1 proportions for student status and school grades, as well as the past 30-day smoking trend from national benchmark surveys (in Canada and the US). All estimates in the current report are weighted and rescaled to the original sample size within each country. Estimates are provided with 95% confidence intervals where feasible. Data are summarized within countries over time, as well as across countries within survey waves.

TECHNICAL REPORTS

The surveys and technical reports are available at:

<https://davidhammond.ca/projects/tobacco-vaping/itc-youth-tobacco-ecig/>. The technical reports include detailed information on methodology and survey weighting.

Sample

Weighted estimates	Canada n=38,337	England n=37,114	US n=41,716	NZ n=1,021	Total n=118,188
Age					
16 years	22.6%	21.5%	22.8%	25.4%	22.3%
17 years	25.3%	27.7%	26.7%	25.1%	26.5%
18 years	29.5%	31.6%	29.8%	25.1%	30.2%
19 years	22.7%	19.2%	20.6%	24.5%	20.9%
Sex					
Female	48.8%	48.6%	48.9%	48.9%	48.8%
Male	51.2%	51.4%	51.1%	51.1%	51.2%
Race/ethnicity					
White (only)	54.4%	74.1%	71.4%	--	66.7%
Any other/not stated	45.6%	25.9%	28.6%	--	33.3%
Current student	93.0%	91.7%	91.1%	78.7%	91.8%
Family financial status*					
Not meeting basic expenses	3.5%	3.3%	4.7%	5.4%	3.9%
Just meeting basic expenses	21.6%	23.7%	24.2%	29.0%	23.2%
Meeting needs with a little left over	34.4%	34.8%	32.3%	31.4%	33.7%
Living comfortably	35.6%	33.5%	34.2%	29.3%	34.4%
Not stated	4.8%	4.7%	4.6%	5.0%	4.7%
Survey wave					
W1 - 2017 July/Aug	10.5%	10.8%	9.8%	--	10.3%
W2 - 2018 Aug/Sept	10.0%	10.4%	9.7%	--	9.9%
W3 - 2019 Aug/Sept	10.8%	9.4%	9.5%	--	9.8%
W3.5 - 2020 Feb/Mar	11.0%	11.5%	12.3%	--	11.5%
W4 - 2020 Aug	11.1%	11.6%	14.4%	--	12.3%
W4.5 - 2021 Feb/Mar	12.0%	11.6%	12.6%	--	12.0%
W5 - 2021 Aug/Sept	12.0%	11.6%	11.7%	--	11.7%
W6 - 2022 Aug/Sept	11.5%	11.5%	9.9%	--	10.8%
W7 - 2023 Aug/Sept	11.0%	11.6%	10.0%	100.0%	11.6%

*NOT INCLUDED ON WAVE 1 SURVEY

NOTE: ADDITIONAL SAMPLE INFORMATION FOR EACH WAVE, INCLUDING COUNTRY-SPECIFIC CATEGORIES FOR RACE/ETHNICITY, AVAILABLE IN THE TECHNICAL REPORTS

Smoking – ‘Ever’

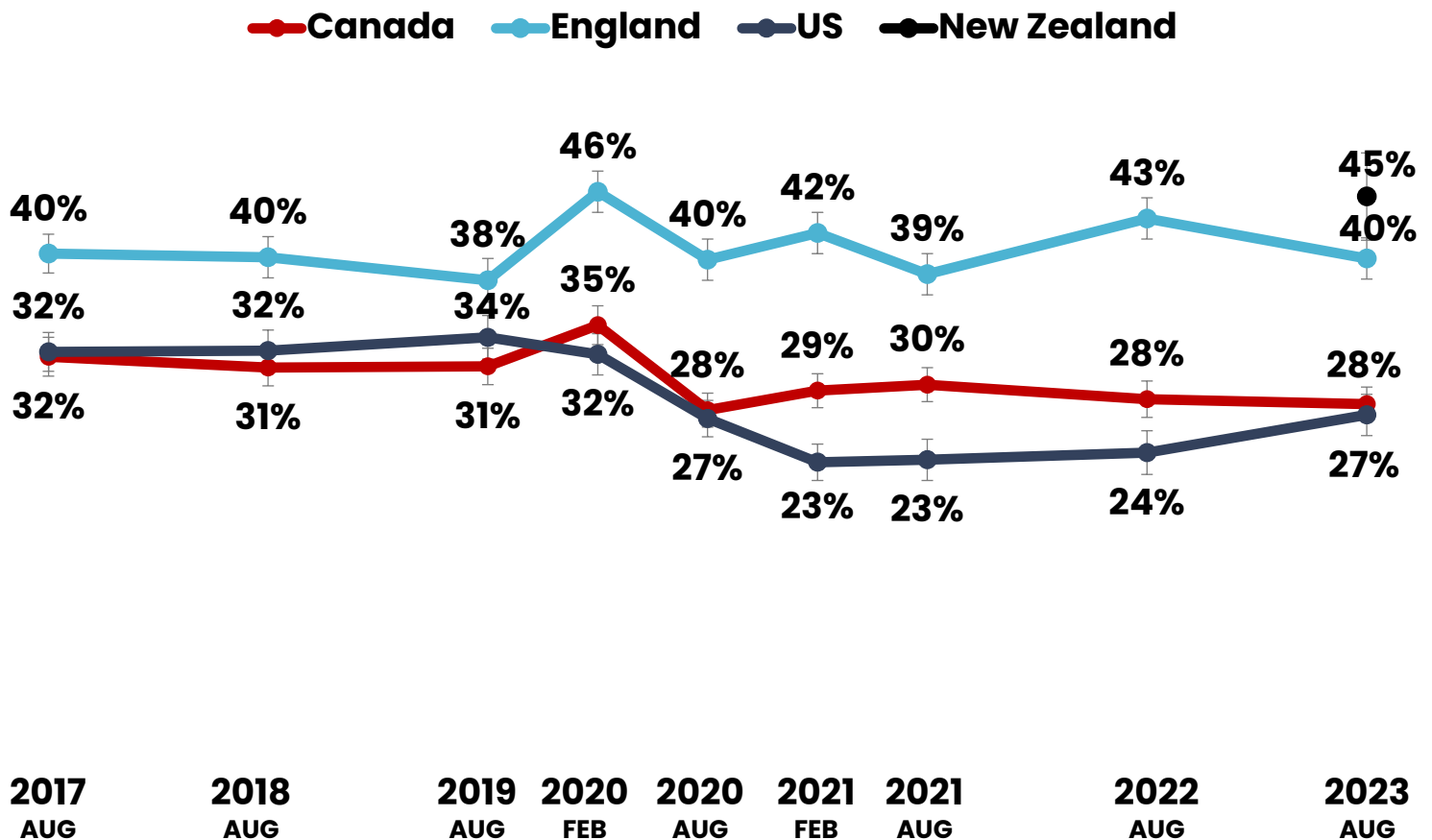
The majority of youth aged 16–19 in all three countries reported never having smoked a cigarette. Prevalence of ever smoking was highest in England, until New Zealand was added in 2023.

Caution should be used when interpreting time trends in smoking, since survey weights in Canada and the US have been calibrated to the past 30-day smoking trends from national surveillance surveys.

Prevalence of ever smoking cigarettes

ALL RESPONDENTS AGED 16–19, 2017–2023

CA: N=38,337; EN: N=37,114; US: N=47,716; NZ: N=1,021



NOTE: YOUTH SURVEY WEIGHTS ARE SCALED TO THE PAST 30-DAY SMOKING TREND IN CANADA (CSTADS) AND THE US (NYTS).

Smoking – Past 12 months

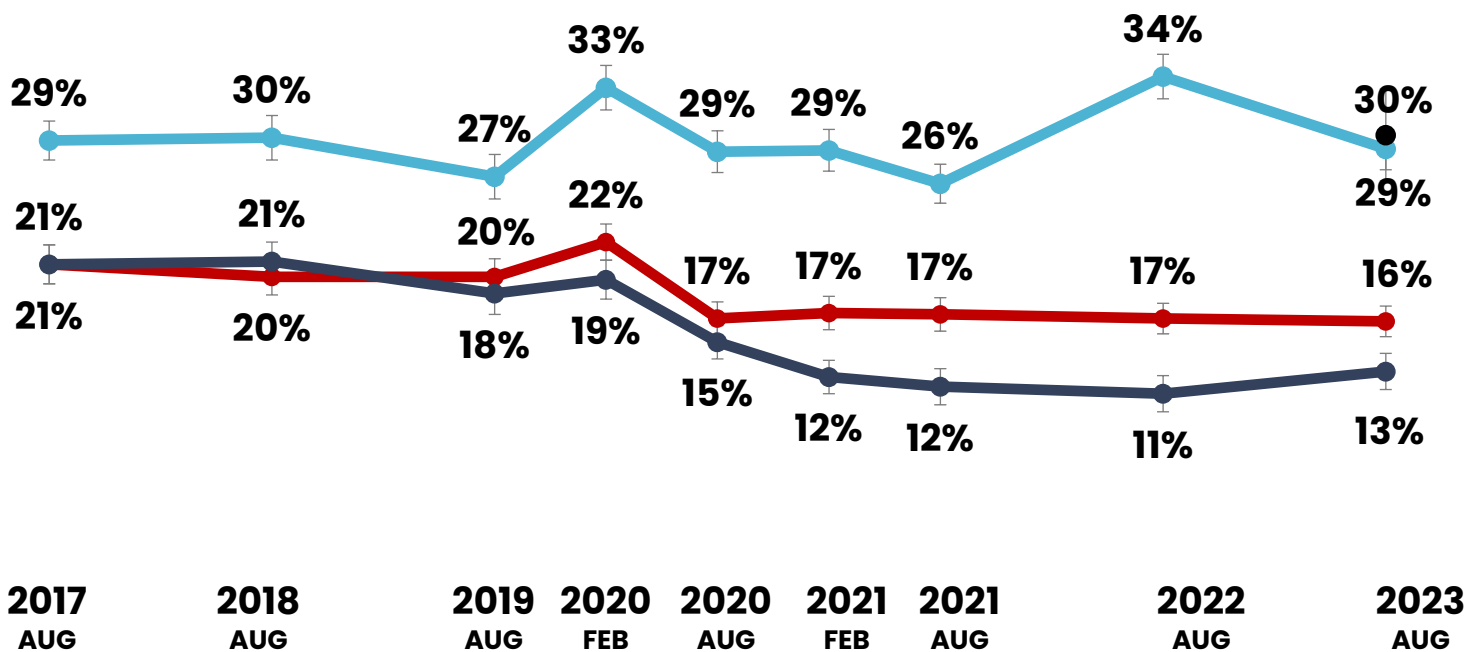
As with ever smoking, prevalence of smoking in the past 12 months was greatest in England in most years, though New Zealand’s estimate was slightly higher in 2023. Over time, little net change has been observed in England despite some wave-to-wave fluctuation. Past 12-month smoking prevalence appeared to decrease in 2020 in Canada and the US and has been fairly stable since.

Prevalence of smoking in the past 12 months

ALL RESPONDENTS AGED 16-19, 2017-2023

CA: N=38,337; EN: N=37,114; US: N=47,716; NZ: N=1,021

—●— Canada —●— England —●— US —●— New Zealand



NOTE: YOUTH SURVEY WEIGHTS ARE SCALED TO THE PAST 30-DAY SMOKING TREND IN CANADA (CSTADS) AND THE US (NYTS).

Smoking – Past 30 days

Since 2017, past 30-day smoking prevalence has declined very slowly in Canada. A more pronounced decline was observed in the US prior to 2021 before levelling off. In England, prevalence remained around 15% in most years. As with other smoking measures, past 30-day prevalence in New Zealand was slightly higher in 2023.

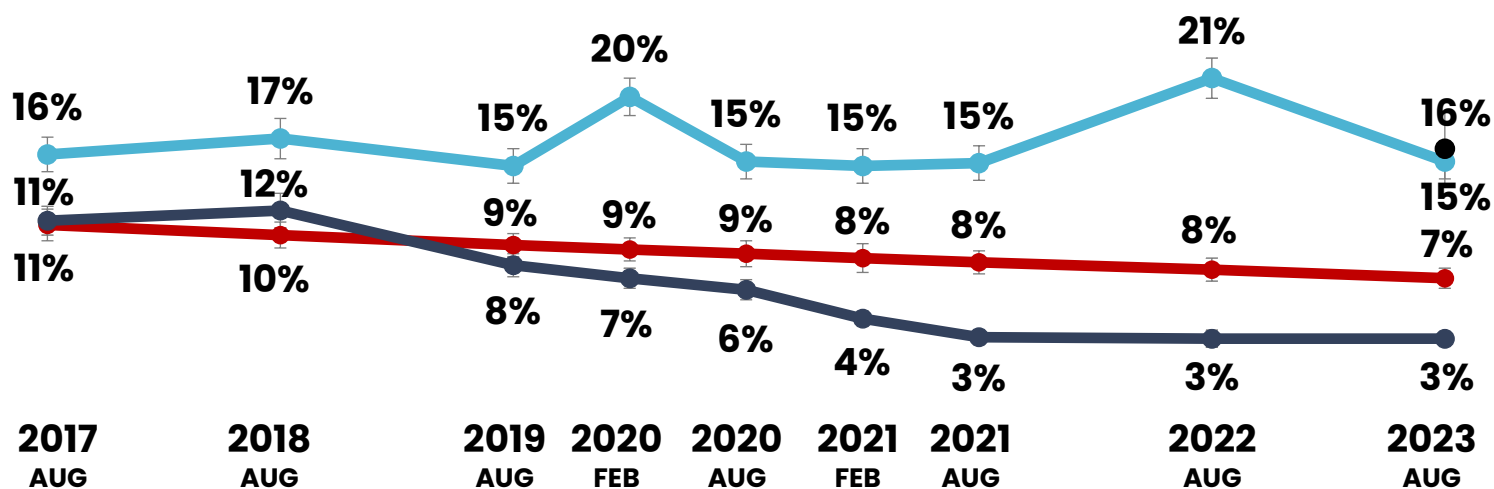
As previously noted, survey weights in Canada and the US have been calibrated to the past 30-day smoking trends observed in national surveys of youth.

Prevalence of smoking in the past 30 days

ALL RESPONDENTS AGED 16-19, 2017-2023

CA: N=38,337; EN: N=37,114; US: N=47,716; NZ: N=1,021

—●— Canada —●— England —●— US —●— New Zealand



NOTE: YOUTH SURVEY WEIGHTS ARE SCALED TO THE PAST 30-DAY SMOKING TREND IN CANADA (CSTADS) AND THE US (NYTS).

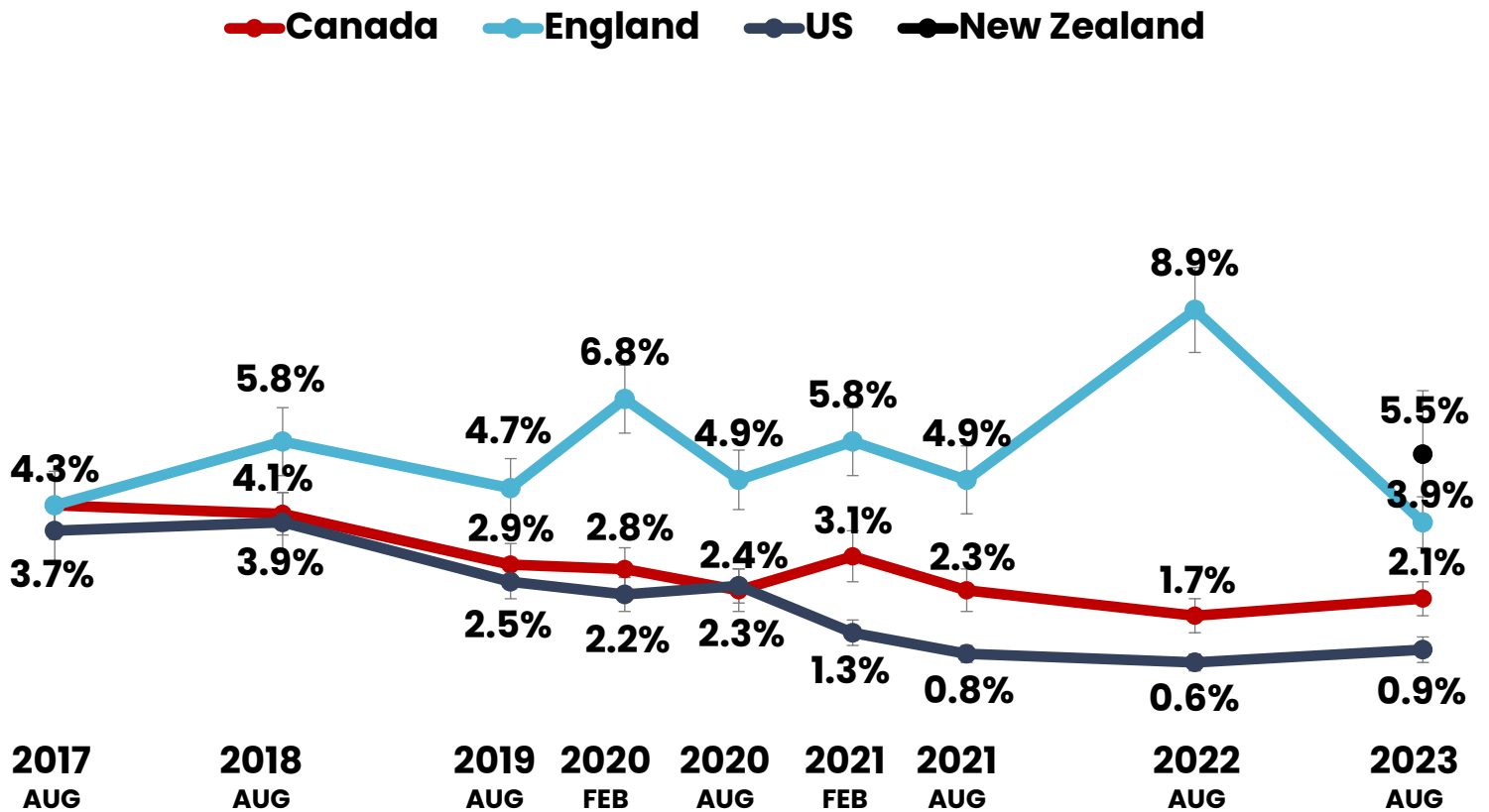
Smoking – 20+ days per month

A small and generally declining proportion of youth aged 16–19 in Canada and the US reported smoking on 20 or more of the past 30 days, though no decrease was observed in the most recent waves. In England, while 2017 prevalence was similar to Canada and the US, it has remained somewhat above this level for most waves since. In 2023, New Zealand had the highest prevalence of smoking on 20 or more of the past 30 days.

Prevalence of smoking ≥ 20 days in the past 30 days

ALL RESPONDENTS AGED 16–19, 2017–2023

CA: N=38,337; EN: N=37,114; US: N=47,716; NZ: N=1,021



NOTE: YOUTH SURVEY WEIGHTS ARE SCALED TO THE PAST 30-DAY SMOKING TREND IN CANADA (CSTADS) AND THE US (NYTS).

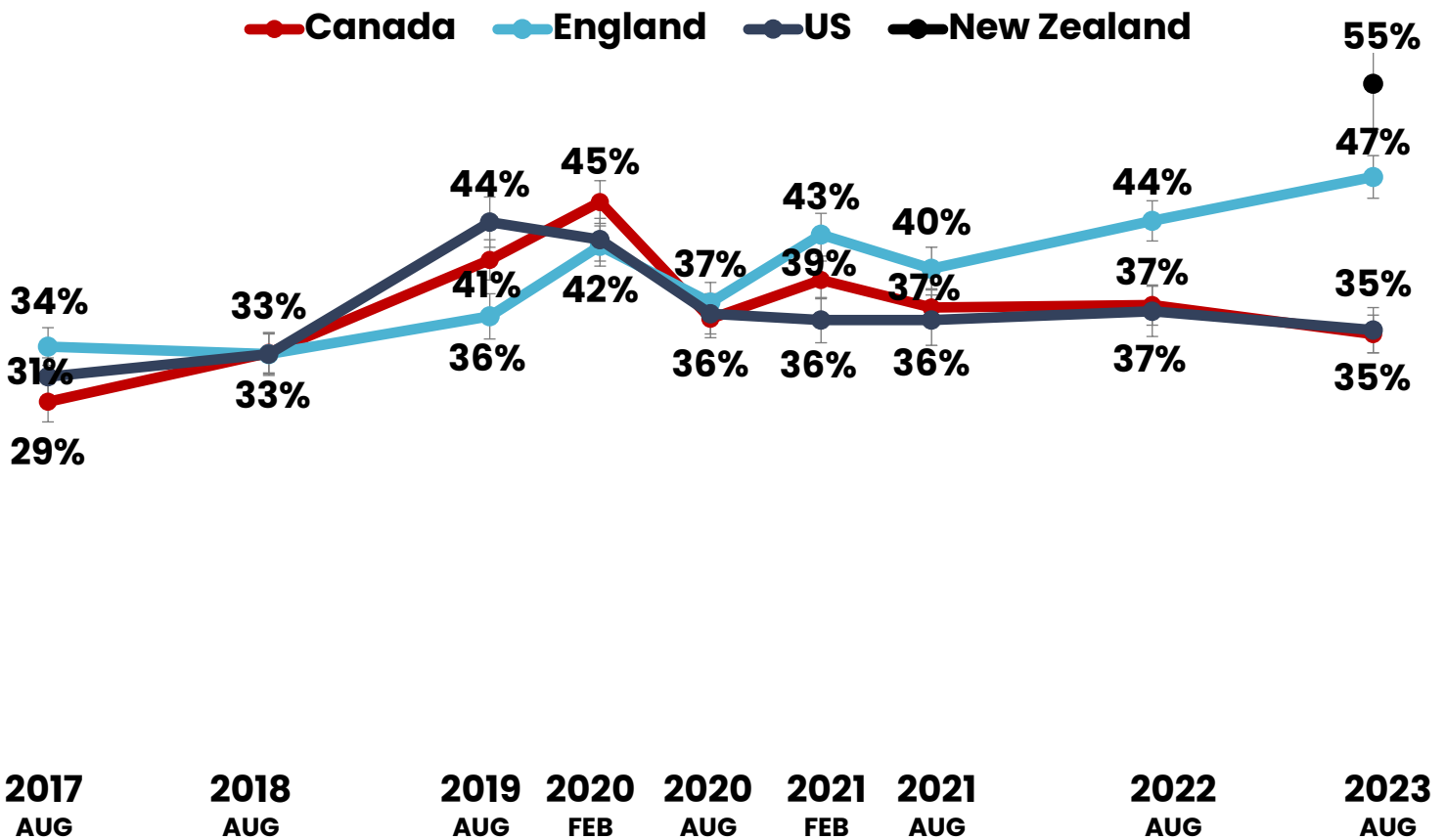
Vaping – ‘Ever’

As with smoking, the majority of youth aged 16–19 in Canada, England, and the US reported they had never vaped. However, over half of youth in New Zealand reported ever vaping in 2023. Over time, prevalence varied by wave and country. Ever vaping appeared to increase to a peak in the US in 2019 and in Canada in early 2020, before dropping and remaining fairly stable. In England, it appears that ever vaping continues to increase.

Prevalence of ever vaping

ALL RESPONDENTS AGED 16–19, 2017–2023

CA: N=38,337; EN: N=37,114; US: N=47,716; NZ: N=1,021



Vaping – Past 12 months

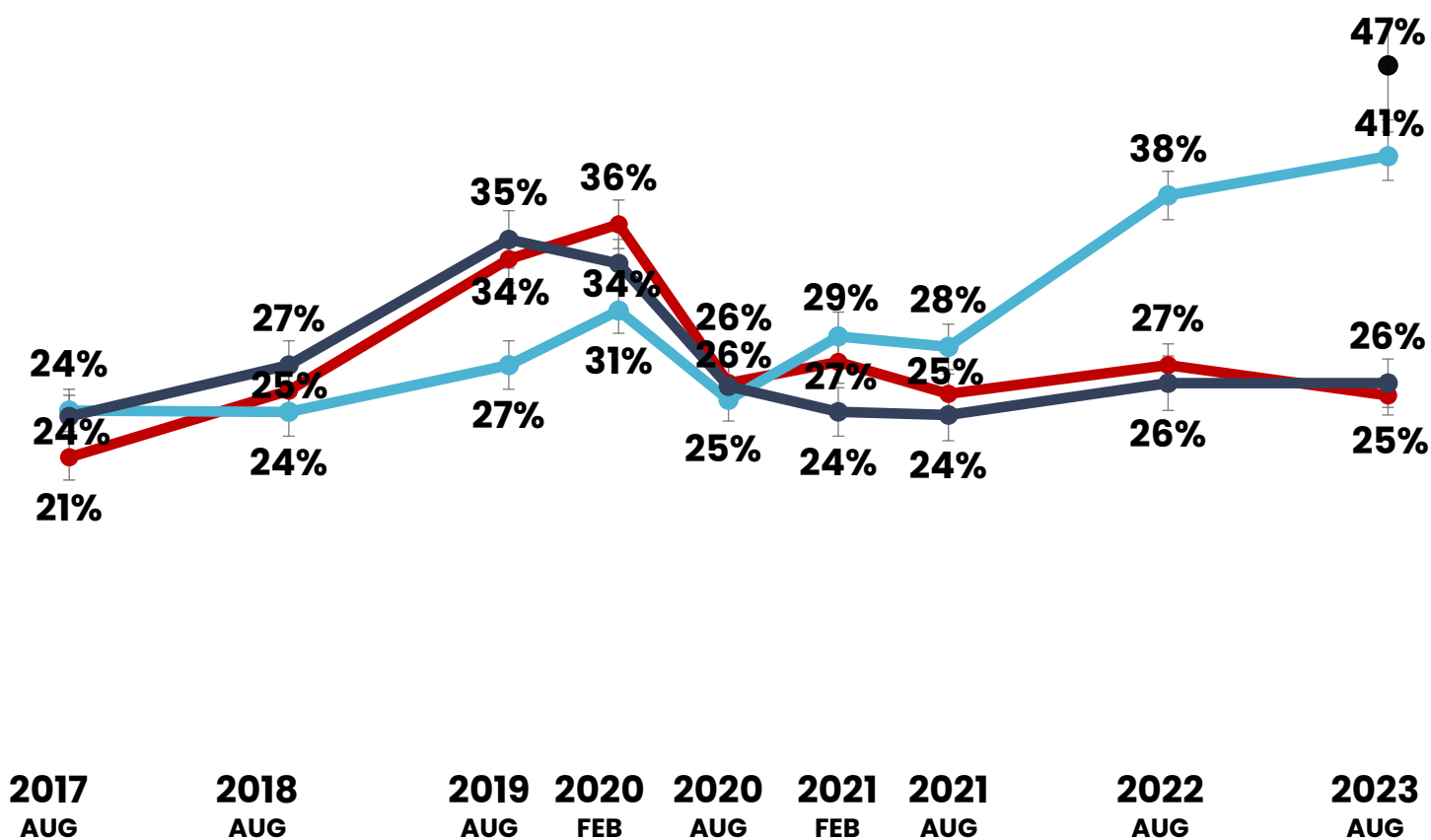
Past 12-month vaping prevalence among youth aged 16–19 was similar across countries in earlier waves, but appeared to diverge after 2021; while prevalence remained stable in Canada and the US, it appeared to increase substantially in England in recent years. In 2023, nearly half of youth in New Zealand reported vaping in the past 12 months.

Prevalence of vaping in the past 12 months

ALL RESPONDENTS AGED 16–19, 2017–2023

CA: N=38,337; EN: N=37,114; US: N=47,716; NZ: N=1,021

—●— Canada —●— England —●— US —●— New Zealand



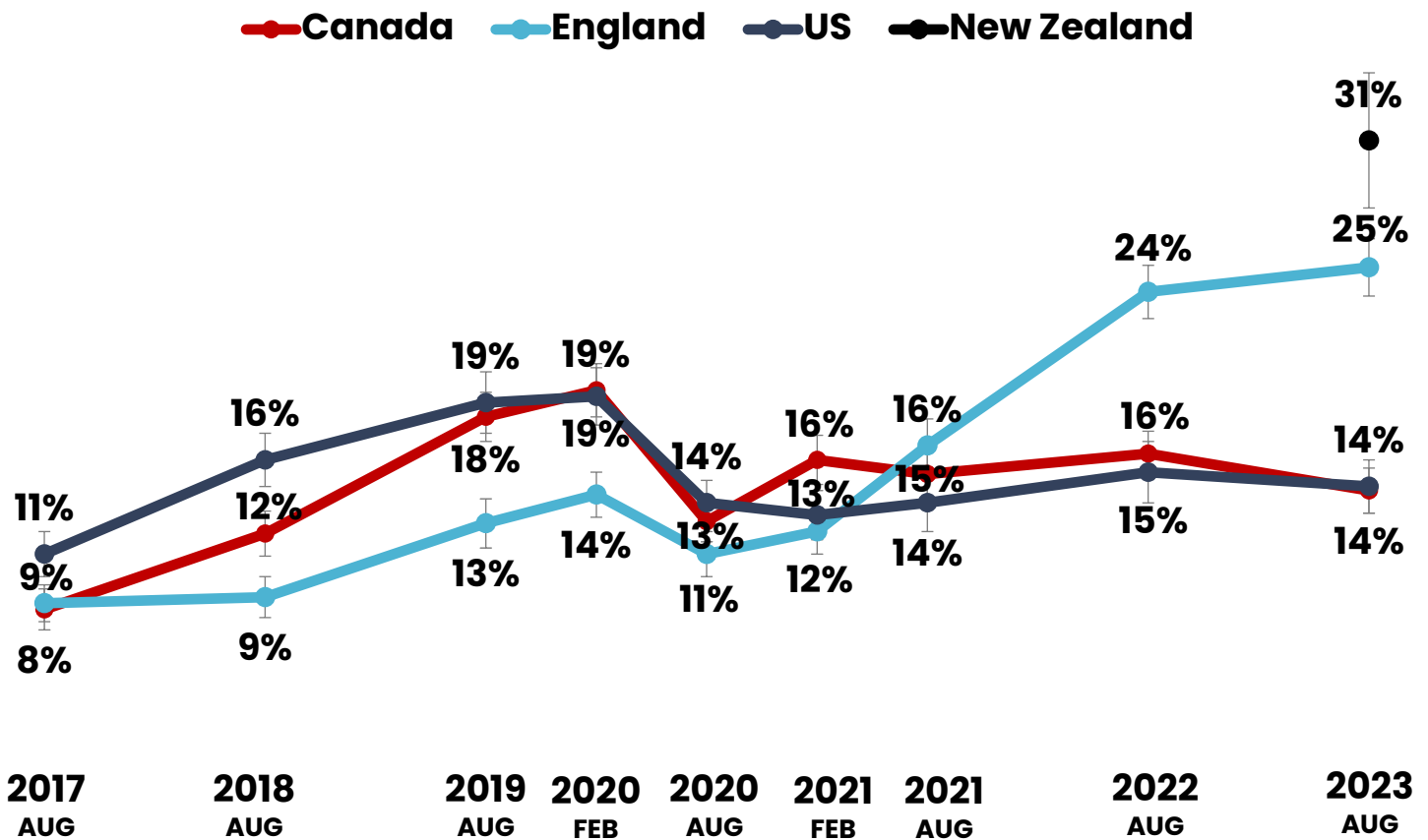
Vaping – Past 30 days

Patterns of past 30-day vaping prevalence among youth aged 16-19 were similar in Canada and the US: increasing from 2017 to a peak in early 2020, subsequently dropping in 2020 before somewhat rebounding and then remaining stable. In England, past 30-day vaping prevalence generally increased more slowly between 2017 and 2020, then dipped briefly before rebounding and then increasing sharply in 2022. In 2023, prevalence was highest in New Zealand.

Prevalence of vaping in the past 30 days

ALL RESPONDENTS AGED 16-19, 2017-2023

CA: N=38,337; EN: N=37,114; US: N=47,716; NZ: N=1,021



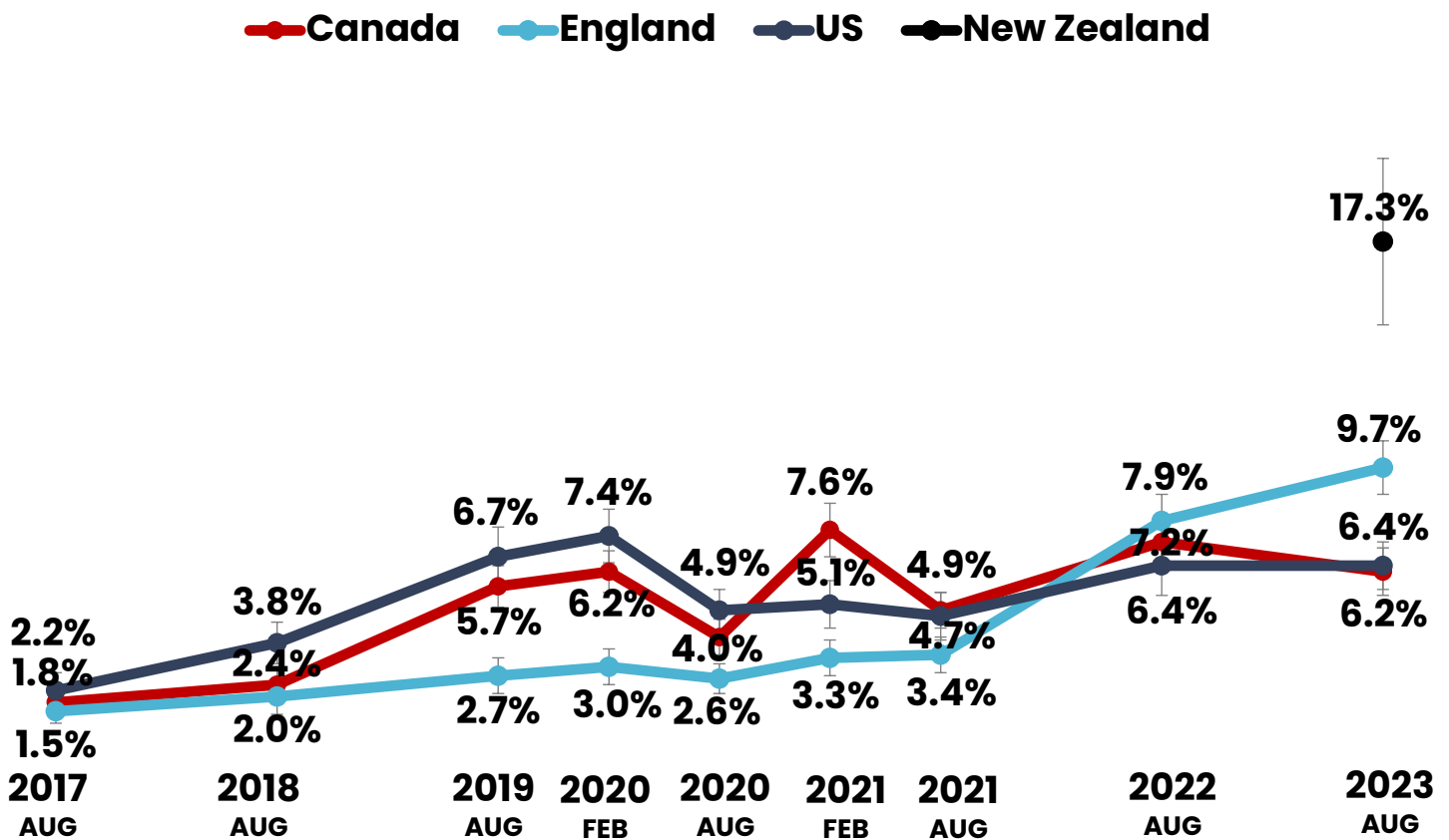
Vaping – 20+ days per month

In 2017, very few youth aged 16–19 (~2%) reported vaping on 20 or more of the past 30 days. In 2023, estimates had risen to over 6% in Canada and the US, nearly 10% in England, and over 17% in New Zealand. Patterns within each country in the intervening years varied: in England, increases were very slow until 2022, while more rapid increases until early 2020 were observed in the US and Canada, with less change in recent years.

Prevalence of vaping ≥20 days in the past 30 days

ALL RESPONDENTS AGED 16–19, 2017–2023

CA: N=38,337; EN: N=37,114; US: N=47,716; NZ: N=1,021



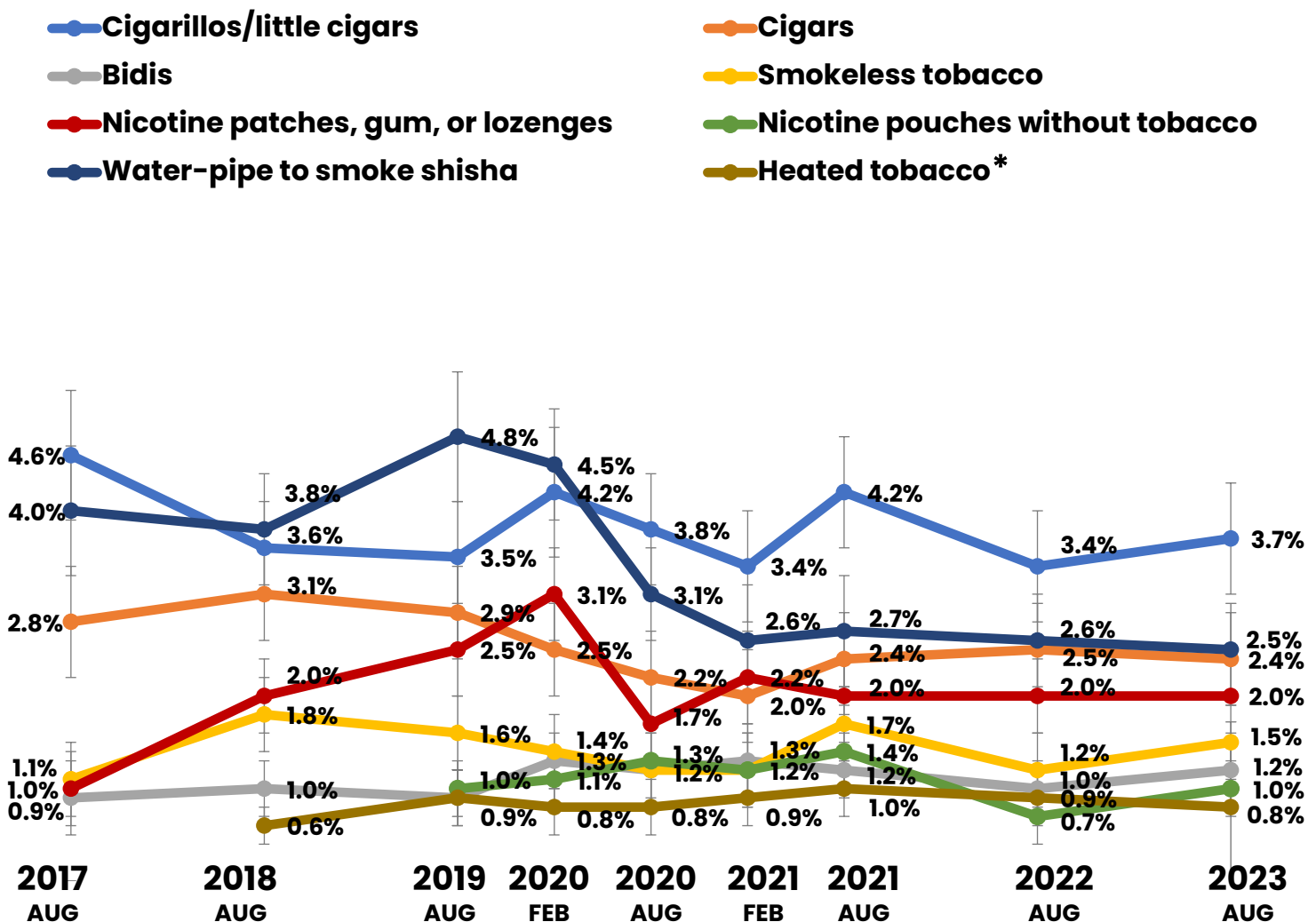
Use of other tobacco products Canada

In Canada, fewer than 5% of youth aged 16-19 reported use of each non-cigarette tobacco or nicotine product in the past 30 days. The most popular product in most years since 2017 was cigarillos/little cigars, although waterpipe was comparable or greater until early 2020.



Past 30-day use of other tobacco/nicotine products

ALL RESPONDENTS AGED 16-19, 2017-2023, CANADA, N=38,337



*SURVEY WAVES FROM 2018-2020 ASKED ABOUT IQOS SPECIFICALLY, WHILE WAVES FROM 2021 ON ASKED ABOUT HEATED TOBACCO PRODUCTS GENERALLY

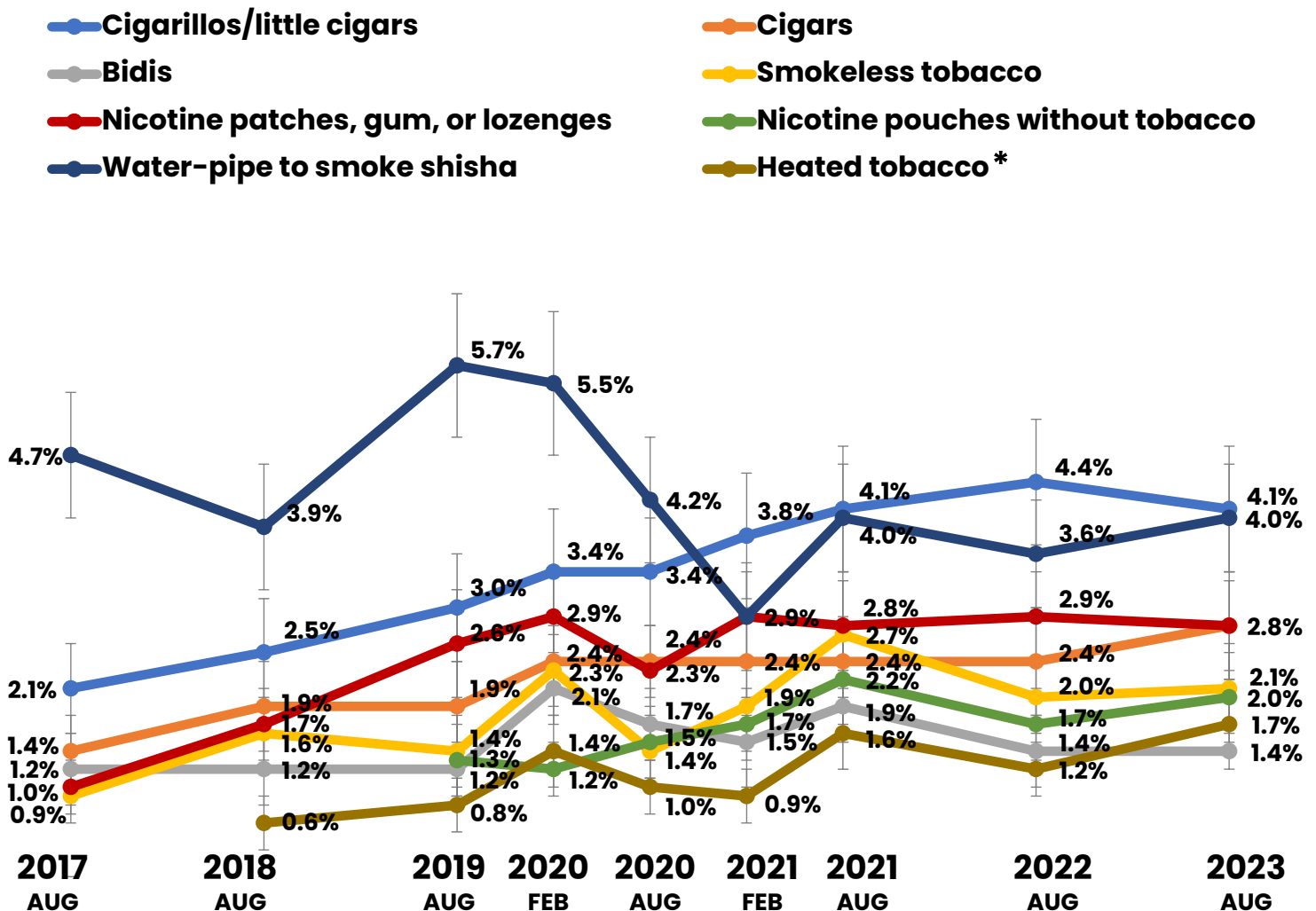
Use of other tobacco products England

In England, 4–6% of youth aged 16–19 reported use of waterpipe in the past 30 days in most years, appearing to peak in 2019 and early 2020. Cigarillo/little cigar use was 2% in 2017, but increased steadily, doubling by 2022 to become the most prevalent product in recent years. Use of other non-cigarette tobacco or nicotine products was less common, but most had increased from 2017.



Past 30-day use of other tobacco/nicotine products

ALL RESPONDENTS AGED 16–19, 2017–2023, ENGLAND, N=37,114



*SURVEY WAVES FROM 2018–2020 ASKED ABOUT IQOS SPECIFICALLY, WHILE WAVES FROM 2021 ON ASKED ABOUT HEATED TOBACCO PRODUCTS GENERALLY

Use of other tobacco products

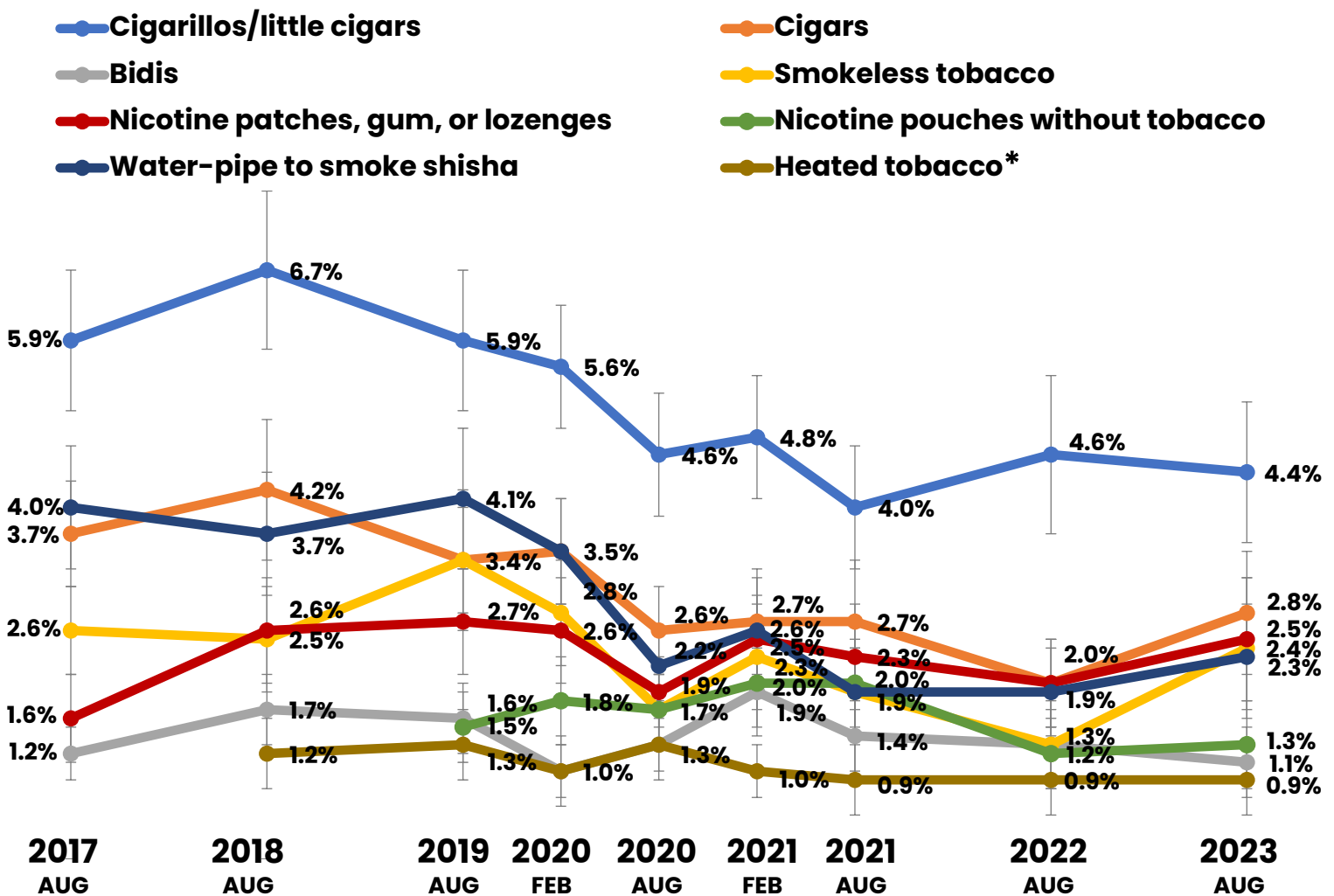
United States

In the US, cigarillos/little cigars were the most prevalent product reported by youth aged 16-19 in all years, though their use in the past 30 days appeared to generally decline over time. Use of most other non-cigarette tobacco or nicotine products also appeared to decrease over time, though some rebounded slightly in 2023.



Past 30-day use of other tobacco/nicotine products

ALL RESPONDENTS AGED 16-19, 2017-2023, US, N=41,716



*SURVEY WAVES FROM 2018-2020 ASKED ABOUT IQOS SPECIFICALLY, WHILE WAVES FROM 2021 ON ASKED ABOUT HEATED TOBACCO PRODUCTS GENERALLY

Use of other tobacco products

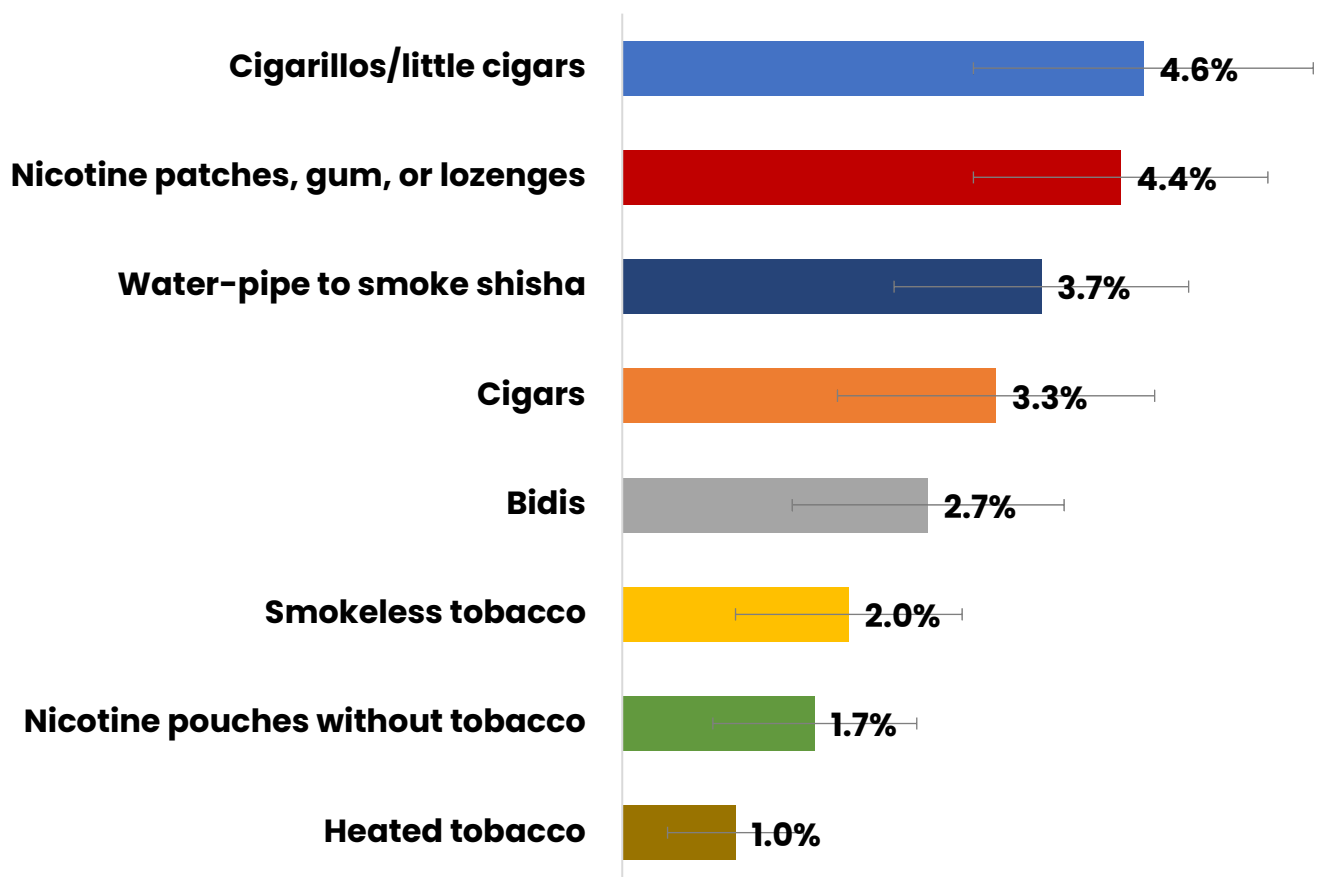
New Zealand

In 2023, cigarillos/little cigars were the most prevalent non-cigarette tobacco or nicotine product reported by youth aged 16-19 in New Zealand, at just under 5%, although prevalence of nicotine patches, gum or lozenges was nearly as high.



Past 30-day use of other tobacco/nicotine products

ALL RESPONDENTS AGED 16-19, 2023, NZ, N=1,021



Use of any tobacco/nicotine products

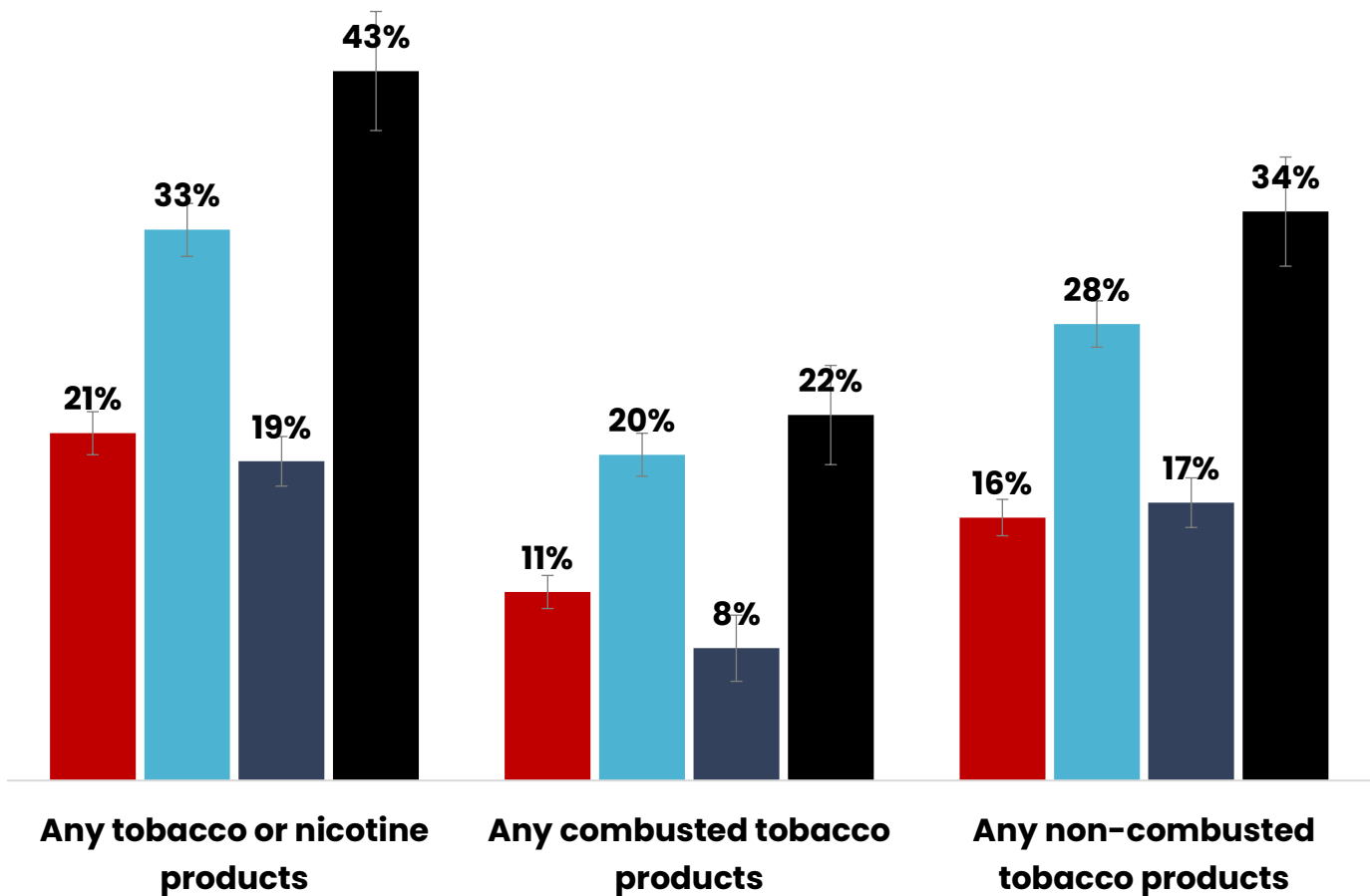
In 2023, one-third of youth aged 16–19 in England and over 40% in New Zealand reported use of any tobacco or nicotine product in the past 30 days, compared to approximately one in five youth in Canada and the US. Prevalence of using any combusted products among youth in England and New Zealand was around double that of youth Canada and the US; this difference generally held for non-combusted products but was somewhat smaller for England.

Past 30-day use of any tobacco or nicotine products

ALL RESPONDENTS AGED 16–19, 2023

CA: N=4,223; EN: N=4,290; US: N=4,817; NZ: N=1,021

■ Canada ■ England ■ US ■ New Zealand



NOTE: YOUTH SURVEY WEIGHTS ARE SCALED TO THE PAST 30-DAY SMOKING TREND IN CANADA (CSTADS) AND THE US (NYTS).

ANY COMBUSTED INCLUDES CIGARETTES, CIGARS, CIGARILLOS/LITTLE CIGARS, BIDIS, AND/OR WATERPIPE; ANY NON-COMBUSTED INCLUDES E-CIGARETTES, SMOKELESS TOBACCO, HEATED TOBACCO, NRT, AND/OR NICOTINE POUCHES; ANY TOBACCO/NICOTINE PRODUCT INCLUDES ANY PRODUCTS

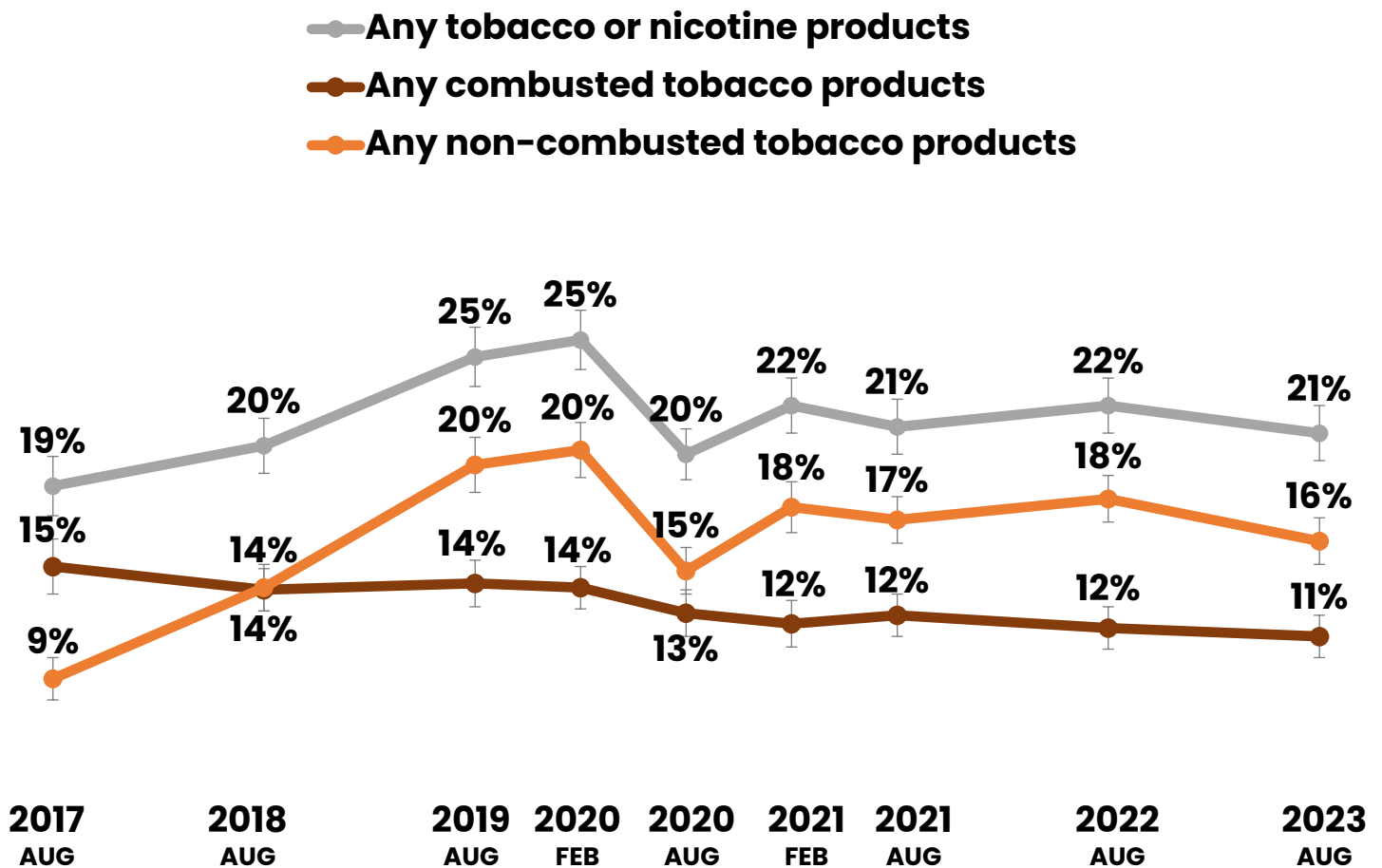
Use of any tobacco/nicotine products Canada

In Canada, prevalence of using combusted tobacco products remained fairly stable over time, decreasing slightly, while use of any tobacco or nicotine products appeared to vary with the use of non-combusted products. The use of non-combusted products doubled between 2017 and 2019 before dipping in late 2020 and then rebounding and remaining stable in subsequent waves.



Past 30-day use of any tobacco or nicotine products

ALL RESPONDENTS AGED 16-19, 2017-2023, CANADA, N=38,337



NOTE: YOUTH SURVEY WEIGHTS ARE SCALED TO THE PAST 30-DAY SMOKING TREND IN CANADA (CSTADS) AND THE US (NYTS).

ANY COMBUSTED INCLUDES CIGARETTES, CIGARS, CIGARILLOS/LITTLE CIGARS, BIDIS, AND/OR WATERPIPE;
 ANY NON-COMBUSTED INCLUDES E-CIGARETTES, SMOKELESS TOBACCO, HEATED TOBACCO, NRT, AND/OR
 NICOTINE POUCHES; ANY TOBACCO/NICOTINE PRODUCT INCLUDES ANY PRODUCTS

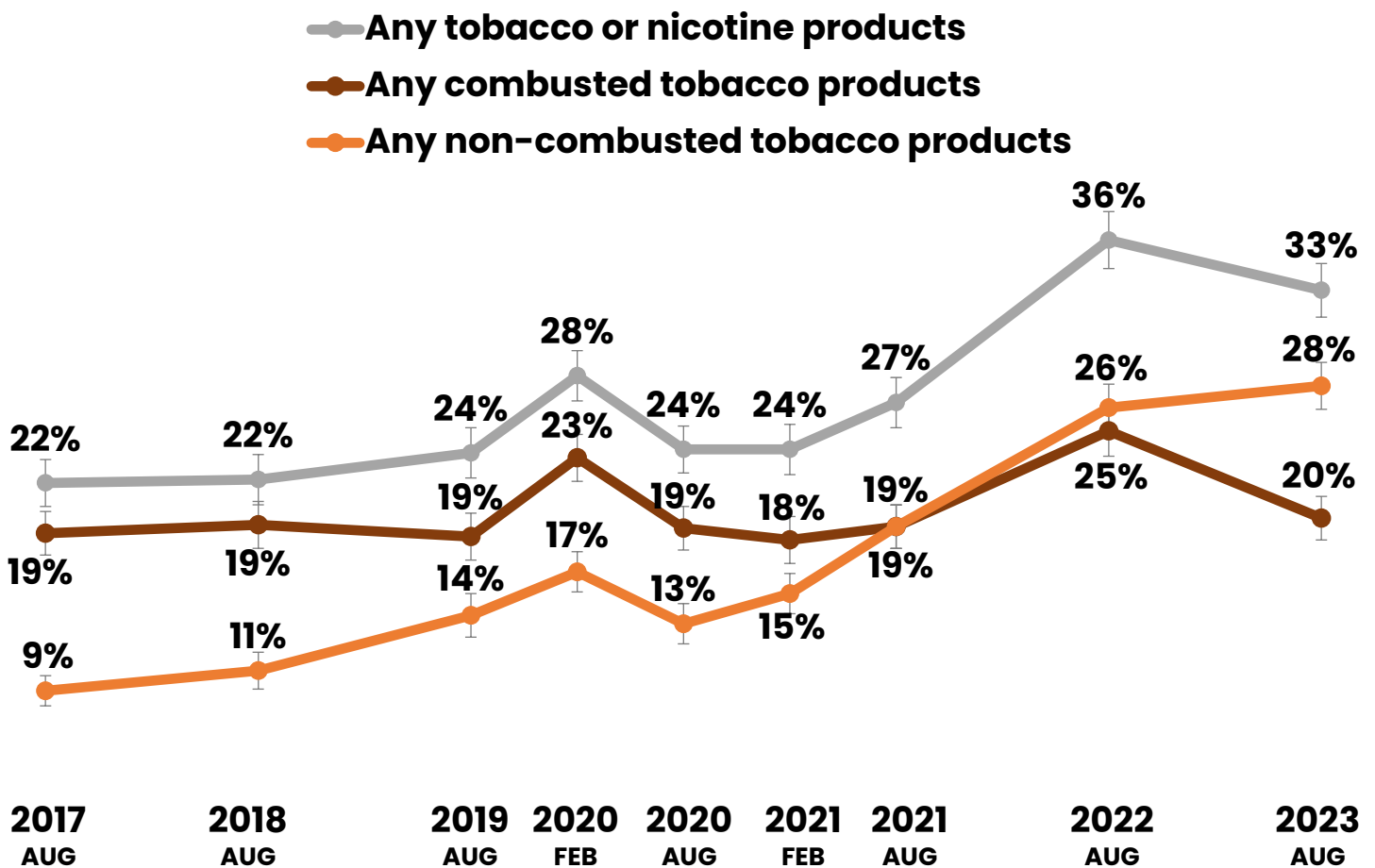
Use of any tobacco/nicotine products England

In England, use of non-combusted tobacco products has tripled since 2017, with particularly steep increases in 2021 and 2022, while use of combusted products has remained near one in five in most years. While use of combusted tobacco products accounted for most of the total tobacco prevalence before 2021, non-combusted product prevalence equaled combusted products by late 2021 and has since surpassed them.



Past 30-day use of any tobacco or nicotine products

ALL RESPONDENTS AGED 16-19, 2017-2023, ENGLAND, N=37,114



ANY COMBUSTED INCLUDES CIGARETTES, CIGARS, CIGARILLOS/LITTLE CIGARS, BIDIS, AND/OR WATERPIPE;
ANY NON-COMBUSTED INCLUDES E-CIGARETTES, SMOKELESS TOBACCO, HEATED TOBACCO, NRT, AND/OR
NICOTINE POUCHES; ANY TOBACCO/NICOTINE PRODUCT INCLUDES ANY PRODUCTS

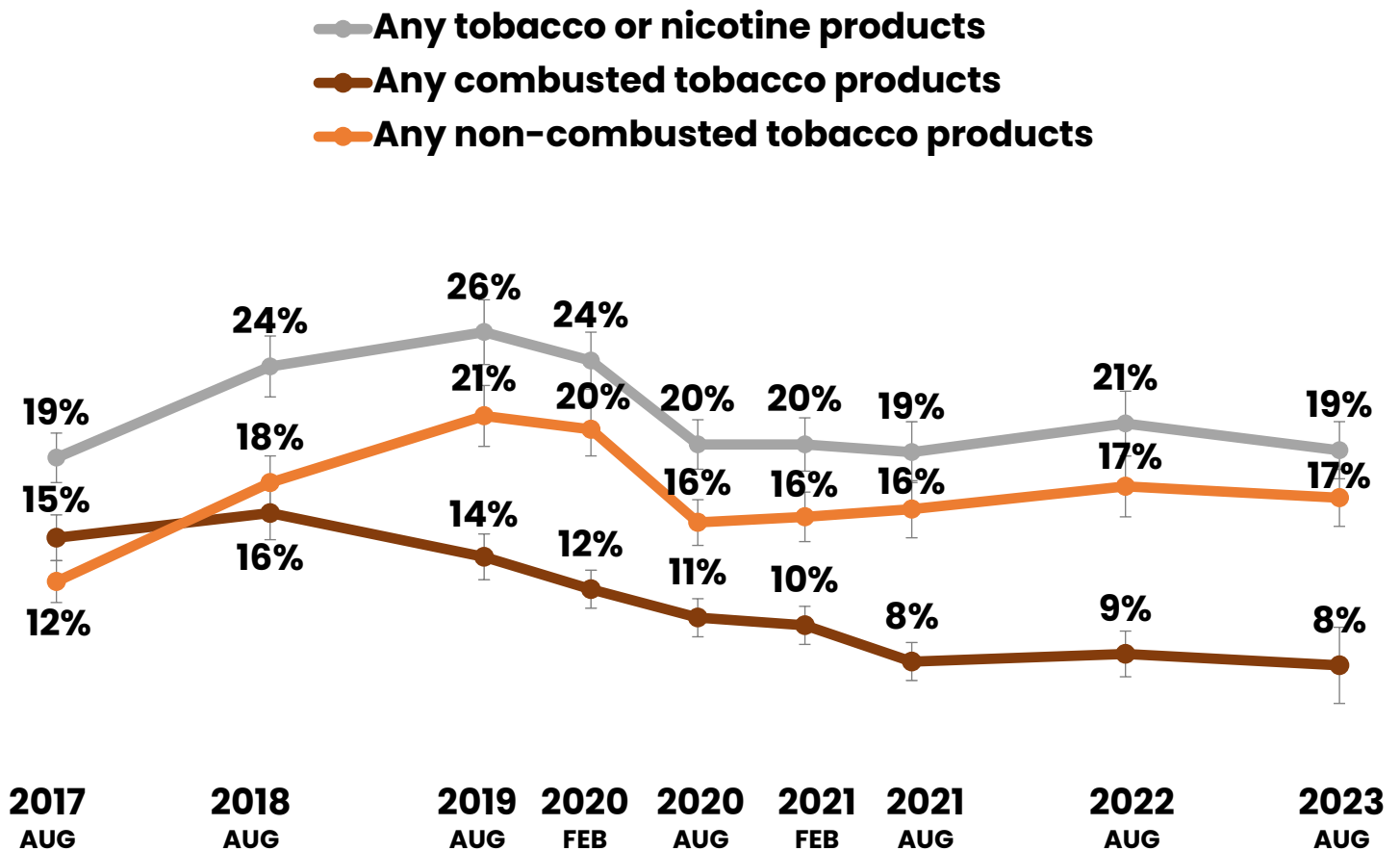
Use of any tobacco/nicotine products United States

In the US, prevalence of using combusted tobacco products decreased fairly steadily over time, while use of any tobacco or nicotine products appeared to vary with the use of non-combusted products. Use of non-combusted products increased from 2017 to 2019 before dropping in 2020 and then remaining fairly steady.



Past 30-day use of any tobacco or nicotine products

ALL RESPONDENTS AGED 16-19, 2017-2023, US, N=41,716



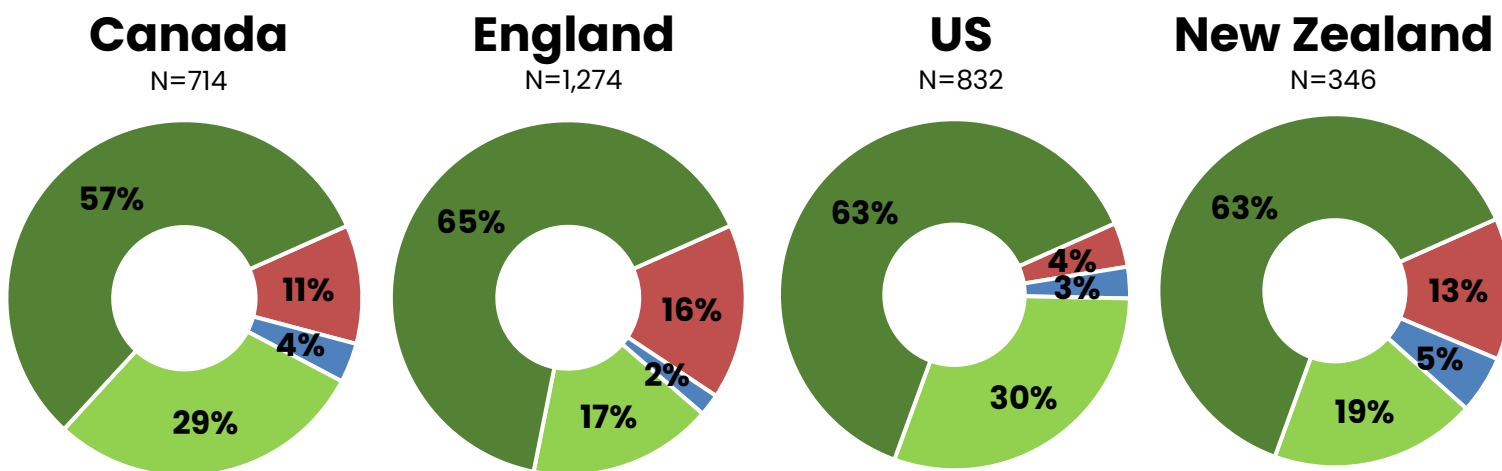
NOTE: YOUTH SURVEY WEIGHTS ARE SCALED TO THE PAST 30-DAY SMOKING TREND IN CANADA (CSTADS) AND THE US (NYTS).

ANY COMBUSTED INCLUDES CIGARETTES, CIGARS, CIGARILLOS/LITTLE CIGARS, BIDIS, AND/OR WATERPIPE;
ANY NON-COMBUSTED INCLUDES E-CIGARETTES, SMOKELESS TOBACCO, HEATED TOBACCO, NRT, AND/OR
NICOTINE POUCHES; ANY TOBACCO/NICOTINE PRODUCT INCLUDES ANY PRODUCTS

Vaping and smoking status

In 2023, in each country, the majority of youth who vaped in the past 30 days also reported 'experimental' smoking. The proportion of youth who vaped in the past 30 days who also reported currently smoking varied widely, from 4% in the US to 16% in England; few (2-5%) reported formerly smoking. Nearly one-third of youth who vaped in the past 30 days in Canada and the US reported never smoking cigarettes, compared to nearly one in five in England and New Zealand.

Smoking status among youth who vaped in the past 30 days YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2023



CURRENTLY SMOKE: SMOKED 100+ CIGARETTES IN LIFETIME AND SMOKED IN PAST 30 DAYS; **FORMERLY SMOKED:** SMOKED 100+ CIGARETTES IN LIFETIME BUT DID NOT SMOKE IN PAST 30 DAYS; **NEVER SMOKED:** NEVER TRIED CIGARETTE SMOKING; **EXPERIMENTALLY SMOKE(D):** EVER TRIED CIGARETTE SMOKING BUT DID NOT SMOKE 100+ CIGARETTES IN LIFETIME; NOT CLASSIFIED SMOKING STATUS EXCLUDED FROM DENOMINATOR

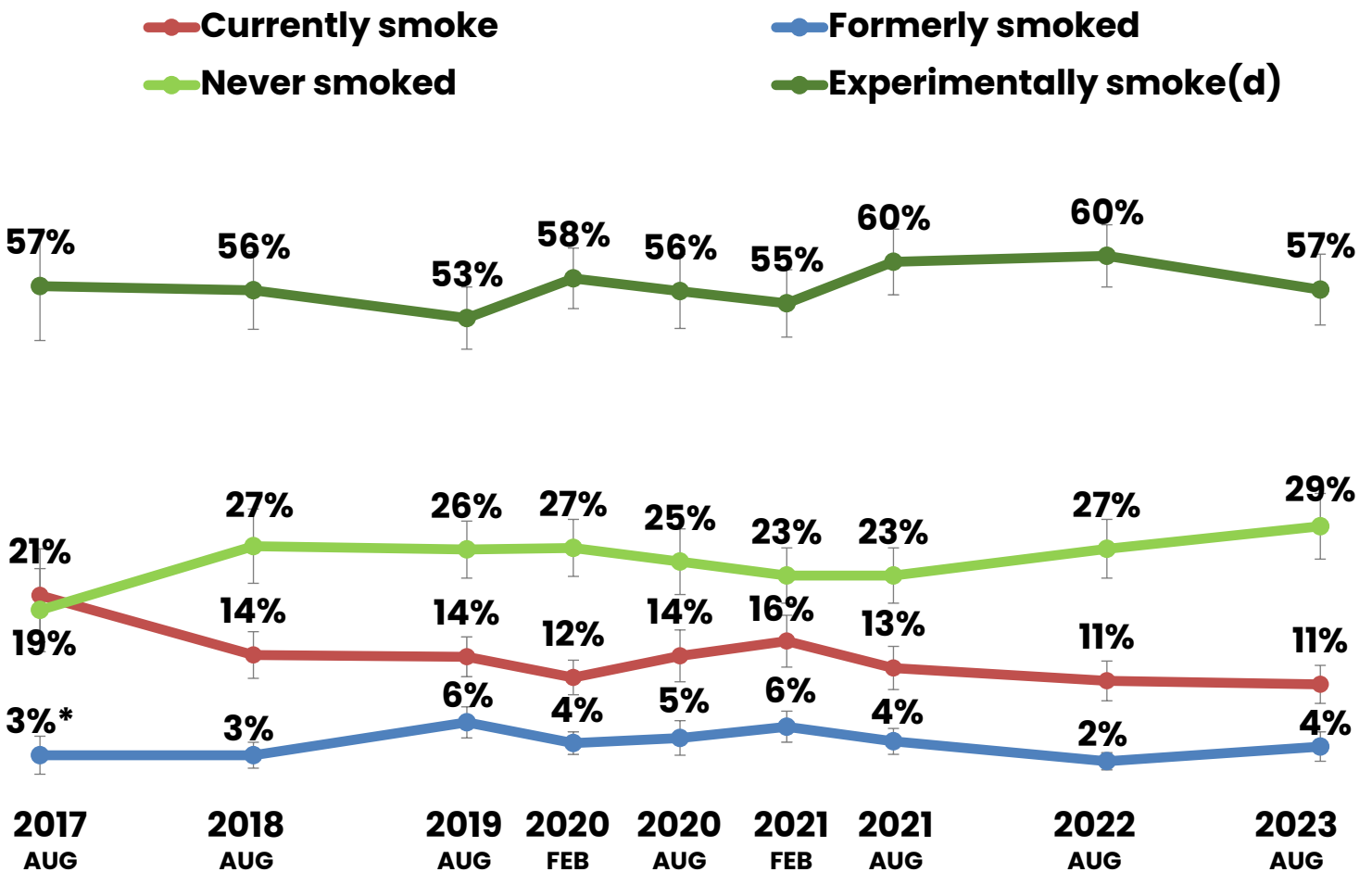
Vaping and smoking status Canada

In Canada, between 2017 and 2023, the proportion of youth who vaped in the past 30 days who also reported currently smoking was nearly halved, while the proportion who reported never smoking increased. In all years, the majority of youth who vaped in the past 30 days also reported experimental smoking.



Smoking status among youth who vaped in the past 30 days

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2023, CANADA N=5,685



*HIGH VARIABILITY OF ESTIMATE (CV>0.33)

CURRENTLY SMOKE: SMOKED 100+ CIGARETTES IN LIFETIME AND SMOKED IN PAST 30 DAYS; FORMERLY SMOKED: SMOKED 100+ CIGARETTES IN LIFETIME BUT DID NOT SMOKE IN PAST 30 DAYS; NEVER SMOKED: NEVER TRIED CIGARETTE SMOKING; EXPERIMENTALLY SMOKE(D): EVER TRIED CIGARETTE SMOKING BUT DID NOT SMOKE 100+ CIGARETTES IN LIFETIME; NOT CLASSIFIED SMOKING STATUS EXCLUDED FROM DENOMINATOR

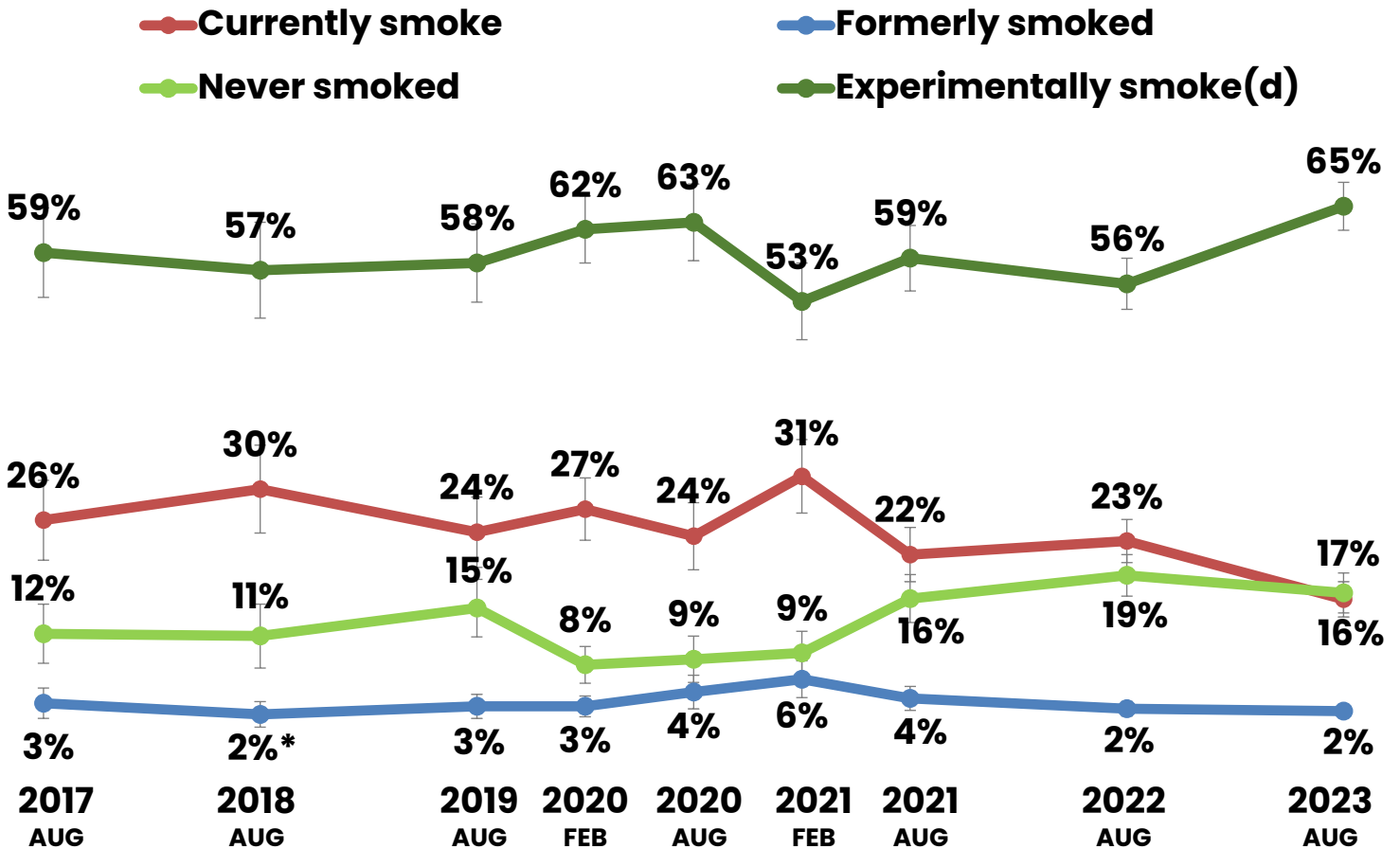
Vaping and smoking status England

In England, between 2017 and 2023, the proportion of youth who vaped in the past 30 days who also currently smoked generally decreased, while the proportion who never smoked increased. The proportion who experimentally smoked fluctuated somewhat but appeared to increase in 2023. Those who formerly smoked comprised a small proportion in all years.



Smoking status among youth who vaped in the past 30 days

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2023, ENGLAND N=5,689



*HIGH VARIABILITY OF ESTIMATE (CV>0.33)

CURRENTLY SMOKE: SMOKED 100+ CIGARETTES IN LIFETIME AND SMOKED IN PAST 30 DAYS; FORMERLY SMOKED: SMOKED 100+ CIGARETTES IN LIFETIME BUT DID NOT SMOKE IN PAST 30 DAYS; NEVER SMOKE(D): NEVER TRIED CIGARETTE SMOKING; EXPERIMENTALLY SMOKE(D): EVER TRIED CIGARETTE SMOKING BUT DID NOT SMOKE 100+ CIGARETTES IN LIFETIME; NOT CLASSIFIED SMOKING STATUS EXCLUDED FROM DENOMINATOR

Vaping and smoking status

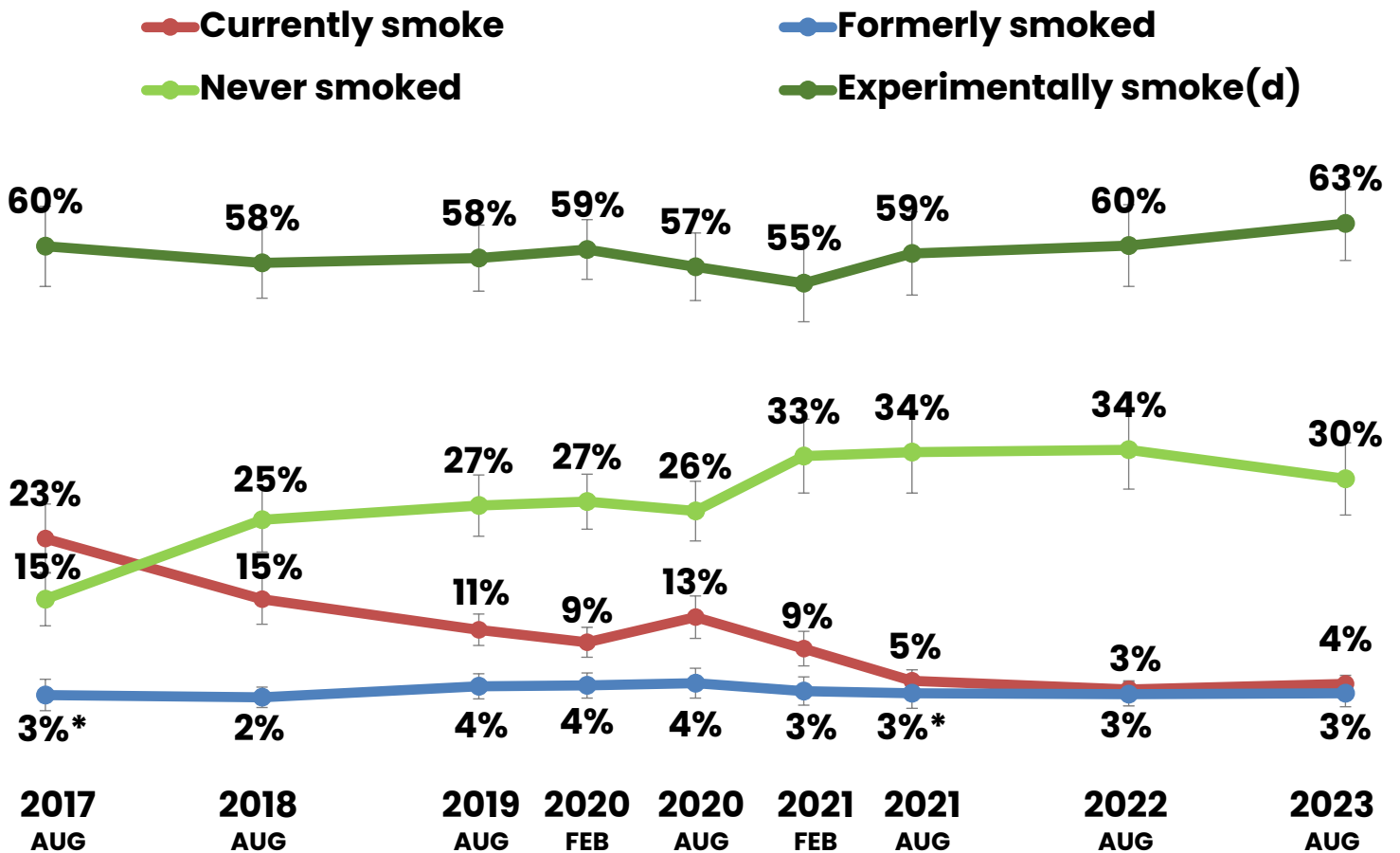
United States

In the US, between 2017 and 2023, the proportion of youth who vaped in the past 30 days who also currently smoked decreased drastically (from 23% to 4%), while the proportion who never smoked approximately doubled. The proportions who formerly or experimentally smoked remained relatively stable.



Smoking status among youth who vaped in the past 30 days

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2023, US N=6,383



*HIGH VARIABILITY OF ESTIMATE (CV>0.33)

CURRENTLY SMOKE: SMOKED 100+ CIGARETTES IN LIFETIME AND SMOKED IN PAST 30 DAYS; FORMERLY SMOKED: SMOKED 100+ CIGARETTES IN LIFETIME BUT DID NOT SMOKE IN PAST 30 DAYS; NEVER SMOKED: NEVER TRIED CIGARETTE SMOKING; EXPERIMENTALLY SMOKE(D): EVER TRIED CIGARETTE SMOKING BUT DID NOT SMOKE 100+ CIGARETTES IN LIFETIME; NOT CLASSIFIED SMOKING STATUS EXCLUDED FROM DENOMINATOR

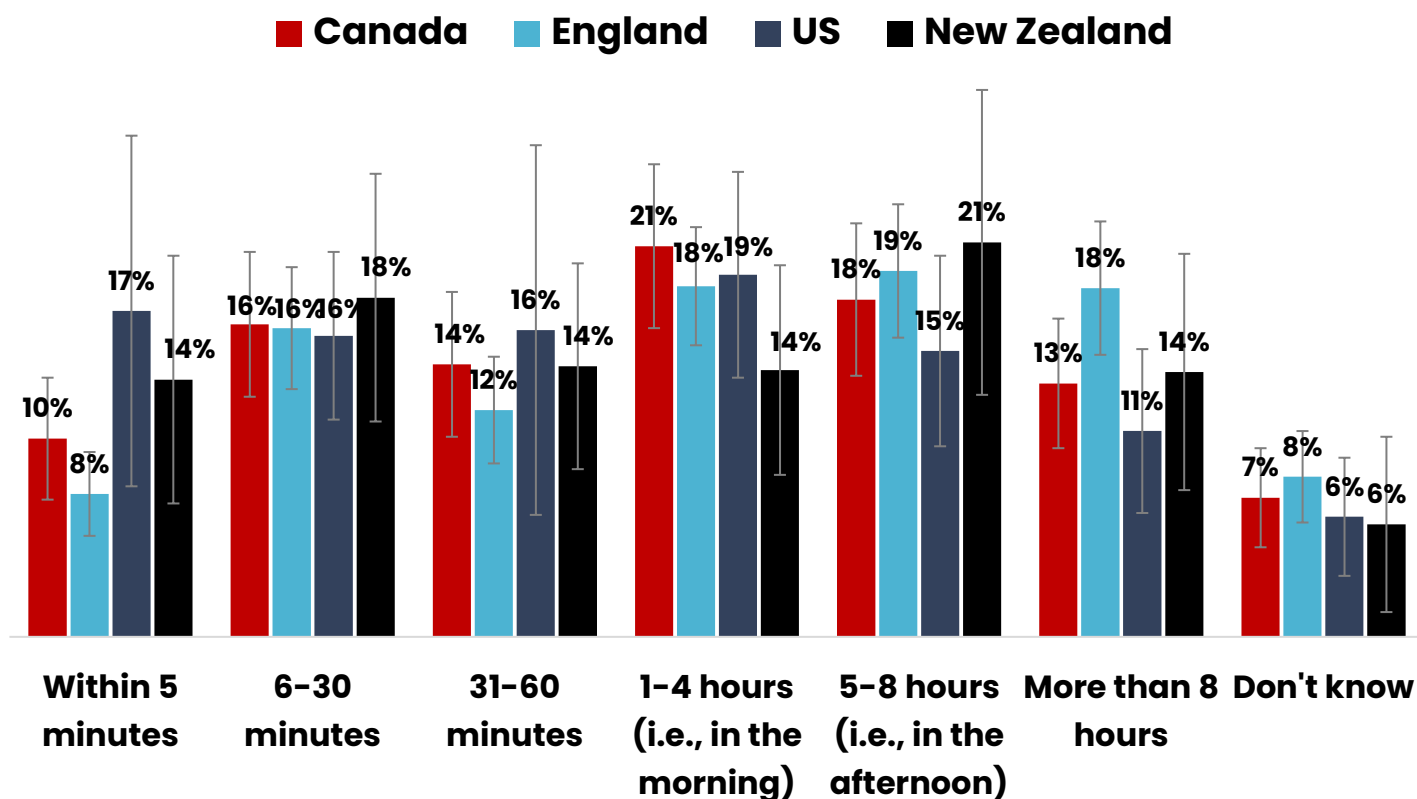
Time to first use – Smoking

Among youth who smoked in the past 30 days, the figure below shows how soon after waking youth reported smoking their first cigarette, in 2023. Between one-quarter and one-third reported smoking within 30 minutes of waking. Generally similar patterns were observed across countries, though the precision of estimates limits comparison.

How soon after waking do you smoke your first cigarette?

YOUTH AGED 16-19 WHO SMOKED IN PAST 30 DAYS, 2023

CA: N=404; EN: N=730; US: N=359; NZ: N=164



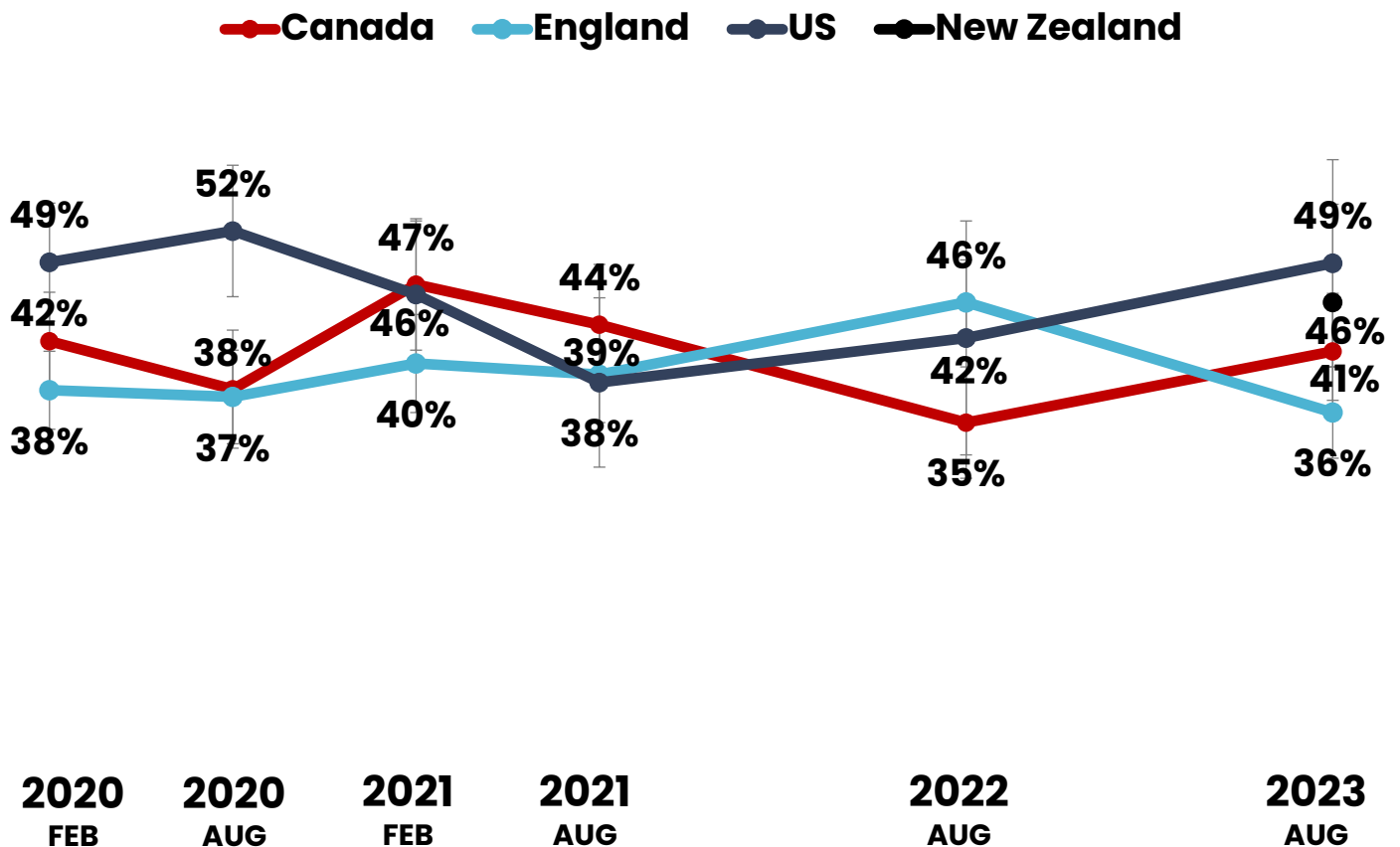
Time to first use - Smoking

Between early 2020 and 2023, among youth who smoked in the past 30 days, the proportion who reported smoking their first cigarette within 60 minutes of waking varied somewhat by survey wave, but showed little net change over this time in any of the countries (where data was available).

Percentage who smoke within 60 minutes after waking

YOUTH AGED 16-19 WHO SMOKED IN PAST 30 DAYS, 2020-2023

CA: N=2,512; EN: N=4,599; US: N=2,580; NZ: N=164



Time to first use - Vaping

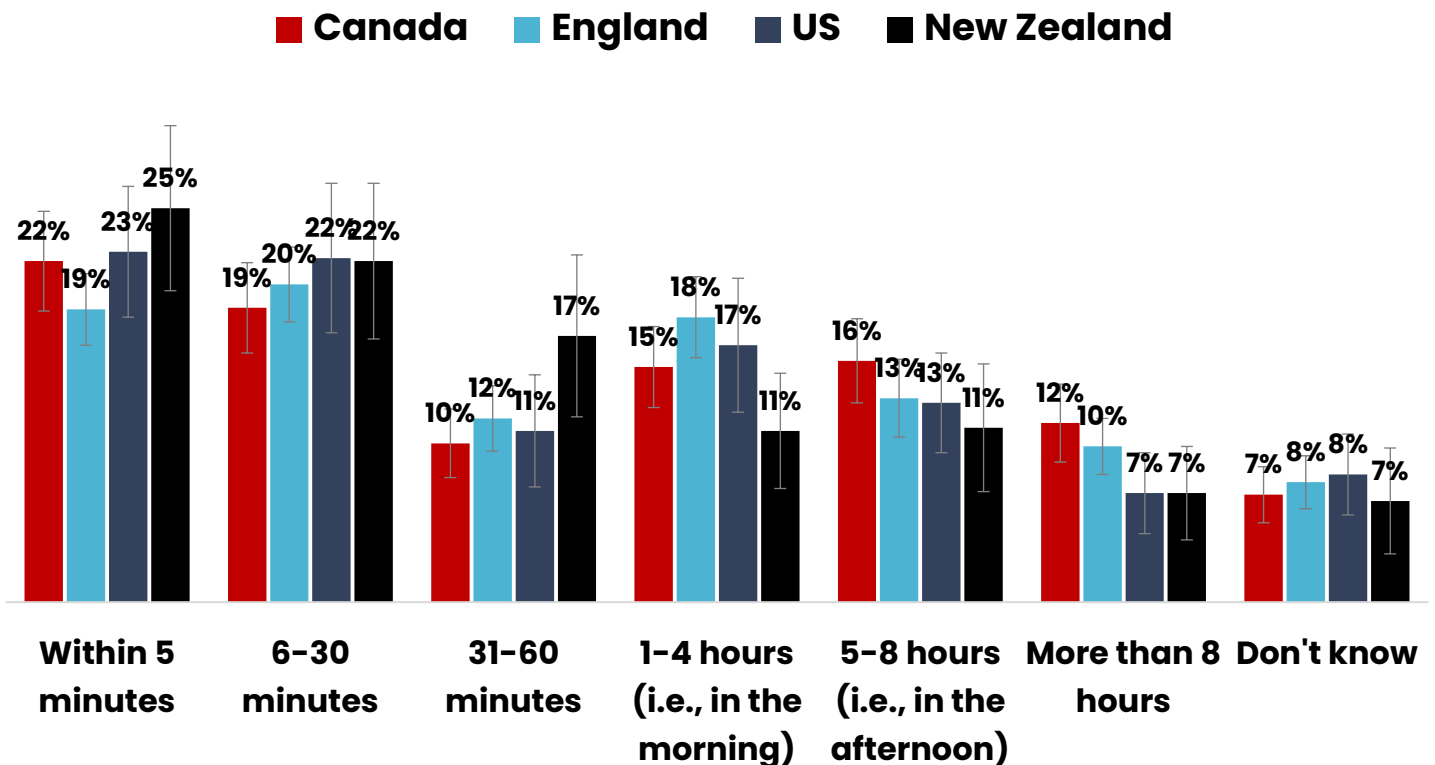
Among youth who vaped in the past 30 days, the figure below shows how soon after waking youth reported first vaping, in 2023. In all countries, vaping within 5 minutes or 6-30 minutes after waking were the most common responses.

Approximately 40-50% reported vaping within 30 minutes of waking; this was somewhat less common in England.

How soon after waking do you first use an e-cigarette/vape?

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2023

CA: N=703; EN: N=1,263; US: N=822; NZ: N=338



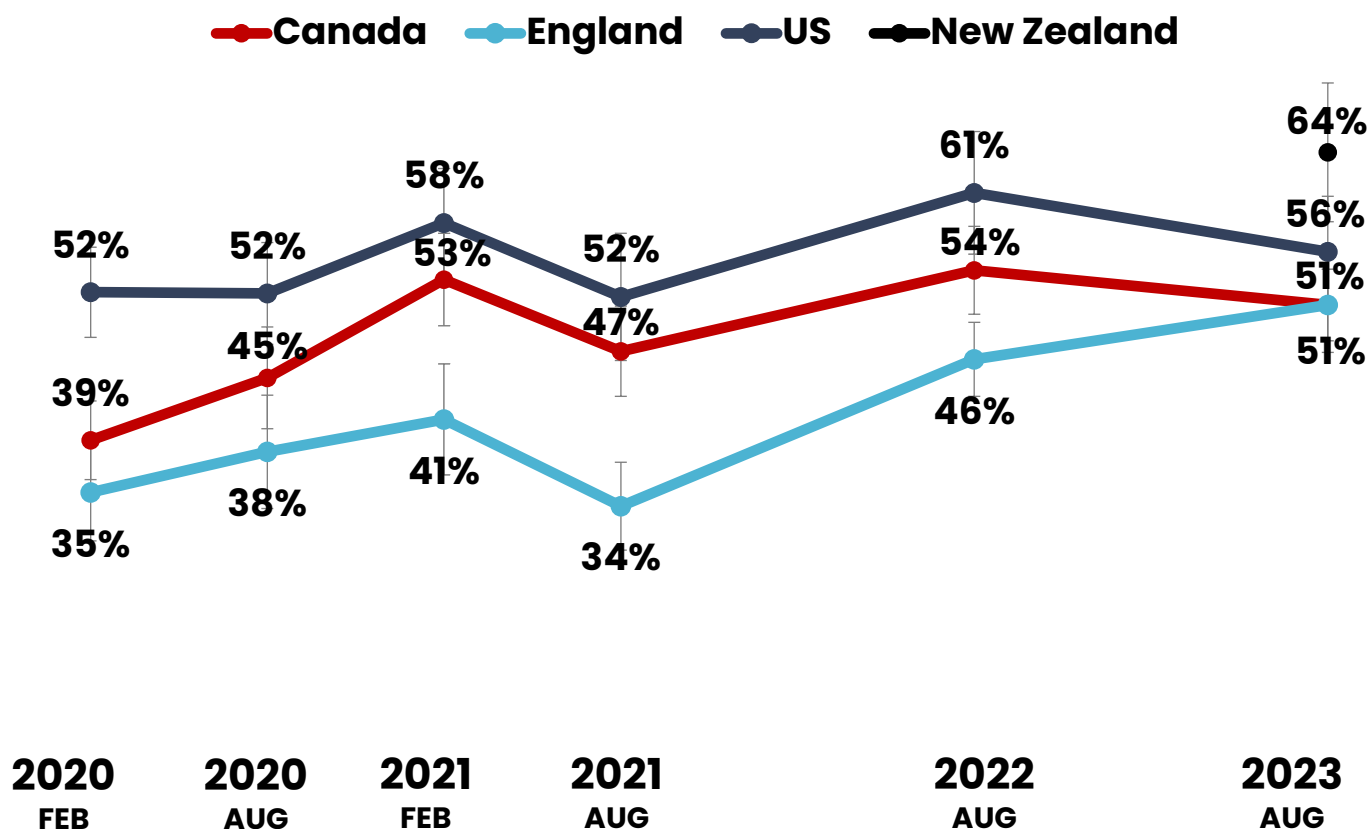
Time to first use - Vaping

Among youth who vaped in the past 30 days, the proportion who reported first vaping within 60 minutes of waking was over half in all countries by 2023, and nearly two-thirds in New Zealand. While this proportion appeared to increase over time in all countries, there was some variation, with a notable recent increase in England though little net change in the US.

Percentage who vape within 60 minutes after waking

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2020-2023

CA: N=4,642; EN: N=4,900; US: N=5,096; NZ: N=338



"HOW SOON AFTER WAKING DO YOU FIRST USE AN E-CIGARETTE/VAPE?", AMONG YOUTH WHO VAPED IN THE PAST 30 DAYS, % WHO SELECTED AN OPTION WITHIN 60 MINUTES; REFUSED EXCLUDED FROM DENOMINATOR

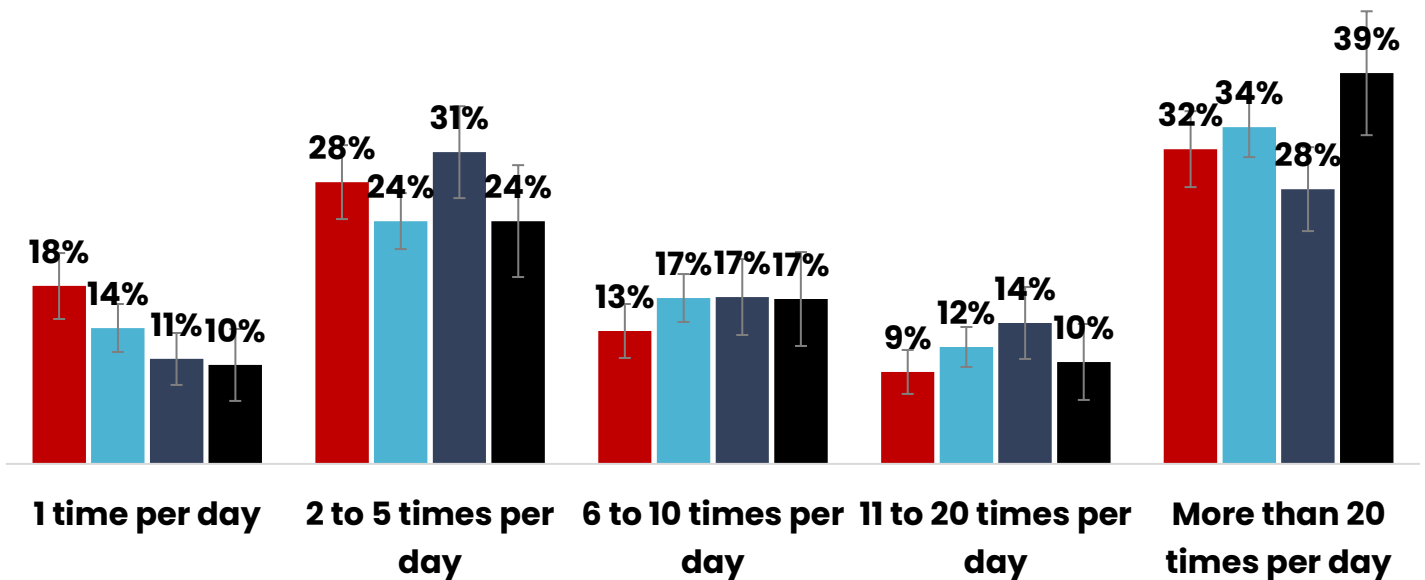
Times used per day - Vaping

The figure below shows the number of times vaping per day reported by youth who vaped in the past 30 days, in 2023. Most reported vaping more than once on the days that they vaped. Approximately one-third reported vaping more than 20 times per day, slightly higher in New Zealand and lower in the US.

Times vaped per day

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2023
 CA: N=696; EN: N=1,240; US: N=804; NZ: N=332

■ Canada ■ England ■ US ■ New Zealand



"IN THE PAST 30 DAYS, ON THE DAYS YOU USED AN E-CIGARETTE/VAPED, HOW MANY TIMES DID YOU USE IT EACH DAY?", AMONG YOUTH WHO VAPED IN THE PAST 30 DAYS; REFUSED EXCLUDED FROM DENOMINATOR

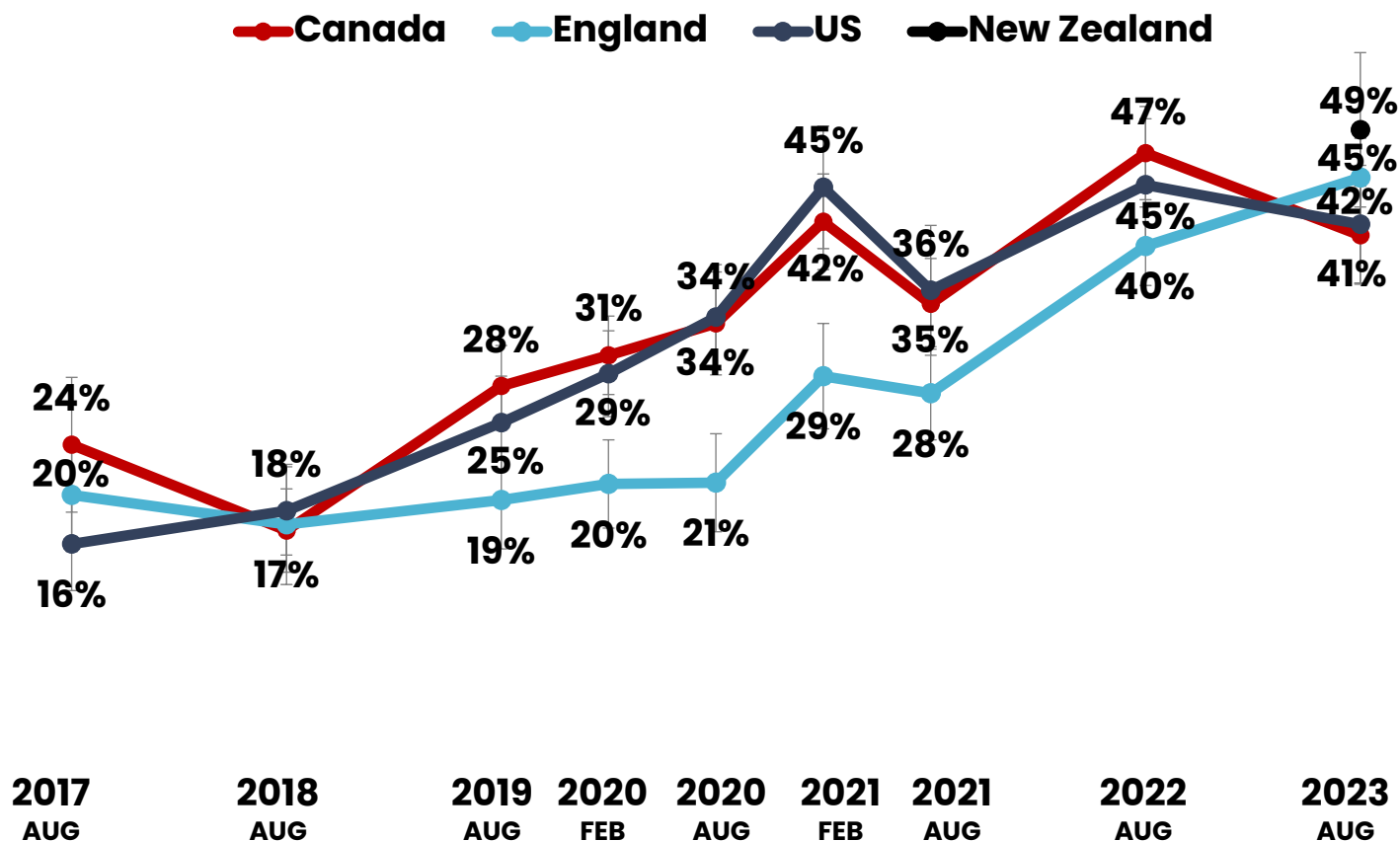
Times used per day - Vaping

Between 2017 and 2023, among youth who vaped in the past 30 days, the proportion who reported vaping more than 10 times per day increased drastically in each of the three countries. In Canada and the US, the largest increase appears to have occurred between 2018 and early 2021, while in England the largest increase appears to have occurred between 2020 and 2022. In 2023, nearly half of youth who vaped in New Zealand reported vaping more than 10 times per day.

Percentage who vape more than 10 times per day

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2023

CA: N=6,259; EN: N=5,881; US: N=6,881; NZ: N=332



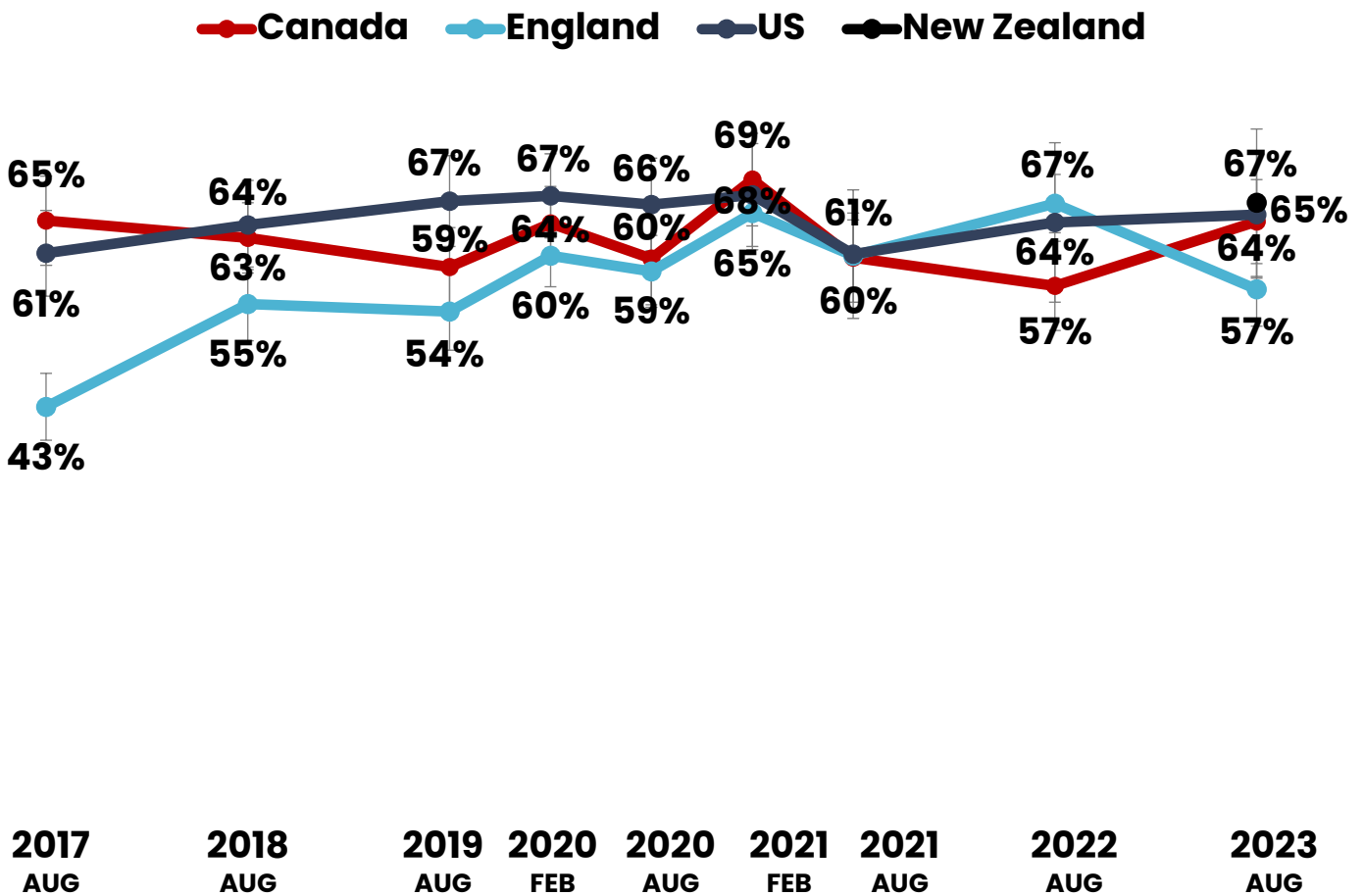
"IN THE PAST 30 DAYS, ON THE DAYS YOU USED AN E-CIGARETTE/VAPED, HOW MANY TIMES DID YOU USE IT EACH DAY?", AMONG YOUTH WHO VAPED IN THE PAST 30 DAYS, % WHO SELECTED AN OPTION MORE THAN 10 TIMES PER DAY; REFUSED EXCLUDED FROM DENOMINATOR

Perceived addiction to smoking

In nearly every wave, among youth who smoked in the past 30 days, the majority in all countries reported that they were ‘a little’ or ‘very’ addicted to cigarettes. Between 2017 and 2023, this proportion appears to have increased in England, but showed little net change among youth in Canada and the US despite some year-to-year variation.

Percentage reporting they were ‘a little’ or ‘very’ addicted to cigarettes

YOUTH AGED 16-19 WHO SMOKED IN PAST 30 DAYS, 2017-2023
 CA: N=4,120; EN: N=6,568; US: N=4,089; NZ: N=169



“DO YOU CONSIDER YOURSELF ADDICTED TO CIGARETTES?”, AMONG YOUTH WHO SMOKED IN THE PAST 30 DAYS, % WHO RESPONDED “YES, A LITTLE ADDICTED” OR “YES, VERY ADDICTED”; REFUSED EXCLUDED FROM DENOMINATOR

Perceived addiction to smoking Canada

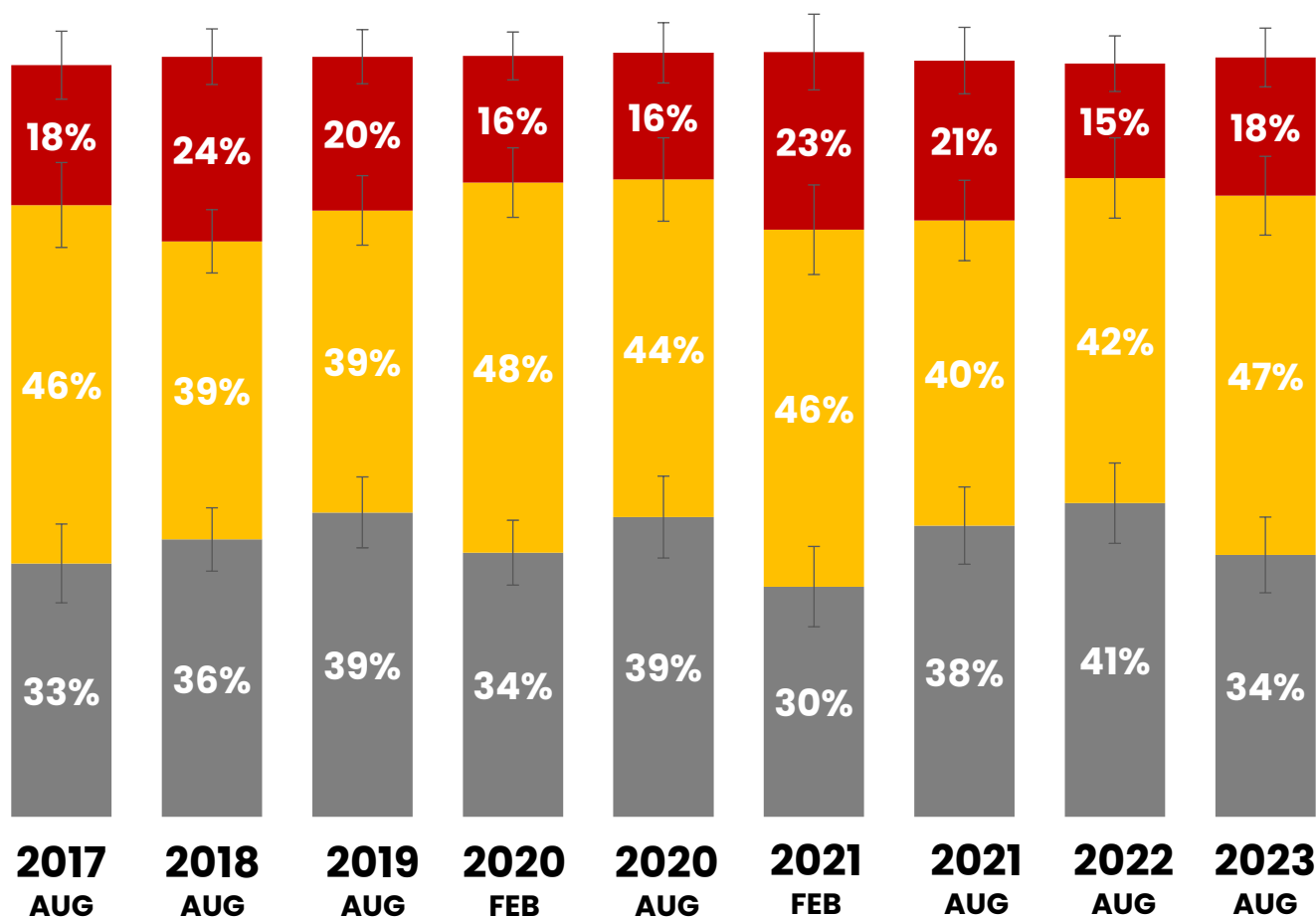
In Canada, while proportions varied across years, the majority of youth who smoked reported being addicted ('a little' or 'very') to cigarettes. No clear pattern was observed over time.



Do you consider yourself addicted to cigarettes?

YOUTH AGED 16-19 WHO SMOKED IN PAST 30 DAYS, 2017-2023, CANADA
N=4,183

■ Not at all ■ Yes, a little addicted ■ Yes, very addicted



"DO YOU CONSIDER YOURSELF ADDICTED TO CIGARETTES?", AMONG YOUTH WHO SMOKED IN THE PAST 30 DAYS; 'DON'T KNOW' NOT SHOWN ON FIGURE, REFUSED EXCLUDED FROM DENOMINATOR

Perceived addiction to smoking England

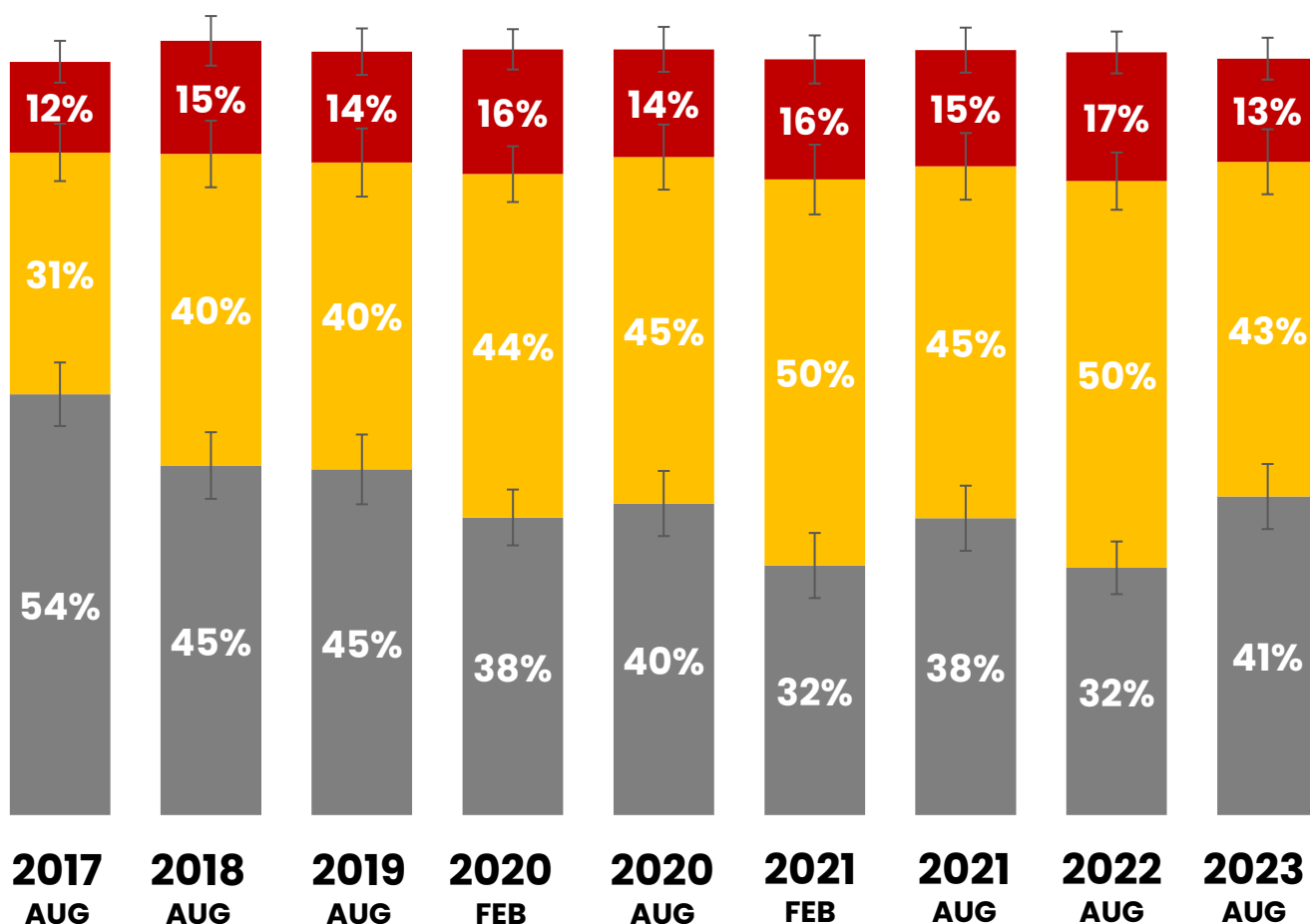
In England, the proportion of youth who smoked that reported being addicted ('a little' or 'very') to cigarettes generally increased over time, from less than half in 2017, up to two-thirds in some recent survey waves.



Do you consider yourself addicted to cigarettes?

YOUTH AGED 16-19 WHO SMOKED IN PAST 30 DAYS, 2017-2023, ENGLAND
N=6,568

■ Not at all ■ Yes, a little addicted ■ Yes, very addicted



"DO YOU CONSIDER YOURSELF ADDICTED TO CIGARETTES?", AMONG YOUTH WHO SMOKED IN THE PAST 30 DAYS; 'DON'T KNOW' NOT SHOWN ON FIGURE, REFUSED EXCLUDED FROM DENOMINATOR

Perceived addiction to smoking

United States

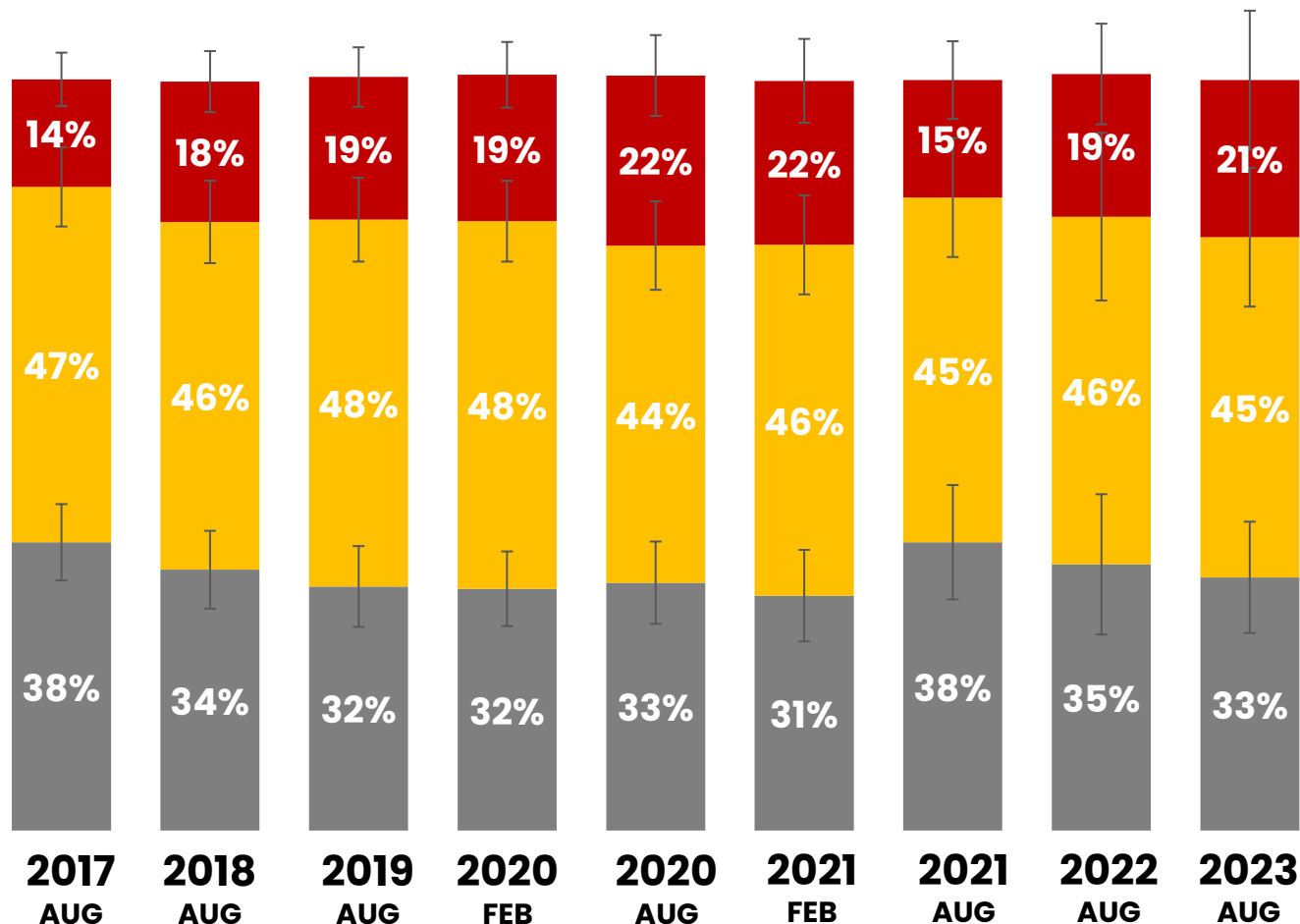
In the US, approximately two-thirds of youth who smoked reported being addicted ('a little' or 'very') to cigarettes. This proportion was fairly stable across years, with minor fluctuation.



Do you consider yourself addicted to cigarettes?

YOUTH AGED 16-19 WHO SMOKED IN PAST 30 DAYS, 2017-2023, US
N=4,089

■ Not at all ■ Yes, a little addicted ■ Yes, very addicted



"DO YOU CONSIDER YOURSELF ADDICTED TO CIGARETTES?", AMONG YOUTH WHO SMOKED IN THE PAST 30 DAYS; 'DON'T KNOW' NOT SHOWN ON FIGURE, REFUSED EXCLUDED FROM DENOMINATOR

Perceived addiction to smoking

New Zealand

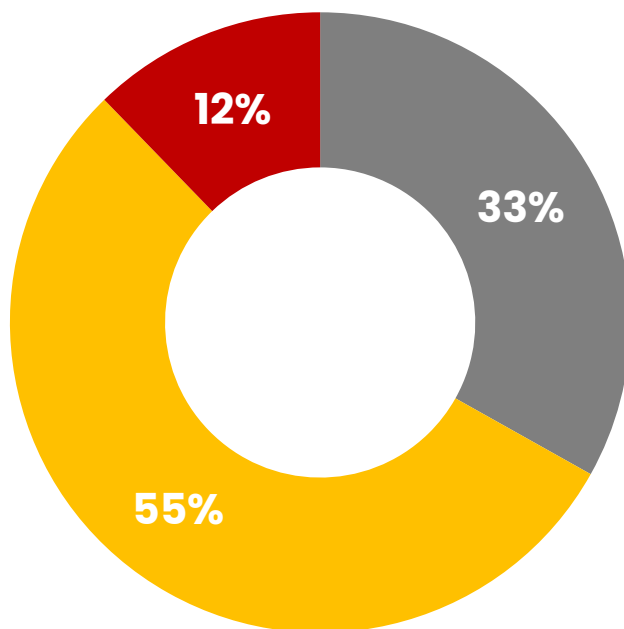
In 2023, approximately two-thirds of youth who smoked in New Zealand reported being addicted to cigarettes, either 'a little' or 'very'.



Do you consider yourself addicted to cigarettes?

YOUTH AGED 16-19 WHO SMOKED IN PAST 30 DAYS, 2023, NZ, N=169

■ Not at all ■ Yes, a little addicted ■ Yes, very addicted



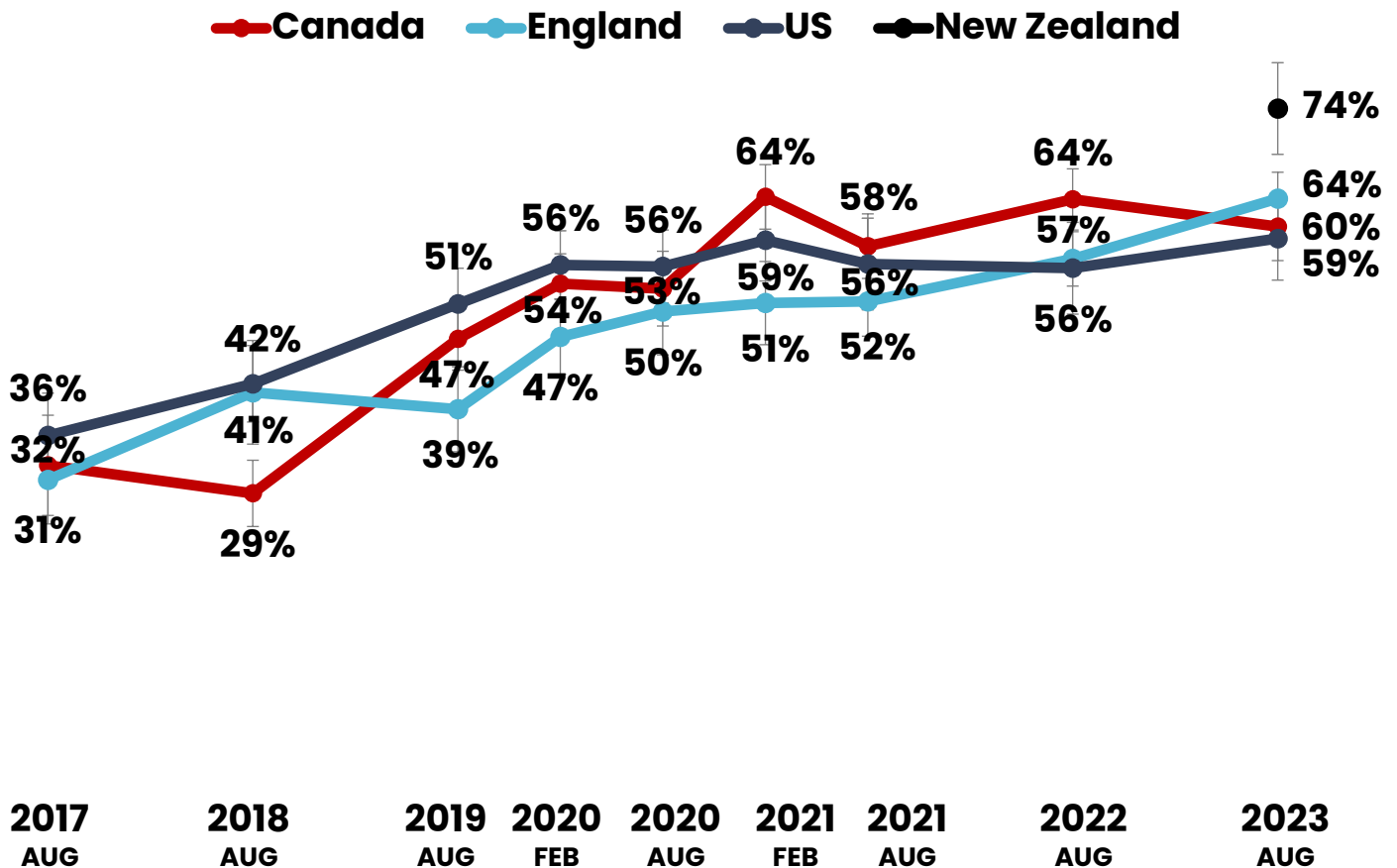
2023
AUG

Perceived addiction to vaping

Between 2017 and 2023, the proportion of youth who vaped that reported being 'a little' or 'very' addicted to vaping increased substantially in all three countries, from approximately one-third in 2017 to a majority in 2020 and onward. Approximately three-quarters of youth who vaped in New Zealand reported being addicted, in 2023.

Percentage reporting they were 'a little' or 'very' addicted to vaping

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2023
 CA: N=6,446; EN: N=6,080; US: N=7,095; NZ: N=346



"DO YOU CONSIDER YOURSELF ADDICTED TO USING E-CIGARETTES/VAPING?", AMONG YOUTH WHO VAPED IN THE PAST 30 DAYS, % WHO RESPONDED "YES, A LITTLE ADDICTED" OR "YES, VERY ADDICTED"; REFUSED EXCLUDED FROM DENOMINATOR

Perceived addiction to vaping

Canada

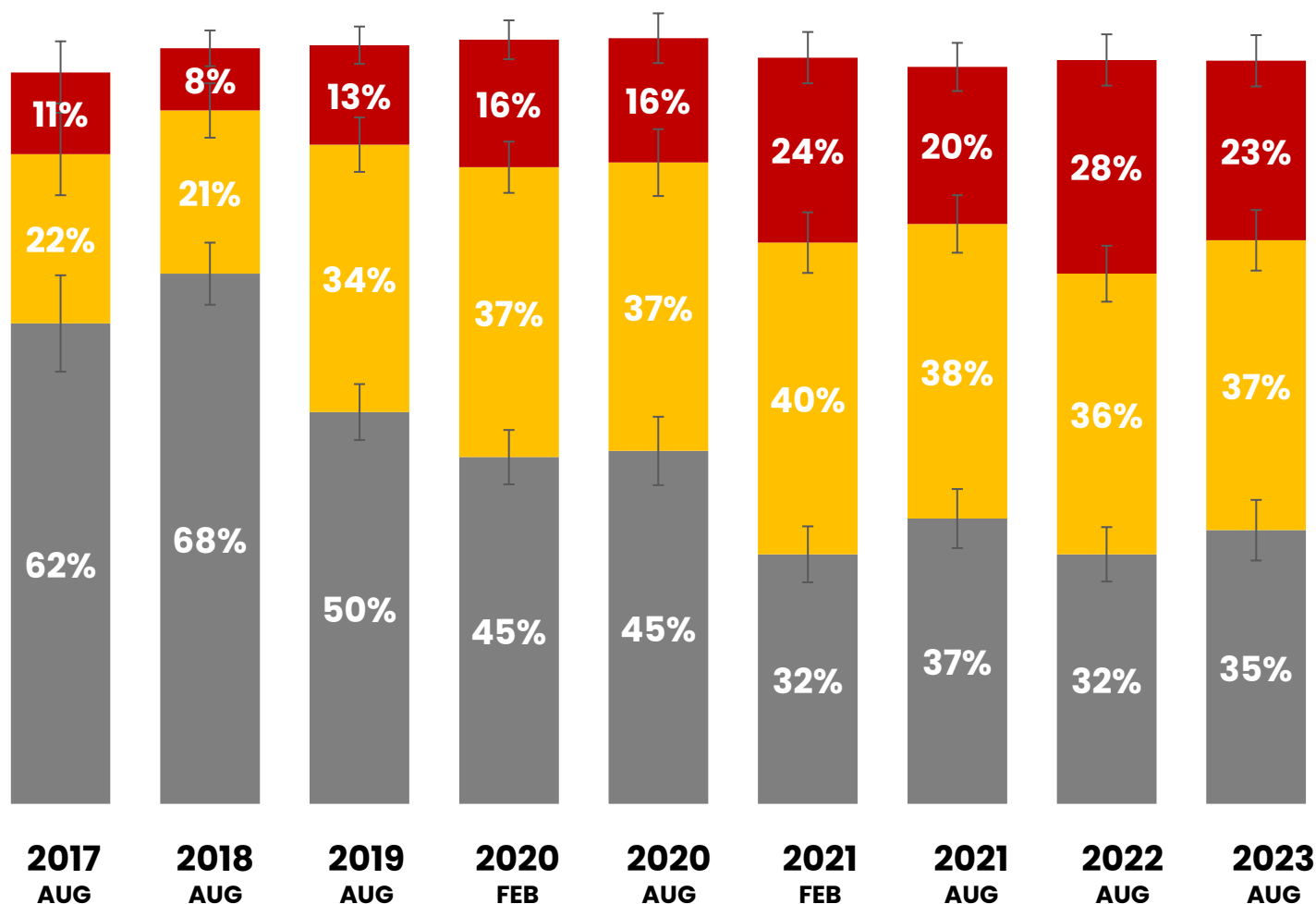
In Canada, the proportion of youth who vaped that reported being addicted ('a little' or 'very') to vaping increased greatly over time: in 2017, fewer than one-third said they were addicted, whereas since 2021 a similar proportion said they were NOT addicted. In 2023, nearly one-quarter reported being 'very addicted' to vaping.



Do you consider yourself addicted to e-cigarettes/vaping?

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2023, CANADA, N=6,444

■ Not at all ■ Yes, a little addicted ■ Yes, very addicted



"DO YOU CONSIDER YOURSELF ADDICTED TO USING E-CIGARETTES/VAPING?", AMONG YOUTH WHO VAPED IN THE PAST 30 DAYS; 'DON'T KNOW' NOT SHOWN ON FIGURE, REFUSED EXCLUDED FROM DENOMINATOR

Perceived addiction to vaping

England

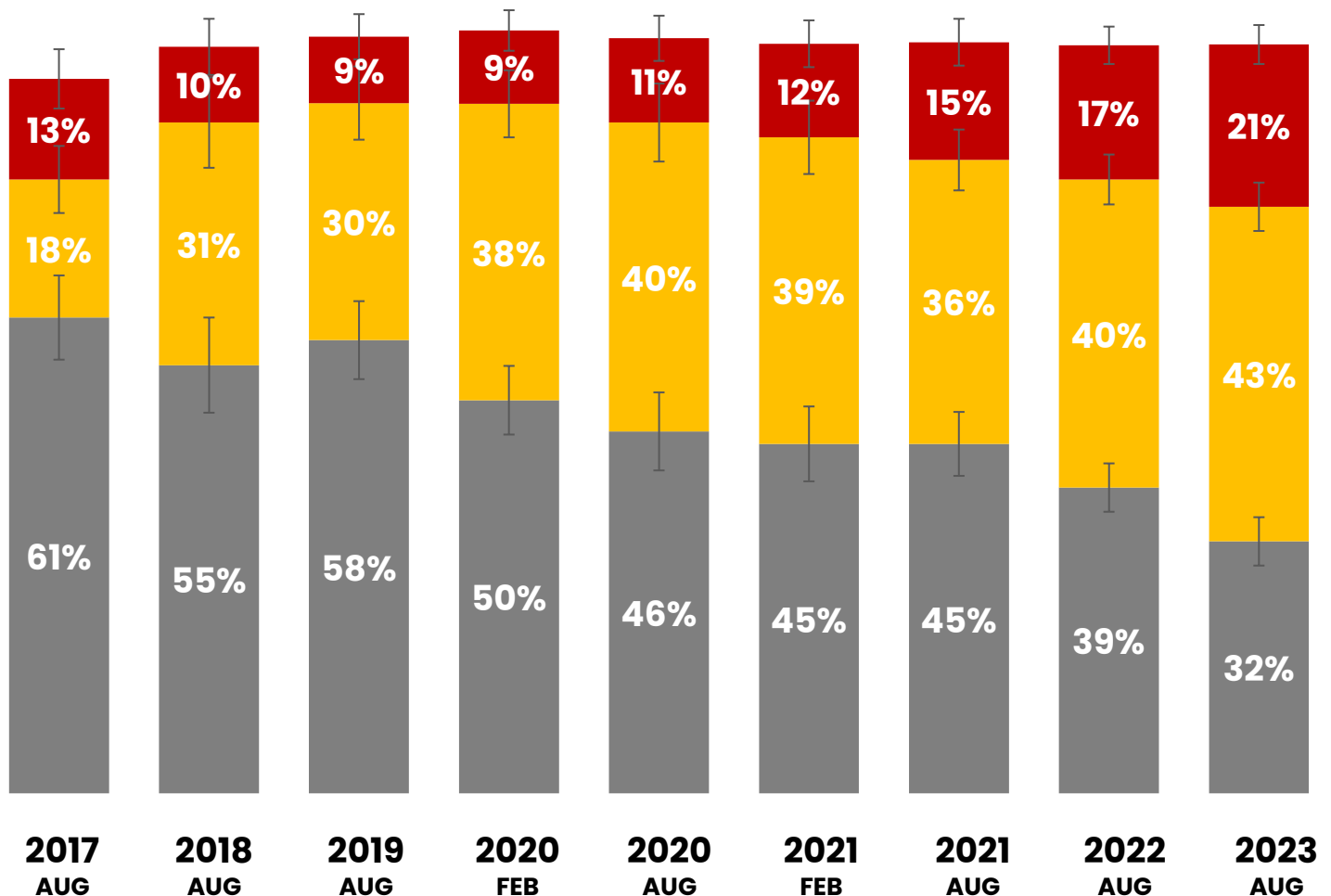
In England, a similar pattern was observed. In 2017, three in ten youth who vaped reported being addicted ('a little' or 'very') to vaping, while a similar proportion said they were NOT addicted in 2023. The proportion who reported being 'very addicted' to vaping appears to have increased substantially in recent years.



Do you consider yourself addicted to e-cigarettes/vaping?

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2023, ENGLAND, N=6,073

■ Not at all ■ Yes, a little addicted ■ Yes, very addicted



"DO YOU CONSIDER YOURSELF ADDICTED TO USING E-CIGARETTES/VAPING?", AMONG YOUTH WHO VAPED IN THE PAST 30 DAYS; 'DON'T KNOW' NOT SHOWN ON FIGURE, REFUSED EXCLUDED FROM DENOMINATOR

Perceived addiction to vaping

United States

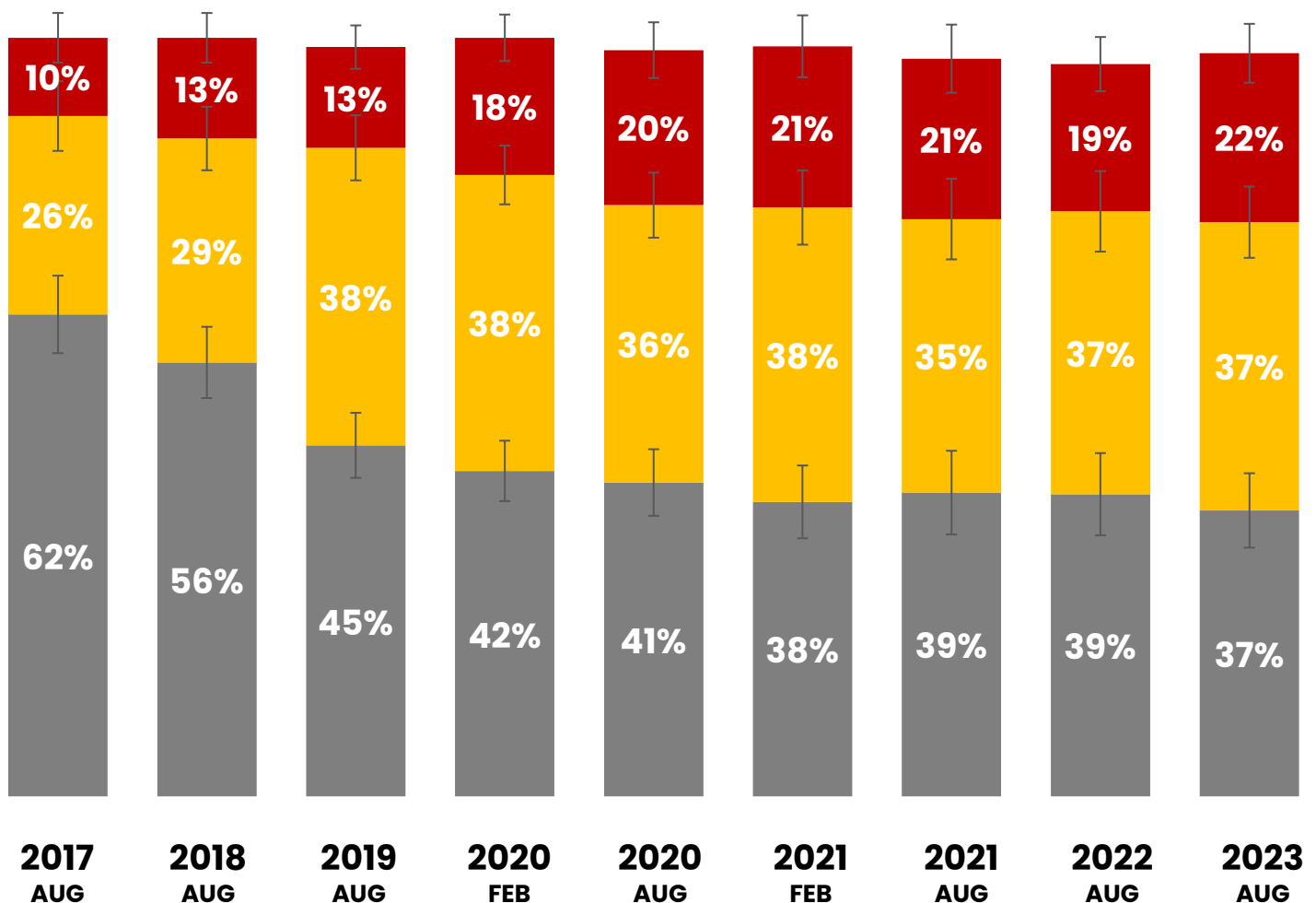
In the US, the proportion of youth who vaped that reported being addicted ('a little' or 'very') to vaping increased between 2017 and 2020, but has remained fairly stable since then. The proportion who reported being 'very addicted' to vaping doubled from one in ten in 2017 to one in five since 2020.



Do you consider yourself addicted to e-cigarettes/vaping?

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2023, US, N=7,089

■ Not at all ■ Yes, a little addicted ■ Yes, very addicted



"DO YOU CONSIDER YOURSELF ADDICTED TO USING E-CIGARETTES/VAPING?", AMONG YOUTH WHO VAPED IN THE PAST 30 DAYS; 'DON'T KNOW' NOT SHOWN ON FIGURE, REFUSED EXCLUDED FROM DENOMINATOR

Perceived addiction to vaping

New Zealand

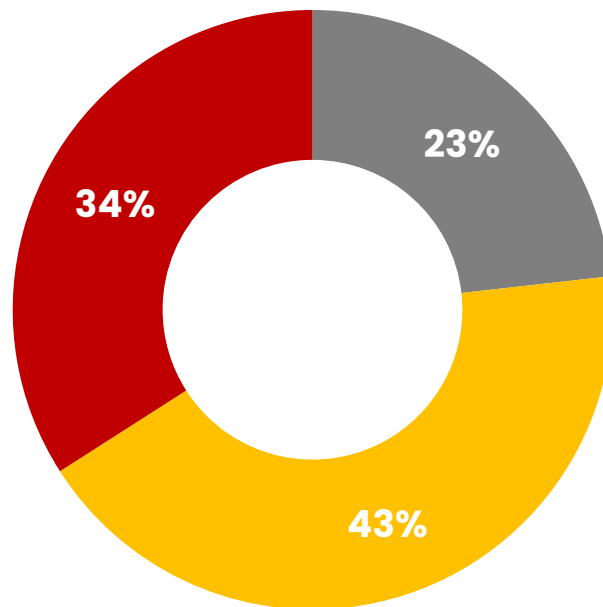
In 2023, approximately three-quarters of youth who smoked in New Zealand reported being addicted to vaping, including one-third who reported being 'very addicted'.



Do you consider yourself addicted to e-cigarettes/vaping?

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2023, NZ, N=345

■ Not at all ■ Yes, a little addicted ■ Yes, very addicted



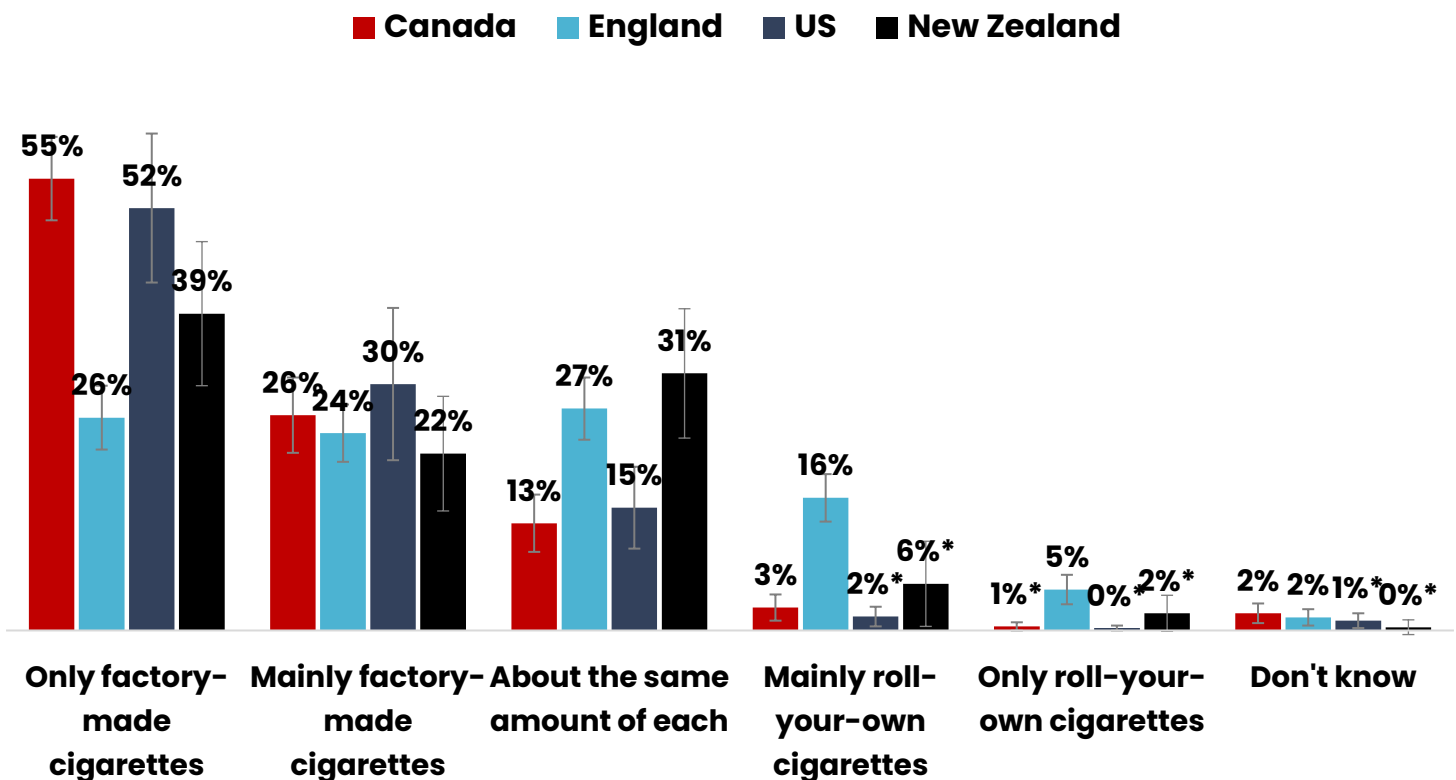
2023
AUG

Roll-your-own tobacco

Among youth who smoked in the past 30 days, at least half mainly or only used factory-made cigarettes; this was most common in Canada and the US, at four out of five youth who smoked. Roll-your-own tobacco was most popular in England, with approximately one in five youth who smoked reporting they mainly or only used roll-your-own. In New Zealand, nearly one-third reported using about the same amount of each.

Do you smoke factory-made cigarettes, roll-your-own cigarettes, or both?

YOUTH AGED 16-19 WHO SMOKED IN PAST 30 DAYS, 2023
CA: N=416; EN: N=741; US: N=336; NZ: N=167



*HIGH VARIABILITY OF ESTIMATE (CV>0.33)

Use of menthol-flavoured cigarettes

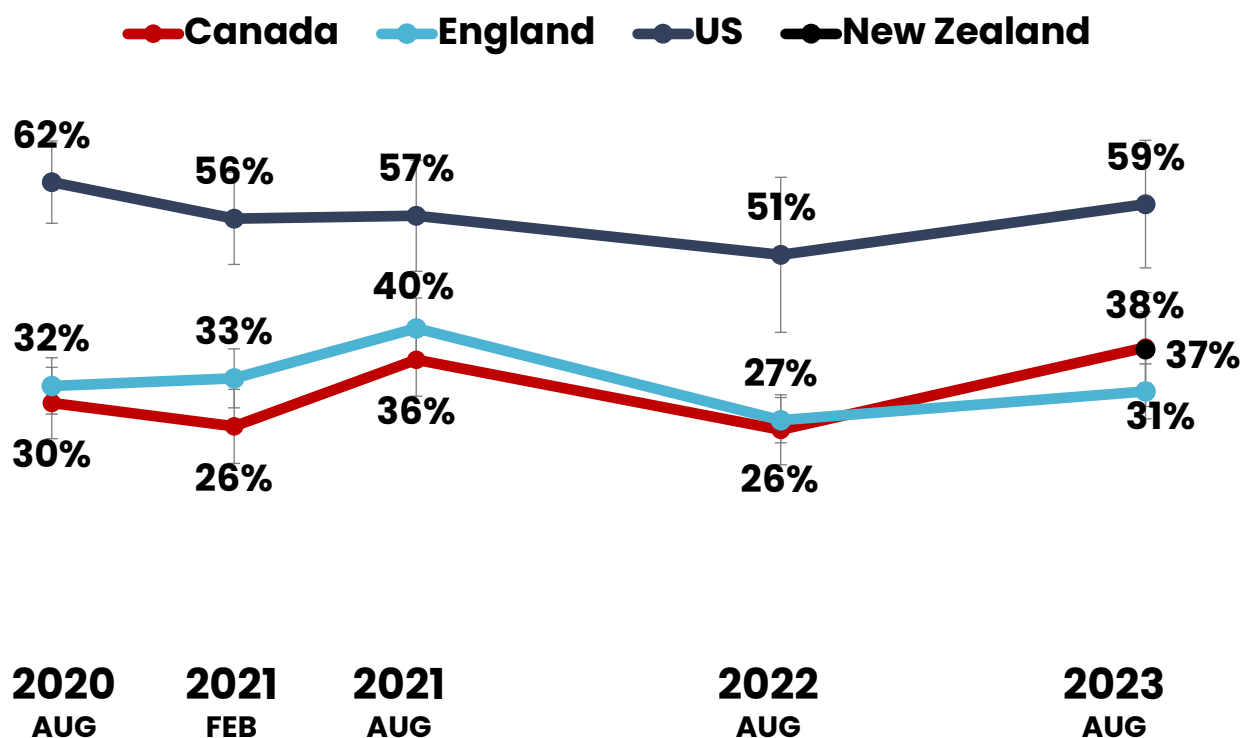
In 2023, the majority of youth who smoked in the US reported usually smoking a menthol brand, much greater than the proportions in other countries. Menthol cigarettes are prohibited in Canada and England, although they are allowed in New Zealand.

'Menthol' cigarettes include factory-made or roll-your-own cigarettes (including from illicit or alternate sources), may be flavoured using menthol accessories (such as flavour cards, filters, capsules), or may be 'alternative' brands perceived as menthol.

Is the variety of cigarettes or roll-your-own tobacco you currently smoke most often flavoured to taste like menthol or mint?

% 'YES', YOUTH AGED 16-19 WHO SMOKED IN PAST 30 DAYS, 2020-2023

CA: N=1,837; EN: N=3,586; US: N=1,910; NZ: N=163



'DON'T KNOW' AND 'REFUSED' RESPONSES ARE EXCLUDED FROM DENOMINATOR

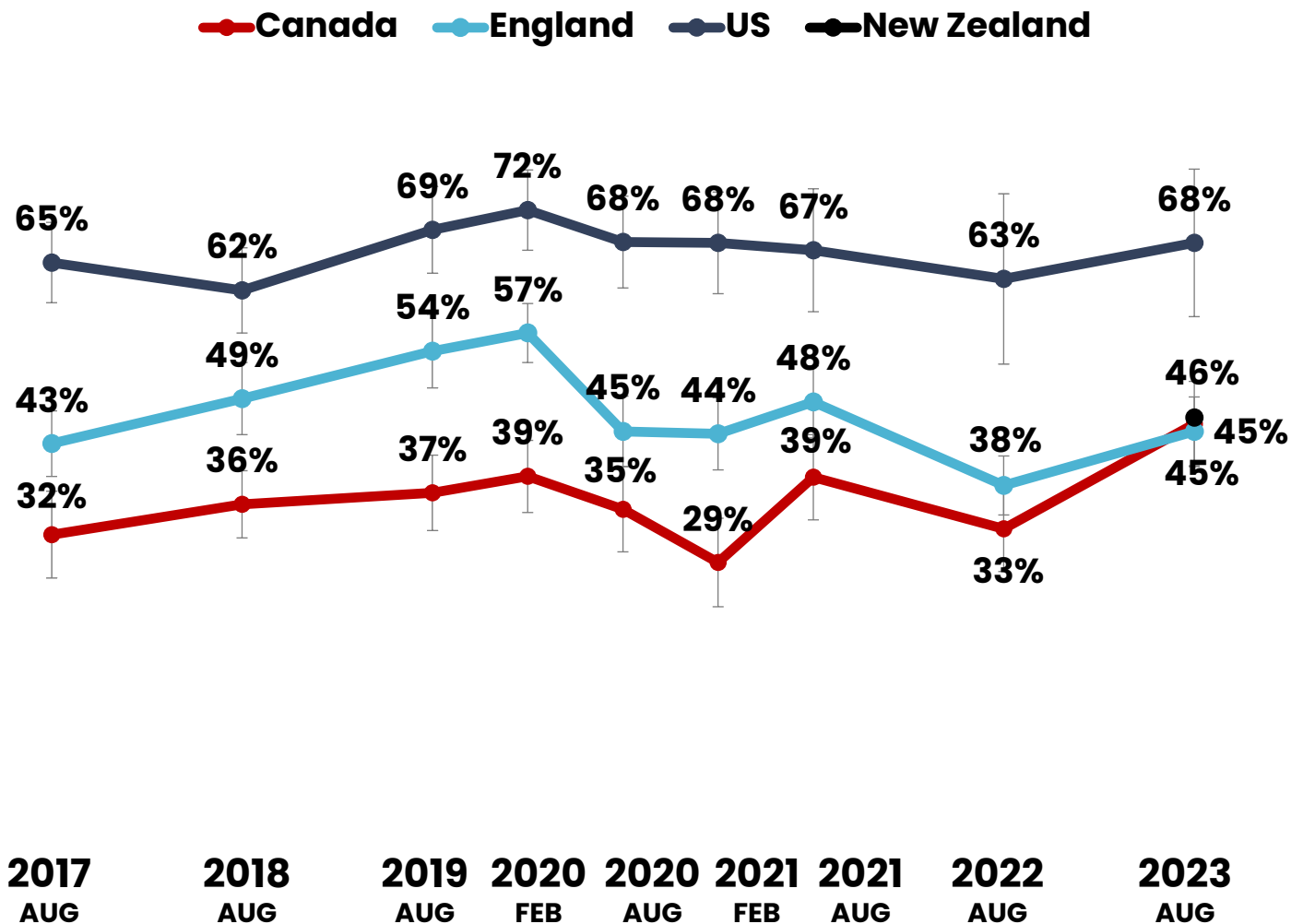
Use of menthol-flavoured cigarettes

Youth who smoked were also asked if any of the cigarettes they had smoked in the past 30 days were flavoured to taste like menthol or mint, or had a filter with a flavour capsule. In 2023, more than two-thirds of youth who smoked in the past 30 days in the US reported having smoked menthol or flavour capsule cigarettes, compared to less than half in each of the other countries.

Smoked any menthol or capsule cigarettes in past 30 days

% 'YES', YOUTH AGED 16-19 WHO SMOKED IN PAST 30 DAYS, 2017-2023

CA: N=4,067; EN: N=6,497; US: N=3,785; NZ: N=169



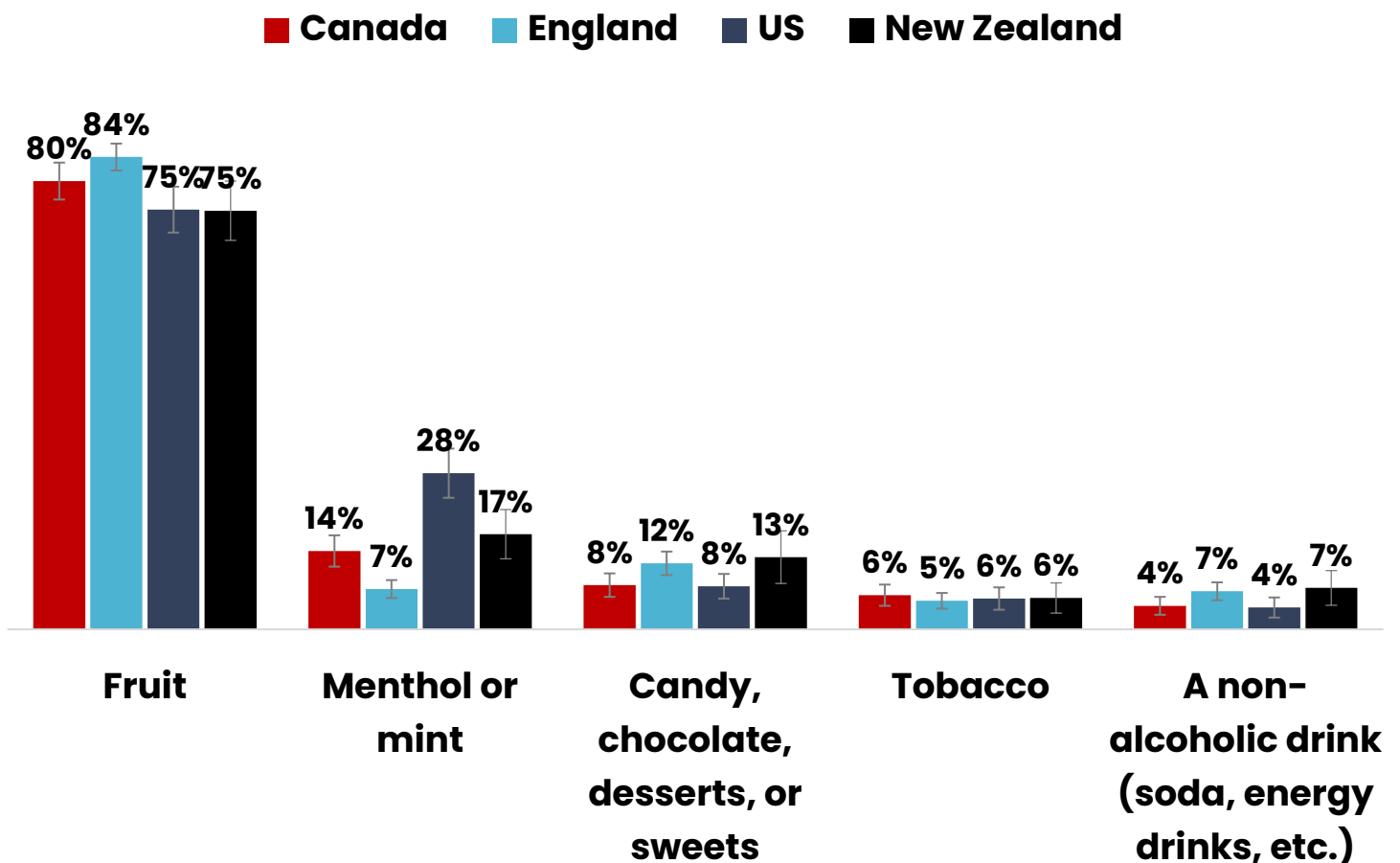
'YES' TO EITHER "IN THE PAST 30 DAYS, WERE ANY OF THE CIGARETTES YOU SMOKED FLAVOURED TO TASTE LIKE MENTHOL OR MINT?" OR "IN THE PAST 30 DAYS, DID ANY OF THE CIGARETTES YOU SMOKED HAVE A FILTER THAT YOU SQUEEZE OR CRUSH FOR FLAVOUR?"; 'DON'T KNOW' AND 'REFUSED' RESPONSES ARE EXCLUDED FROM DENOMINATOR

Use of flavoured e-cigarettes

In 2023, fruit was the most popular usual flavour of e-cigarettes among youth who vaped in each country, used by three-quarters in the US and New Zealand, and over 80% in Canada and England. Menthol or mint flavours were used by over one-quarter of youth who vaped in the US, but were less prevalent in Canada and especially England. Sweet flavours were used by more than one in ten youth in England and New Zealand, though other flavour categories were each used by less than 10% of youth who vaped.

Flavours used 'most often' in the past 30 days

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2023
 CA: N=714; EN: N=1,273; US: N=831; NZ: N=345



"IN THE LAST 30 DAYS, WHICH OF THESE FLAVOURS DID YOU USE MOST OFTEN?" [SELECT ALL THAT APPLY], AMONG YOUTH WHO VAPED IN THE PAST 30 DAYS; REFUSED EXCLUDED FROM DENOMINATOR

Use of flavoured e-cigarettes

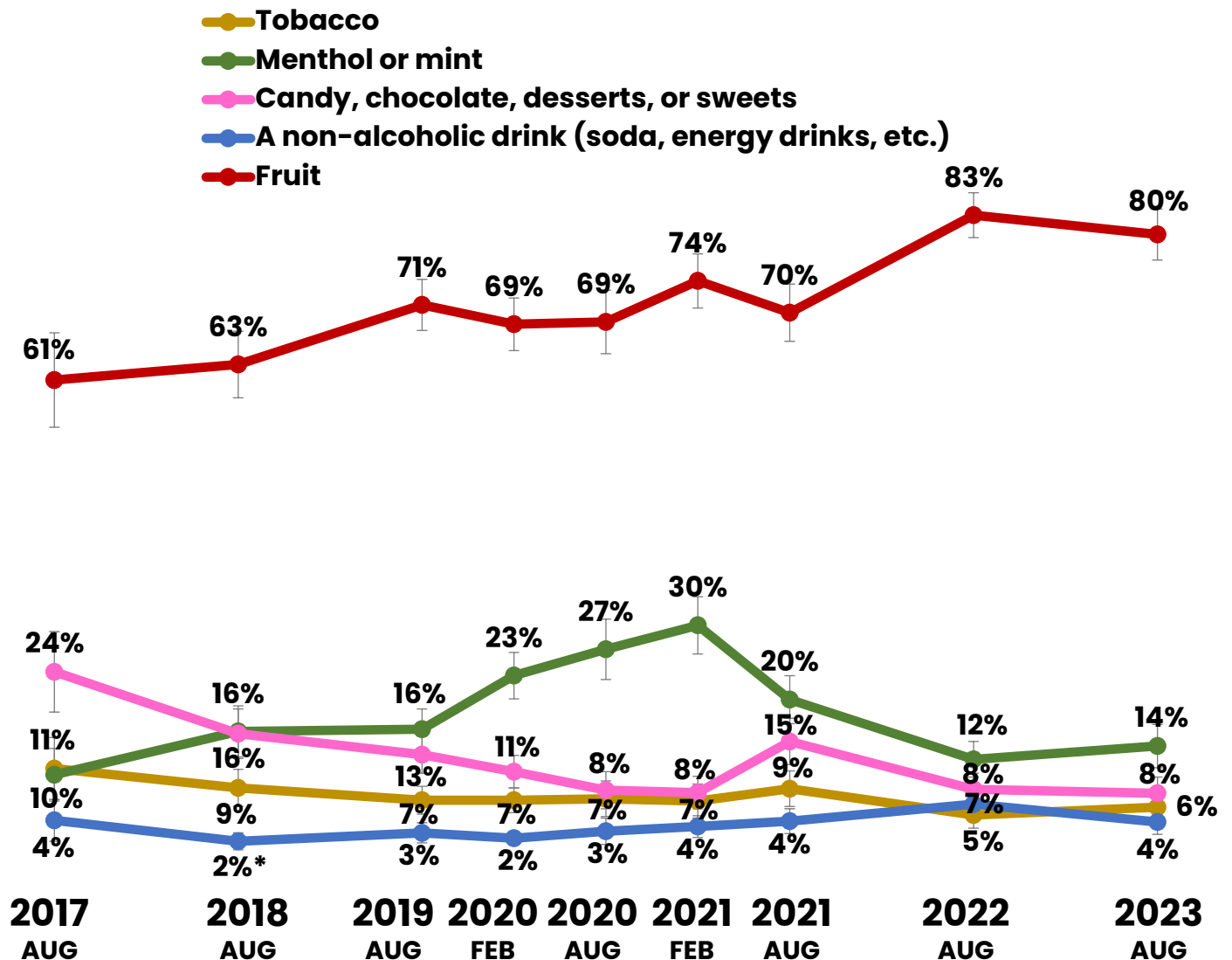
Canada

In Canada, fruit was the most popular usual flavour of e-cigarettes among youth who vaped in all years. Menthol or mint was the next most popular, and increased until 2021 before declining to 2017 levels. Usual use of tobacco flavour was rare.



Flavours used 'most often' in the past 30 days

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2023, CANADA
N=6,465



*HIGH VARIABILITY OF ESTIMATE (CV>0.33)

"IN THE LAST 30 DAYS, WHICH OF THESE FLAVOURS DID YOU USE MOST OFTEN?" [SELECT ALL THAT APPLY], AMONG YOUTH WHO VAPED IN THE PAST 30 DAYS; REFUSED EXCLUDED FROM DENOMINATOR

Use of flavoured e-cigarettes England

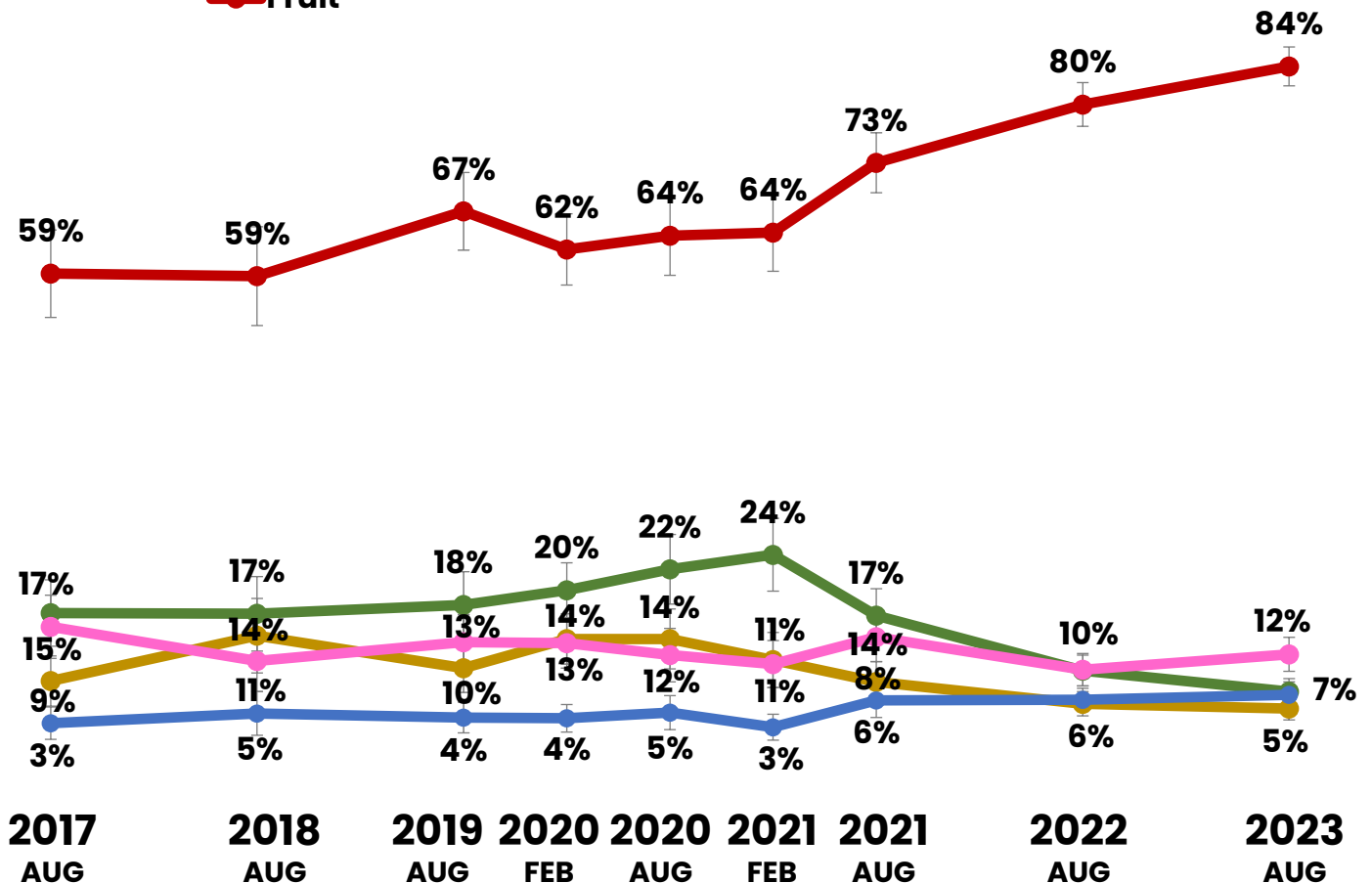
In England, fruit was the most popular usual flavour of e-cigarettes among youth who vaped in all years. In 2023, sweet flavours became the next most popular category. Use of menthol or mint increased until 2021 before declining to a low in 2023.



Flavours used 'most often' in the past 30 days

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2023, ENGLAND
N=6,097

- Tobacco
- Menthol or mint
- Candy, chocolate, desserts, or sweets
- A non-alcoholic drink (soda, energy drinks, etc.)
- Fruit



"IN THE LAST 30 DAYS, WHICH OF THESE FLAVOURS DID YOU USE MOST OFTEN?" [SELECT ALL THAT APPLY], AMONG YOUTH WHO VAPED IN THE PAST 30 DAYS; REFUSED EXCLUDED FROM DENOMINATOR

Use of flavoured e-cigarettes

United States

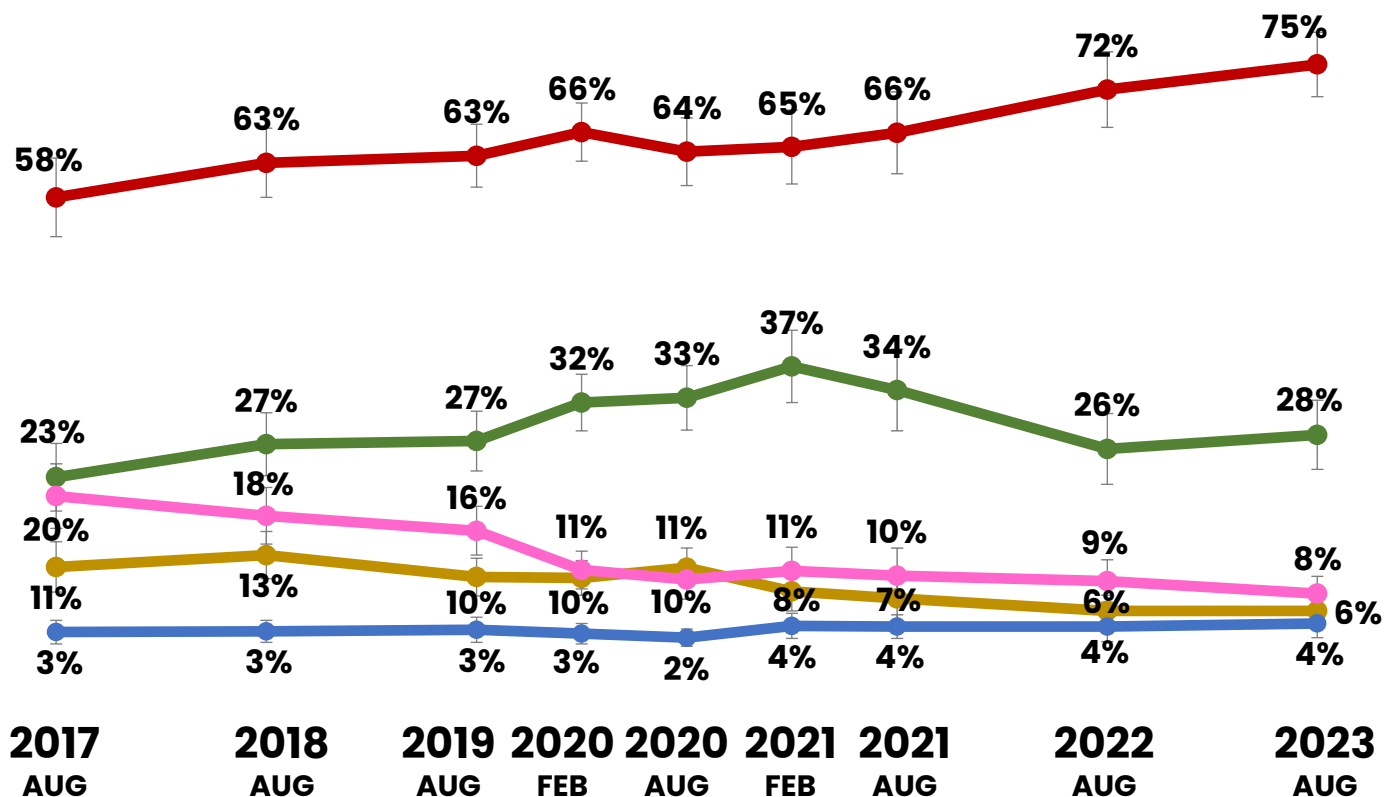
In the US, fruit was the most popular 'usual' flavour of e-cigarettes among youth who vaped in all years. Menthol or mint was used by approximately one in four youth who vaped in both 2017 and the most recent wave, but its use peaked in early 2021 at 37%. Use of sweet flavours declined over time, and use of other flavour categories was uncommon.



Flavours used 'most often' in the past 30 days

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2023, US
N=7,113

- Tobacco
- Menthol or mint
- Candy, chocolate, desserts, or sweets
- A non-alcoholic drink (soda, energy drinks, etc.)
- Fruit



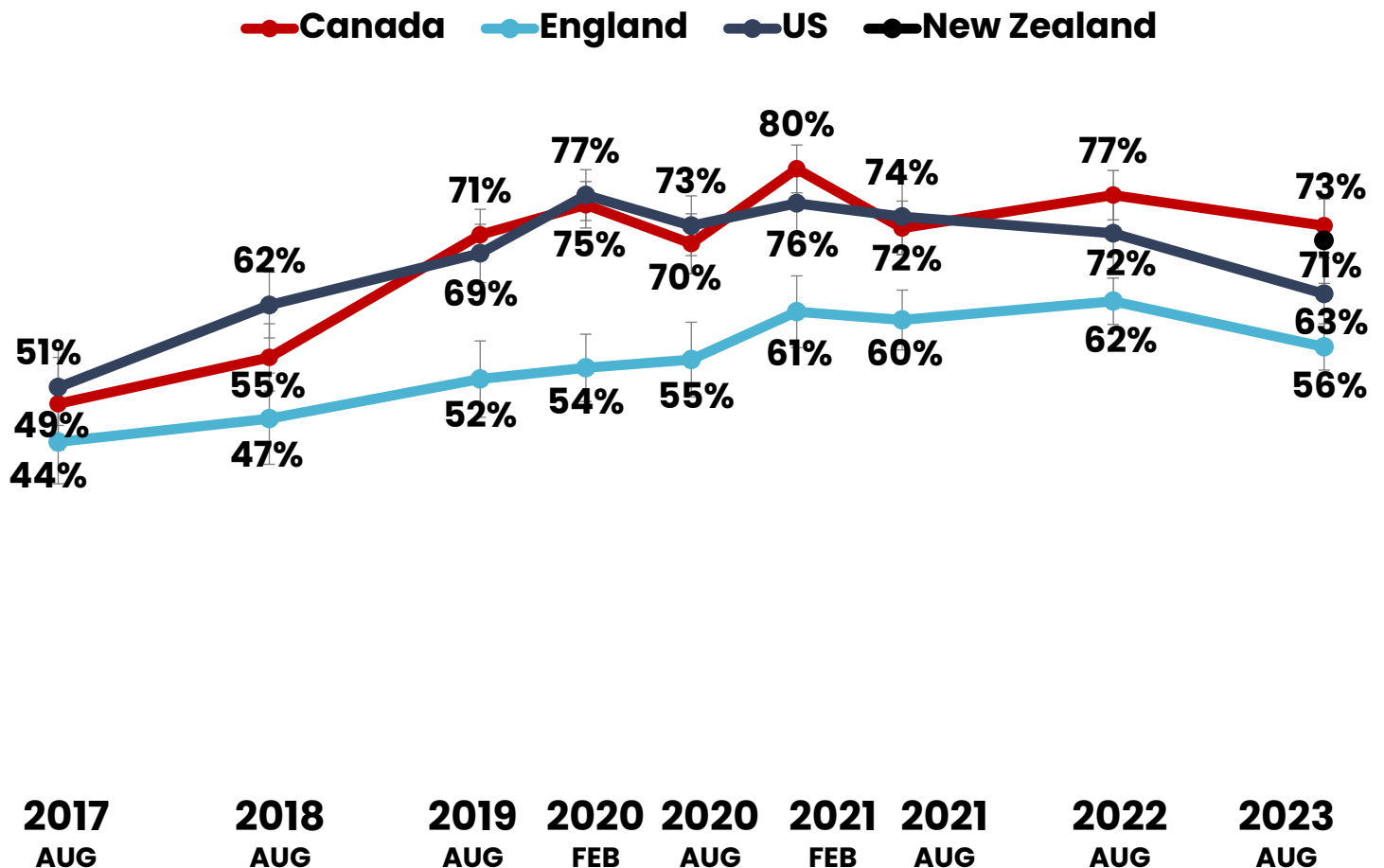
"IN THE LAST 30 DAYS, WHICH OF THESE FLAVOURS DID YOU USE MOST OFTEN?" [SELECT ALL THAT APPLY], AMONG YOUTH WHO VAPED IN THE PAST 30 DAYS; REFUSED EXCLUDED FROM DENOMINATOR

Nicotine in vaping products

Among youth who had vaped in the past 30 days, the proportion reporting that they currently used e-cigarettes that contained nicotine increased in Canada and the US between 2017 and early 2020, remaining at a similar level through to 2023. In England, the proportion reporting that they currently used nicotine e-cigarettes increased gradually from 2017 to early 2021, remaining at a similar level thereafter. In 2023, the majority of youth who vaped in each country reported using e-cigarettes that contained nicotine.

Current use of nicotine among youth who vaped in the past 30 days

% 'YES' OR 'SOME', YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2023
 CA: N=6,390; EN: N=6,029; US: N=7,067; NZ: N=343



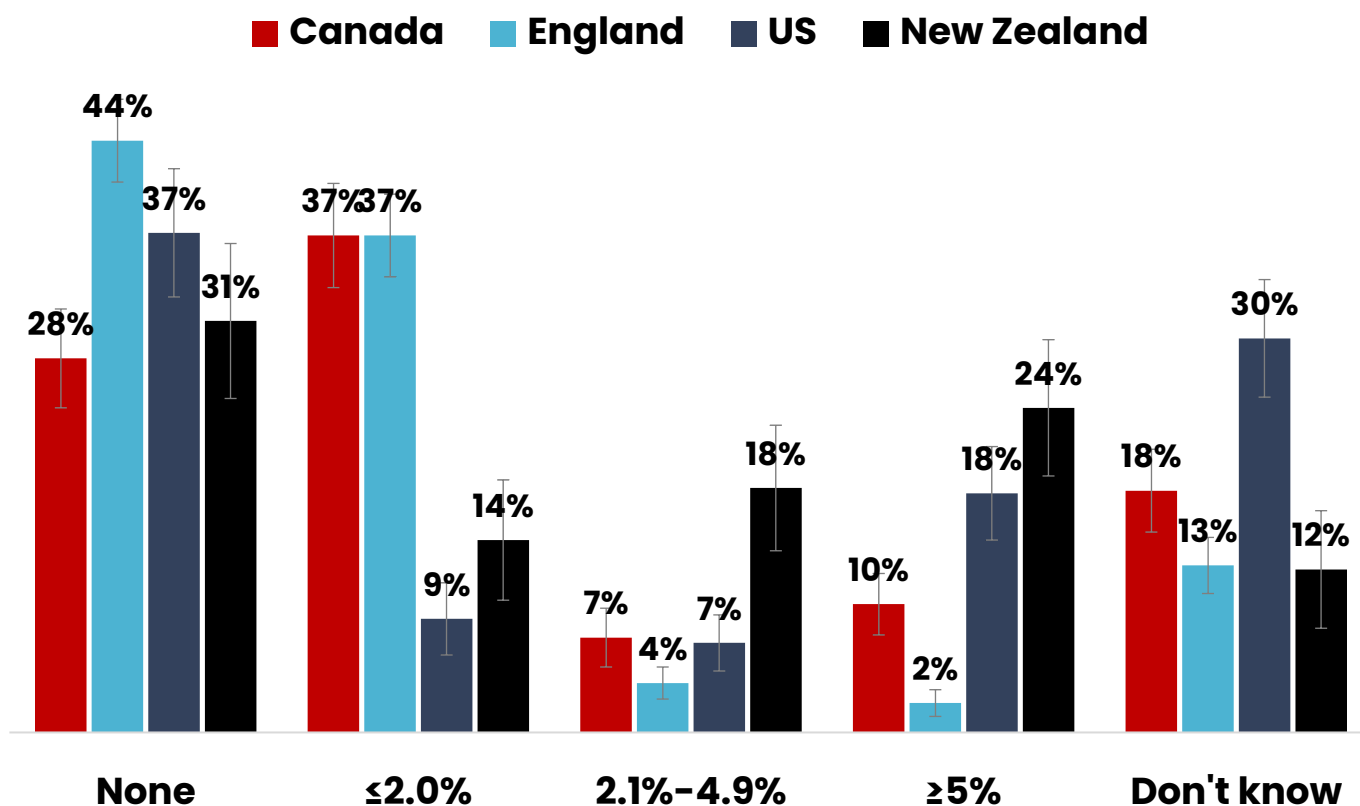
"DO THE E-CIGARETTES, CARTRIDGES, PODS, OR E-LIQUIDS YOU CURRENTLY USE CONTAIN NICOTINE?" [YES; NO; SOME HAVE NICOTINE, SOME DO NOT; I DON'T KNOW; REFUSED], ASKED OF YOUTH WHO VAPED IN THE PAST 30 DAYS AND WHO EVER USED NICOTINE; % 'YES' OR 'SOME' REPORTED AMONG ALL YOUTH WHO VAPED IN THE PAST 30 DAYS [INCLUDING THOSE WHO HAD NEVER USED NICOTINE (OR DID NOT KNOW)]; REFUSED EXCLUDED FROM DENOMINATOR

Nicotine in vaping products

In 2023, among youth who had vaped in the past 30 days, the proportion who reported using products with no nicotine varied by country, from 28% in Canada to 44% in England. In Canada and England, use of products with a nicotine concentration of 2.0% or less was most common (at 37%), while products with at least 5.0% nicotine were more popular in New Zealand (24%) and the US (18%). In the US, 3 in 10 youth who vaped did not know the nicotine concentration of their product(s).

Nicotine concentration among youth who vaped in the past 30 days

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2023
CA: N=701; EN: N=1,263; US: N=824; NZ: N=343



"HOW MUCH NICOTINE DO THE E-CIGARETTES, CARTRIDGES, PODS, OR E-LIQUIDS YOU CURRENTLY USE CONTAIN?" [RESPONSE RANGES IN MG/ML OR %; I DON'T KNOW; REFUSED], ASKED OF YOUTH WHO VAPED IN THE PAST 30 DAYS AND WHO USUALLY USED NICOTINE; CONCENTRATION REPORTED AMONG ALL YOUTH WHO VAPED IN THE PAST 30 DAYS [INCLUDING THOSE WHO DID NOT USE NICOTINE (OR DID NOT KNOW)]; REFUSED EXCLUDED FROM DENOMINATOR

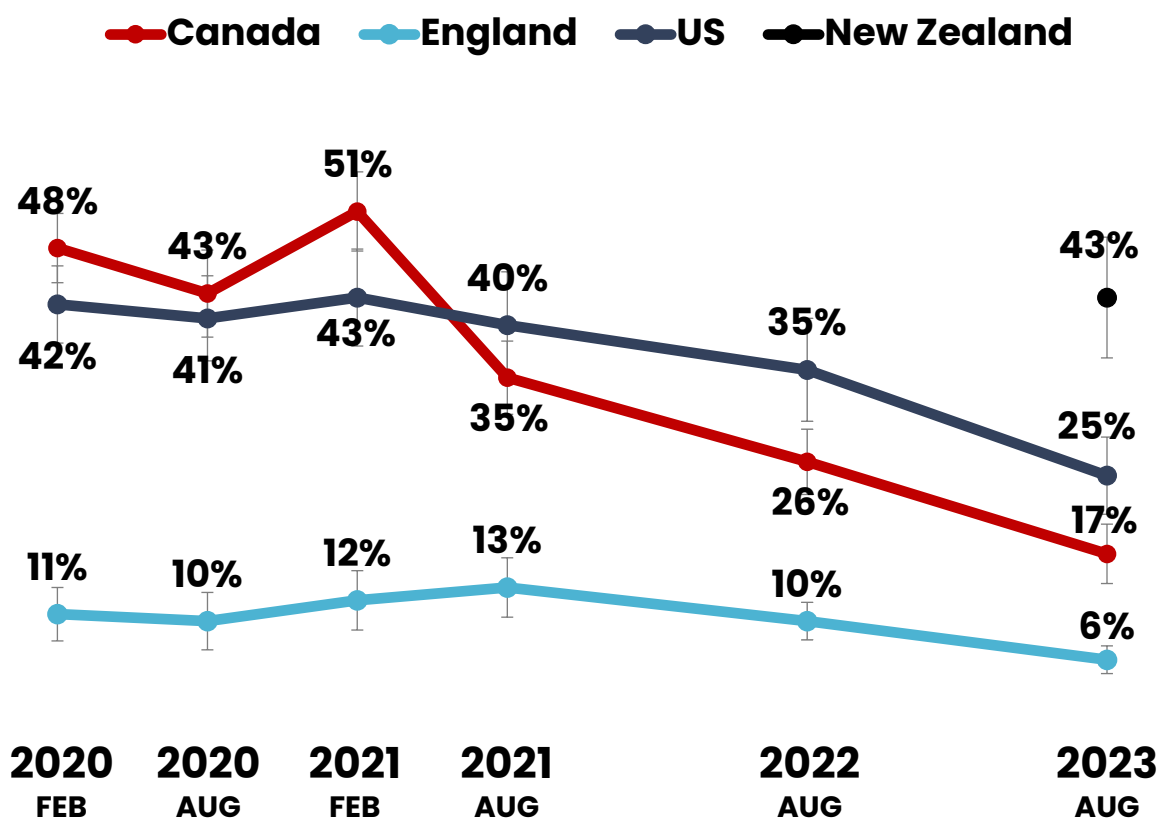
Nicotine in vaping products

In Canada, the proportion of youth who vaped that reported using products with a nicotine concentration higher than 20mg/mL was near half prior to the July 2021 implementation of the federal *Nicotine Concentration in Vaping Products Regulations*, which set a maximum nicotine concentration of 20 mg/mL. After the limit was implemented, this proportion decreased immediately to approximately one-third, and has continued declining since. England, which also limits nicotine concentration to 20 mg/mL, had consistently low prevalence of use above this level, falling to just 6% in 2023. In the US, there was little change over time until an apparent decrease in 2023. New Zealand had the greatest proportion using higher nicotine products in 2023.

Nicotine concentration >2% / 20mg/mL

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2020-2023

CA: N=4,650; EN: N=4,916; US: N=5,114; NZ: N=343



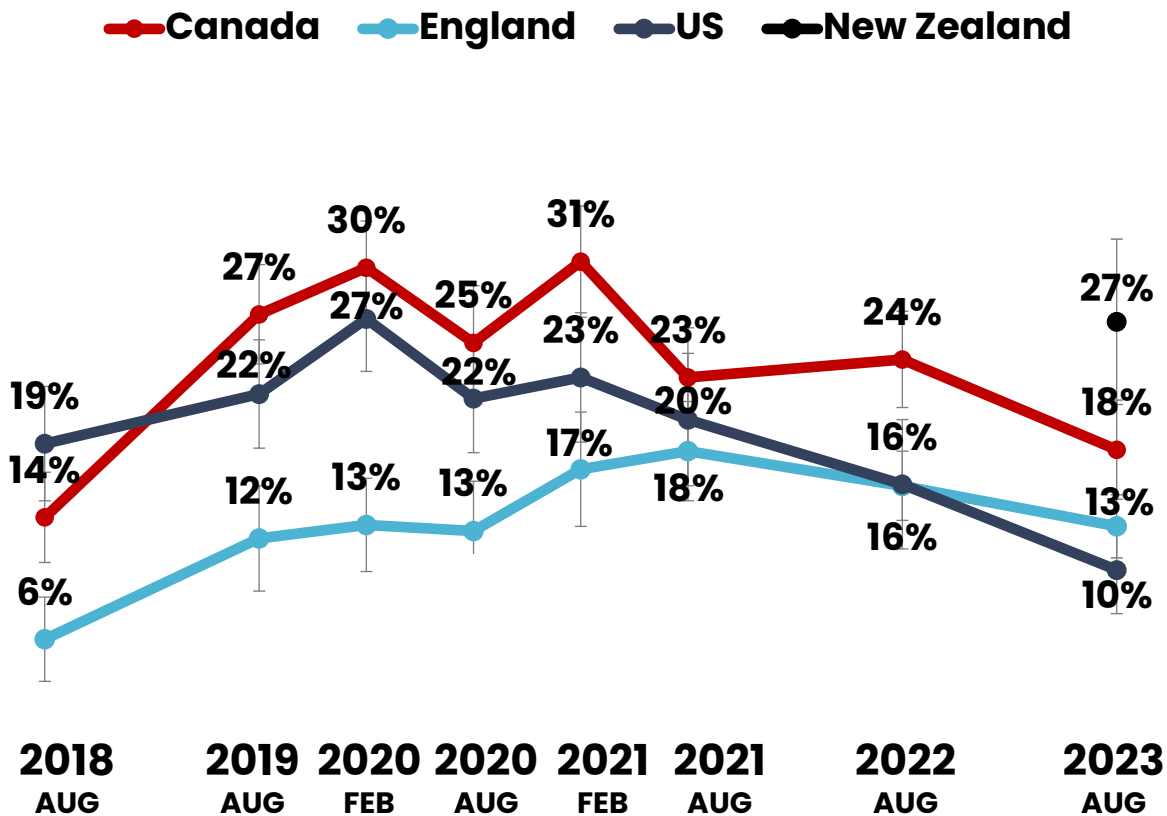
"HOW MUCH NICOTINE DO THE E-CIGARETTES, CARTRIDGES, PODS, OR E-LIQUIDS YOU CURRENTLY USE CONTAIN?" [RESPONSE RANGES IN MG/ML OR %; I DON'T KNOW; REFUSED], ASKED OF YOUTH WHO VAPED IN THE PAST 30 DAYS AND WHO USUALLY USED NICOTINE; CONCENTRATION REPORTED AMONG ALL YOUTH WHO VAPED IN THE PAST 30 DAYS [INCLUDING THOSE WHO DID NOT USE NICOTINE (OR DID NOT KNOW)]; REFUSED EXCLUDED FROM DENOMINATOR

Nicotine in vaping products

Among youth who vaped in the past 30 days, the proportion who reported usually using a product that contained nicotine salts increased in Canada and the US between 2018 and early 2020, and since then levels have decreased slightly in Canada, but more so in the US. In England, fewer youth who vaped reported using nicotine salts in 2018, but this proportion increased steadily until 2021 before levelling off at a rate similar to the US. Over one-quarter of youth who vaped in New Zealand reported using nicotine salt products in 2023.

Use of nicotine salt vaping product

% 'YES', YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2018-2023
 CA: N=6,133; EN: N=5,745; US: N=6,637; NZ: N=346



"DO THE E-CIGARETTES, CARTRIDGES, PODS, OR E-LIQUIDS YOU CURRENTLY USE CONTAIN NICOTINE SALTS?" [YES; NO; I DON'T KNOW IF THEY CONTAIN NICOTINE SALT OR NOT; REFUSED], ASKED OF YOUTH WHO VAPED IN THE PAST 30 DAYS AND WHO USUALLY USED NICOTINE AND HAD HEARD OF NICOPTINE SALTS; REPORTED AMONG ALL YOUTH WHO VAPED IN THE PAST 30 DAYS [INCLUDING THOSE WHO DID NOT USE NICOTINE (OR DID NOT KNOW) AND THOSE WHO HAD NOT HEARD OF NICOTINE SALTS (OR DID NOT KNOW)]; REFUSED EXCLUDED FROM DENOMINATOR

E-cigarette brands

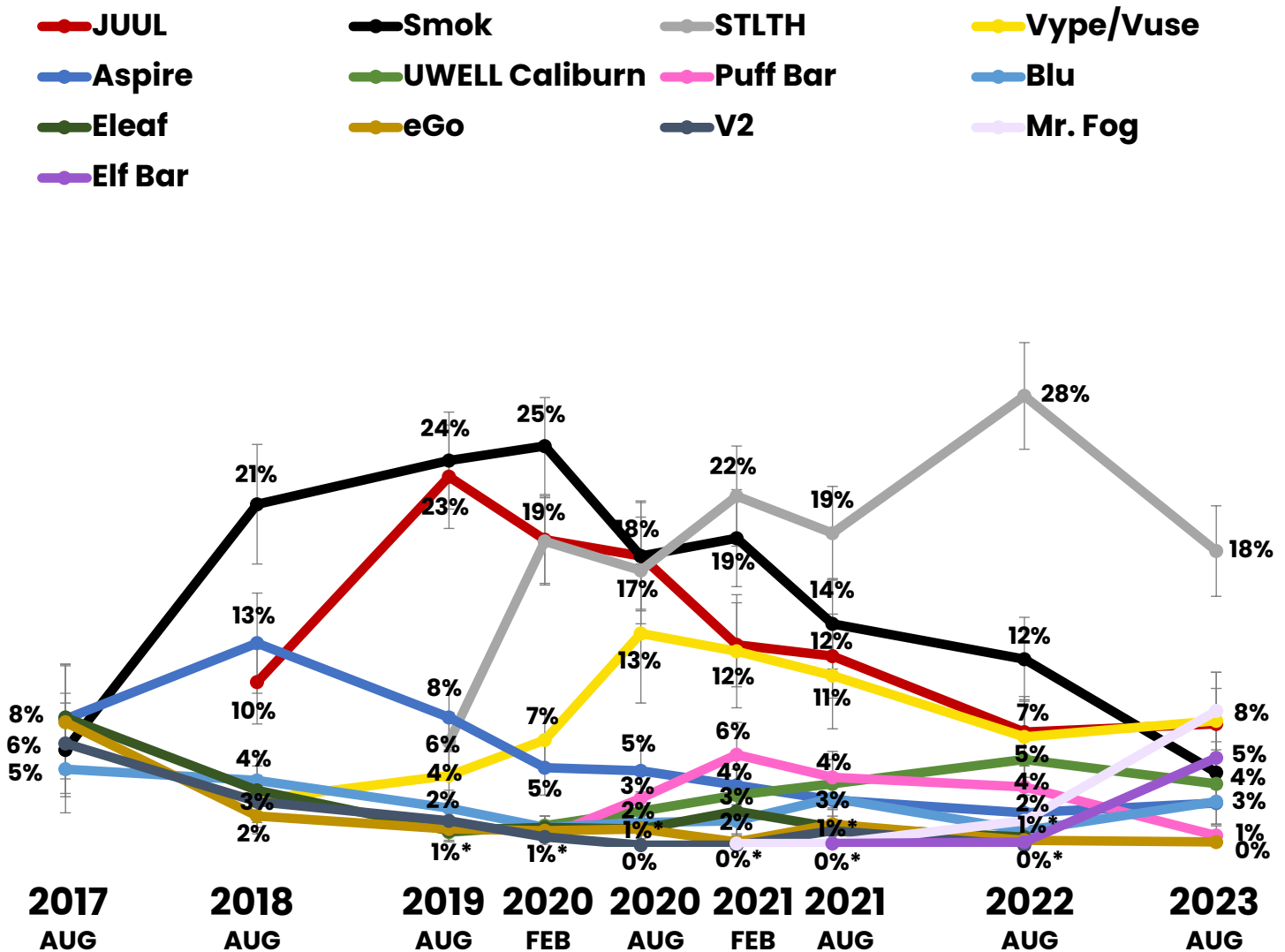
Canada

In Canada, among youth who vaped in the past 30 days, usual use of popular brands Smok and JUUL has declined in the most recent waves, while STLTH increased to become the most popular brand.



E-cigarette brand used 'most often'

TOP 5 BRANDS IN EACH WAVE REPORTED BY YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2023, CANADA, N=6,451



*HIGH VARIABILITY OF ESTIMATE (CV>0.33)

"WHAT SPECIFIC BRAND OF E-CIGARETTE/VAPING DEVICE DO YOU CURRENTLY USE MOST OFTEN?" SELECT FROM COUNTRY-SPECIFIC PRE-CODED LIST, INCLUDING OPTIONS FOR 'OTHER', 'NO USUAL BRAND', 'DON'T KNOW' AND 'REFUSED'; REFUSALS EXCLUDED FROM THE DENOMINATOR

E-cigarette brands

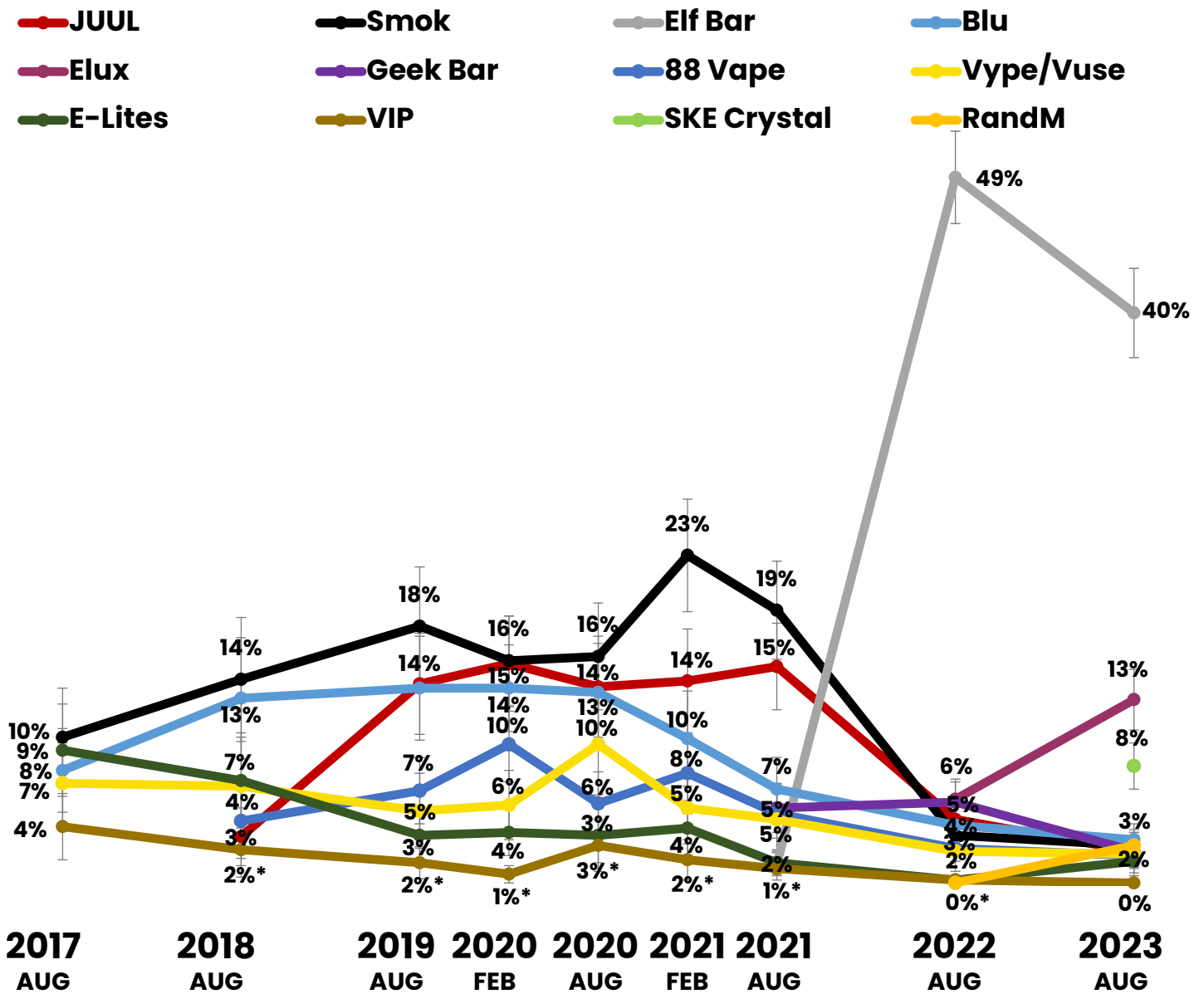
England

In England, Smok, JUUL, and blu were the brands used most often in many earlier waves, but their use decreased sharply after 2021, while Elf Bar increased exponentially to nearly half of youth who vaped in 2022 and 203.



E-cigarette brand used 'most often'

TOP 5 BRANDS IN EACH WAVE REPORTED BY YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2023, ENGLAND, N=6,086



'SKE CRYSTAL' APPEARED IN THE TOP 5 IN 2023, AT 8%

*HIGH VARIABILITY OF ESTIMATE (CV>0.33)

"WHAT SPECIFIC BRAND OF E-CIGARETTE/VAPING DEVICE DO YOU CURRENTLY USE MOST OFTEN?" SELECT FROM COUNTRY-SPECIFIC PRE-CODED LIST, INCLUDING OPTIONS FOR 'OTHER', 'NO USUAL BRAND', 'DON'T KNOW' AND 'REFUSED'; REFUSALS EXCLUDED FROM THE DENOMINATOR

E-cigarette brands

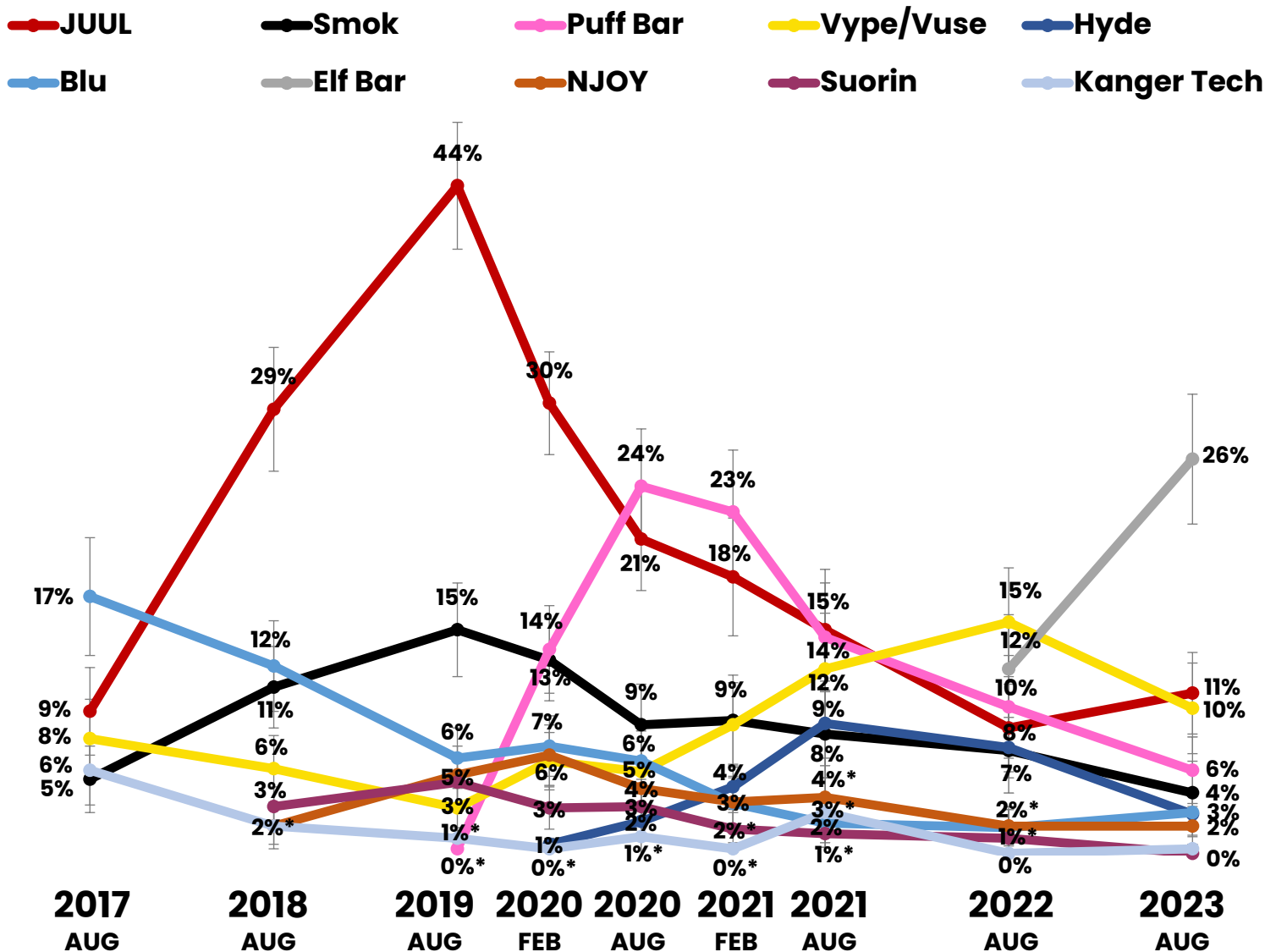
United States

In the US, JUUL quickly gained popularity until 2019 followed by a steep decline. Puff Bar gained popularity in 2020 before falling in recent waves. Vuse, used by a small proportion of youth who vaped since 2017, gained popularity in recent years. Elf Bar emerged in 2022, increasing to become the most popular brand in 2023.



E-cigarette brand used 'most often'

TOP 5 BRANDS IN EACH WAVE REPORTED BY YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2023, US, N=7,098



*HIGH VARIABILITY OF ESTIMATE (CV>0.33)

"WHAT SPECIFIC BRAND OF E-CIGARETTE/VAPING DEVICE DO YOU CURRENTLY USE MOST OFTEN?" SELECT FROM COUNTRY-SPECIFIC PRE-CODED LIST, INCLUDING OPTIONS FOR 'OTHER', 'NO USUAL BRAND', 'DON'T KNOW' AND 'REFUSED'; REFUSALS EXCLUDED FROM THE DENOMINATOR

E-cigarette brands

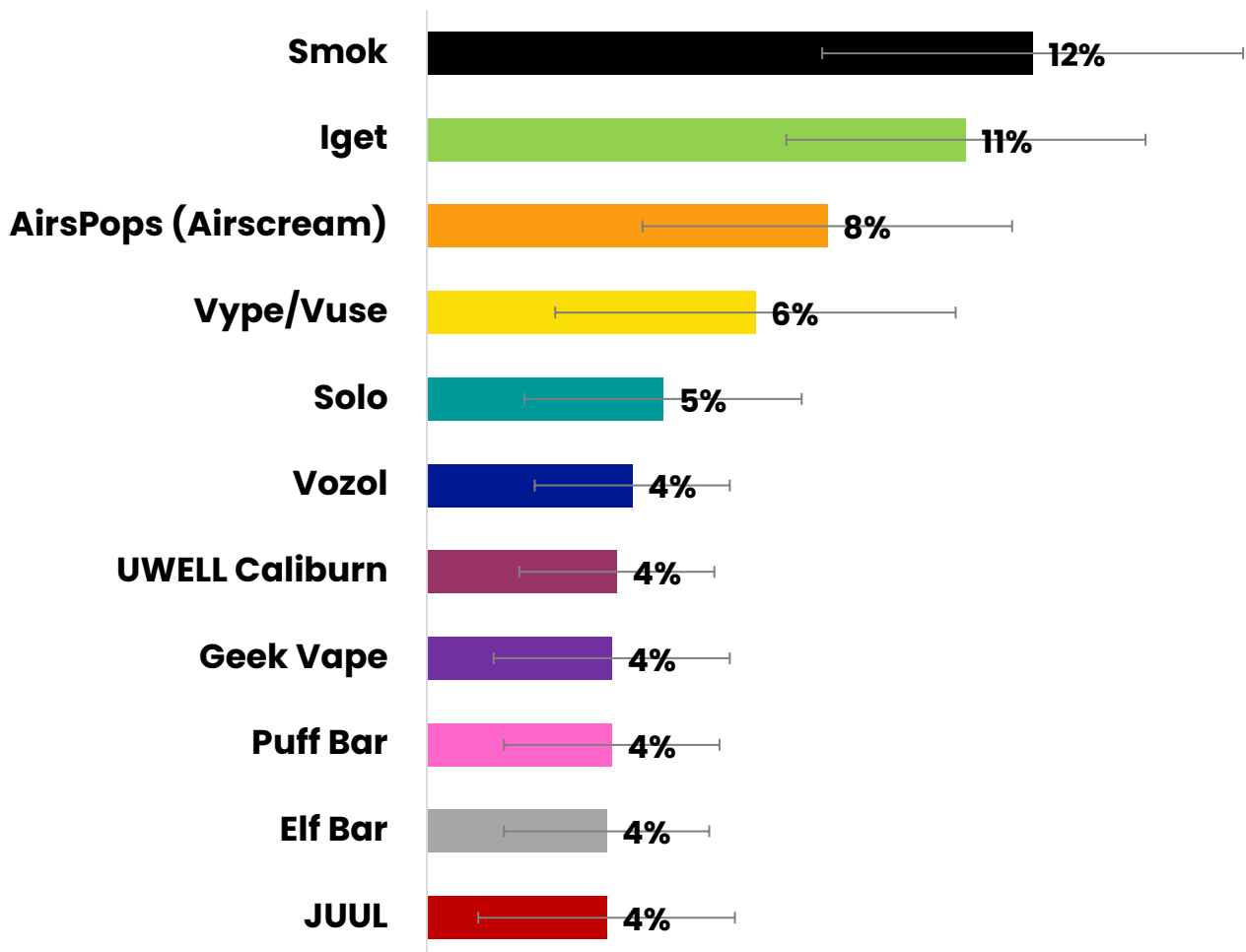
New Zealand

In 2023, the most popular brands in New Zealand were Smok and Iget, each used 'most often' by more than one in ten youth who vaped in the past 30 days. No single brand was chosen by a large proportion of youth; rather, there was a variety of brands each cited by fewer youth who vaped.



E-cigarette brand used 'most often'

TOP BRANDS REPORTED BY YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2023, NZ, N=346



E-cigarette devices

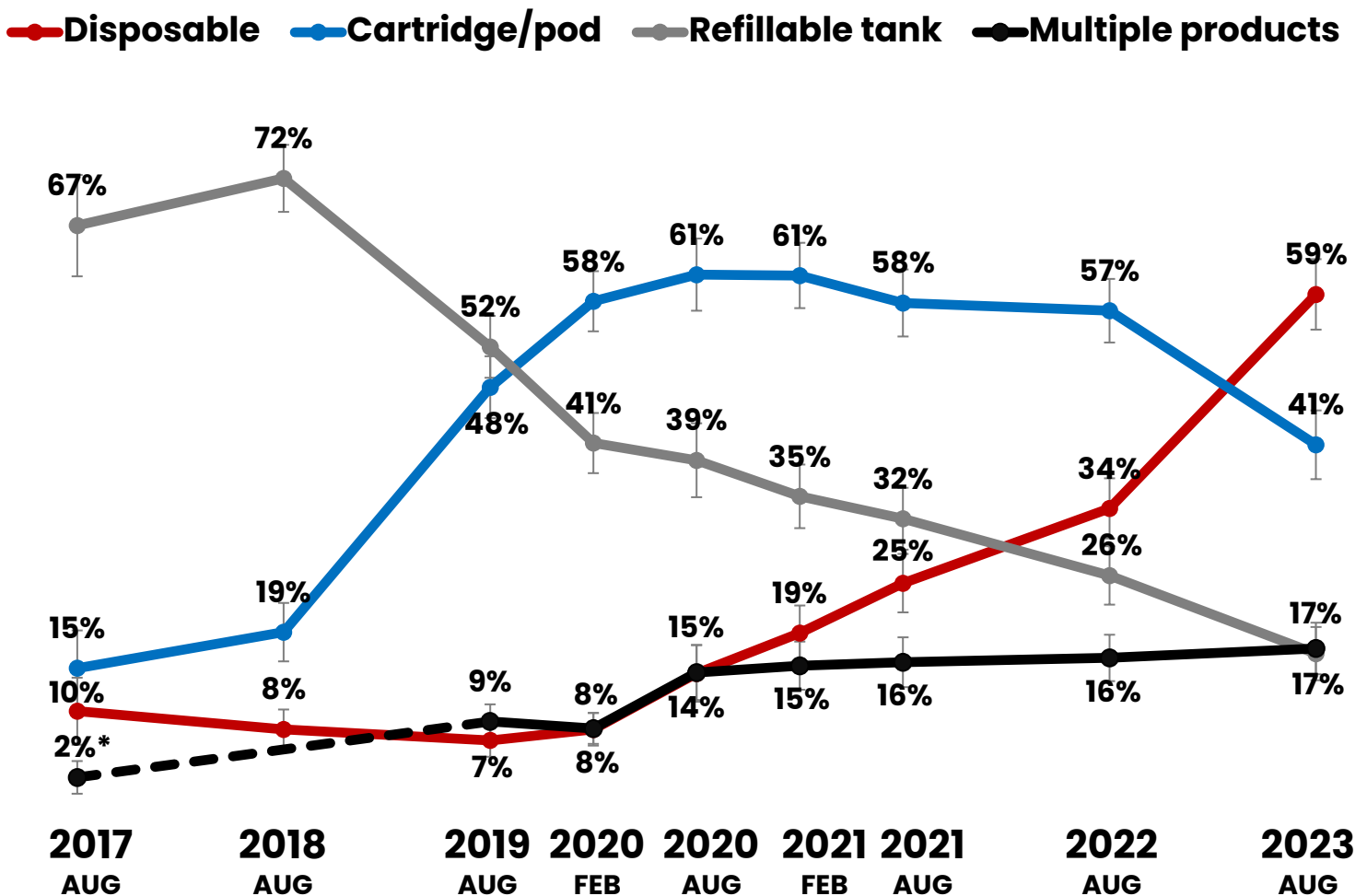
Canada

In Canada, refillable tank devices were used most often by the majority of youth who vaped in 2017 and 2018, declining over time to the least popular device type in 2023. Cartridge/pod devices increased drastically to become the most popular device type from 2020 to 2022. Disposables steadily increased since 2020, becoming the most popular device in 2023.



Type of vaping device used most often

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2023, CANADA
N=6,444



*HIGH VARIABILITY OF ESTIMATE (CV>0.33).

"WHICH OF THE FOLLOWING TYPES OF E-CIGARETTES/ VAPING DEVICES DO YOU CURRENTLY USE MOST OFTEN?" [DISPOSABLE (NOT REFIILLABLE OR RECHARGEABLE) E-CIGARETTE/VAPING DEVICE; E-CIGARETTE/VAPING DEVICE WITH REPLACEABLE PRE-FILLED CARTRIDGES OR PODS; E-CIGARETTE/VAPING DEVICE WITH A TANK THAT YOU FILL WITH LIQUID; DON'T KNOW; REFUSED]; RESPONDENTS COULD SELECT MORE THAN ONE RESPONSE, EXCEPT IN WAVE 2 (2018); PERCENTAGES WITHIN COUNTRY MAY NOT ADD TO 100. THOSE WHO SELECTED MORE THAN ONE TYPE ARE INCLUDED IN MORE THAN ONE GROUP.

E-cigarette devices

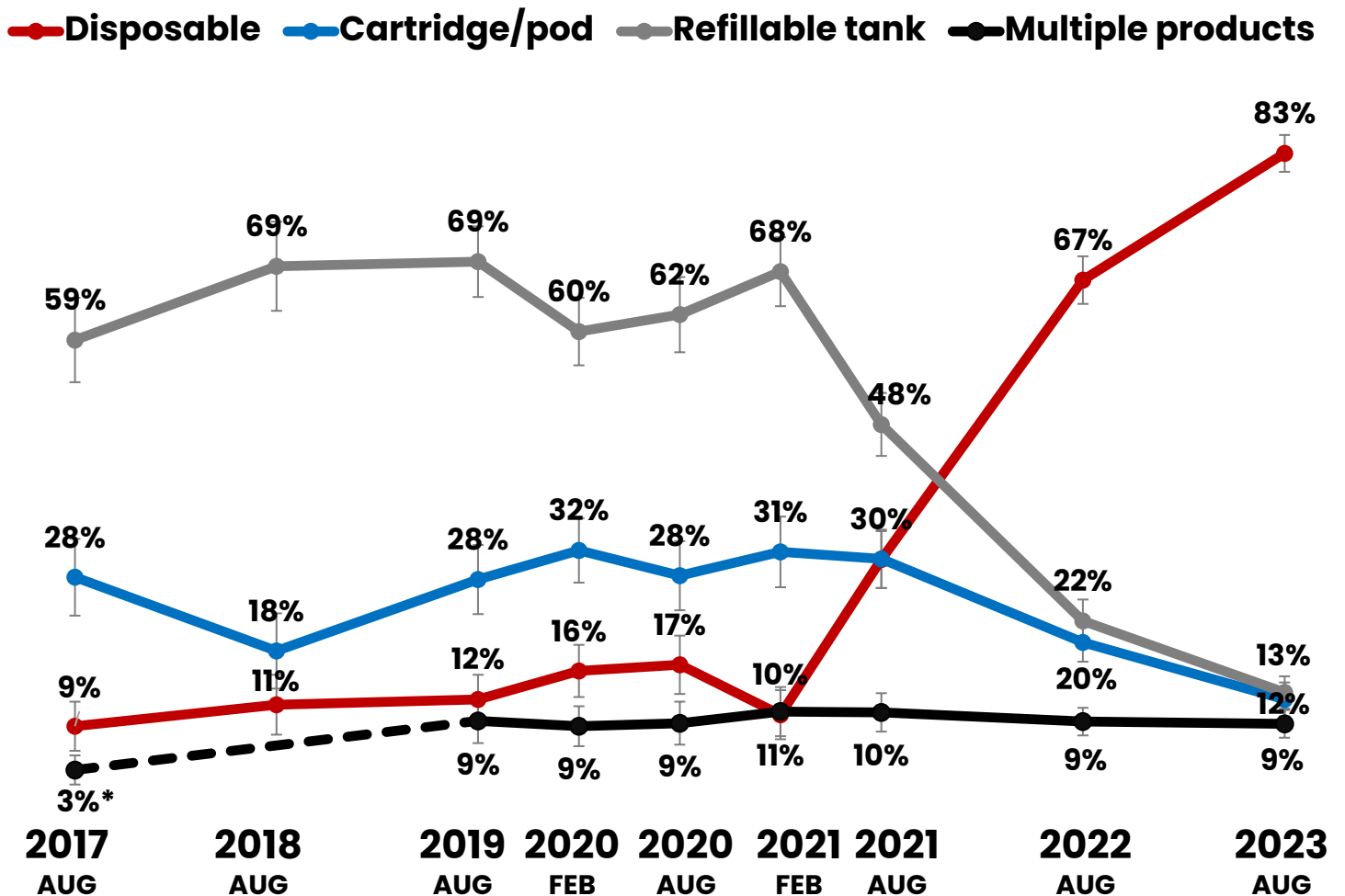
England

In England, refillable tanks were used by the majority of youth who vaped until early 2021, after which their use fell sharply. Conversely, usual use of disposable devices was low until early 2021, and then increased drastically to be used by most youth who vaped in 2022 and 2023. Cartridge/pod devices were used by a smaller proportion, more stable over time but then decreasing in recent waves.



Type of vaping device used most often

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2023, ENGLAND
N=6,086



*HIGH VARIABILITY OF ESTIMATE (CV>0.33).

"WHICH OF THE FOLLOWING TYPES OF E-CIGARETTES/ VAPING DEVICES DO YOU CURRENTLY USE MOST OFTEN?" [DISPOSABLE (NOT REFIILLABLE OR RECHARGEABLE) E-CIGARETTE/VAPING DEVICE; E-CIGARETTE/VAPING DEVICE WITH REPLACEABLE PRE-FILLED CARTRIDGES OR PODS; E-CIGARETTE/VAPING DEVICE WITH A TANK THAT YOU FILL WITH LIQUID; DON'T KNOW; REFUSED]; RESPONDENTS COULD SELECT MORE THAN ONE RESPONSE, EXCEPT IN WAVE 2 (2018); PERCENTAGES WITHIN COUNTRY MAY NOT ADD TO 100. THOSE WHO SELECTED MORE THAN ONE TYPE ARE INCLUDED IN MORE THAN ONE GROUP.

E-cigarette devices

United States

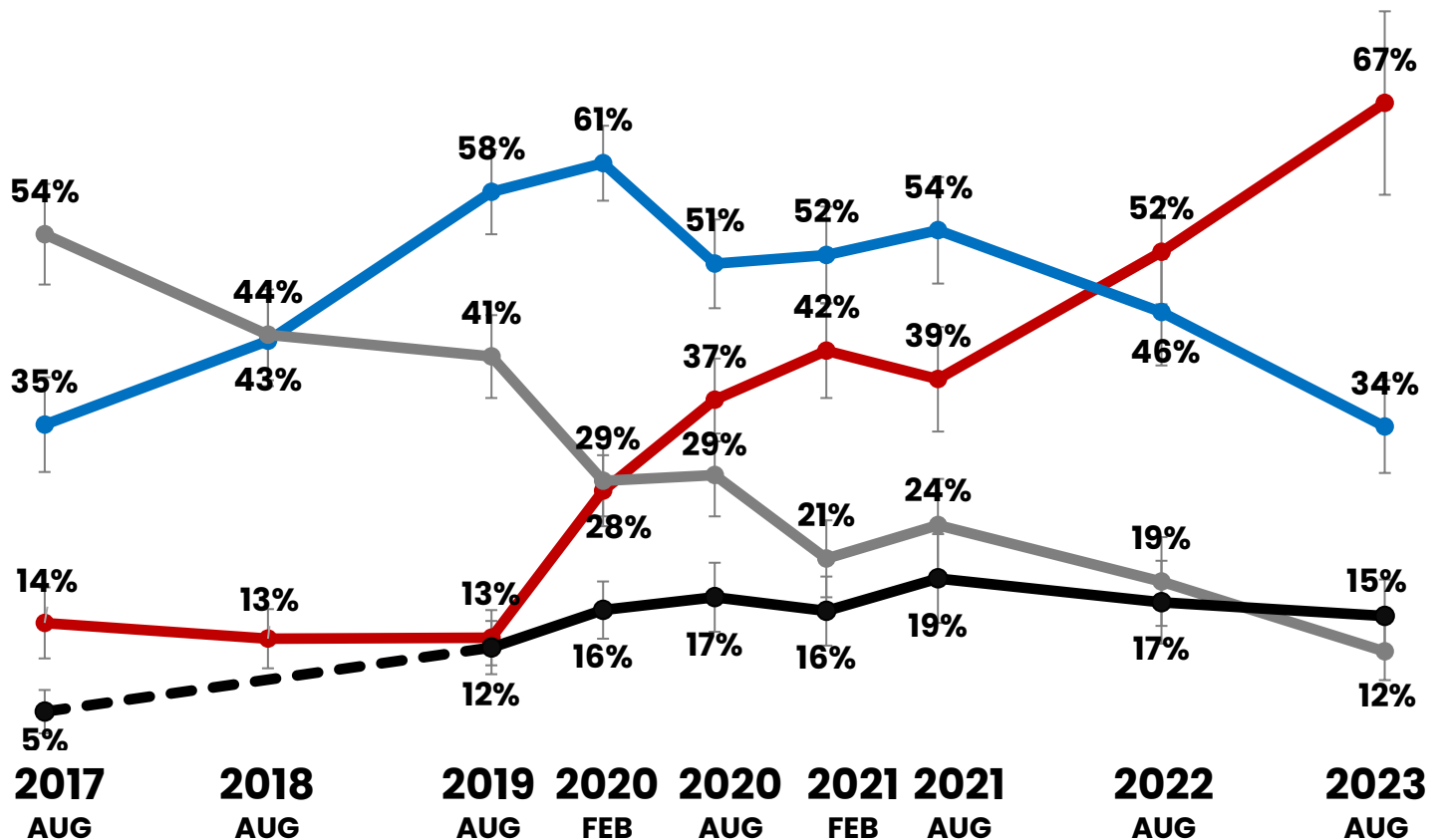
In the US, cartridge/pod devices increased to become the most popular device type in 2019, used by over half of youth who vaped until 2022, when their popularity was overtaken by disposable devices, which had been increasing since 2019. Refillable tanks were used most often by the majority of youth who vaped in 2017, but use has declined steadily over time, and they have been the least popular device type since 2020.



Type of vaping device used most often

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2023, US
N=7,095

— Disposable — Cartridge/pod — Refillable tank — Multiple products



"WHICH OF THE FOLLOWING TYPES OF E-CIGARETTES/ VAPING DEVICES DO YOU CURRENTLY USE MOST OFTEN?" [DISPOSABLE (NOT REFILLABLE OR RECHARGEABLE) E-CIGARETTE/VAPING DEVICE; E-CIGARETTE/VAPING DEVICE WITH REPLACEABLE PRE-FILLED CARTRIDGES OR PODS; E-CIGARETTE/VAPING DEVICE WITH A TANK THAT YOU FILL WITH LIQUID; DON'T KNOW; REFUSED]; RESPONDENTS COULD SELECT MORE THAN ONE RESPONSE, EXCEPT IN WAVE 2 (2018); PERCENTAGES WITHIN COUNTRY MAY NOT ADD TO 100. THOSE WHO SELECTED MORE THAN ONE TYPE ARE INCLUDED IN MORE THAN ONE GROUP.

E-cigarette devices

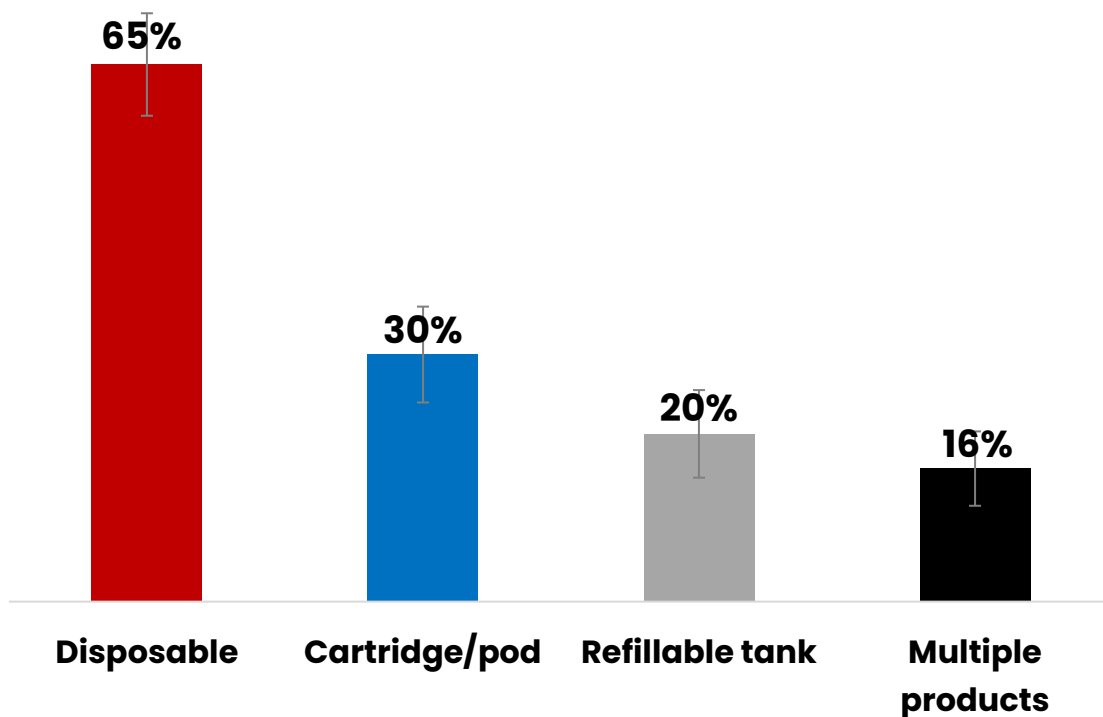
New Zealand

In 2023, disposable devices were used 'most often' by nearly two-thirds of youth who vaped in the past 30 days in New Zealand. Cartridge/pod devices were used by three in ten, while refillable tanks were used by two in ten. Approximately one in six youth who vaped reporting using more than one device type 'most often'.



Type of vaping device used most often

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2023, NZ
N=345



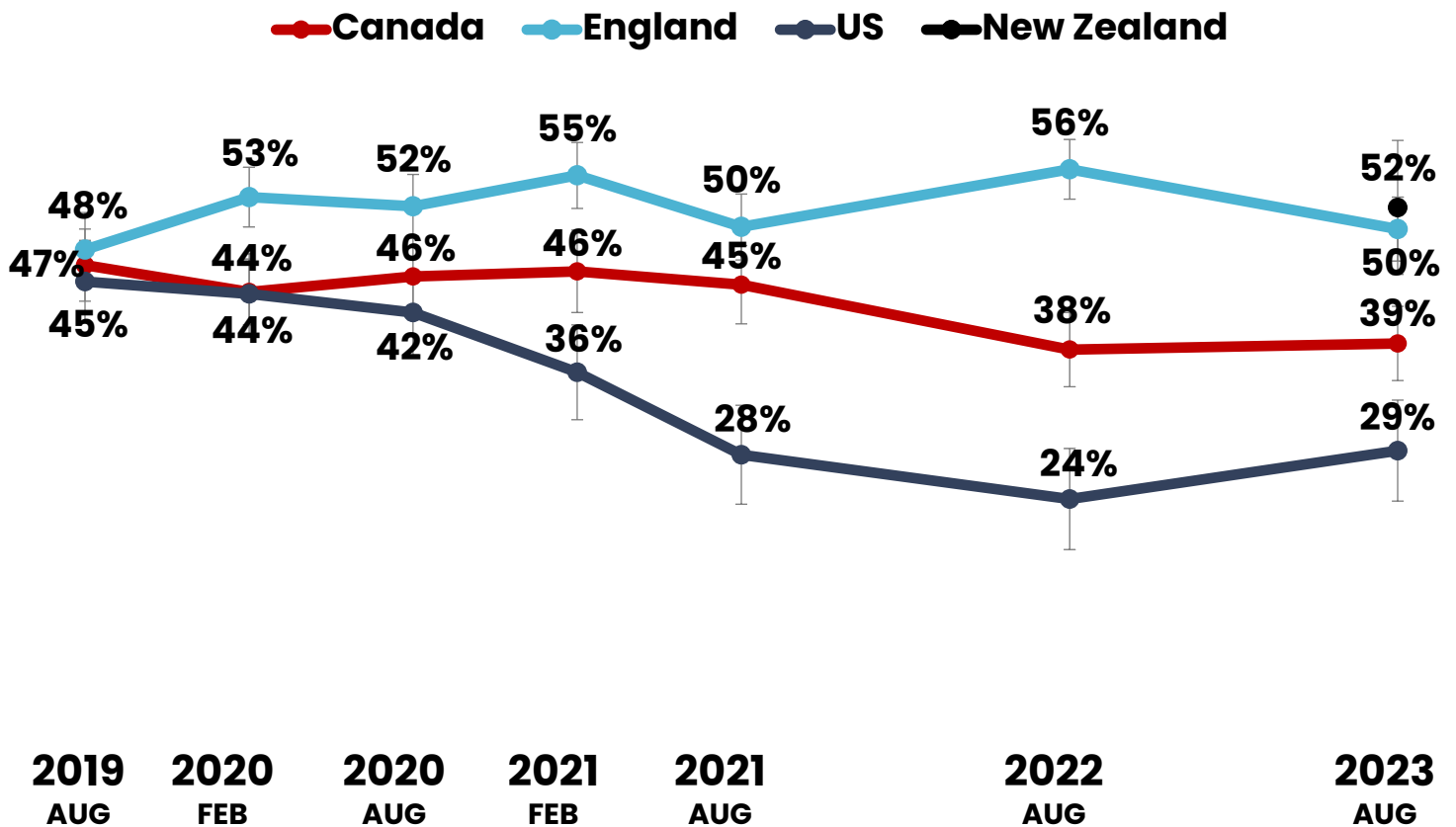
"WHICH OF THE FOLLOWING TYPES OF E-CIGARETTES/ VAPING DEVICES DO YOU CURRENTLY USE MOST OFTEN?"
[DISPOSABLE (NOT REFIILLABLE OR RECHARGEABLE) E-CIGARETTE/VAPING DEVICE; E-CIGARETTE/VAPING DEVICE WITH REPLACEABLE PRE-FILLED CARTRIDGES OR PODS; E-CIGARETTE/VAPING DEVICE WITH A TANK THAT YOU FILL WITH LIQUID; DON'T KNOW; REFUSED]; RESPONDENTS COULD SELECT MORE THAN ONE RESPONSE; PERCENTAGES WITHIN COUNTRY MAY NOT ADD TO 100. THOSE WHO SELECTED MORE THAN ONE TYPE ARE INCLUDED IN MORE THAN ONE GROUP.

Purchasing cigarettes

In 2023, among youth who smoked in the past 12 months, approximately half in England and New Zealand reported purchasing cigarettes in the past 12 months, more than in Canada and the US. The proportion of youth who smoked that reporting purchasing cigarettes decreased in the US after 2020, while it was more stable in Canada and England.

Have you bought cigarettes in the past 12 months?

% 'YES', YOUTH AGED 16-19 WHO SMOKED IN PAST 12 MONTHS, 2019-2023
 CA: N=6,114; EN: N=9,150; US: N=6,082; NZ: N=317

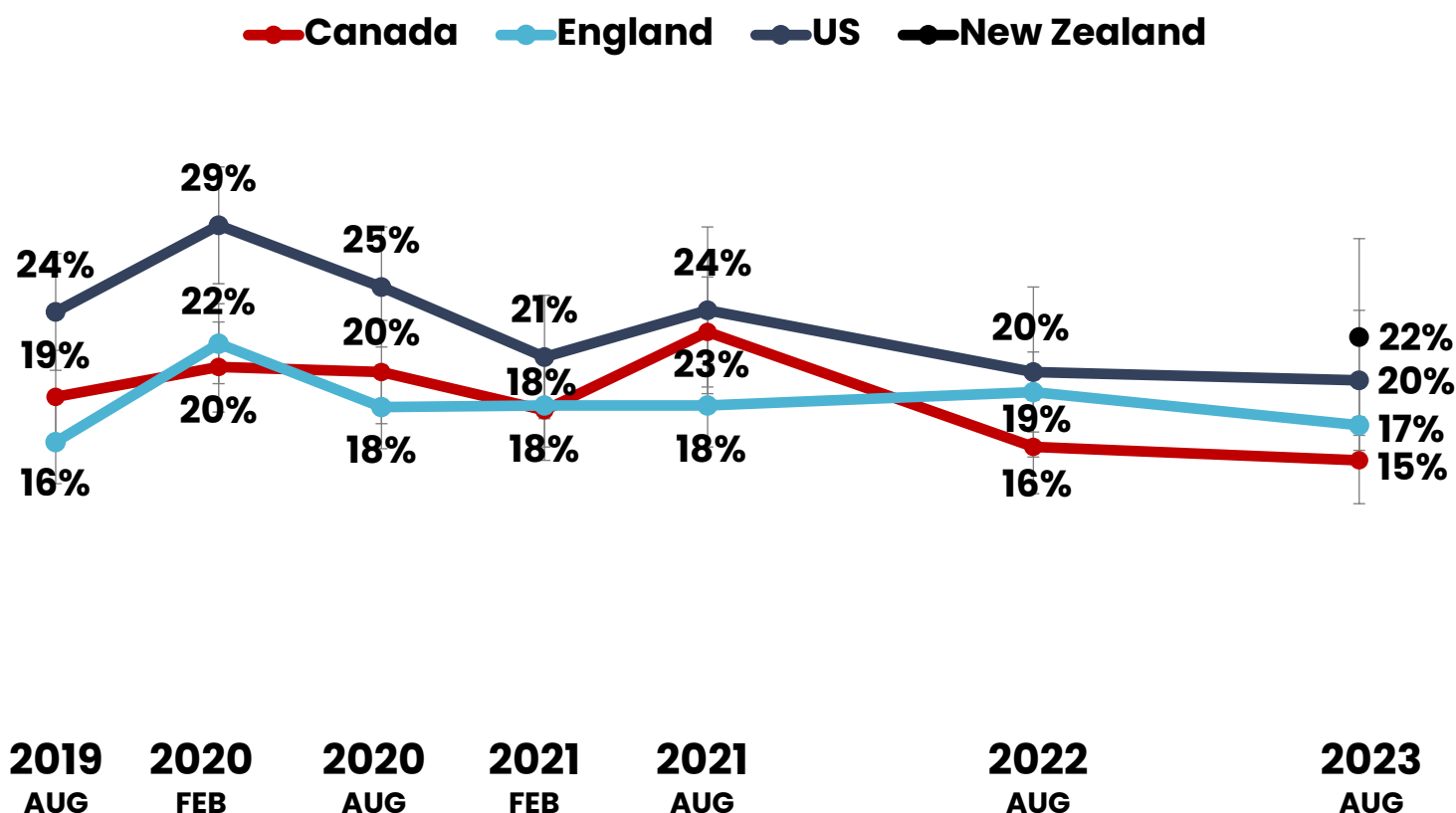


Purchasing cigarettes – refusal

In 2023, among youth who smoked in the past 12 months, approximately one in five reported that someone had refused to sell them cigarettes in the past 12 months.

In the past 12 months, did anyone refuse to sell you cigarettes because of your age?

% 'YES', YOUTH AGED 16-19 WHO SMOKED IN PAST 12 MONTHS, 2019-2023
 CA: N=5,977; EN: N=9,082; US: N=5,937; NZ: N=314



"IN THE PAST 12 MONTHS, DID ANYONE REFUSE TO SELL YOU CIGARETTES BECAUSE OF YOUR AGE?"; DON'T KNOW AND REFUSED EXCLUDED FROM DENOMINATOR

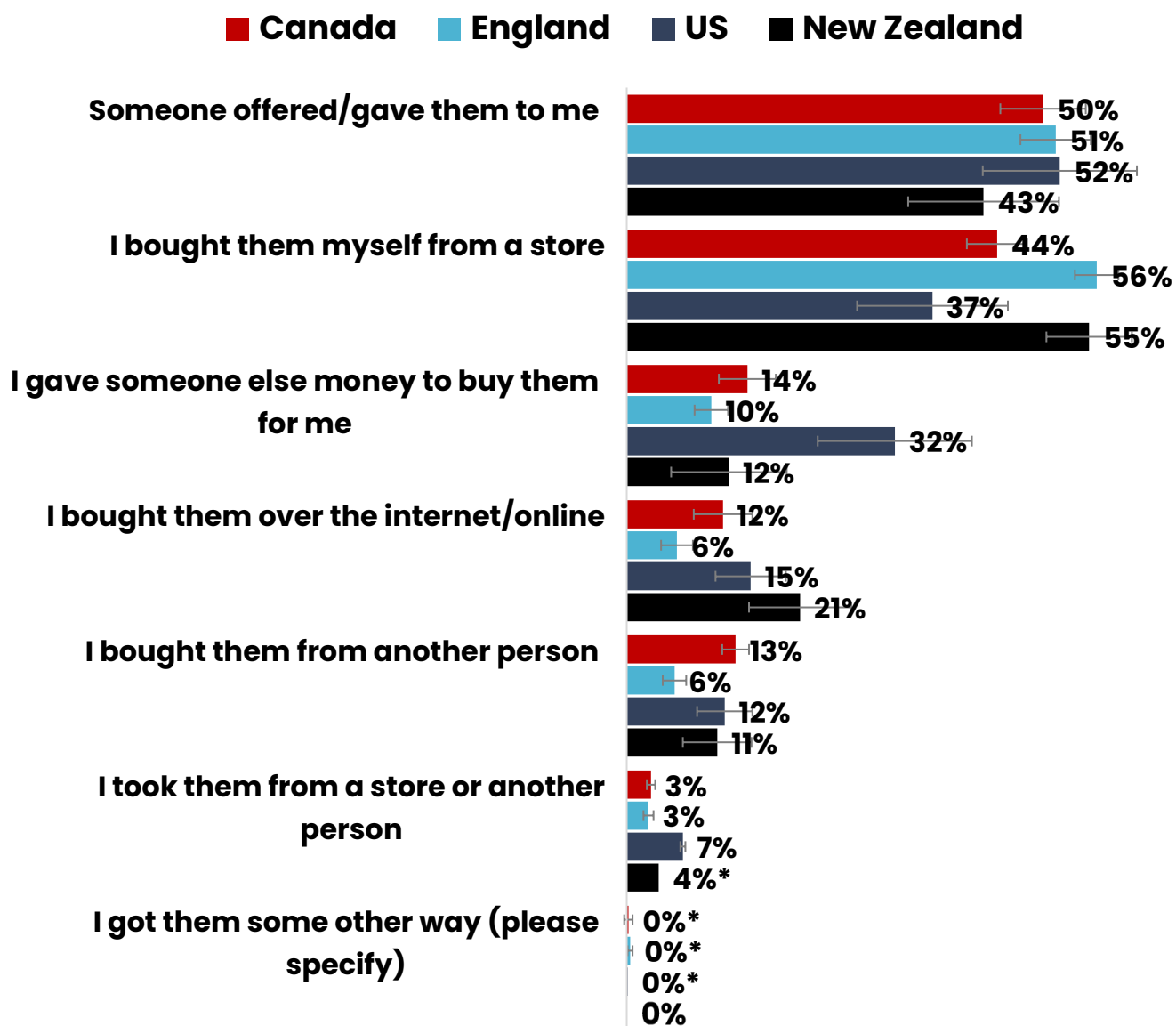
Sources of cigarettes

In 2023, among youth who smoked in the past 30 days, approximately half reported being given/offered cigarettes by another person. Purchasing from a store was reported by more than half of those in England and New Zealand, and was the second-most selected source in Canada and the US. Proxy purchasing was more common in the US than other countries.

In the past 30 days, how did you get the cigarettes you smoked?

YOUTH AGED 16-19 WHO SMOKED IN PAST 30 DAYS, 2023

CA: N=414; EN: N=741; US: N=365; NZ: N=167



*HIGH VARIABILITY OF ESTIMATE (CV>0.33)

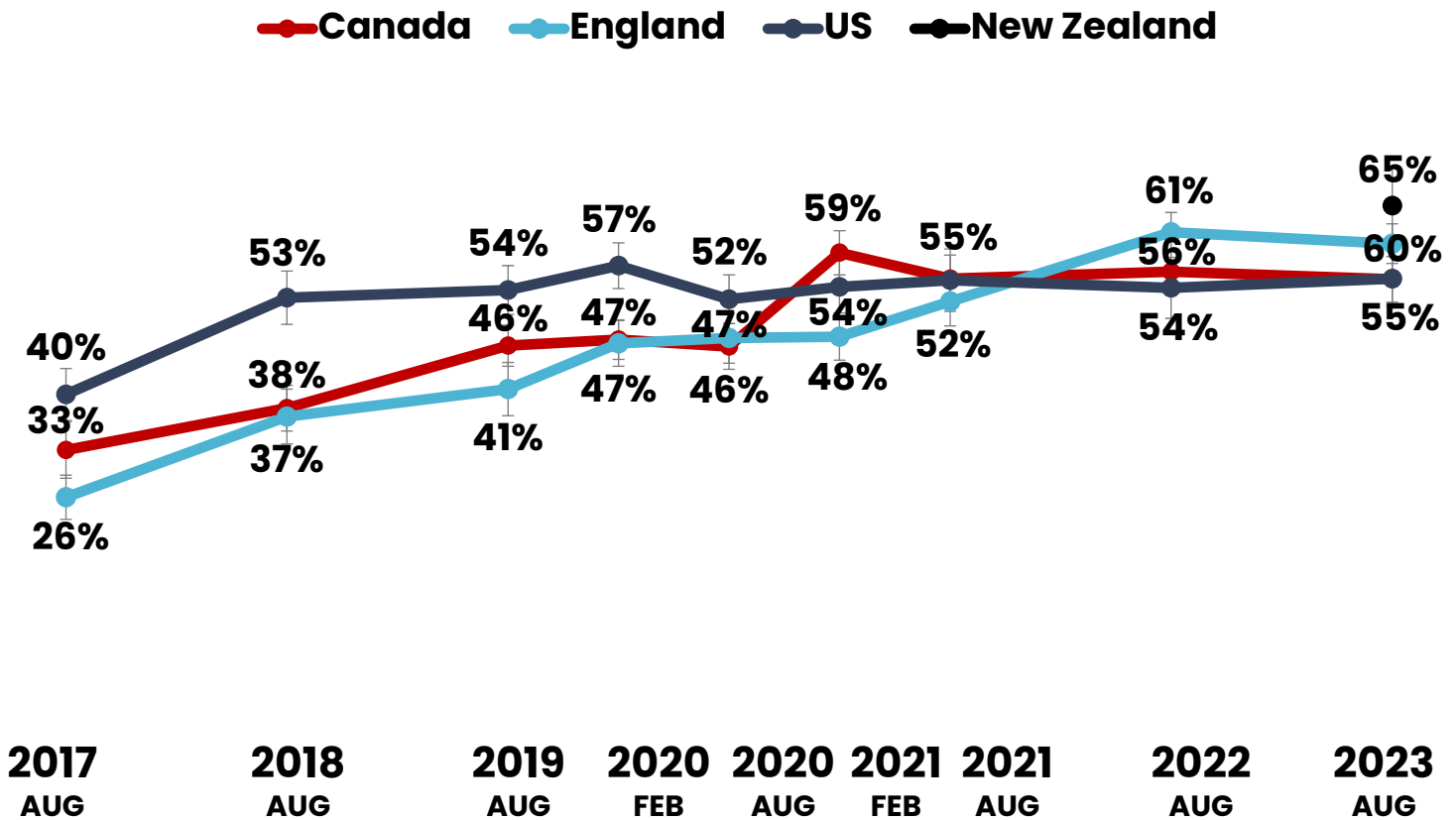
"IN THE PAST 30 DAYS, HOW DID YOU GET THE CIGARETTES YOU SMOKED?" (SELECT ALL THAT APPLY); DON'T KNOW AND REFUSED EXCLUDED FROM DENOMINATOR

Purchasing e-cigarettes

In 2023, among youth who vaped in the past 12 months, the majority in all three countries reported purchasing e-cigarettes in the past 12 months. Over time, the proportion of youth who vaped in the past 12 months reporting purchasing e-cigarette products appeared to increase steadily in Canada and England until the most recent waves, while it plateaued in the US after 2018.

Have you bought an e-cigarette/vaping device, cartridge or pod, or e-liquid in the past 12 months?

% 'YES', YOUTH AGED 16-19 WHO VAPED IN PAST 12 MONTHS, 2017-2023
 CA: N=11,686; EN: N=11,785; US: N=12,488; NZ: N=496



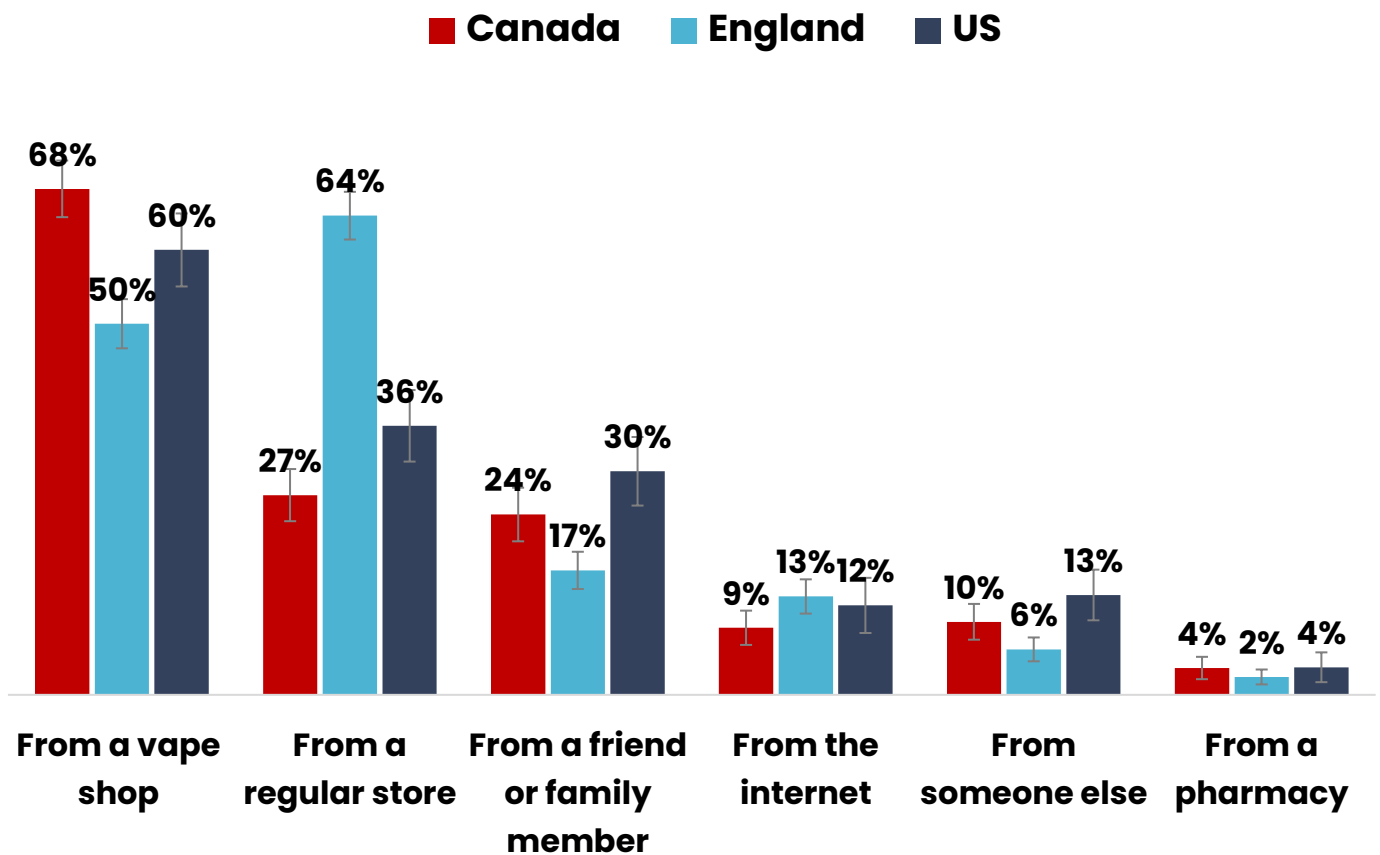
"HAVE YOU BOUGHT ANY OF THE FOLLOWING IN THE PAST 12 MONTHS? [YES/NO FOR EACH OF "E-CIGARETTE/ VAPING DEVICE", "CARTRIDGE OR POD (FOR AN E-CIGARETTE/VAPING DEVICE)", "E-LIQUID (FOR AN E-CIGARETTE/ VAPING DEVICE)"; DON'T KNOW AND REFUSED EXCLUDED FROM DENOMINATOR

E-cigarette purchase location

Among youth who vaped in the past 12 months and who reported purchasing e-cigarette products in the past 12 months, the majority in Canada, England and the US selected vape shops as a purchase location. Regular stores (convenience stores, gas stations, supermarkets, etc.) were most common in England, selected by nearly two-thirds of respondents, compared to approximately one-third in Canada and the US. Social sources of purchase were more common in the US than Canada and England.

Where have you bought an e-cigarette/vaping device, cartridge, pod, or e-liquid in the past 12 months?

YOUTH AGED 16-19 WHO VAPED IN PAST 12 MONTHS AND WHO PURCHASED ECIGS IN PAST 12 MONTHS, 2023, CA: N=685; EN: N=1,205; US: N=772



"WHERE HAVE YOU BOUGHT AN E-CIGARETTE/VAPING DEVICE, CARTRIDGE, POD, OR E-LIQUID IN THE PAST 12 MONTHS?" (SELECT ALL THAT APPLY); REFUSED EXCLUDED FROM DENOMINATOR; OTHER NOT SHOWN

E-cigarette purchase location

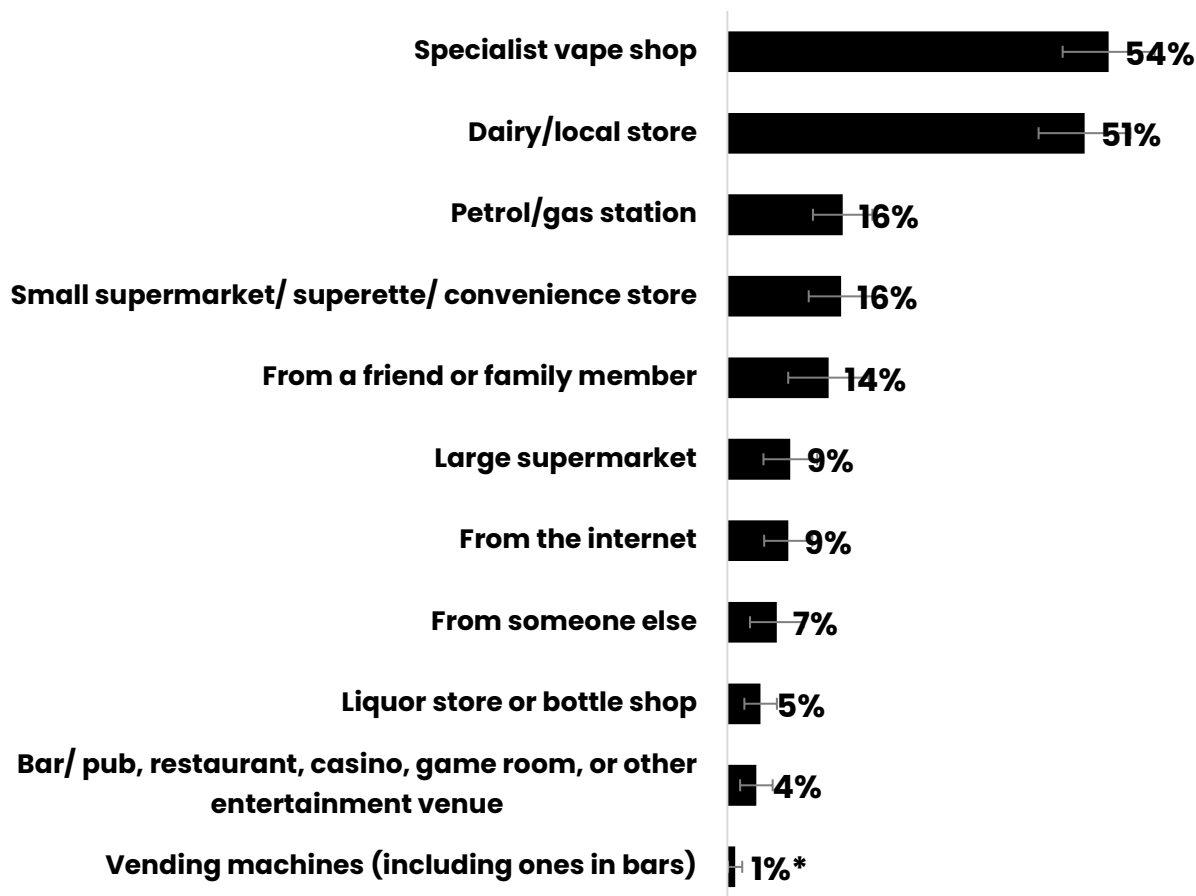
New Zealand

In New Zealand, among youth who vaped in the past 12 months and who reported purchasing e-cigarette products in that time, more than half selected specialist vape shops and dairies/local stores as a purchase location. Other small stores such as gas stations and small supermarkets/convenience stores were the next most common purchase locations, selected by approximately one in six. Social sources of purchase were less common.



Where have you bought an e-cigarette/vaping device, cartridge, pod, or e-liquid in the past 12 months?

YOUTH AGED 16-19 WHO VAPED IN PAST 12 MONTHS AND WHO PURCHASED ECIGS IN PAST 12 MONTHS, 2023, NZ, N=330



*HIGH VARIABILITY OF ESTIMATE (CV>0.33).

"WHERE HAVE YOU BOUGHT AN E-CIGARETTE/VAPING DEVICE, CARTRIDGE, POD, OR E-LIQUID IN THE PAST 12 MONTHS?" (SELECT ALL THAT APPLY), WITH RESPONSE OPTIONS SPECIFIC TO NEW ZEALAND; REFUSED EXCLUDED FROM DENOMINATOR; OTHER NOT SHOWN

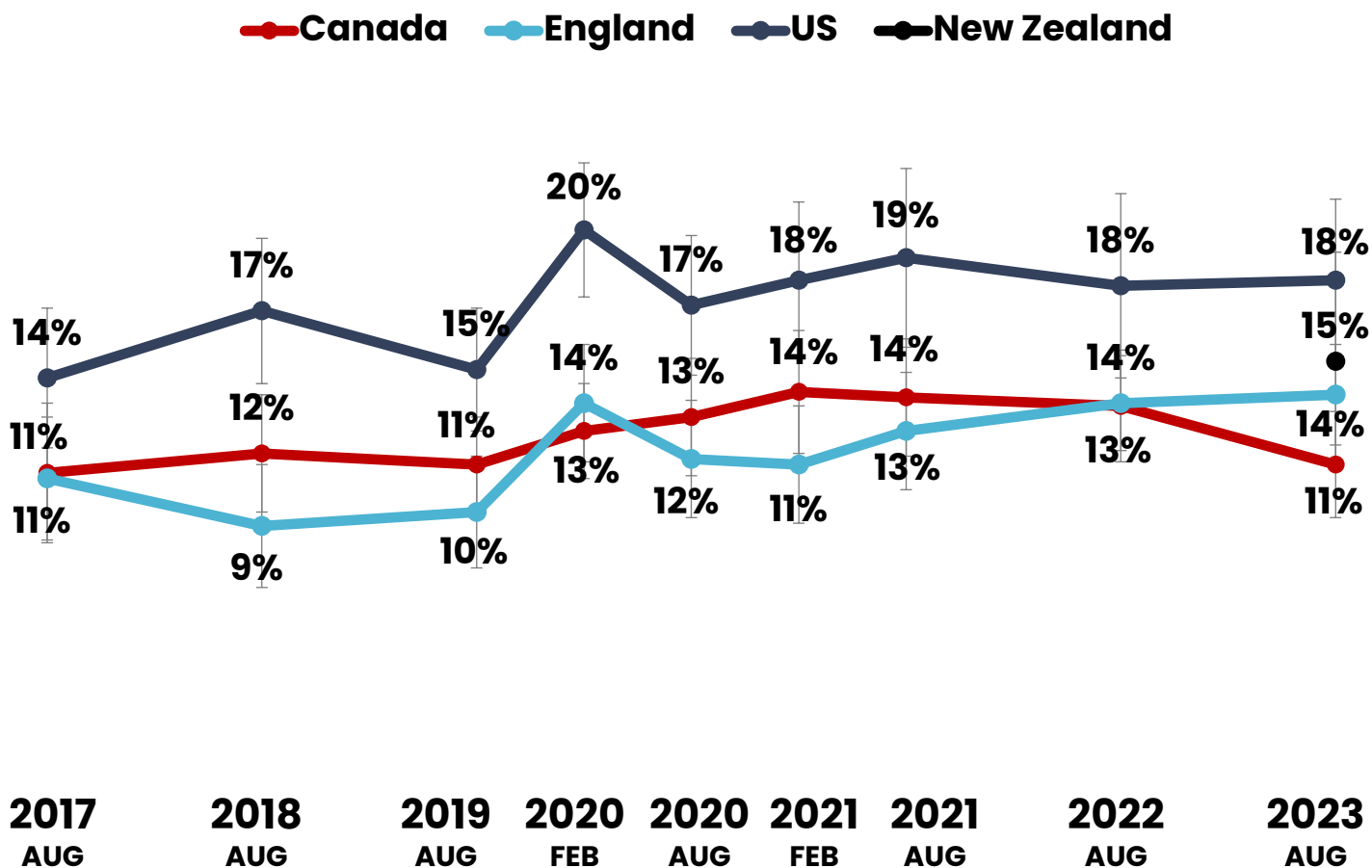
Purchasing e-cigarettes - refusal

Among youth aged 16-19 who vaped in the past 12 months, the proportion who reported being refused when attempting to purchase e-cigarettes in the past 12 months was similar across countries, but slightly higher in the US. This proportion was fairly stable over time in all countries with available data.

In the past 12 months, did anyone refuse to sell you an e-cigarette/vaping device, cartridge, pod, or e-liquid because of your age?

% 'YES', YOUTH AGED 16-19 WHO VAPED IN PAST 12 MONTHS, 2017-2023

CA: N=11,247; EN: N=11,528; US: N=12,093; NZ: N=484



"IN THE PAST 12 MONTHS, DID ANYONE REFUSE TO SELL YOU AN E-CIGARETTE/VAPING DEVICE, CARTRIDGE, POD, OR E-LIQUID BECAUSE OF YOUR AGE?"; DON'T KNOW AND REFUSED EXCLUDED FROM DENOMINATOR

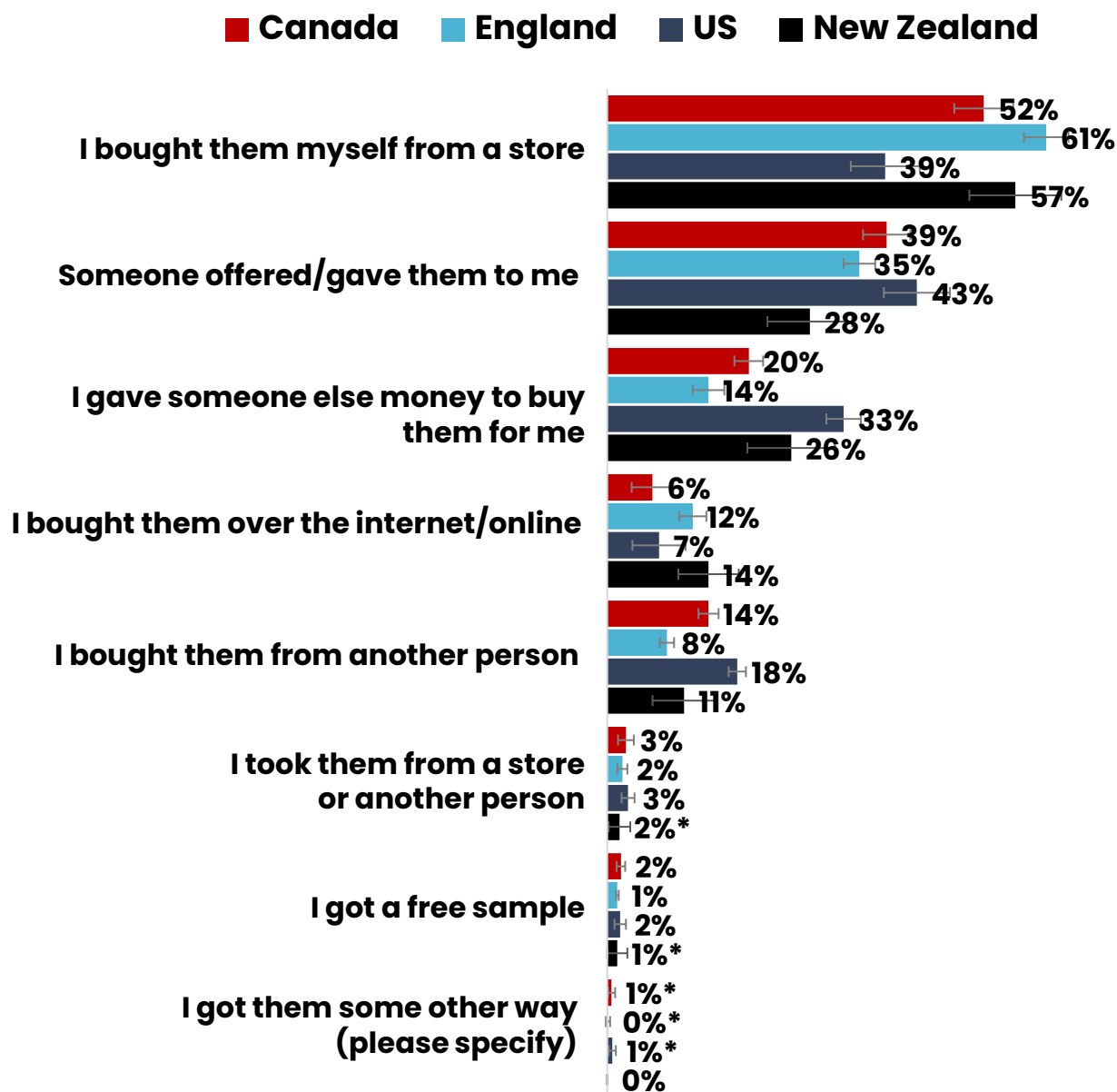
Sources of e-cigarettes

In 2023, among youth who vaped in the past 30 days, purchasing from a store was the most commonly selected source of e-cigarettes among respondents in Canada, England, and New Zealand, while in the US it was being given them. Various social sources were common.

How did you get the e-cigarettes you used in the past 30 days?

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2023

CA: N=679; EN: N=1,227; US: N=796; NZ: N=335



*HIGH VARIABILITY OF ESTIMATE (CV>0.33)

"IN THE PAST 30 DAYS, HOW DID YOU GET THE ECIGARETTE(S)/VAPING DEVICE(S), CARTRIDGE(S), POD(S), OR ELIQUID(S) THAT YOU USED FOR VAPING?" (SELECT ALL THAT APPLY); DON'T KNOW AND REFUSED EXCLUDED FROM DENOMINATOR

Sources of e-cigarettes

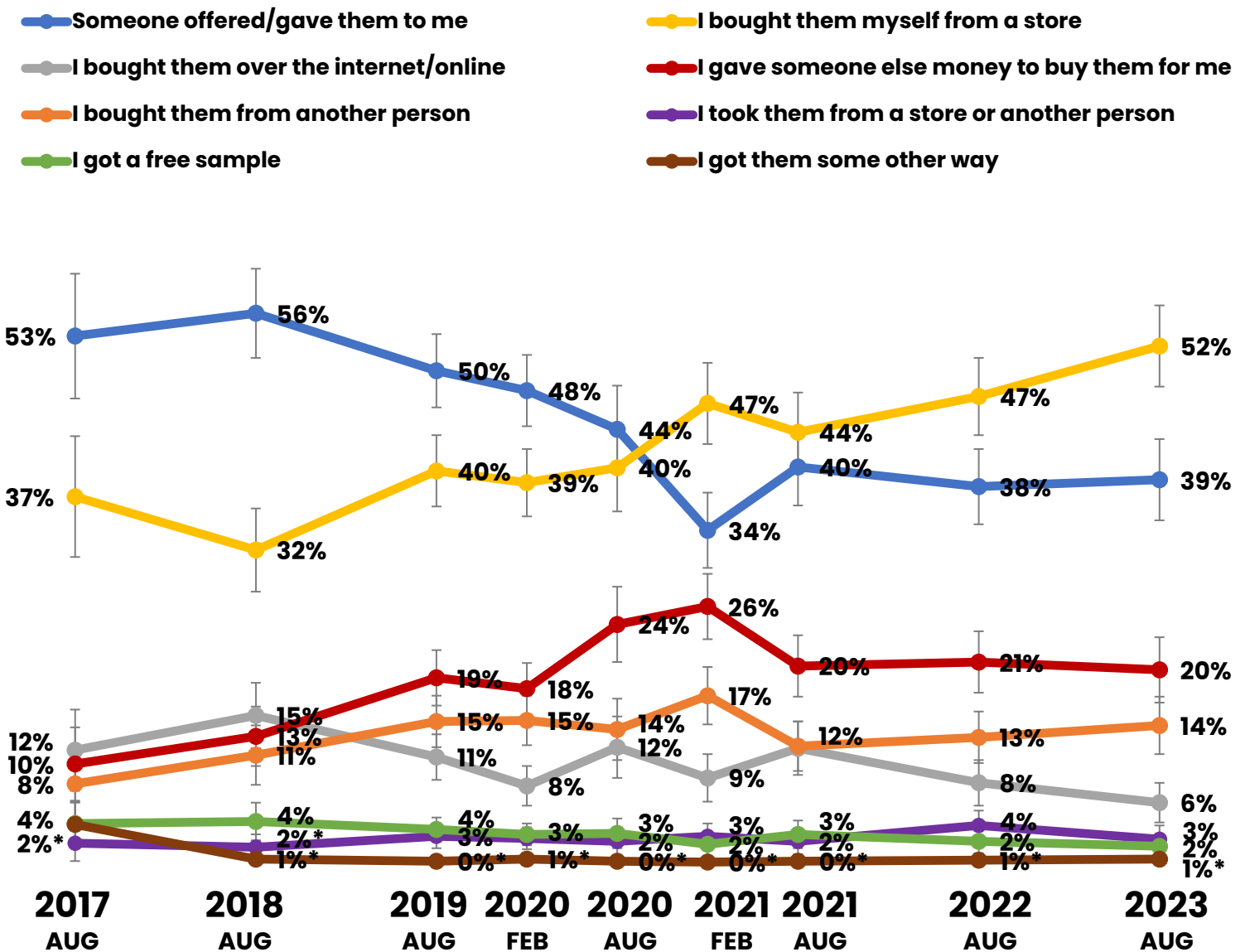
Canada

In Canada, "someone offered/gave them to me" was most common in 2017 but decreased in popularity over time, while "bought myself from a store" increased to become the most frequently selected source of e-cigarettes among youth who vaped in the past 30 days since early 2021.



How did you get the e-cigarettes you used in the past 30 days?

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2023, CANADA, N=6,172



*HIGH VARIABILITY OF ESTIMATE (CV>0.33)

"IN THE PAST 30 DAYS, HOW DID YOU GET THE ECIGARETTE(S)/VAPING DEVICE(S), CARTRIDGE(S), POD(S), OR ELIQUID(S) THAT YOU USED FOR VAPING?" [SELECT ALL THAT APPLY]; DON'T KNOW AND REFUSED EXCLUDED FROM DENOMINATOR

Sources of e-cigarettes

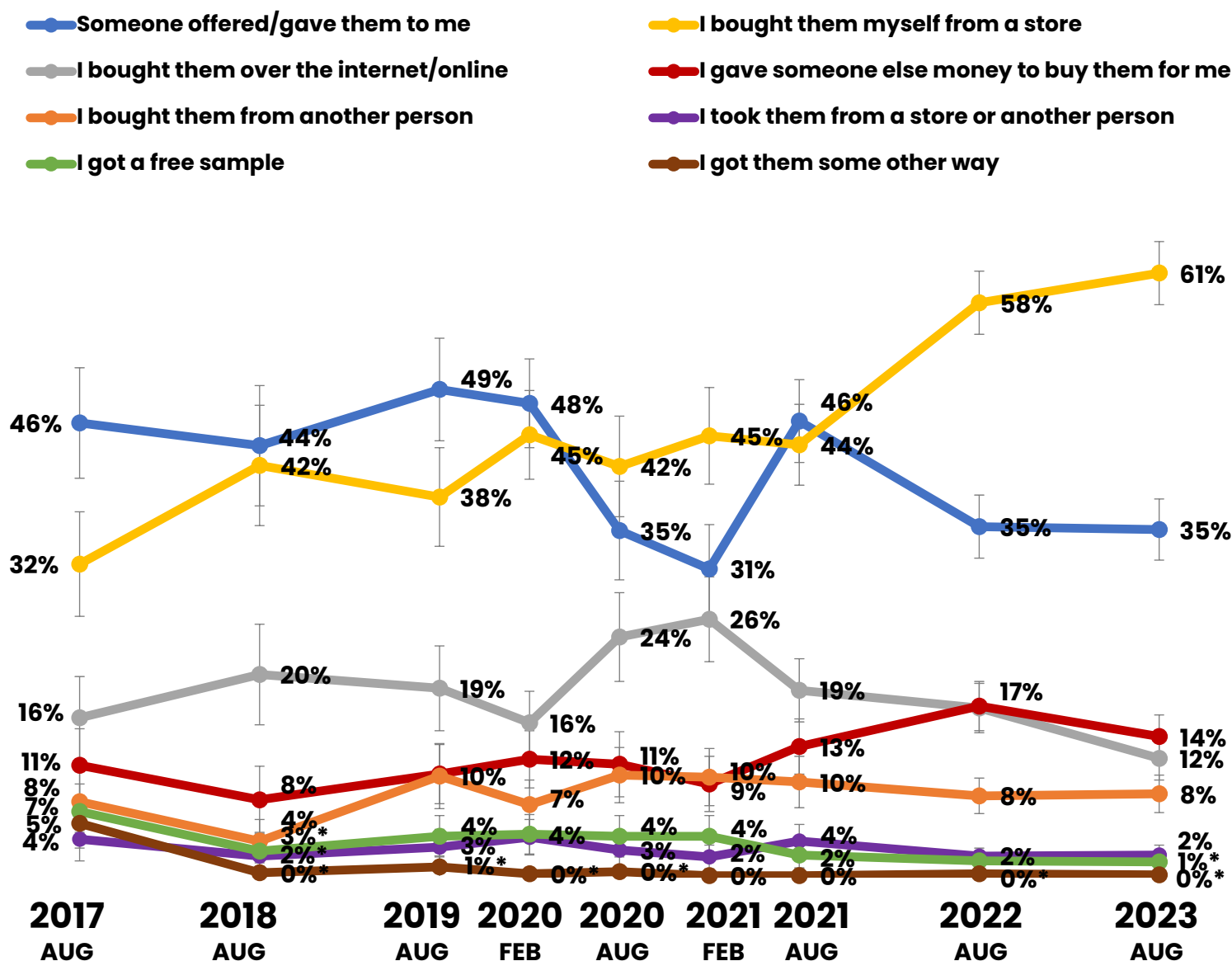
England

In England, among youth who vaped in the past 30 days, the most frequently selected sources since 2017 were “someone offered/gave them to me” and “bought myself from a store”; purchasing from a store increased in the most recent waves.



How did you get the e-cigarettes you used in the past 30 days?

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2023, ENGLAND, N=5,857



*HIGH VARIABILITY OF ESTIMATE (CV>0.33)

"IN THE PAST 30 DAYS, HOW DID YOU GET THE ECIGARETTE(S)/VAPING DEVICE(S), CARTRIDGE(S), POD(S), OR ELIQUID(S) THAT YOU USED FOR VAPING?" [SELECT ALL THAT APPLY]; DON'T KNOW AND REFUSED EXCLUDED FROM DENOMINATOR

Sources of e-cigarettes

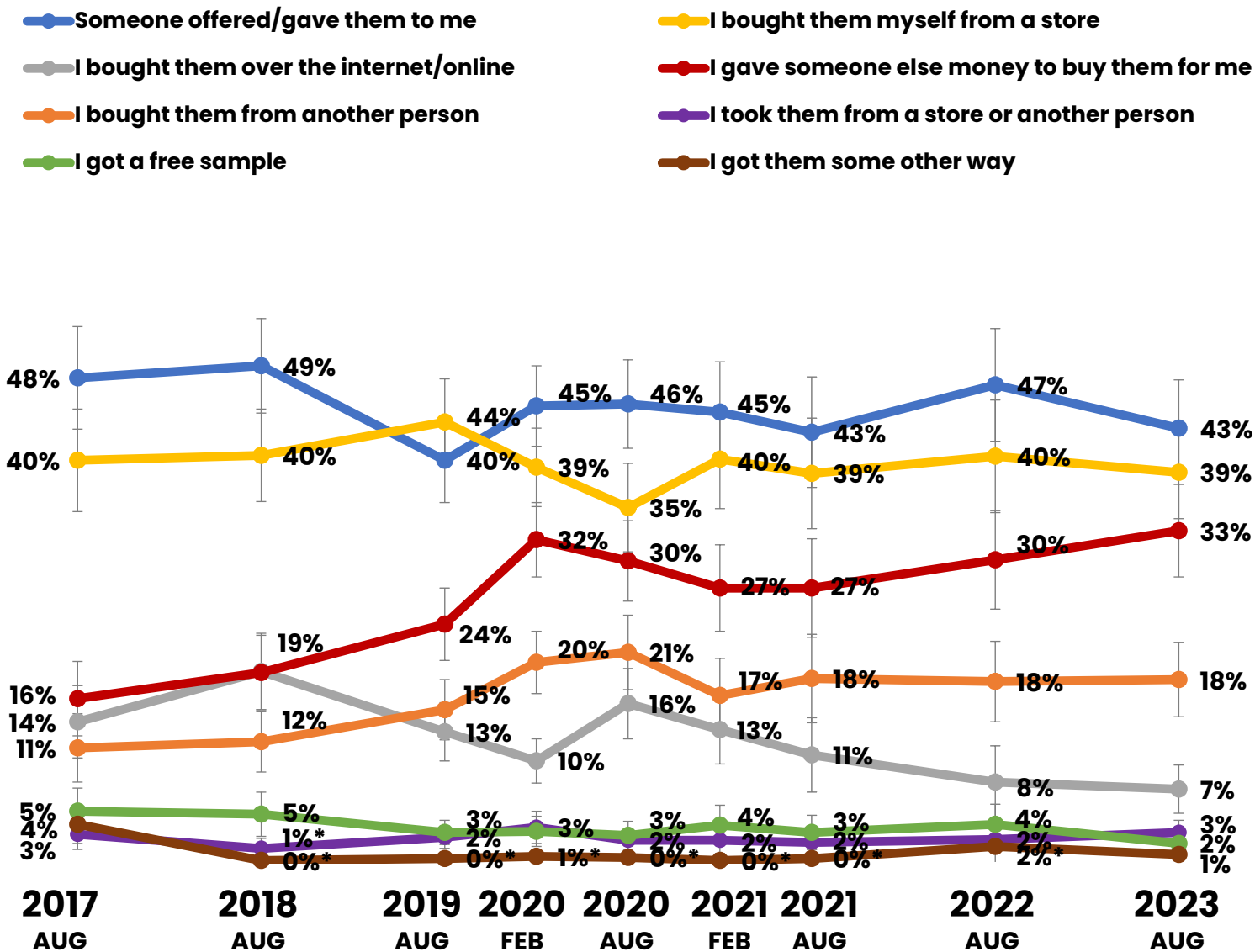
United States

In the US, among youth who vaped in the past 30 days, the most frequently selected sources of e-cigarettes since 2017 were “someone offered/gave them to me” and “bought myself from a store”. Purchasing through a proxy increased in 2020 and then remained stable through 2023.



How did you get the e-cigarettes you used in the past 30 days?

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2023, US, N=6,822



*HIGH VARIABILITY OF ESTIMATE (CV>0.33)

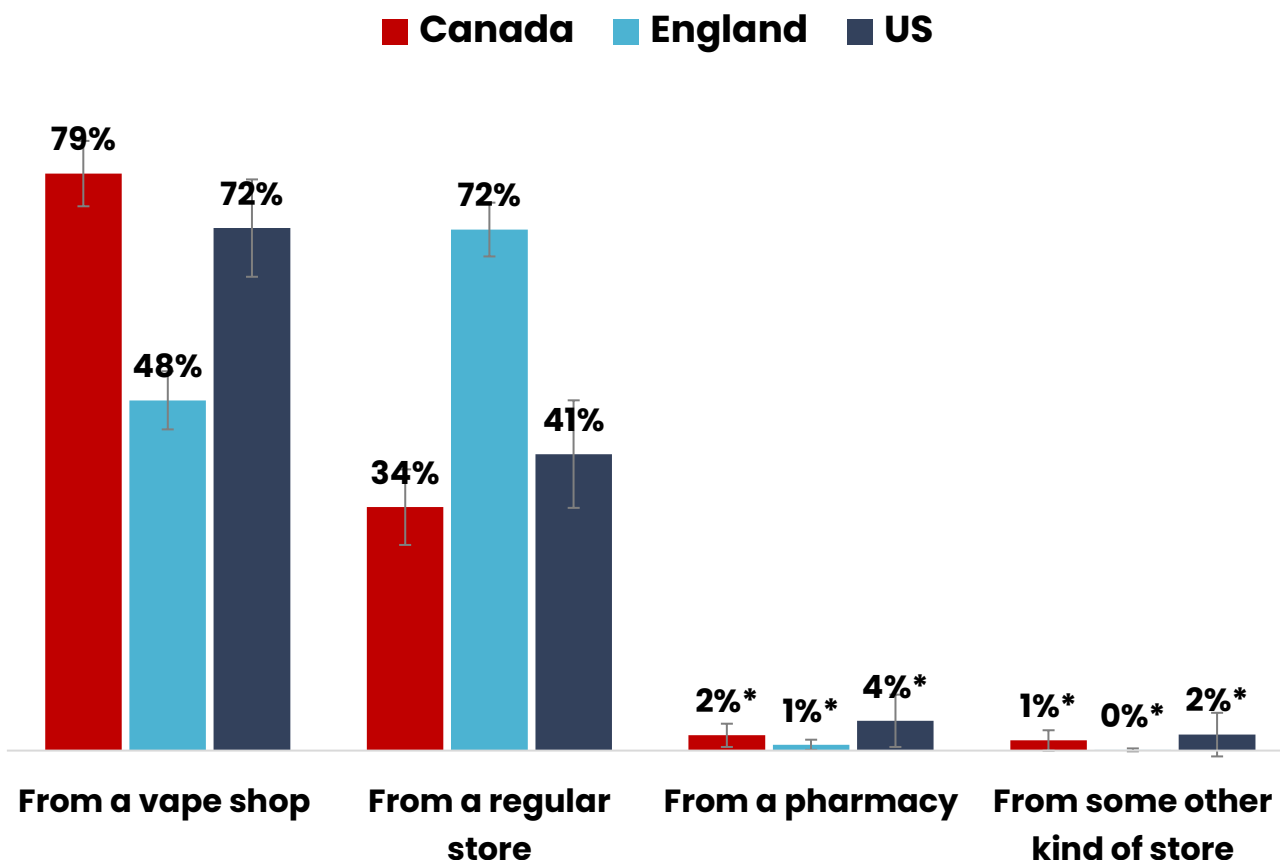
"IN THE PAST 30 DAYS, HOW DID YOU GET THE ECIGARETTE(S)/VAPING DEVICE(S), CARTRIDGE(S), POD(S), OR ELIQUID(S) THAT YOU USED FOR VAPING?" [SELECT ALL THAT APPLY]; DON'T KNOW AND REFUSED EXCLUDED FROM DENOMINATOR

Sources of e-cigarettes - stores

Youth who vaped in the past 30 days and who said they bought e-cigarettes themselves from a store in the past 30 days were asked what kind of store they bought e-cigarettes from. In 2023, vape shops were the most commonly selected type of store in Canada and the US, while regular stores/shops (convenience store, gas/petrol station, supermarket, etc.) were most commonly selected in England. Few purchased from pharmacies/chemists or other kinds of stores.

What kind of store(s) did you buy e-cigarettes from?

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS AND WHO SELECTED 'I BOUGHT THEM MYSELF FROM A STORE' AS A PAST 30-DAY SOURCE, 2023
 CA: N=374; EN: N=787; US: N=332



*HIGH VARIABILITY OF ESTIMATE (CV>0.33)

"YOU SAID YOU BOUGHT E-CIGARETTE(S)/VAPING DEVICE(S), CARTRIDGE(S), POD(S), OR E-LIQUID(S) YOURSELF FROM A STORE IN THE PAST 30 DAYS. WHAT KIND OF STORE(S) DID YOU BUY FROM?" [SELECT ALL THAT APPLY]; DON'T KNOW AND REFUSED EXCLUDED FROM DENOMINATOR

Noticing e-cigarette marketing

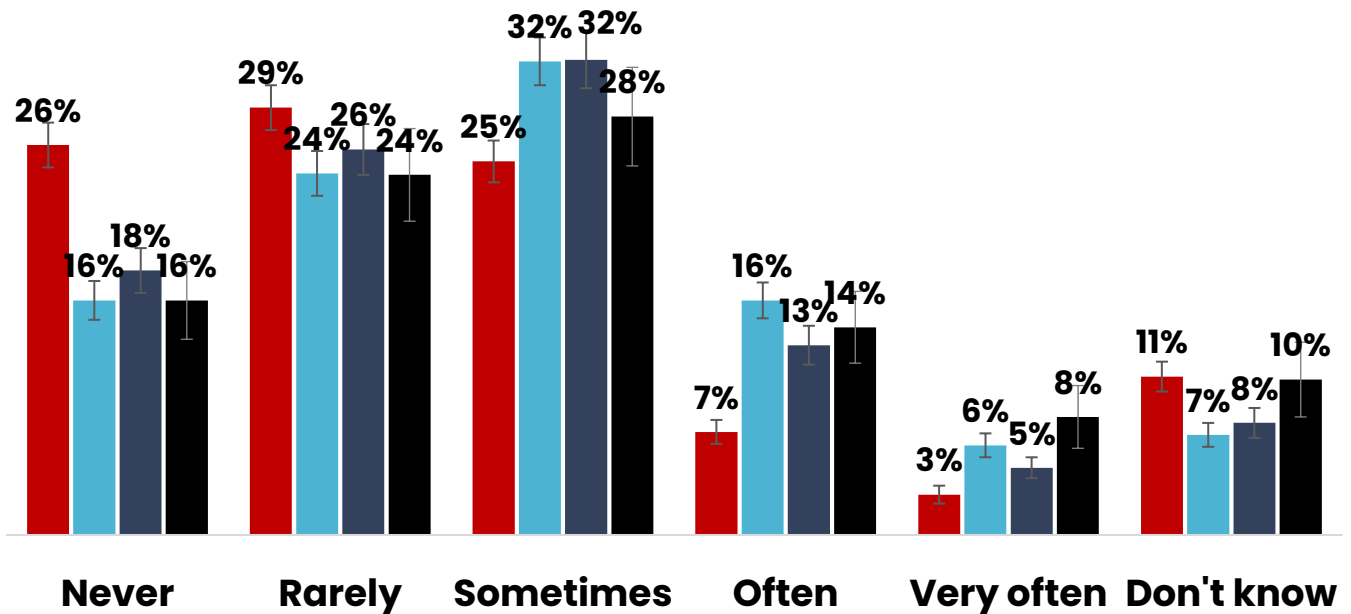
In 2023, the majority of youth aged 16-19 reported noticing things that promote e-cigarettes or vaping in the past 30 days, though fewer in Canada compared to England, the US, and New Zealand. While most reported noticing these 'rarely' or 'sometimes', approximately 10% in Canada, 18% in the US, 22% in England and New Zealand reported seeing them 'often' or 'very often'.

Frequency of noticing e-cigarette ads in the past 30 days

YOUTH AGED 16-19, 2023

CA: N=4,214; EN: N=4,277; US: N=4,177; NZ: N=1,019

■ Canada ■ England ■ US ■ New Zealand



"IN THE LAST 30 DAYS, HOW OFTEN HAVE YOU NOTICED THINGS THAT PROMOTE E-CIGARETTES/VAPING?" [1. NEVER 2. RARELY 3. SOMETIMES 4. OFTEN 5. VERY OFTEN]; REFUSED EXCLUDED FROM DENOMINATOR

Noticing e-cigarette marketing

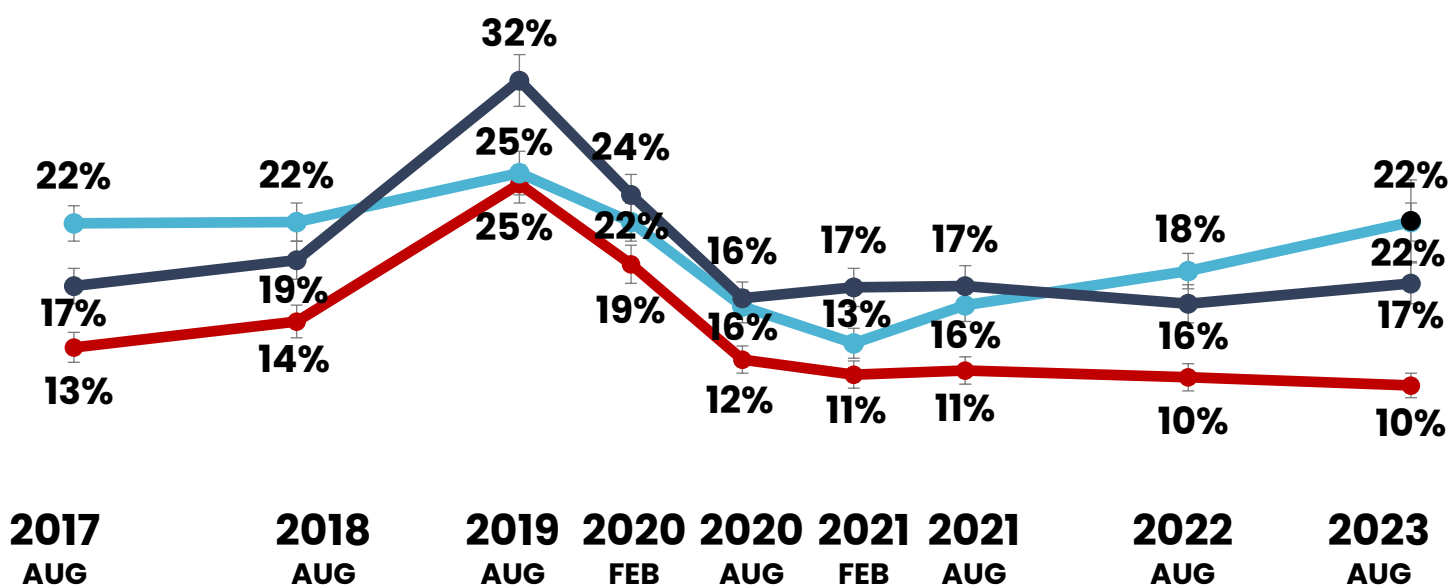
In 2023, relatively few youth aged 16–19 reported noticing things that promote e-cigarettes or vaping either ‘often’ or ‘very often’, and this proportion was lowest in Canada, at one in ten. Over time, frequent noticing of e-cigarette marketing appears to have peaked in 2019 before declining through 2020 and remaining low in Canada and the US, with slight increases observed in England in recent waves.

Frequency of noticing e-cigarette ads ‘often’ or ‘very often’ in the past 30 days

YOUTH AGED 16–19, 2017–2023

CA: N=38,248; EN: N=37,040; US: N=41,612; NZ: N=1,019

—●— Canada —●— England —●— US —●— New Zealand



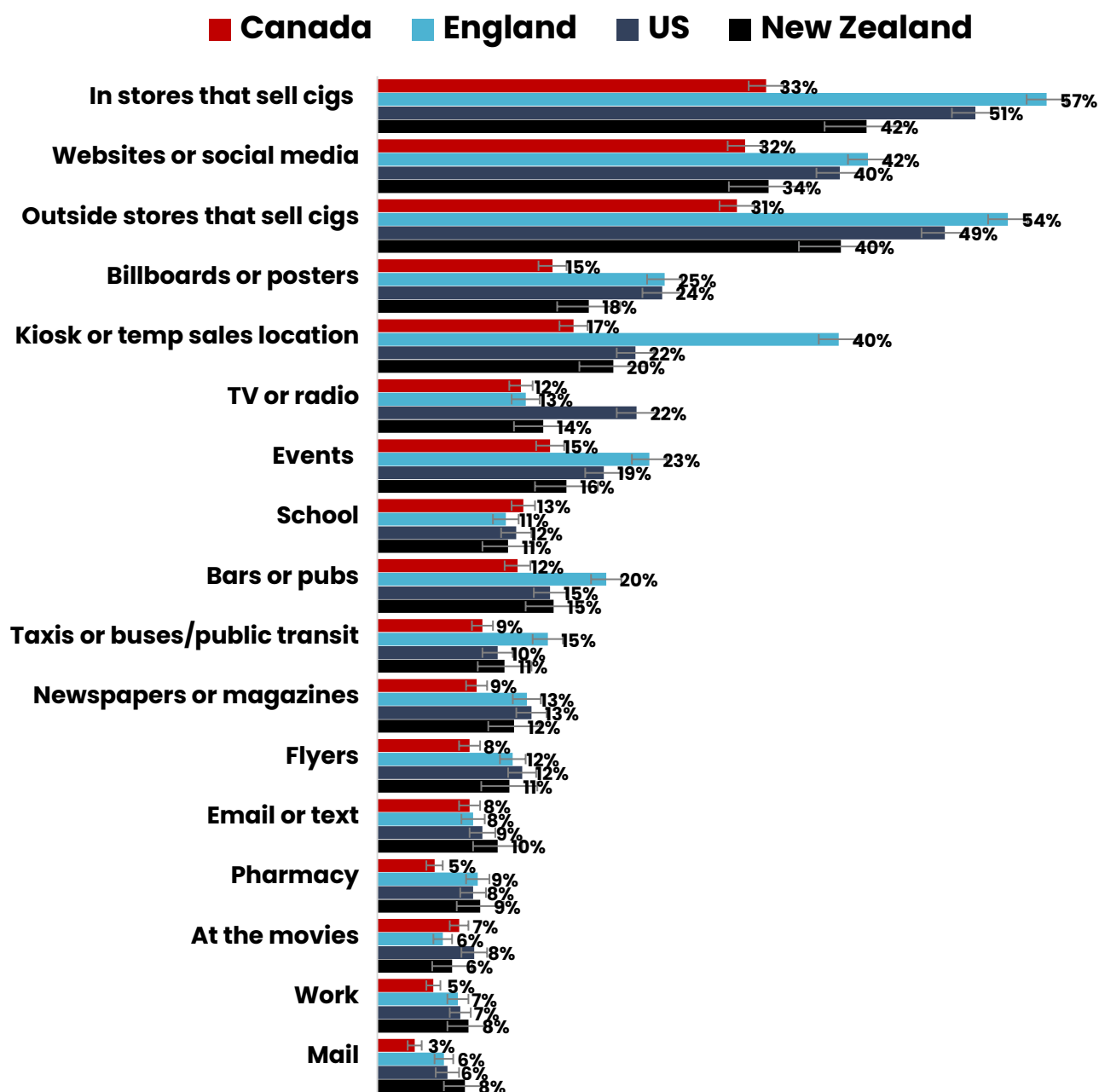
“IN THE LAST 30 DAYS, HOW OFTEN HAVE YOU NOTICED THINGS THAT PROMOTE E-CIGARETTES/VAPING?”
[1. NEVER 2. RARELY 3. SOMETIMES 4. OFTEN 5. VERY OFTEN]; REFUSED EXCLUDED FROM DENOMINATOR

Noticing e-cigarette marketing

Among those who noticed any marketing in the past 30 days, approximately half of youth aged 16–19 in England and the US reported noticing e-cigarette marketing inside and outside stores that sell e-cigarettes, compared to about one-third in Canada. Ads on websites or social media were noticed by approximately one-third of youth in Canada and New Zealand, and somewhat more in England and the US. Temporary sales locations were more common in England than other countries.

Noticed e-cigarette ads in the past 30 days – by source

% 'YES', YOUTH AGED 16–19, 2023, CA: N=4,198; EN: N=4,254; US: N=4,161; NZ: N=1,009



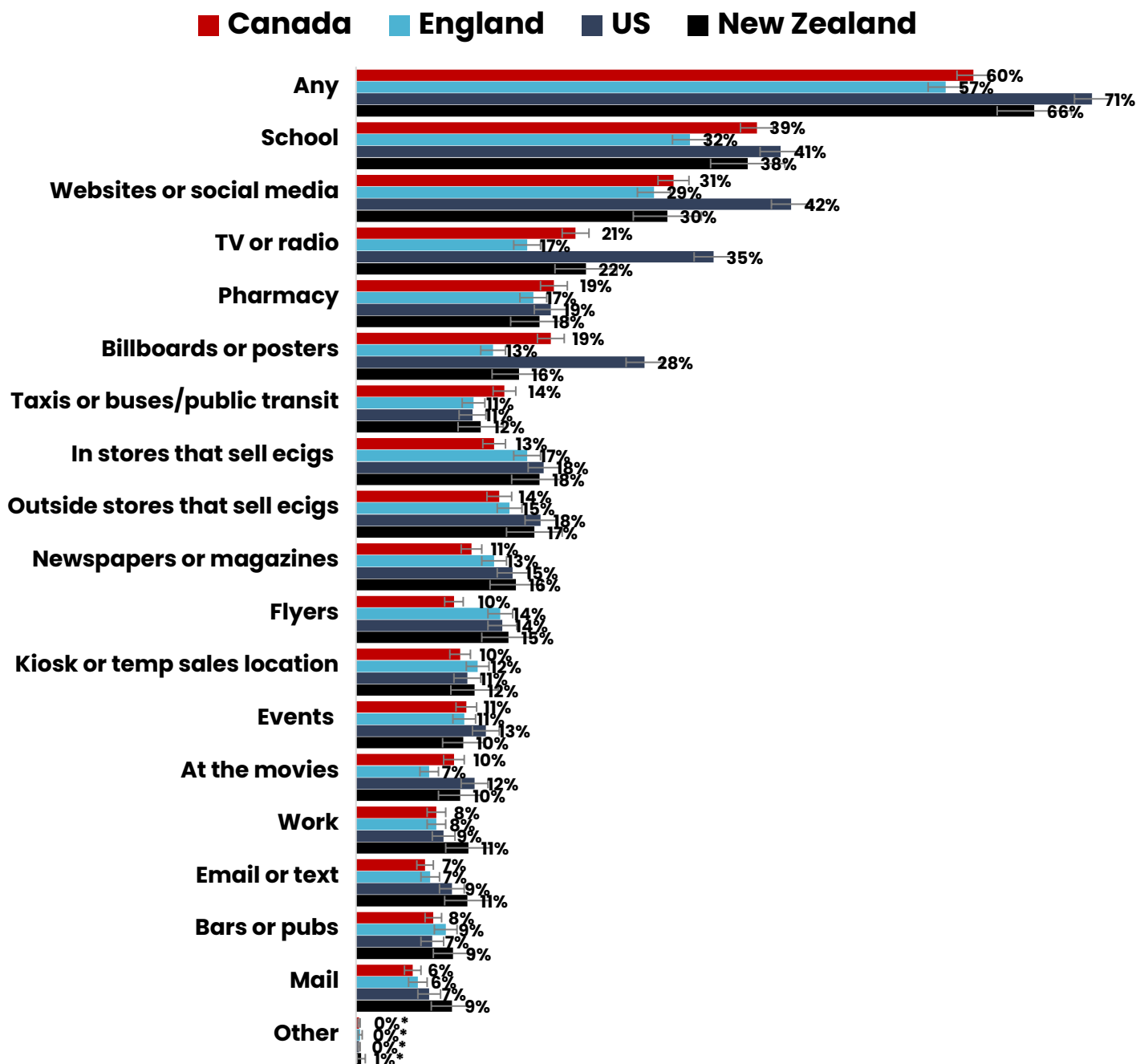
"IN THE LAST 30 DAYS, HAVE YOU NOTICED ECIGARETTES/VAPING DEVICES OR E-LIQUID BEING ADVERTISED IN ANY OF THE FOLLOWING PLACES" [YES/NO/DON'T KNOW/REFUSED FOR EACH SOURCE], AMONG RESPONDENTS WHO NOTICED ADVERTISING AT LEAST "RARELY" (72% OF ALL RESPONDENTS); REFUSED EXCLUDED FROM DENOMINATOR

E-cigarette education – sources

When youth were asked about noticing education campaigns or messages about vaping in the past 12 months, school and websites/social media were the most common sources in all countries. Noticing messages in these sources, as well as on TV or radio, or billboards or posters, was more common in the US than other countries.

Noticing education or health messages about vaping

% 'YES' IN PAST 12 MONTHS, YOUTH AGED 16-19, 2023, N=13,693



*HIGH VARIABILITY OF ESTIMATE (CV>0.33)

"IN THE PAST 12 MONTHS, HAVE YOU NOTICED EDUCATION CAMPAIGNS OR PUBLIC HEALTH MESSAGES ABOUT E-CIGARETTES/ VAPING IN ANY OF THE FOLLOWING PLACES?" [YES/NO FOR EACH SOURCE]; REFUSED EXCLUDED FROM DENOMINATOR

E-cigarette education – sources

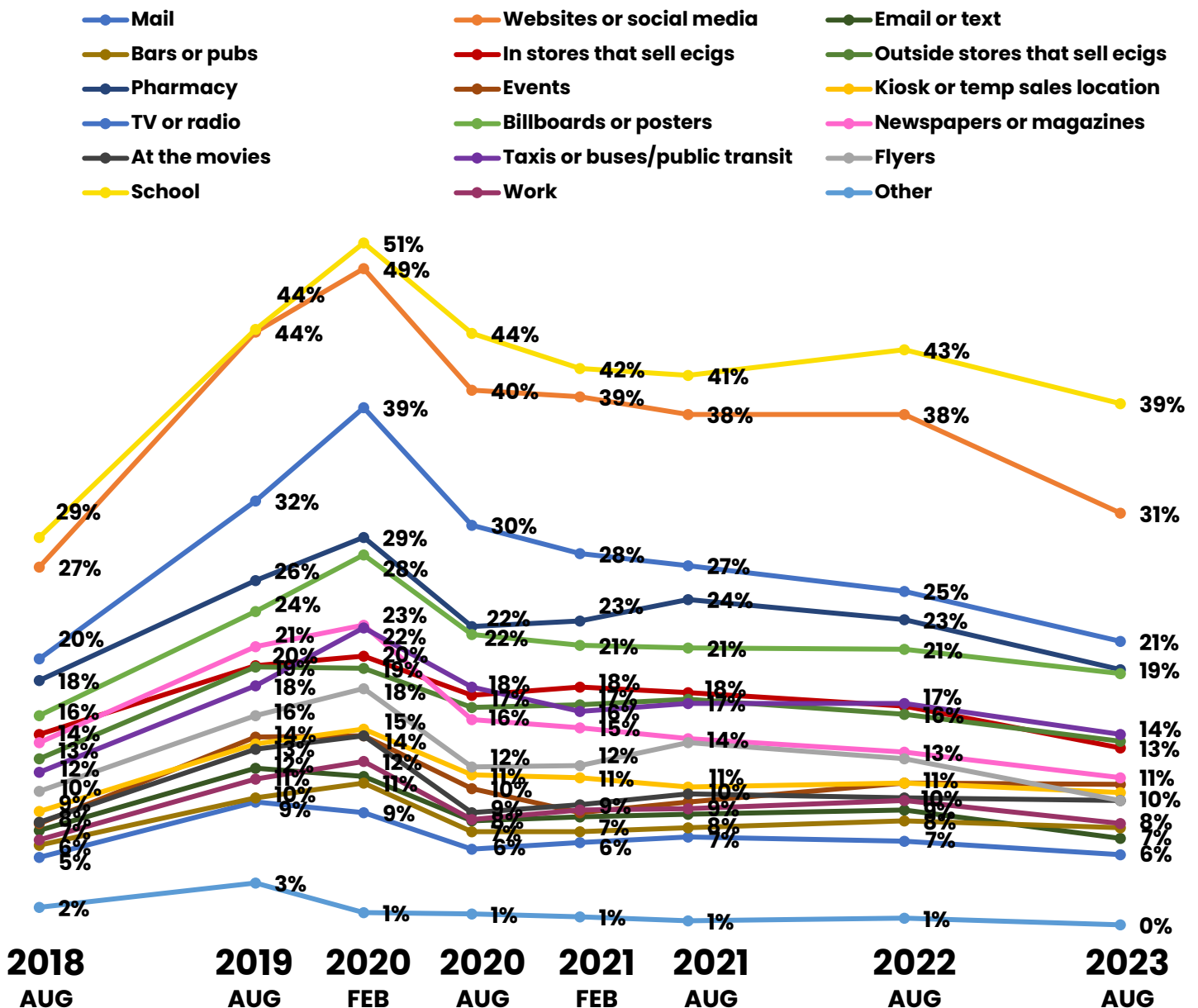
Canada

Since 2018, school and websites/social media have been the most commonly reported places that Canadian youth noticed education campaigns or messages about vaping; after peaking in early 2020, prevalence of noticing in these sources has been fairly stable, decreasing slightly in the most recent waves.



Exposure to education or health messages about vaping

% 'YES' IN PAST 12 MONTHS, YOUTH AGED 16-19, 2018-2023, CANADA, N=34,019



"IN THE PAST 12 MONTHS, HAVE YOU NOTICED EDUCATION CAMPAIGNS OR PUBLIC HEALTH MESSAGES ABOUT E-CIGARETTES/ VAPING IN ANY OF THE FOLLOWING PLACES?" [YES/NO FOR EACH SOURCE]; REFUSED EXCLUDED FROM DENOMINATOR

E-cigarette education – sources

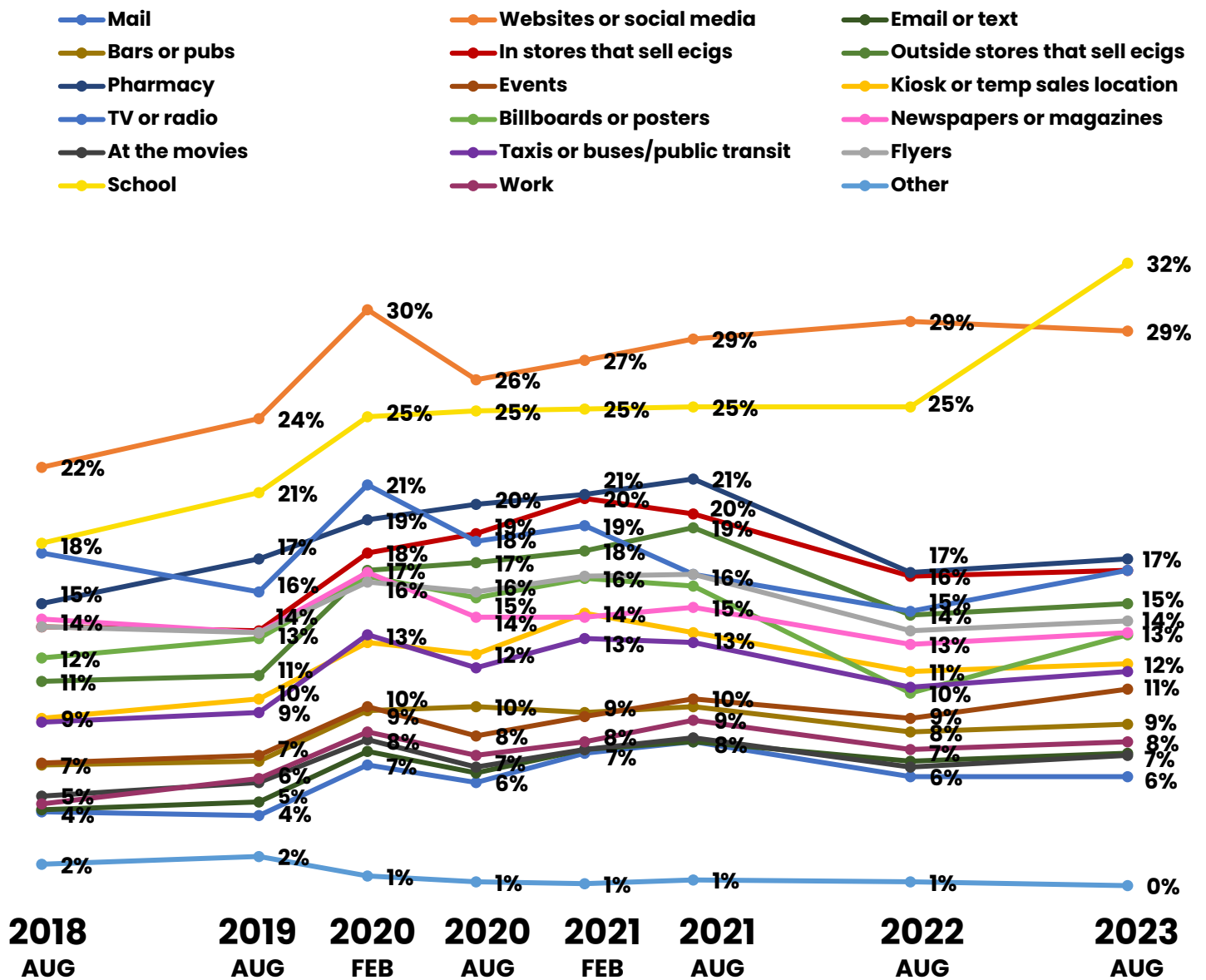
England

School and websites/social media were also the most commonly reported places that youth in England noticed education campaigns or messages about vaping, though at lower levels than in Canada. There was little change over time in noticing through many sources.



Exposure to education or health messages about vaping

% 'YES' IN PAST 12 MONTHS, YOUTH AGED 16-19, 2018-2023, ENGLAND, N=32,954



"IN THE PAST 12 MONTHS, HAVE YOU NOTICED EDUCATION CAMPAIGNS OR PUBLIC HEALTH MESSAGES ABOUT E-CIGARETTES/ VAPING IN ANY OF THE FOLLOWING PLACES?" [YES/NO FOR EACH SOURCE]; REFUSED EXCLUDED FROM DENOMINATOR

E-cigarette education - sources

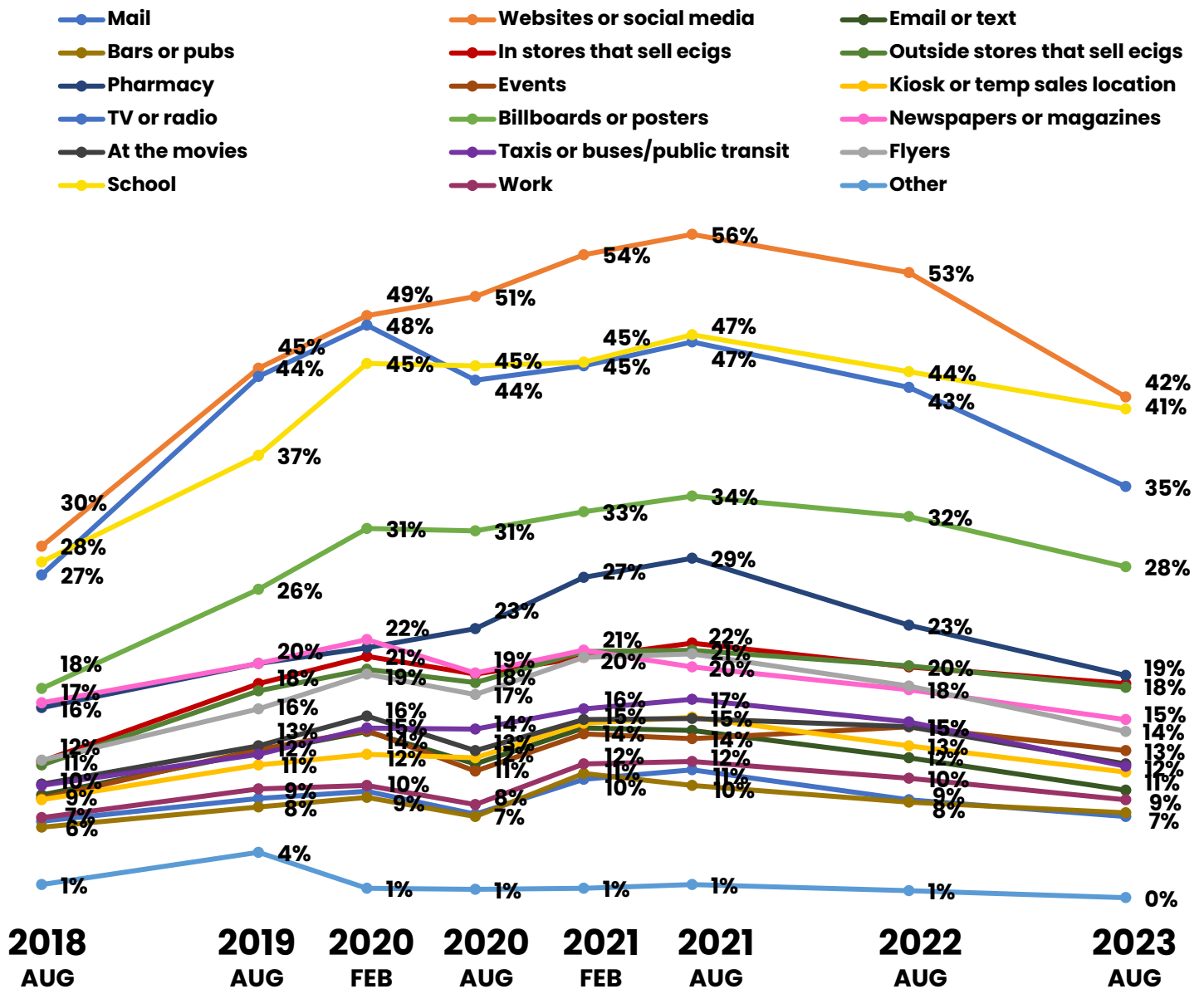
United States

In the US, websites/social media, school, and TV or radio have been the most commonly reported places that youth noticed education campaigns or messages about vaping; noticing in these sources increased steeply (especially online) and then remained high, but appears to have decreased somewhat in the most recent waves.



Exposure to education or health messages about vaping

% 'YES' IN PAST 12 MONTHS, YOUTH AGED 16-19, 2018-2023, US, N=37,336



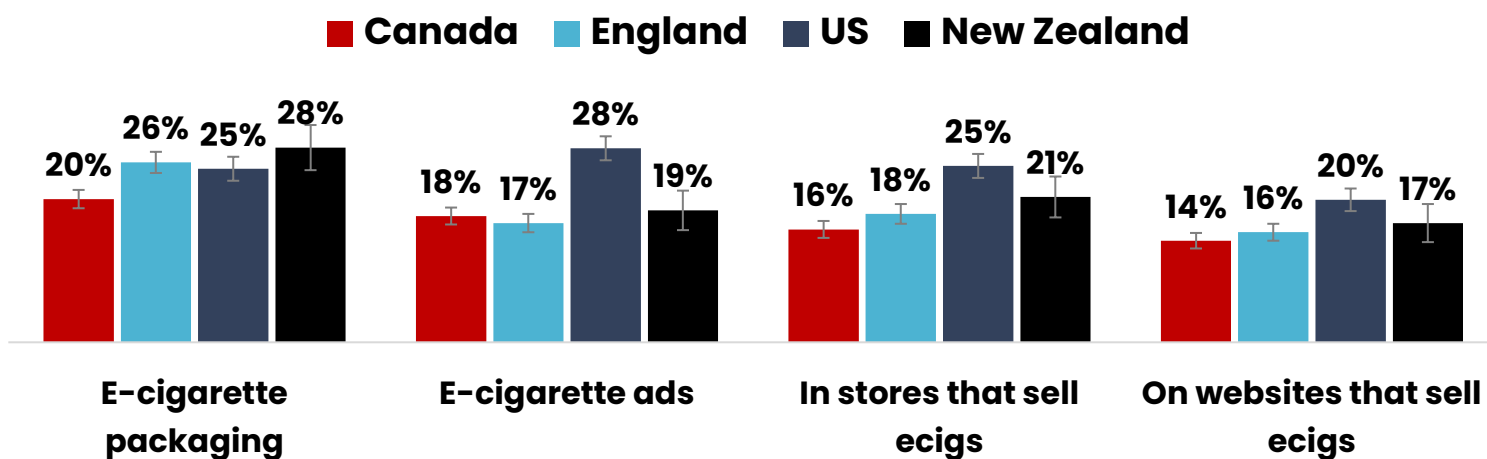
"IN THE PAST 12 MONTHS, HAVE YOU NOTICED EDUCATION CAMPAIGNS OR PUBLIC HEALTH MESSAGES ABOUT E-CIGARETTES/ VAPING IN ANY OF THE FOLLOWING PLACES?" [YES/NO FOR EACH SOURCE]; REFUSED EXCLUDED FROM DENOMINATOR

Noticing e-cigarette warnings

In 2023, among all respondents, more youth in the US reported noticing health warnings on advertisements, in stores and on websites that sell e-cigarettes; fewer youth in Canada reported noticing them on e-cigarette packaging. Among youth who vaped in the past 30 days, proportions noticing in each source were greater; more in the US and fewer in England and New Zealand reported noticing warnings.

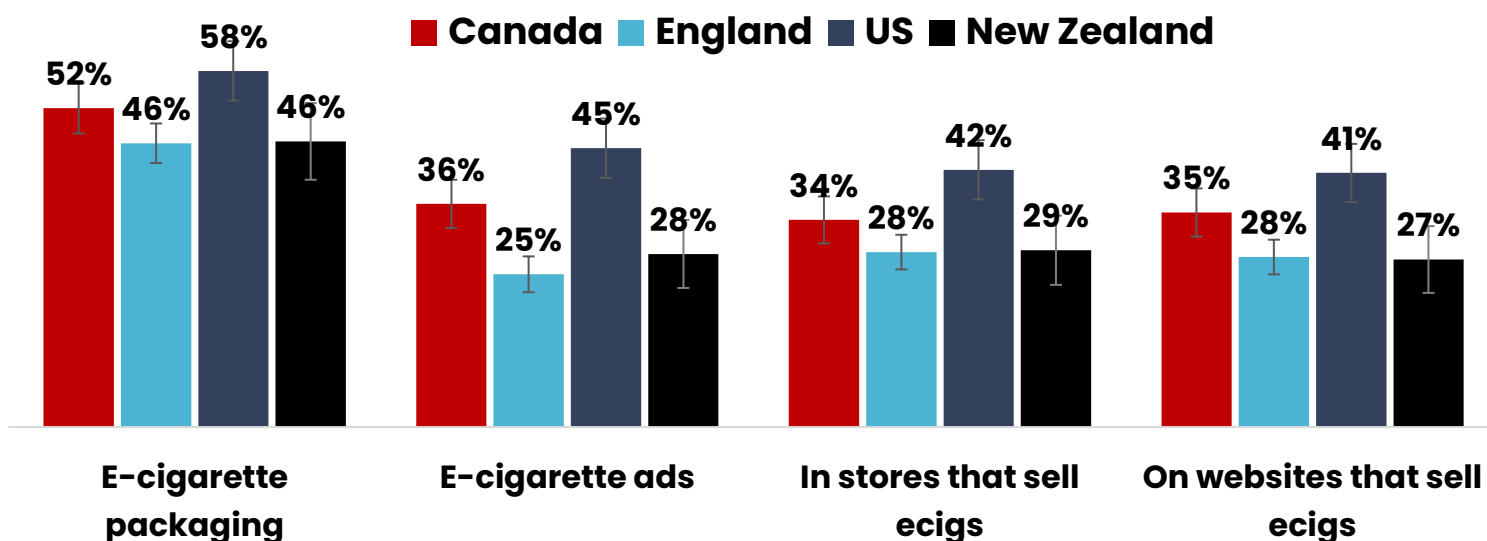
Noticing e-cigarette health warnings in the past 30 days

ALL YOUTH AGED 16-19, 2023, N=15,846



Noticing e-cigarette health warnings in the past 30 days

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2023, N=3,147



"IN THE LAST 30 DAYS, HAVE YOU NOTICED ANY HEALTH WARNINGS FOR E-CIGARETTES/VAPING DEVICES, CARTRIDGES, PODS, OR E-LIQUIDS IN THE FOLLOWING PLACES?..."; REFUSED EXCLUDED FROM DENOMINATOR

Noticing e-cigarette warnings

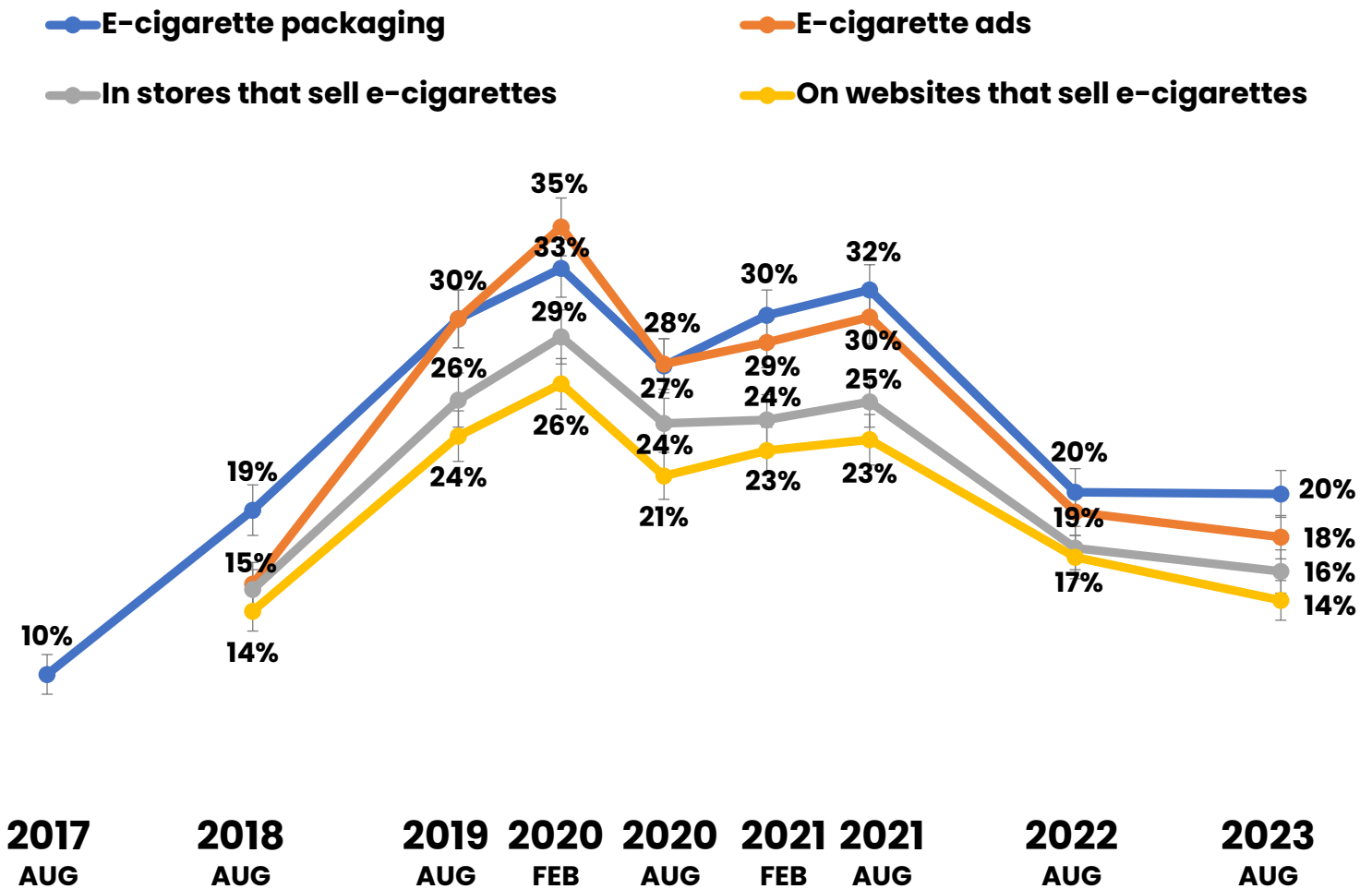
Canada

The proportion of youth in Canada who reported noticing health warnings for e-cigarettes varied over time, but noticing on packaging and on e-cigarette advertisements were the most prevalent in all years. In 2023, fewer than one in five youth reported noticing e-cigarette warnings in any particular place.



Noticing e-cigarette health warnings in the past 30 days

YOUTH AGED 16-19, 2017-2023, CANADA, N=38,102



WAVE 1: "IN THE LAST 30 DAYS, HAVE YOU NOTICED ANY HEALTH WARNINGS ON THE PACKAGING OF E-CIGARETTES/VAPING DEVICES, CARTRIDGES OR E-LIQUIDS?"; WAVE 2 ON: "IN THE LAST 30 DAYS, HAVE YOU NOTICED ANY HEALTH WARNINGS FOR E-CIGARETTES/VAPING DEVICES, CARTRIDGES, PODS, OR E-LIQUIDS IN THE FOLLOWING PLACES?..." [YES/NO/DON'T KNOW/ REFUSED FOR EACH]; REFUSED EXCLUDED FROM DENOMINATOR

Noticing e-cigarette warnings

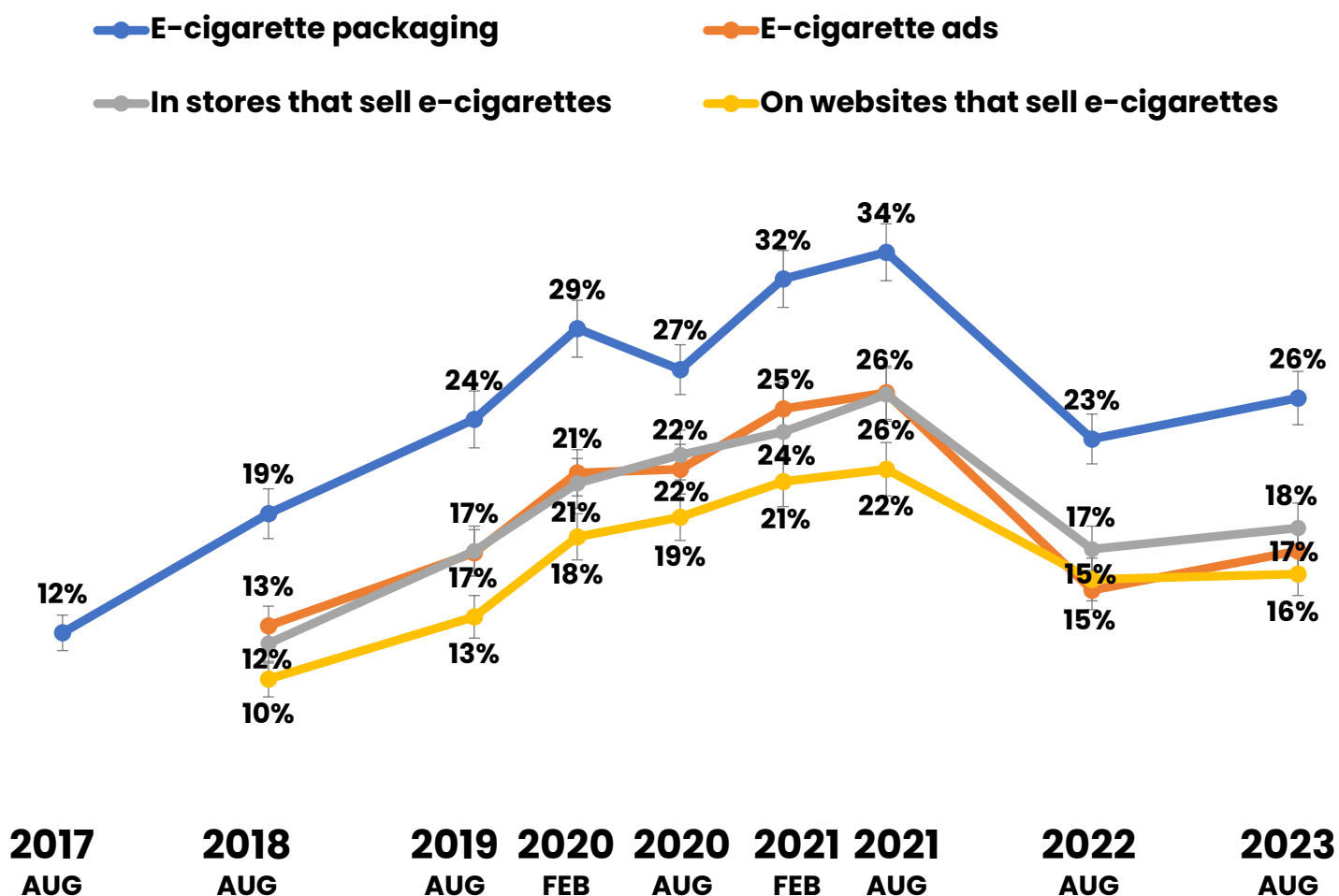
England

In England, noticing health warnings for e-cigarettes on packaging was the most prevalent in all years. Noticing in all sources appears to have increased steadily over time until 2021, before falling sharply in 2022 and then rebounding slightly in the most recent wave.



Noticing e-cigarette health warnings in the past 30 days

YOUTH AGED 16-19, 2017-2023, ENGLAND, N=36,915



WAVE 1: "IN THE LAST 30 DAYS, HAVE YOU NOTICED ANY HEALTH WARNINGS ON THE PACKAGING OF E-CIGARETTES/VAPING DEVICES, CARTRIDGES OR E-LIQUIDS?"; WAVE 2 ON: "IN THE LAST 30 DAYS, HAVE YOU NOTICED ANY HEALTH WARNINGS FOR E-CIGARETTES/VAPING DEVICES, CARTRIDGES, PODS, OR E-LIQUIDS IN THE FOLLOWING PLACES?..." [YES/NO/DON'T KNOW/ REFUSED FOR EACH]; REFUSED EXCLUDED FROM DENOMINATOR

Noticing e-cigarette warnings

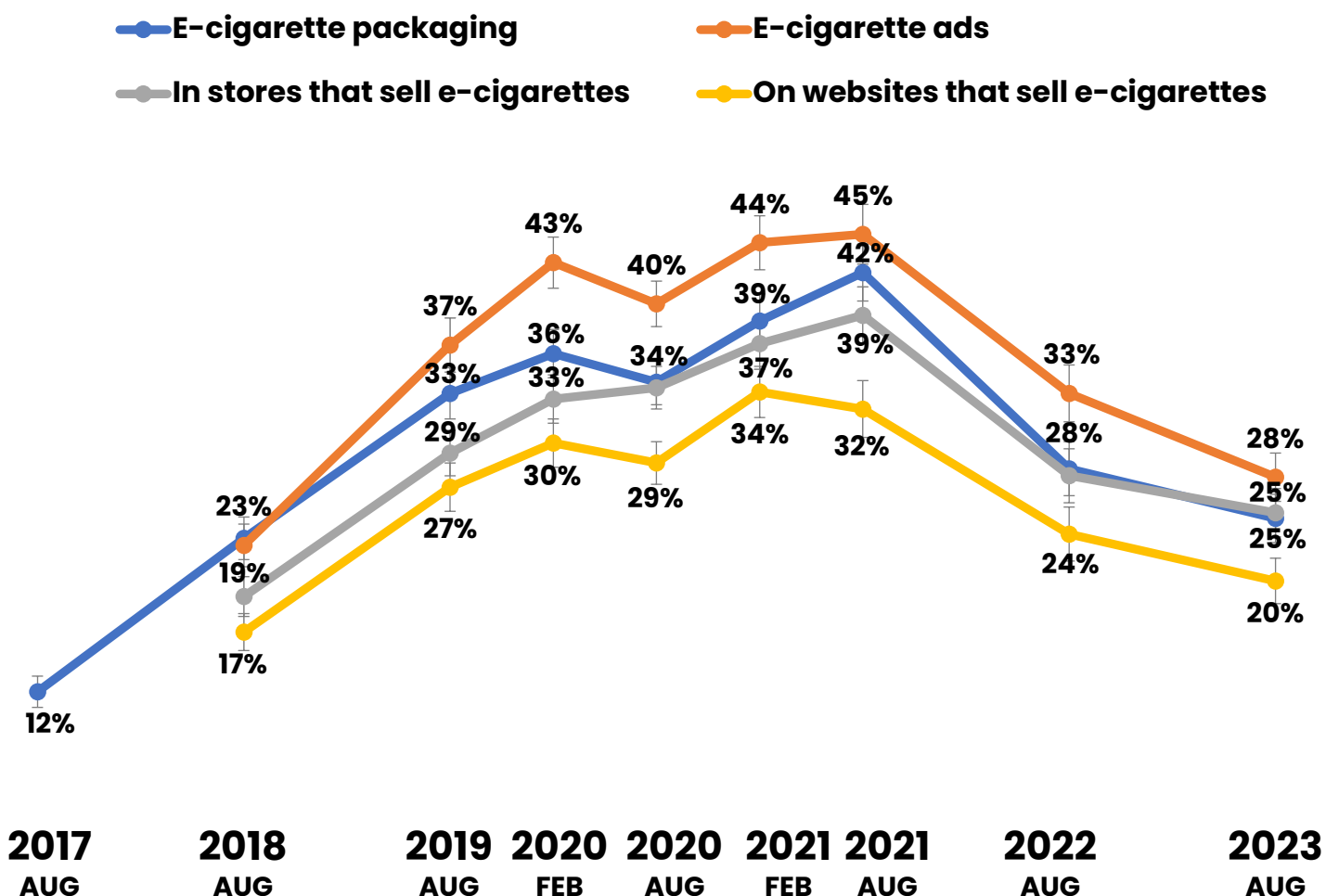
United States

In the US, the proportion of youth who reported noticing health warnings for e-cigarettes generally increased over time until 2021, but has fallen in the most recent waves. Noticing on e-cigarette advertisements was the most prevalent in almost all years.



Noticing e-cigarette health warnings in the past 30 days

YOUTH AGED 16-19, 2017-2023, US, N=41,424



WAVE 1: "IN THE LAST 30 DAYS, HAVE YOU NOTICED ANY HEALTH WARNINGS ON THE PACKAGING OF E-CIGARETTES/VAPING DEVICES, CARTRIDGES OR E-LIQUIDS?"; WAVE 2 ON: "IN THE LAST 30 DAYS, HAVE YOU NOTICED ANY HEALTH WARNINGS FOR E-CIGARETTES/VAPING DEVICES, CARTRIDGES, PODS, OR E-LIQUIDS IN THE FOLLOWING PLACES?..." [YES/NO/DON'T KNOW/ REFUSED FOR EACH]; REFUSED EXCLUDED FROM DENOMINATOR

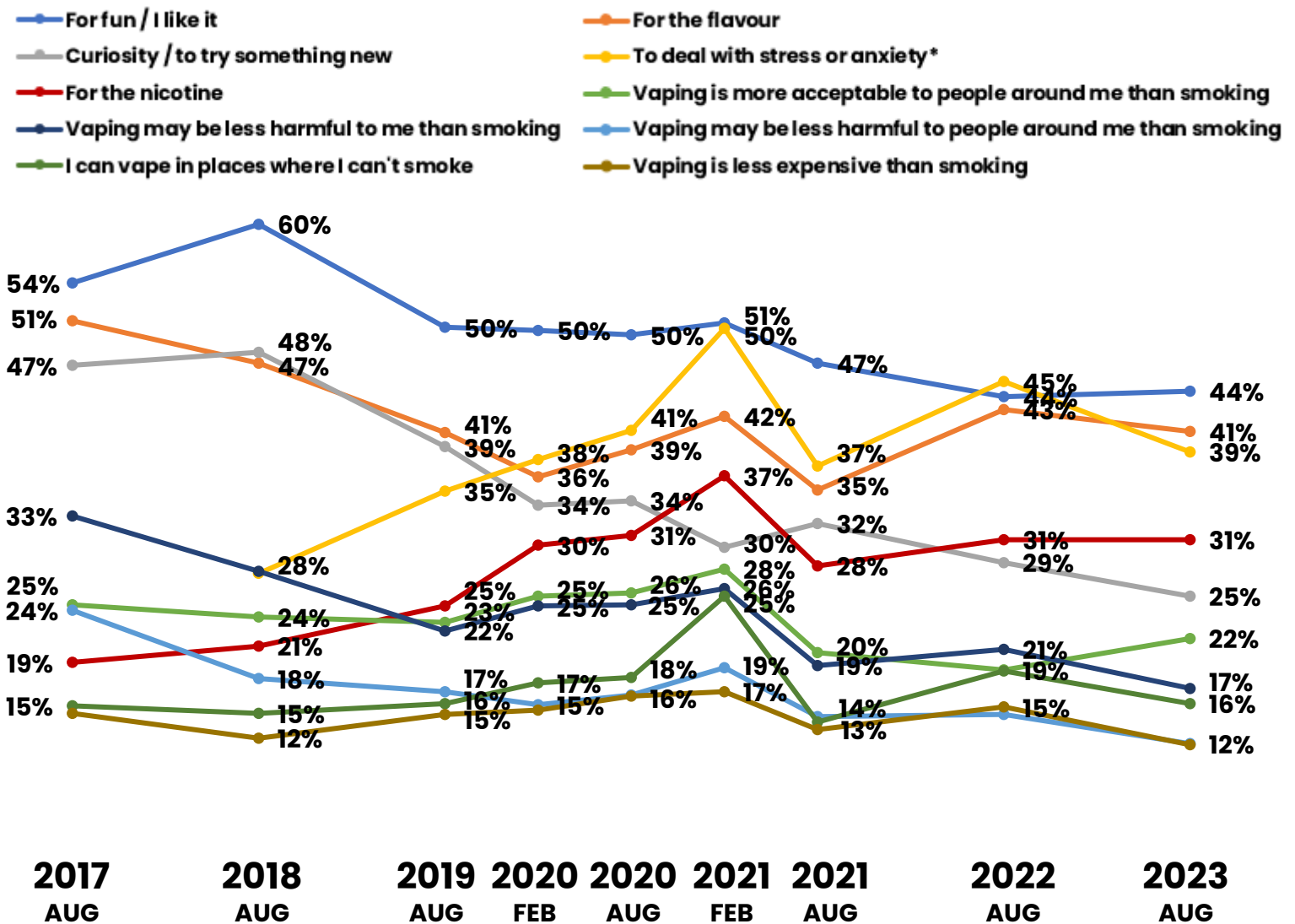
Reasons for vaping Canada

In Canada, among youth who vaped in the past 30 days, the top reason for vaping was 'for fun' in all years except 2022. Reasons of dealing with stress or anxiety and 'for the nicotine' generally increased over time, while curiosity steadily decreased.



Reasons for using e-cigarettes/vaping

TOP 10 REASONS, YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2023, CANADA, N=6,438



*NOT ASKED IN WAVE 1

"HAVE YOU USED E-CIGARETTES/VAPED FOR ANY OF THE FOLLOWING REASONS?" [SELECT ALL THAT APPLY]; FULL LIST INCLUDES 15 REASONS, TOP 10 SHOWN; REFUSED RESPONSES EXCLUDED FROM DENOMINATOR

Reasons for vaping England

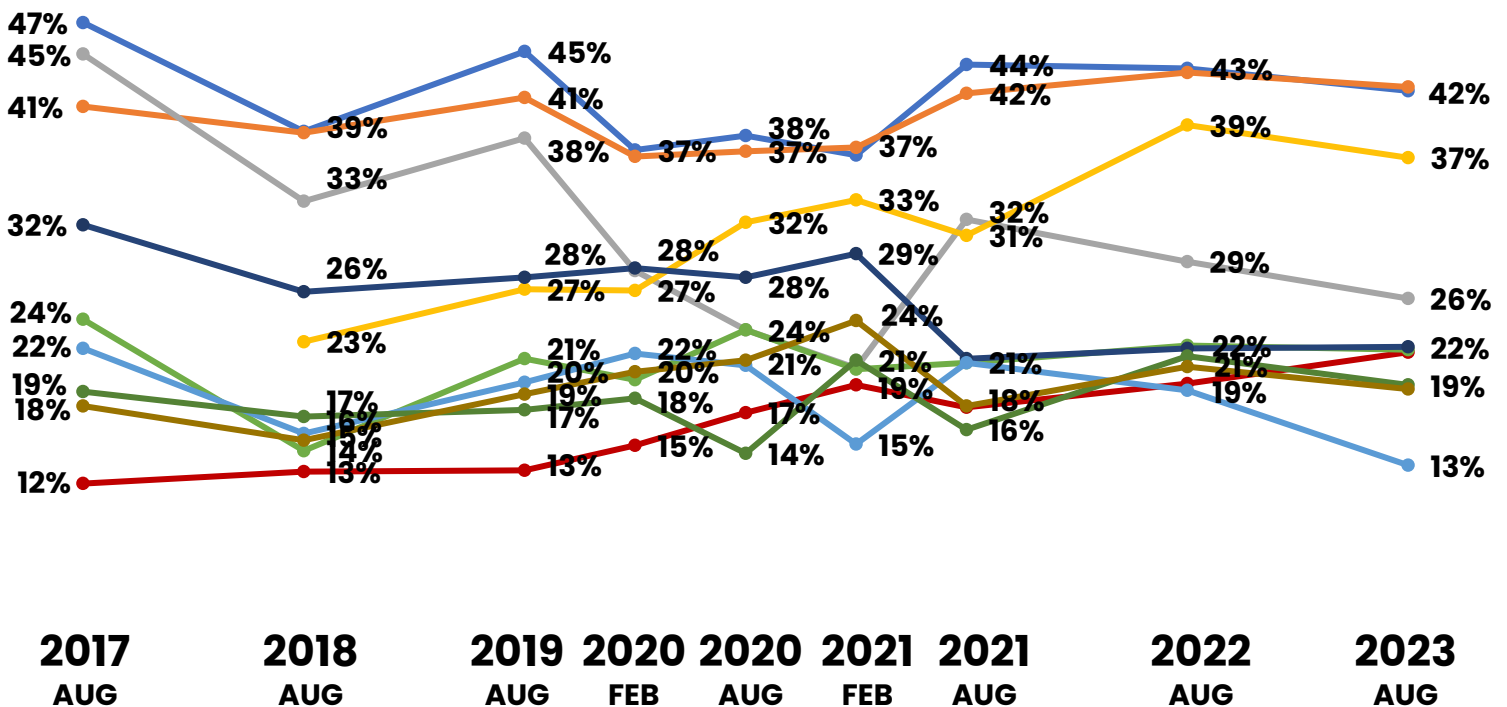
In England, among youth who vaped in the past 30 days, the top reasons for vaping in most years were 'for fun' and 'for the flavour'. The reason of dealing with stress or anxiety increased over time, while curiosity decreased.



Reasons for using e-cigarettes/vaping

TOP 10 REASONS, YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2023, ENGLAND, N=6,081

- For fun / I like it
- For the flavour
- Curiosity / to try something new
- To deal with stress or anxiety*
- For the nicotine
- Vaping is more acceptable to people around me than smoking
- Vaping may be less harmful to me than smoking
- Vaping may be less harmful to people around me than smoking
- I can vape in places where I can't smoke
- Vaping is less expensive than smoking



*NOT ASKED IN WAVE 1

"HAVE YOU USED E-CIGARETTES/VAPED FOR ANY OF THE FOLLOWING REASONS?" [SELECT ALL THAT APPLY]; FULL LIST INCLUDES 15 REASONS, TOP 10 SHOWN; REFUSED RESPONSES EXCLUDED FROM DENOMINATOR

Reasons for vaping

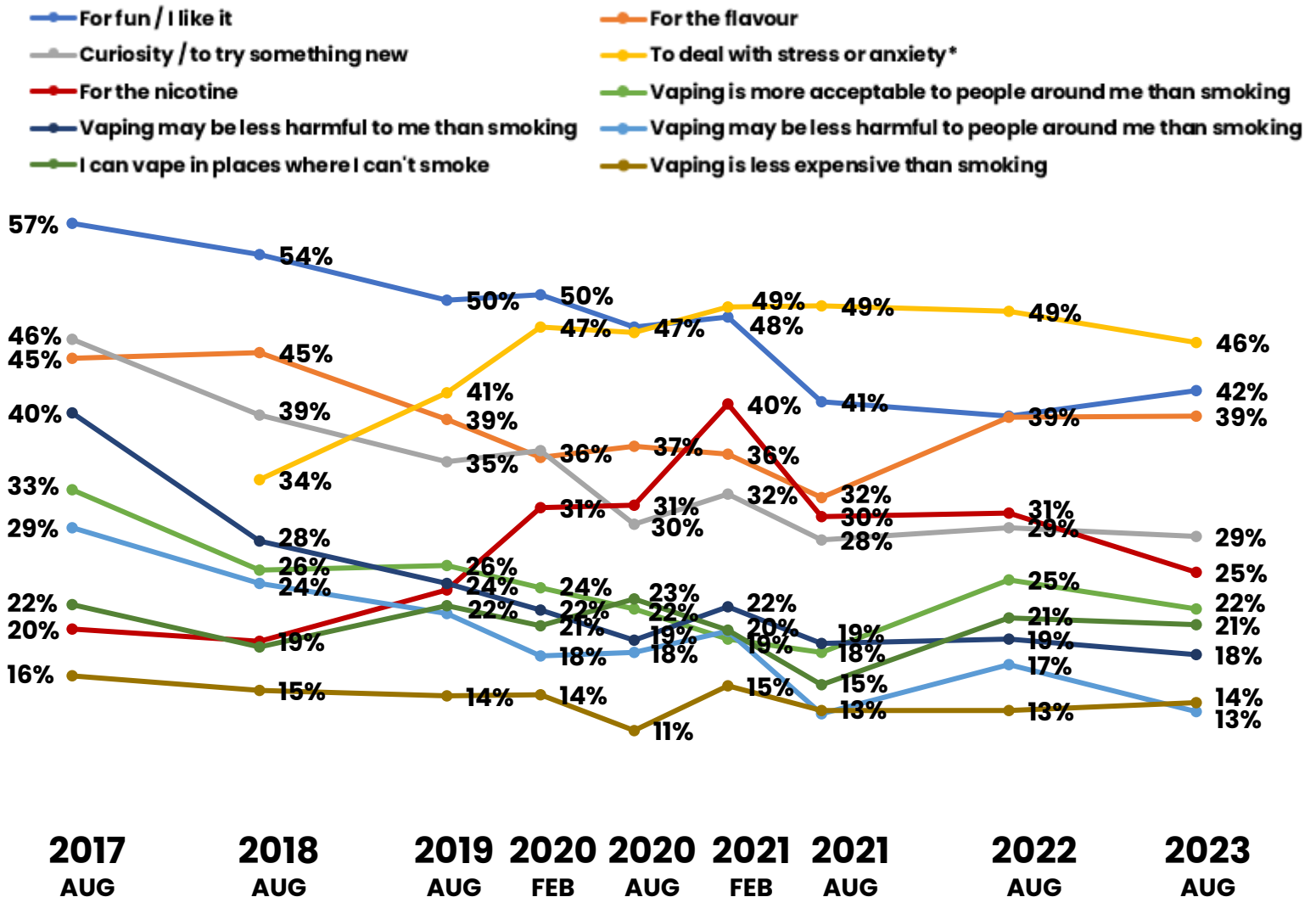
United States

In the US, among youth who vaped in the past 30 days, the top reason for vaping was 'for fun/I like it' until 2020, and 'to deal with stress or anxiety' since 2021. Reasons of fun, curiosity, and less harmful than smoking have decreased over time. Vaping 'for the nicotine' doubled between 2017 and 2021, but decreased since.



Reasons for using e-cigarettes/vaping

TOP 10 REASONS, YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2023, US, N=7,086



*NOT ASKED IN WAVE 1

"HAVE YOU USED E-CIGARETTES/VAPED FOR ANY OF THE FOLLOWING REASONS?" [SELECT ALL THAT APPLY]; FULL LIST INCLUDES 15 REASONS, TOP 10 SHOWN; REFUSED RESPONSES EXCLUDED FROM DENOMINATOR

Reasons for vaping

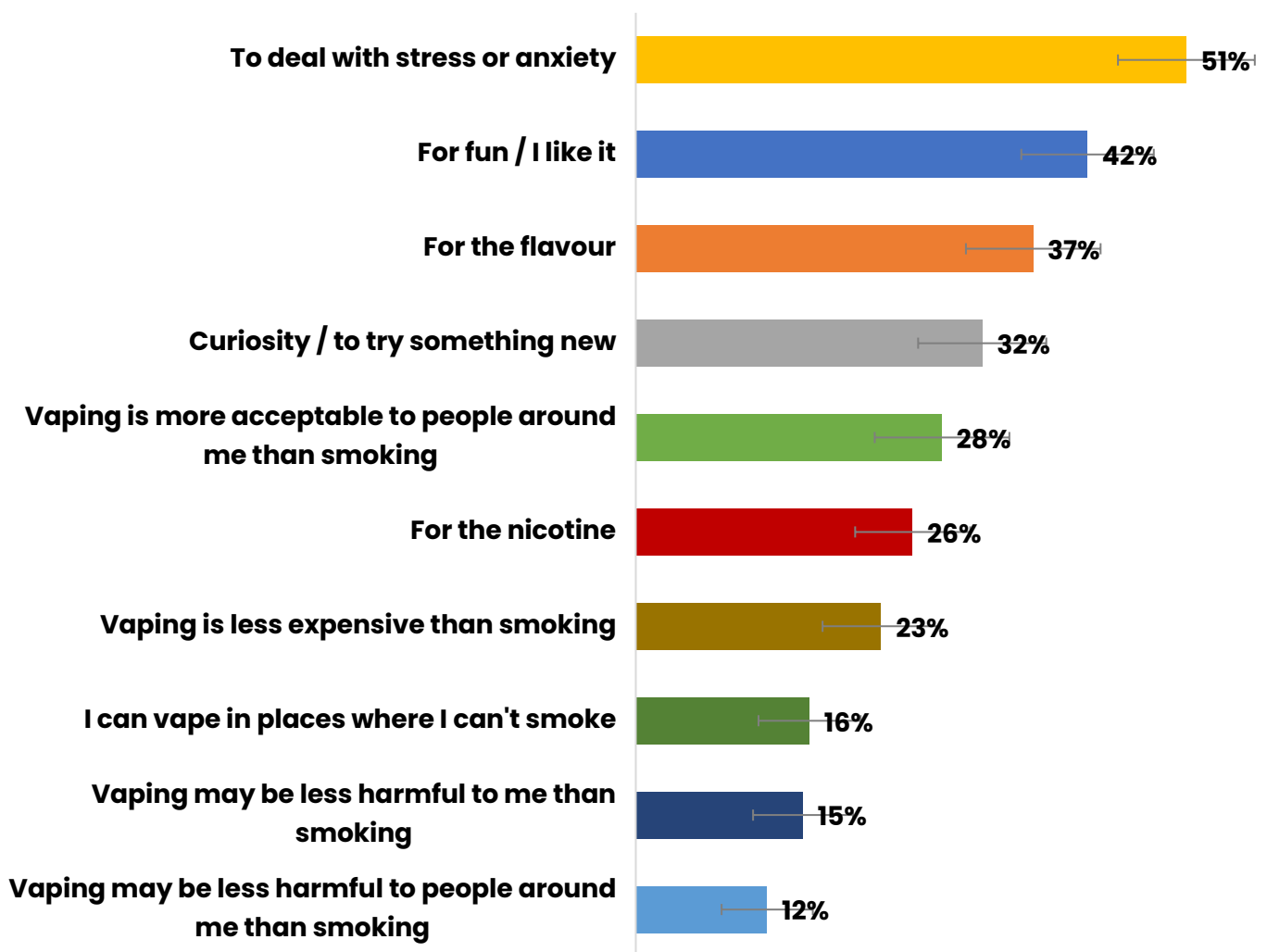
New Zealand

In New Zealand, among youth who vaped in the past 30 days, approximately half of youth reported 'to deal with stress or anxiety' as a reason for vaping in 2023. The next most selected reasons were 'for fun' and 'for the flavour'. Relatively few youth who vaped cited reasons concerning harm reduction compared to smoking.



Reasons for using e-cigarettes/vaping

TOP 10 REASONS, YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2023, NZ, N=345



"HAVE YOU USED E-CIGARETTES/VAPED FOR ANY OF THE FOLLOWING REASONS?" [SELECT ALL THAT APPLY]; FULL LIST INCLUDES 15 REASONS, TOP 10 SHOWN; REFUSED RESPONSES EXCLUDED FROM DENOMINATOR

E-cigarette perceptions

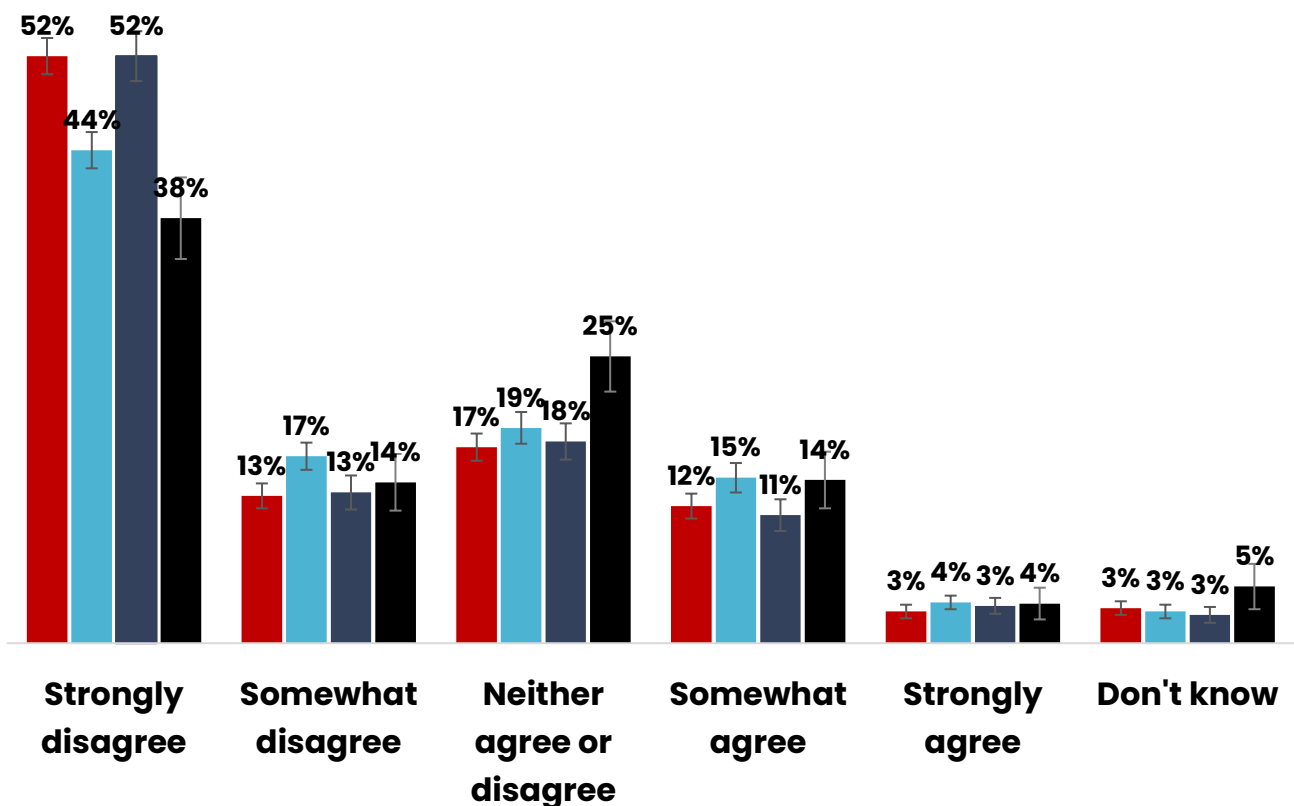
All respondents were asked about their perceptions of e-cigarettes. In 2023, half of respondents in Canada and the US strongly disagreed that they look cool, compared to 44% in England and 38% in New Zealand. Less than one in five youth (14-19%) agreed ('somewhat' or 'strongly') that e-cigarettes look cool. One-quarter in Zealand and one in five in other countries neither agreed nor disagreed.

E-cigarettes/vapes look COOL.

YOUTH AGED 16-19, 2023

CA: N=4,214; EN: N=4,278; US: N=4,175; NZ: N=1,020

■ Canada ■ England ■ US ■ New Zealand



E-cigarette perceptions

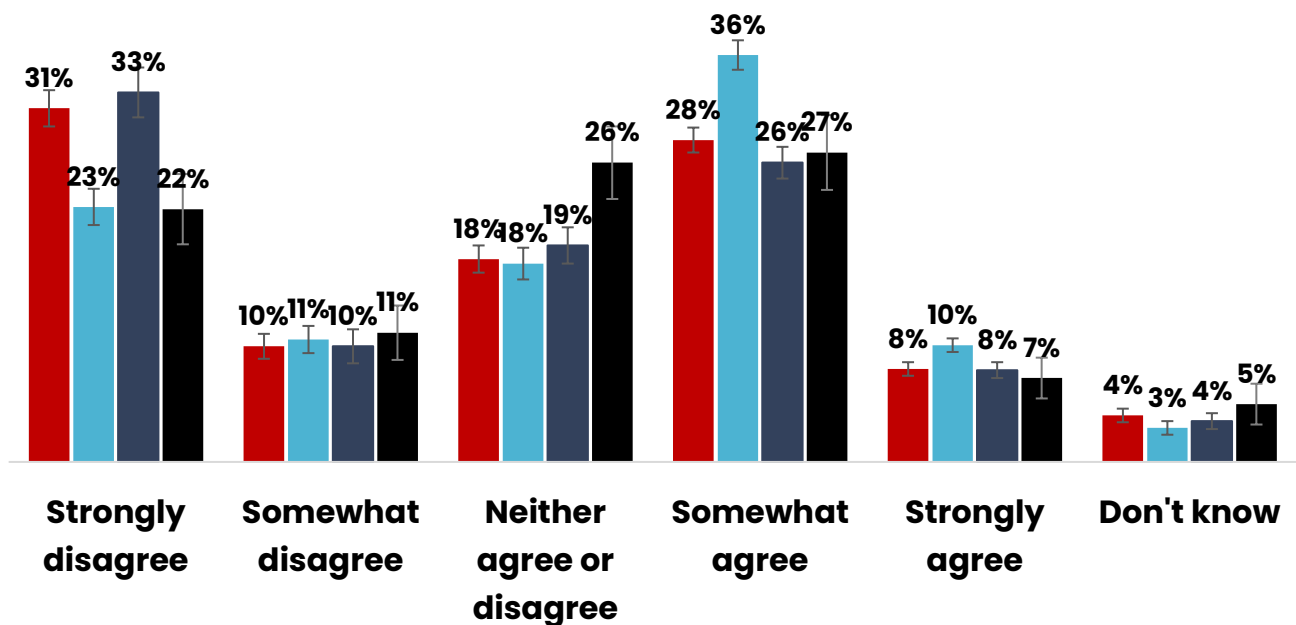
Nearly half of respondents in England, and more than one-third in the other countries, agreed ('somewhat' or 'strongly') that e-cigarettes look modern. Over 40% in Canada and the US and approximately one-third in England and New Zealand disagreed. One-quarter in Zealand and around one in five in other countries neither agreed nor disagreed that they look modern.

E-cigarettes/vapes look MODERN.

YOUTH AGED 16-19, 2023

CA: N=4,217; EN: N=4,279; US: N=4,176; NZ: N=1,020

■ Canada ■ England ■ US ■ New Zealand



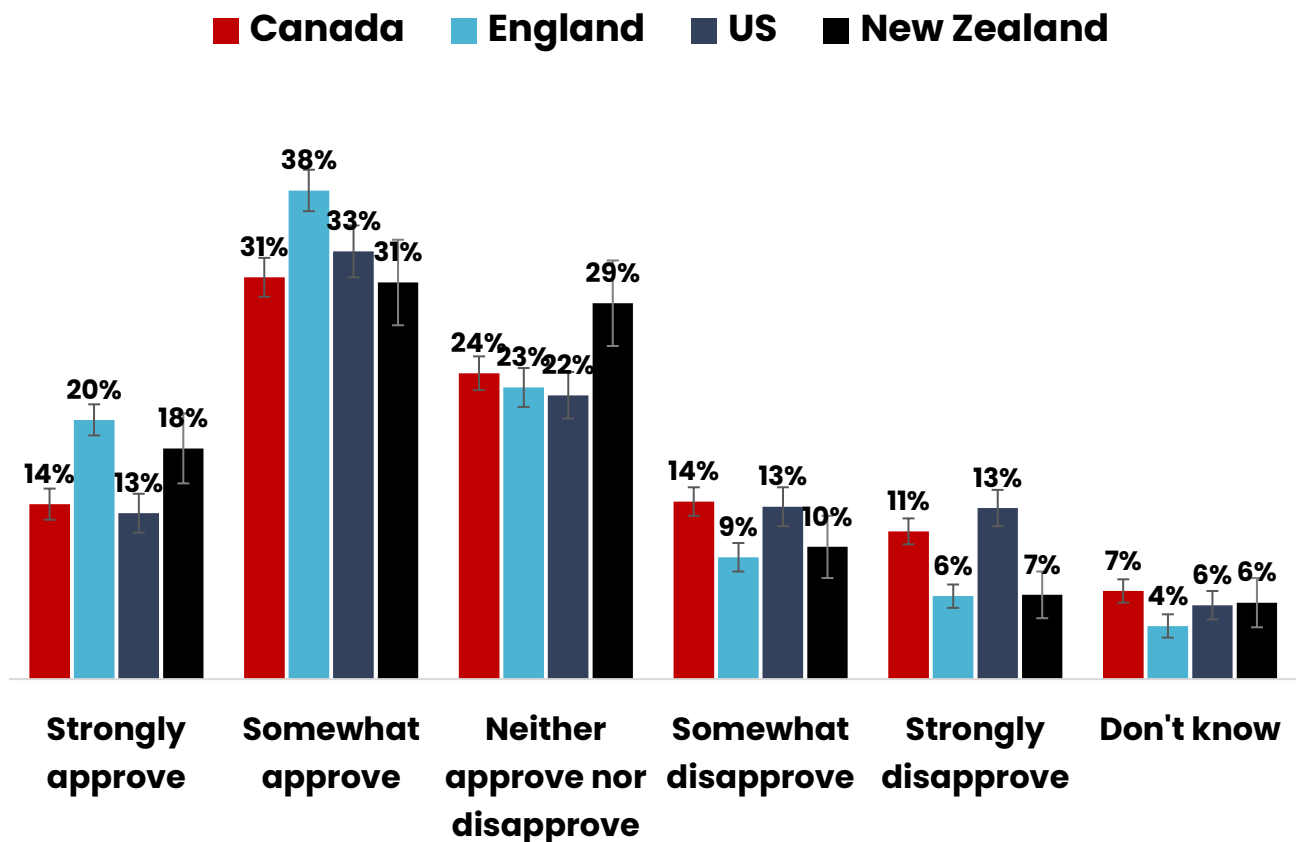
E-cigarette perceptions

Less than one-quarter of respondents in Canada, the US, and New Zealand, one-third in England, reported that people their age approved ('somewhat' or 'strongly') of e-cigarettes/vaping, while nearly one-quarter (one-third in New Zealand) said people their age neither approved nor disapproved. A smaller proportion of youth in England said people their age strongly disapproved of vaping, compared to other countries.

Do people your age approve or disapprove of using e-cigarettes/vaping?

YOUTH AGED 16-19, 2023

CA: N=4,216; EN: N=4,285; US: N=4,182; NZ: N=1,019

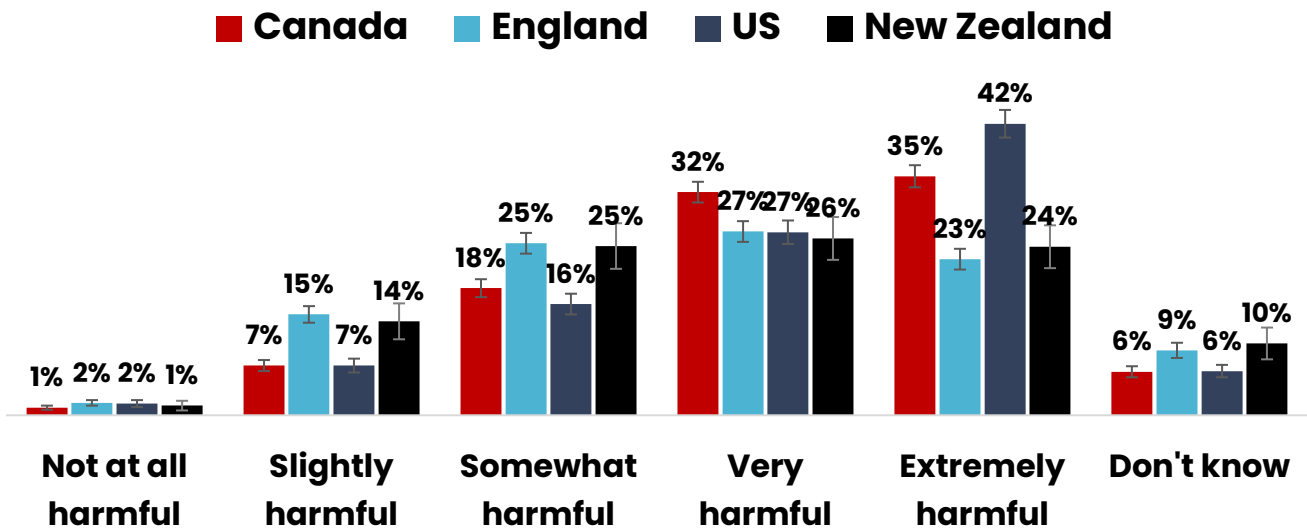


Perceptions of risk

Perceptions of the harmfulness of daily vaping varied by country: over 40% of US respondents, and 35% of respondents in Canada, indicated that vaping was 'extremely' harmful, while in England and New Zealand around one-quarter of respondents selected each of 'extremely', 'very' and 'somewhat harmful'. Vaping some days was viewed as less harmful than every day.

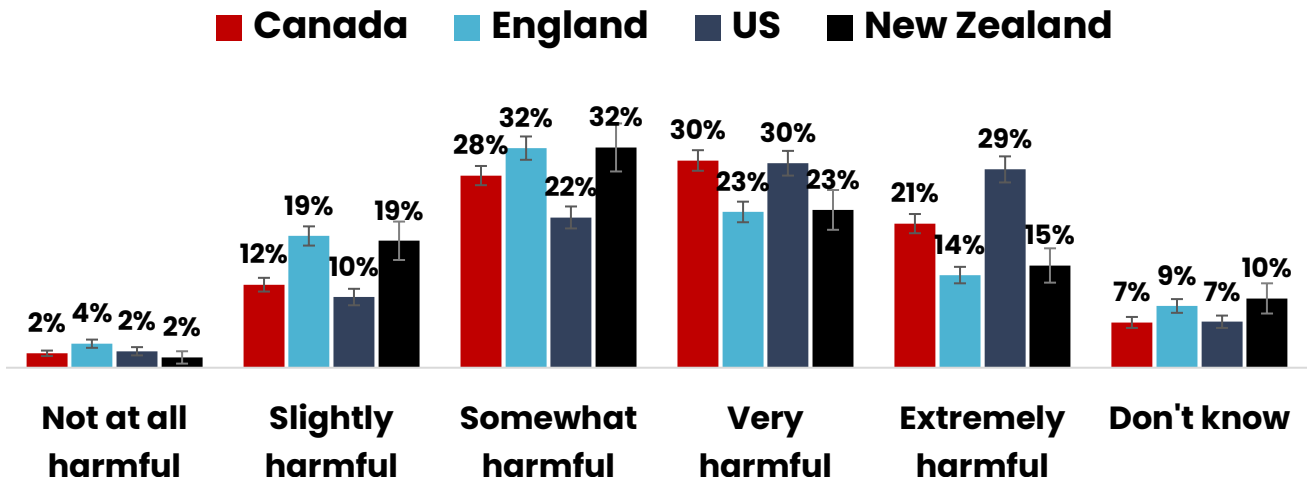
How harmful is it to vape every day?

YOUTH AGED 16-19, 2023, CA: N=4,219; EN: N=4,284; US: N=4,181; NZ: N=1,018



How harmful is it to vape some days but not every day?

YOUTH AGED 16-19, 2023, CA: N=4,219; EN: N=4,283; US: N=4,182; NZ: N=1,018

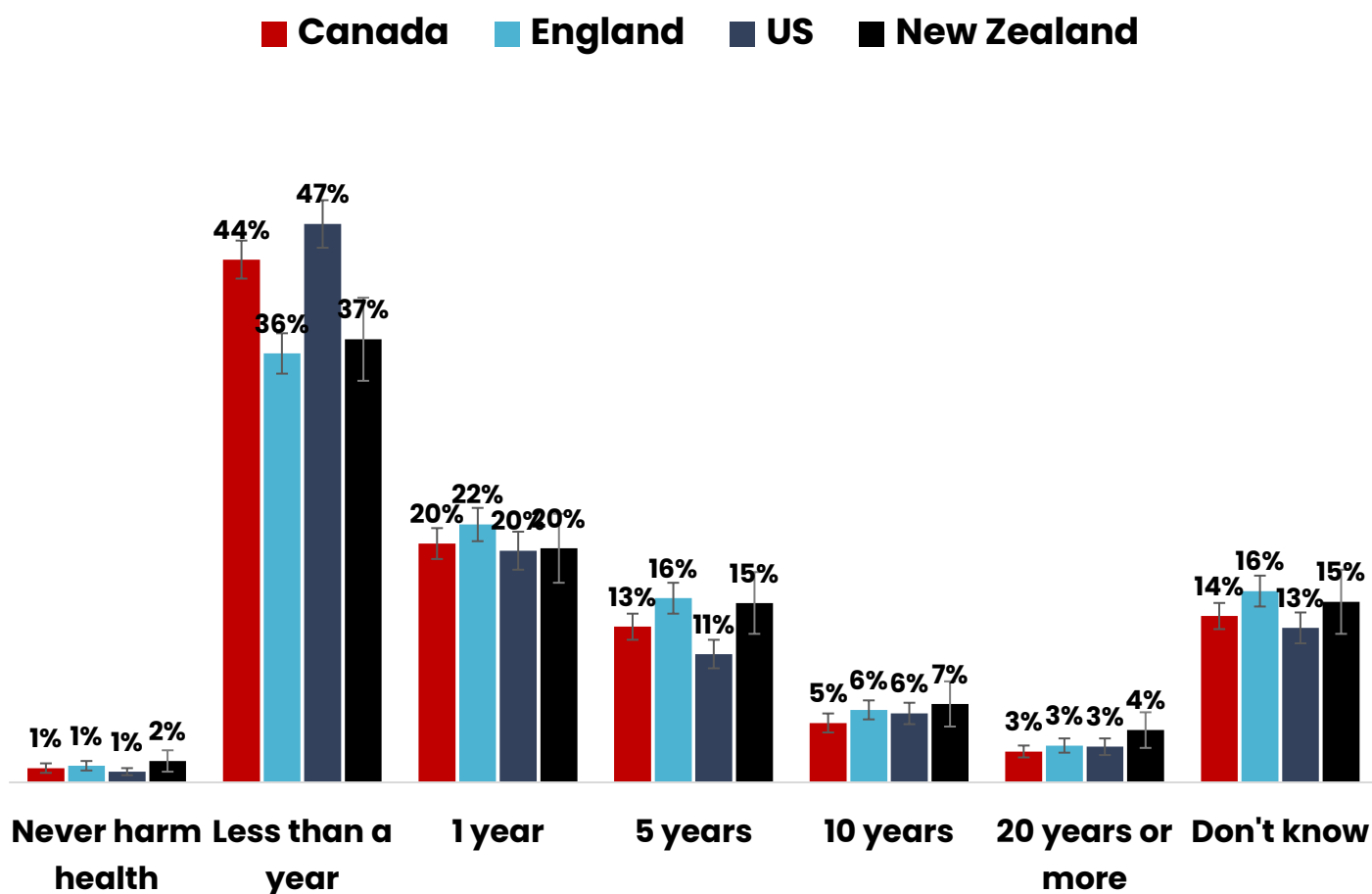


Perceptions of risk

When respondents were asked how long someone had to use e-cigarettes before it harmed their health, the majority in each country indicated a timeframe of 1 year or less; however, the proportion who said it would take less than a year was greater in the US and Canada than in New Zealand and England. Very few indicated that it would take 20 or more years or that it would never harm their health. A considerable proportion selected 'don't know'.

How long do you think someone has to use e-cigarettes/vape before it harms their health?

YOUTH AGED 16-19, 2023, CA: N=4,219; EN: N=4,280; US: N=4,181; NZ: N=1,018



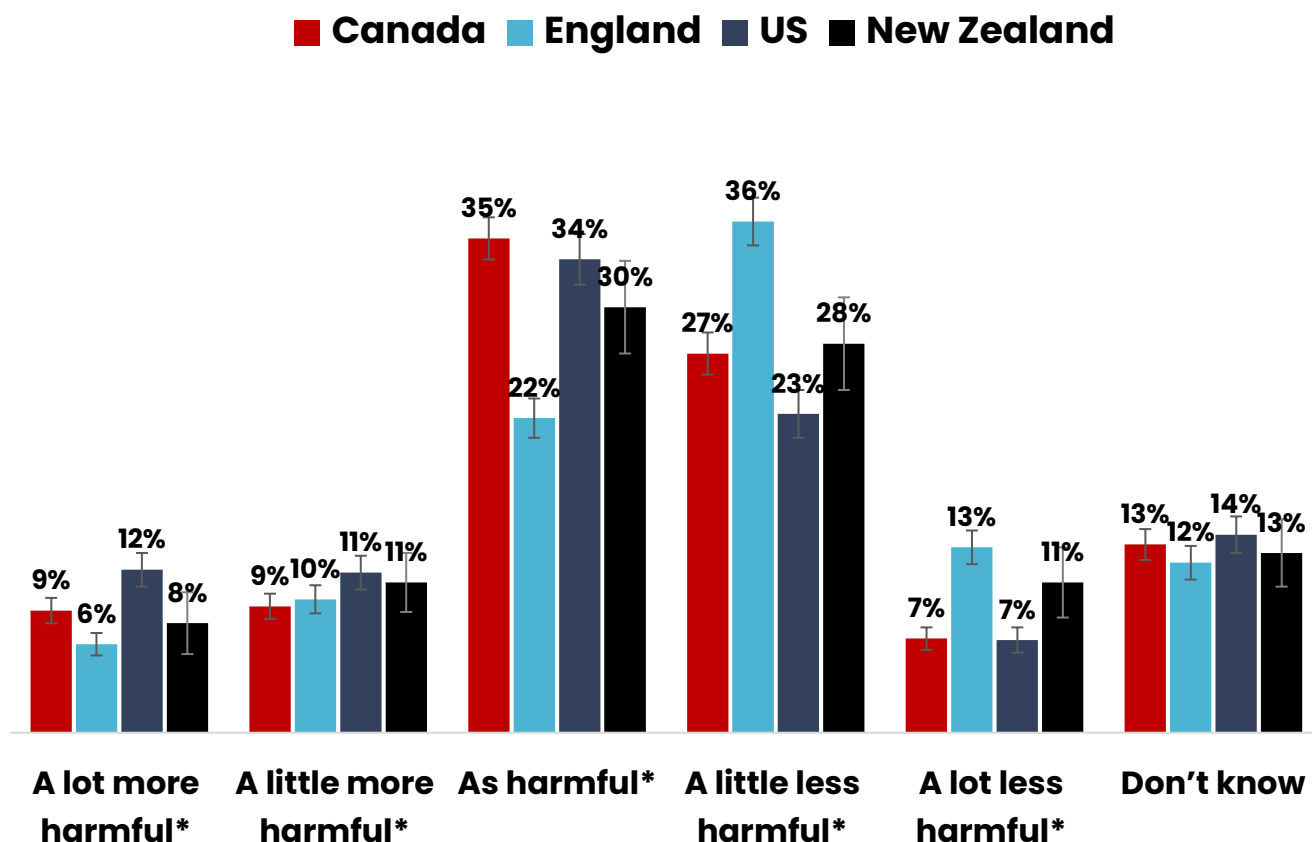
Perceptions of risk

Harm relative to cigarettes

When respondents were asked about the relative harm of e-cigarettes compared with “regular” tobacco cigarettes, nearly half of youth in England, nearly 40% in New Zealand and around one-third in Canada and the US correctly responded that e-cigarettes were less harmful. Around one-third of youth in Canada, New Zealand the US, and about one in five in England, thought they were ‘as harmful’. Relatively few youth (16-23%) thought that e-cigarettes were more harmful than smoking cigarettes.

Is using e-cigarettes/vaping less harmful, about the same, or more harmful than smoking cigarettes?

YOUTH AGED 16-19, 2023, CA: N=4,218; EN: N=4,281; US: N=4,177; NZ: N=1,019



*than 'regular' tobacco cigarettes

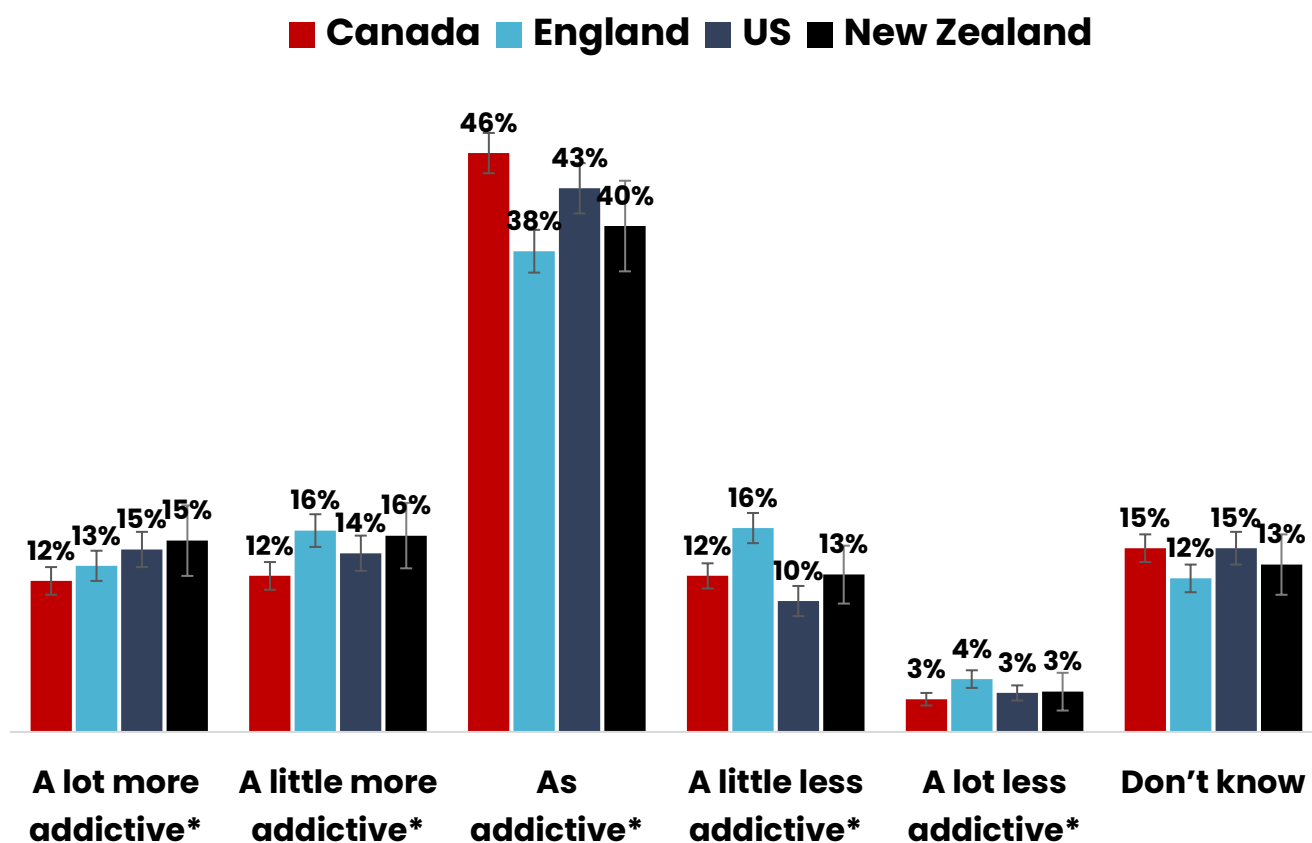
Perceptions of risk

Addictiveness relative to cigarettes

When respondents were asked about the relative addictiveness of e-cigarettes compared with “regular” tobacco cigarettes, the most common response in each country was ‘as addictive’. Slightly more youth in England responded that e-cigarettes were less addictive, but country differences were generally not pronounced.

Is using e-cigarettes/vaping less addictive, about the same, or more addictive than smoking cigarettes?

YOUTH AGED 16-19, 2023, CA: N=4,216; EN: N=4,279; US: N=4,180; NZ: N=1,019



*than 'regular' tobacco cigarettes

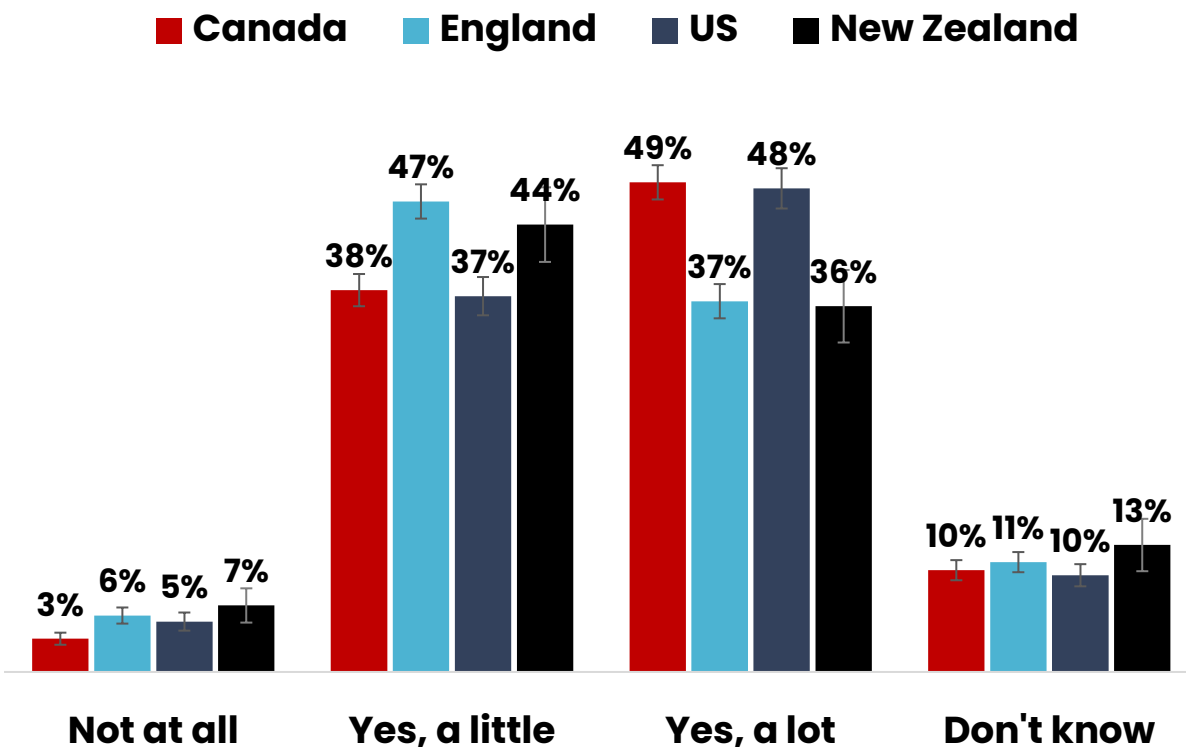
Perceptions of risk

Harm of addiction

When respondents were asked about their perceptions of addiction to vaping, most thought that addiction was harmful on its own, even if it doesn't cause physical health problems. More youth in Canada and the US selected 'yes, a lot', while more youth in England and New Zealand selected 'yes, a little'.

Do you think addiction to e-cigarettes/vaping is harmful on its own, even if it doesn't cause physical health problems?

YOUTH AGED 16-19, 2023, CA: N=4,217; EN: N=4,274; US: N=4,171; NZ: N=1,017



Health effects of vaping

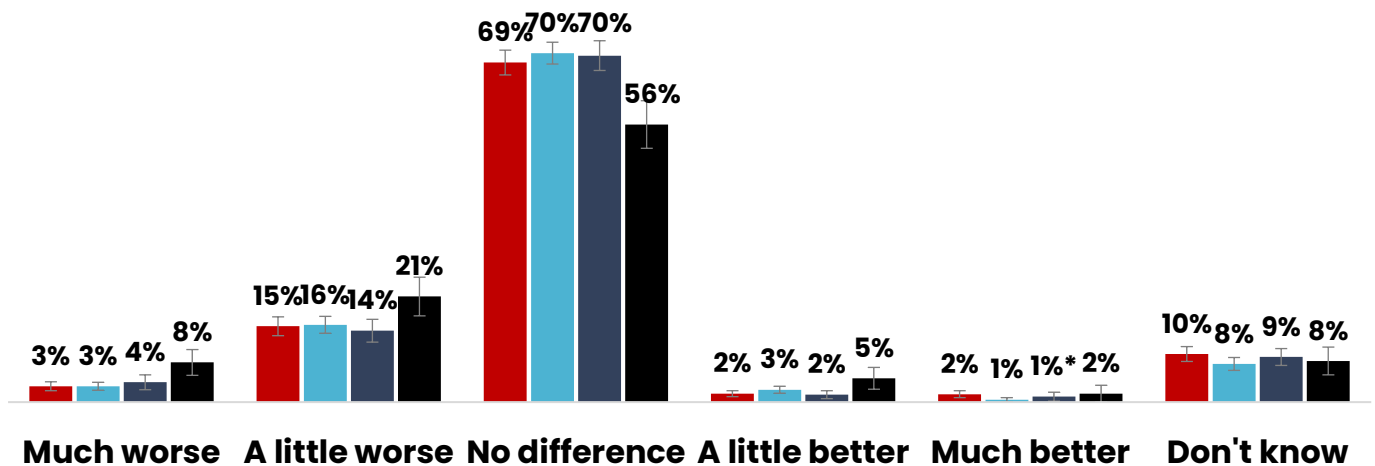
When youth who reported ever vaping were asked effects on their physical and mental health, responses were similar across countries. While most youth reported no impact, a greater proportion reported negative effects on their physical health (particularly in New Zealand), while similar proportions reported positive and negative effects on mental health.

Has vaping affected your physical health?

YOUTH AGED 16-19 WHO EVER VAPED, 2023

CA: N=1,612; EN: N=2,215; US: N=1,738; NZ: N=577

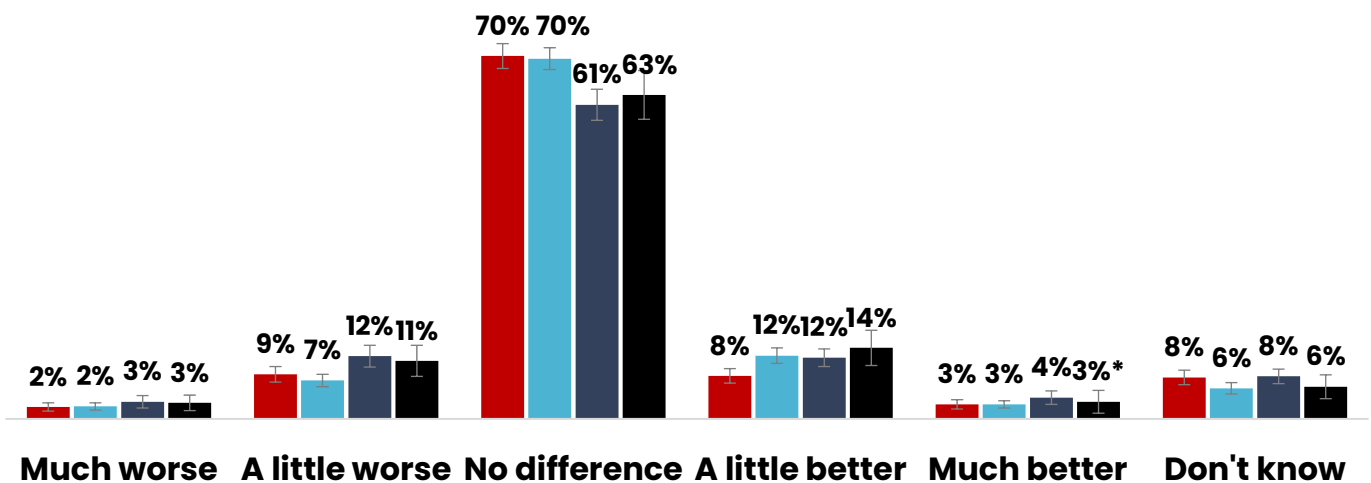
■ Canada ■ England ■ US ■ New Zealand



Has vaping affected your mental health?

YOUTH AGED 16-19 WHO EVER VAPED, 2023

CA: N=1,614; EN: N=2,214; US: N=1,736; NZ: N=577



*HIGH VARIABILITY OF ESTIMATE (CV>0.33).
REFUSED EXCLUDED FROM DENOMINATOR

Intentions to quit e-cigarettes

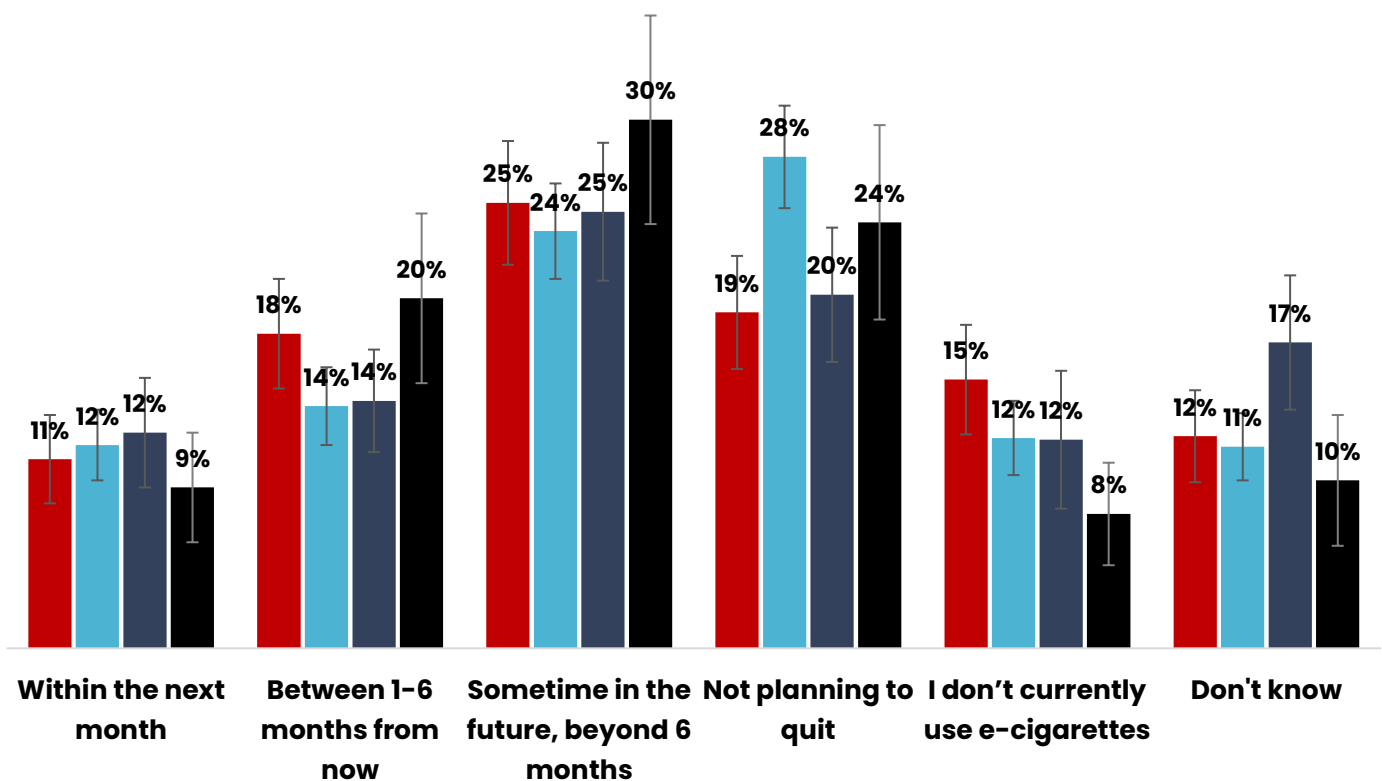
Youth who had vaped in the past 30 days were asked about their plans to quit. In 2023, more than one-quarter of youth who vaped in each country reported planning to quit within the next 6 months. One in five youth who vaped in Canada and the US, one-quarter in New Zealand, and slightly more in England, indicated that they had no plans to quit vaping.

Are you planning to quit using e-cigarettes/vaping ...

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2023

CA: N=710; EN: N=1,264; US: N=827; NZ: N=344

■ Canada ■ England ■ US ■ New Zealand



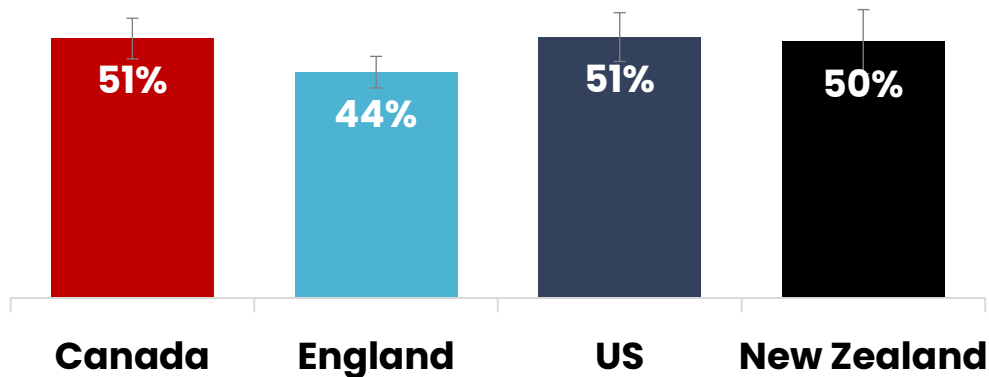
"ARE YOU PLANNING TO QUIT USING E-CIGARETTES/VAPING ... WITHIN THE NEXT MONTH; BETWEEN 1-6 MONTHS FROM NOW; SOMETIME IN THE FUTURE, BEYOND 6 MONTHS; NOT PLANNING TO QUIT; I DON'T CURRENTLY USE E-CIGARETTES; DON'T KNOW"; REFUSED EXCLUDED FROM DENOMINATOR

Attempts to quit e-cigarettes

Approximately half of youth who had vaped in the past 30 days in Canada, the US, and New Zealand, and slightly fewer in England, reported ever trying to quit vaping. Within each country, the proportion who reported trying to quit in the past year was only slightly lower, indicating that most of those who had ever tried to quit had attempted to do so recently.

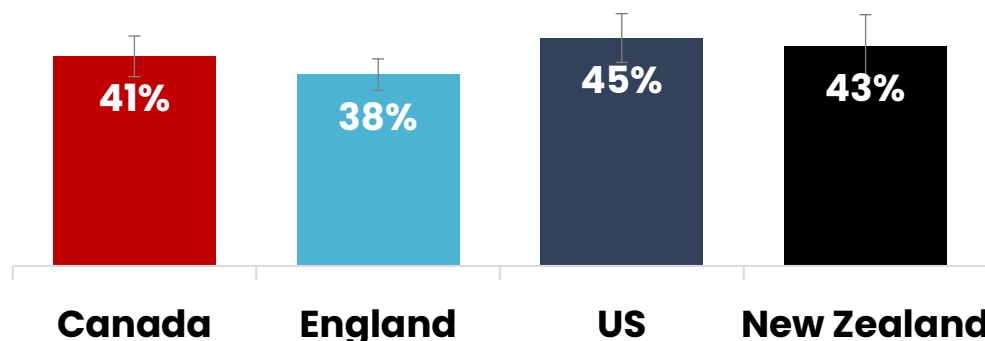
Have you ever tried to completely stop vaping?

% 'YES', YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2023
CA: N=707; EN: N=1,262; US: N=827; NZ: N=342



Have you tried to completely stop vaping in the LAST 12 MONTHS?

% 'YES', YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2023
CA: N=705; EN: N=1,262; US: N=827; NZ: N=343



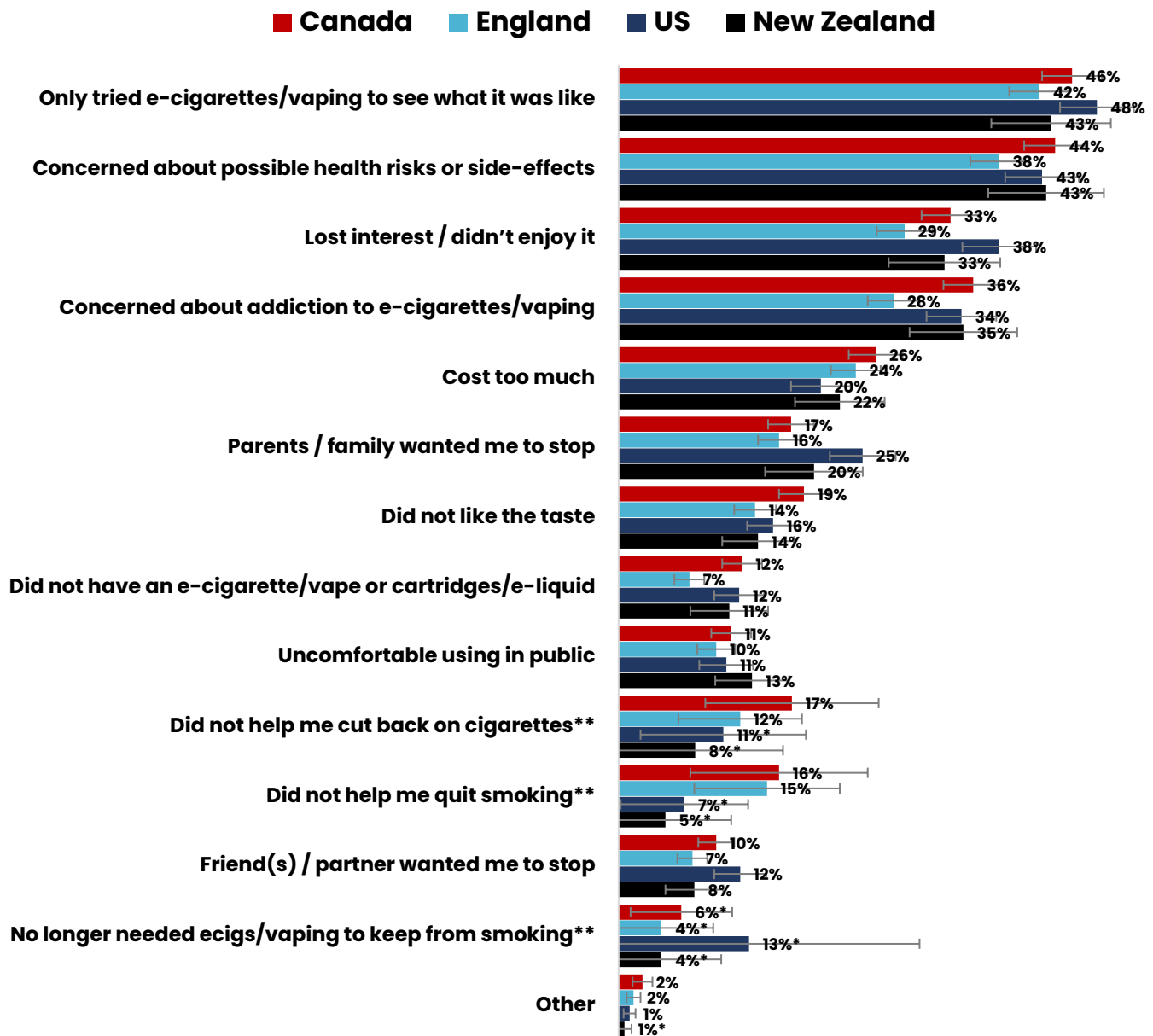
"HAVE YOU EVER TRIED TO COMPLETELY STOP USING E-CIGARETTES/VAPING?"; ASKED OF YOUTH WHO VAPED IN PAST 30 DAYS; "HAVE YOU TRIED TO COMPLETELY STOP USING E-CIGARETTES/VAPING IN THE LAST 12 MONTHS?"; ASKED OF YOUTH WHO VAPED IN PAST 12 MONTHS AND EVER TRIED TO QUIT; REFUSED EXCLUDED FROM DENOMINATOR

Reasons for quitting e-cigarettes

In 2023, the most common reason for quitting vaping, trying to quit, or stopping vaping was 'just trying' vaping, followed by concern about health risks, and lost interest/didn't enjoy it. The least common reasons related to vaping for the purpose of stopping/reducing smoking.

Reasons for stopping/trying to stop/not continuing to use e-cigarettes

AMONG YOUTH AGED 16-19 WHO STOPPED VAPING IN THE PAST YEAR, VAPED IN THE PAST 30 DAYS AND TRIED TO QUIT IN THE PAST YEAR, OR FORMERLY VAPED, 2023, N=4,308



*HIGH VARIABILITY OF ESTIMATE (CV>0.33)

**ASKED ONLY OF YOUTH WHO CURRENTLY OR FORMERLY SMOKED

"WHICH OF THE FOLLOWING ARE REASONS YOU [TRIED TO STOP USING/STOPPED USING/DID NOT CONTINUE] USING E-CIGARETTES/VAPING [IN THE LAST 12 MONTHS]?", WORDING DEPENDS ON VAPING STATUS; 'TRY IN LAST 12 MONTHS' ASKED OF YOUTH WHO VAPED IN PAST 30 DAYS AND WHO TRIED TO QUIT IN PAST 12 MONTHS, 'STOPPED IN PAST 12 MONTHS' AMONG YOUTH WHO VAPED IN PAST 12 MONTHS BUT DID NOT USE IN PAST 30 DAYS, 'DID NOT CONTINUE' AMONG YOUTH WHO EVER VAPED BUT DID NOT USE IN PAST 12 MONTHS; REFUSED EXCLUDED FROM DENOMINATOR

Alcohol use

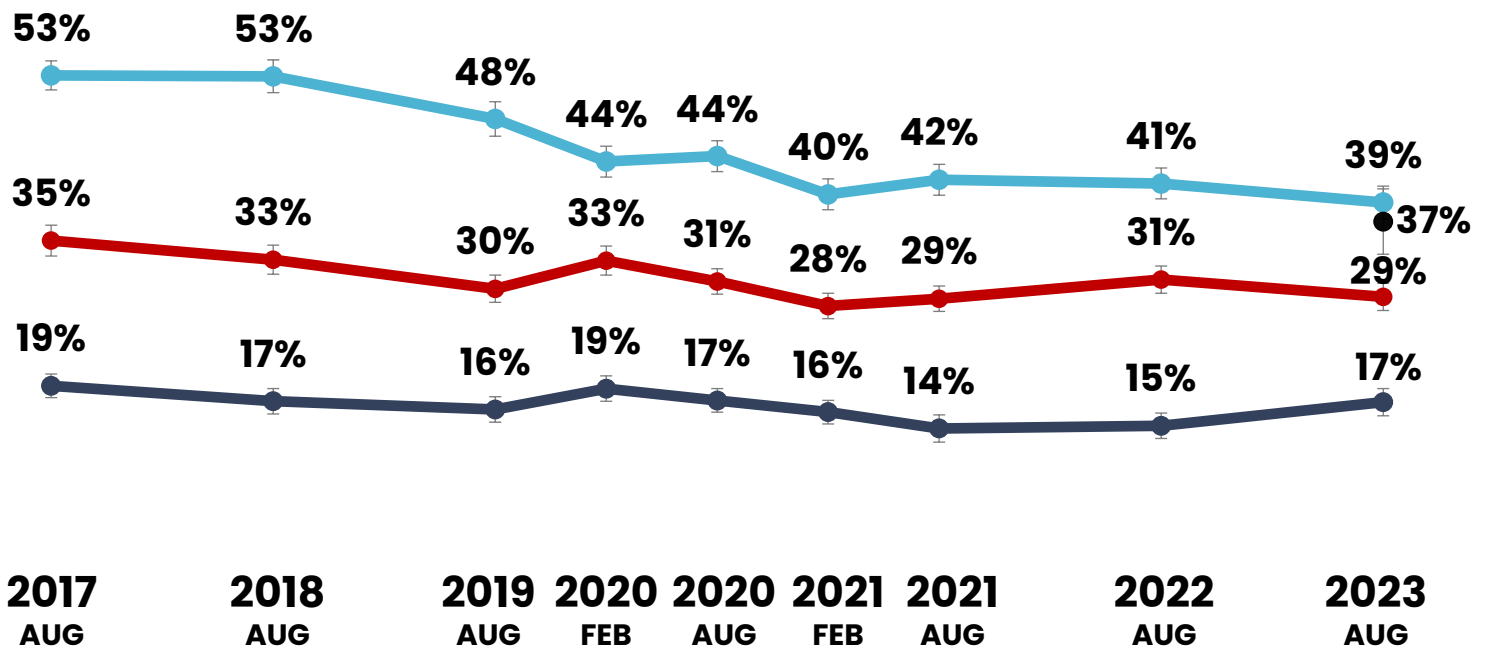
The proportion of youth who reported drinking alcohol at least monthly in the past 12 months varied substantially by country. Prevalence was highest in England, where over half of youth reported drinking in 2017, declining over time to around 40% in the most recent waves. Prevalence was nearly as high in New Zealand in 2023. In Canada, monthly drinking was reported by three in ten youth, down slightly from 2017. Prevalence was much lower in the US, at less than one in five in all years.

Alcohol use – monthly in the past 12 months

YOUTH AGED 16-19, 2017-2023

CA: N=36,912; EN: N=33,030; US: N=39,801; NZ: N=987

—●— Canada —●— England —●— US —●— New Zealand



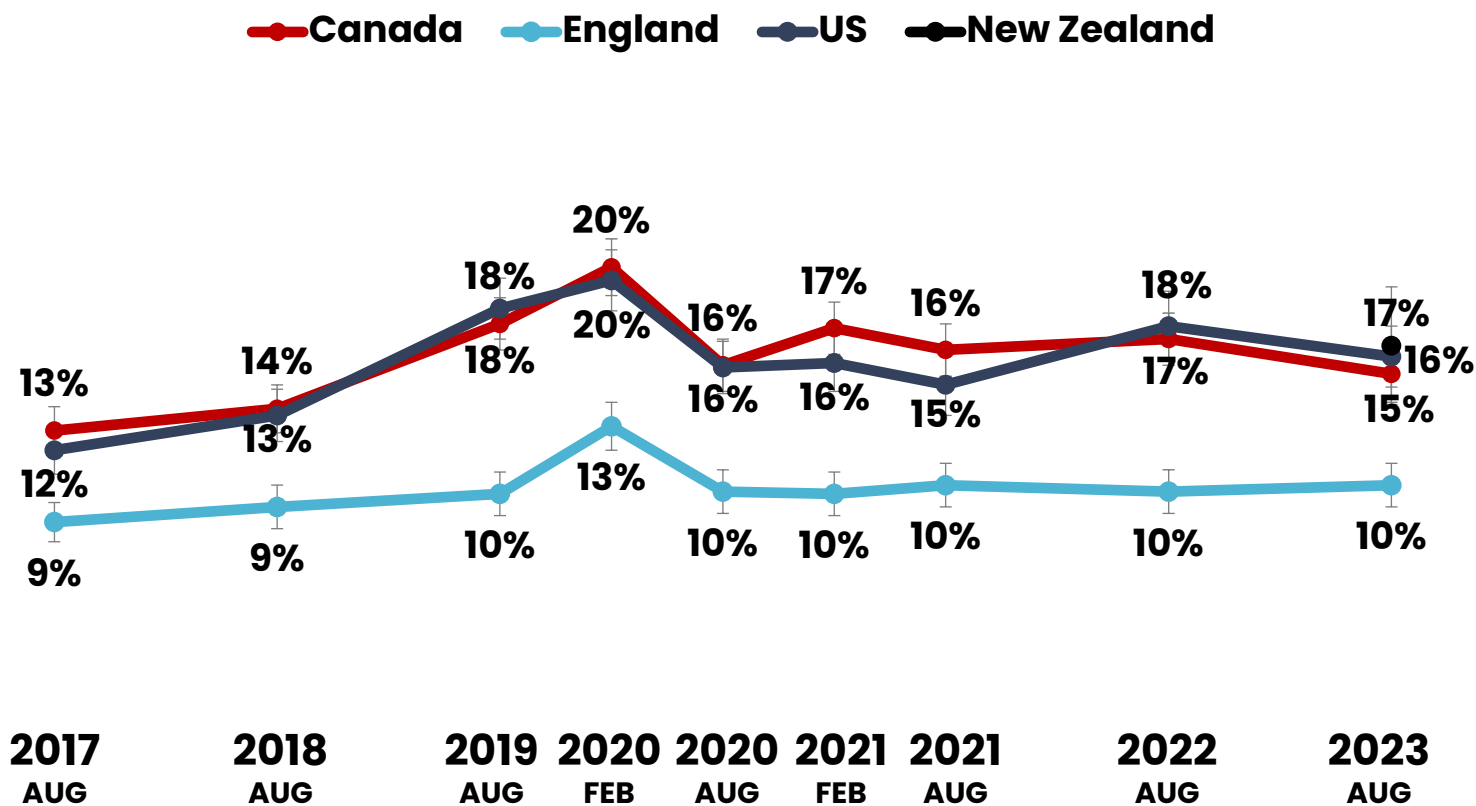
Cannabis use

Among youth aged 16-19, fewer youth in England reported using cannabis in the past 30 days than in other countries. Cannabis prevalence was very similar in Canada and the US over time: past 30-day use increased from 2017 to early 2020, then dropped slightly in 2020 and remained fairly stable. Prevalence in England was steady over time at about one in ten youth, except for a small bump in early 2020.

Cannabis use – past 30 days

YOUTH AGED 16-19, 2017-2023

CA: N=37,478; EN: N=36,045; US: N=40,506; NZ: N=983



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