

Trends in smoking and vaping among young people

FINDINGS FROM THE ITC YOUTH SURVEY

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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 three countries with differing policy environments: Canada, England and the United States. The first national survey was conducted in 2017, with annual waves in subsequent years (and additional semi-annual waves in 2020 and 2021).

The current report summarizes findings among youth respondents aged 16-19 in the three countries, including trends between 2017 and 2022. Additional details are available upon request.

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



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ETHICS CLEARANCE

THE PROJECT HAS BEEN REVIEWED BY AND RECEIVED ETHICS CLEARANCE THROUGH A UNIVERSITY OF WATERLOO RESEARCH ETHICS BOARD (ORE#21847/31017) AND THE KING'S COLLEGE LONDON PSYCHIATRY, NURSING & MIDWIFERY RESEARCH ETHICS SUBCOMMITTEE.

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Methods

OVERVIEW

The ITC Youth 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), to examine trends in tobacco use and vaping. This report summarizes key indicators from the surveys in the three countries, with a focus on the 2022 wave.

SAMPLE

Respondents included youth aged 16–19 years, recruited through the Nielsen Consumer Insights Global Panel in all countries. The Nielsen panel is recruited using both probability and non-probability sampling methods in each country. Nielsen selected random samples from the online panel(s) in each country. Recruitment targets at each wave included 4,500 respondents aged 16–19 in each of Canada, England, and the United States. Respondents received remuneration in accordance with their panel's usual incentive structure. The current report summarizes findings over eight waves between 2017 and 2022.

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:

<http://davidhammond.ca/projects/e-cigarettes/itc-youth-tobacco-ecig/>

The technical reports include detailed information on methodology and survey weighting.

Sample

Weighted estimates	Canada n=34,114	England n=32,824	US n=37,529	Total n=104,467
Age				
16 years	22.6%	21.2%	22.8%	22.2%
17 years	25.2%	27.9%	26.7%	26.6%
18 years	29.6%	31.8%	29.8%	30.4%
19 years	22.6%	19.2%	20.7%	20.5%
Sex				
Female	48.8%	48.6%	48.9%	48.8%
Male	51.2%	51.4%	51.1%	51.2%
Race/ethnicity				
White (only)	54.3%	75.0%	71.3%	66.9%
Any other/not stated	45.7%	25.0%	28.7%	33.1%
Current student	93.0%	91.7%	91.1%	91.9%
Family financial status*				
Not meeting basic expenses	3.5%	3.3%	4.5%	3.8%
Just meeting basic expenses	21.2%	22.9%	23.8%	22.6%
Meeting needs with a little left over	34.4%	34.9%	32.1%	33.7%
Living comfortably	36.0%	34.3%	34.9%	35.1%
Not stated	4.9%	4.7%	4.7%	4.8%
Survey wave				
W1 - 2017 July/Aug	11.8%	12.2%	10.9%	11.6%
W2 - 2018 Aug/Sept	11.3%	11.8%	10.7%	11.3%
W3 - 2019 Aug/Sept	12.1%	10.6%	10.6%	11.1%
W3.5 - 2020 Feb/Mar	12.4%	13.0%	13.7%	13.0%
W4 - 2020 Aug	12.5%	13.1%	16.0%	13.9%
W4.5 - 2021 Feb/Mar	13.5%	13.1%	14.1%	13.6%
W5 - 2021 Aug/Sept	13.5%	13.1%	13.0%	13.2%
W6 - 2022 Aug/Sept	12.9%	13.0%	11.0%	12.3%

*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’

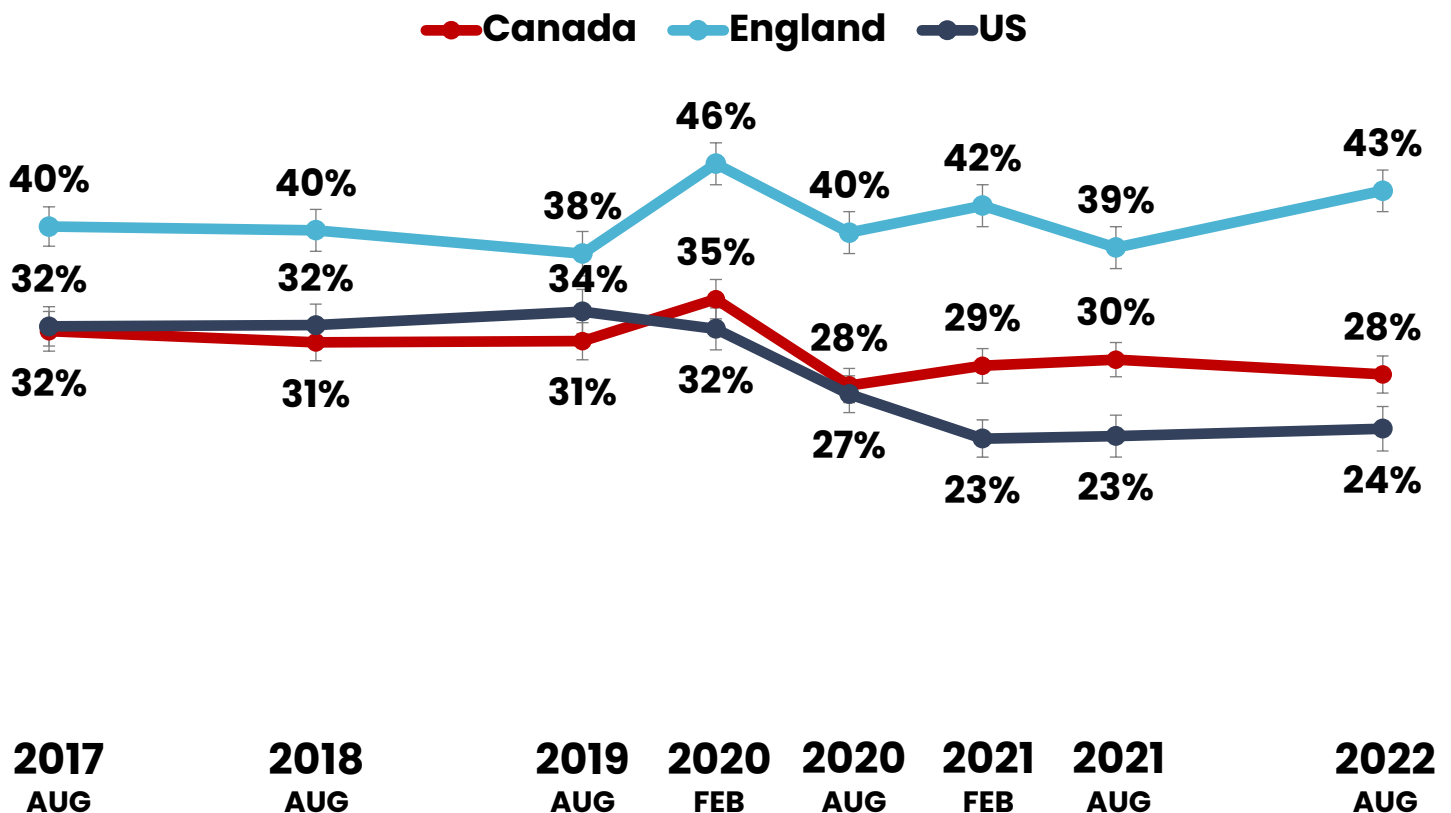
While the majority of youth aged 16–19 in all three countries reported never having smoked a cigarette, prevalence of ever smoking was highest in England in all years. Ever smoking appears to have declined most among youth in the US, down to one in four in 2022.

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 observed in national surveys.

Prevalence of ever smoking cigarettes

ALL RESPONDENTS AGED 16–19, 2017–2022

CA: N=34,114; EN: N=32,824; US: N=37,529



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

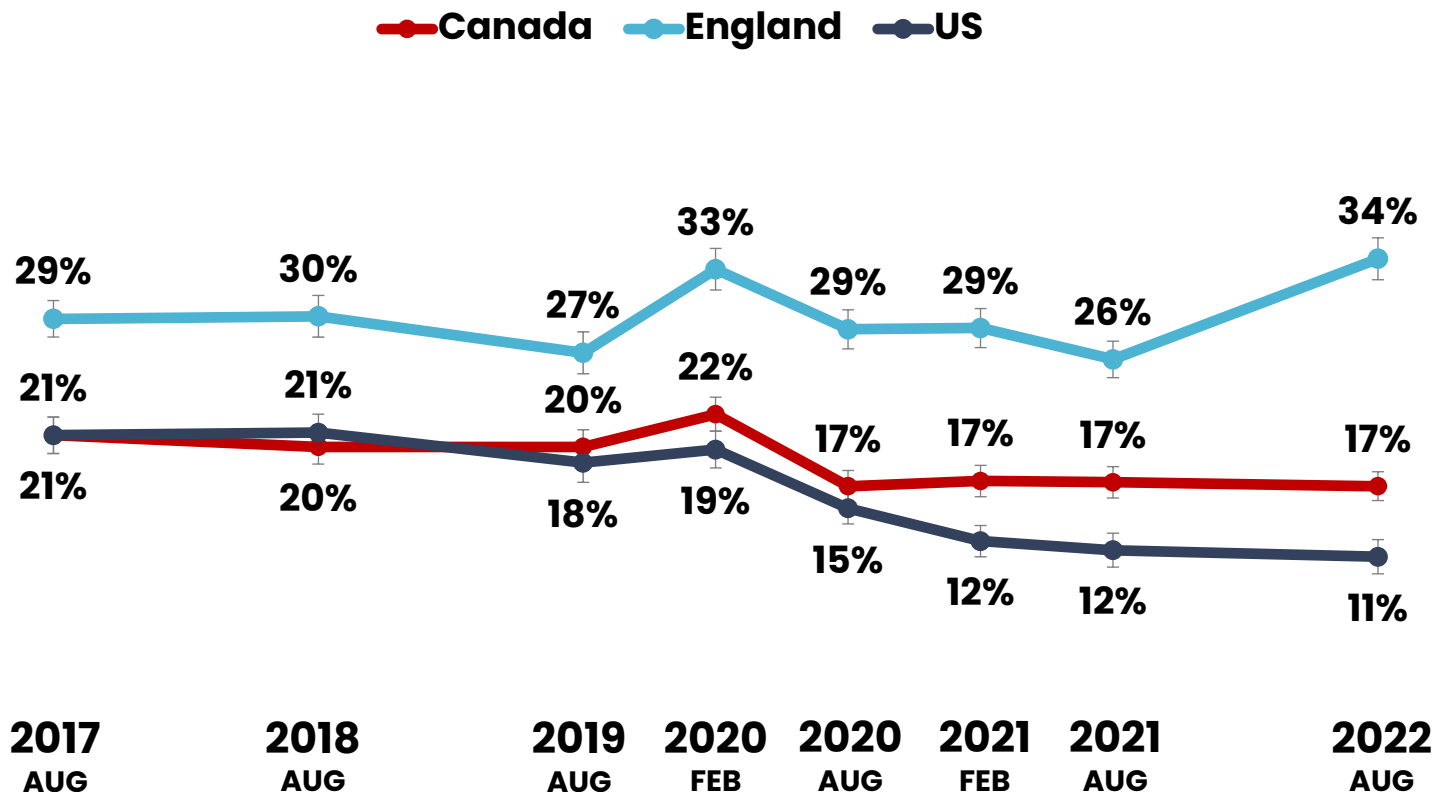
Smoking – Past 12 months

As with ever smoking, prevalence of smoking in the past 12 months was greatest in England in all years. Time trends in Canada and the US suggest that past 12-month smoking prevalence was fairly stable for several years, dropping somewhat after early 2020 (particularly in the US) and remaining lower since.

Prevalence of smoking in the past 12 months

ALL RESPONDENTS AGED 16-19, 2017-2022

CA: N=34,114; EN: N=32,824; US: N=37,529



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

Smoking – Past 30 days

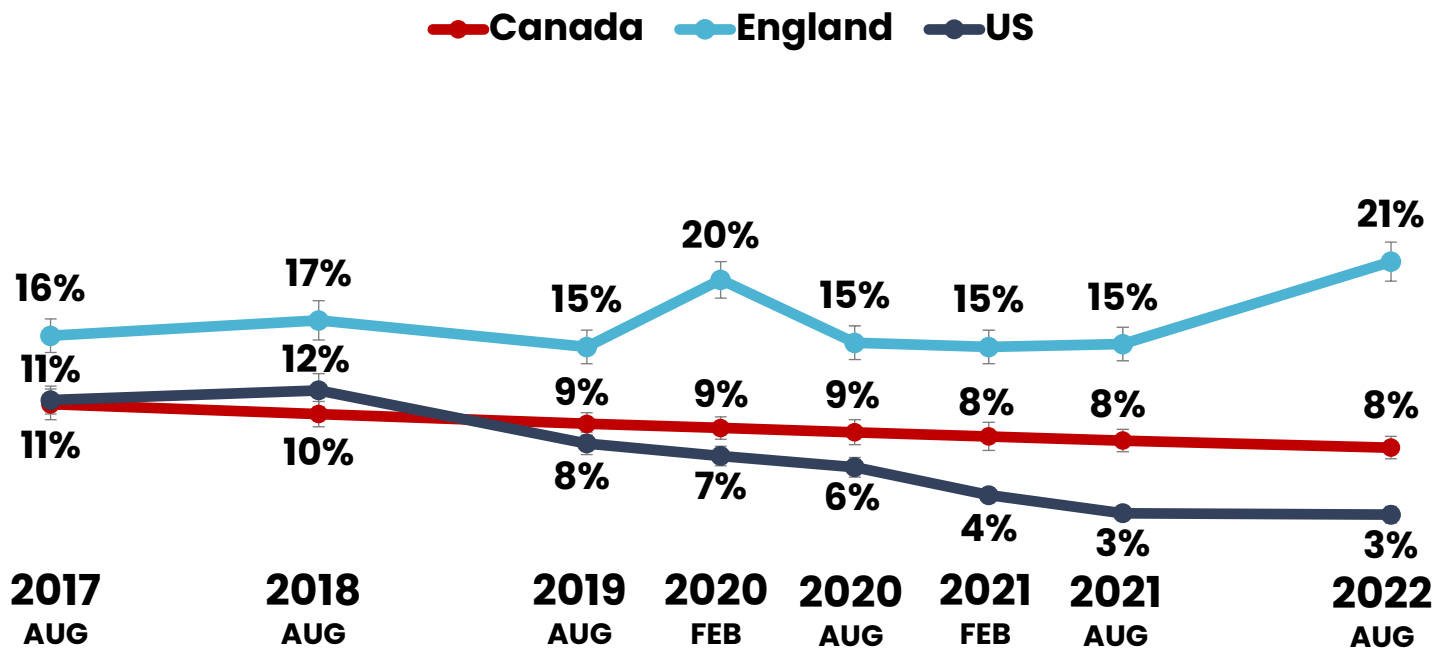
Since 2017, past 30-day smoking prevalence has declined very slowly in Canada, but a more pronounced decline was observed in the US. In England, prevalence remained around 15% in most years, but increased to approximately one in five youth in 2022.

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, 2017-2022

CA: N=34,114; EN: N=32,824; US: N=37,529



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

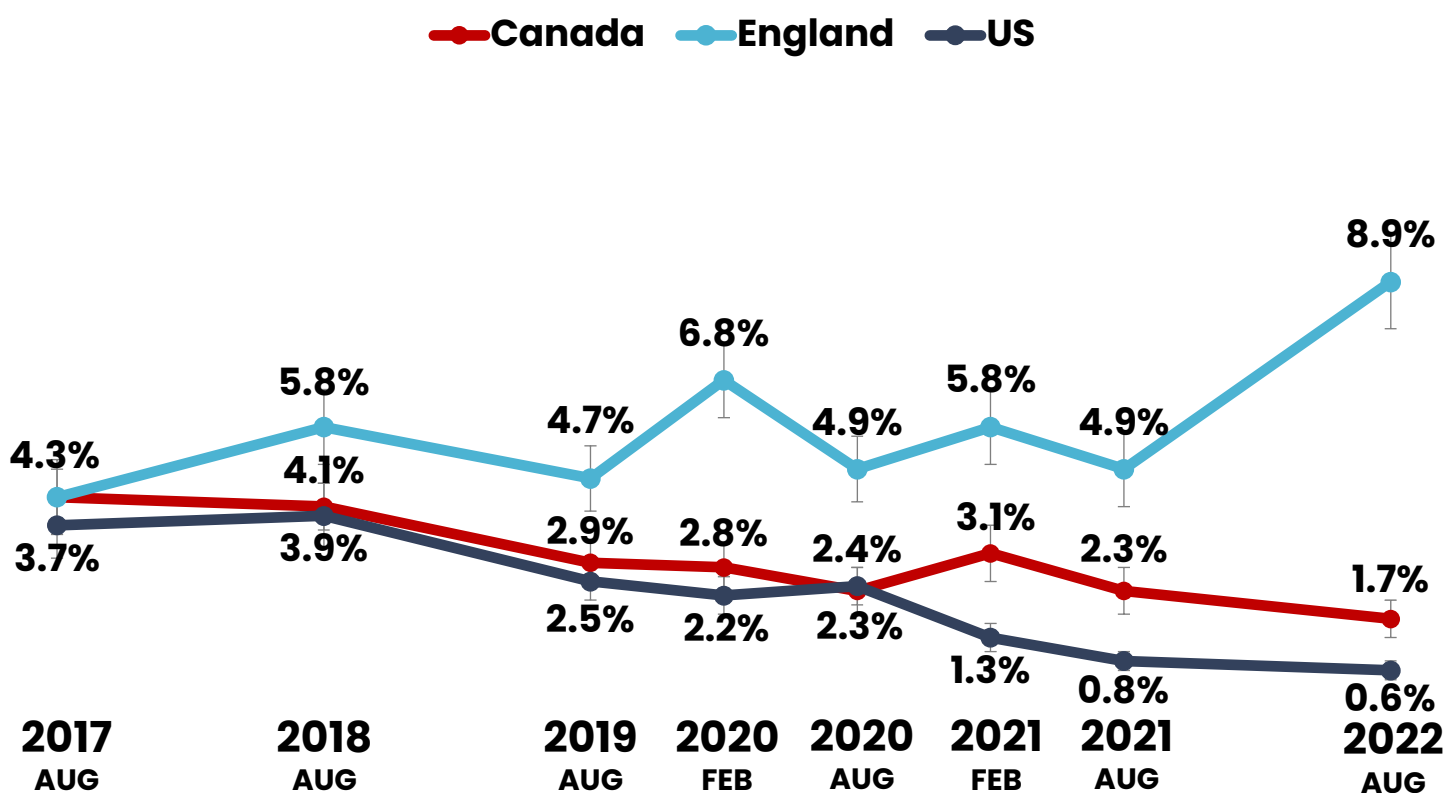
Smoking – 20+ days per month

A small and declining proportion of youth aged 16–19 in Canada and the US reported smoking on 20 or more of the past 30 days. In England, however, while 2017 prevalence was similar to Canada and the US, it remained slightly above this level for most waves, then appeared to increase in 2022.

Prevalence of smoking ≥ 20 days in the past 30 days

ALL RESPONDENTS AGED 16–19, 2017–2022

CA: N=34,114; EN: N=32,824; US: N=37,529



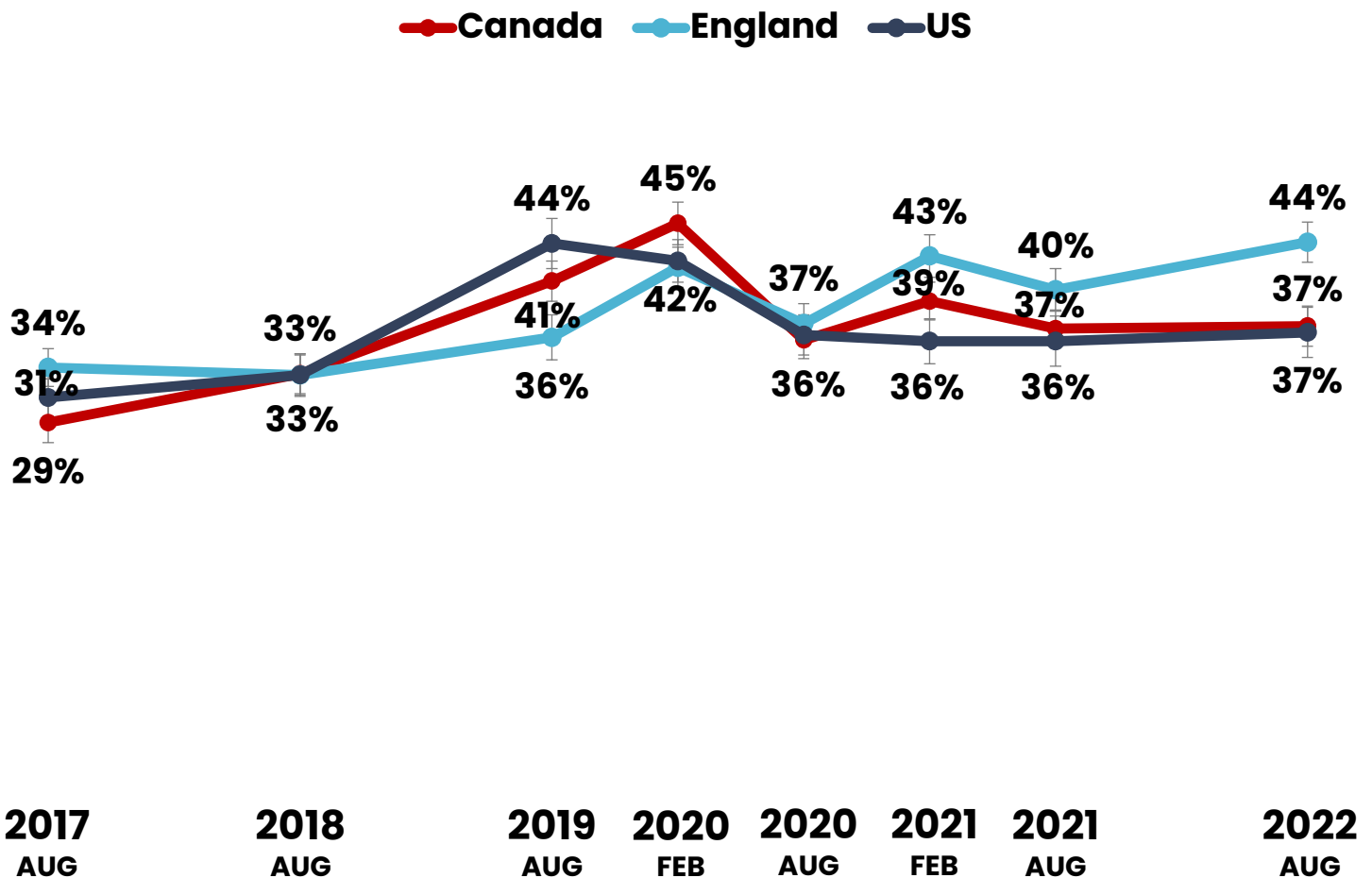
NOTE: YOUTH SURVEY WEIGHTS ARE SCALED TO THE PAST 30-DAY SMOKING TREND IN CANADA (CSTADS) AND THE US (NYTS).

Vaping – ‘Ever’

As with smoking, the majority of youth aged 16–19 in all three countries reported that they had never vaped. Prevalence of ever vaping 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 stable. In England, it appears that ever vaping continues to increase.

Prevalence of ever vaping

ALL RESPONDENTS AGED 16–19, 2017–2022
 CA: N=34,114; EN: N=32,824; US: N=37,529



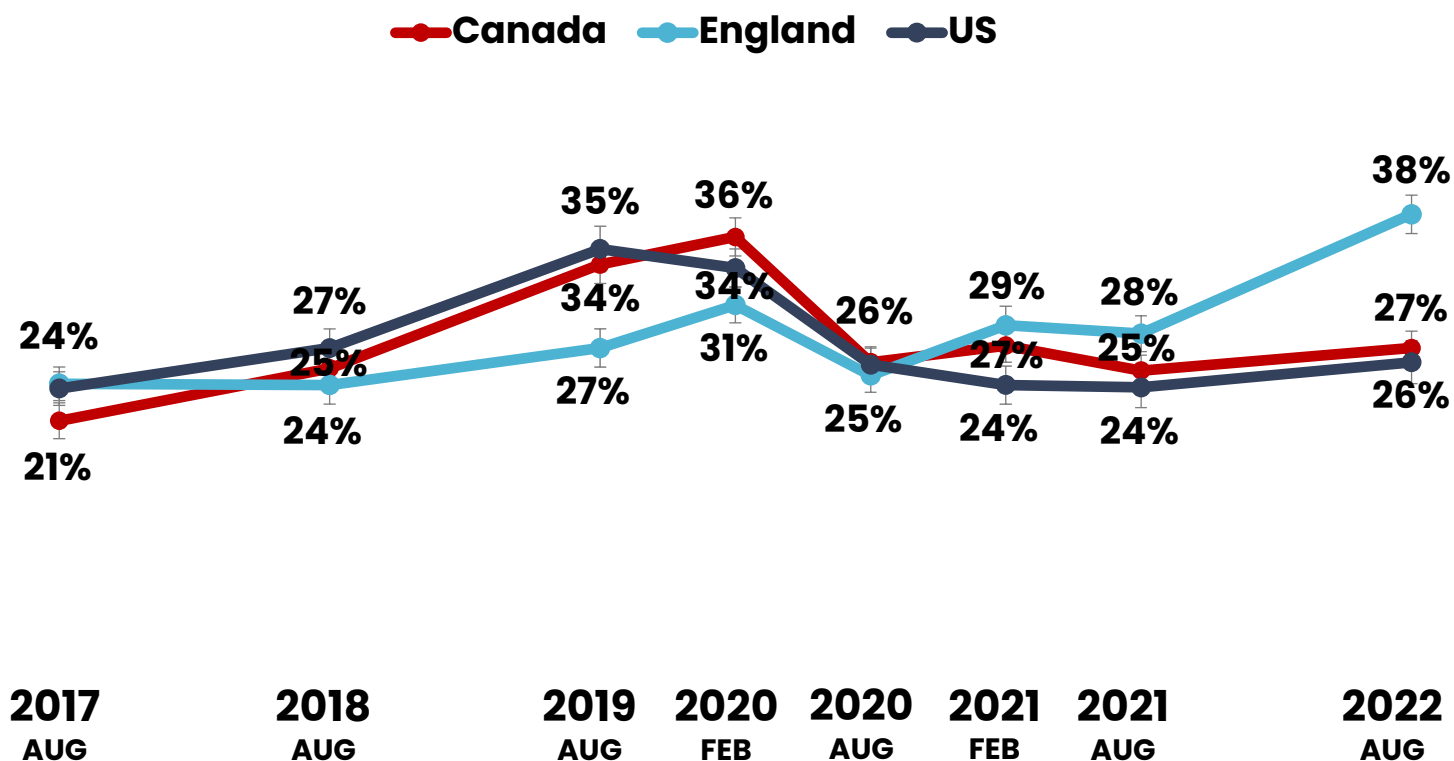
Vaping – Past 12 months

Past 12-month vaping prevalence among youth aged 16–19 was similar across countries in most waves. While prevalence in England appeared to lag behind the increases observed in Canada and the US between 2017 and 2019/early 2020, it was comparable through 2021 and appeared to increase sharply in 2022.

Prevalence of vaping in the past 12 months

ALL RESPONDENTS AGED 16–19, 2017–2022

CA: N=34,114; EN: N=32,824; US: N=37,529



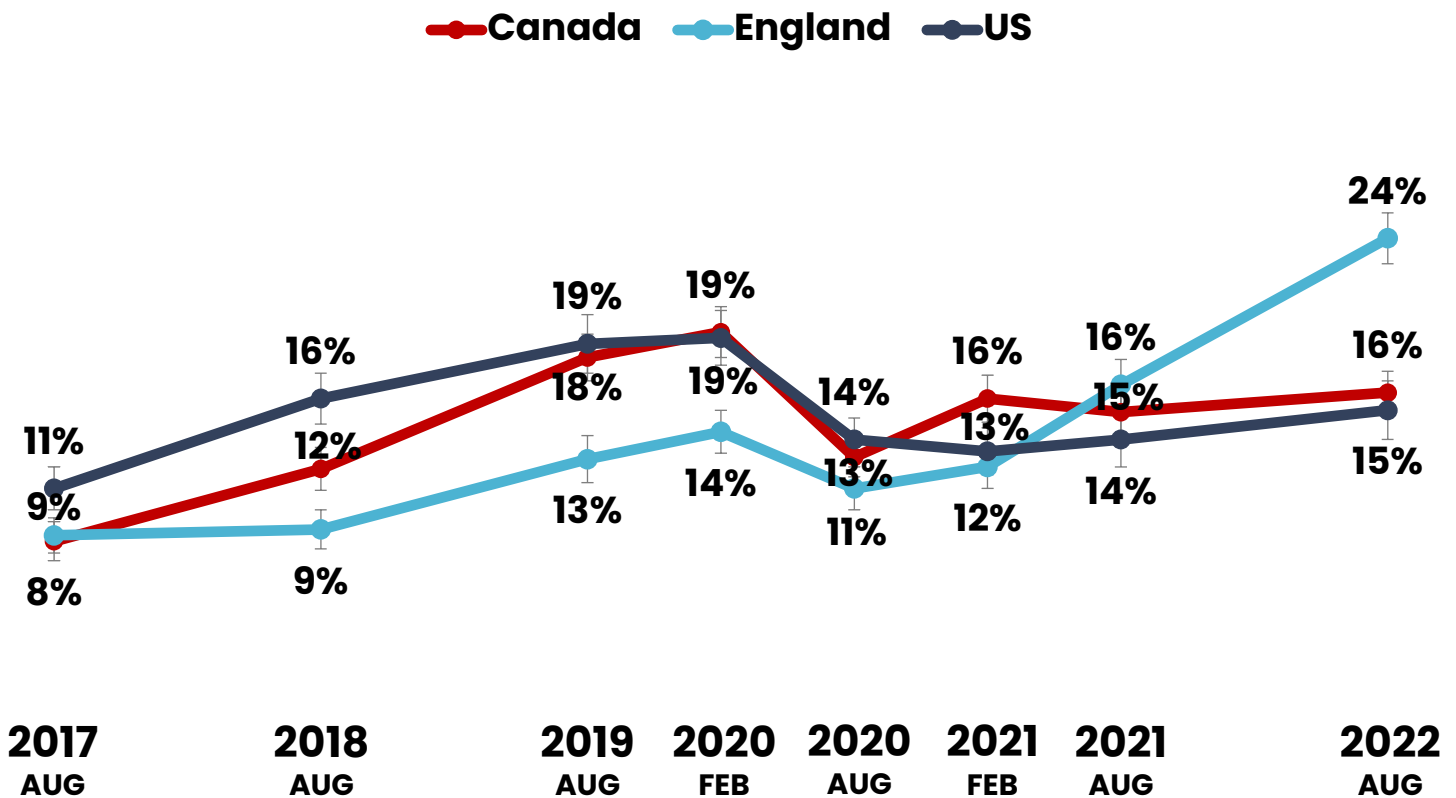
Vaping – Past 30 days

Patterns of past 30-day vaping prevalence among youth aged 16–19 were fairly similar in Canada and the US: increasing from 2017 to a peak in early 2020, subsequently dropping in 2020 before somewhat rebounding. In England, past 30-day vaping prevalence generally increased slowly between 2017 and 2021 before increasing sharply in 2022.

Prevalence of vaping in the past 30 days

ALL RESPONDENTS AGED 16–19, 2017–2022

CA: N=34,114; EN: N=32,824; US: N=37,529



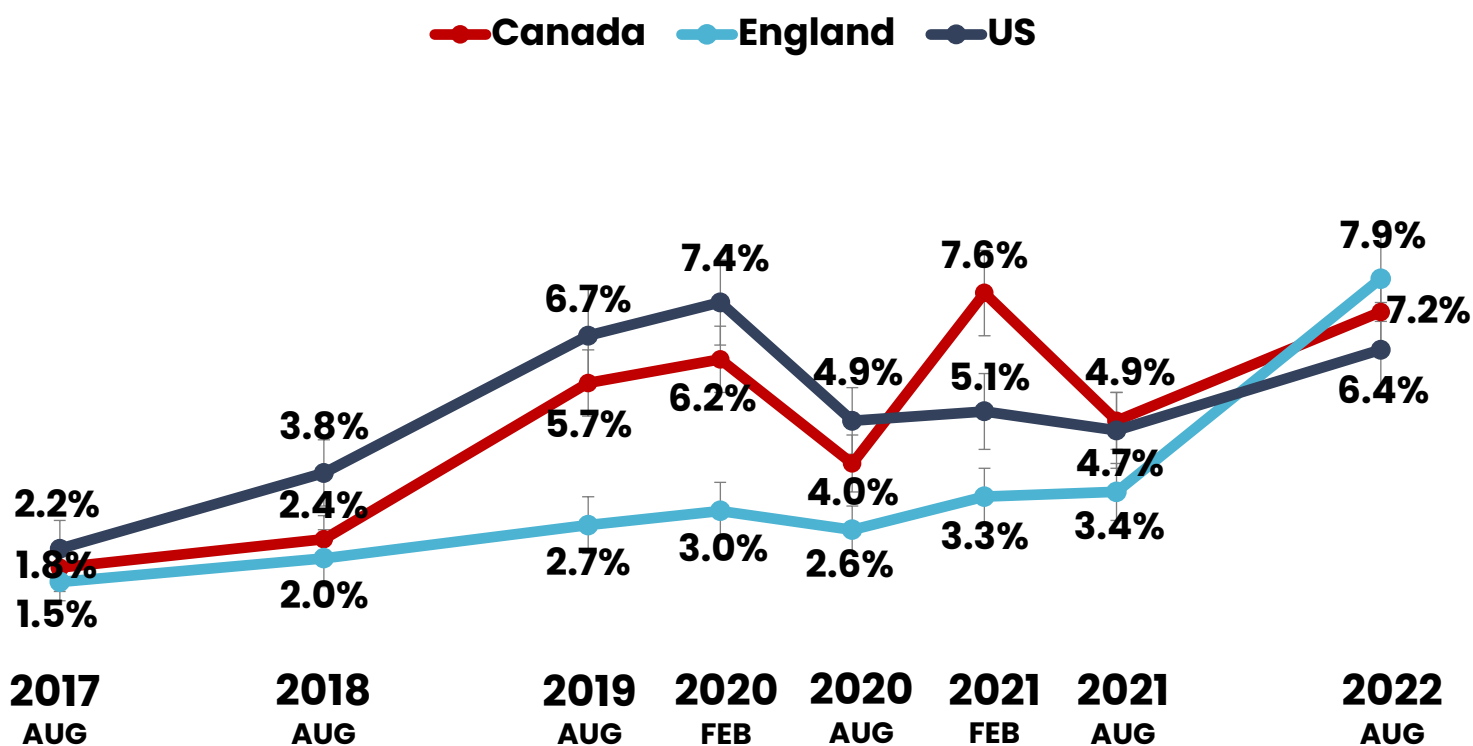
Vaping – 20+ days per month

In 2017, very few youth aged 16–19 (~2%) reported vaping on 20 or more of the past 30 days. In 2022, estimates had risen to 6–8% in all three countries, although the 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.

Prevalence of vaping ≥20 days in the past 30 days

ALL RESPONDENTS AGED 16–19, 2017–2022

CA: N=34,114; EN: N=32,824; US: N=37,529



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.

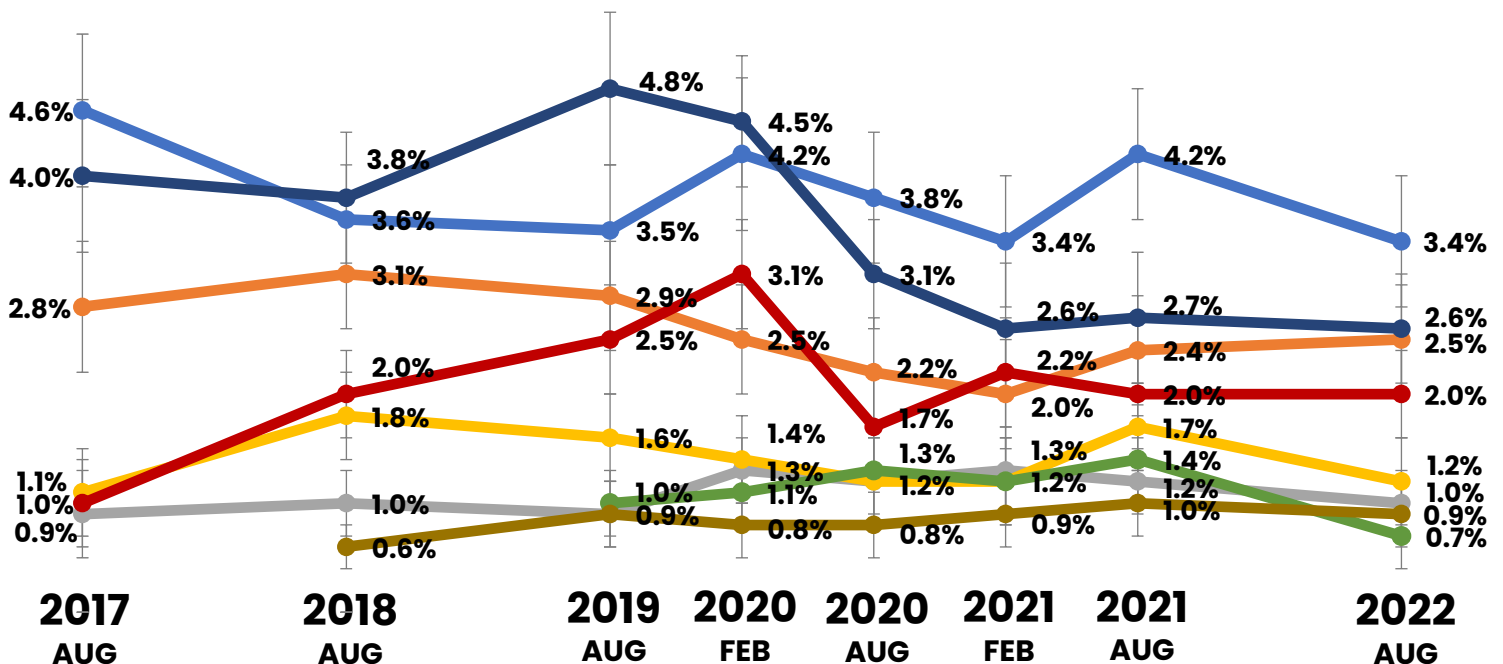


Past 30-day use of other tobacco products

ALL RESPONDENTS AGED 16–19, 2017–2022, CANADA, N=34,114

- Cigarillos/little cigars
- Cigars
- Bidis
- Smokeless tobacco
- Nicotine patches, gum, or lozenges
- Nicotine pouches without tobacco
- Water-pipe to smoke shisha
- Heated tobacco*

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



*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

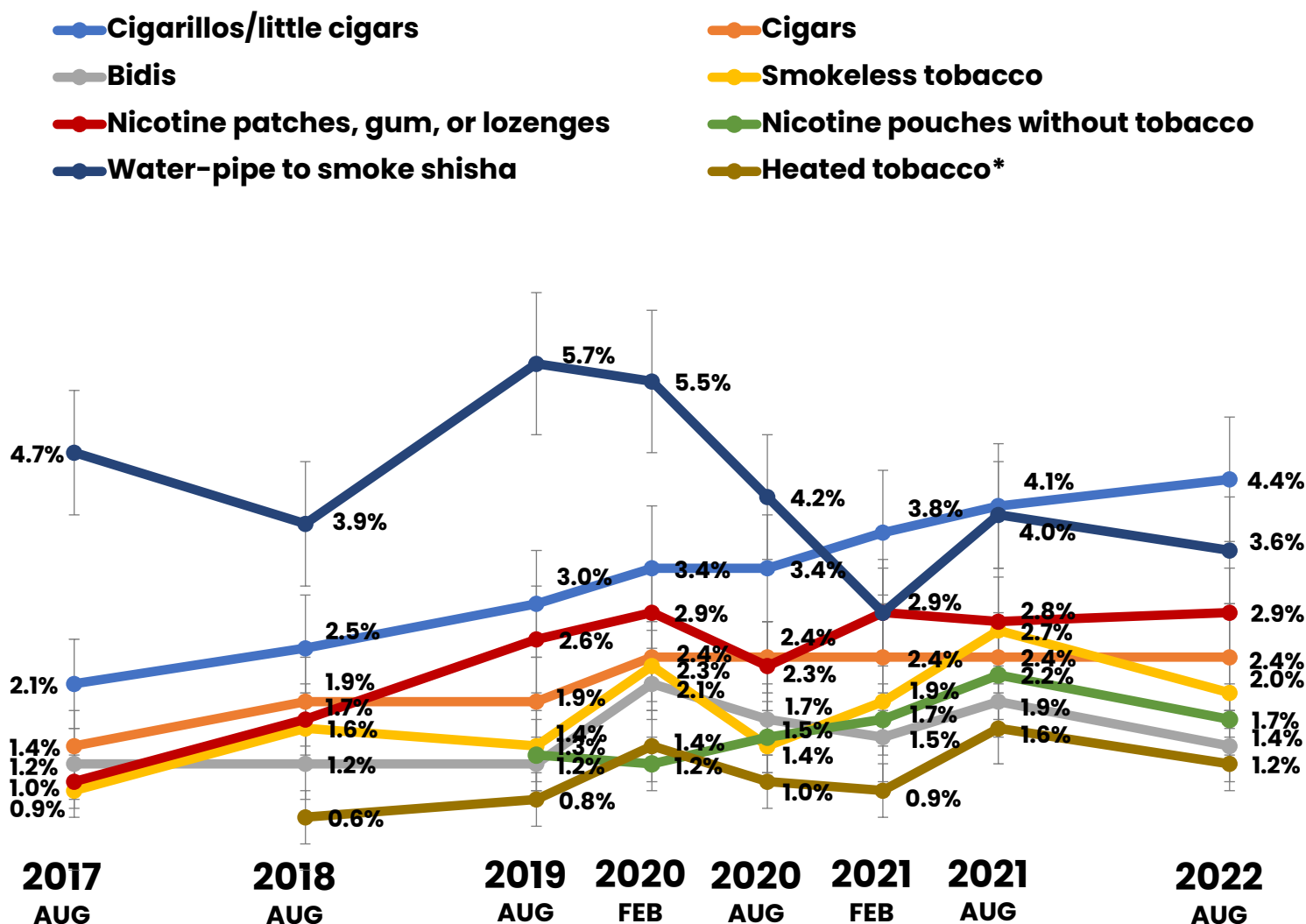
England

In England, 4–6% of youth aged 16–19 reported use of waterpipe in the past 30 days in most years, apparently peaking in 2019 and early 2020, and dipping in early 2021. Cigarillo/little cigar use was 2% in 2017, but increased steadily, doubling by 2022. Use of other non-cigarette tobacco or nicotine products was less common.



Past 30-day use of other tobacco products

ALL RESPONDENTS AGED 16-19, 2017-2022, ENGLAND, N=32,824



*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

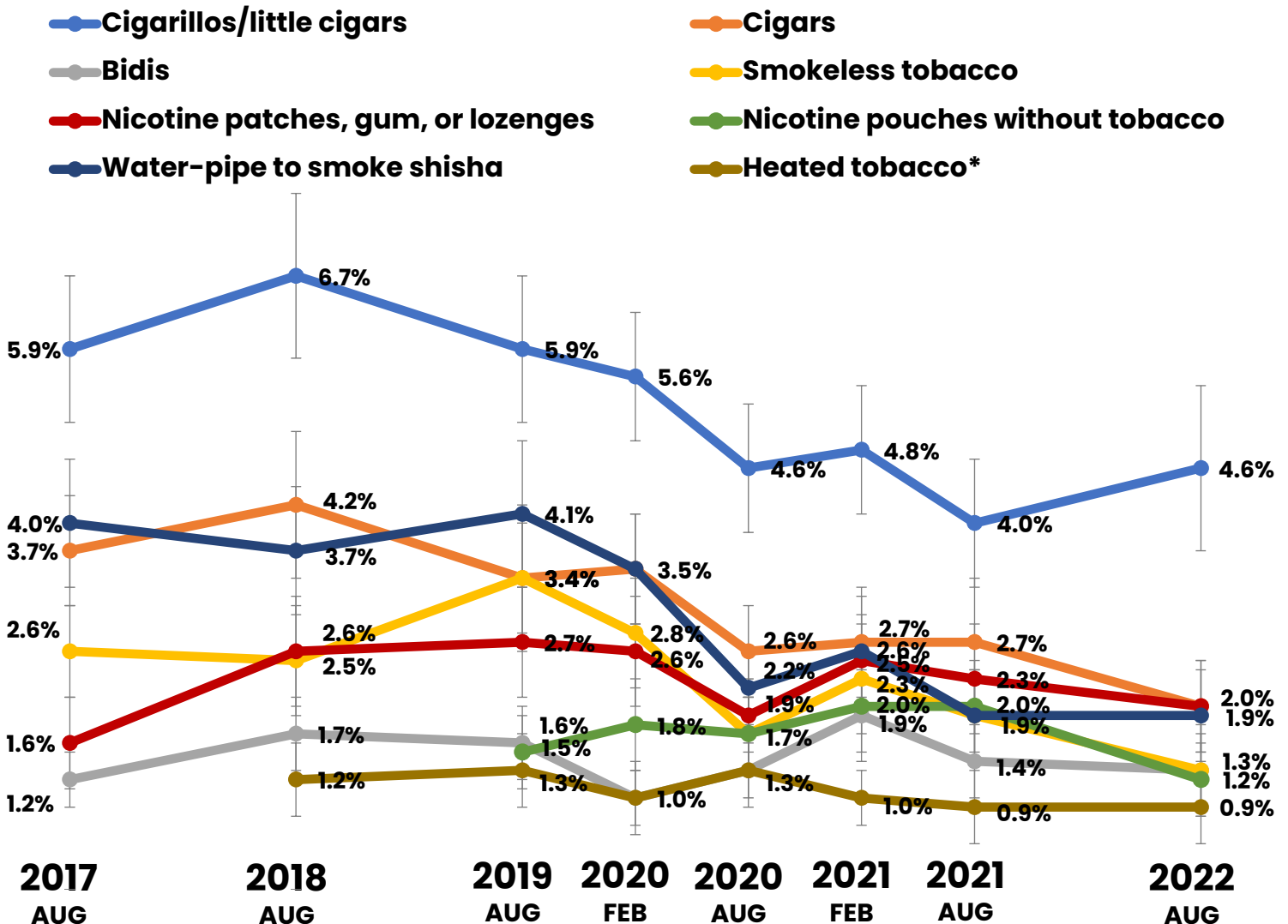
United States

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.



Past 30-day use of other tobacco products

ALL RESPONDENTS AGED 16-19, 2017-2022, US, N=37,529



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

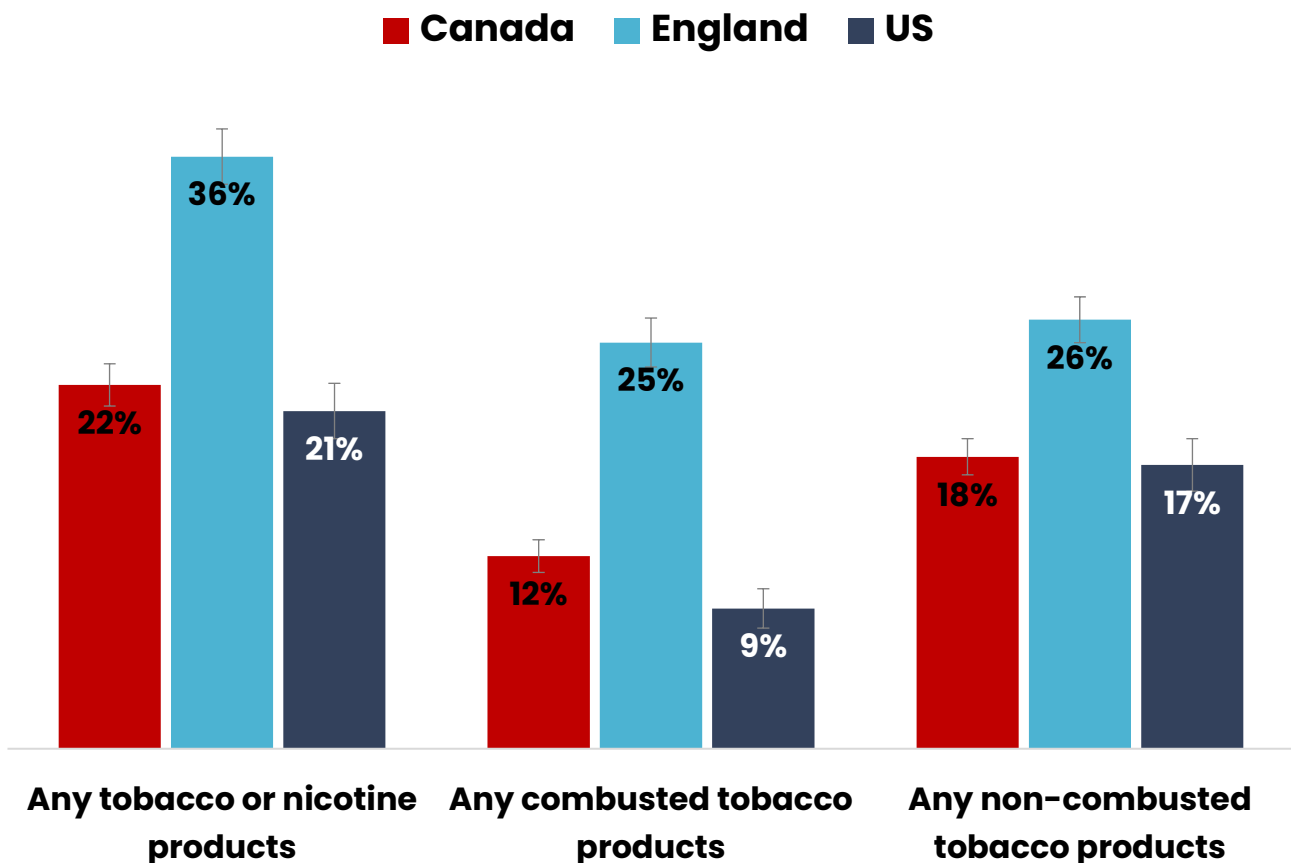
Use of any tobacco/nicotine products

In 2022, more than one-third of youth aged 16-19 in England 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 was more than double that of youth Canada and the US; however, this difference in prevalence was smaller for non-combusted products.

Past 30-day use of any tobacco or nicotine products

ALL RESPONDENTS AGED 16-19, 2022

CA: N=4,395; EN: N=4,283; US: N=4,142



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

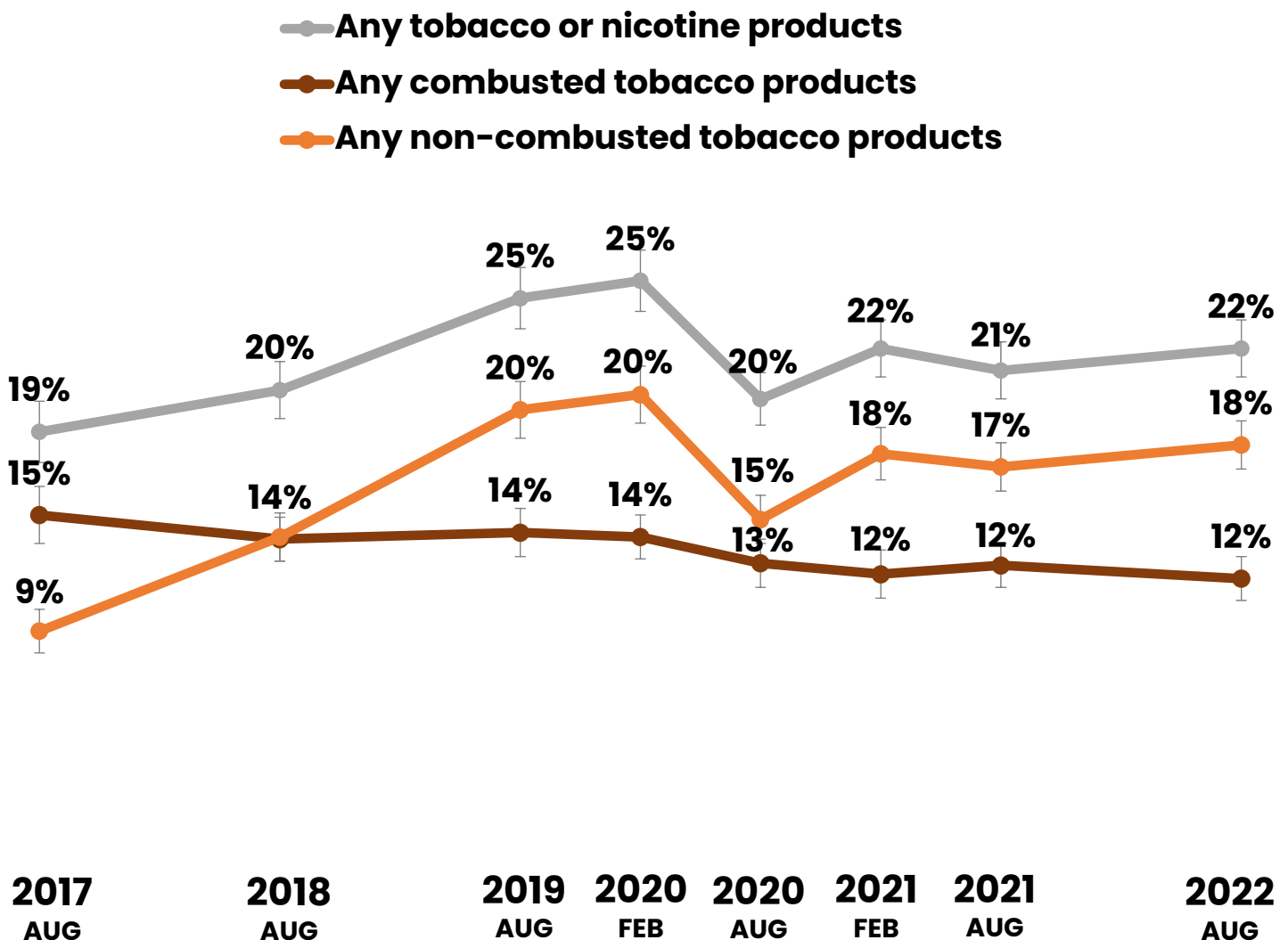
Use of any tobacco/nicotine products Canada

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 in subsequent waves.



Past 30-day use of any tobacco or nicotine products

ALL RESPONDENTS AGED 16-19, 2017-2022, CANADA, N=34,114



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

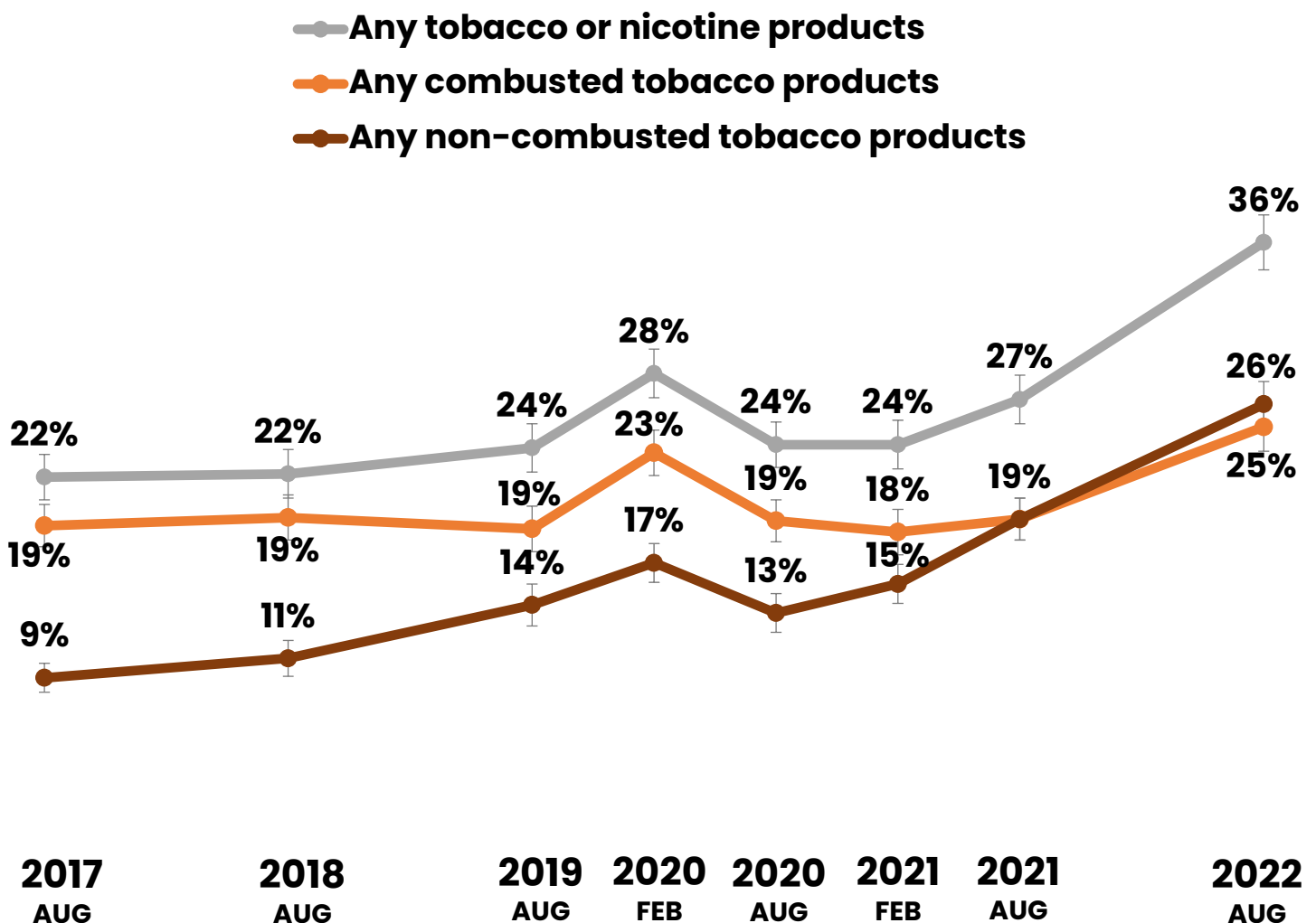
Use of any tobacco/nicotine products England

In England, use of combusted and non-combusted tobacco products both increased between 2017 and 2022, with the largest increases occurring in the most recent waves. Over time, while use of combusted tobacco products accounted for most of the total prevalence of tobacco use, non-combusted products increased more readily, equaling combusted products by late 2021.



Past 30-day use of any tobacco or nicotine products

ALL RESPONDENTS AGED 16-19, 2017-2022, ENGLAND, N=32,824



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

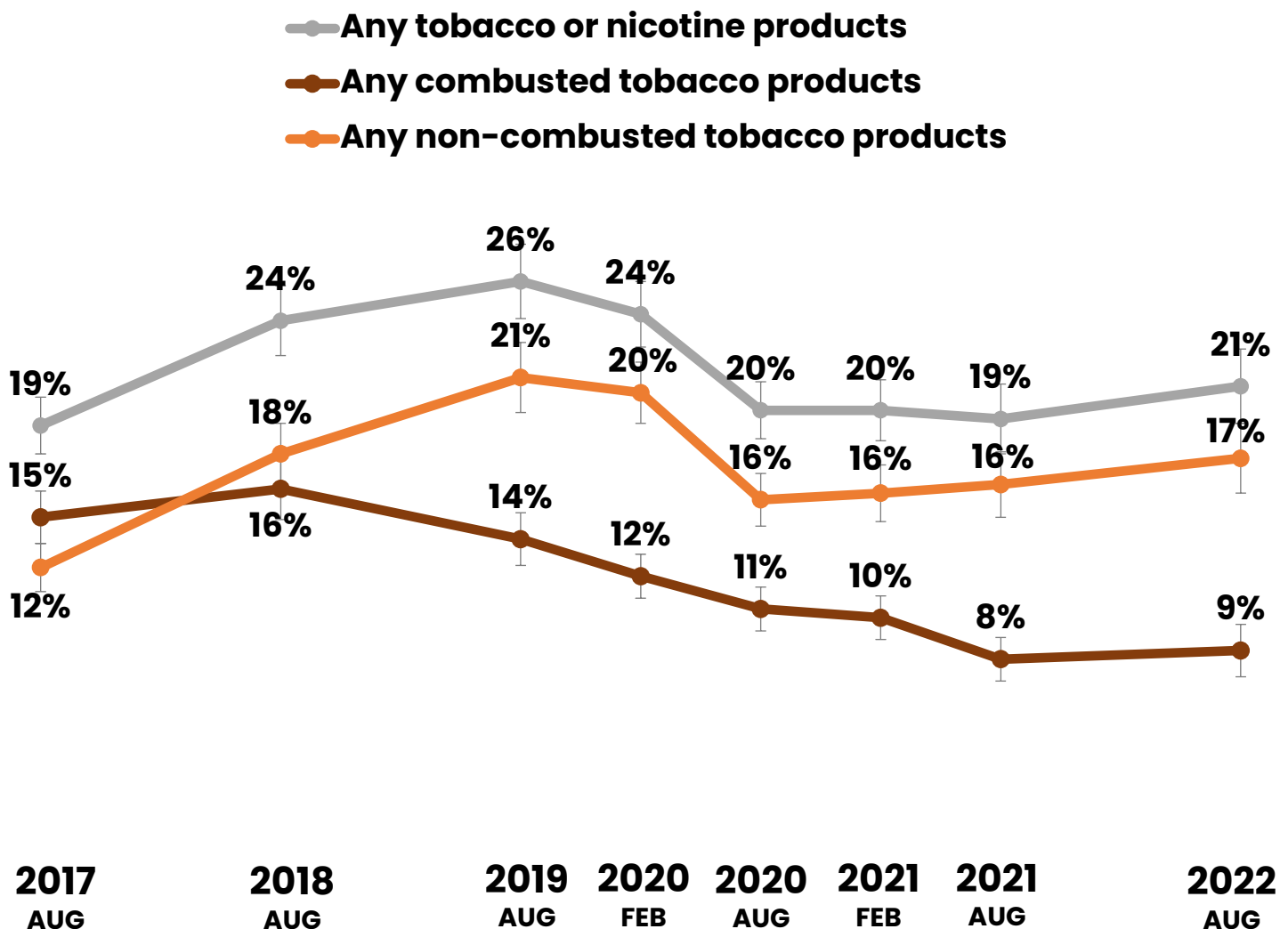
Use of any tobacco/nicotine products United States

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 steady.



Past 30-day use of any tobacco or nicotine products

ALL RESPONDENTS AGED 16-19, 2017-2022, US, N=37,529



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

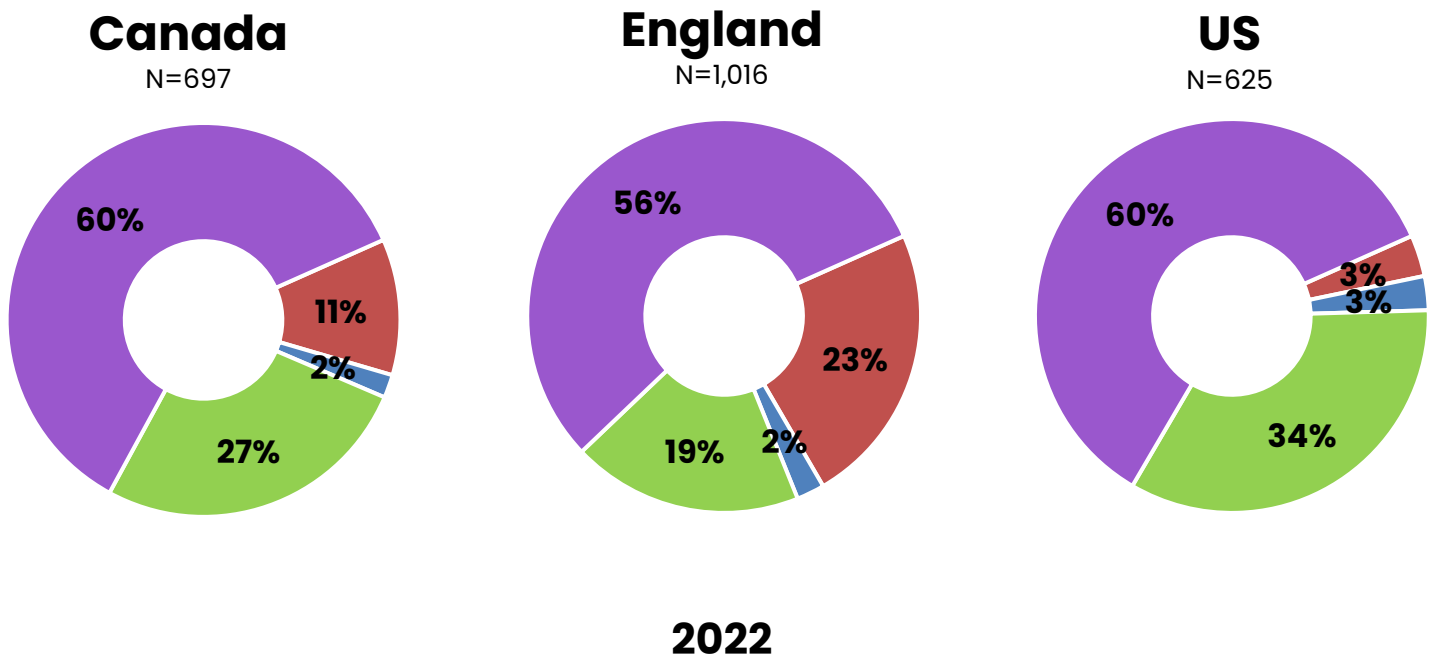
ANY COMBUSTED INCLUDES CIGARETTES, CIGARS, CIGARILLOS/LITTLE CIGARS, BIDIS, AND/OR WATERPIPE;
 ANY NON-COMBUSTED INCLUDES E-CIGARETTES, SMOKELESS TOBACCO, HEATED TOBACCO, NRT, AND/OR
 NICOTINE POUCHES; ANY TOBACCO/NICOTINE PRODUCT INCLUDES ANY PRODUCTS

Vaping and smoking status

In 2022, 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 3% in the US to 11% in Canada to 23% in England; very few reported formerly smoking. Approximately one-third of youth who vaped in the past 30 days in the US, and slightly fewer in Canada, reported never smoking cigarettes, compared to one in five in England.

Smoking status among youth who vaped in the past 30 days

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2022



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

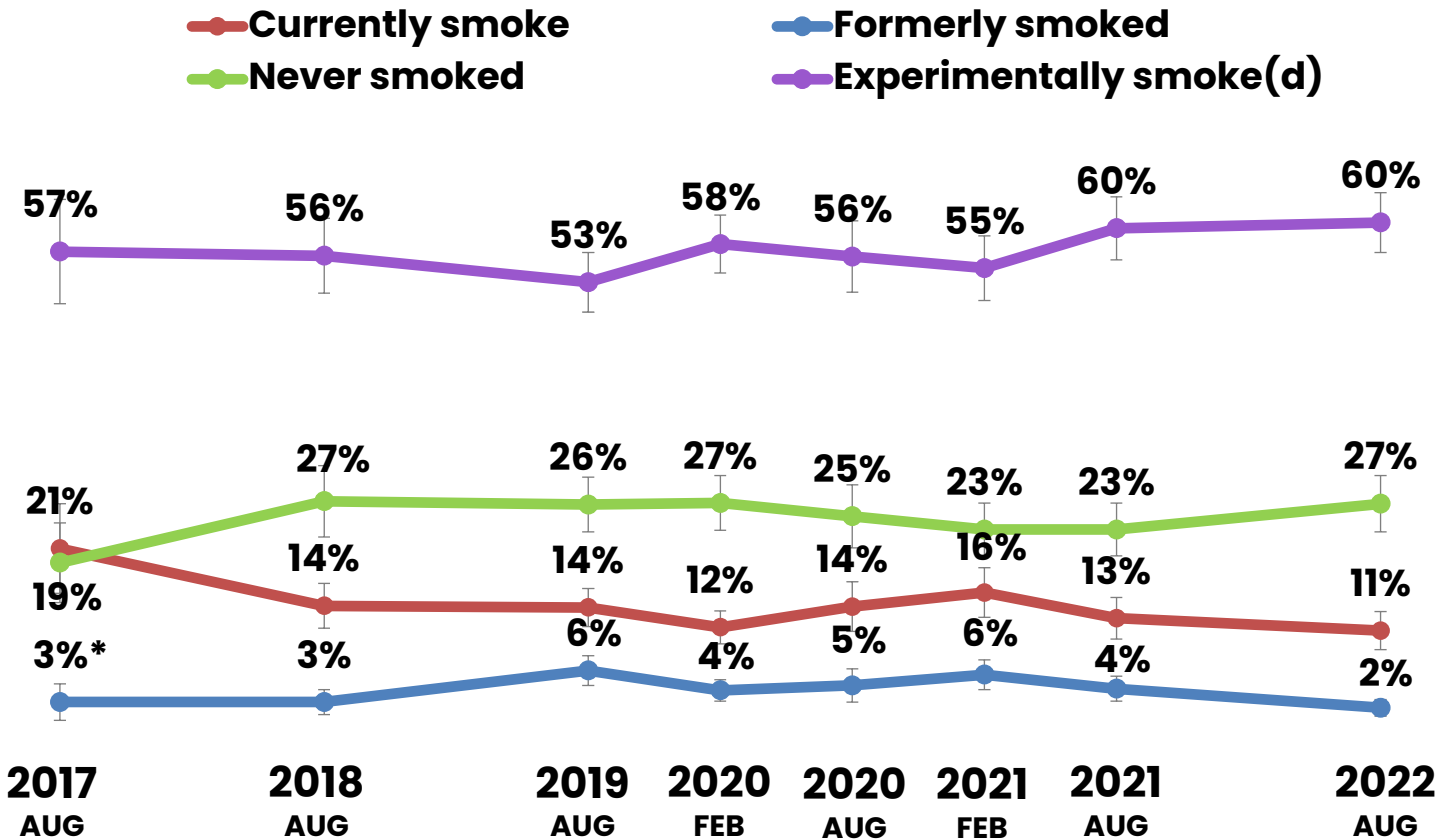
Vaping and smoking status Canada

In Canada, between 2017 and 2022, the proportion of youth who vaped in the past 30 days who also reported currently smoking was nearly halved, while increases were observed in the proportions who reported never smoking and experimental smoking.



Smoking status among youth who vaped in the past 30 days

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2022, CANADA
N=4,971



*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

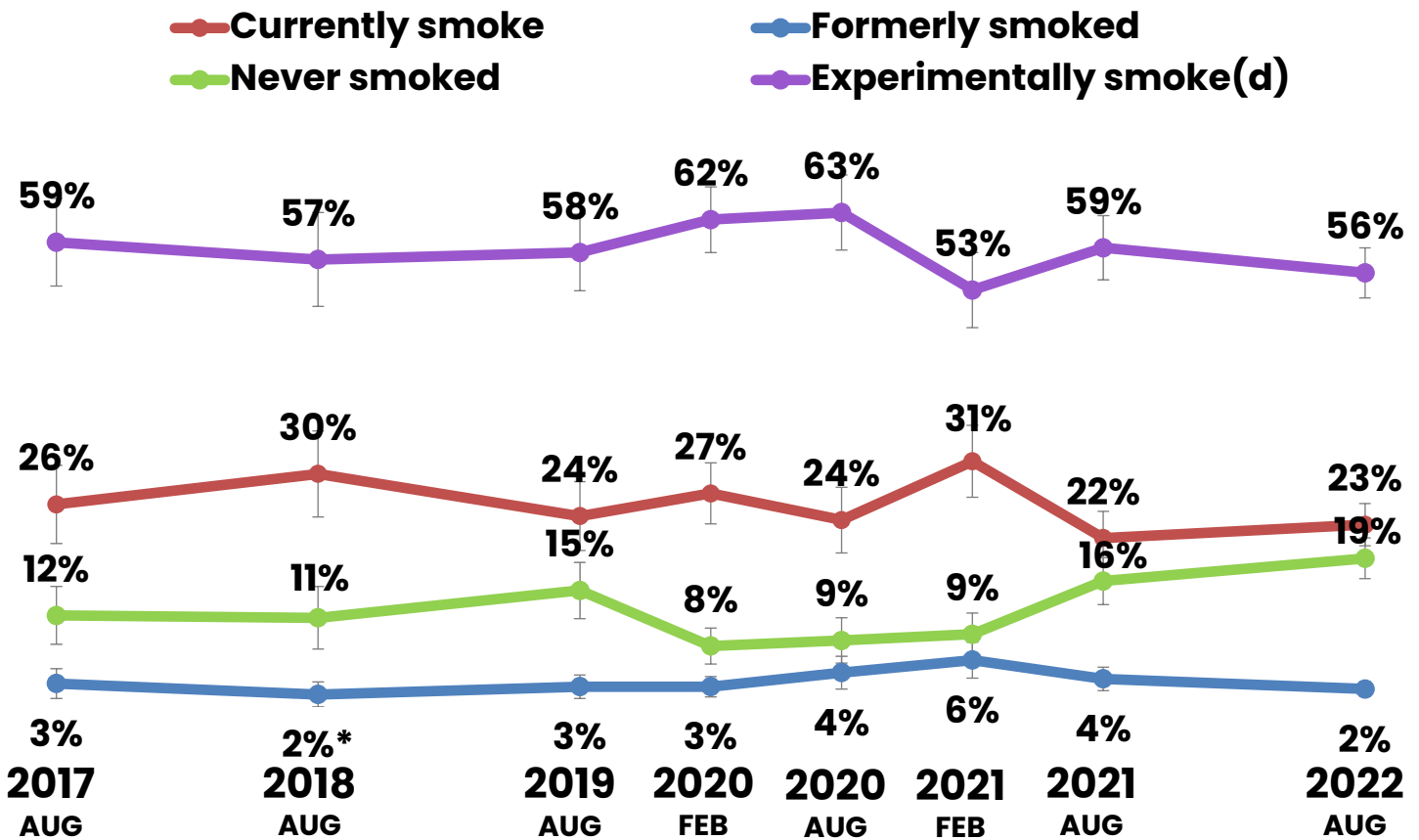
Vaping and smoking status England

In England, between 2017 and 2022, the proportion of youth who vaped in the past 30 days who also currently smoked or experimentally smoked generally decreased, while the proportion who never smoked increased. The proportions who formerly or experimentally smoked fluctuated somewhat from year to year, but with little net change.



Smoking status among youth who vaped in the past 30 days

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2022, ENGLAND
N=4,451



*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

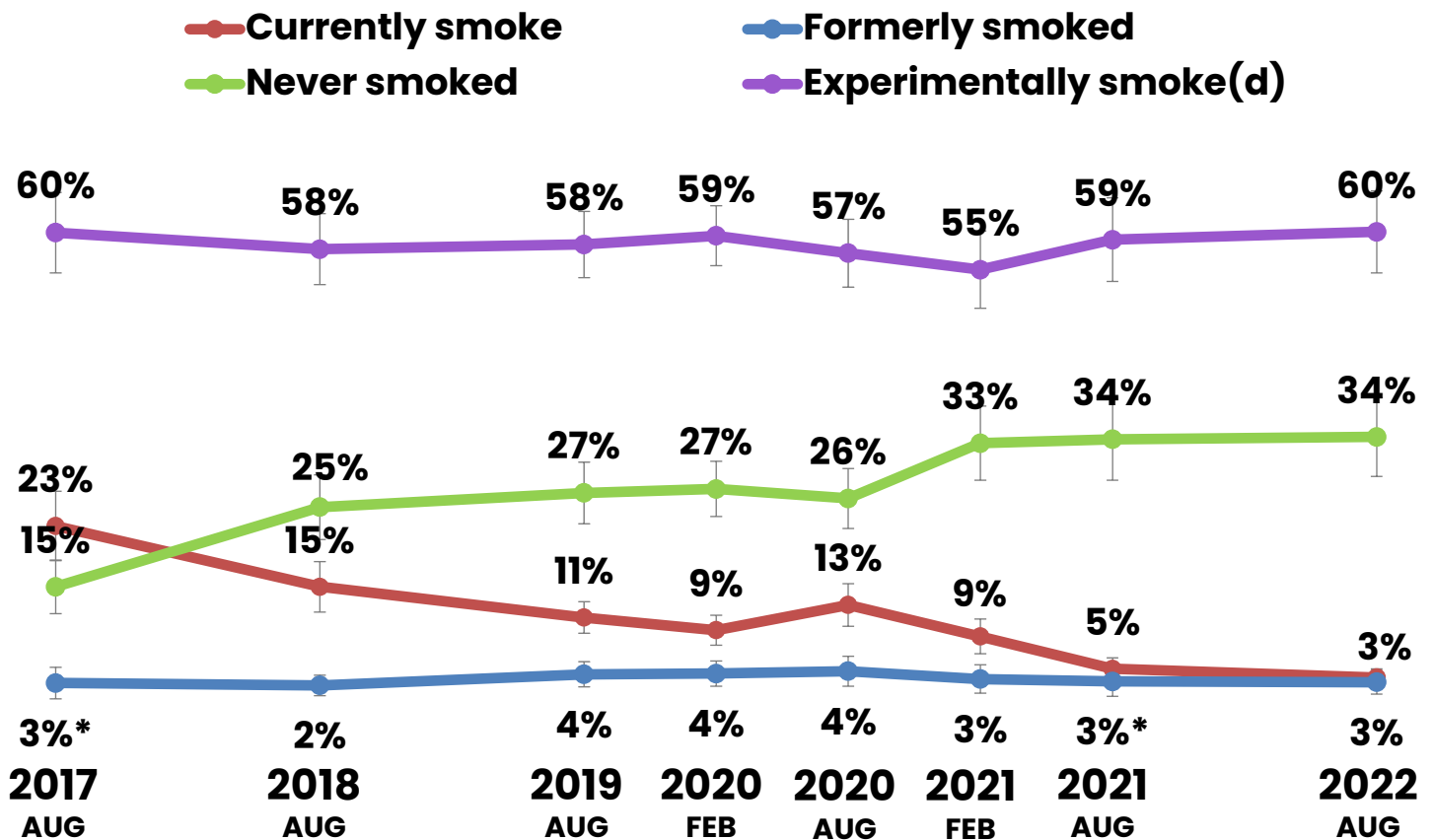
United States

In the US, between 2017 and 2022, the proportion of youth who vaped in the past 30 days who also currently smoked decreased drastically (from 23% to 3%), while the proportion who never smoked more than 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, 2017-2022, US
N=5,551



*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

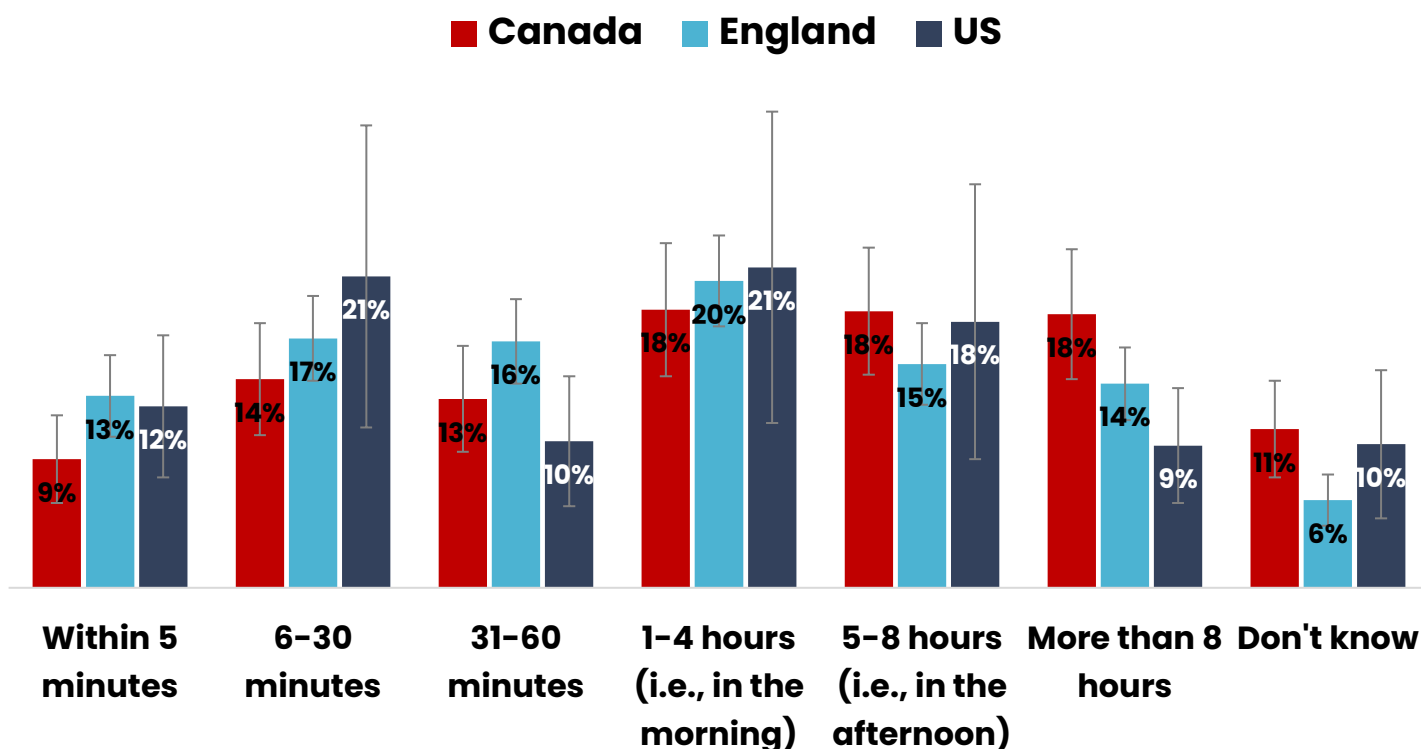
Time to first use - Smoking

Among youth who smoked in the past 30 days, the figure below shows how soon after waking youth reported smoking their first cigarette, in 2022. Between one-quarter and one-third reported smoking within 30 minutes of waking. Generally similar patterns were observed across countries.

How soon after waking do you smoke your first cigarette?

YOUTH AGED 16-19 WHO SMOKED IN PAST 30 DAYS, 2022

CA: N=399; EN: N=931; US: N=312



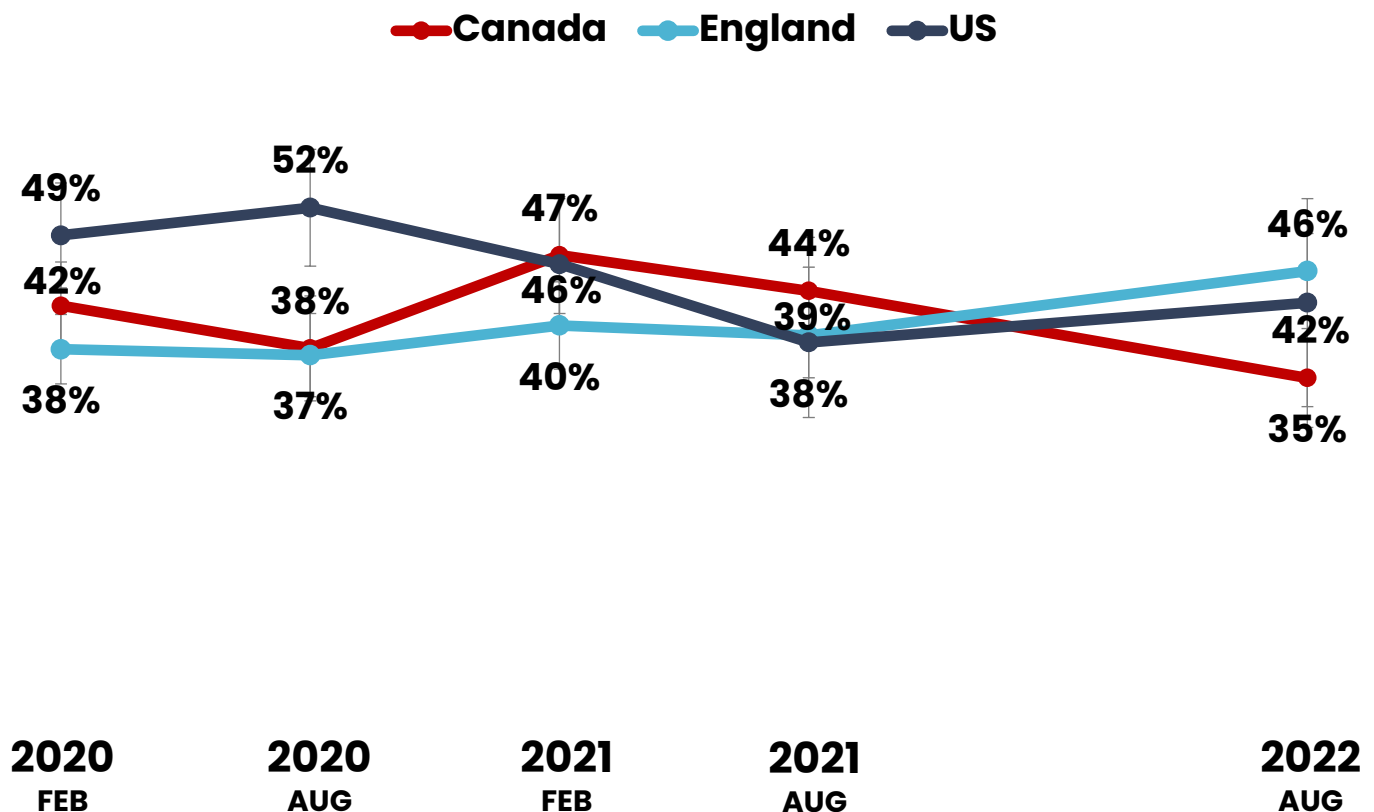
Time to first use - Smoking

Between early 2020 and 2022, among youth who smoked in the past 30 days, the proportion who reported smoking their first cigarette within 60 minutes of waking appeared to increase slowly but steadily in England, while trends in Canada and the US were more variable but indicated a net decline.

Percentage who smoke within 60 minutes after waking

YOUTH AGED 16-19 WHO SMOKED IN PAST 30 DAYS, 2020-2022

CA: N=2,108; EN: N=3,869; US: N=2,221



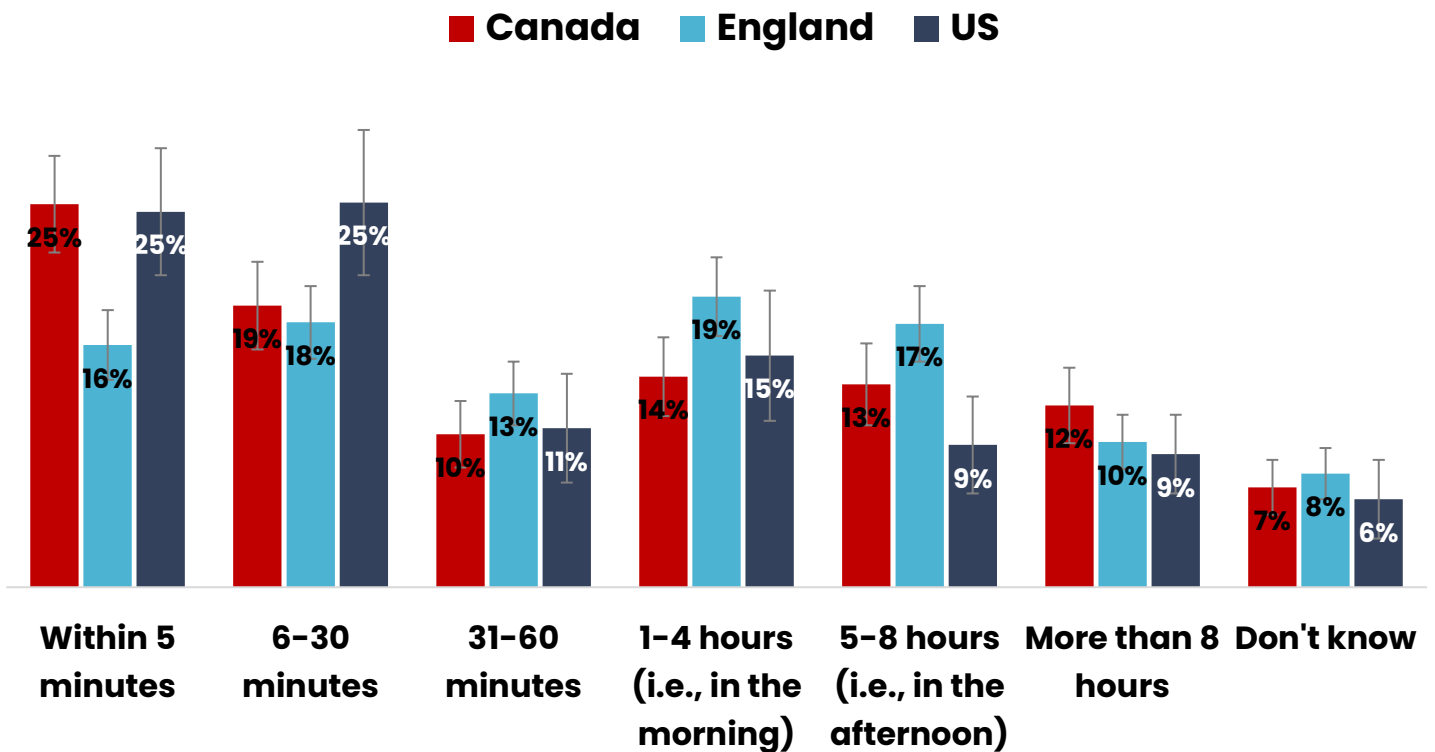
Time to first use - Vaping

Among youth who vaped in the past 30 days, the figure below shows how soon after waking youth reported first vaping, in 2022. Between 40% and 50% reported vaping within 30 minutes of waking; this was more common in the US and Canada, compared to England.

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

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2022

CA: N=847; EN: N=1,212; US: N=821



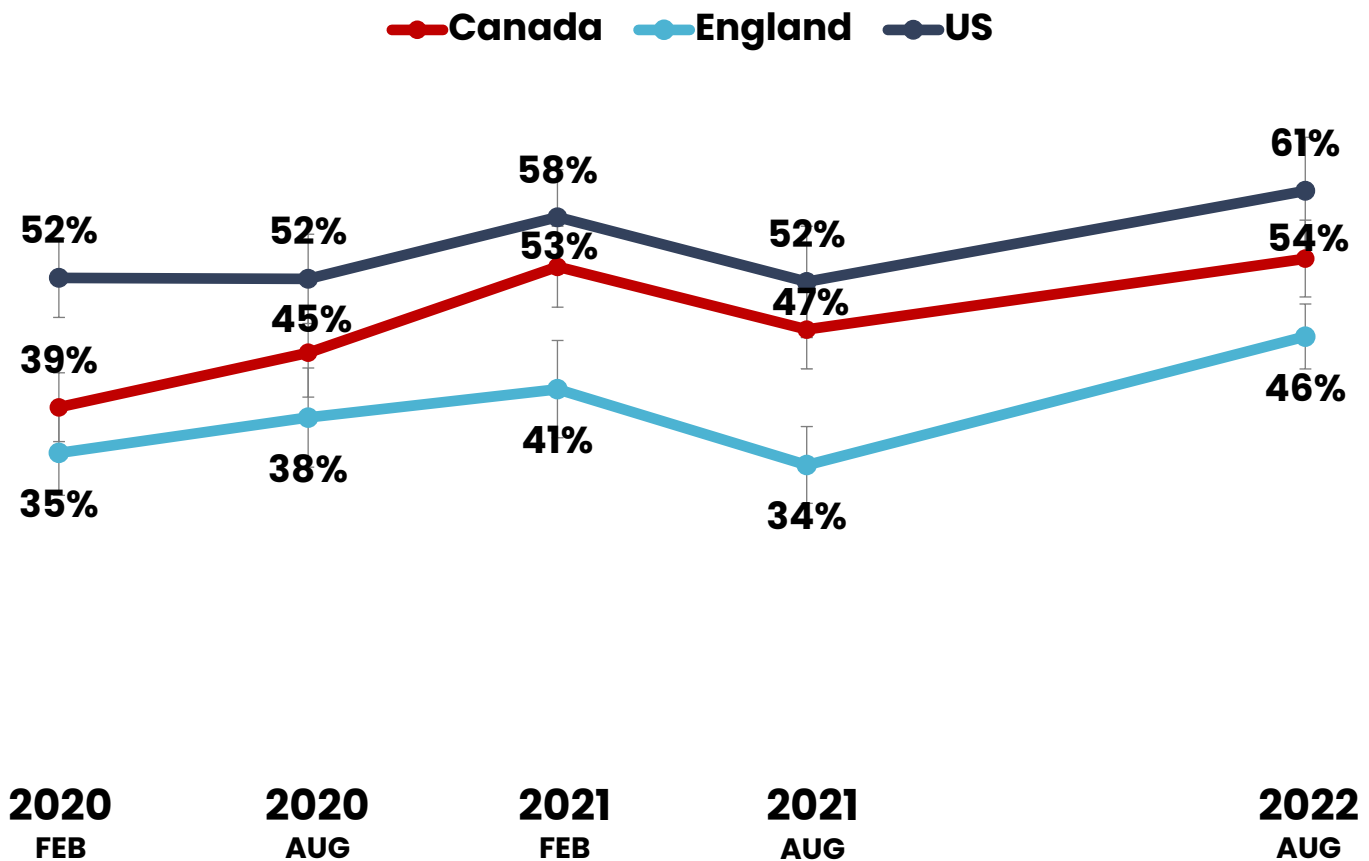
Time to first use - Vaping

Between early 2020 and 2022, among youth who vaped in the past 30 days, the proportion who reported first vaping within 60 minutes of waking appeared to increase in all countries, though trends varied somewhat.

Percentage who vape within 60 minutes after waking

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2020-2022

CA: N=3,939; EN: N=3,637; US: N=4,274



"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

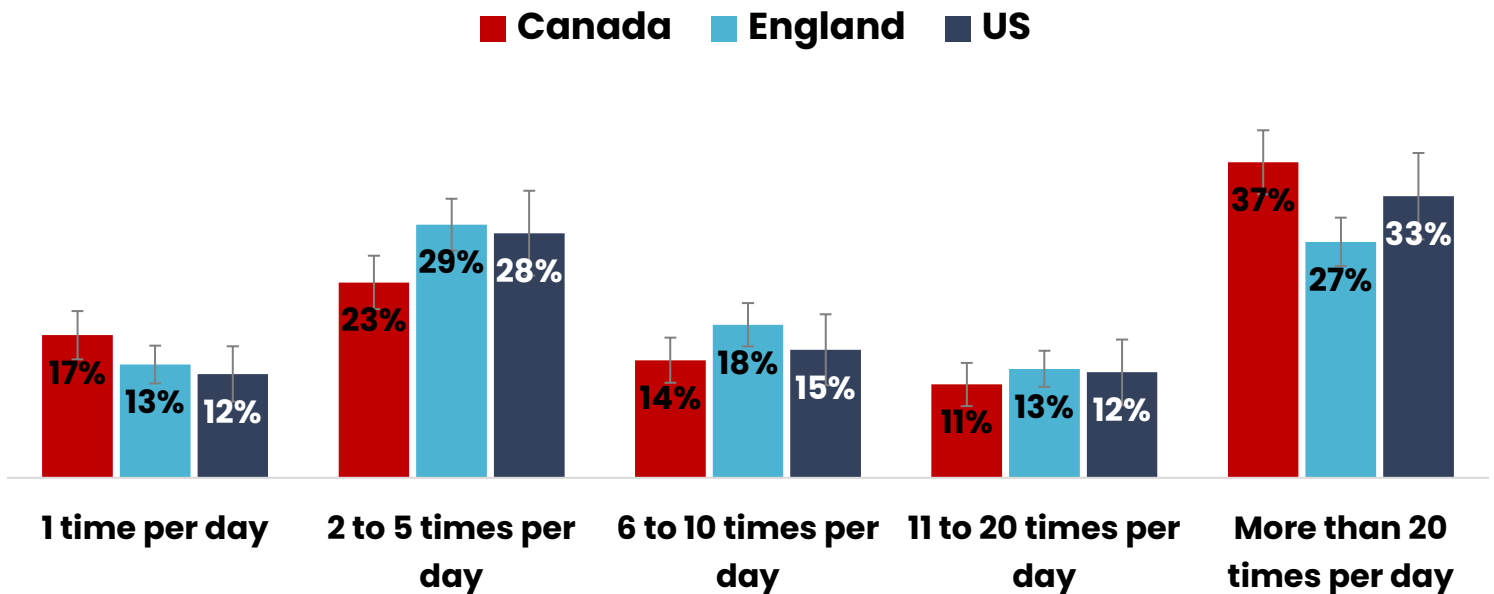
Times used per day – Vaping

The figure below shows the number of times vaping per day reported by youth who vaped in the past 30 days, in 2022. 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 Canada and lower in England.

Times vaped per day

YOUTH AGED 16–19 WHO VAPED IN PAST 30 DAYS, 2022

CA: N=833; EN: N=1,192; US: N=806



"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

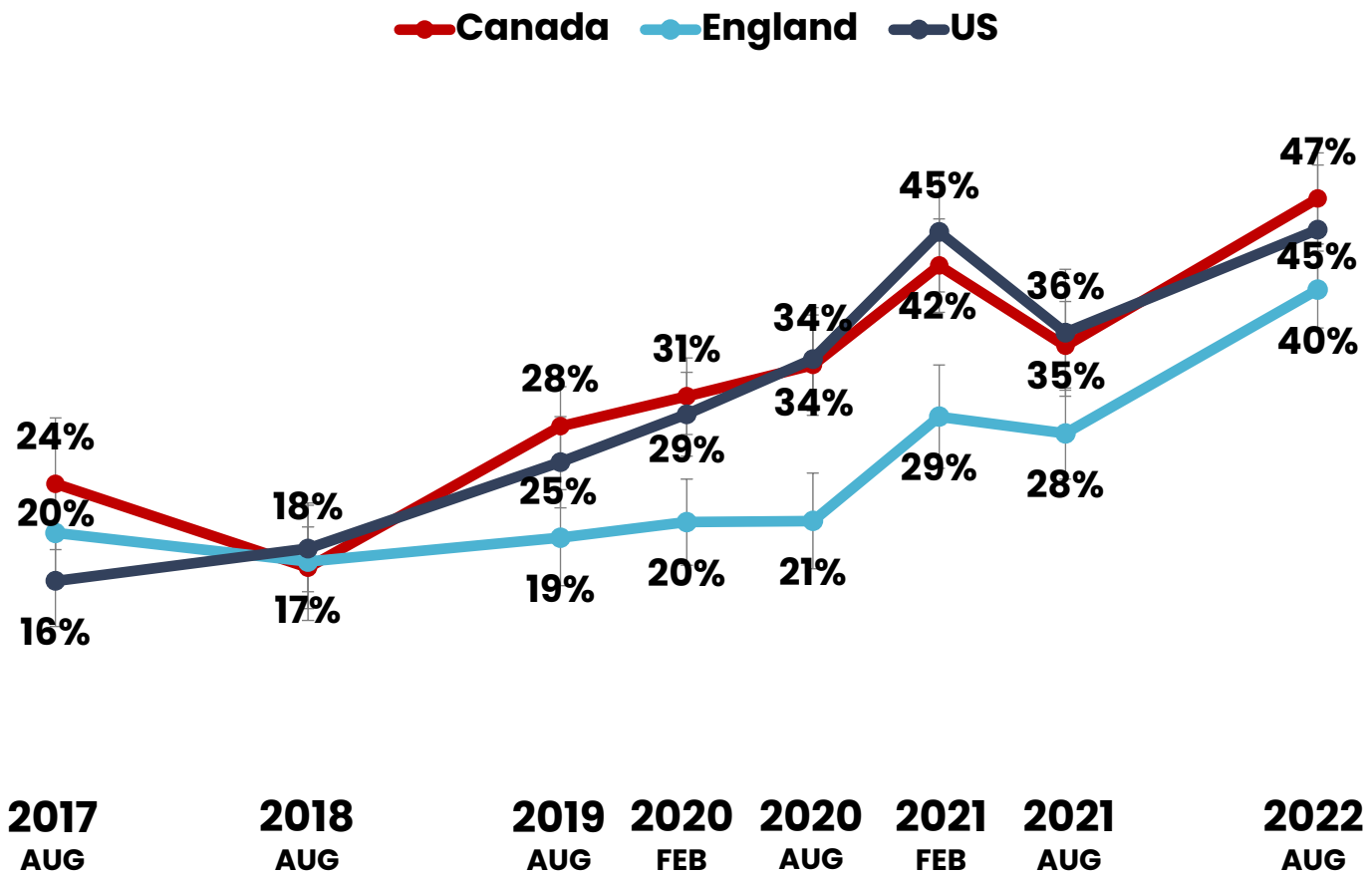
Times used per day - Vaping

Between 2017 and 2022, among youth who vaped in the past 30 days, the proportion who reported vaping more than 10 times per day approximately doubled 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.

Percentage who vape more than 10 times per day

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2022

CA: N=5,563; EN: N=4,641; US: N=6,077



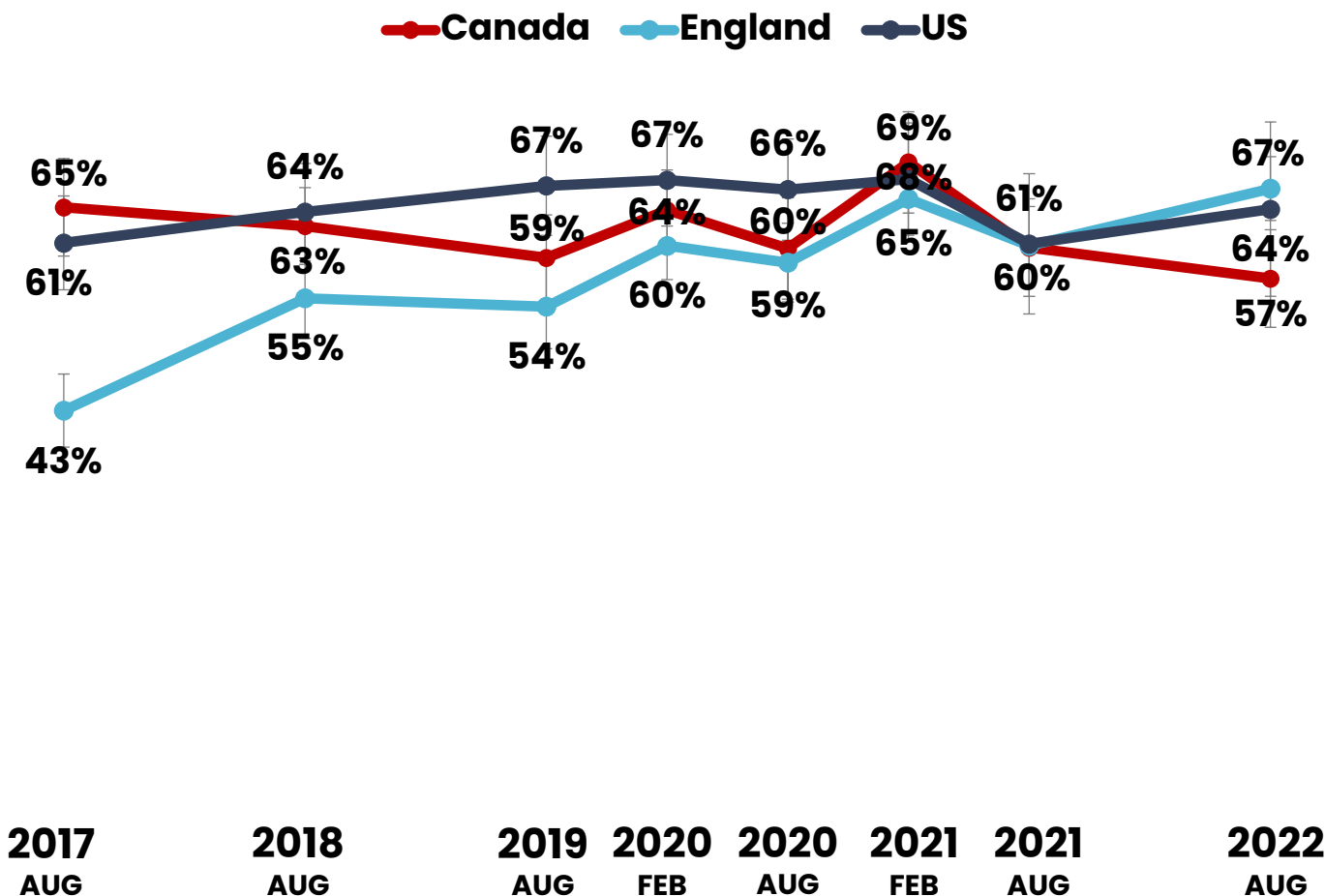
"IN THE PAST 30 DAYS, ON THE DAYS YOU USED AN E-CIGARETTE/VAPED, HOW MANY TIMES DID YOU USE IT EACH DAY?", AMONG YOUTH WHO VAPED IN THE PAST 30 DAYS, % WHO SELECTED AN OPTION MORE THAN 10 TIMES PER DAY; REFUSED EXCLUDED FROM DENOMINATOR

Perceived addiction to smoking

In nearly every wave, among youth who smoked in the past 30 days, the majority in all three countries reported that they were ‘a little’ or ‘very’ addicted to smoking. Between 2017 and 2022, this proportion appears to have increased in England, but remained more stable among youth in Canada and the US.

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

YOUTH AGED 16-19 WHO SMOKED IN PAST 30 DAYS, 2017-2022
 CA: N=3,702; EN: N=5,821; US: N=3,721



“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

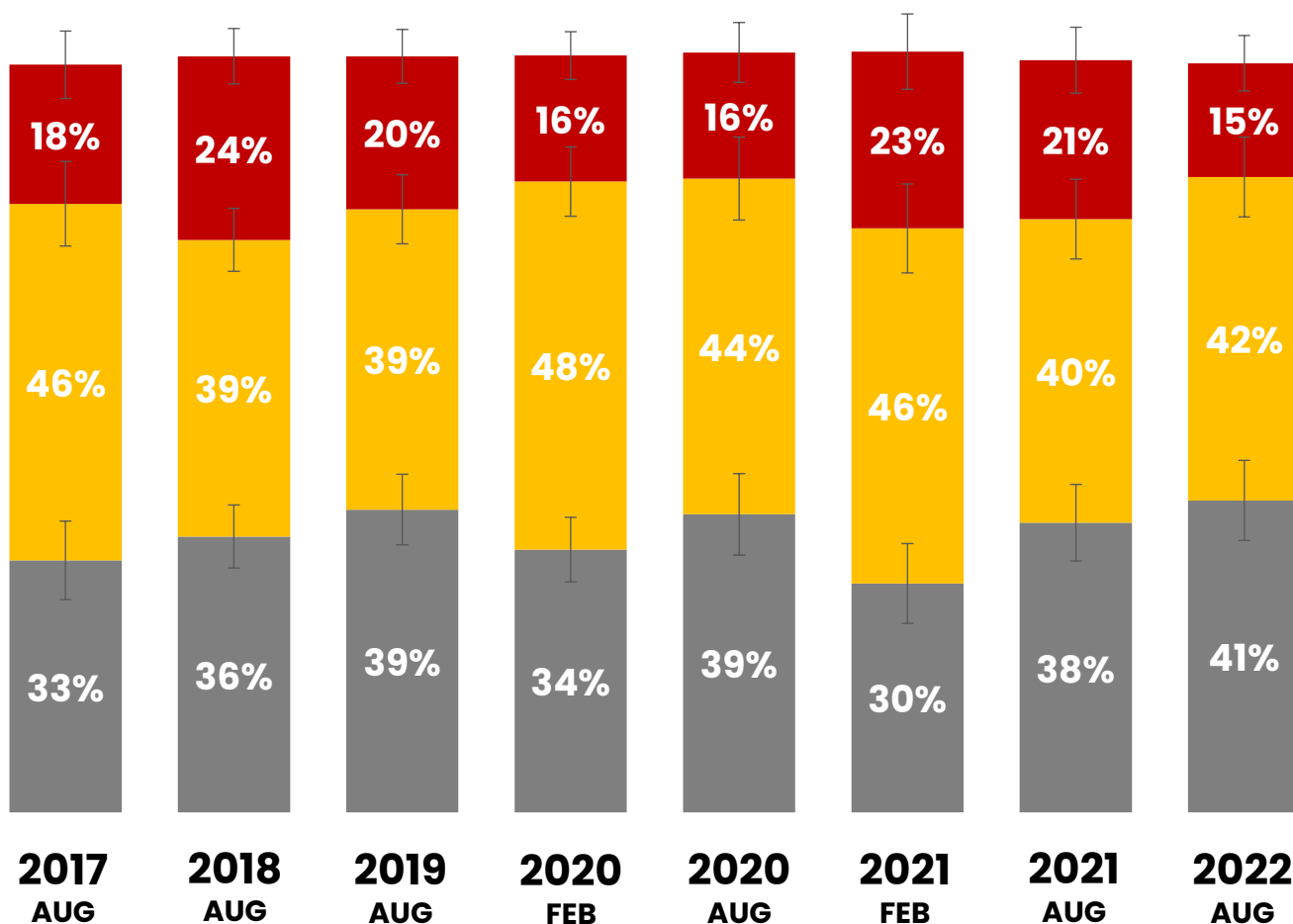
In Canada, while proportions varied across years, the majority of youth who smoked reported being addicted ('a little' or 'very') to smoking. No clear pattern was observed over time.



Do you consider yourself addicted to cigarettes?

YOUTH AGED 16-19 WHO SMOKED IN PAST 30 DAYS, 2017-2022, CANADA
N=3,702

■ 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

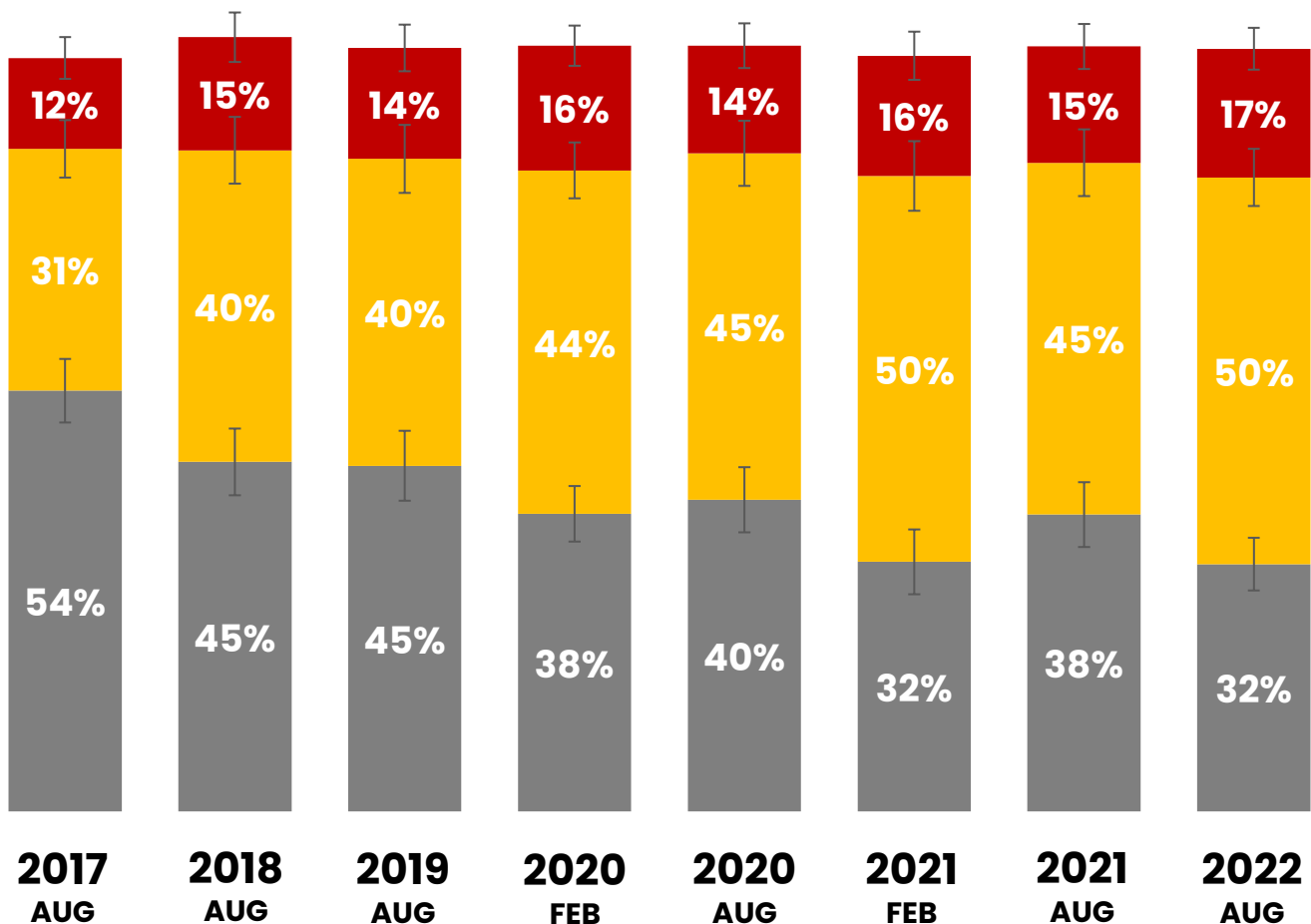
In England, the proportion of youth who smoked that reported being addicted ('a little' or 'very') to smoking increased over time, from less than half in 2017 to two-thirds in 2022.



Do you consider yourself addicted to cigarettes?

YOUTH AGED 16-19 WHO SMOKED IN PAST 30 DAYS, 2017-2022, ENGLAND
N=5,821

■ 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

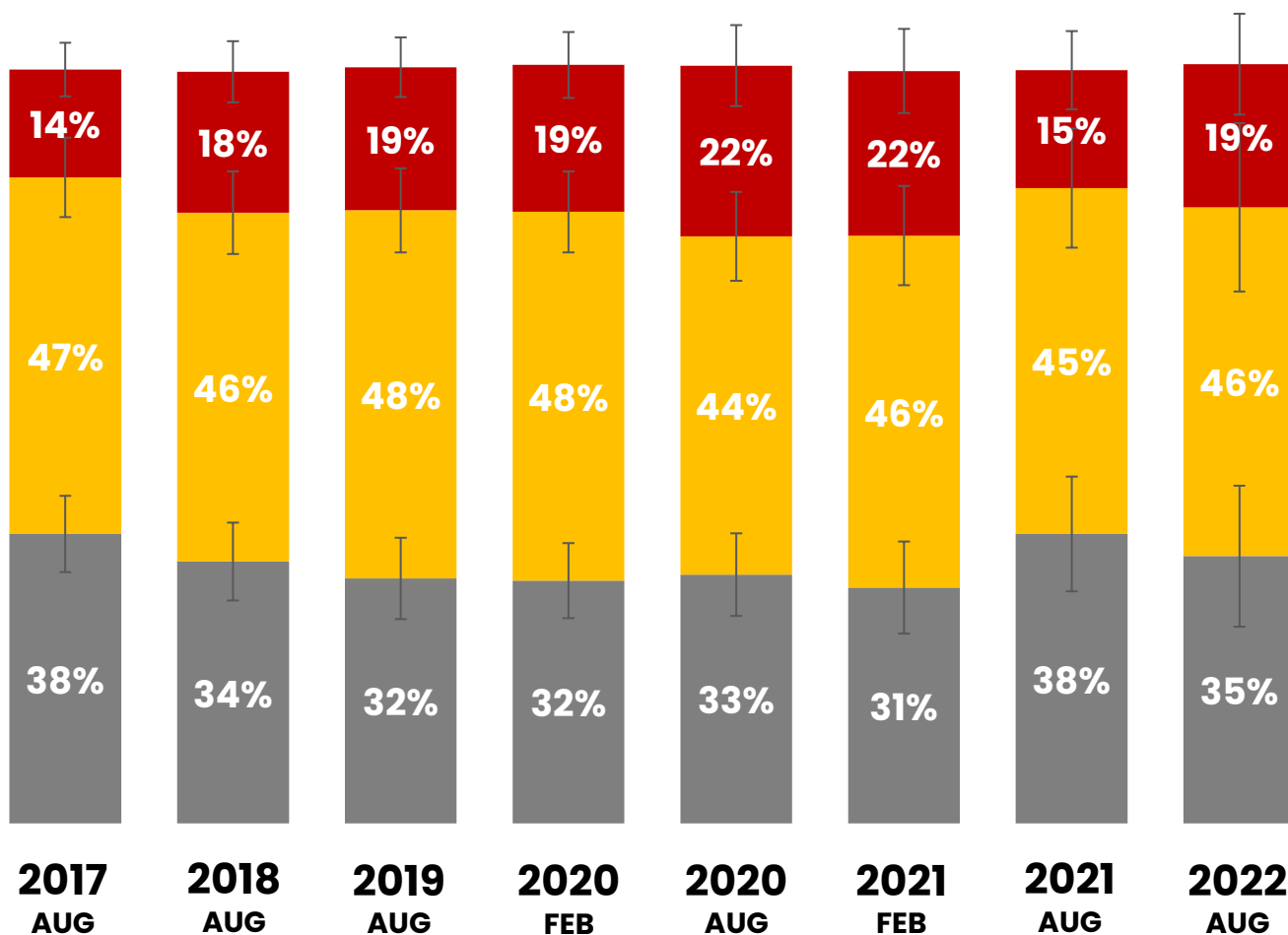
In the US, approximately two-thirds of youth who smoked reported being addicted ('a little' or 'very') to smoking. This proportion was fairly stable across years, with minor fluctuation.



Do you consider yourself addicted to cigarettes?

YOUTH AGED 16-19 WHO SMOKED IN PAST 30 DAYS, 2017-2022, US
N=3,721

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



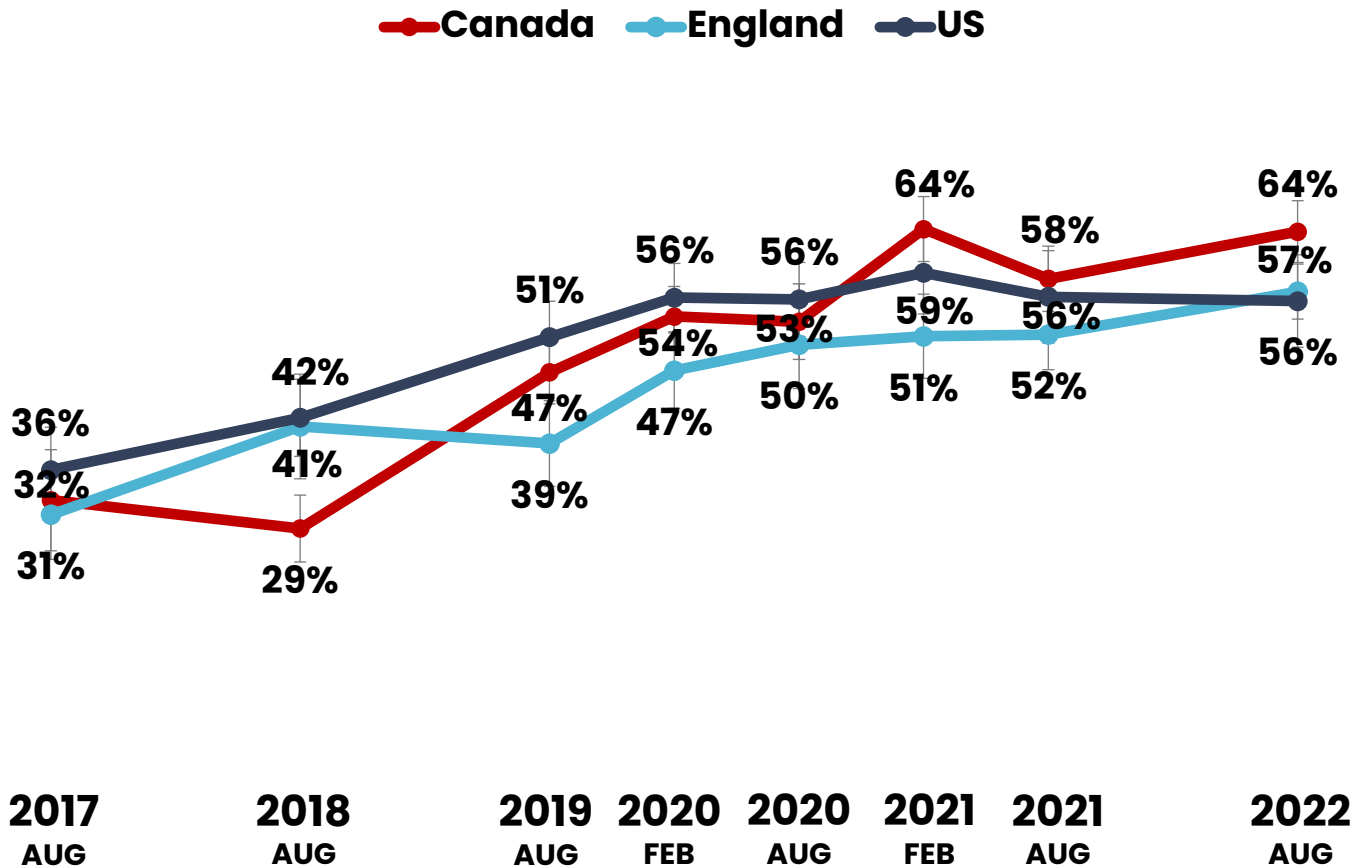
"DO YOU CONSIDER YOURSELF ADDICTED TO CIGARETTES?," AMONG YOUTH WHO SMOKED IN THE PAST 30 DAYS; 'DON'T KNOW' NOT SHOWN ON FIGURE, REFUSED EXCLUDED FROM DENOMINATOR

Perceived addiction to vaping

Between 2017 and 2022, 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.

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

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2022
CA: N=5,732; EN: N=4,806; US: N=6,263



"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

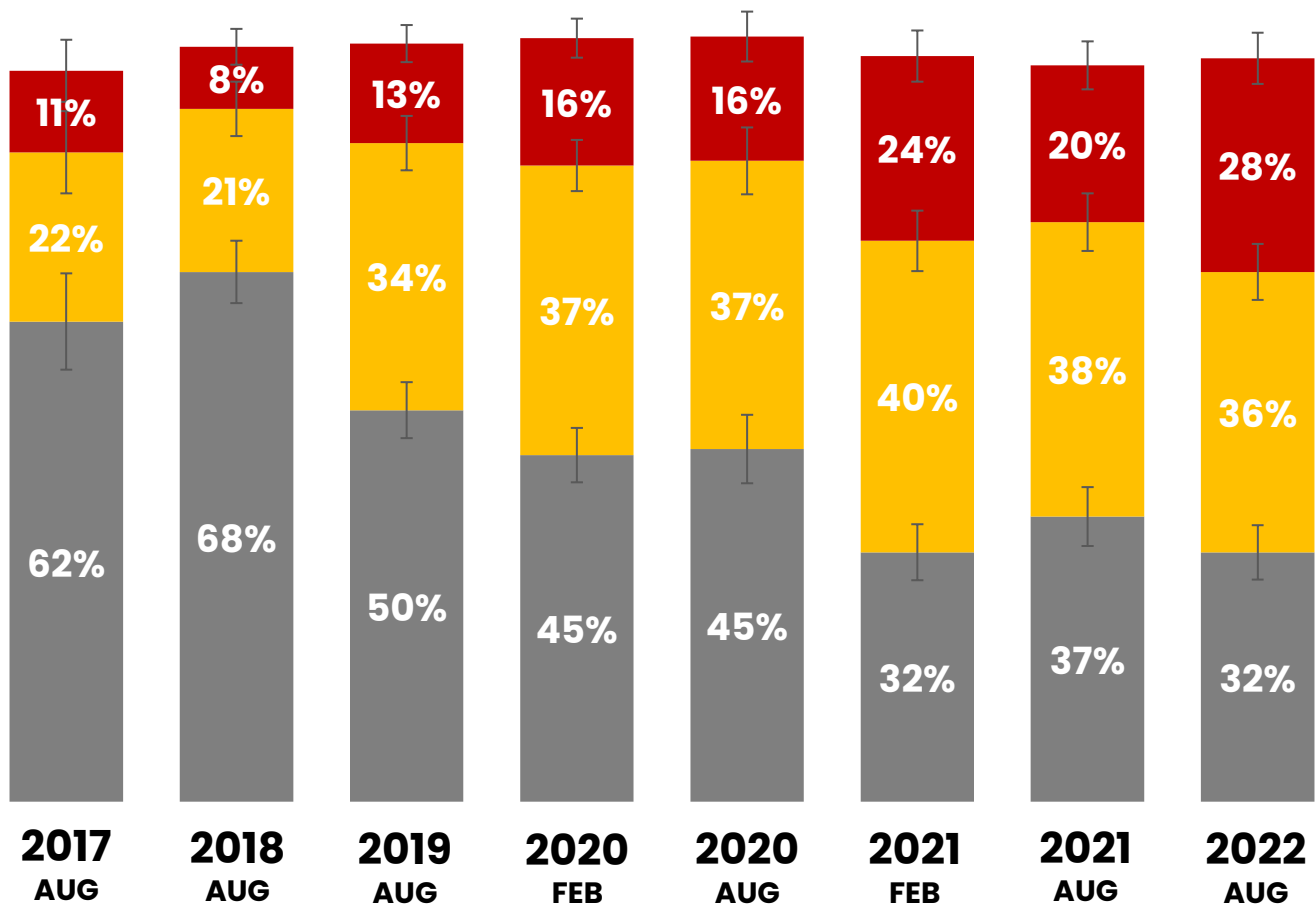
Canada

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 in 2022 a similar proportion said they were NOT addicted.



Do you consider yourself addicted to e-cigarettes/vaping?
 YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, CANADA, 2017-2022, N=5,732

■ 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

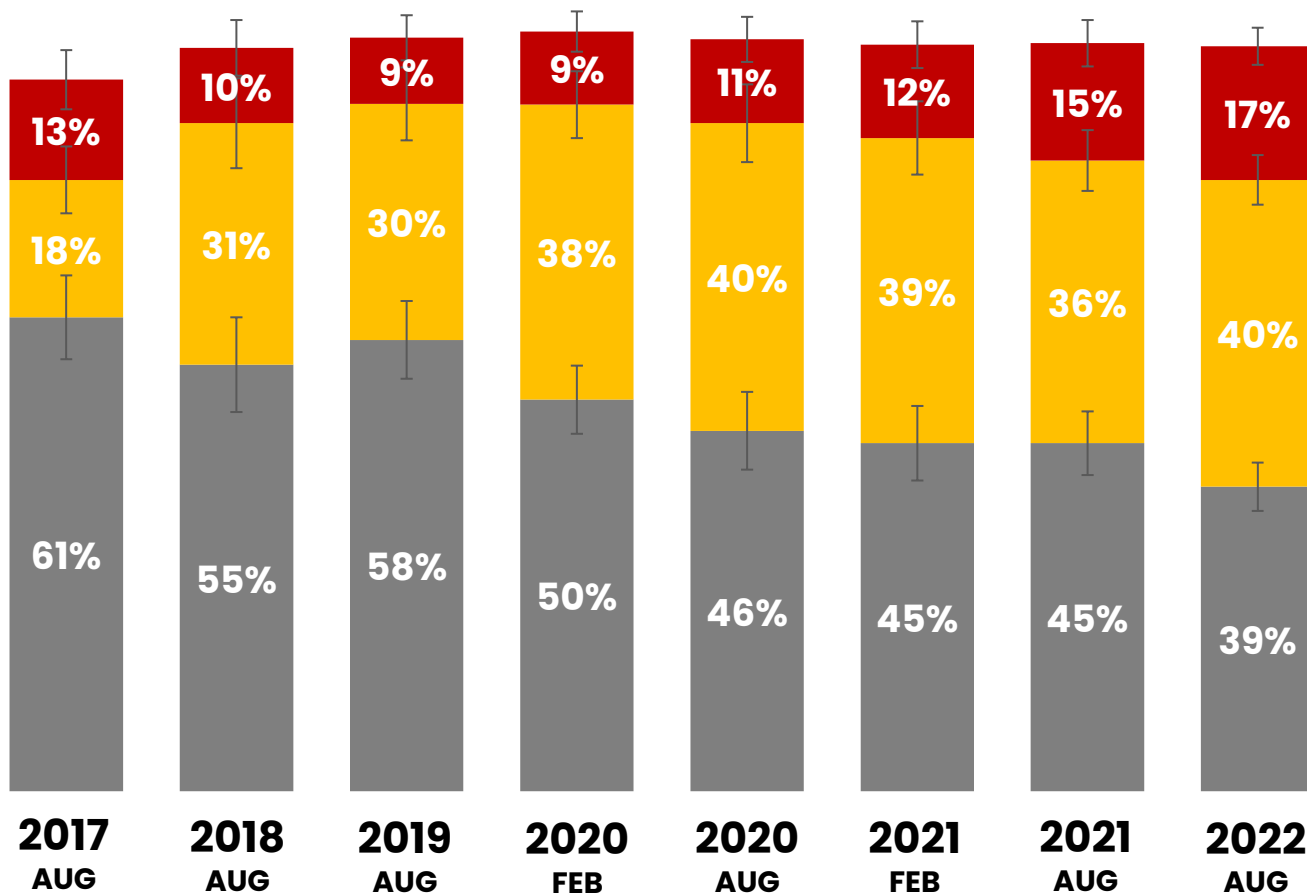
England

In England, a similar pattern was observed. In 2017, three in ten youth who vaped reported being addicted ('a little' or 'very') to vaping, which doubled to nearly six in ten by 2022.



Do you consider yourself addicted to e-cigarettes/vaping?
 YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, ENGLAND, 2017-2022, N=4,806

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



"DO YOU CONSIDER YOURSELF ADDICTED TO USING E-CIGARETTES/VAPING 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

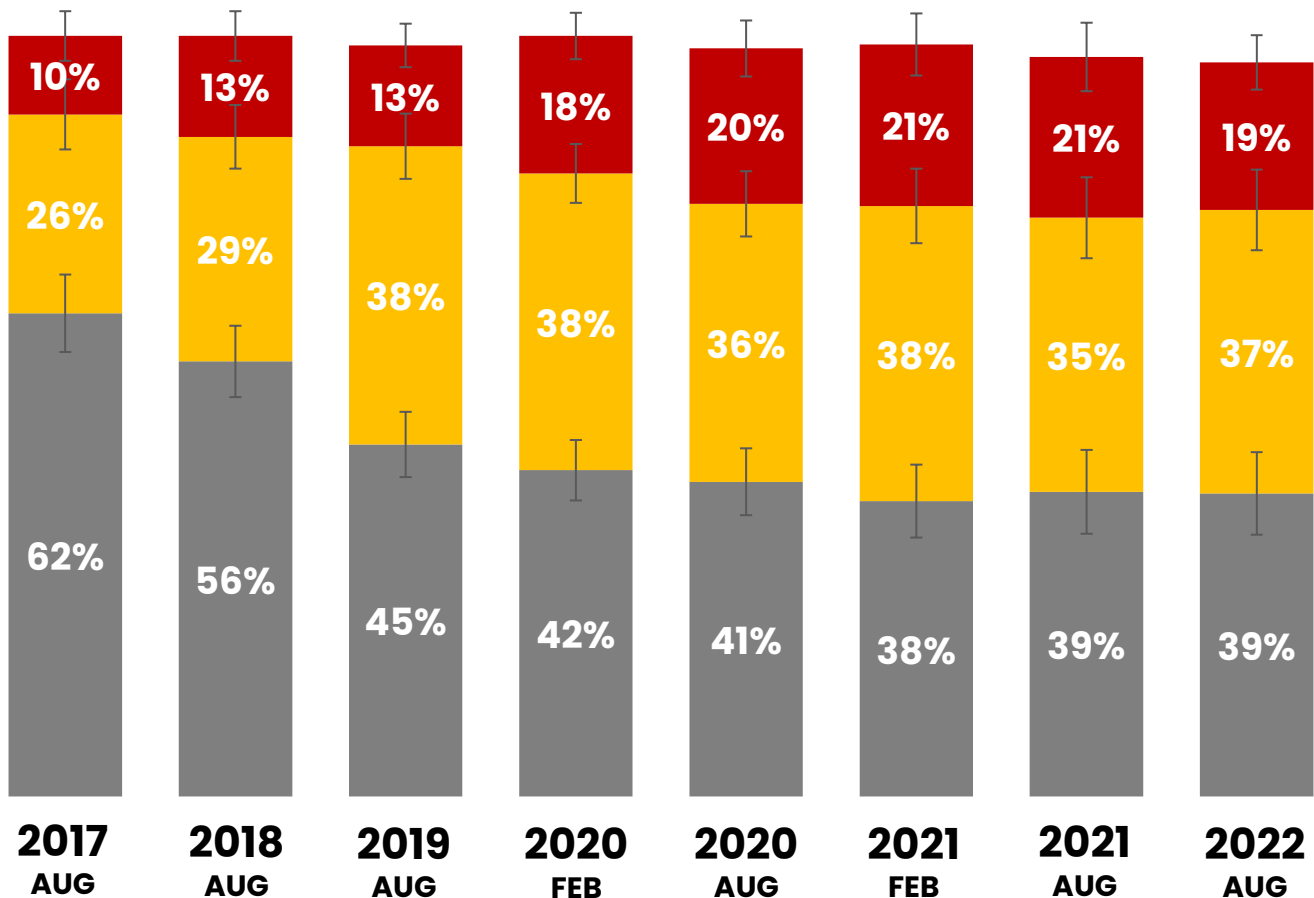
In the US, the proportion of youth who vaped that reported being addicted ('a little' or 'very') to vaping increased between 2017 and 2020, but has remained fairly stable since then. The proportion who reported being 'very addicted to vaping' doubled from 10% in 2017 to 20% in 2020.



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

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, US, 2017-2022, N=6,263

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



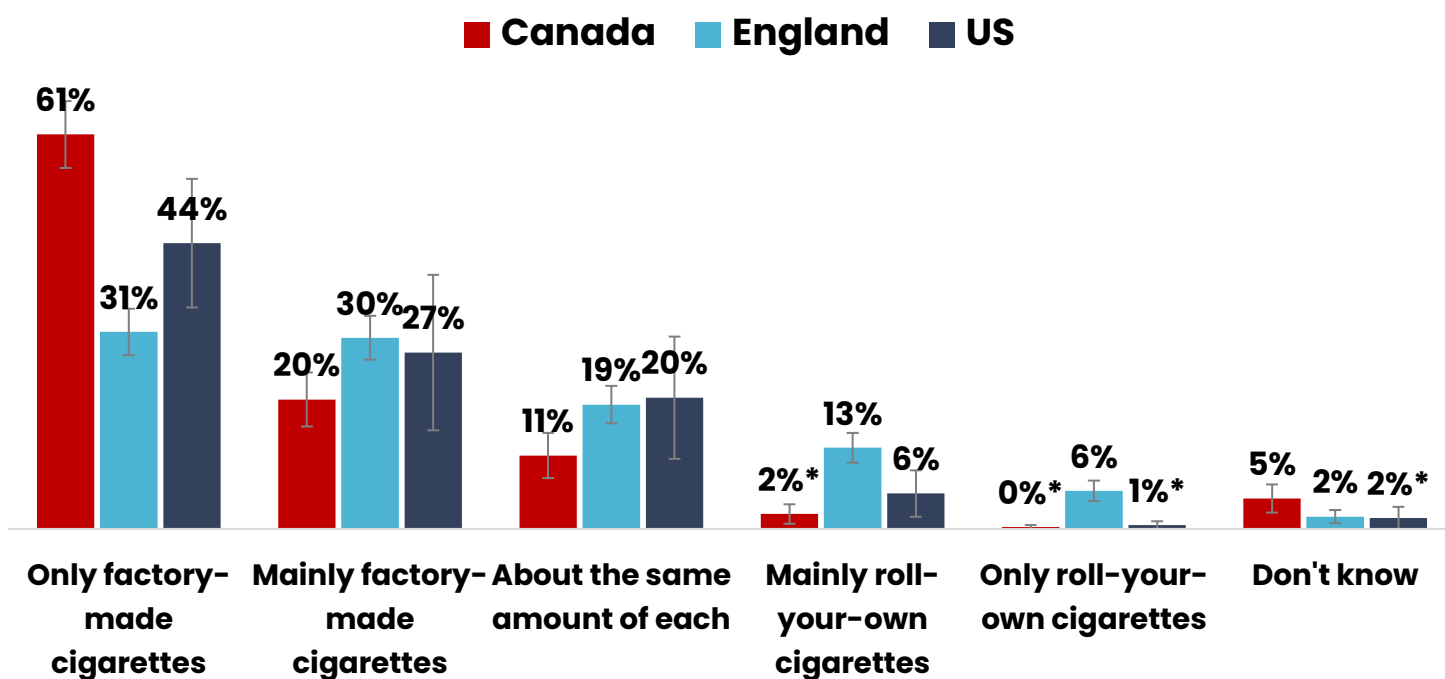
"DO YOU CONSIDER YOURSELF ADDICTED TO USING E-CIGARETTES/VAPING?", AMONG YOUTH WHO VAPED IN THE PAST 30 DAYS; 'DON'T KNOW' NOT SHOWN ON FIGURE, REFUSED EXCLUDED FROM DENOMINATOR

Roll-your-own tobacco

Among youth who smoked in the past 30 days, the majority mainly or only used factory-made cigarettes; this was most common in Canada, at four out of five youth who smoked. Roll-your-own tobacco was more popular in England than other countries, with nearly one in five youth who smoked reporting they mainly or only used roll-your-own.

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

YOUTH AGED 16-19 WHO SMOKED IN PAST 30 DAYS, 2022
CA: N=411; EN: N=944; US: N=316



*HIGH VARIABILITY OF ESTIMATE (CV>0.33)

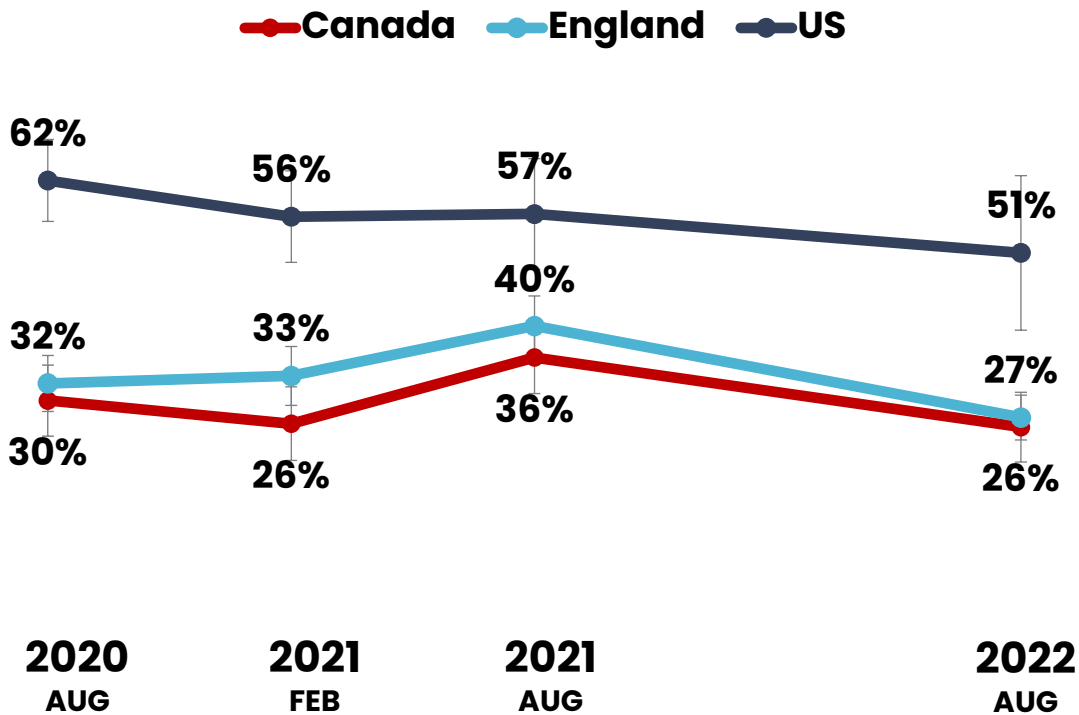
Use of menthol-flavoured cigarettes

Youth who smoked in the past 30 days were asked if their usual variety of cigarettes or tobacco was menthol- or mint-flavoured. In 2022, approximately half of youth who smoked in the US reported usually smoking a menthol brand, nearly double the proportions in Canada and England, where menthol cigarettes are prohibited.

'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, 2020-2022
CA: N=1,441; EN: N=2,879; US: N=1,558



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

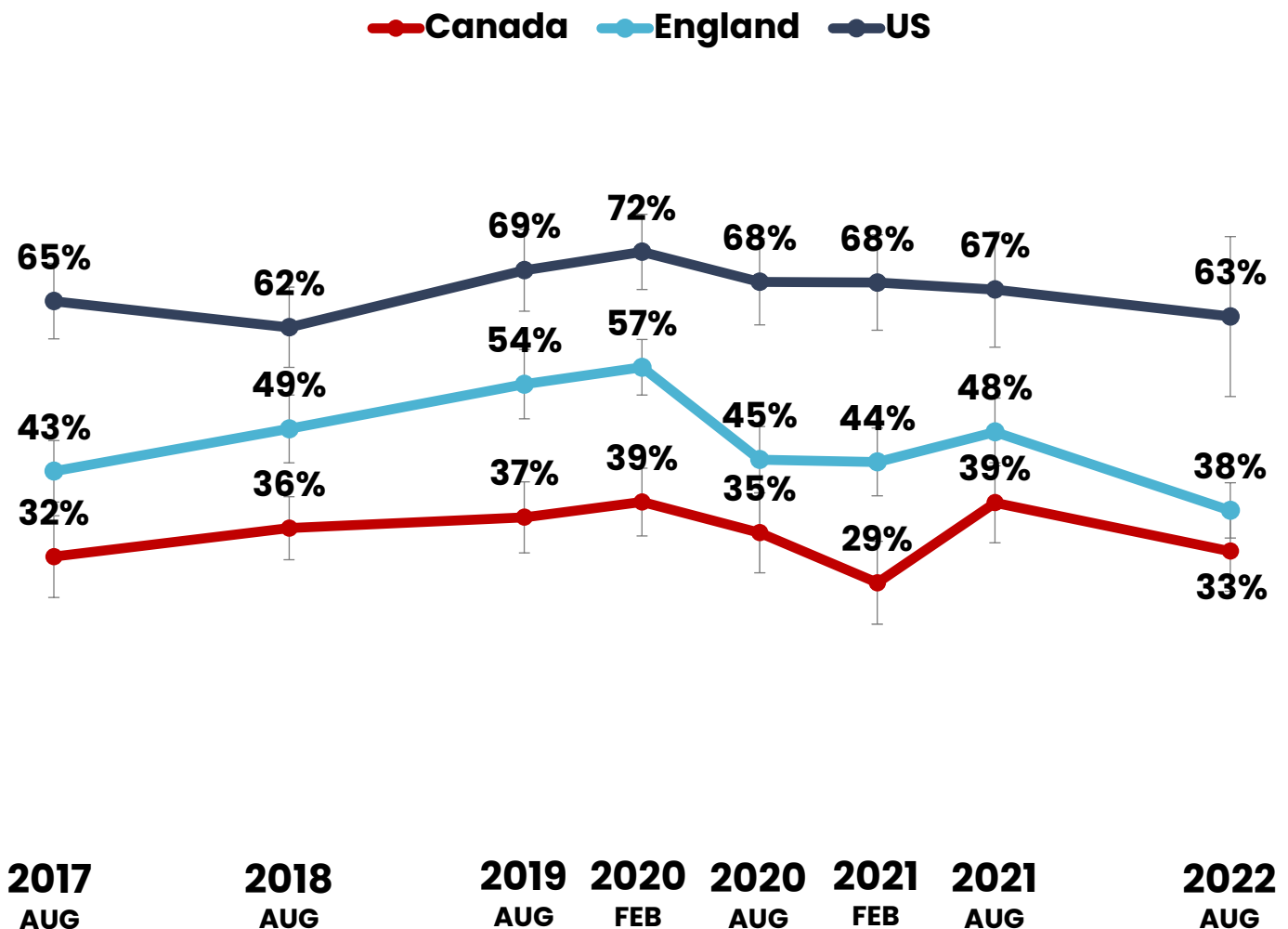
Use of menthol-flavoured cigarettes

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 2022, the majority of youth who smoked in the past 30 days in the US reported having smoked menthol or flavour capsule cigarettes, compared to one-third in Canada and slightly more in England, where menthol cigarettes are prohibited.

Smoked any menthol or capsule cigarettes in past 30 days

% 'YES', YOUTH AGED 16-19 WHO SMOKED IN PAST 30 DAYS, 2017-2022

CA: N=3,656; EN: N=5,758; US: N=3,418



'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

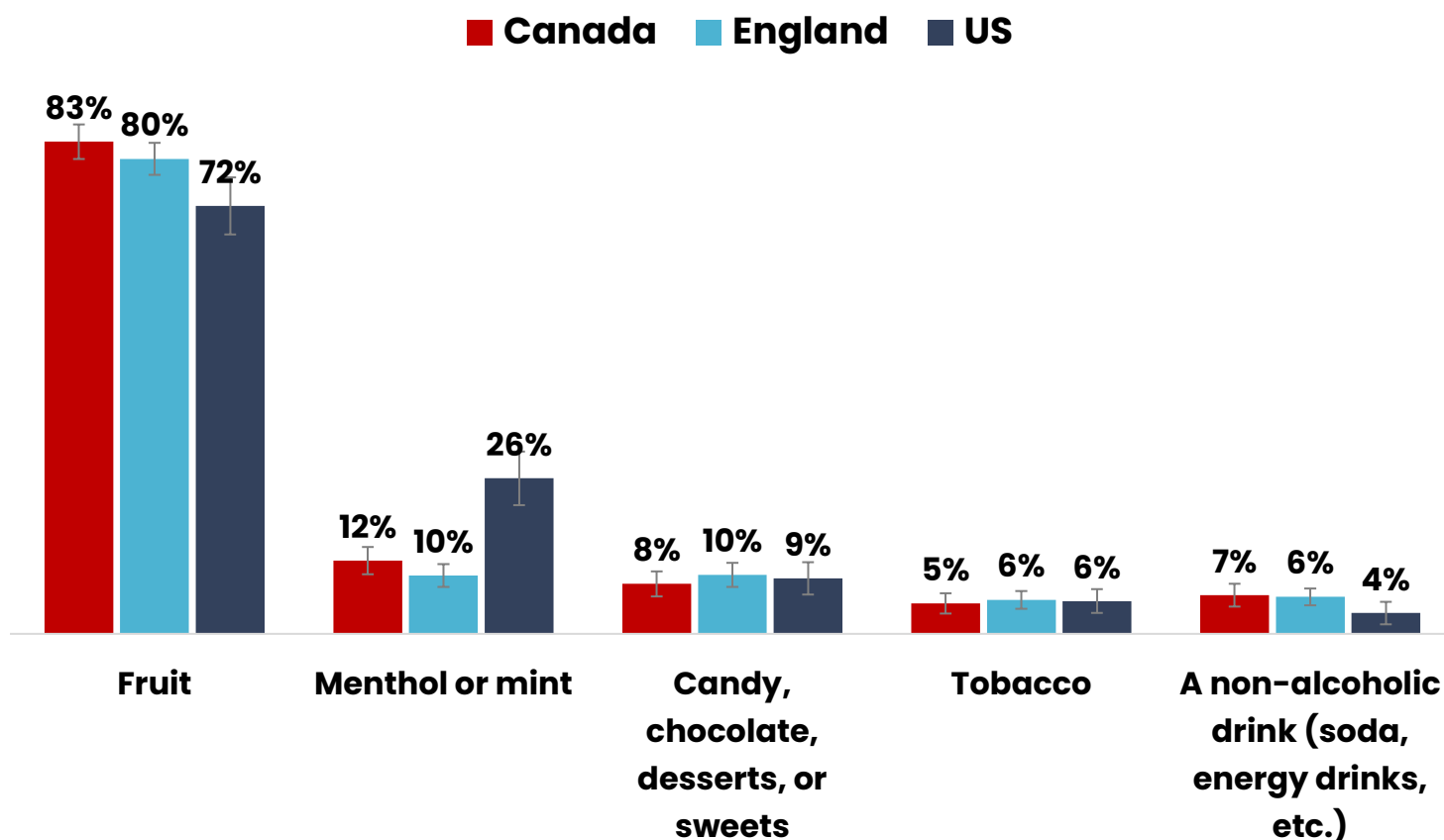
Use of flavoured e-cigarettes

In 2022, fruit was the most popular usual flavour of e-cigarettes among youth who vaped in each country, used by 72% in the US, and over 80% in Canada and England. Menthol or mint flavour was used by approximately one in four youth who vaped in the US, compared to approximately one in ten in Canada and England. 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, 2022

CA: N=862; EN: N=1,229; US: N=832



"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

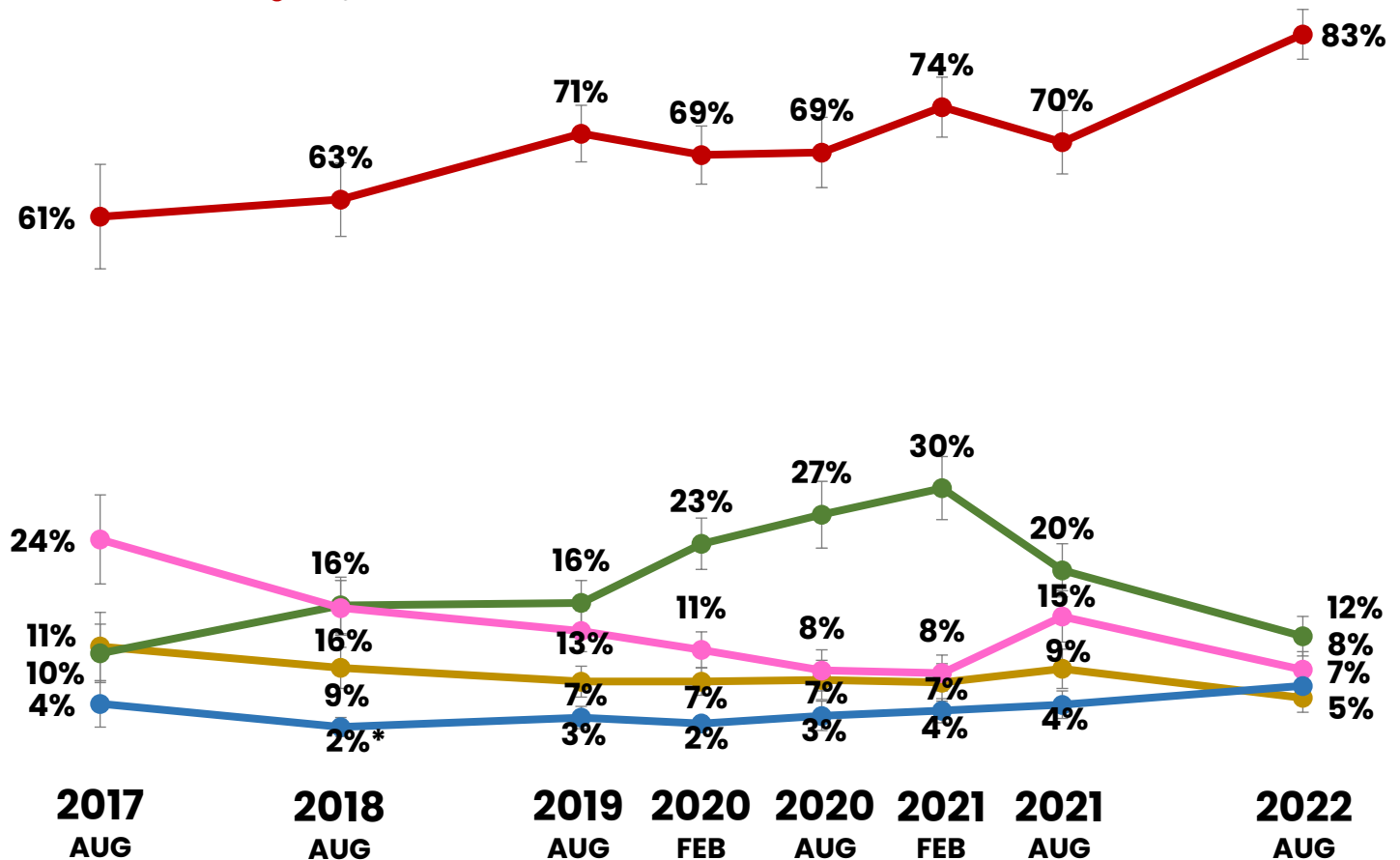
In Canada, fruit was the most popular usual flavour of e-cigarettes among youth who vaped in all years, used by 6 in 10 in 2017 and increasing to 8 in 10 in 2022. Menthol or mint was the next most popular, its use increasing until 2021 before falling back to 2017 levels. Usual use of tobacco flavours was rare.



Flavours used 'most often' in the past 30 days

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2022, CANADA
N=5,751

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



*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

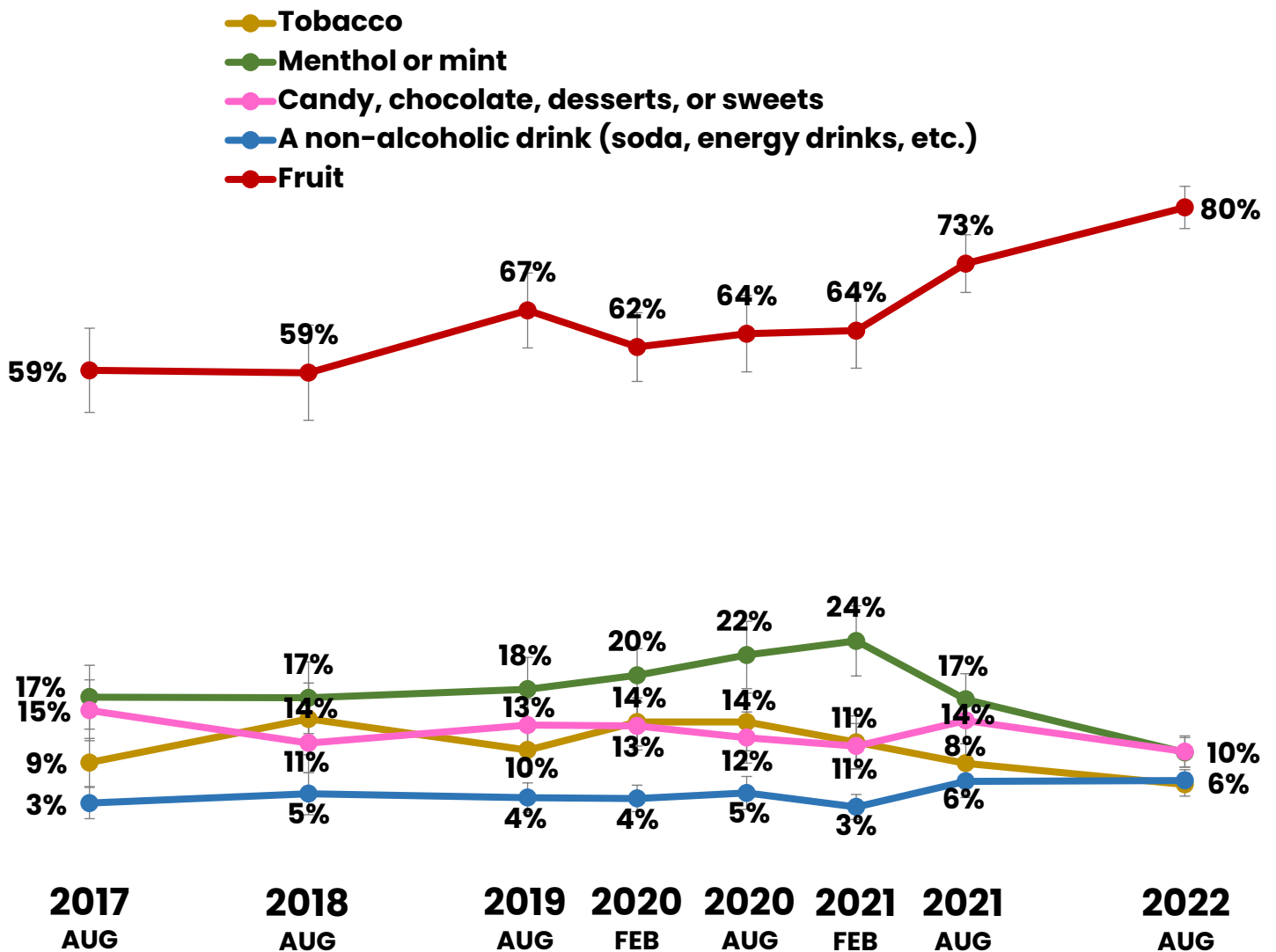
Use of flavoured e-cigarettes England

In England, fruit was also the most popular usual flavour of e-cigarettes among youth who vaped in all years, used by 6 in 10 in 2017 and increasing to 8 in 10 in 2022. Menthol or mint was the next most popular, and its use appeared to increase until 2021 before dropping to a new low in 2022. Usual use of other flavour categories were less common.



Flavours used 'most often' in the past 30 days

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2022, ENGLAND
N=4,824



"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

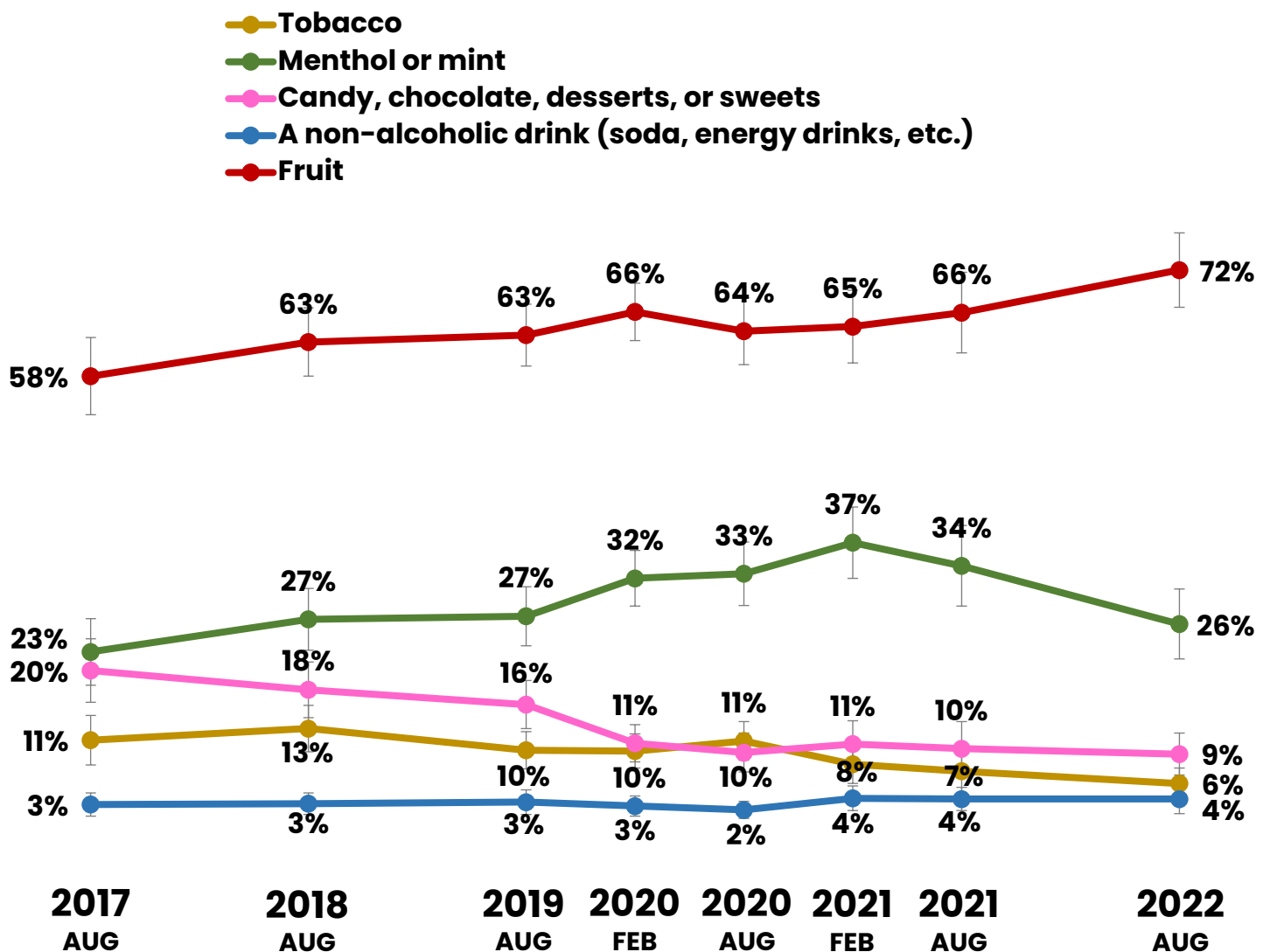
United States

In the US, while fruit was the most popular usual flavour of e-cigarettes among youth who vaped, its use increased over time to a slightly lower level than in Canada and England. 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 candy, chocolate, desserts, or 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, 2017-2022, US
N=6,282



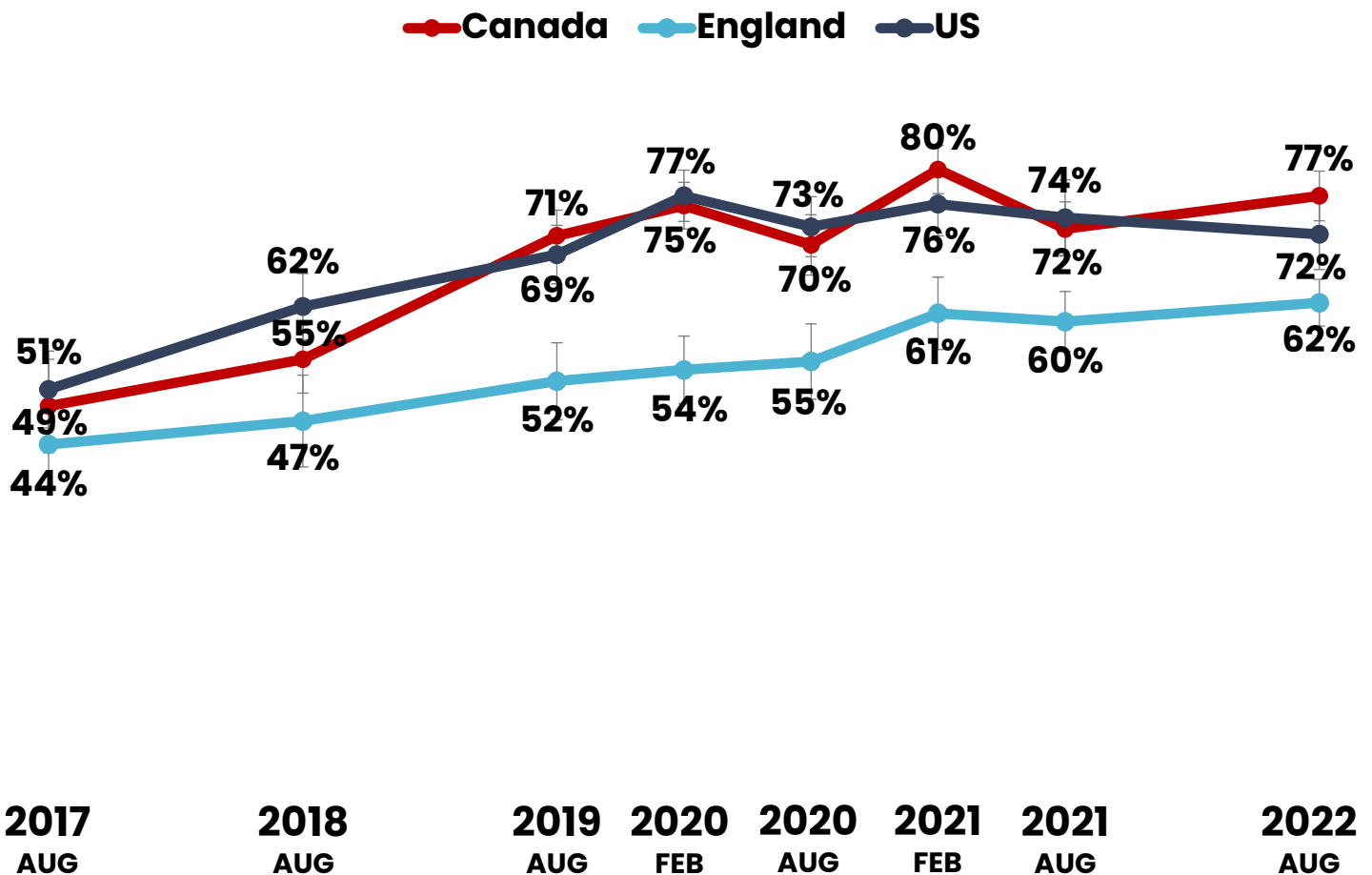
"IN THE LAST 30 DAYS, WHICH OF THESE FLAVOURS DID YOU USE MOST OFTEN?" [SELECT ALL THAT APPLY], AMONG YOUTH WHO VAPED IN THE PAST 30 DAYS; REFUSED EXCLUDED FROM DENOMINATOR

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 2022. In England, the proportion reporting that they currently used e-cigarettes that contained nicotine was lower than in Canada and the US, and increased gradually over time from 2017 to 2022.

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, 2017-2022
 CA: N=5,685; EN: N=4,766; US: N=6,242



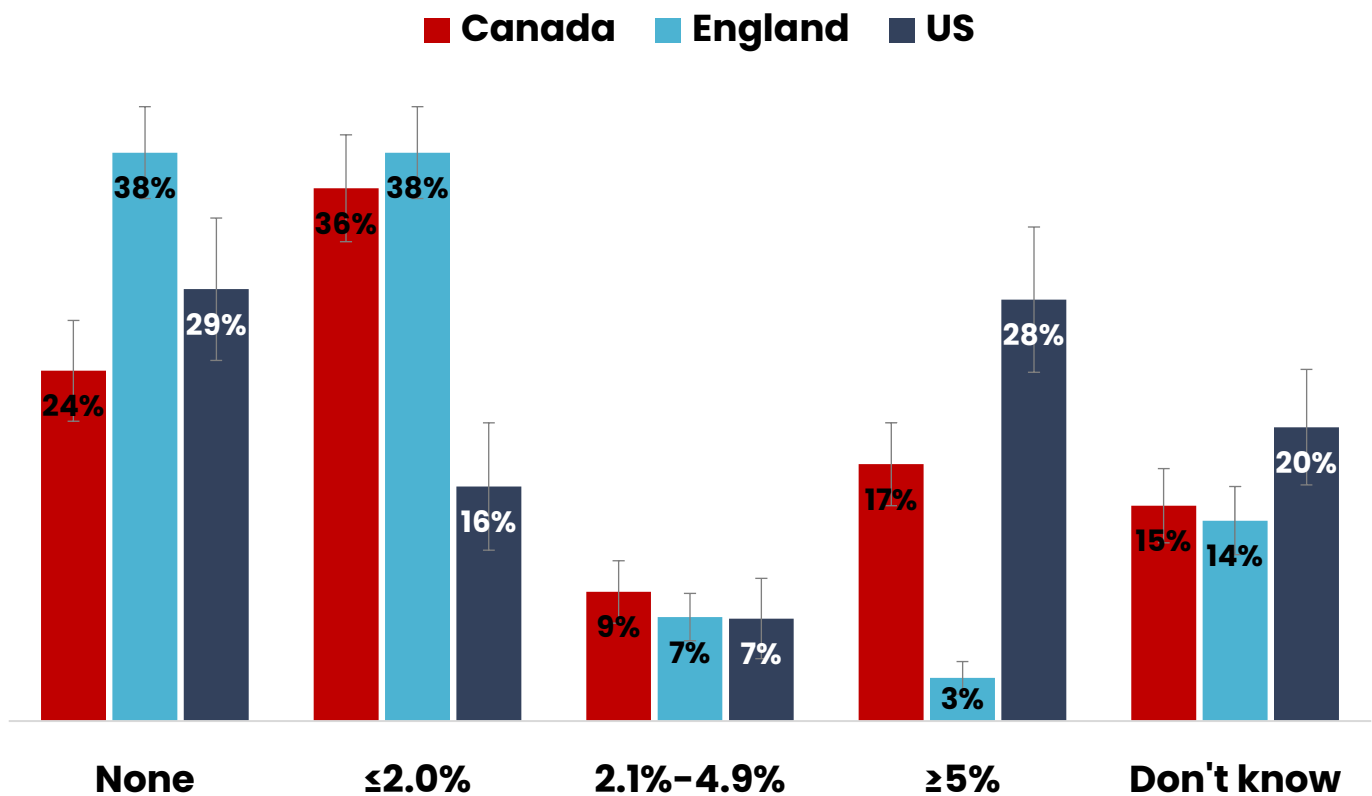
"DO THE E-CIGARETTES, CARTRIDGES, PODS, OR E-LIQUIDS YOU CURRENTLY USE CONTAIN NICOTINE?" [YES; NO; SOME HAVE NICOTINE, SOME DO NOT; I DON'T KNOW; REFUSED], ASKED OF YOUTH WHO VAPED IN THE PAST 30 DAYS AND WHO EVER USED NICOTINE; % 'YES' OR 'SOME' REPORTED AMONG ALL YOUTH WHO VAPED IN THE PAST 30 DAYS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

Nicotine in vaping products

In 2022, among youth who had vaped in the past 30 days, the proportion who reported using products with no nicotine varied by country, from 24% in Canada to 38% in England. In Canada and England, use of products with a nicotine concentration of 2.0% or less was most common (at 36% and 38%, respectively), while products with at least 5.0% nicotine were more popular in the US (28%). Up to one in five 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, 2022
CA: N=853; EN: N=1,215; US: N=823



"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

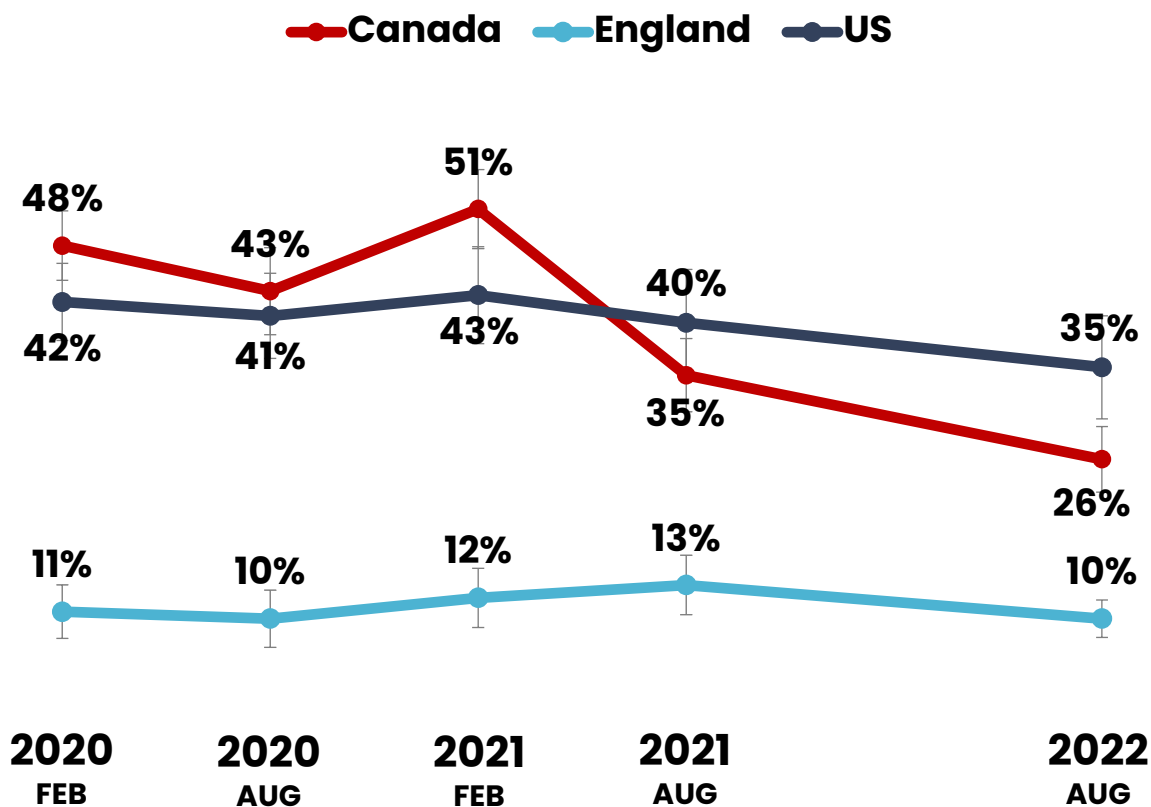
Nicotine in vaping products

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 for vaping products. After the implementation of the limit, this proportion decreased to near one-third in August 2021, and just one in four in 2022. No major changes over time were observed in England or the US, although England, which also limited nicotine concentration limit to 20 mg/mL, consistently had a low prevalence of use above this level.

Nicotine concentration >2% / 20mg/mL

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2020-2022

CA: N=3,949; EN: N=3,653; US: N=4,290



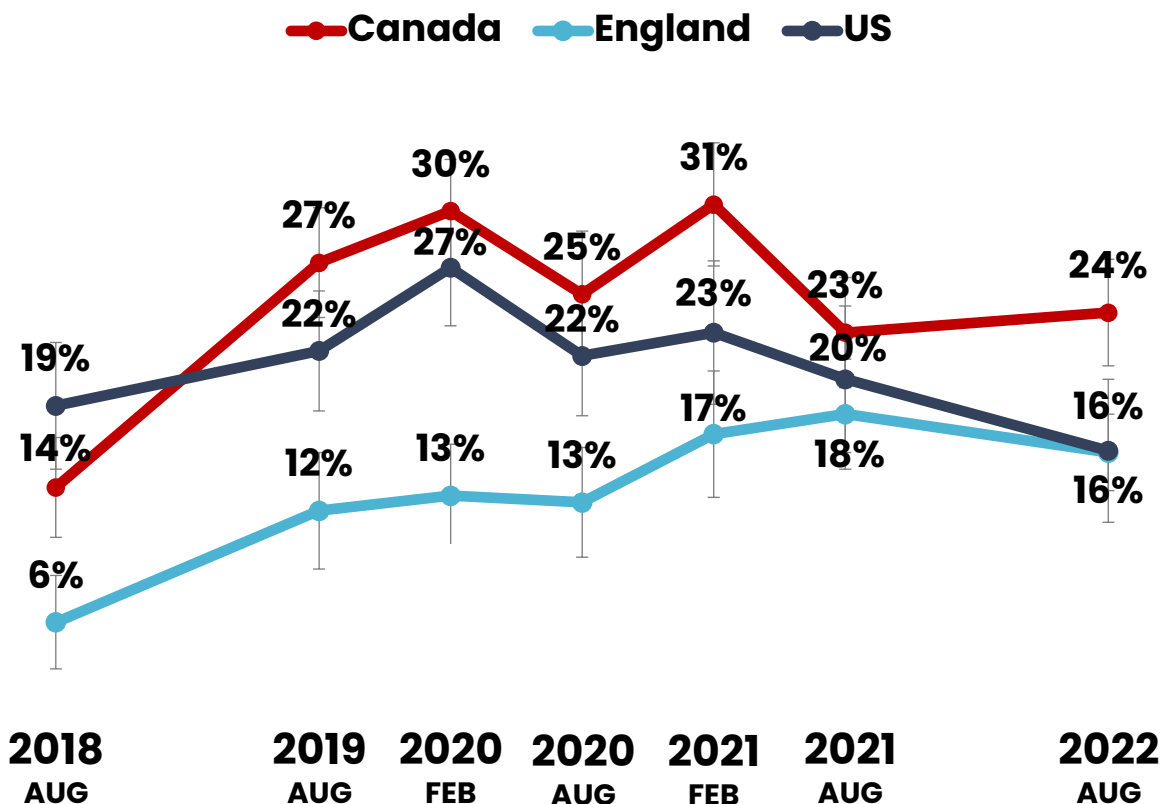
"HOW MUCH NICOTINE DO THE E-CIGARETTES, CARTRIDGES, PODS, OR E-LIQUIDS YOU CURRENTLY USE CONTAIN?" [RESPONSE RANGES IN MG/ML OR %; I DON'T KNOW; REFUSED], ASKED OF YOUTH WHO VAPED IN THE PAST 30 DAYS AND WHO USUALLY USED NICOTINE; CONCENTRATION REPORTED AMONG ALL YOUTH WHO VAPED IN THE PAST 30 DAYS [INCLUDING 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 only slightly. In England, fewer youth who vaped reported using nicotine salts in 2018, but this proportion increased steadily until early 2021 before levelling off at a rate similar to the US.

Use of nicotine salt vaping product

% 'YES', YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2018-2022
 CA: N=5,426; EN: N=4,478; US: N=5,809



"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 NICOTINE 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

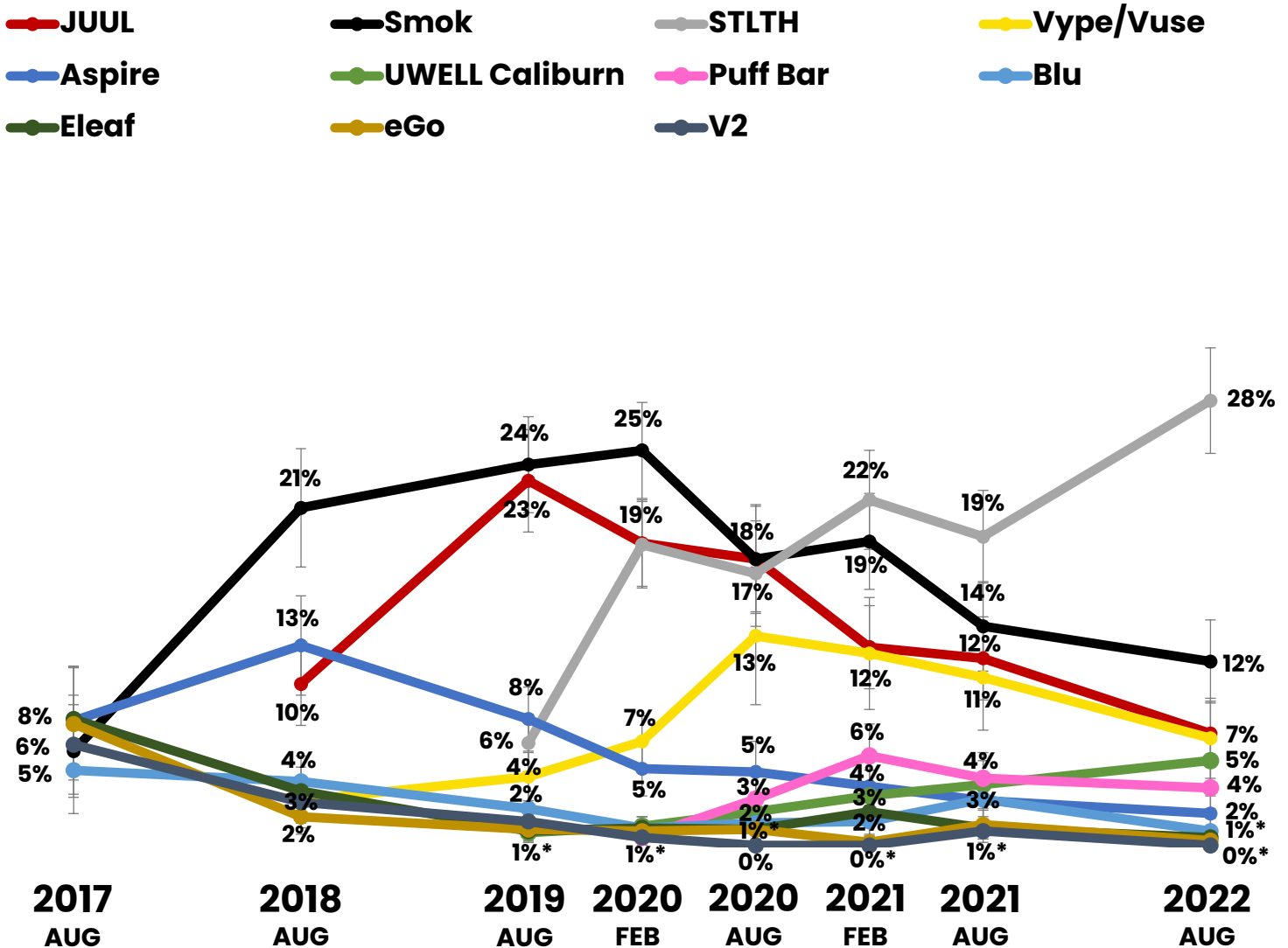
Canada

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, 2017-2022, CANADA, N=5,741



"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

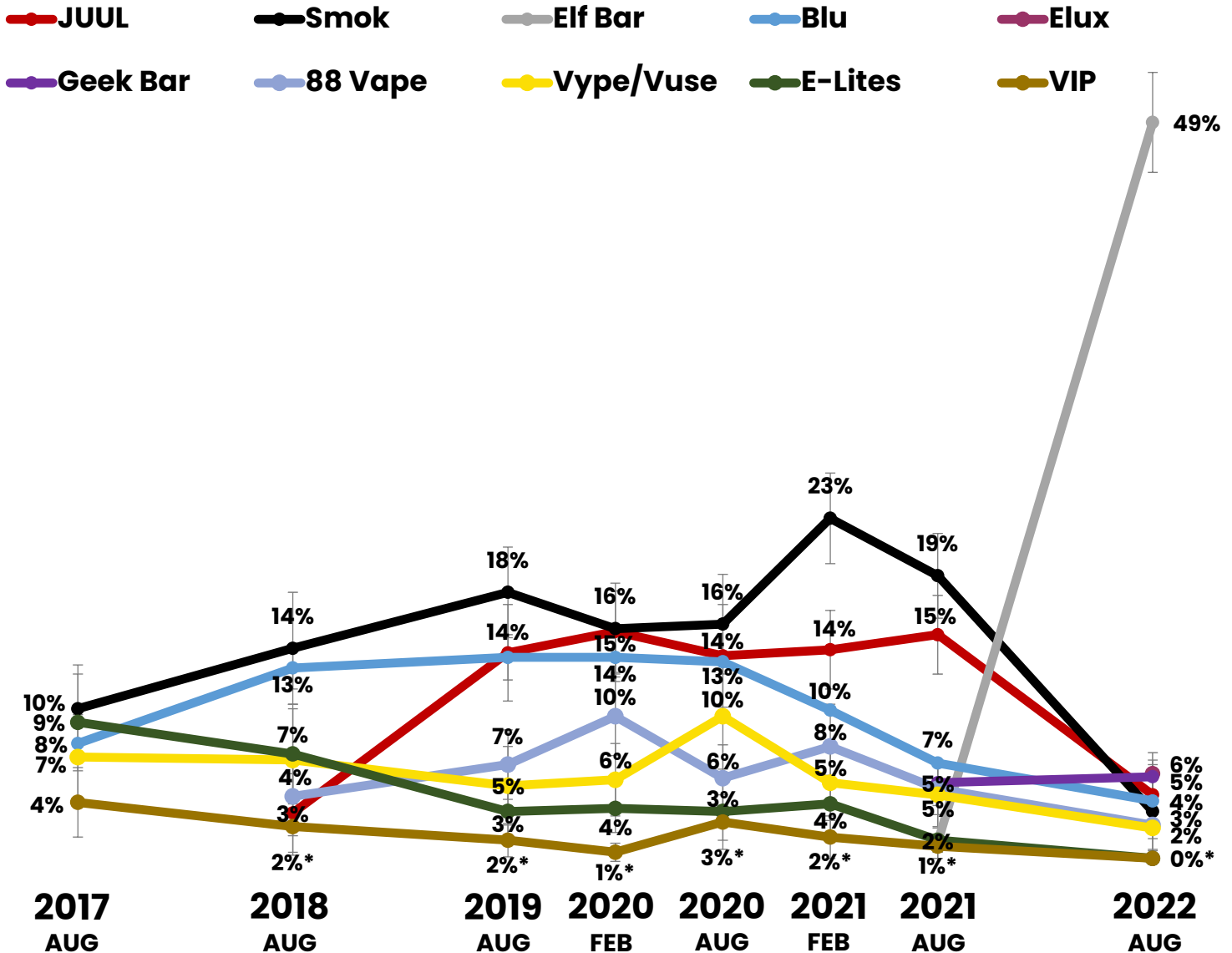
England

In England, among youth who vaped in the past 30 days, 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 half of youth who vaped in 2022.



E-cigarette brand used 'most often'

TOP 5 BRANDS IN EACH WAVE REPORTED BY YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2022, ENGLAND, N=4,814



*'ELUX' APPEARED IN THE TOP 5 IN 2022, AT 6%

"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

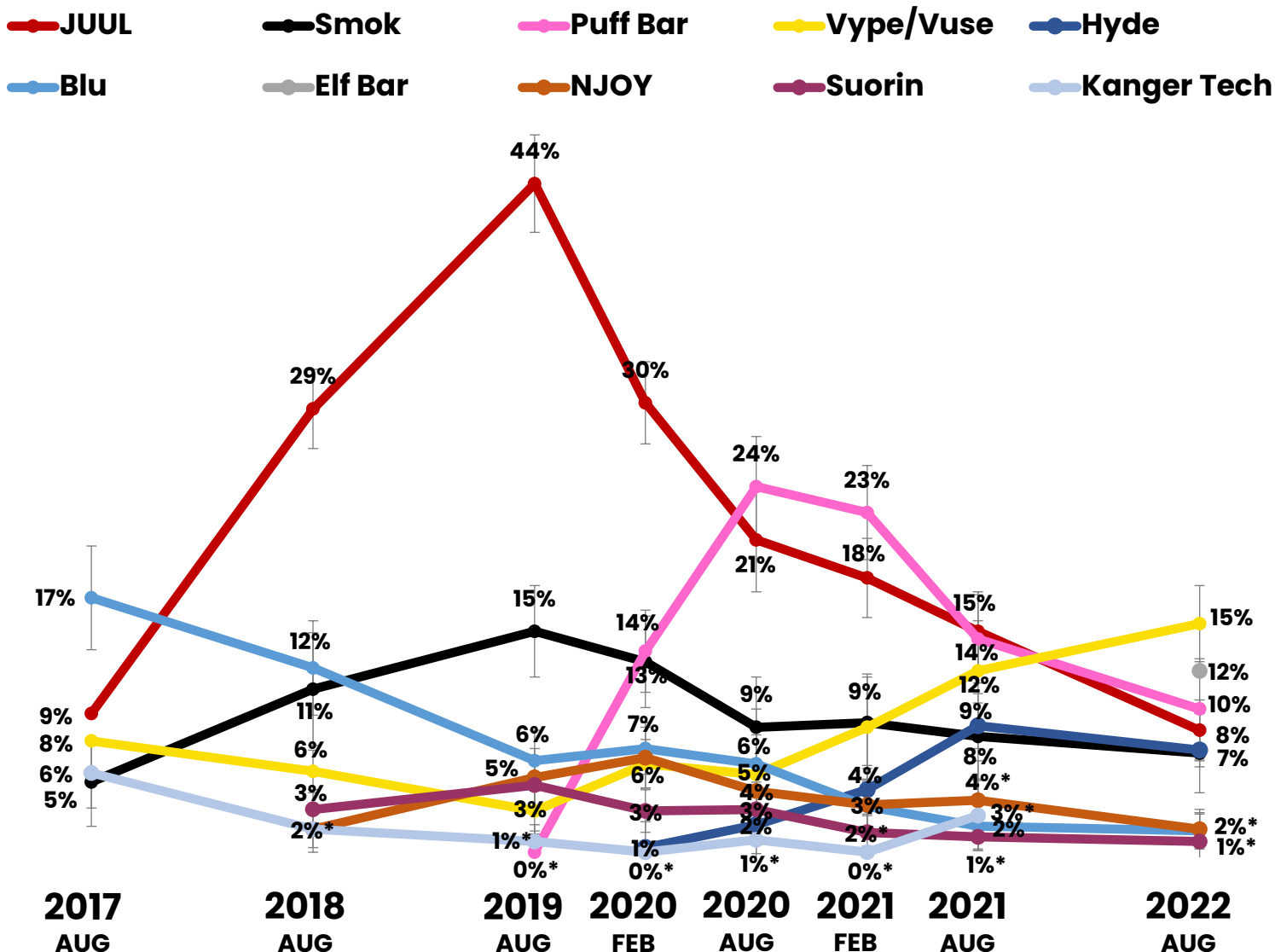
United States

In the US, among youth who vaped in the past 30 days, JUUL quickly gained popularity, peaking in 2019 but declining since then. Puff Bar emerged in 2020 to also quickly gain popularity before falling in the most recent waves. While used by a small proportion of youth who vaped since 2017, Vuse has increased since 2020 to become the most popular brand in 2022.



E-cigarette brand used 'most often'

TOP 5 BRANDS IN EACH WAVE REPORTED BY YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2022, US, N=6,272



"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 devices

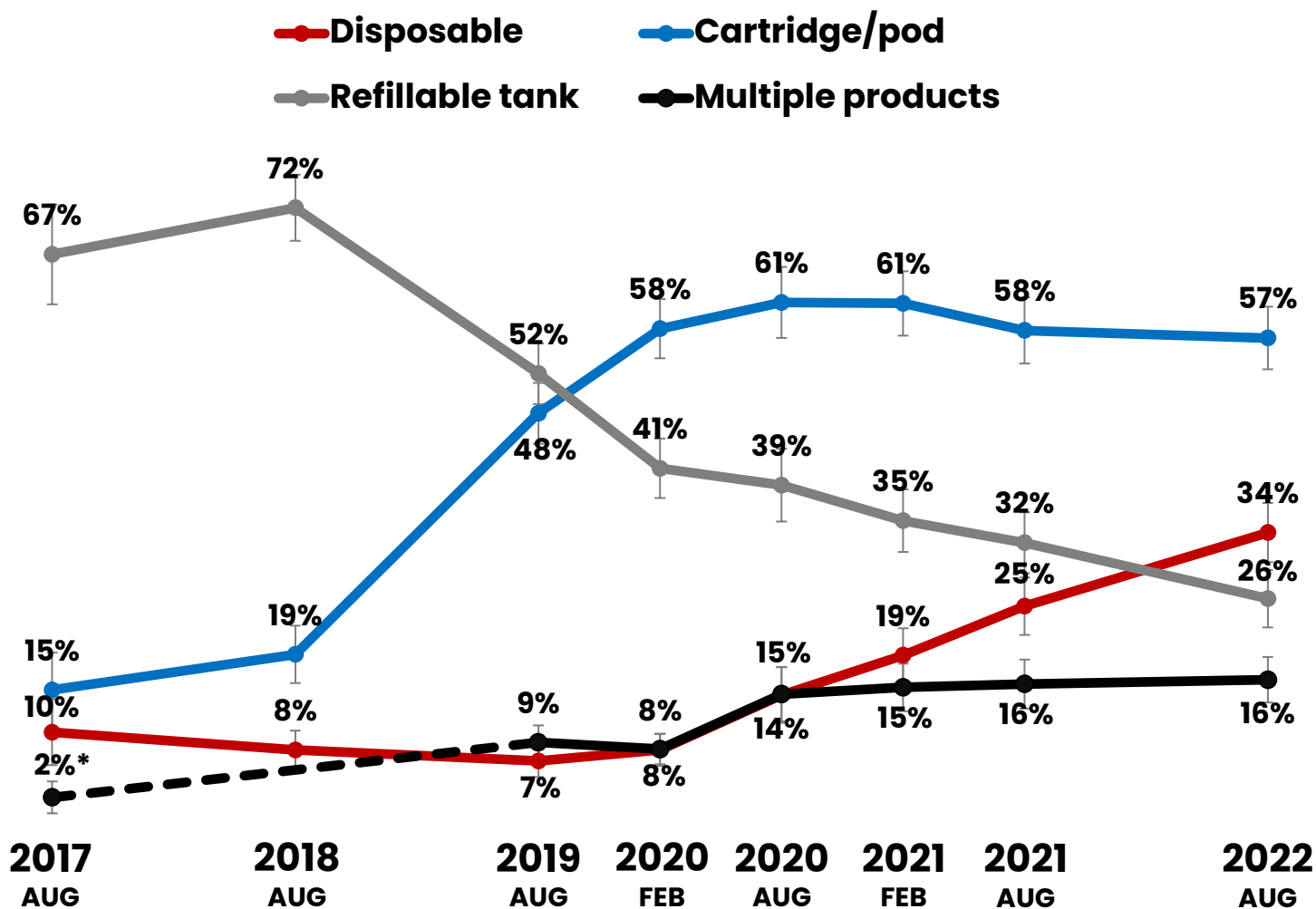
Canada

In Canada, refillable tanks were the device type used most often by youth who vaped in 2017 and 2018, declining over time. Cartridge/pod devices increased to become the most popular device in 2020 onward. Usual use of disposable devices has steadily increased since 2020.



Type of vaping device used most often

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2022, CANADA
N=5,731



*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

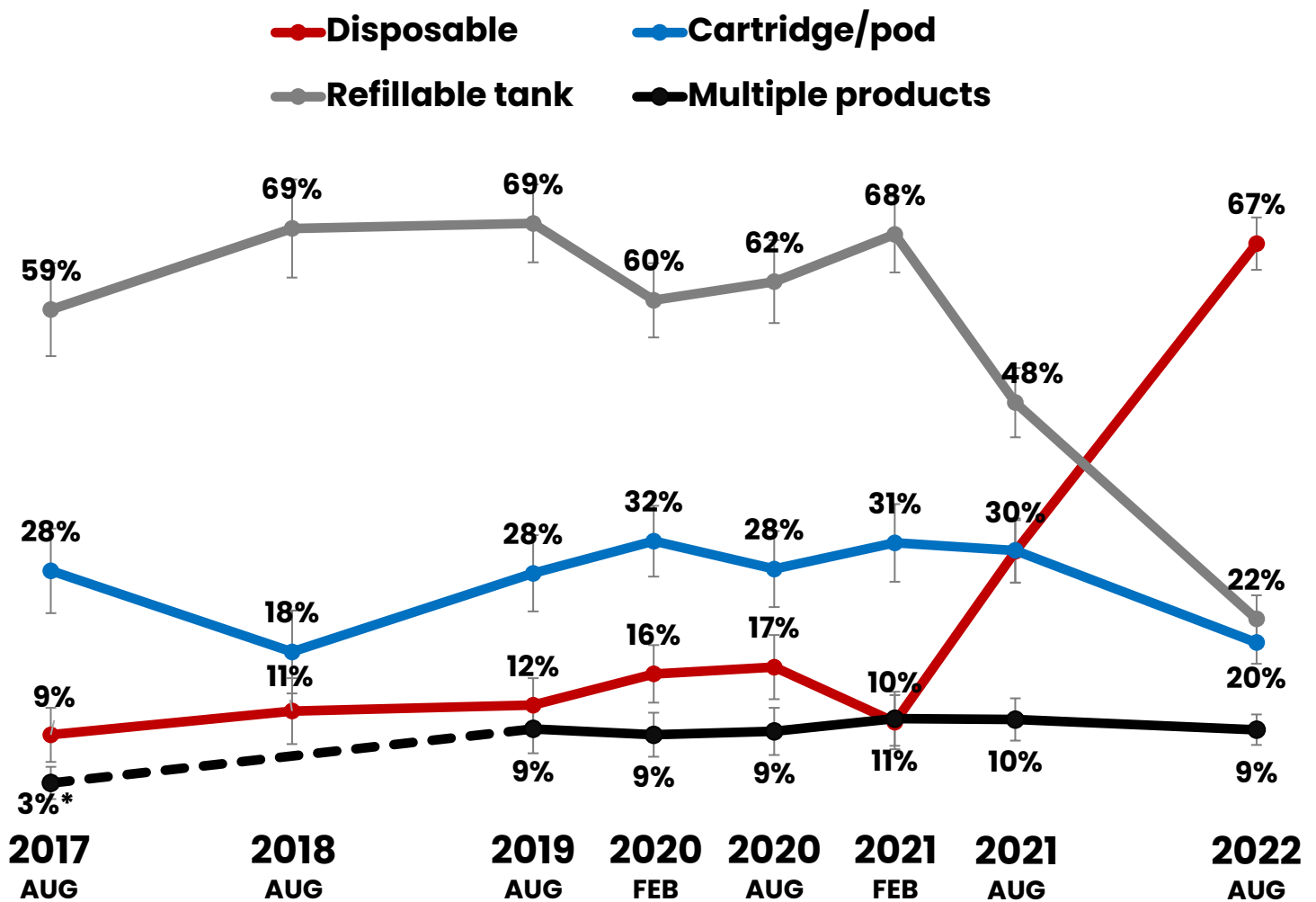
England

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 products was low until early 2021, and then increased sharply to be used by the majority of youth who vaped in 2022. Cartridge/pod devices were used by a smaller proportion and their use was more stable over time.



Type of vaping device used most often

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2022, ENGLAND
N=4,812



*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

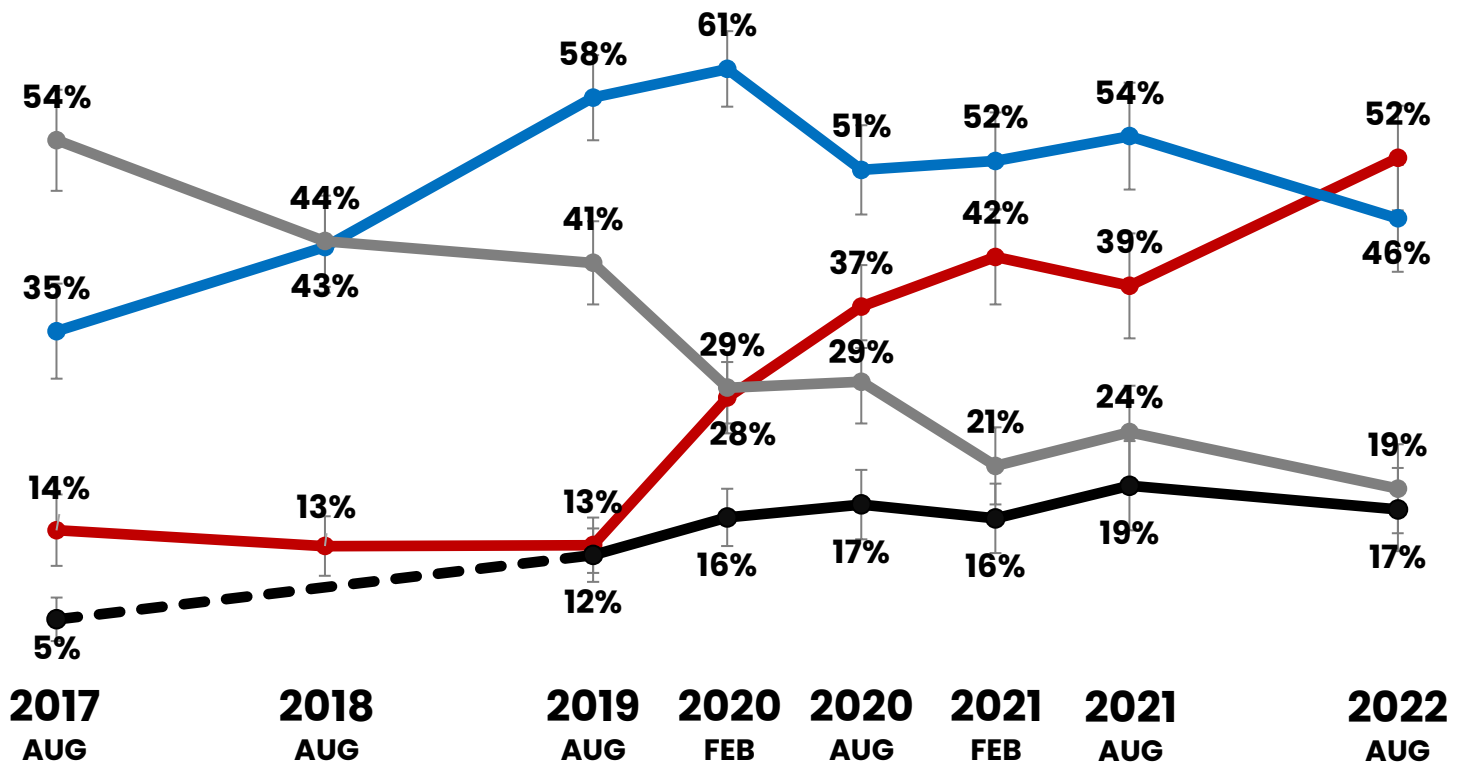
In the US, cartridge/pod devices increased to become the most popular device type in 2019, used by over half of youth who vaped until 2022, when their popularity was overtaken by disposable devices, which had been increasing since 2019. Refillable tanks were the device type used most often in 2017, but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



Type of vaping device used most often

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2022, US
N=6,265

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



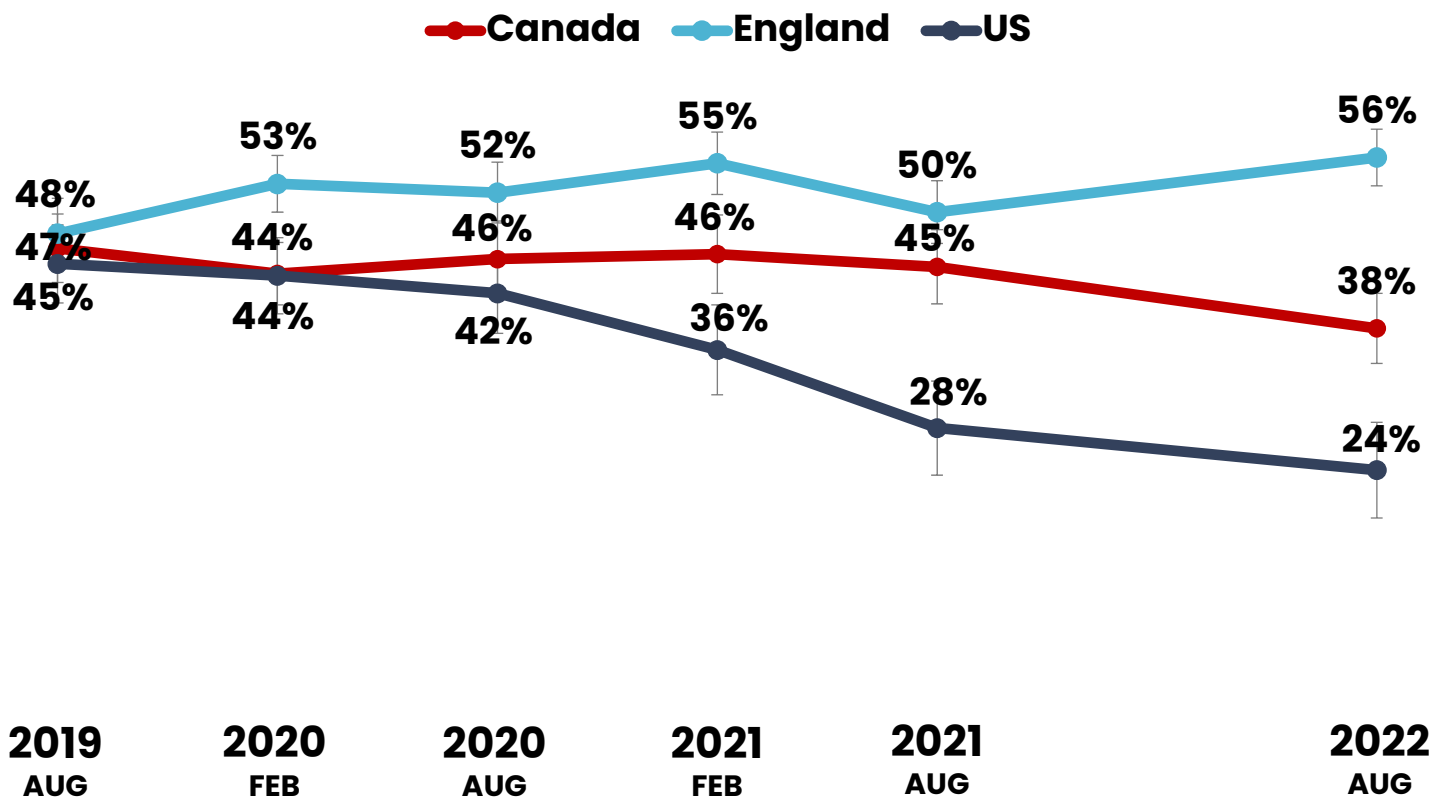
"WHICH OF THE FOLLOWING TYPES OF E-CIGARETTES/ VAPING DEVICES DO YOU CURRENTLY USE MOST OFTEN?"
[DISPOSABLE (NOT REFIILLABLE OR RECHARGEABLE) E-CIGARETTE/VAPING DEVICE; E-CIGARETTE/VAPING DEVICE WITH REPLACEABLE PRE-FILLED CARTRIDGES OR PODS; E-CIGARETTE/VAPING DEVICE WITH A TANK THAT YOU FILL WITH LIQUID; 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.

Purchasing cigarettes

In 2022, among youth who smoked in the past 12 months, more than half in England reported purchasing cigarettes in the past 12 months, much greater 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, 2019-2022
 CA: N=5,304; EN: N=7,798; US: N=5,314

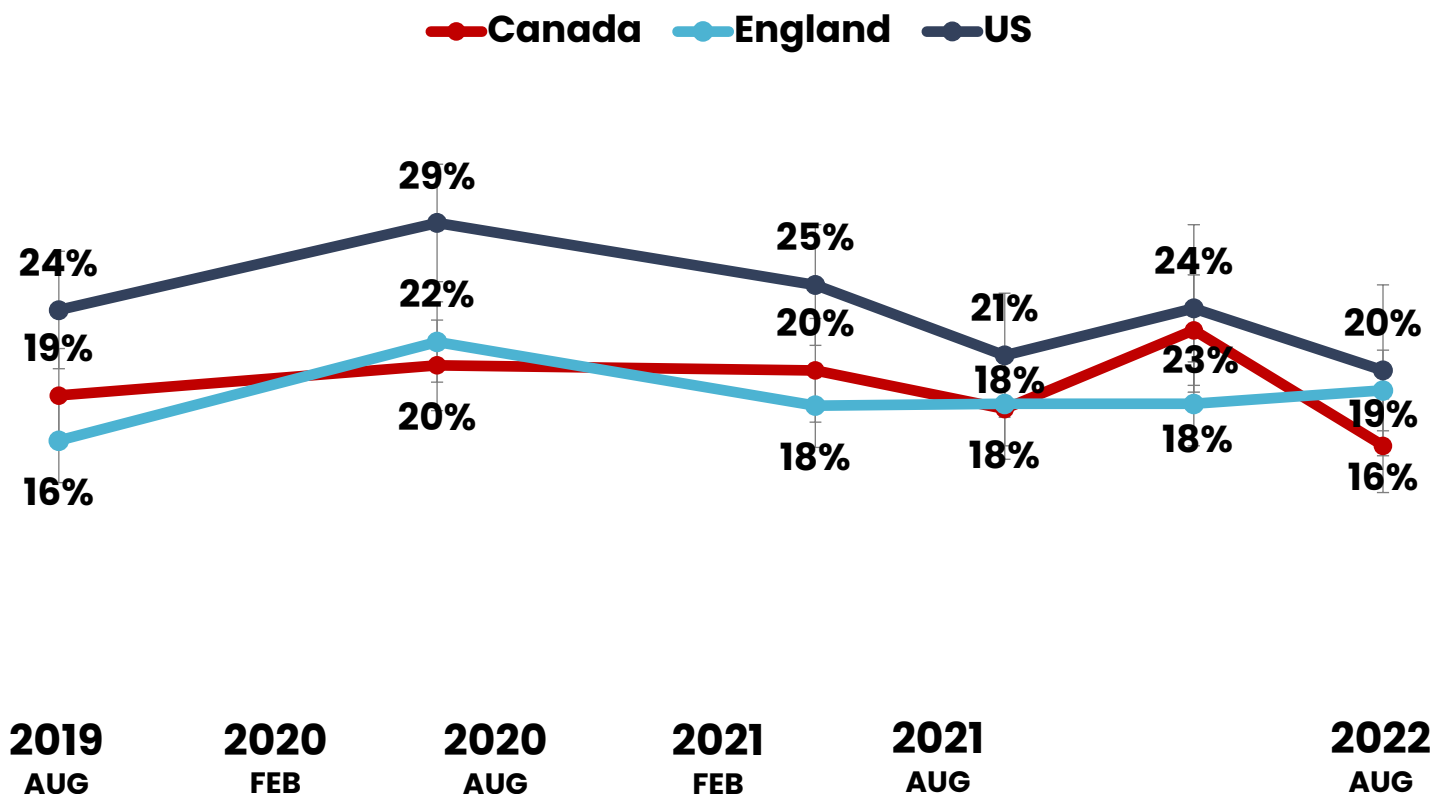


Purchasing cigarettes – refusal

In 2022, 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, 2019-2022
CA: N=5,183; EN: N=7,738; US: N=5,181



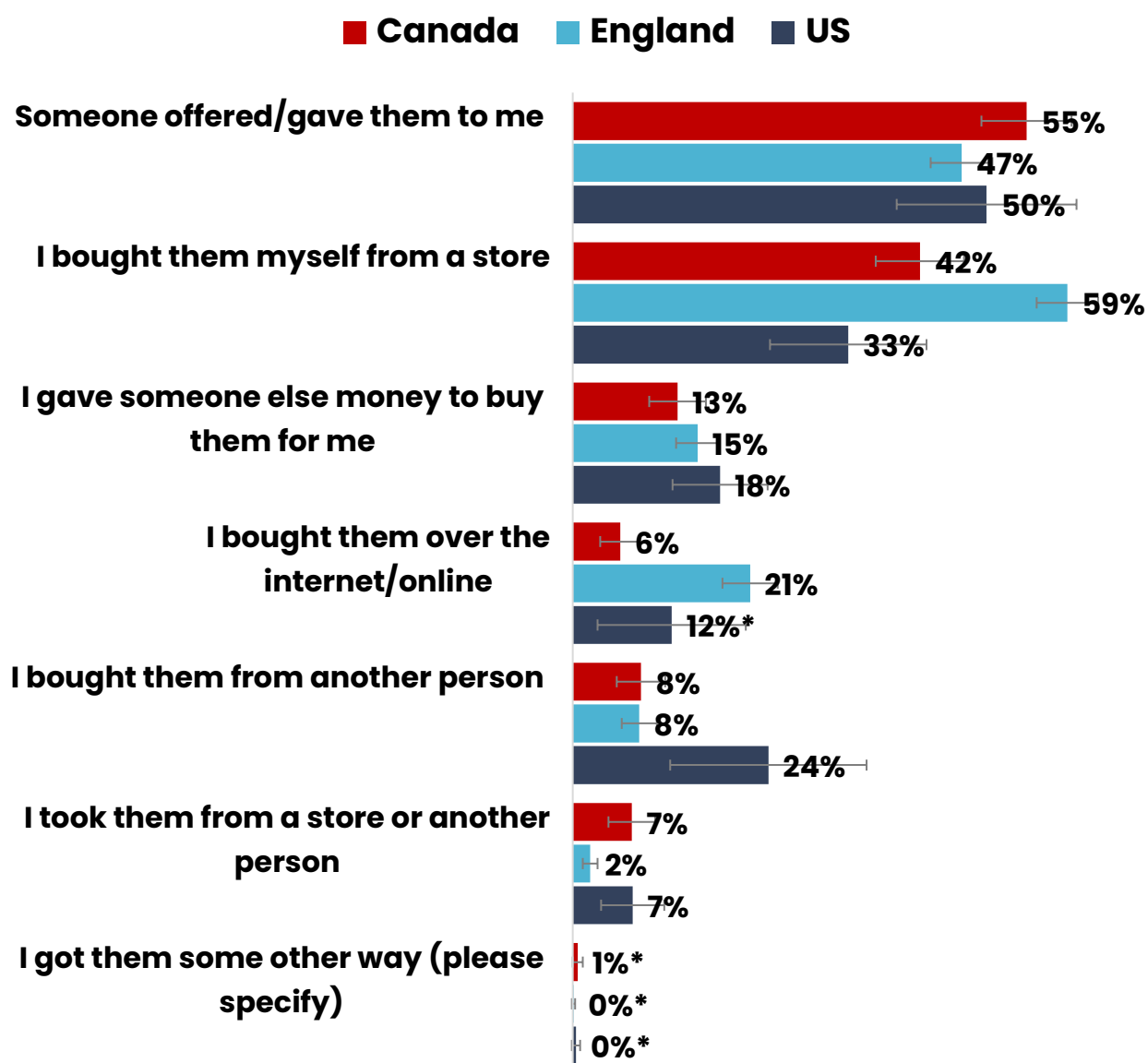
Sources of cigarettes

In 2022, among youth who smoked in the past 30 days, approximately half reported being given/offered cigarettes by another person. The next most commonly selected source of cigarettes was purchasing from a store, reported by more than half of those in England, but fewer in Canada and the US.

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

YOUTH AGED 16-19 WHO SMOKED IN PAST 30 DAYS, 2022

CA: N=406; EN: N=939; US: N=314



*HIGH VARIABILITY OF ESTIMATE (CV>0.33)

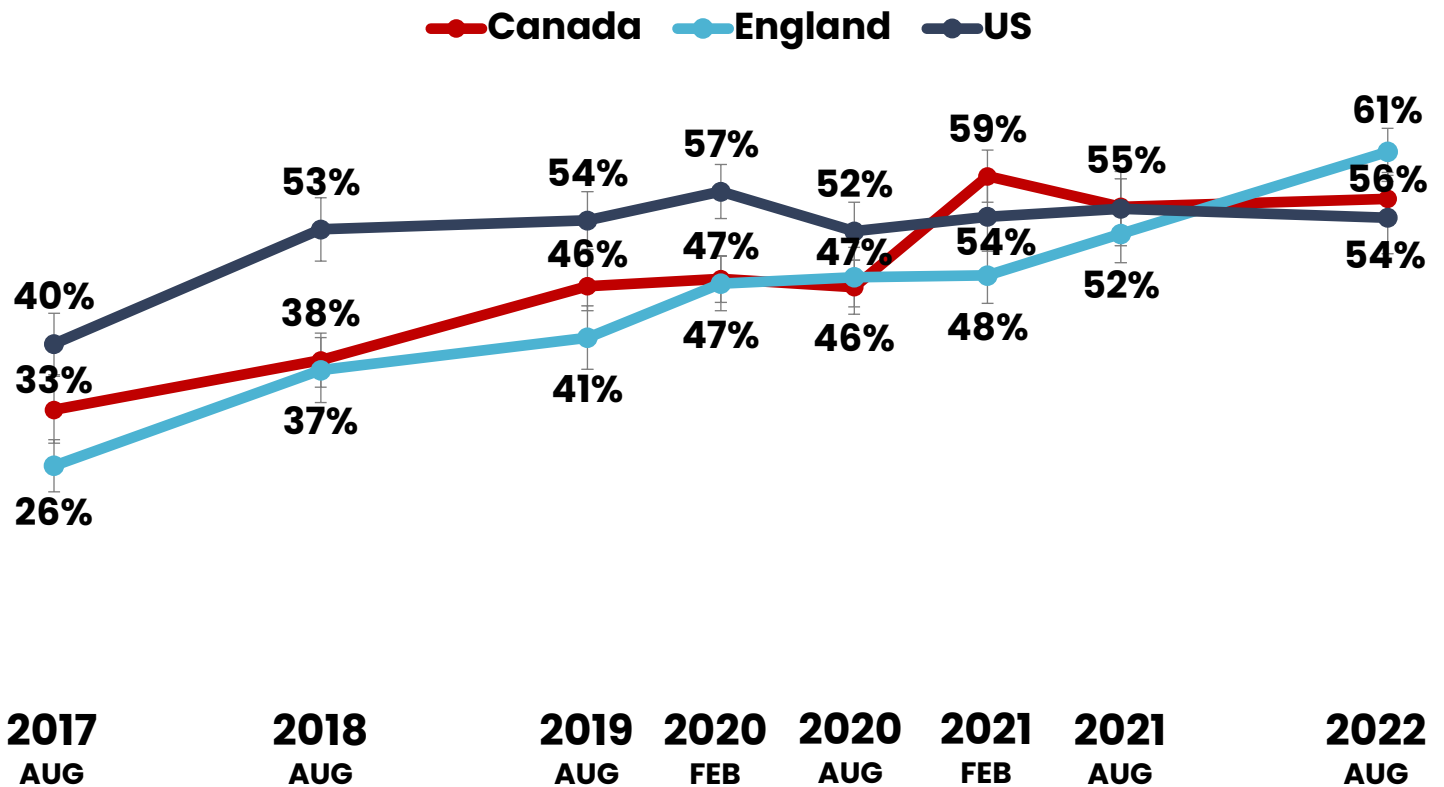
"IN THE PAST 30 DAYS, HOW DID YOU GET THE CIGARETTES YOU SMOKED?" (SELECT ALL THAT APPLY); DON'T KNOW AND REFUSED EXCLUDED FROM DENOMINATOR

Purchasing e-cigarettes

In 2022, among youth who vaped in the past 12 months, the majority in all three countries reported purchasing e-cigarettes in the past 12 months. From 2017 to 2022, the proportion of youth who vaped in the past 12 months reporting purchasing e-cigarette products appeared to increase steadily in Canada and England, 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, 2017-2022
 CA: N=10,472; EN: N=9,861; US: N=11,163



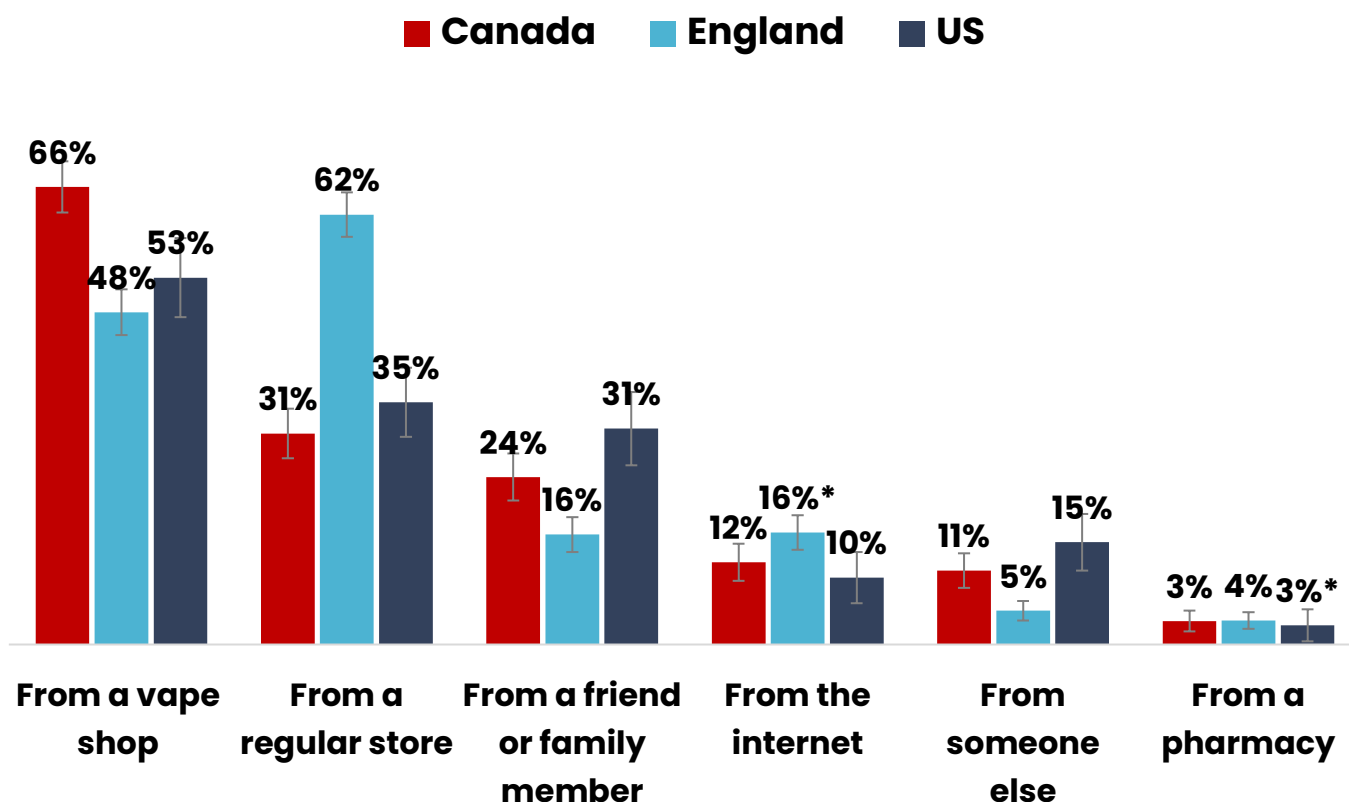
"HAVE YOU BOUGHT ANY OF THE FOLLOWING IN THE PAST 12 MONTHS? [YES/NO FOR EACH OF "E-CIGARETTE/ VAPING DEVICE", "CARTRIDGE OR POD (FOR AN E-CIGARETTE/VAPING DEVICE)", "E-LIQUID (FOR AN E-CIGARETTE/ VAPING DEVICE)"; DON'T KNOW AND REFUSED EXCLUDED FROM DENOMINATOR

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, two-thirds in Canada and approximately half in 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 the majority 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, 2022, CA: N=791; EN: N=1,179; US: N=759



*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); REFUSED EXCLUDED FROM DENOMINATOR; OTHER NOT SHOWN

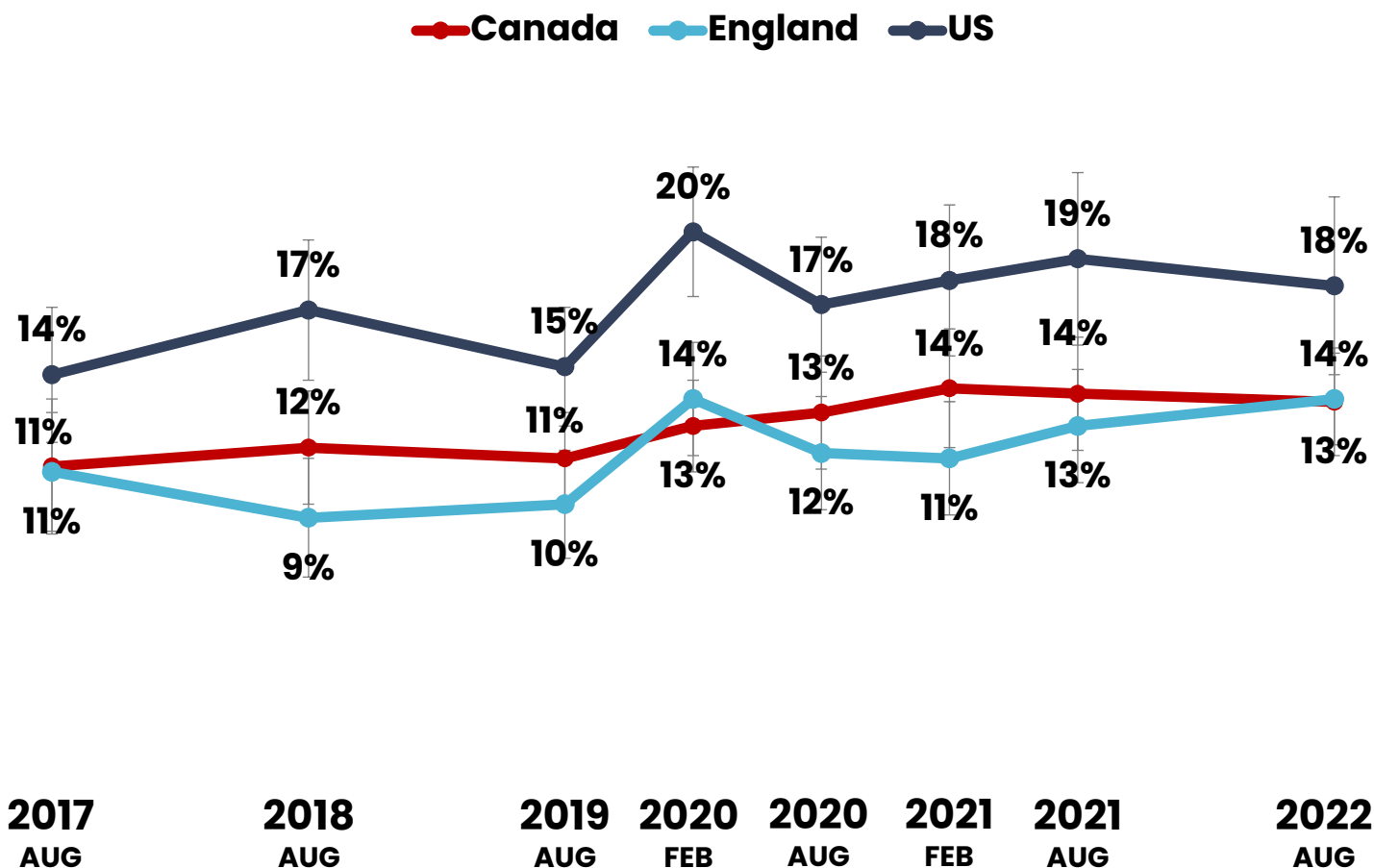
Purchasing e-cigarettes - refusal

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 fairly stable over time in all three countries.

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, 2017-2022

CA: N=10,069; EN: N=9,635; US: N=10,813



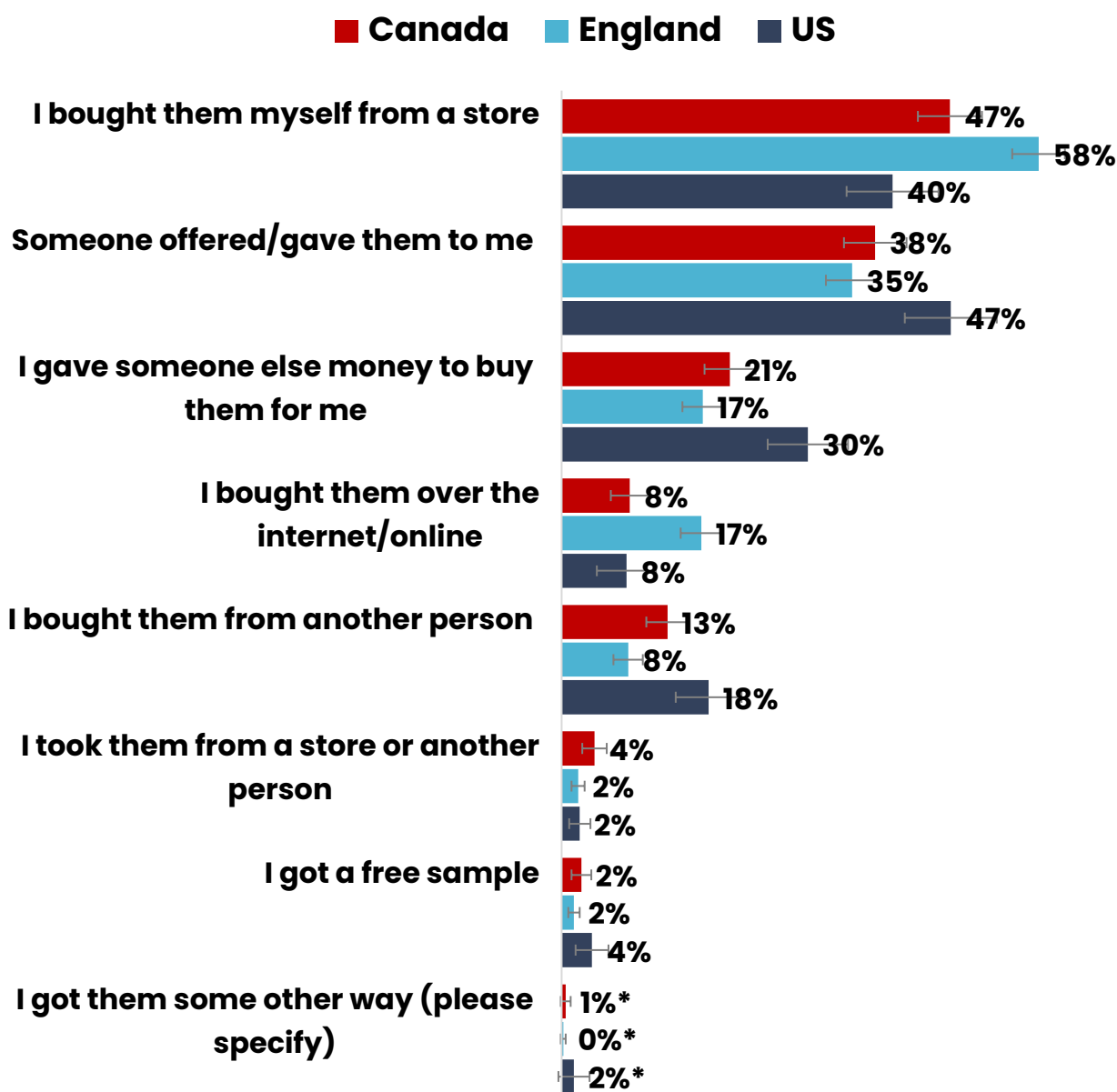
"IN THE PAST 12 MONTHS, DID ANYONE REFUSE TO SELL YOU AN E-CIGARETTE/VAPING DEVICE, CARTRIDGE, POD, OR E-LIQUID BECAUSE OF YOUR AGE?"; DON'T KNOW AND REFUSED EXCLUDED FROM DENOMINATOR

Sources of e-cigarettes

In 2022, 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 and England, 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, 2022, CA: N=817; EN: N=1,184; US: N=784



*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

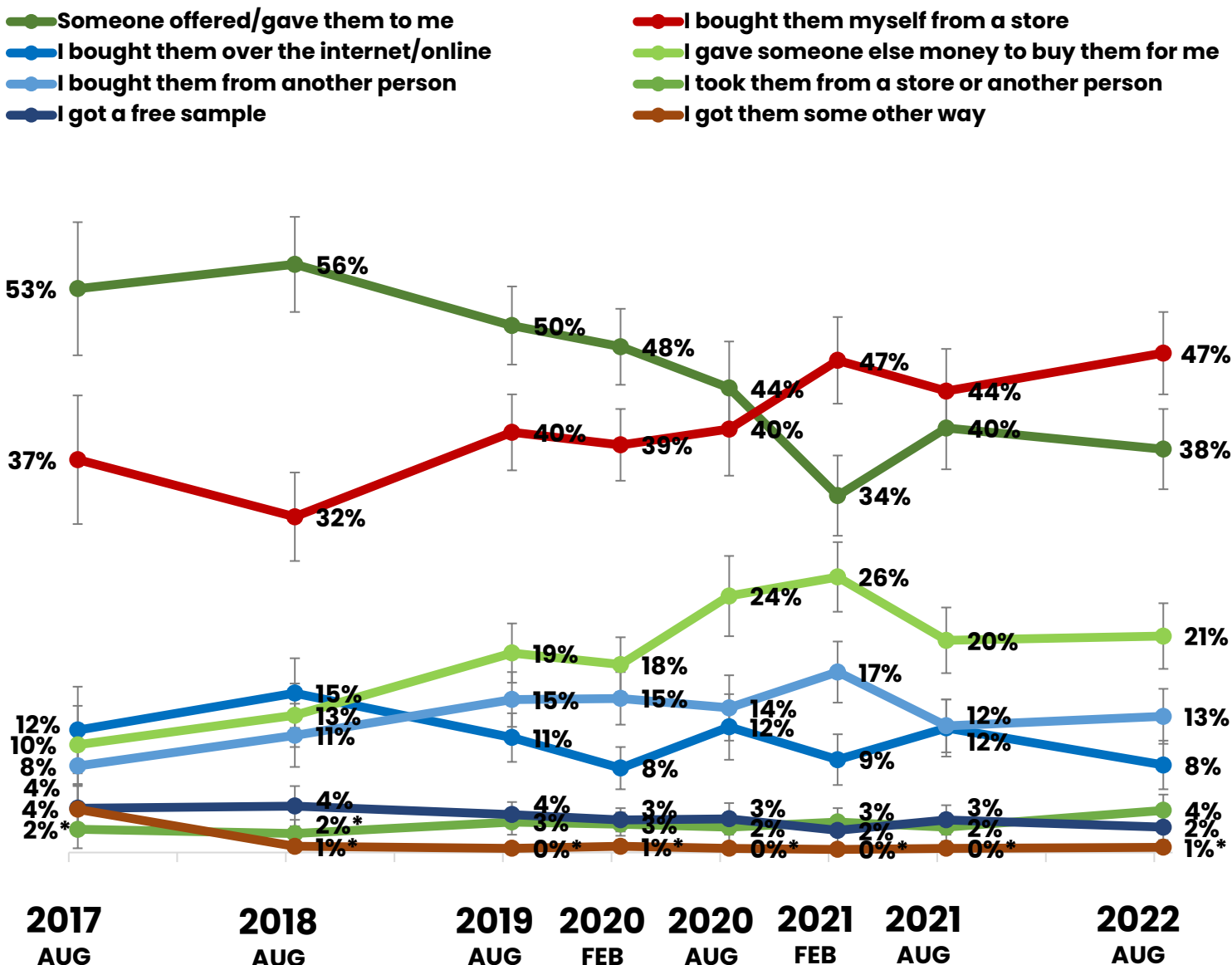
Canada

In Canada, "someone offered/gave them to me" decreased in popularity over time since 2017, while "bought myself from a store" increased to become the most frequently selected source among youth who vaped in the past 30 days 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, 2017-2022, CANADA, N=5,493



NOTE: MANY ESTIMATES HAVE HIGH COEFFICIENT OF VARIATION.

"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

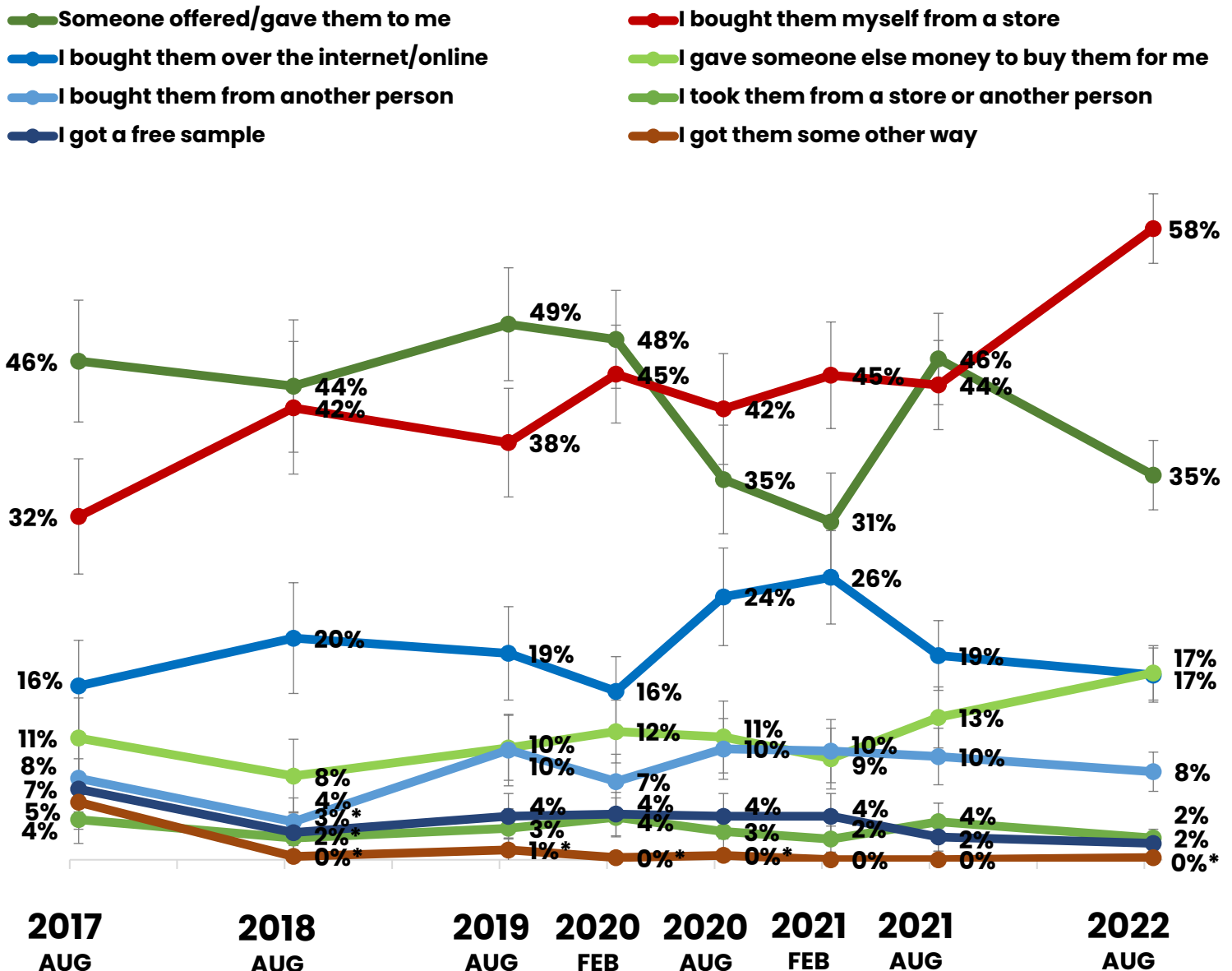
England

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 increased in 2022.



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

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2022, ENGLAND, N=4,630



NOTE: MANY ESTIMATES HAVE HIGH COEFFICIENT OF VARIATION.

"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

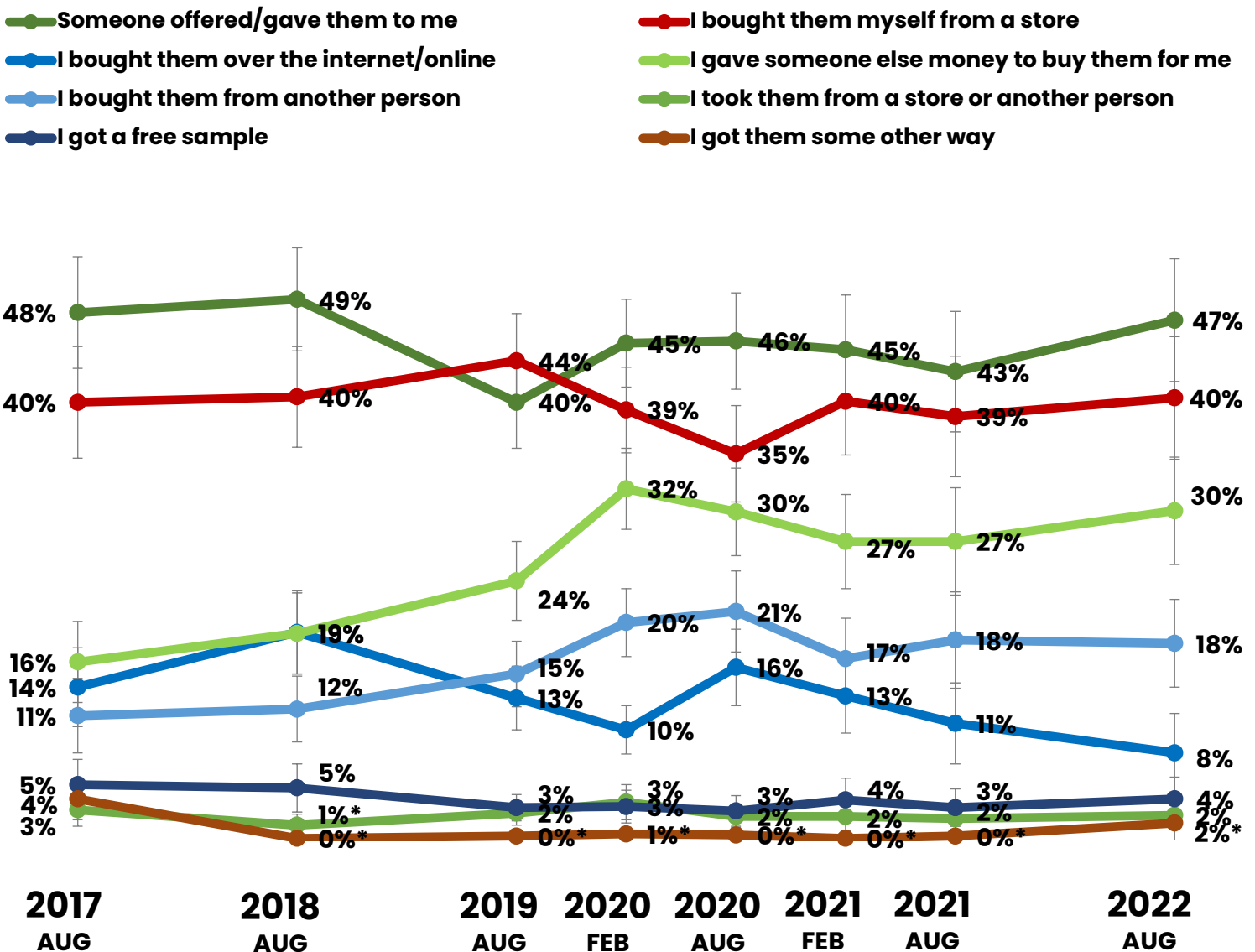
Sources of e-cigarettes

United States

In the US, among youth who vaped in the past 30 days, the most frequently selected sources 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 2022.



How did you get the e-cigarettes you used in the past 30 days? YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2022, US, N=6,026



NOTE: MANY ESTIMATES HAVE HIGH COEFFICIENT OF VARIATION.

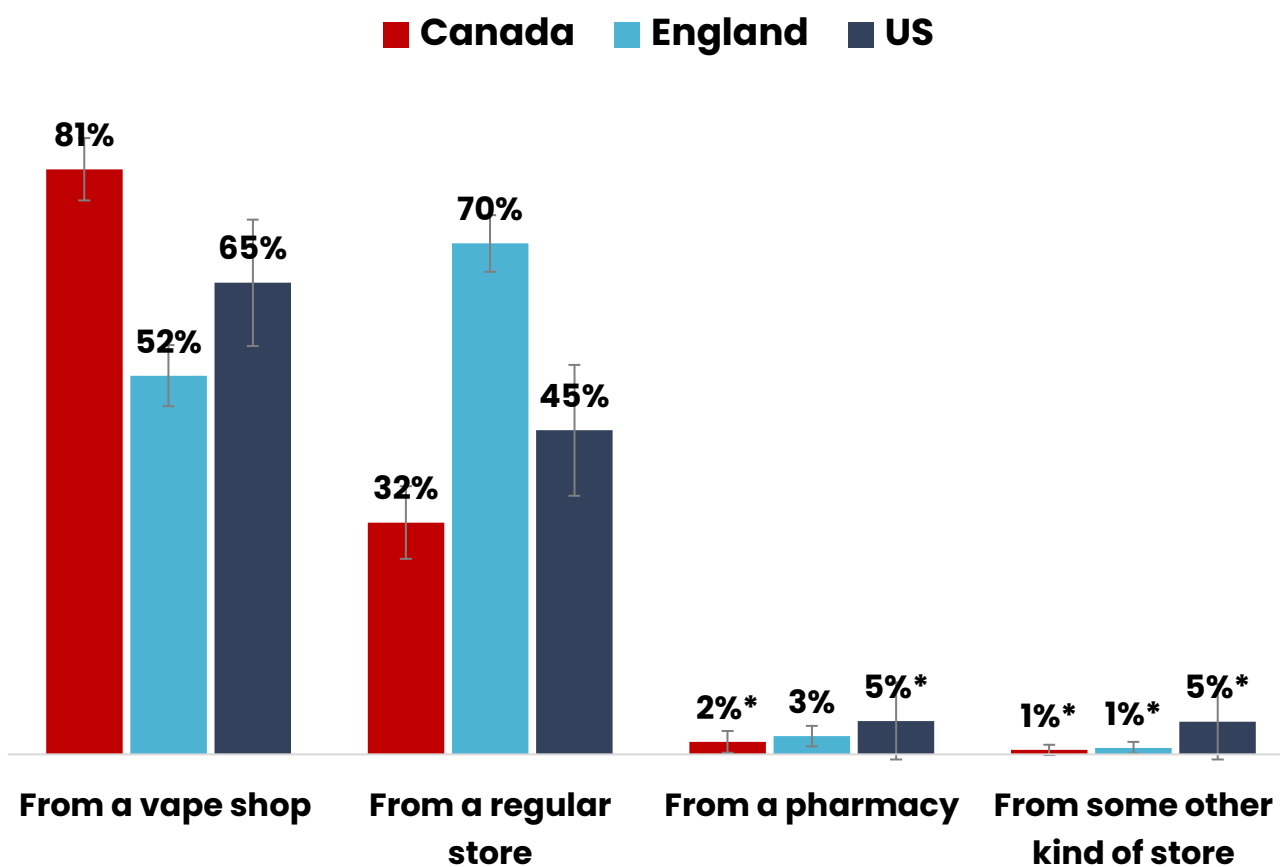
"IN THE PAST 30 DAYS, HOW DID YOU GET THE ECIGARETTE(S)/VAPING DEVICE(S), CARTRIDGE(S), POD(S), OR ELIQUID(S) THAT YOU USED FOR VAPING?" [SELECT ALL THAT APPLY]; DON'T KNOW AND REFUSED EXCLUDED FROM DENOMINATOR

Sources of e-cigarettes - stores

Youth who vaped in the past 30 days and who said they bought cigarettes themselves from a store in the past 30 days were asked what kind of store they bought e-cigarettes from. In 2022, 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, 2022
 CA: N=422; EN: N=726; US: N=335



*HIGH VARIABILITY OF ESTIMATE (CV>0.33)

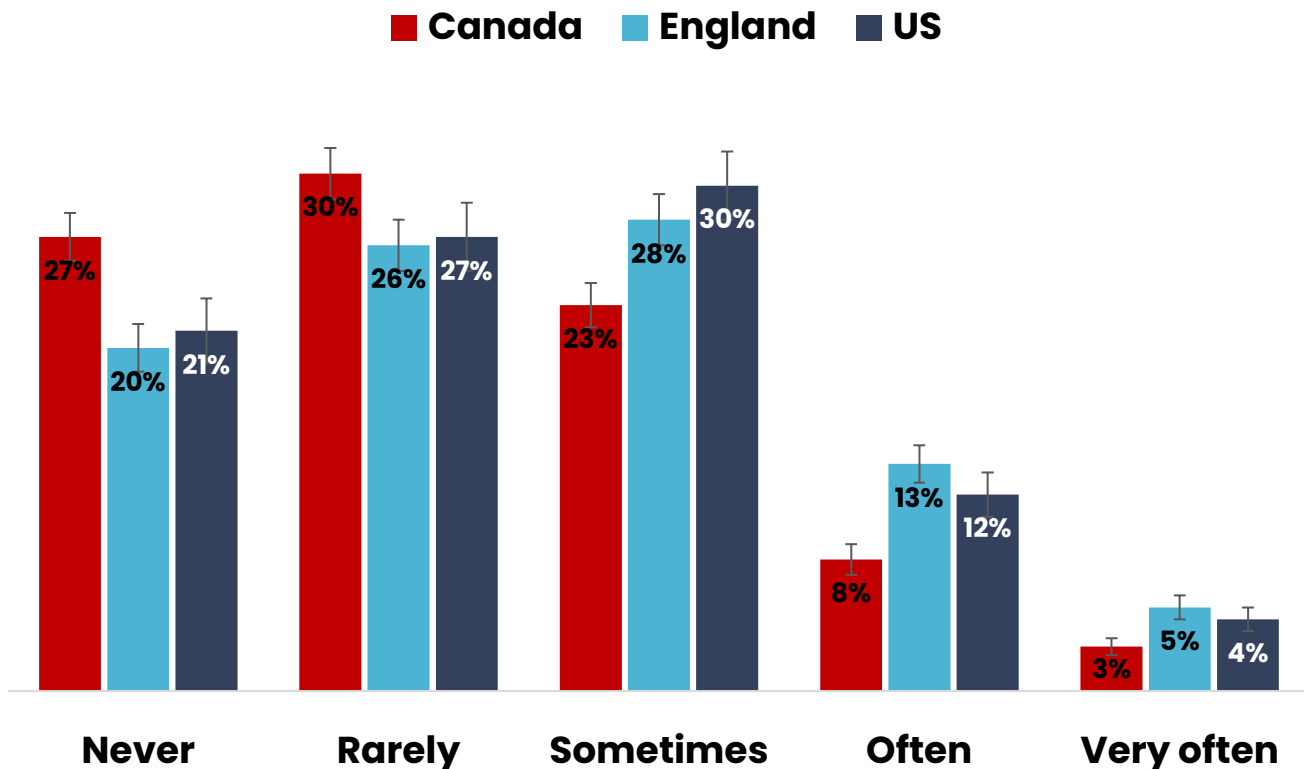
"YOU SAID YOU BOUGHT E-CIGARETTE(S)/VAPING DEVICE(S), CARTRIDGE(S), POD(S), OR E-LIQUID(S) YOURSELF FROM A STORE IN THE PAST 30 DAYS. WHAT KIND OF STORE(S) DID YOU BUY FROM?" [SELECT ALL THAT APPLY]; DON'T KNOW AND REFUSED EXCLUDED FROM DENOMINATOR

Noticing e-cigarette marketing

In 2022, 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 the US and England. While most reported noticing these 'rarely' or 'sometimes', approximately 10% in Canada, 16% in the US, and 18% in England reported seeing them 'often' or 'very often'.

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

YOUTH AGED 16-19, 2022, CA: N=4,384; EN: N=4,268; US: N=4,129



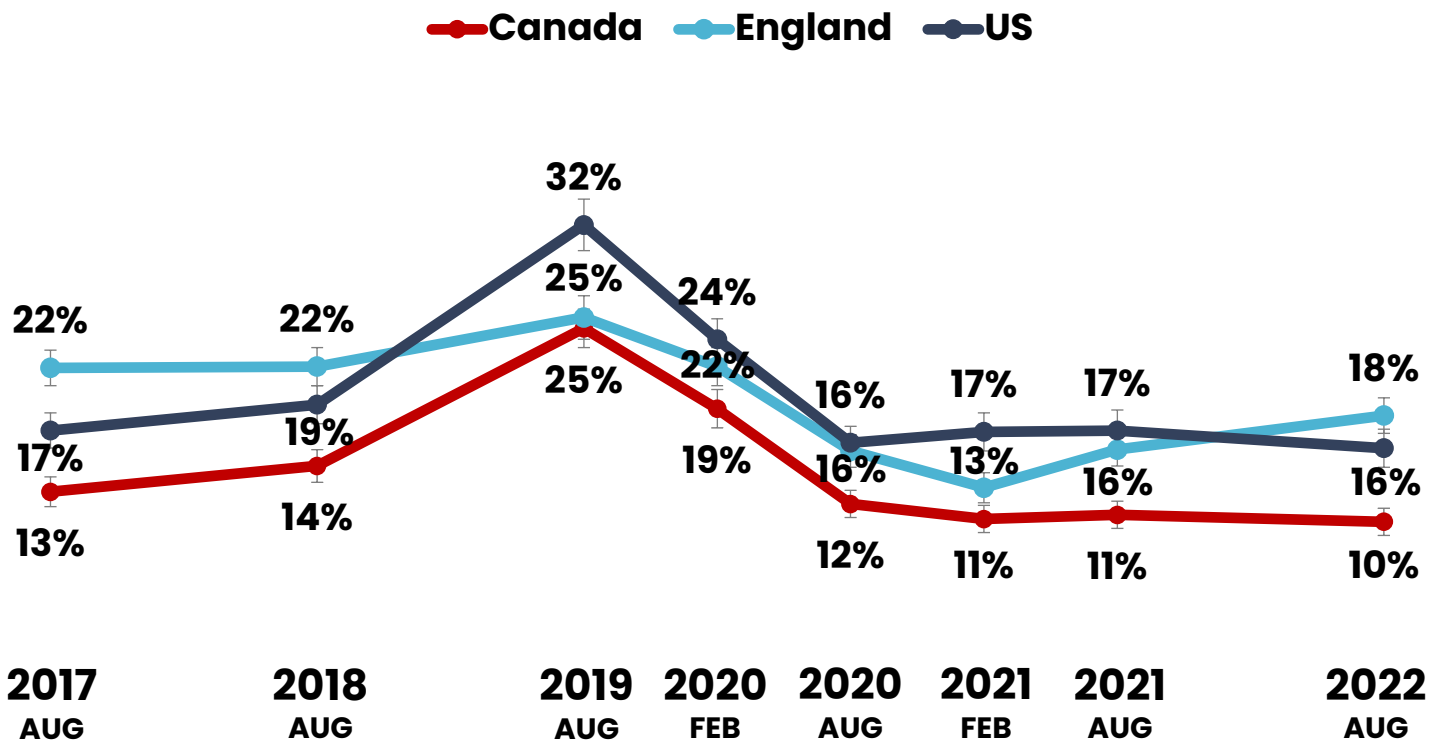
"IN THE LAST 30 DAYS, HOW OFTEN HAVE YOU NOTICED THINGS THAT PROMOTE E-CIGARETTES/VAPING?"
[1. NEVER 2. RARELY 3. SOMETIMES 4. OFTEN 5. VERY OFTEN]; REFUSED EXCLUDED FROM DENOMINATOR

Noticing e-cigarette marketing

In 2022, 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. 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 some increase observed recently in England.

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

YOUTH AGED 16–19, 2017–2022, CA: N=34,034; EN: N=32,763; US: N=37,435



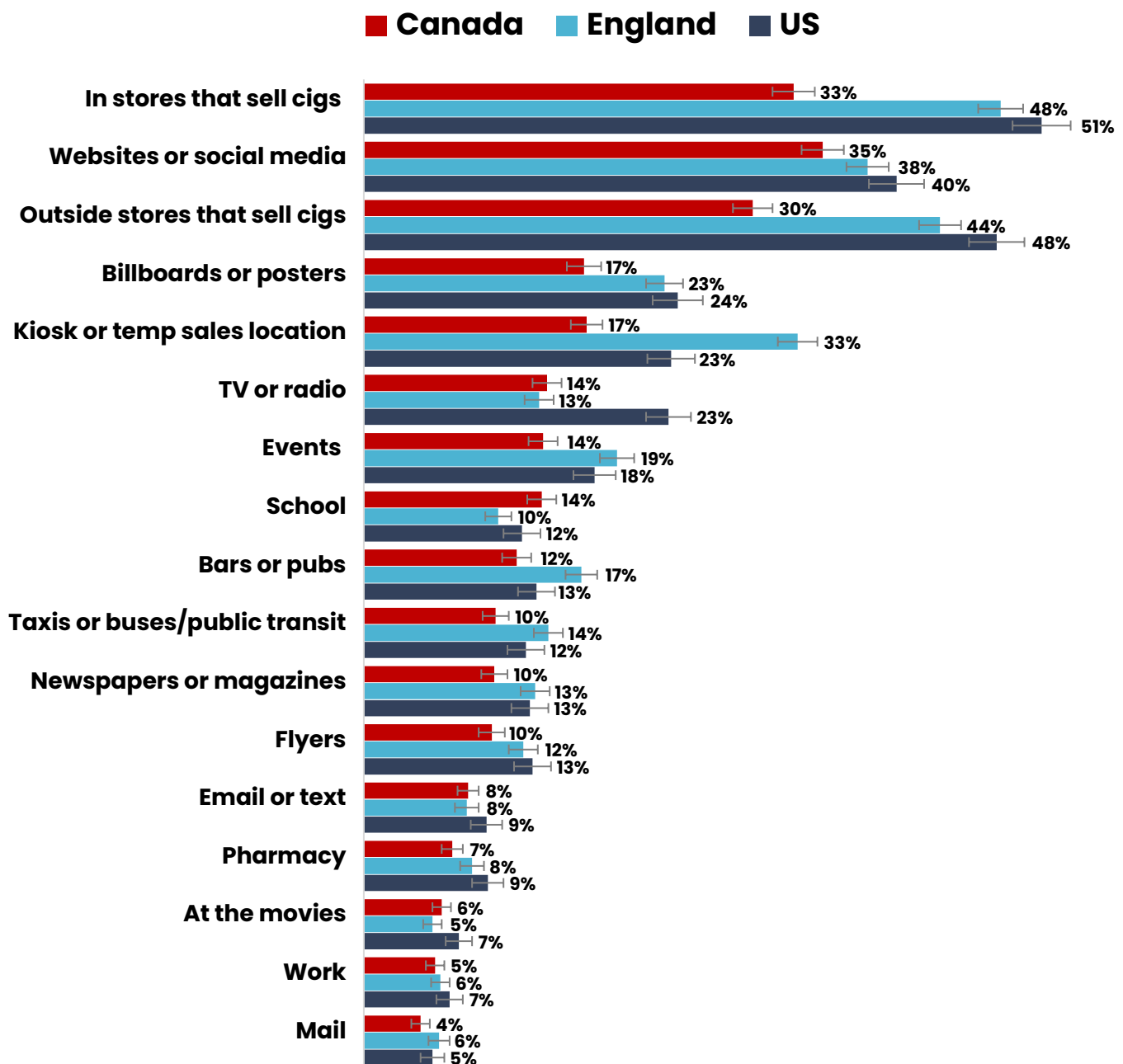
“IN THE LAST 30 DAYS, HOW OFTEN HAVE YOU NOTICED THINGS THAT PROMOTE E-CIGARETTES/VAPING?”
 [1. NEVER 2. RARELY 3. SOMETIMES 4. OFTEN 5. VERY OFTEN]; REFUSED EXCLUDED FROM DENOMINATOR

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 more than one-third of youth in each country.

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

% 'YES', YOUTH AGED 16-19, 2022, CA: N=4,357; EN: N=4,239; US: N=4,093



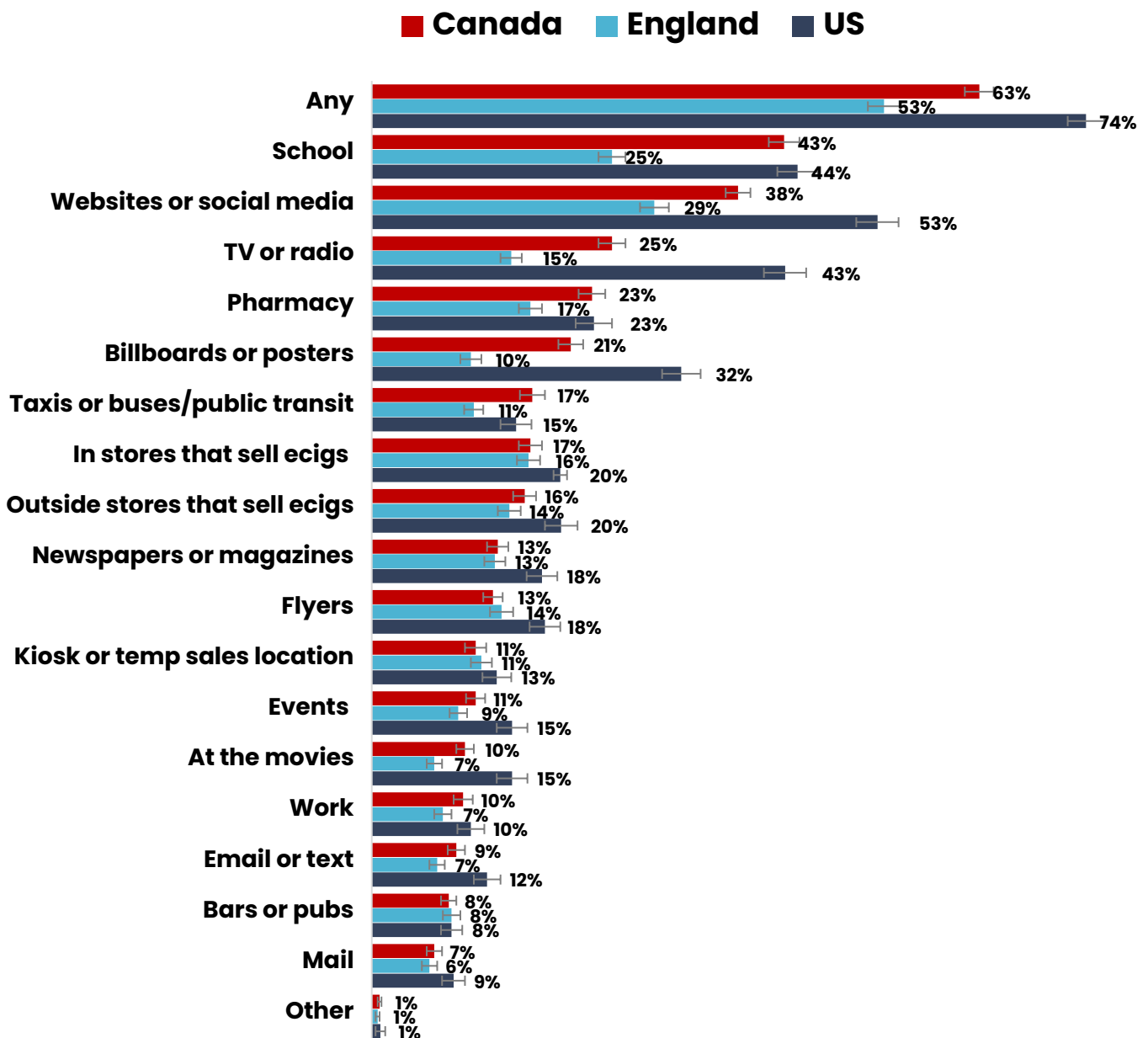
"IN THE LAST 30 DAYS, HAVE YOU NOTICED ECIGARETTES/VAPING DEVICES OR E-LIQUID BEING ADVERTISED IN ANY OF THE FOLLOWING PLACES" [YES/NO/DON'T KNOW/REFUSED FOR EACH SOURCE], AMONG RESPONDENTS WHO NOTICED ADVERTISING AT LEAST "RARELY" (70% OF ALL RESPONDENTS); REFUSED EXCLUDED FROM DENOMINATOR

E-cigarette education - sources

When youth were asked about noticing education campaigns or messages about vaping in the past 12 months, school and social media were the most common sources in all countries; TV or radio was also comparable in the US. For many sources, noticing was more common in the US, followed by Canada, then England.

Noticing education or health messages about vaping

% 'YES' IN PAST 12 MONTHS, YOUTH AGED 16-19, 2022, N=12,736



"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

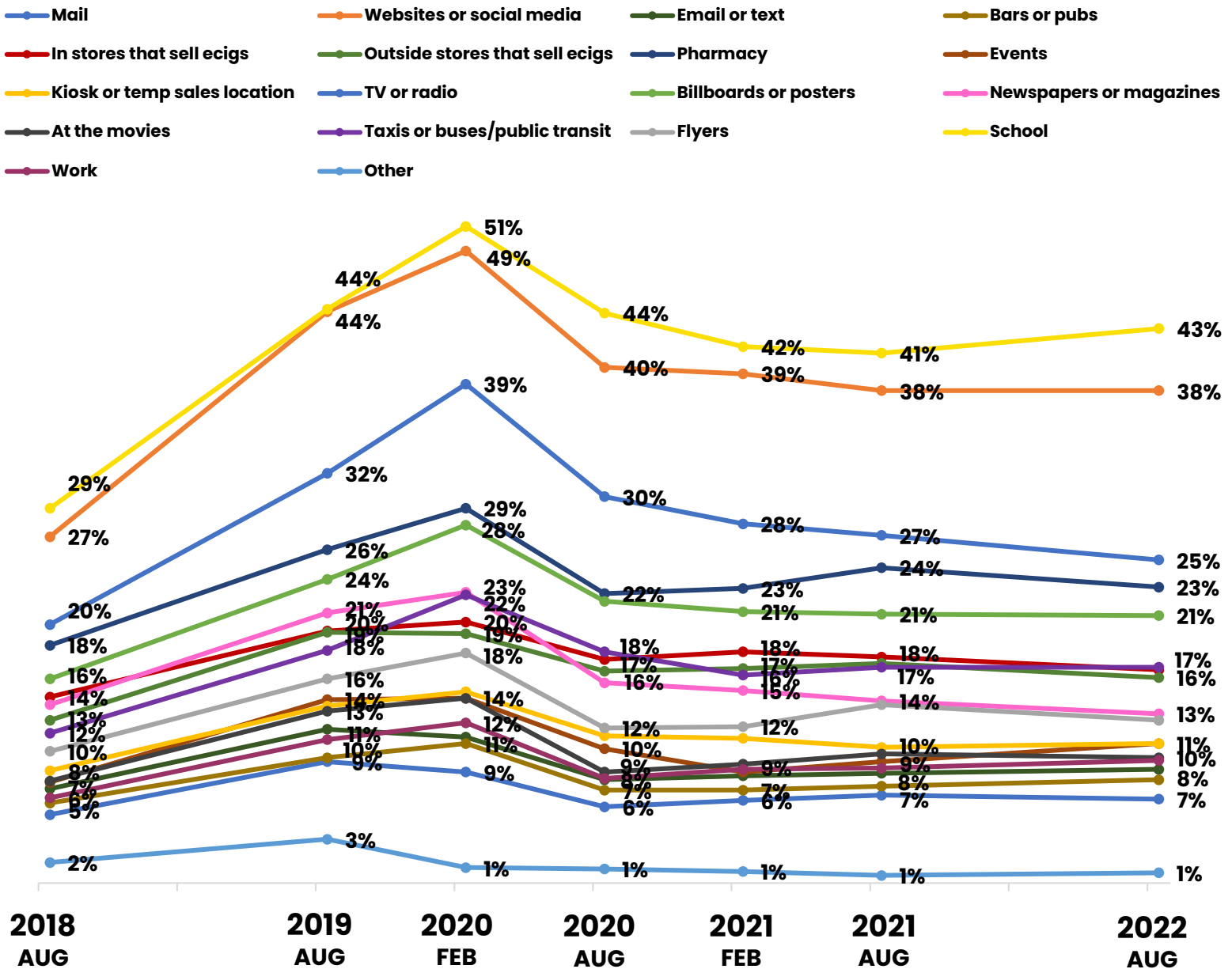
Canada

Since 2018, school and 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 in the most recent waves.



Exposure to education or health messages about vaping

% 'YES' IN PAST 12 MONTHS, YOUTH AGED 16-19, CANADA, 2018-2022 N=29,894



"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

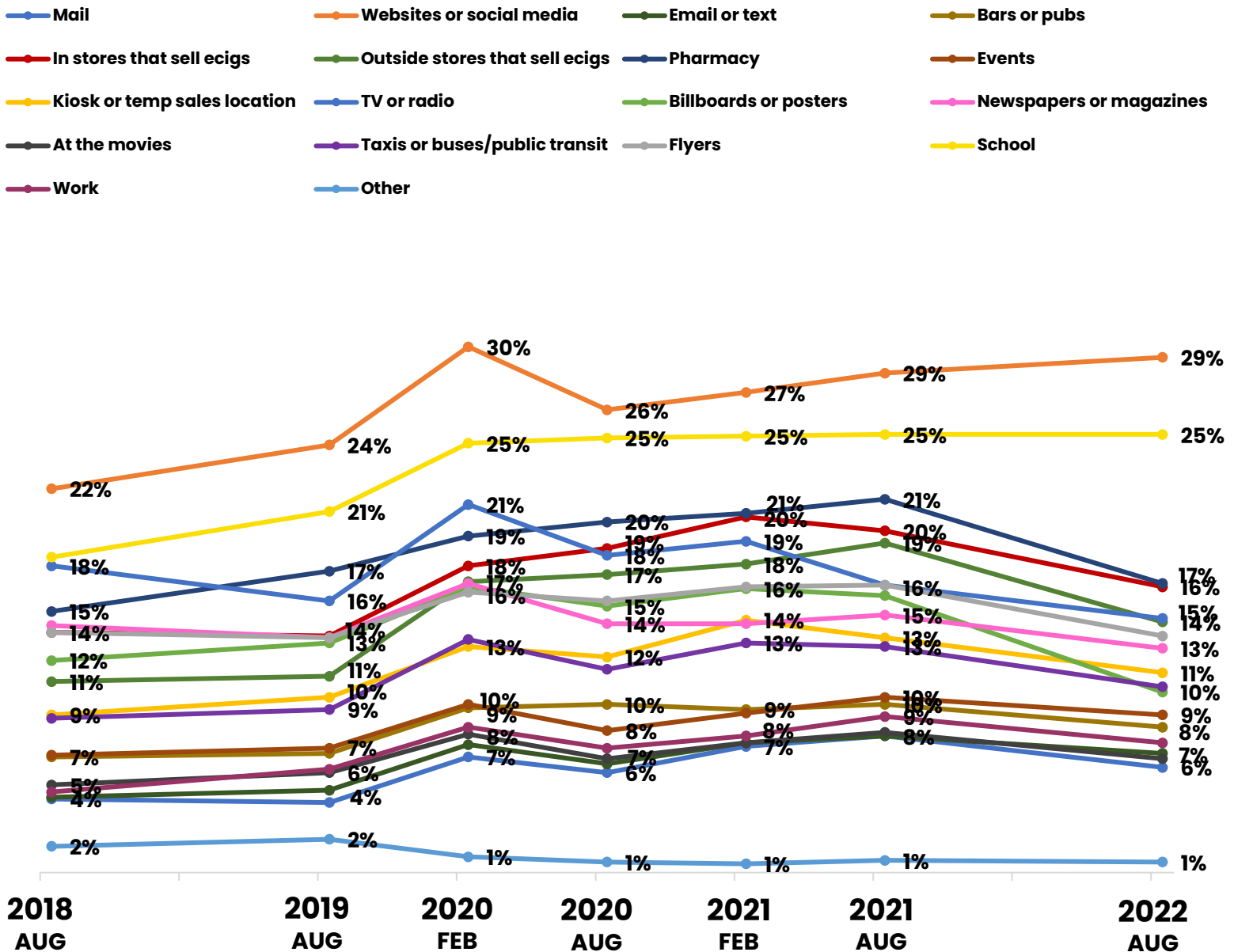
E-cigarette education – sources England

School and 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, ENGLAND, 2018-2022 N=28,673



"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

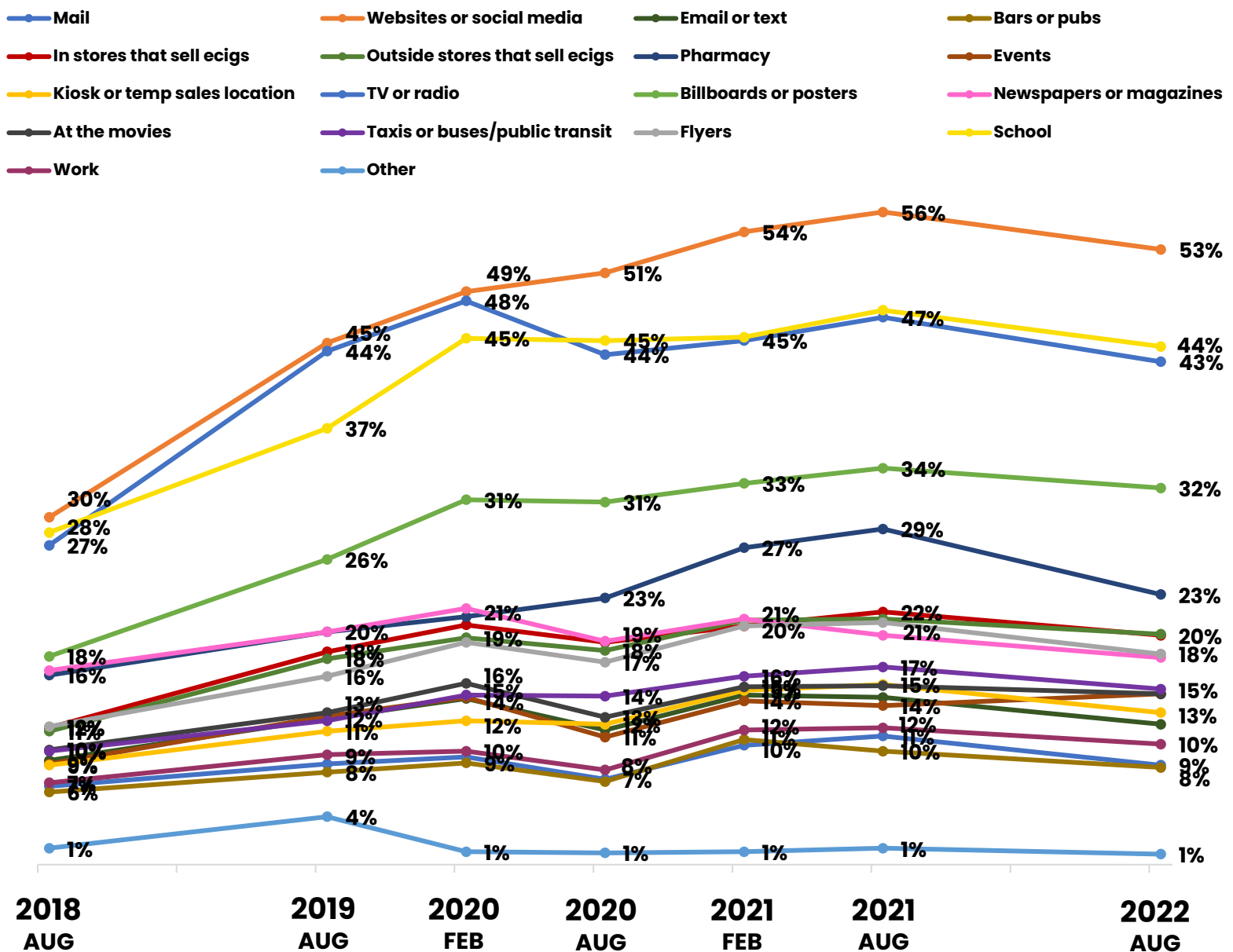
United States

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 up to 2020 and has remained high since then, with websites/social media increasing even further, to over half.



Exposure to education or health messages about vaping

% 'YES' IN PAST 12 MONTHS, YOUTH AGED 16-19, US, 2018-2022 N=33,157



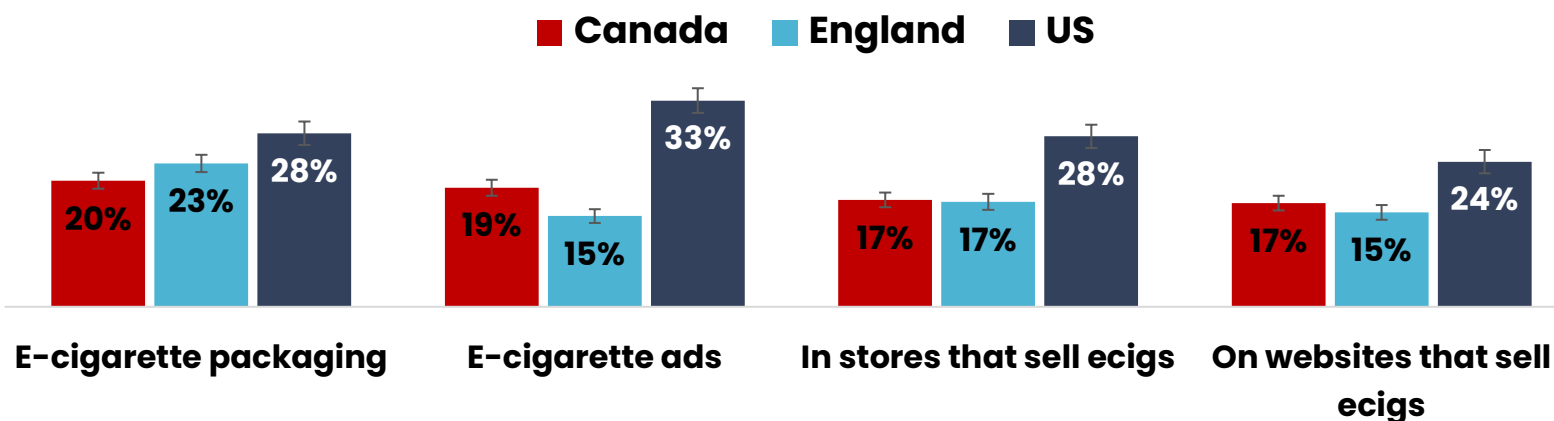
"IN THE PAST 12 MONTHS, HAVE YOU NOTICED EDUCATION CAMPAIGNS OR PUBLIC HEALTH MESSAGES ABOUT E-CIGARETTES/ VAPING IN ANY OF THE FOLLOWING PLACES?" [YES/NO FOR EACH SOURCE]; REFUSED EXCLUDED FROM DENOMINATOR

Noticing e-cigarette warnings

In 2022, among all respondents, more youth in the US than Canada or England reported noticing health warnings on e-cigarette packaging, on advertisements, in stores and on websites that sell e-cigarettes. Among youth who vaped in the past 30 days, proportions noticing in each source were greater; fewer youth who vaped in England reported noticing warnings.

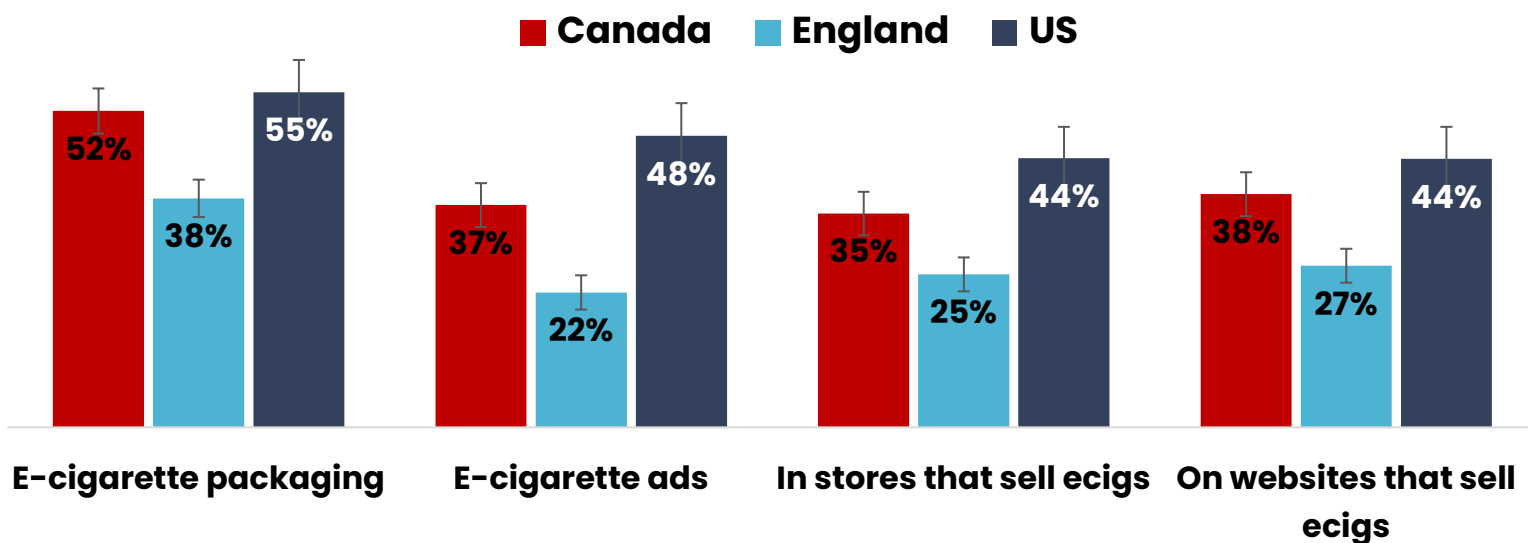
Noticing e-cigarette health warnings in the past 30 days

ALL YOUTH AGED 16-19, 2022, N=12,703



Noticing e-cigarette health warnings in the past 30 days

YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2022, N=2901



"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

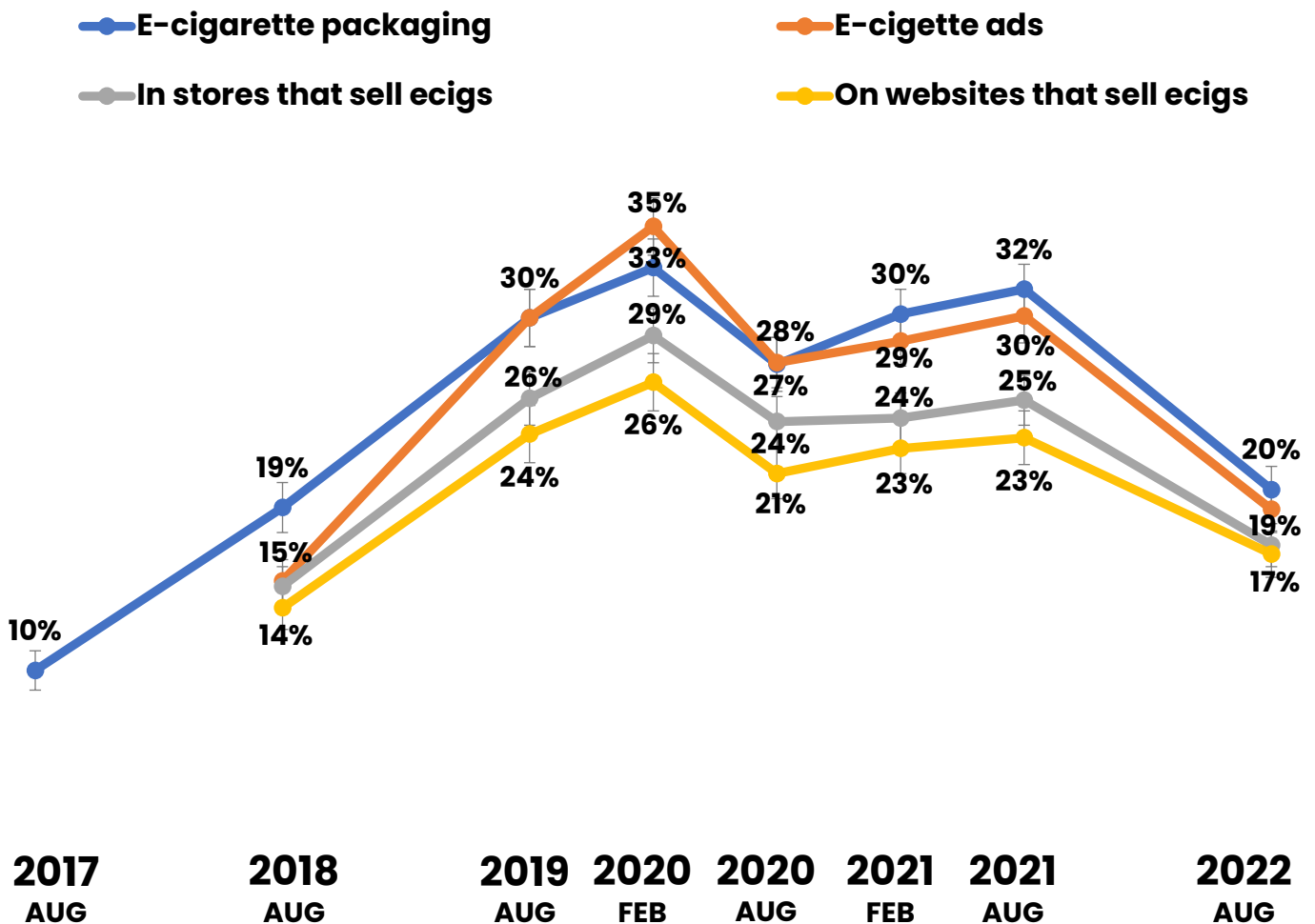
Canada

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.



Noticing e-cigarette health warnings in the past 30 days

YOUTH AGED 16-19, CANADA, 2017-2022, N=33,907



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

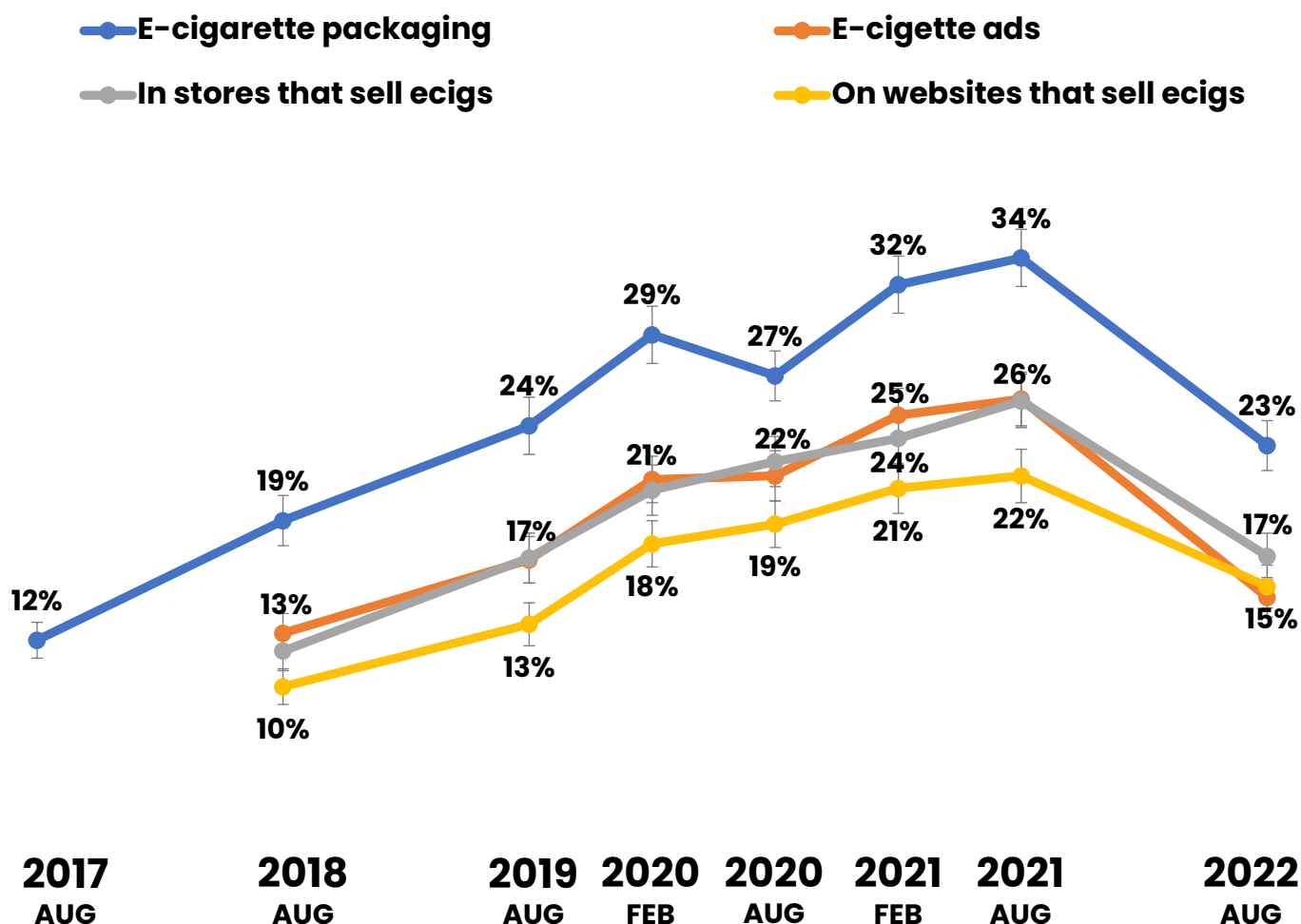
England

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



Noticing e-cigarette health warnings in the past 30 days

YOUTH AGED 16-19, ENGLAND, 2017-2022, N=32,657



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

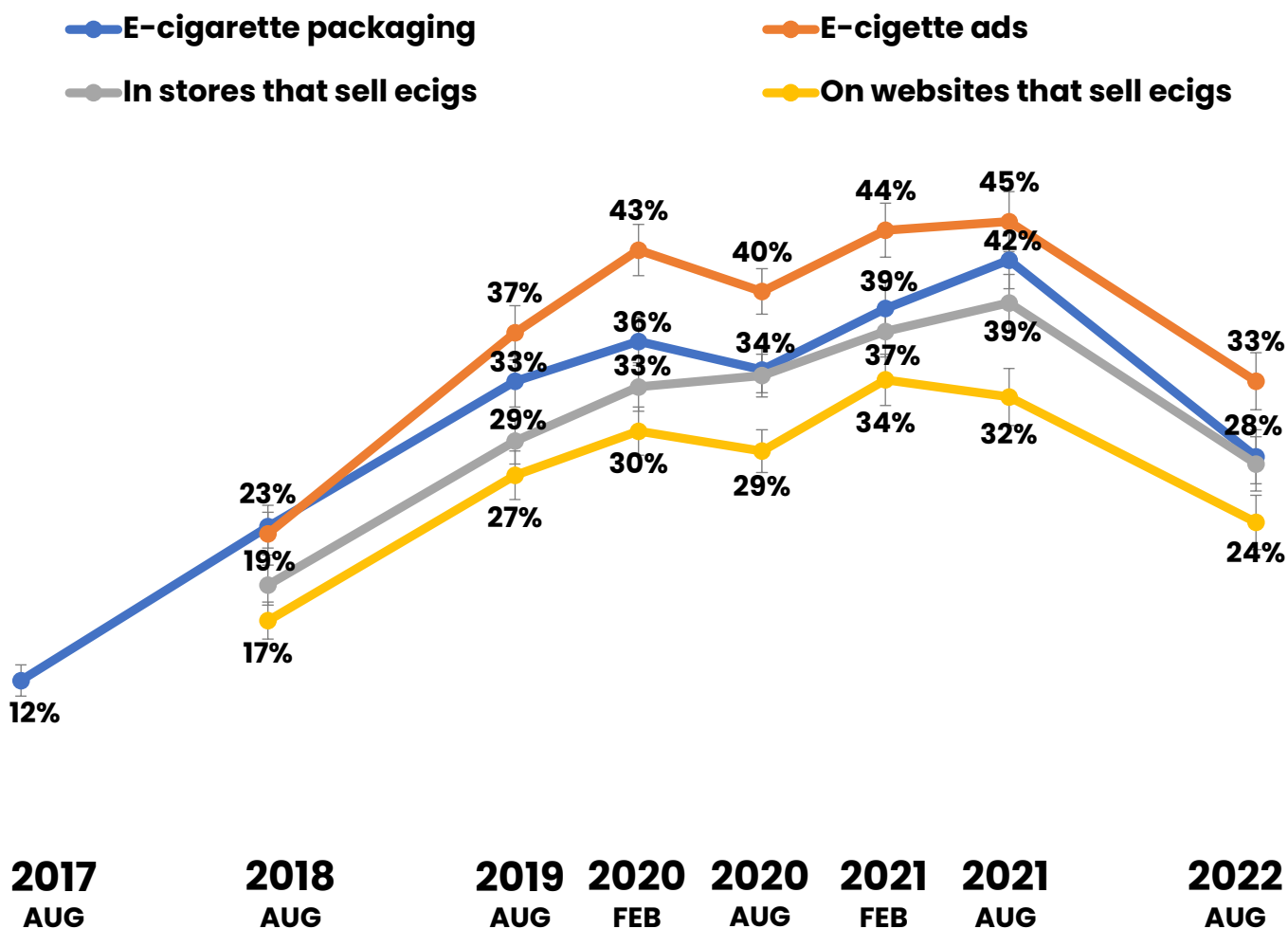
United States

In the US, the proportion of youth who reported noticing health warnings for e-cigarettes generally increased over time until the most recent wave. 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, US, 2017-2022, N=37,262



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

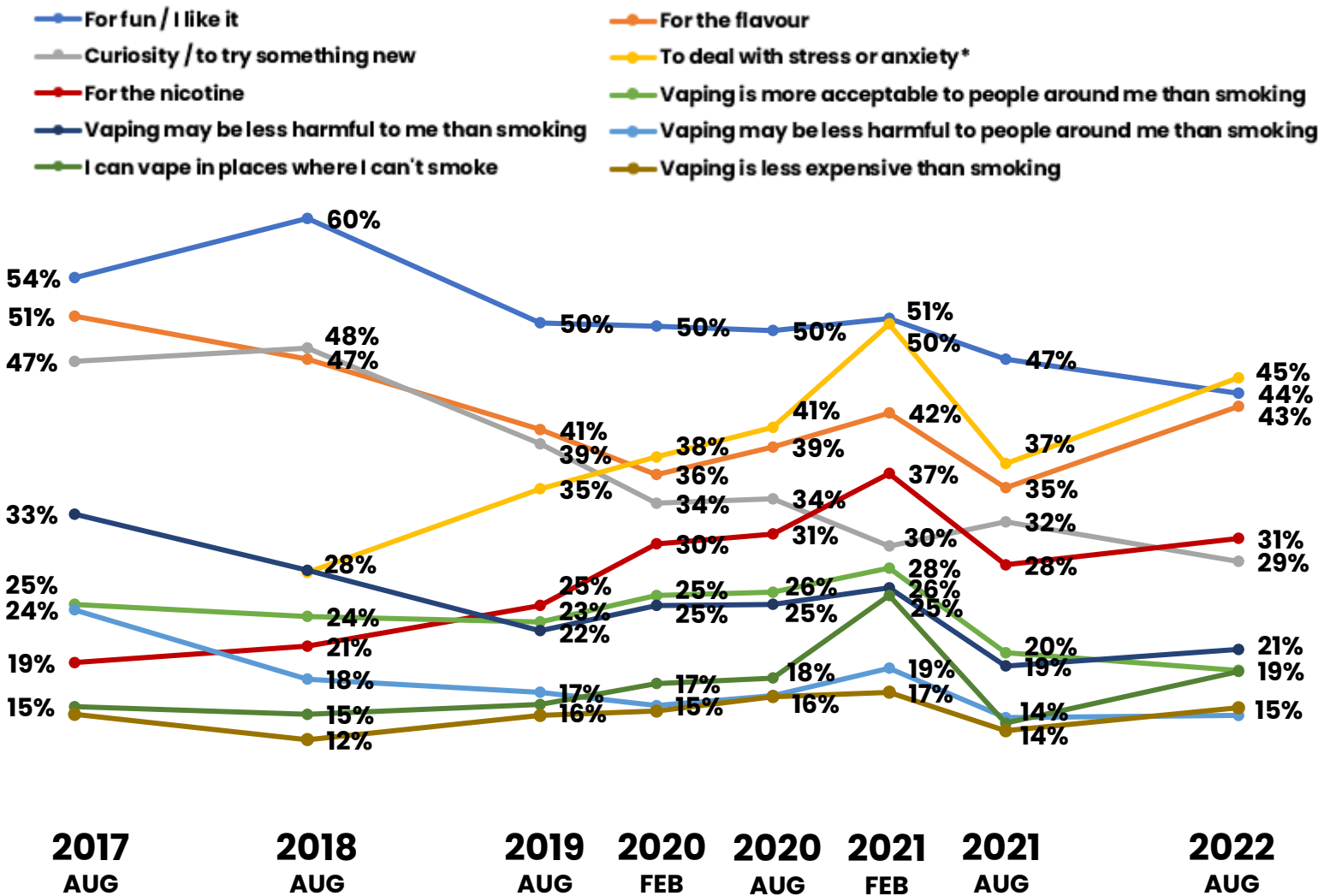
Reasons for vaping Canada

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' 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, 2017-2022, CANADA, N=5,727



"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

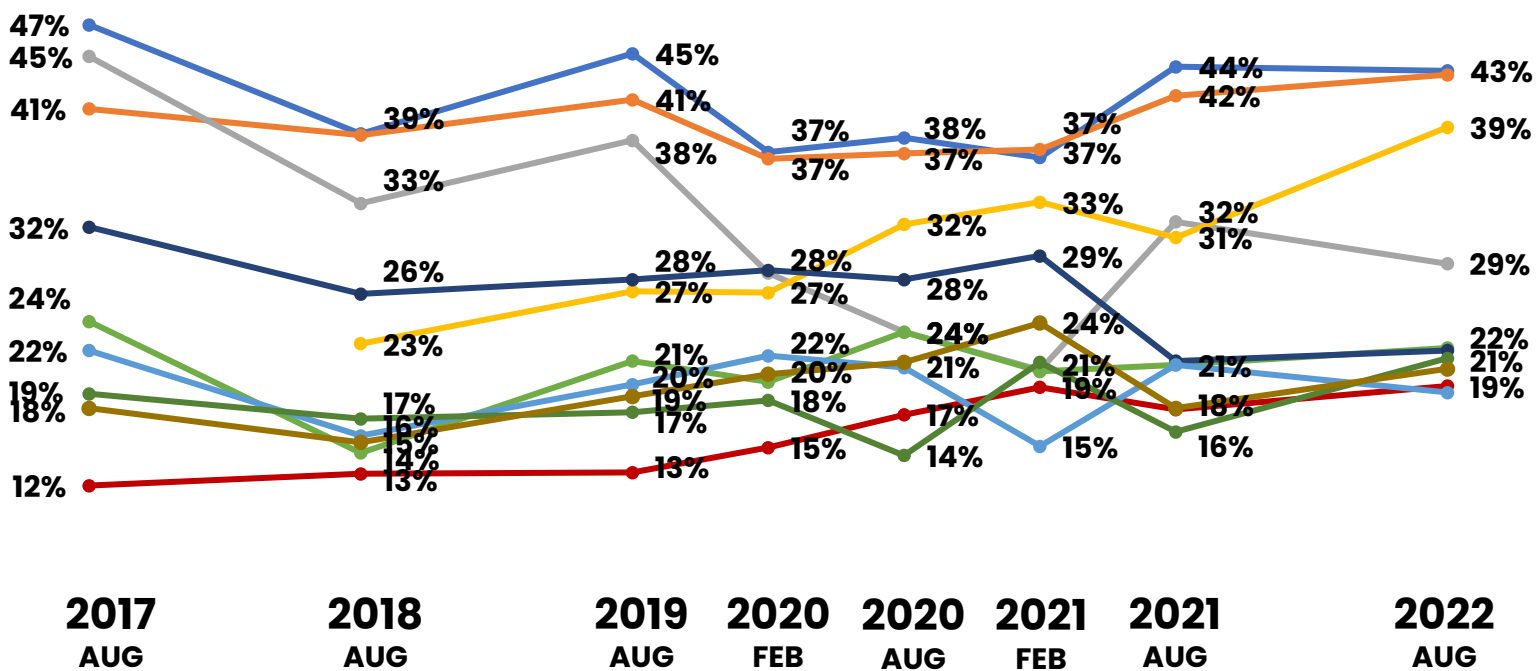
In England, among youth who vaped in the past 30 days, the top reasons for vaping in most years were 'for' fun and 'for the flavour'. The reason of dealing with stress or anxiety increased over time, while curiosity decreased.



Reasons for using e-cigarettes/vaping

TOP 10 REASONS, YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2022, ENGLAND, N=4,810

- 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



"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

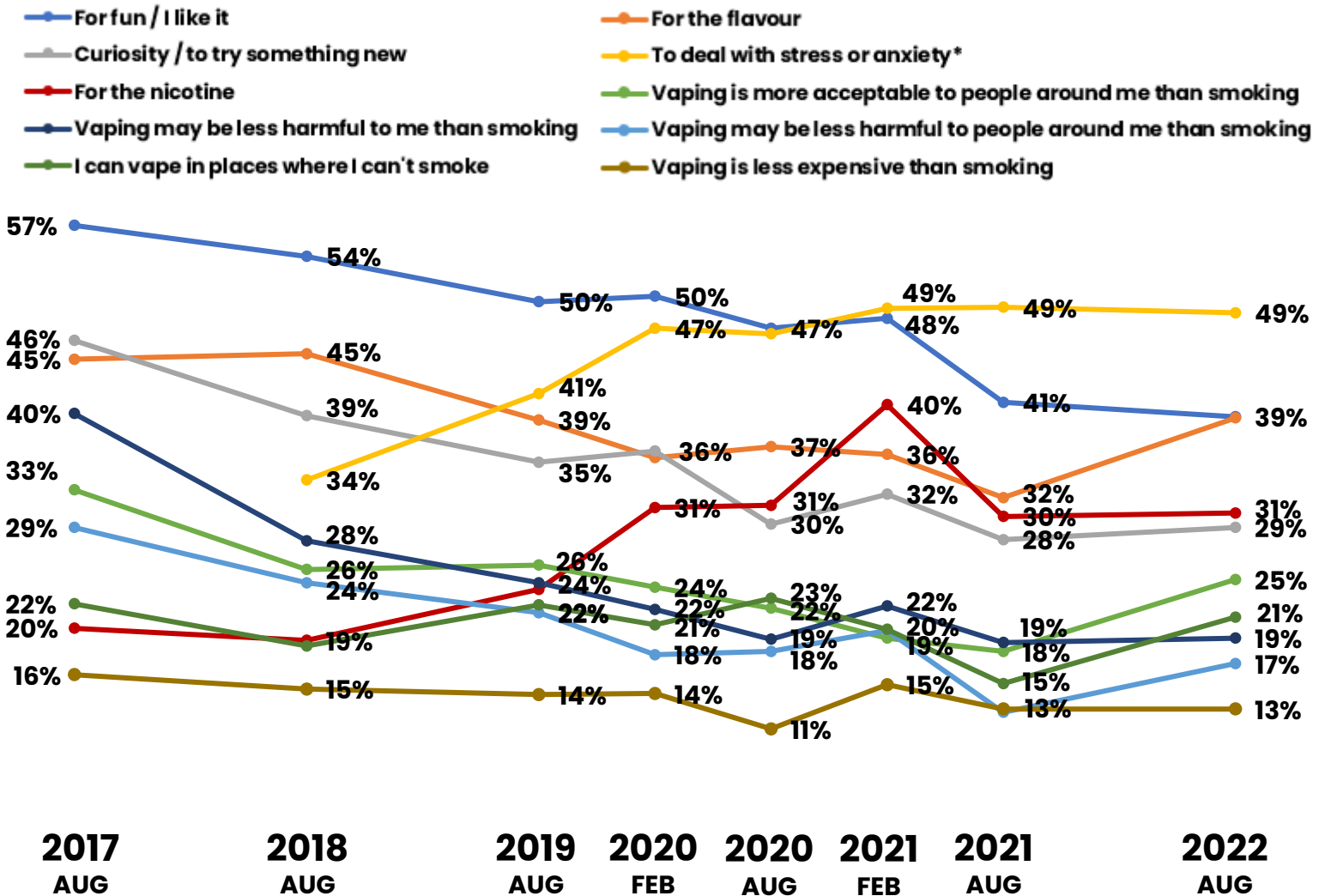
United States

In the US, among youth who vaped in the past 30 days, the top reason for vaping was 'for fun' until 2020, and 'to deal with stress or anxiety' in the most recent years. Reasons of dealing with stress and 'for the nicotine' increased over time, while fun, curiosity and less harm decreased.



Reasons for using e-cigarettes/vaping

TOP 10 REASONS, YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2017-2022, US, N=6,261



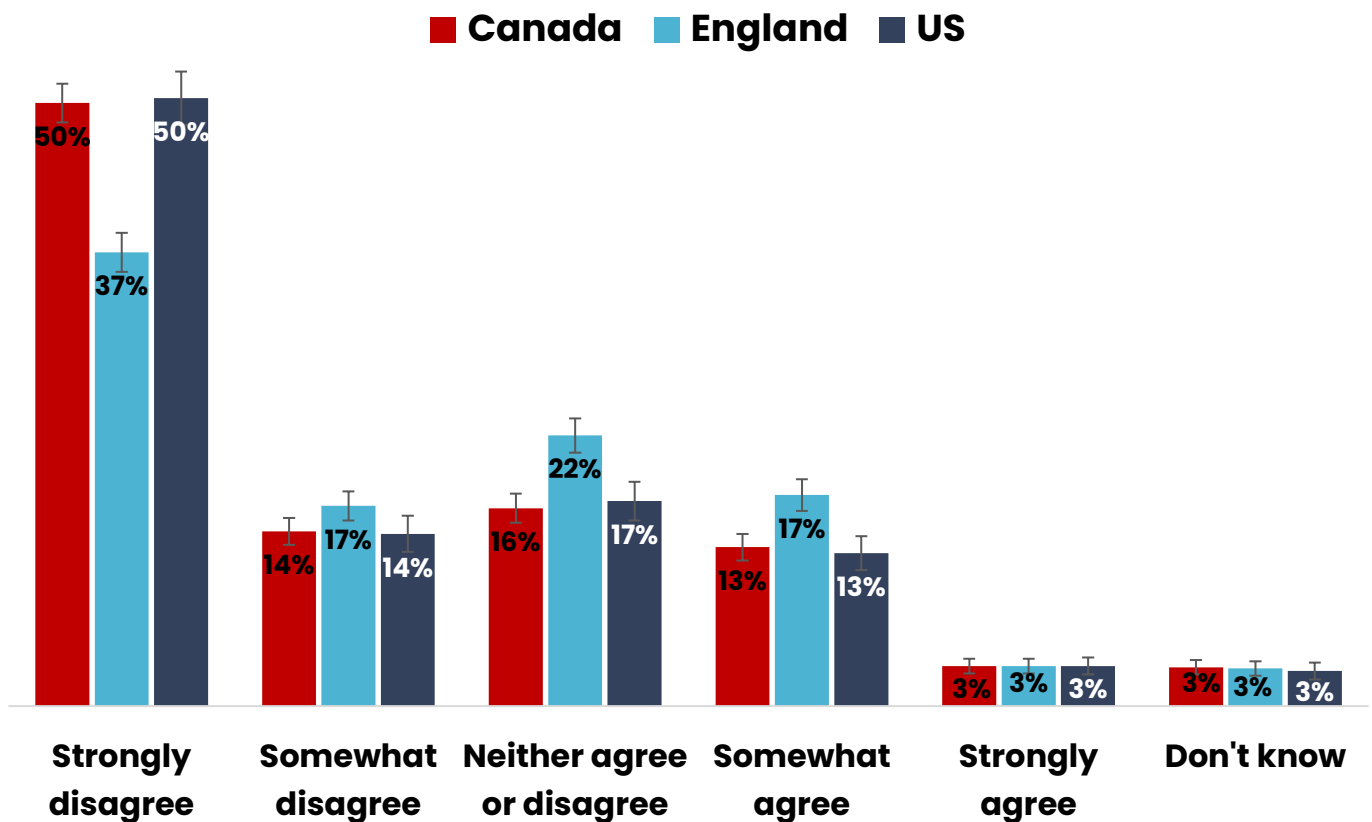
"HAVE YOU USED E-CIGARETTES/VAPED FOR ANY OF THE FOLLOWING REASONS?" [SELECT ALL THAT APPLY]; FULL LIST INCLUDES 15 REASONS, TOP 10 SHOWN; REFUSED RESPONSES EXCLUDED FROM DENOMINATOR

E-cigarette perceptions

All respondents were asked about their perceptions of e-cigarettes. In 2022, half of respondents in Canada and the US strongly disagreed that they look cool, compared to 37% in England. Nearly one in five youth (16-20%) agreed ('somewhat' or 'strongly') that e-cigarettes look cool, and a similar proportion in each country neither agreed nor disagreed.

E-cigarettes/vapes look COOL.

YOUTH AGED 16-19, 2022, CA: N=4,384; EN: N=4,270; US: N=4,126

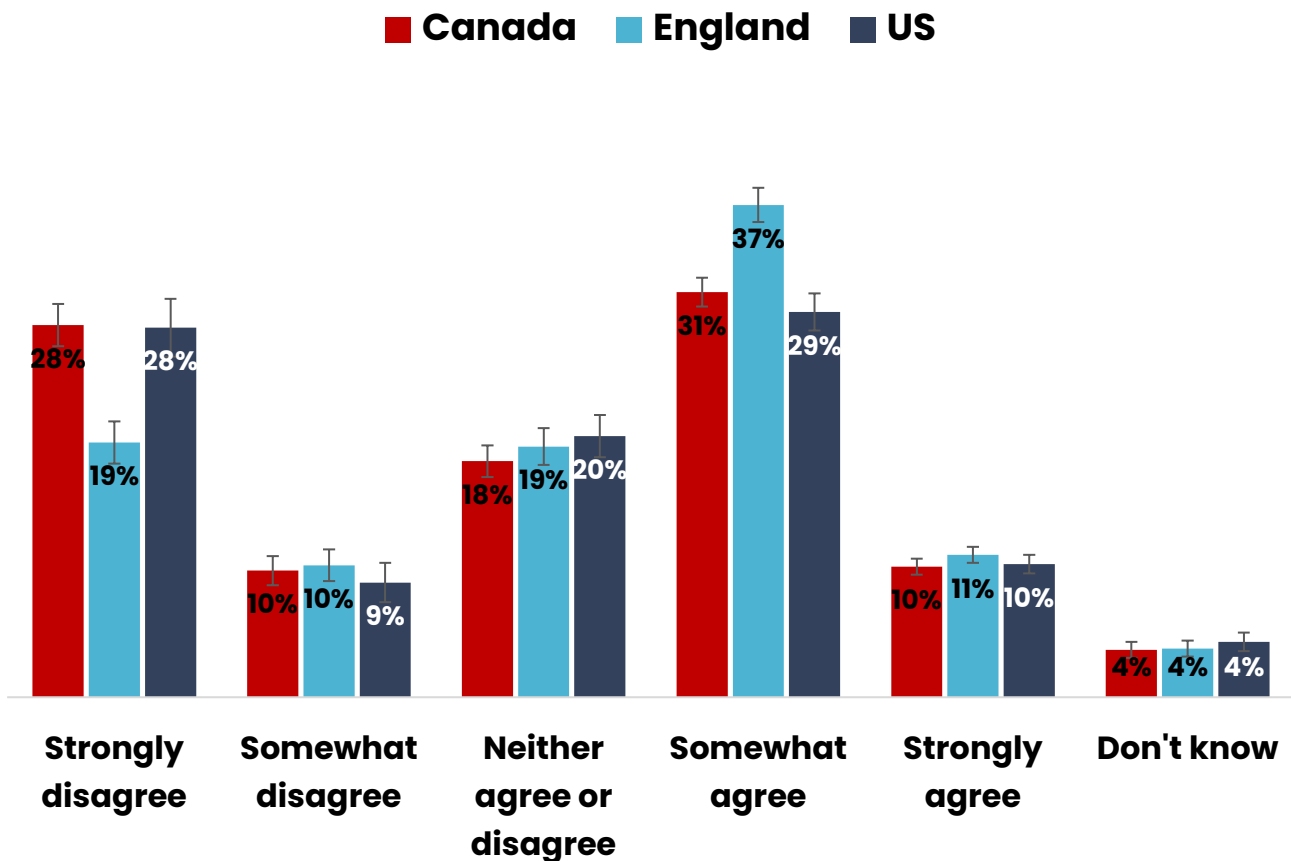


E-cigarette perceptions

Half of respondents in England, and approximately 40% in Canada and the US, agreed ('somewhat' or 'strongly') that e-cigarettes look modern. Slightly fewer, nearly 40% in Canada and the US and around 30% in England disagreed. Around one in five neither agreed nor disagreed that they look modern.

E-cigarettes/vapes look MODERN.

YOUTH AGED 16-19, 2022, CA: N=4,382; EN: N=4,271; US: N=4,131

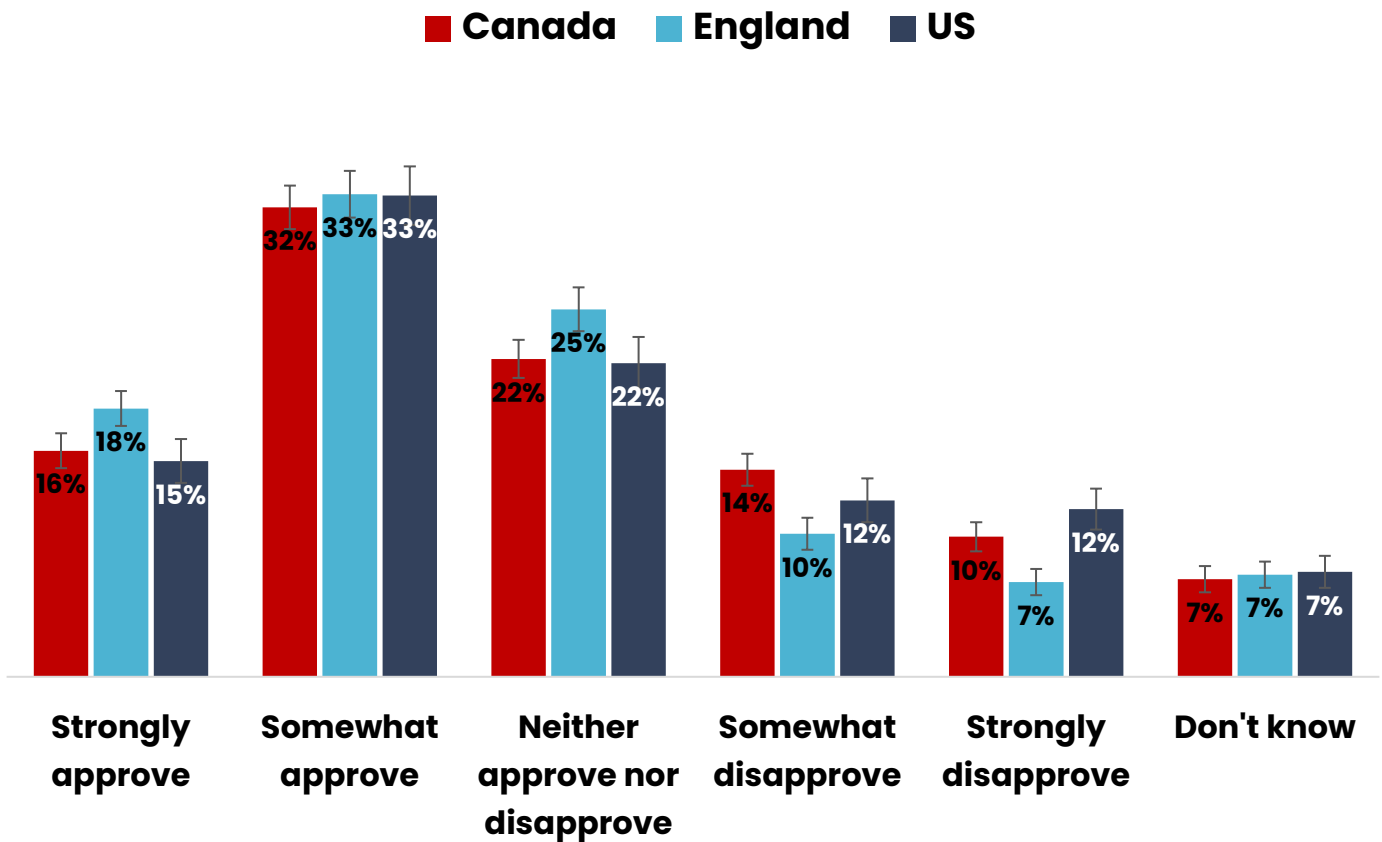


E-cigarette perceptions

Approximately half of respondents in each country reported that people their age approved ('somewhat' or 'strongly') of e-cigarettes/vaping, while nearly one-quarter said people their age neither approved nor disapproved. A smaller proportion of youth in England said people their age disapproved of vaping, compared to Canada and the US.

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

YOUTH AGED 16-19, 2022, CA: N=4,382; EN: N=4,276; US: N=4,127

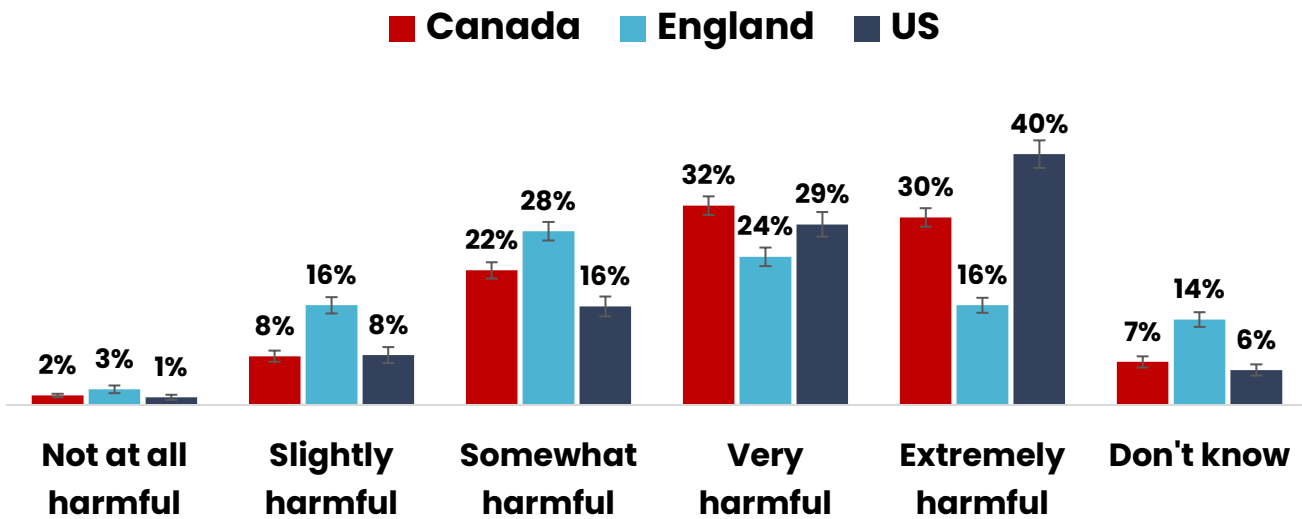


Perceptions of risk

Perceptions of the harmfulness of vaping varied by country: 40% of US respondents indicated that vaping was 'extremely' harmful, while the most commonly selected response was 'very harmful' in Canada and 'somewhat harmful' in England. Vaping every day was viewed as more harmful than vaping some days.

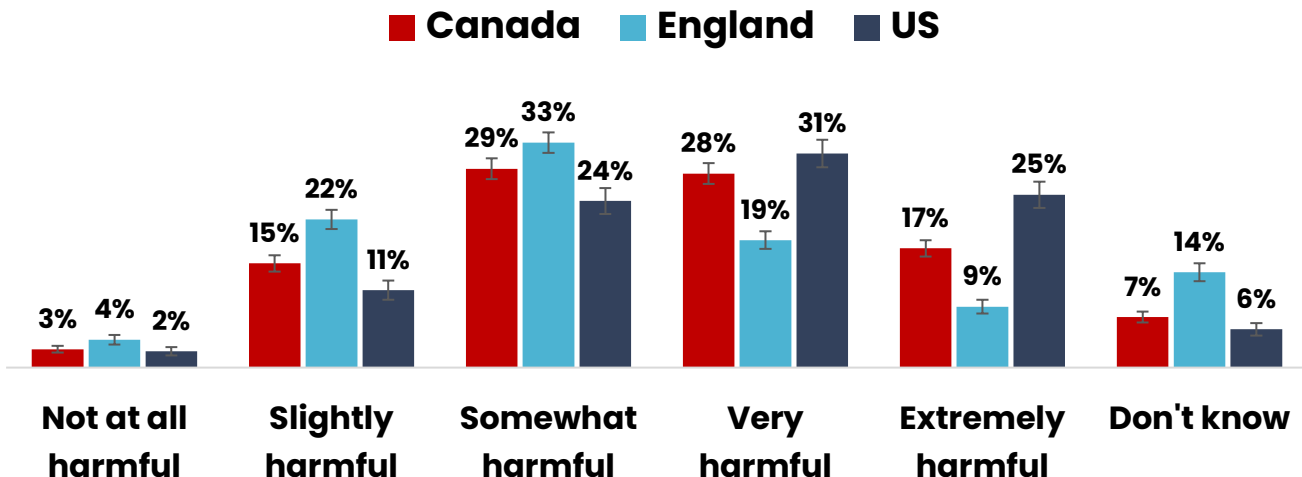
How harmful is it to vape every day?

YOUTH AGED 16-19, 2022, CA: N=4,384; EN: N=4,277; US: N=4,129



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

YOUTH AGED 16-19, 2022, CA: N=4,389; EN: N=4,278; US: N=4,130

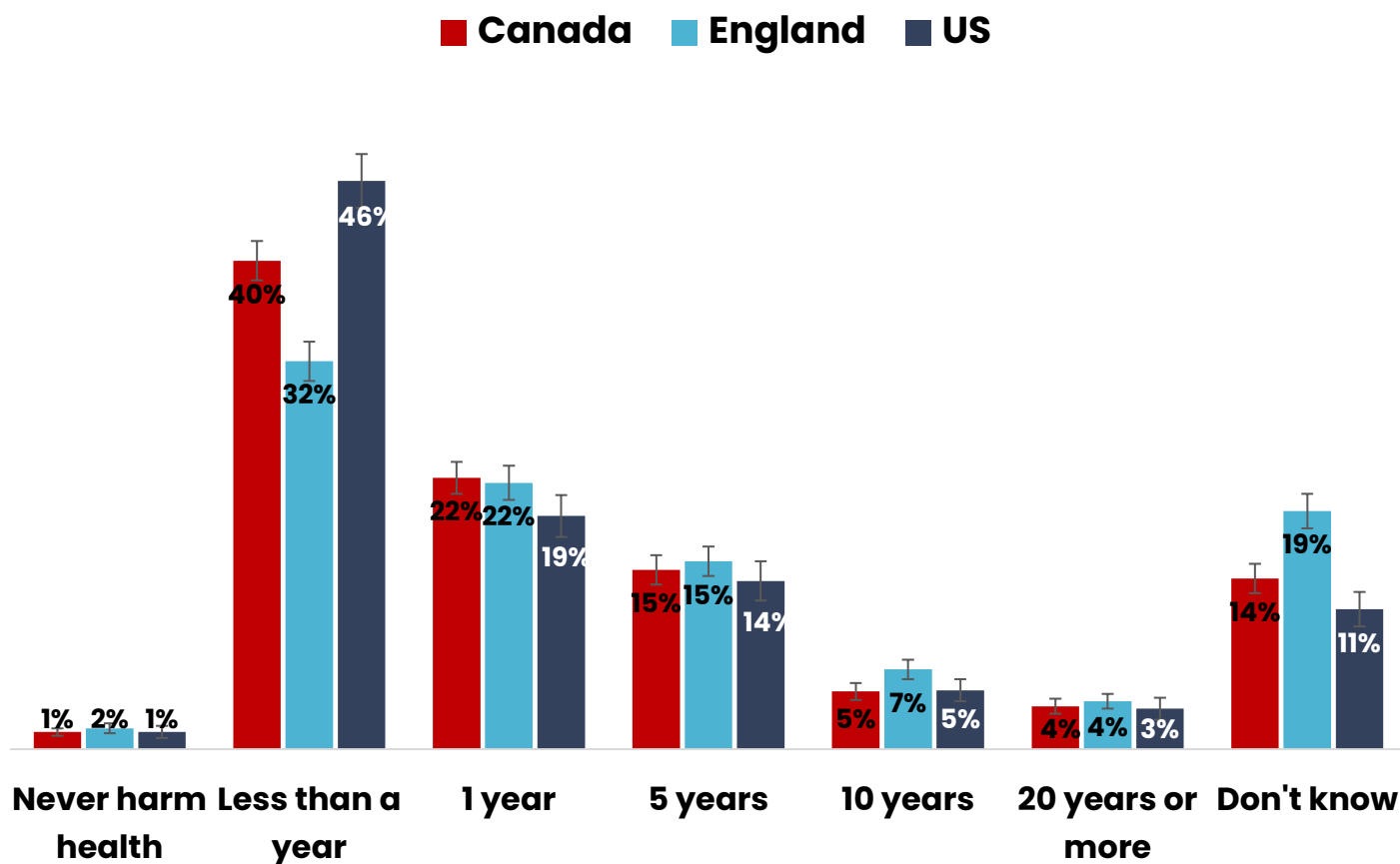


Perceptions of risk

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 greatest in the US, followed by Canada, then England. 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, 2022, CA: N=4,384; EN: N=4,278; US: N=4,132



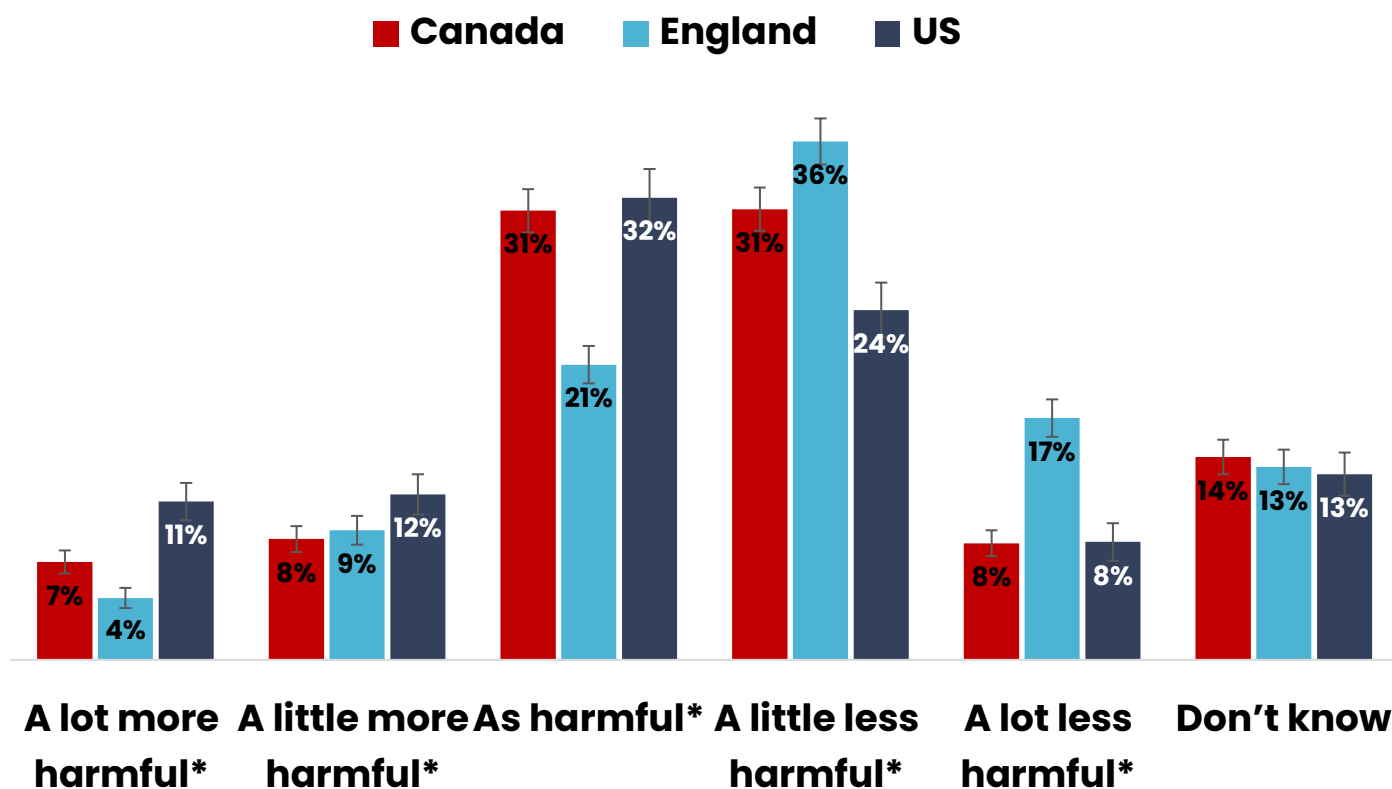
Perceptions of risk

Harm relative to cigarettes

When respondents were asked about the relative harm of e-cigarettes compared with “regular” tobacco cigarettes, over half of youth in England, nearly 40% in Canada and one-third in the US correctly responded that e-cigarettes were less harmful (either ‘a little’ or ‘a lot’). Nearly one-third of youth in Canada and the US, and about one in five in England, thought they were ‘as harmful’. Relatively few youth thought that e-cigarettes were more harmful than tobacco cigarettes.

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

YOUTH AGED 16-19, 2022, CA: N=4,385; EN: N=4,274; US: N=4,129



*than ‘regular’ tobacco cigarettes

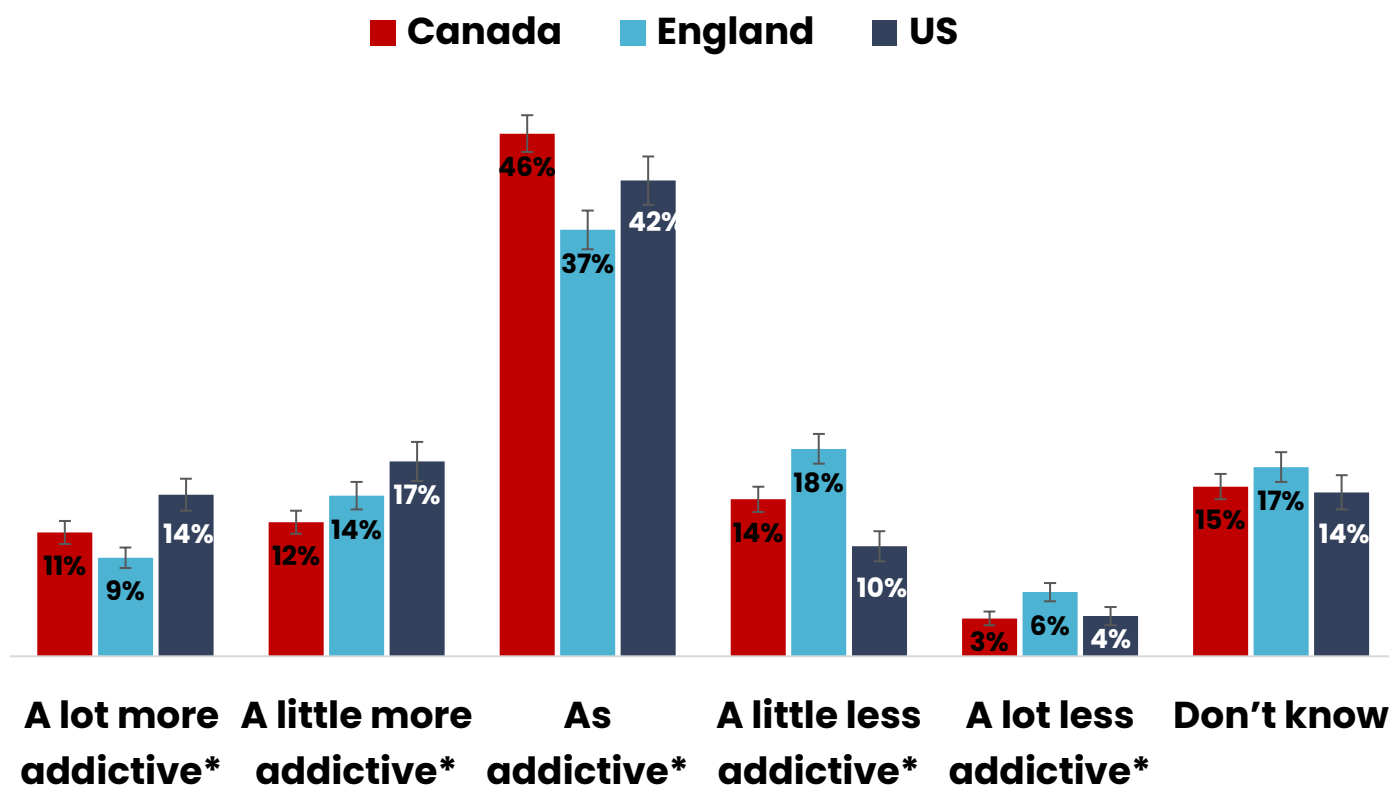
Perceptions of risk

Addictiveness relative to cigarettes

When respondents were asked about the relative addictiveness of e-cigarettes compared with “regular” tobacco cigarettes, the largest proportion in each country thought they were ‘as addictive’. Somewhat 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, 2022, CA: N=4,382; EN: N=4,274; US: N=4,129



*than ‘regular’ tobacco cigarettes

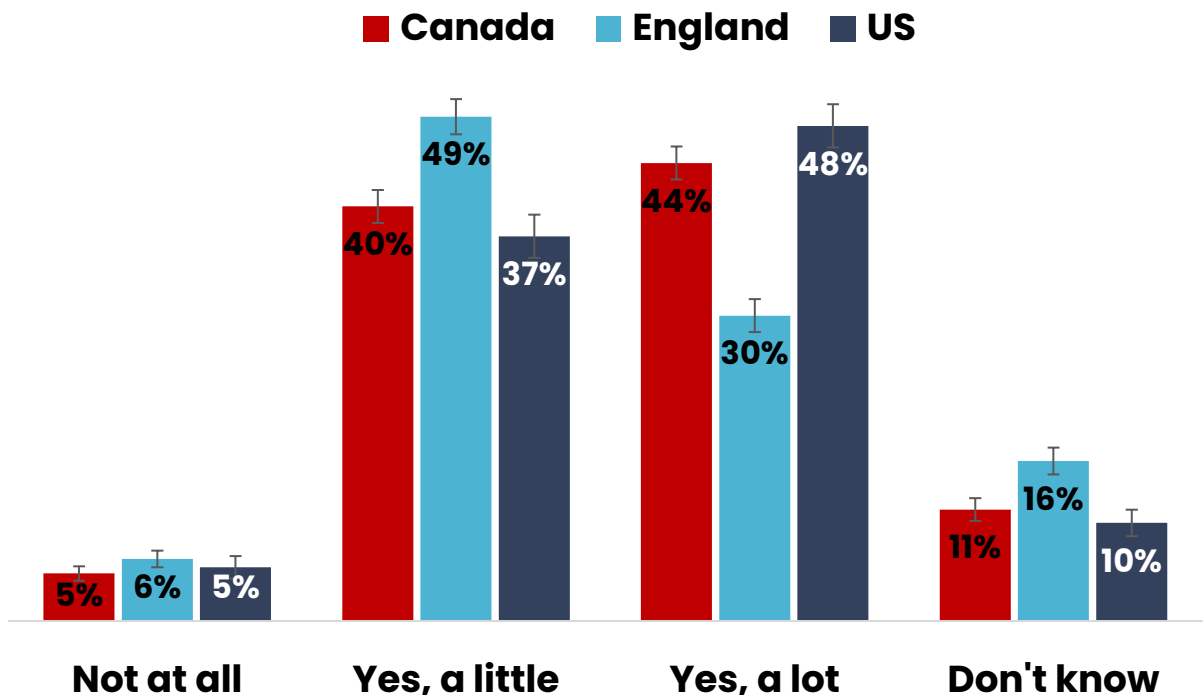
Perceptions of risk

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 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, 2022, CA: N=4,380; EN: N=4,272; US: N=4,125



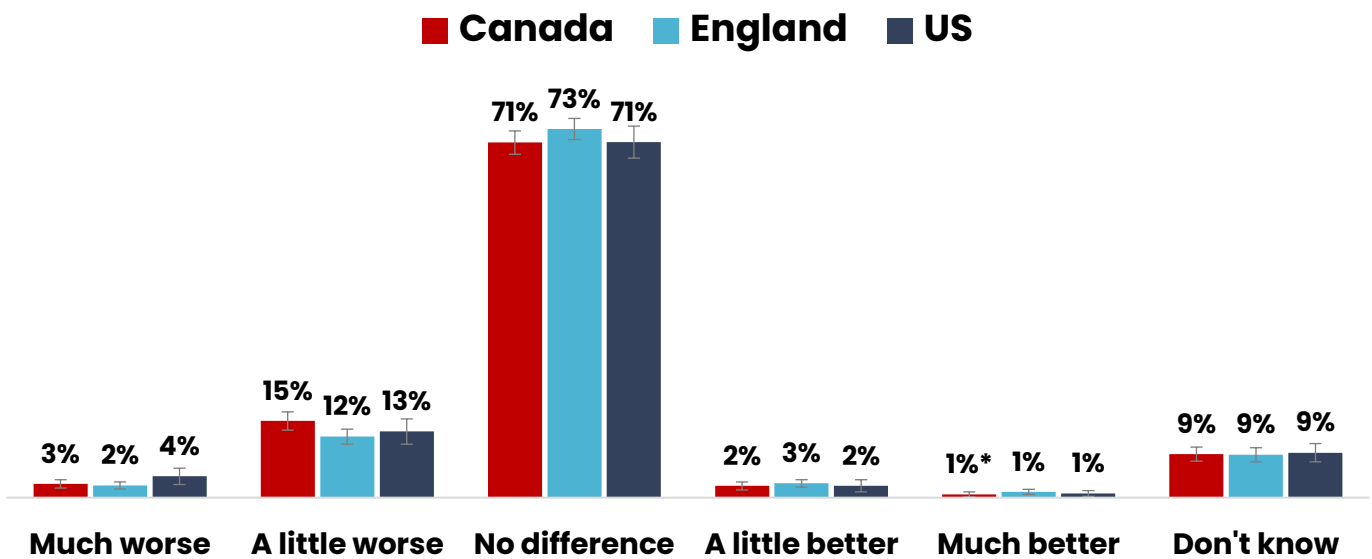
Health effects of vaping

When youth who reported ever vaping were asked about its 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, while similar proportions reported positive and negative effects on mental health.

Has vaping affected your physical health?

YOUTH AGED 16-19 WHO EVER VAPED, 2022

CA: N=1,834; EN: N=2,098; US: N=1,755

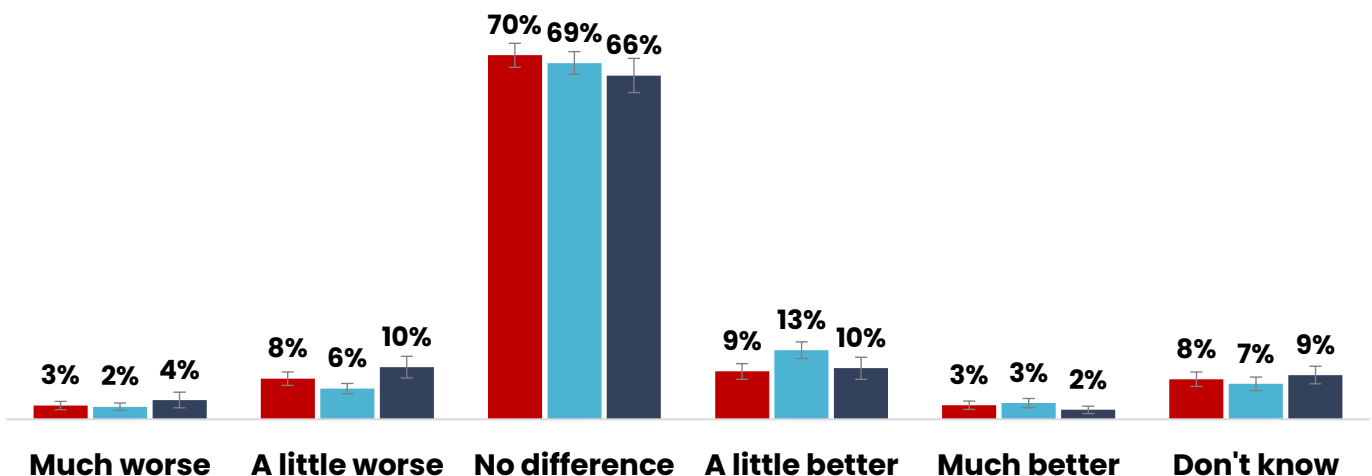


*HIGH VARIABILITY OF ESTIMATE (CV>0.33)

Has vaping affected your mental health?

YOUTH AGED 16-19 WHO EVER VAPED, 2022

CA: N=1,835; EN: N=2,093; US: N=1,752

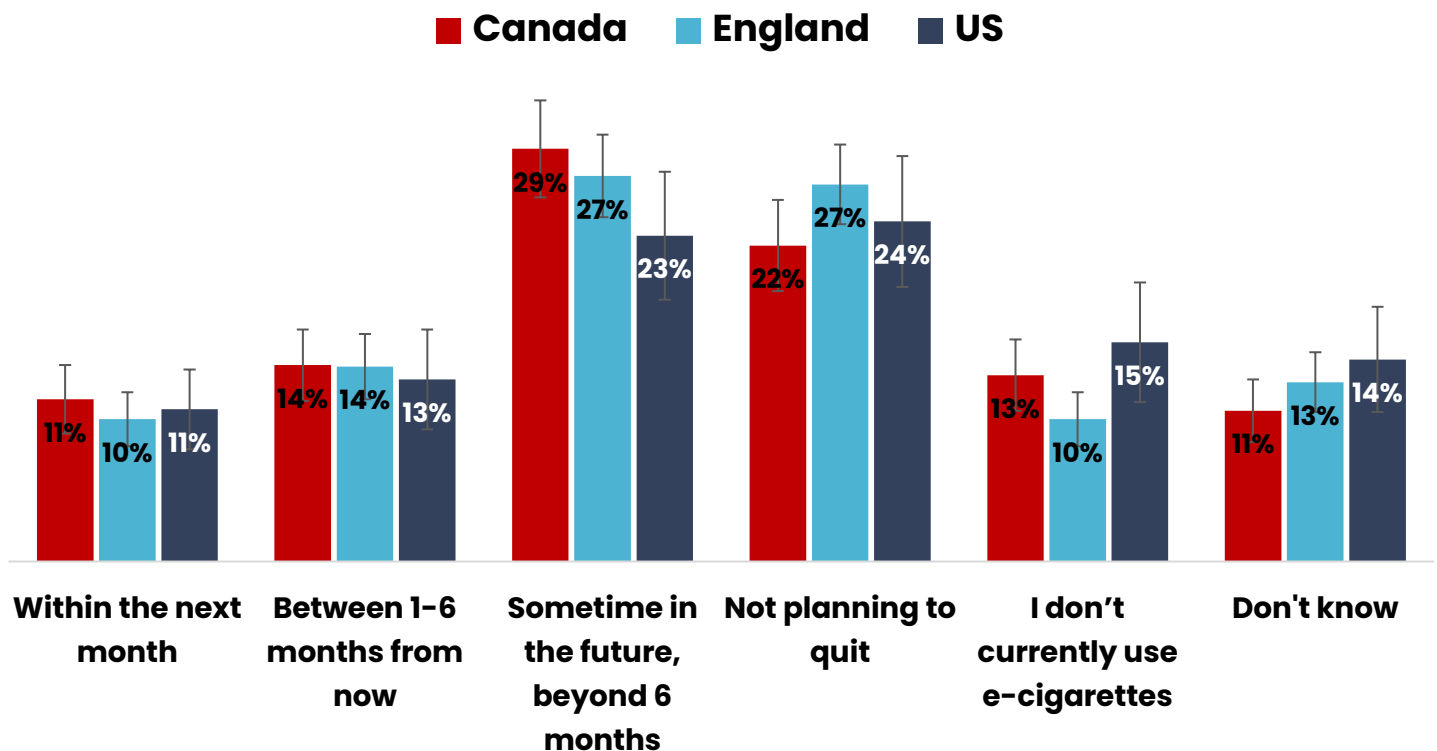


Intentions to quit e-cigarettes

Youth who had vaped in the past 30 days were asked about their plans to quit. In 2022, approximately one-quarter of youth who vaped in each country reported planning to quit within the next 6 months, and similar proportions 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, 2022
CA: N=858; EN: N=1,217; US: N=828



"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

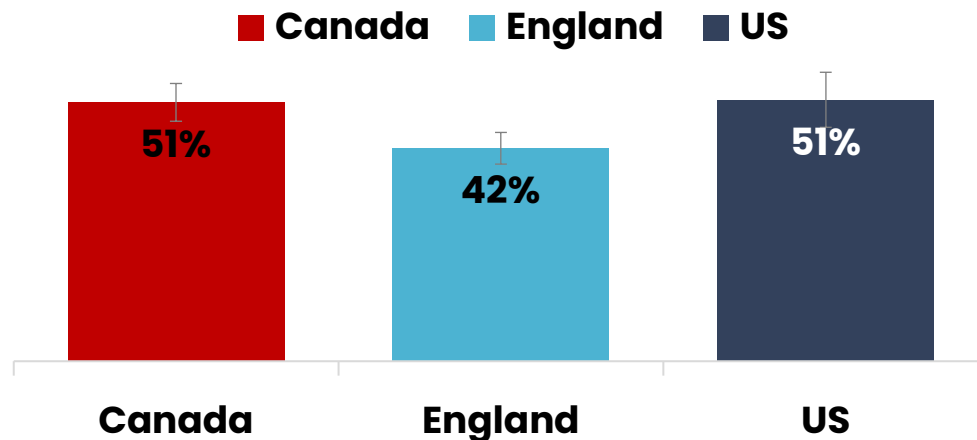
Attempts to quit e-cigarettes

Approximately half of youth who had vaped in the past 30 days in Canada and the US, and slightly fewer in England, reported ever trying to quit. Within each country, somewhat fewer reported trying to quit vaping in the past year.

Have you ever tried to completely stop vaping?

% 'YES', YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2022

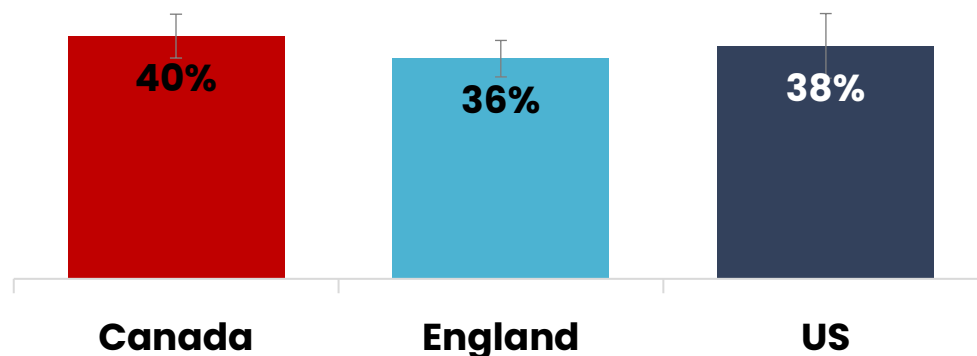
CA: N=856; EN: N=1,217; US: N=820



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

% 'YES', YOUTH AGED 16-19 WHO VAPED IN PAST 30 DAYS, 2022

CA: N=858; EN: N=1,221; US: N=824



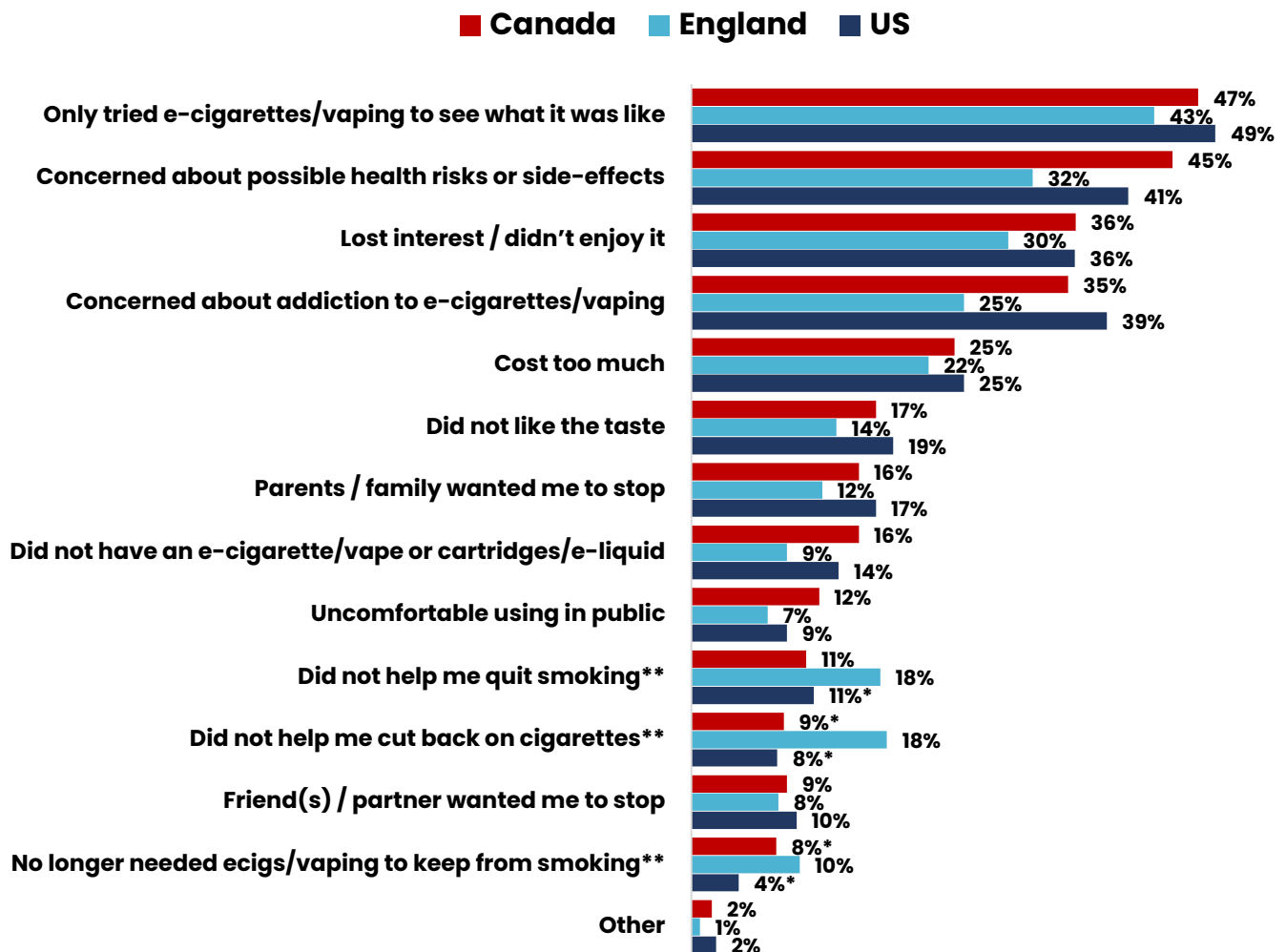
"HAVE YOU EVER TRIED TO COMPLETELY STOP USING E-CIGARETTES/VAPING?"; ASKED OF YOUTH WHO VAPED IN PAST 30 DAYS; "HAVE YOU TRIED TO COMPLETELY STOP USING E-CIGARETTES/VAPING IN THE LAST 12 MONTHS?"; ASKED OF YOUTH WHO VAPED IN PAST 12 MONTHS AND EVER TRIED TO QUIT; REFUSED EXCLUDED FROM DENOMINATOR

Reasons for quitting e-cigarettes

Respondents with recent quitting experience were asked about reasons they quit, tried to quit, or did not continue vaping. In 2022, the most commonly selected reason in all three countries was just trying vaping, followed by concern about health risks. Many reasons were selected by fewer respondents in England, although smoking-related reasons were selected by more respondents in England.

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, 2022, N=3893



*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

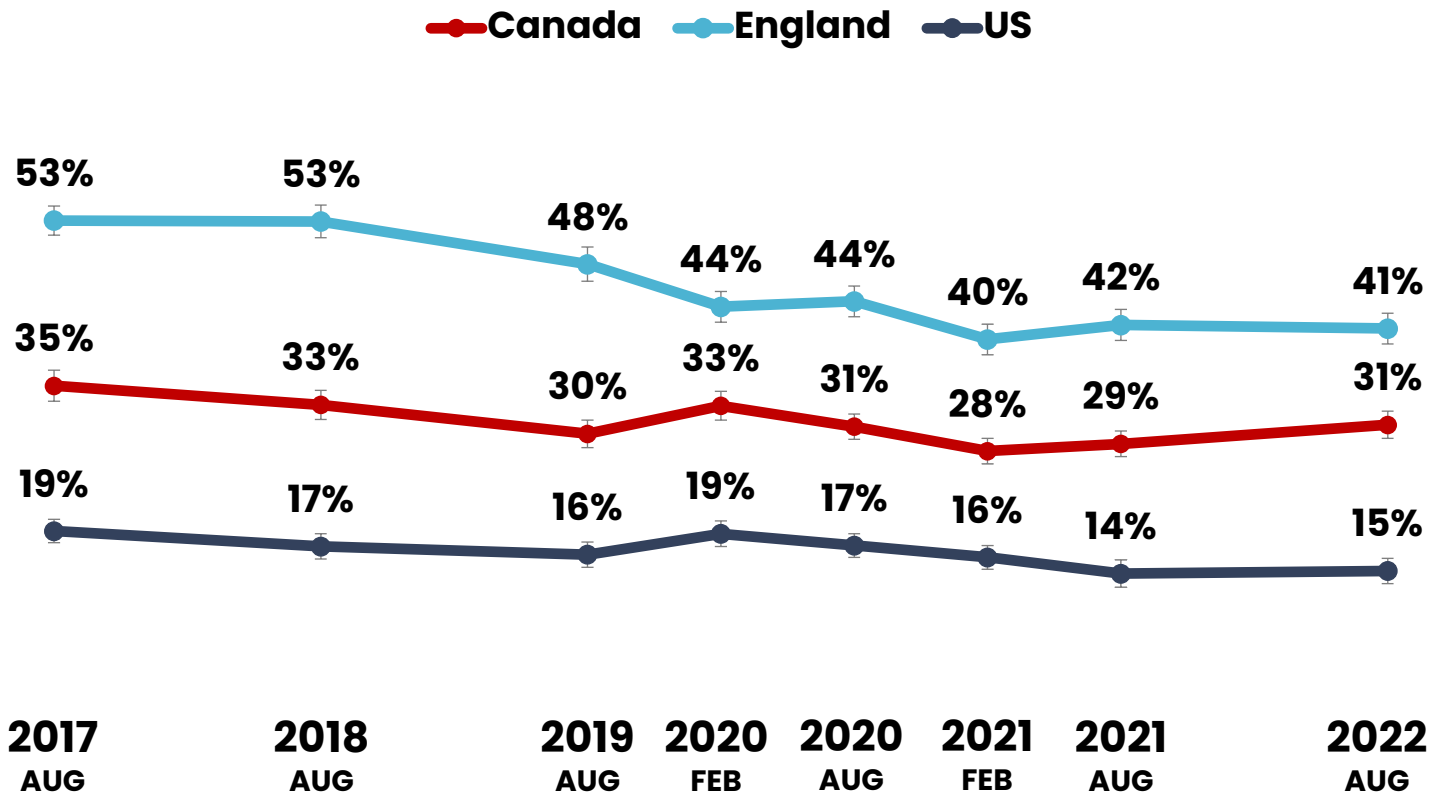
Alcohol use

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 near 40%. In Canada, monthly drinking was reported by nearly one-third of youth in 2022, down slightly from 2017. Prevalence was much lower in the US, at nearly one in five in 2017, and down to 15% in 2022.

Alcohol use – monthly in the past 12 months

YOUTH AGED 16-19, 2017-2022

CA: N=32,859; EN: N=31,605; US: N=35,794



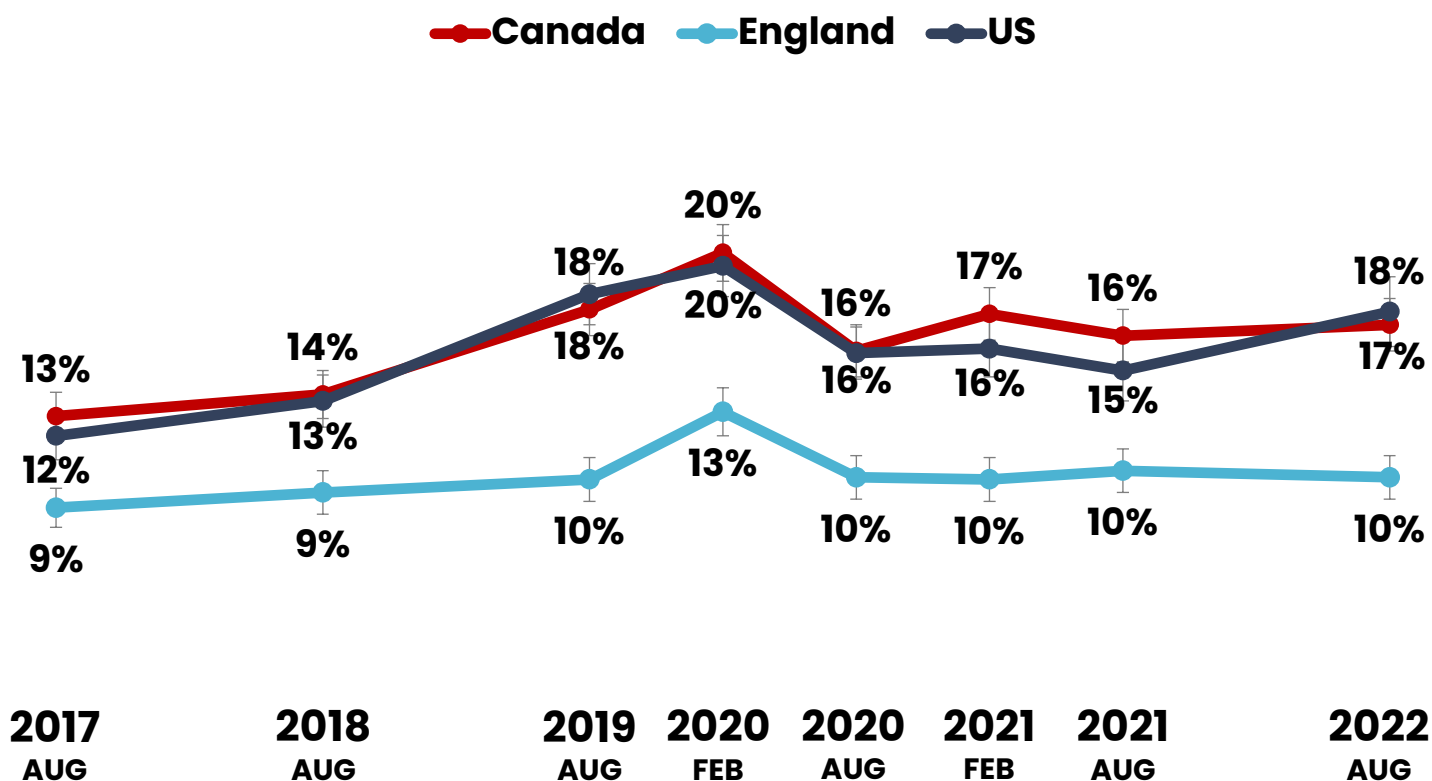
Cannabis use

Among youth aged 16-19, more youth in Canada and the US reported using cannabis in the past 30 days than in England. 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, 2017-2022

CA: N=33,362; EN: N=31,888; US: N=36,451



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