

Testimony before the Minnesota Senate Committee on Health and Human Services Regarding Banning the Sale of Flavored Tobacco and Vapor Products Lindsey Stroud, Director, Consumer Center Taxpayers Protection Alliance March 1, 2023

Chairwoman Wiklund, Vice-Chairwoman Mann, and Members of the Committee:

Thank you for your time today to discuss banning flavors tobacco and vapor products. My name is Lindsey Stroud and I'm Director of the Consumer Center at the Taxpayers Protection Alliance (TPA). TPA is a non-profit, non-partisan organization dedicated to educating the public through the research, analysis and dissemination of information on the government's effects on the economy. TPA's Consumer Center focuses on providing up-to-date information on adult access to goods including alcohol, tobacco, and vapor products, as well as regulatory policies that affect adult access to other consumer products, including harm reduction, technology, innovation, antitrust and privacy.

While addressing youth use of age-restricted products is laudable, lawmakers must refrain from prohibitionist bans on both products that adults responsibly consume and on products that may help adults quit smoking. Youth use of traditional tobacco products has reached record lows, while youth vaping has halved in recent years. Bans will only force adult consumers to seek out illicit products from clandestine sources, which may cause more harm.

- Youth vaping seems to have peaked among Minnesota youth in 2019. Between 2019 and 2022, current e-cigarette use among 8th graders decreased by 45.5 percent, among 9th graders vaping rates decreased by 56.3 percent and by 46.2 percent among 11th graders.
- Combustible cigarette use is at record lows. In 2022, two percent of 8th graders, two percent of 9th graders and four percent of 11th graders reported past-month combustible cigarette use.
- Only 32.3 percent reported using a flavored cigarette product, such as menthol.
- Nationally, youth vaping has decreased by 53 percent between 2019 and 2022, while youth use of traditional tobacco products is at record lows.
- In 2022, among middle and high school students that had used a tobacco or vape product on at least one occasion in the 30 days prior, 9.4 percent reported using e-cigarettes, 1.9 percent had used cigars, 1.6 percent has used combustible cigarettes and 1.3 percent had used smokeless tobacco products.
- Youths are not using e-cigarettes because of flavors.
- In 2021, among middle and high school students that were currently using e-cigarettes, 43.4 percent had used them because of feelings of anxiety, stress and/or depression, compared to 13.2 percent who had cited using them because of flavors.

- In 2021, 13.4 percent of Minnesota adults were currently smoking cigarettes. White adults accounted for 82.6 percent of the state's current smoking population. One-quarter (25.9 percent) of adults who earned \$25,000 were currently smoking in 2021, compared to only 8.5 percent of adults earning \$50,000 or more.
- In 2021, 5.7 percent of Minnesota adults reported past-month e-cigarette use, which was a 54.1 percent increase from 2017.
- In three of four states with current flavored tobacco and vape bans, smoking rates among young adults increased, while nationally, they decreased on average.
- An illicit market is thriving on internet marketplaces from New York City to California.
- Minnesota (and the nation's) youth are facing an increasing mental health crisis.
- According to the 2022 Kids Count Data Book from the Annie E. Casey Foundation, the percentage of Minnesota youth aged three to 17 years old that had ever been diagnosed with anxiety or depression by a medical professional increased by 14.9 percent, from 12.2 percent of Minnesota youth in 2016 to 14 percent in 2020.
- The percent of Minnesota students who felt hopeless and/or sad nearly everyday increased by 33.3 percent from eight percent of students in 2019 to 10.7 percent in 2022.
- The percent of Minnesota students who have "been bothered by feeling nervous, anxious or on edge" for nearly every day in the two weeks prior increased by 32.4 percent, from 12.3 percent of students in 2019 to 16.3 percent in 2022.
- The 2021 Youth Risk Behavior Survey found that 42 percent of American high school students that felt sad or hopeless for "almost every day for [two] or more weeks in a row that they stopped doing some usual activities," which was a 14.1 percent increase from 2019, as well as being the highest rate recorded.
- According to the Minnesota Department of Health, the percentage of Minnesota students who had misused prescription pain medications increased between 2013 and 2019, including increase by over 400 percent among 8th graders.
- In 2020, 29 Minnesotans aged one to 14 years old and 1,126 aged 15 to 24 years old visited an emergency room due to an opioid overdose.
- According to the Centers for Disease Control and Prevention (CDC), drug overdose deaths among youth aged 14 to 18 years old increased by 94 percent between 2019 and 2021, and additional 20 percent between 2020 and 2021. Meanwhile, youth vaping decreased by 62 percent between 2019 and 2021.
- Minnesota woefully underfunds tobacco control programs.
- In 2021, for every \$1 the state received in tobacco monies, it spent \$0.02 on tobacco control efforts.

Youth Vaping Has Decreased Among Minnesota

According to the Minnesota Student Survey, conducted by the Minnesota Department of Education, in 2022, only 6 percent of 8th graders, 7 percent of 9th graders, and 14 percent of

11th graders reported past-month use of e-cigarettes.¹ These are substantial declines from 2019 when youth vaping peaked in the Gopher State. Among 8th graders, between 2019 and 2022, past-month vaping decreased by 45.5 percent, among 9th graders by 56.3 percent, and among 11th graders by 46.2 percent. Further, during the same period, daily e-cigarette use declined by 50 percent and 42.3 percent among 9th and 11th graders, respectively. Among 8th graders, there was no change with 1 percent reporting daily use in both 2019 and 2022.

Combustible cigarette use is also at record lows, contrary to opponents' fears that e-cigarette use would lead to an increase in traditional tobacco use. In 2022, 2 percent of 8th graders, 2 percent of 9th graders, and 4 percent of 11th graders reported past-month combustible cigarette use. Between 2016 and 2022, past-month smoking rates have declined by 33.3 percent among 8th graders, by 60 percent among 9th graders, and by 50 percent among 12th graders.

While most students who reported past-month e-cigarette use reported vaping a flavored product, among all students who had smoked a combustible cigarette in the past month, only 32.3 percent reported using a flavored cigarette product, such as menthol.

Given the record lows in youth tobacco use and continued declines in youth vapor product use, policymakers must refrain from prohibitionist policies that would hinder adult access to harm reduction products.

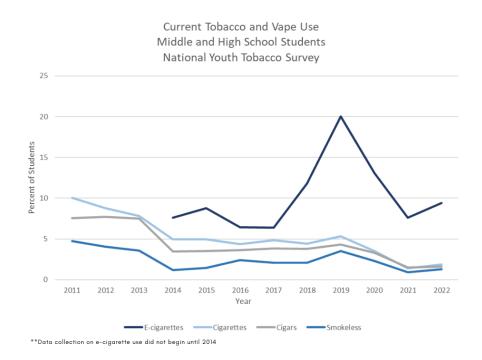
Youth Tobacco and Vapor Product Use

Despite headlines, youth use of traditional tobacco products is at record lows, while youth ecigarette use peaked in 2019 and has steadily declined in the years since.

In 2022, according to the National Youth Tobacco Survey (NYTS), among middle and high school students that had reported current tobacco product use (defined as having used the product on at least one occasion in the 30 days prior), 1.9 percent had used cigars, 1.6 percent had used combustible cigarettes and 1.3 percent had used smokeless tobacco products.² These are some of the lowest levels recorded. In fact, in the 10 years between 2012 and 2022, current cigar use declined by 75.3 percent, cigarette use by 81.7 percent and smokeless tobacco use by 67.9 percent. These declines have come all the while flavored tobacco and vapor products remain available for sale.

Regarding vaping use (according to the NYTS), vaping seems to have peaked in 2019 when 20 percent of middle and high school students had used an e-cigarette in the 30 days prior to the survey. In 2022, only 9.4 percent of U.S. youth were currently vaping, a 53 percent decrease from 2019's levels.

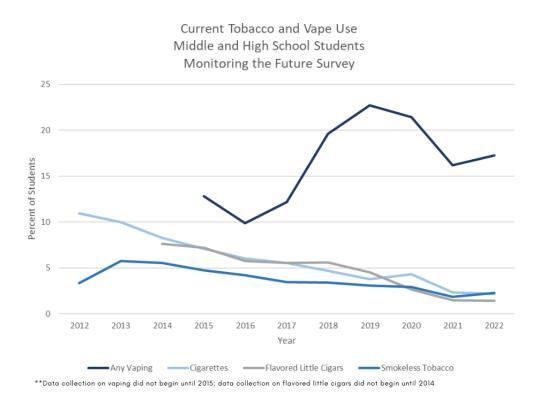




Other national survey data has found significant declines in youth use of tobacco and vapor products. In 2022, according to the Monitoring the Future Survey (MTFS), among middle and high school students, 2.2 percent reported current combustible cigarette use, 2.3 percent reported currently using smokeless tobacco and 1.4 percent reported using flavored little cigars.³ Again, these are some of the lowest levels recorded. In 2012, more than one in ten U.S. youth (11 percent) reported current cigarette use. In ten years, smoking rates among U.S. youth declined by 78.7 percent. During the same period smokeless tobacco use among youth decreased by 59.6 percent. Between 2014 and 2022, the percent of youth reporting current use of flavored cigars declined by 81.2 percent.

Similar to the NYTS, the MTFS also found that youth vaping peaked in 2019, when 22.7 percent of U.S. youth reported "any vaping" – i.e., using a vapor product to vape either nicotine or other substances. Between 2019 and 2022, the percent of youths reporting any vaping decreased by 23.9 percent.





The CDC continues to delay publishing state-specific data from the 2021 Youth Risk Behavior Survey (YRBS). However, nationally, only 18 percent of high school students reported using vapor products in the 30 days prior to the survey in 2021.⁴ This is a 45 percent decrease from 2019 when 32.7 percent of high schoolers reported current vapor product use.

As the YRBS is an aggregate of all state data, Vermont lawmakers should refrain from excessive taxes to address outdated figures on youth vapor product use in the state.

Youth Are Not Using E-Cigarettes Because of Flavors

National and state surveys consistently find that youth are not overwhelmingly using e-cigarettes because of flavors.

Other state surveys find similar results.

In 2019 (among all Connecticut high school students), 5.2 percent reported using e-cigarettes because of "flavors," 18.2 percent cited "other," and 12.9 percent reported using e-cigarettes because of friends and/or family.⁵

In 2017 (among Hawaiian high school students that had ever used e-cigarettes), 26.4 percent cited flavors as a reason for e-cigarette use, compared to 38.9 percent that reported "other."⁶

Among highschoolers in Maryland that used e-cigarettes in 2019, when asked about the "main reason" for using e-cigarettes only 3.2 percent responded "flavors."⁷ Conversely, 13 percent reported because "friend/family used them," 11.7 percent reported "other," and 3.8 percent reported using e-cigarettes because they were less harmful than other tobacco products.

In 2019, among all Montana high school students, only 7 percent reported using vapor products because of flavors, compared to 13.5 percent that reported using e-cigarettes because of "friend or family member used them."⁸ Further, 25.9 percent of Montana high school students reported using vapor products for "some other reason."

In 2019, among all students, only 4.5 percent of Rhode Island high school students claimed to have used e-cigarettes because they were available in flavors, while 12.5 cited the influence of a friend and/or family member who used them and 15.9 percent reported using e-cigarettes "for some other reason."⁹

In Vermont (in 2019), among high school students that were current e-cigarette users, only 10 percent of youth that used e-cigarettes cited flavors as a primary reason for using e-cigarettes, while 17 percent of Vermont high school students reported using e-cigarettes because their family and/or friends used them, and 51 percent cited other.¹⁰

In 2019, among all Virginia high school students, only 3.9 percent reported using e-cigarettes because of flavors, 12.1 used for some other reason, and 9.6 used them because of friends and/or family members.¹¹

This state data is supported by even more recent national survey data. According to the 2021 NYTS, among middle and high school students that reported current e-cigarette use, 43.4 percent cited using them because they were "feeling anxious, stressed, or depressed," compared to only 13.2 percent who cited using them because they were available in flavors.¹²

Among students that reported having ever tried an e-cigarette, 57.8 percent cited using them because a friend uses them, compared to 13.5 percent who cited the availability of flavors.

Reasons for first e-cigarette use National Youth Tobacco Survey, United States, 2021		
	Among ever e- cigarette users	Among current e-cigarette users
A friend [used/uses] them	57.8	28.3
I [was/am] curious about them	47.6	10.3
l [was/am] feeling anxious, stressed, or depressed	25.1	43.4
To get a high or buzz from nicotine	23.3	42.8
A friend family member [used/uses] them	18.6	8.7
I [could/can] use them to do tricks	16.5	20
They [were/are] available in flavors, such as menthol, mint, candy, fruit, or chocolate	13.5	13.2
l [could/can] use them unnoticed at home or at school	10.8	13
They are less harmful than other forms of tobacco such as cigarettes	8.3	10.3
They [were/are] easier to get than other tobacco products, such as cigarettes	4.8	6
l've seen people on TV, online, or in movies use them	4.5	2.9
To try to quit using other tobacco product, such as cigarettes	2.5	4.6
They cost less than other tobacco products, such as cigarettes	2.2	4.7
Some other reason	10.6	19.5

If lawmakers want to address youth vaping, they must understand why youths are vaping.

Adult Tobacco and Vape Use

In 2021, 13.4 percent of adults in Minnesota were currently using cigarettes.¹³ Smoking rates were highest among 25- to 44-year-old adults, with 16.8 percent reporting current use.

Among all adults earning \$25,000 annually or less in 2021, one-quarter (25.9 percent) reported currently smoking, compared to only 8.5 percent of adults who earned \$50,000 or more per year.

In Minnesota, adults identifying as American Indian/Alaska Native reported smoking at a greater percentage of their identified race at 32.8 percent. This is compared to 23.2 percent of Other, non-Hispanic adults, 21 percent of Multiracial, non-Hispanic adults, 13.6 percent of White adults, 12.8 percent of Black adults, 10.7 percent of Hispanic adults, and 8.3 percent of Asian adults.

Yet, White adults made up a significantly larger percentage of Minnesota's total adult smoking population. In 2021, White adults accounted for 82.6 percent of the state's current smoking

population, compared to American Indian/Alaska Native adults, who made up only 2.2 percent of current adult smoking population. Black adults accounted for 5.8 percent of the state's current adult smoking population, Hispanic adults made up 3.7 percent, Asian adults accounted for 3.1 percent, Multiracial, non-Hispanic adults made up two percent, and Other, non-Hispanic adults made up 0.5 percent of Minnesota's adult smoking population in 2021.

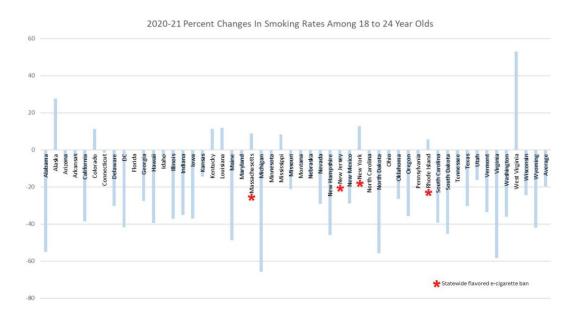
The CDC provides data on adult e-cigarette use for only 2016, 2017, and 2021.

In 2021 (among all Minnesota adults), 5.7 percent were currently using e-cigarettes. This is a 54.1 percent increase from 2017 when 3.7 percent of Minnesota adults were current e-cigarette users.

In 2021 (among all Minnesota adults), 18 percent of 18- to 24-year-olds, 7.2 percent of 25–44year-olds, 3.1 percent of 45–64-year-olds, and 0.7 percent of 65+ year-olds were currently using e-cigarettes cigarettes.

Effects of Current Flavor Bans

As of January 2023, five states have active statewide bans on the sale of flavored vapor products, including two states which have also banned the sale of flavored traditional tobacco products. Opponents claim that prohibition will work to reduce smoking and thus liberate resources for states due to reduced health care costs attributed to smoking. Yet, evidence from existing states find flavor bans correlate with increases in young adult smoking, all the while states lose revenue and neighboring states lose profit.¹⁴



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In 2021, 14.4 percent of American adults were currently smoking. This is a 7.1 percent decrease from 2020's 15.5 percent. Among young adults (aged 18 to 24 years old), a miniscule 7.4 percent were current smokers.

Among all states (minus Florida), smoking rates among adults aged 18 to 24 years old decreased by 19.7 percent on average between 2020 and 2021. Only nine states experienced young adult smoking rates increase during the same period. Alarmingly, three of those states are home to flavored e-cigarette bans. Lawmakers should avoid pushing prohibitionist flavor policies forward.

In Massachusetts, 7.4 percent of 18- to 24-year-olds were current smokers in 2021. This is an 8.8 percent increase from 2020's 6.8 percent. In New York, young adult smoking rates increased by 12.7 percent from 5.5 percent in 2020 to 6.2 percent in 2021. In Rhode Island, between 2020 and 2021, smoking rates among young adults aged 18 to 24 years old increased by 5.7 percent.

Of the then-four states with active flavored e-cigarette bans, only New Jersey saw a reduction (6.8 percent) in young adult smoking rates. This is significantly lower than the average rate of reduction among all U.S. young adults.

Flavored tobacco bans have also failed to meaningfully reduce smoking rates while significantly reducing cigarette tax revenue and transferring it to other states.

The Massachusetts flavored tobacco and vape ban went into effect in 2020. Between 2020 and 2021 state excise tax revenue decreased by 22.3 percent, representing a loss of over \$106 million. Meanwhile, smoking rates among all adults only decreased by 4.5 percent (11.1 percent of adults in 2020 to 10.6 percent in 2021).

Neighboring New Hampshire saw an 11.5 percent reduction in adult smoking rates between 2020 and 2021, yet cigarette excise tax revenues increased by 14.4 percent during the same period.

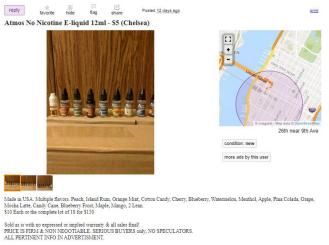
Given the poor effects of flavored tobacco bans on young adult smoking and the failed experiment in Massachusetts, lawmakers should refrain from restricting the sales of flavored tobacco and vapor products.

In Thriving Illicit Market, Unregulated Products Harm Users

Flavored tobacco and vape product bans only punish responsible retailers while incentivizing clandestine actors to engage in new illicit marketplaces. Unregulated tobacco and vapor products pose a risk to all consumers, both youth and adults alike. Nonetheless, consumers have indicated they would seek out illicit products should their product of choice be banned. There are already rogue sellers using online marketplaces to sell these unregulated products.

One study examining a possible menthol ban found that at least 25 percent would "find a way to buy a menthol brand."¹⁵ An experiment examined current e-cigarette users under a hypothetical flavor ban found that banning "vaping products from the marketplace may shift preference towards purchasing vaping products in the illegal marketplace."¹⁶ An international survey of vapers from Canada, the United Kingdom, and the United States, found that over one-fourth (28.3 percent) "would find a way to get their banned flavor(s)."¹⁷

There is already a booming marketplace online. Examples are relatively easy to find. A Craigslist ad in New York City offers for sale a variety of flavored e-liquid products, from peach to cotton candy.¹⁸ The seller informs the potential customer to "[i]nteract with [them] the same way [one] would a sales person." Alarmingly, this seller is not interested in providing potential customers with information regarding the products that they may be consuming, noting that any questions about their "cost, date purchased, where purchased, why selling is no one's concern." In California, which recently enacted a ban on flavored tobacco and vapor products, "menthol man" is offering to deliver menthol cigarettes for \$15 a pack.¹⁹



Interact with me the same way you would a sales person @ Macy's, Bioomindales, Target, Kmart, or a street vendor. Personal Questions of my cost, date purchased, where purchased, why selling is no one's concern. If you see the advertisement, it is still available. Don't wate my time inquiring if it is still available!

NO DELIVERY Available, Only Pick Up @ 26th Street & 9th Ave., Manhattan. Call (show conact info) Only, All text/email messages will not be



There is an even larger international market of counterfeit vapor products, with officials in numerous countries attempting to stem their flow.

In January 2021, the FDA worked with other federal agencies and seized 42 shipments of counterfeit disposable vapor products from China.²⁰ In March 2021, Customs and Border Protection officers in Chicago seized \$1.5 million in counterfeit vapes.²¹

In 2022, officials in Australia, China, Singapore, and the United Kingdom have all reported massive seizures of counterfeit vapor products.^{22 23 24 25} The illicit products are so prevalent that a vapor product company has been actively working with government officials in China and has successfully shut down more than 20 factories manufacturing counterfeit vapes.²⁶

Flavor Bans Don't Address Growing Mental Health Crisis Among Youth

While lawmakers have turned their attention towards youth vaping, they have seemingly ignored a growing mental health crisis among Minnesota and American youth.

For example, according to the *2022 Kids Count Data Book* from the Annie E. Casey Foundation, the percentage of Minnesota youth aged three to 17 years old that had ever been diagnosed with anxiety or depression by a medical professional increased by 14.9 percent, from 12.2 percent of Minnesota youth in 2016 to 14 percent in 2020.²⁷

According to data from the Minnesota student survey, the percentage of Minnesota students who felt sad or hopeless nearly every day for two weeks increased by 33.3 percent from eight percent of students in 2016 to 10.7 percent of students in 2022. The percent of students who have "been bothered by feeling nervous, anxious or on edge" for nearly every day in the two weeks prior increased by 32.4 percent, from 12.3 percent of students in 2019 to 16.3 percent in 2022.

According to a summary report of the results from the 2021 Youth Risk Behavior Survey found that 42 percent of American high school students that felt sad or hopeless for "almost every day

for [two] or more weeks in a row that they stopped doing some usual activities," which was a 14.1 percent increase from 2019, as well as being the highest rate recorded.²⁸

Again, youth cited using e-cigarettes because of self-medicating their feelings of anxiety, depression and/or stress, yet, according to the 2021, while feelings of hopelessness increased, youth vaping decreased by 45 percent.

Youth Already Facing Epidemic of Fake Pills As Overdose Deaths Continue to Climb

According to the Minnesota Department of Health, the "percentage of Minnesota students using prescription pain medications without a prescription or differently than a doctor instructed was higher in 2019 than in 2013."²⁹ In 2019, 3.1 percent of 11th graders, 3.5 percent of 9th graders and 4.2 percent of 8th graders reported inappropriate use of prescription pain medications. Inappropriate use has increased by over 400 percent among 8th graders between 2013 and 2019.

In 2020, 29 Minnesotans aged one to 14 years old visited the emergency department due to an "opioid-involved overdose." The same year, 1,126 Minnesotans aged 15 to 24 years old visited the ER due to opioids.

In July of last year, a 17-year-old from Bloomington was charged with murder in connection to a fatal fentanyl poisoning of a 15-year-old girl from West St. Paul.³⁰ On January 31, of this year, in just one day, three juveniles from Mankato overdosed on "counterfeit/fake Oxycodone M30 pills that contained fentanyl."³¹

According to the CDC, drug overdose deaths among youth aged 14 to 18 years old increased by 94 percent between 2019 and 2021, and additional 20 percent between 2020 and 2021.³²

Consistent with reasons youth are using e-cigarettes, youths are seeking out common prescription drugs, unknowingly being exposed to illicit fentanyl in fake, unregulated pills.

Fake and counterfeit vapor products not only pose a risk to youth, but to adults as well. While the instances of fentanyl-vapes have been few and far between, pushing all products into an underground market could create more issues.

Currently, fentanyl vapes seem to be user-created. In 2019, the Drug Enforcement Agency seized a fentanyl vape pen, as well as other narcotics, after a suspected overdose death in San Diego.³³ In February 2022, the Rocky Mountain Poison Center issued a warning to Coloradan parents about an increase in calls to the poison center about "young people, adolescents, who [had] been experimenting with vaping fentanyl."³⁴ According to Dr. Christopher Hoyte, the center has started "noticing that young people are getting fentanyl in liquid form and putting the cartridges in vaping pens and vaping fentanyl."



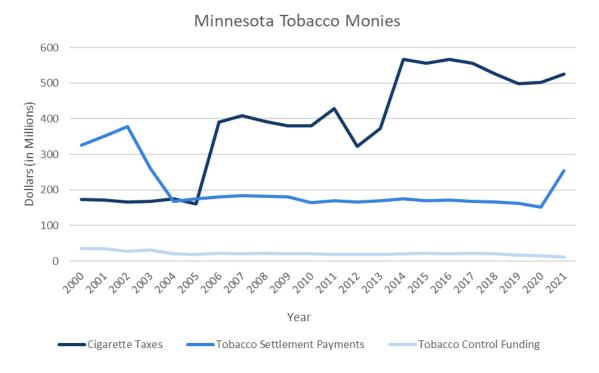
Minnesota Woefully Underfunds Tobacco Control

If lawmakers truly want to address youth use of tobacco products and help adults quit smoking deadly combustible cigarettes, they ought to spend more funding on tobacco control programs.

In 2021, the Gopher State collected \$525.1 million in state excise tax revenue from combustible cigarettes. This was a 4.5 percent increase from 2020. Between 2000 and 2021, Minnesota has collected over \$8.3 billion in cigarette taxes.

Since 2000, Minnesota has collected annual payments from tobacco manufacturers based on the percentage of cigarettes and tobacco products sold in the state in that year. Minnesota collected \$254.2 million in settlement payments in 2021, a 66.9 percent increase from 2020's \$152.3 million. Since 2000, the Gopher State has collected nearly \$4.5 billion in tobacco settlement payments.

While Minnesota collected an estimated \$779.3 million in tobacco-related monies in 2021, the state allocated only \$12.4 million in state funding towards tobacco control programs, including cessation, education, and youth prevention efforts. This is a 19.5 percent decrease in funding from 2020 levels. This amounts to 2.4 percent of taxes and 4.9 percent of settlement payments. In 2021, for every \$1 the state received in tobacco monies, it spent only \$0.02 on tobacco control efforts.



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¹ Minnesota Department of Health, "Minnesota Student Survey Tables 2013-2022," 2022, <u>https://public.education.mn.gov/MDEAnalytics/DataTopic.jsp?TOPICID=11</u>.

² Eunice Park-Lee, *et al.*, "Tobacco Product Use Among Middle and High School Students — United States, 2022," *Morbidity & Mortality Weekly Report*, Centers for Disease Control and Prevention, November 11, 2022, <u>https://www.cdc.gov/mmwr/volumes/71/wr/mm7145a1.htm?s_cid=mm7145a1_w</u>.

³ University of Michigan, "1975-2022 Data for In-School Surveys of 8th, 10th, and 12th Grade Students," *Monitoring the Future*, 2022, <u>https://monitoringthefuture.org/results/data-products/tables-and-figures/</u>.

⁴ Centers for Disease Control and Prevention, "Youth Risk Behavior Survey Data Summary & Trends Report," February 13, 2023, <u>https://www.cdc.gov/healthyyouth/data/yrbs/pdf/YRBS_Data-Summary-</u> Trends_Report2023_508.pdf.

⁵ Connecticut Department of Public Health, "Connecticut High School Survey Codebook," 2019 Youth Risk Behavior Survey Results, 2019, <u>https://portal.ct.gov/-/media/Departments-and-</u> Agencies/DPH/CSHS/2019CT Codebook.pdf.

⁶ Lance Ching, Ph.D., et al., "Data Highlights from the 2017 Hawai'i Youth Tobacco Survey," Hawai'i State Department of Health, June 29,

2018, http://www.hawaiihealthmatters.org/content/sites/hawaii/YTS_2017_Report.pdf.

⁷ Maryland Department of Public Health, "Maryland High School Survey Detail Tables – Weighted Data," 2018 Youth Risk Behavior Survey, 2018, <u>https://phpa.health.maryland.gov/ccdpc/Reports/Documents/2018</u> percent20YRBS percent20YTS percent20Reports/Maryland/2018MDH percent20Detail percent20Tables.pdf.

 ⁸ Montana Office of Public Instruction, "2019 Montana Youth Risk Behavior Survey High School Results," 2019, http://opi.mt.gov/Portals/182/Page percent20Files/YRBS/2019YRBS/2019_MT_YRBS_FullReport.pdf?ver=2019-08-23-083248-820.

⁹ State of Rhode Island Department of Health, "Rhode Island High School Survey Detail Tables – Weighted Data," 2019 Youth Risk Behavior Survey Results, 2019,

https://health.ri.gov/materialbyothers/yrbs/2019HighSchoolDetailTables.pdf.

¹⁰ Vermont Department of Health, "2019 Vermont Youth Risk Behavior Survey Statewide Results," March, 2020, <u>https://www.healthvermont.gov/sites/default/files/documents/pdf/CHS_YRBS_statewide_report.pdf</u>.

¹¹ Virginia Department of Health, "Virginia High School Survey Detail Tables – Weighted Data," 2019 Youth Risk Behavior Survey Results, 2019, <u>https://www.vdh.virginia.gov/content/uploads/sites/69/2020/06/2019VAH-Detail-Tables.pdf</u>.

¹² Andrea S. Gentzke *et al.*, "Tobacco Product Use and Associated Factors Among Middle and High School Students — National Youth Tobacco Survey, United States, 2021," *Morbidity & Mortality Weekly Report*, Centers for Disease Control and Prevention, March 11, 2022, <u>https://www.cdc.gov/mmwr/volumes/71/ss/pdfs/ss7105a1-H.pdf</u>.

¹³ Centers for Disease Control and Prevention, "Behavioral Risk Factor Surveillance System," 2022, <u>https://www.cdc.gov/brfss/brfssprevalence/</u>. Accessed December 2022.

¹⁴ Lindsey Stroud, "Statewide Flavored E-Cigarette Bans Have Led to Increases in Young Adult Smoking," *Townhall*, October 21, 2022, <u>https://townhall.com/columnists/lindseystroud/2022/10/20/statewide-flavored-e-cigarette-bans-have-led-to-increases-in-young-adult-smoking-n2614807</u>.

¹⁵ Richard J. O'Connor *et al.*, "What would menthol smokers do if menthol in cigarettes were banned? Behavioral intentions and simulated demand," *Addiction*, April 4, 2012,

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3370153/.

¹⁶ Roberta Freitas-Lemos *et al.*, "The Illegal Experimental Tobacco Marketplace I: Effects of Vaping Product Bans," *Nicotine & Tobacco Research*, October 23, 2021, <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8403238/</u>.

¹⁷ Shannon Gravely *et al.*, "Responses to potential nicotine vaping product flavor restrictions among regular vapers using non-tobacco flavors: Findings from the 2020 ITC Smoking and Vaping Survey in Canada, England and the United States," *Addictive Behaviors*, October 14, 2021, <u>https://pubmed.ncbi.nlm.nih.gov/34695685/</u>.
 ¹⁸ Craigslist, "Atmos No Nicotine E-liquid 12ml - \$5 (Chelsea),"

https://web.archive.org/web/20230125180105/https:/newyork.craigslist.org/mnh/for/d/new-york-atmos-no-nicotineliquid-12ml/7577982709.html. Accessed January 2023.



¹⁹ Craigslist, "menthol man delivery service (Sacremento),"

https://web.archive.org/web/20230125181307/https:/sacramento.craigslist.org/bar/d/sacramento-menthol-mandelivery-service/7577129096.html. Accessed January 2023.

²⁰ U.S. Food and Drug Administration, "CBP, FDA Seize Counterfeit, Unauthorized E-Cigarettes," January 13, 2021, https://www.fda.gov/news-events/press-announcements/cbp-fda-seize-counterfeit-unauthorized-e-cigarettes.

²¹ U.S. Customs and Border Protection, "CBP Officers in Chicago Capture \$1.5 Million in Counterfeit Vaping Pens," March 11, 2021, <u>https://www.cbp.gov/newsroom/local-media-release/cbp-officers-chicago-capture-15-</u> <u>million-counterfeit-vaping-pens</u>.

²² Mary Ward, "More than \$2 million worth of vapes seized in state health crackdown," *The Sydney Morning Herald*, February 14, 2022, <u>https://www.smh.com.au/national/nsw/more-than-2-million-worth-of-vapes-seized-in-state-health-crackdown-20220128-p59s0m.html</u>.

²³ Diana Caruana, "Hong Kong Customs Seize Thousands of Vape Products Worth a Total of HK\$10 Million," *Vaping Post*, June 6, 2022, <u>https://www.vapingpost.com/2022/06/06/hong-kong-customs-seize-thousands-of-vape-products-worth-a-total-of-hk10-million/</u>.

²⁴ Vapor Voice, "Singapore Seizes Nearly \$1 Million in Illegal Vapes," June 2, 2022, https://vaporvoice.net/2022/06/02/singapore-seizes-nearly-1-million-in-illegal-

vapes/?utm_source=rss&utm_medium=rss&utm_campaign=singapore-seizes-nearly-1-million-in-illegal-vapes.²⁵ Charlotte Lillywhite, "Massive £100k shipment of dodgy vapes seized near Heathrow Airport," *MyLondon*, August 9, 2022, <u>https://www.mylondon.news/news/west-london-news/massive-100k-shipment-dodgy-vapes-</u>24708471.

24708471.
 ²⁶ Kiran Paul, "Elf Bar helps close 20 counterfeit factories in China, seizing million fake vapes," *Asian Trader*, July 15, 2022, <u>https://www.asiantrader.biz/elf-bar-helps-close-down-20-counterfeit-factories-in-china-seizing-over-a-million-fakes/.
</u>

²⁷ The Annie E. Casey Foundation, 2022 Kids Count Data Book: State Trends in Child Well-Being, August 8, 2022, https://assets.aecf.org/m/resourcedoc/aecf-2022kidscountdatabook-2022.pdf.

²⁸ Centers for Disease Control and Prevention, *supra* note 6.

²⁹ Minnesota Department of Health, "Opioids Overdose Dashboard Data," August 6, 2021,

https://www.health.state.mn.us/communities/opioids/documents/opioiddashboarddata.pdf.

³⁰ Krisit Belcamino, "Teen charged with murder in West St. Paul 15-year-old's overdose death," *Pioneer Press*, July 22, 2022, <u>https://www.twincities.com/2022/07/22/teen-charged-with-murder-in-west-st-paul-15-year-olds-overdose-death/</u>.

³¹ KEYC Staff, "Three juveniles overdose in Mankato," *KEYC News Now*, January 31, 2023, https://www.keyc.com/2023/01/31/three-juveniles-overdose-mankato/.

³² Laruen J. Tanz *et al.*, "Drug Overdose Deaths Among Persons Aged 10–19 Years — United States, July 2019– December 2021," *Morbidity and Mortality Weekly Report*, Centers for Disease Control and Prevention, December 16, 2022, <u>https://www.cdc.gov/mmwr/volumes/71/wr/mm7150a2.htm</u>.

³³ Drug Enforcement Agency, "Fentanyl Used in Vape Pens," *DEA Bulletin*, September 2020, <u>https://www.dea.gov/sites/default/files/2020-09/Fentanyl percent20Used percent20in percent20Vape percent20Pens PRB percent20FINAL.pdf</u>.

³⁴ Ashley Michels, "Teens are vaping fentanyl, poison control warns," *KDVR*, February 9, 2022, <u>https://kdvr.com/news/local/fentanyl-vaping-overdose-teens/</u>.

Lawmakers are often bombarded with misinformation on the products used by adults in their state. This annual analysis provides up-to-date data on the adults who use cigarettes and e-cigarette products in Minnesota, youth use, impacts of e-cigarettes and analyses of existing tobacco monies.

Key Points:

- In 2021, 13.4 percent of adults were currently smoking in Minnesota. This is a 2.9 percent decrease from 2020.
- In 2021 (among all Minnesota adults), 6.9 percent of 18- to 24-year-olds, 16.8 percent of 25–44-year-olds, 15.9 percent of 45–64-year-olds, and 8.4 percent of adults aged 65 years or older were currently smoking combustible cigarettes.
- Among all adults earning \$25,000 or less in 2021, 25.9 percent were current smoking compared to only 8.5 percent of adults earning \$50,000 or more.
- Among all smoking adults in 2021, 82.6 percent were White, 5.8 percent were Black, 3.7 percent were Hispanic, 3.1 percent were Hispanic, 2.2 percent were American Indian/Alaska Native, and 0.5 percent were Multiracial, non-Hispanic.
- Cigarette excise taxes in Minnesota disproportionately impact low-income persons, while failing to significantly reduce smoking rates among that class.
- The number of percent of Minnesota adults earning \$25,000 or less that were smoking decreased by 4.6 percent between 2005 and 2021, while the percent of adults earning \$50,000 or more that were smoking decreased by 13.8 percent during the same period.
- In 2021, 5.7 percent of Minnesota adults reported past-month e-cigarette use, which was a 54.1 percent increase from 2017.
- Youth vaping seems to have peaked among Minnesota youth in 2019. Between 2019 and 2022, current e-cigarette use among 8th graders decreased by 45.5 percent, among 9th graders vaping rates decreased by 56.3 percent and by 46.2 percent among 11th graders.
- Combustible cigarette use is at record lows. In 2022, two percent of 8th graders, two percent of 9th graders and four percent of 11th graders reported past-month combustible cigarette use.
- The introduction of e-cigarettes has not led to increases in cigarette smoking, but rather, correlates with significant declines in smoking rates among young adults.
- Between 2007 and 2018, young adult smoking rates declined by 28.2 percent. Since 2018, young adult smoking rates have decreased another 50.7 percent, with average annual declines of 20.3 percent.
- Minnesota woefully underfunds programs to prevent youth use of tobacco and/or vapor products and help adults quit smoking, while simultaneously receiving millions of dollars from the pockets of the adults who smoke. In 2021, for every \$1 the state received in tobacco monies, it spent only \$0.02 on tobacco control efforts.



Adult Combustible Cigarette Use

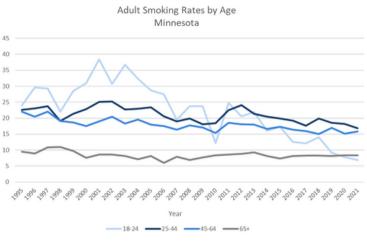
In 2021, according to data from the annual Behavioral Risk Factor Surveillance System survey (BRFSS) conducted by the Centers for Disease Control and Prevention, there were 588,236 adults, or 13.4 percent of Minnesotans currently smoking. This is a 2.9 percent decrease from 2020 when 13.8 percent reported current cigarette use. In 2021, 9.8 percent of Minnesota adults reported smoking every day.

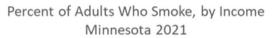
Smoking rates in the Gopher State have significantly declined since 1995 when the BRFSS first began reporting combustible cigarette use. That year, 20.5 percent of Minnesota adults were then-currently smoking. Between 1995 and 2021, smoking rates have decreased by 34.6 percent, with average annual decreases of 1.2 percent.

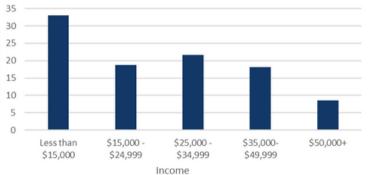
In 2021, among all Minnesota adults, 6.9 percent of 18- to 24-year-olds, 16.8 percent of 25–44-year-olds, 15.9 percent of 45–64-year-olds, and 8.4 percent of adults aged 65 years or older were currently smoking combustible cigarettes. Among all adults earning \$25,000 annually or less in 2021, one-quarter (25.9 percent) reported currently smoking, compared to only 8.5 percent of adults who earned \$50,000 or more per year.

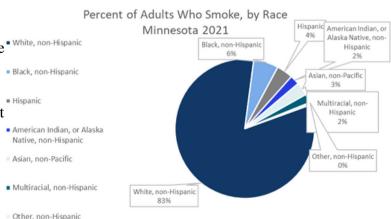
In Minnesota, adults identifying as American Indian/Alaska Native reported smoking at a greater percentage of their identified race at 32.8 percent. This is compared to 23.2 percent of Other, non-Hispanic adults, 21 percent of Multiracial, non-Hispanic adults, 13.6 percent of White adults, 12.8 percent of Black adults, 10.7 percent of Hispanic adults, and 8.3 percent of Asian adults.

Yet, White adults made up a significantly larger percentage of Minnesota's total adult smoking population. In 2021, White adults accounted for 82.6 percent of the state's current smoking population, compared to American Indian/Alaska Native adults, who made up only 2.2 percent of current adult smoking population. Black adults accounted for 5.8 percent of the state's current adult smoking population, Hispanic adults made up 3.7 percent, Asian adults accounted for 3.1 percent, Multiracial, non-Hispanic Hispanic adults made up 0.5 percent of Minnesota's adult smoking population in 2021.









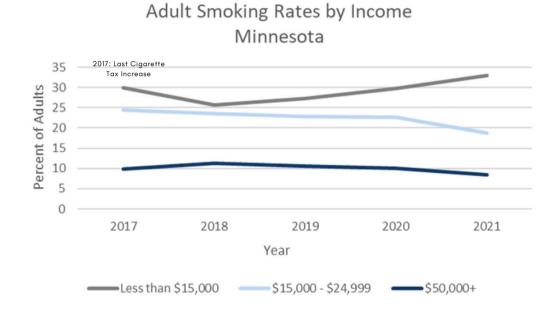


Effects of Cigarette Taxes

Minnesota last increased its state cigarette excise tax in 2017 from \$3.00 to \$3.04 per-pack. Lawmakers often justify excise taxes on cigarettes to deter persons from using combustible cigarettes. These taxes not only disproportionately harm lower income adults, the taxes also fail to significantly reduce smoking rates among those persons.

The number of percent of Minnesota adults earning \$25,000 or less that were smoking decreased by 4.6 percent between 2005 and 2021, while the percent of adults earning \$50,000 or more that were smoking decreased by 13.8 percent during the same period.

Lawmakers should refrain from enacting further increases in cigarette taxes given their disproportionate effect on low-income persons, while failing to reduce smoking rates.



Adult E-Cigarette Use

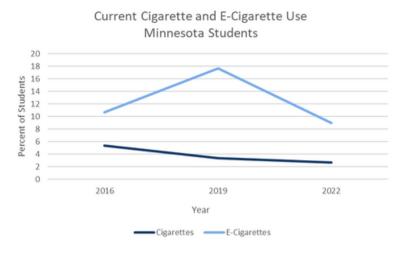
The CDC provides data on adult e-cigarette use for only 2016, 2017, and 2021.

In 2021 (among all Minnesota adults), 5.7 percent were currently using e-cigarettes. This is a 54.1 percent increase from 2017 when 3.7 percent of adults were current e-cigarette users.

In 2021 (among all Minnesota adults), 18 percent of 18- to 24-year-olds, 7.2 percent of 25–44-year-olds, 3.1 percent of 45–64-year-olds, and 0.7 percent of 65+ year-olds were currently using e-cigarettes cigarettes. Among adults earning \$25,000 or less, 9.6 percent reported current e-cigarette use, compared to 4.3 percent who reported earning \$50,000 or more.

In Minnesota, 20.7 percent of Multiracial, non-Hispanic adults, 6.5 percent of Asian adults, 6.1 percent of Hispanic adults, 5.4 percent of Black adults, and 5.4 percent of White adults were currently vaping in 2021.





Young Adult Smoking Rates

As e-cigarettes have disrupted the traditional tobacco market, policymakers have shifted their attention towards youth use and subsequent smoking initiation. Despite the rhetoric, the introduction of e-cigarettes has not led to increases in young adult cigarette smoking, but rather, correlates with significant declines.

E-cigarettes first came to U.S. market in 2007 when 19.5 percent of Minnesotans aged 18 to 24 years old were currently smoking. In 2018, public health purported to a so-called "youth vaping epidemic" when 14 percent of young adults in the Gopher State were smoking. Between 2007 and 2018, young adult smoking rates declined by 28.2 percent. Since 2018, young adult smoking rates have decreased another 50.7 percent, with average annual declines of 20.3 percent.

Though data is limited to only three years, increases in vaping correlate with decreases in smoking.

In 2017 (among 18- to 24-year-olds) 12.1 percent and 11.2 percent were currently using combustible cigarettes and e-cigarettes, respectively. Between 2017 and 2021, current cigarette use among young adults decreased by 43 percent while vapor product use increased by 60.7 percent.

Given the epic lows in young adult smoking rates, lawmakers must refrain from policies that restrict access to alternatives to smoking.

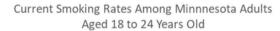
Youth Smoking and Vaping Rates

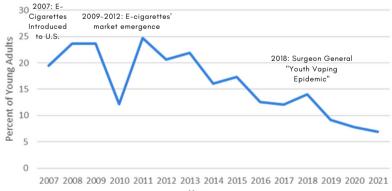
The most recent data on youth tobacco and vapor product use comes from the 2022 Minnesota Student Survey (MSS) conducted by the Minnesota Department of Education.

Past-month use of e-cigarettes has declined from 2019 when vaping peaked in the Gopher State. In 2022, only six percent of 8th graders, seven percent of 9th graders, and 14 percent of 11th graders reported using a vapor product on at least one occasion in the 30 days prior. Among 8th graders, between 2019 and 2022, past month-vaping decreased by 45.5 percent, 9th graders vaping rates decreased by 56.3 percent, and rates decreased by 46.2 percent among 11th graders.

Combustible cigarette use is at record lows. In 2022, two percent of 8th graders, two percent of 9th graders, and four percent of 11th graders reported past-month combustible cigarette use. Between 2016 and 2022, pastmonth smoking rates have declined by 33.3 percent among 8th graders, by 60 percent among 9th graders, and by 50 percent among 12th graders.

Given the record lows in youth tobacco use and continued declines in youth vapor product use, policymakers must refrain from prohibitionist policies that would hinder adult access to harm reduction products.





TAXPAYERS PROTECTION ALLIANCE

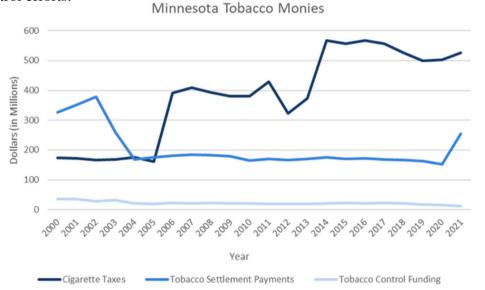
Tobacco Monies

Each year, states receive millions of dollars borne out of the lungs of persons who smoke. This revenue includes excise cigarette taxes and settlement payments. Yet, each year, states spend miniscule amounts of tobacco-related monies on programs to help adults quit smoking and prevent youth use.

In 2021, the Gopher State collected \$525.1 million in state excise tax revenue from combustible cigarettes. This was a 4.5 percent increase from 2020. Between 2000 and 2021, Minnesota has collected over \$8.3 billion in cigarette taxes.

Since 2000, Minnesota has collected annual payments from tobacco manufacturers based on the percentage of cigarettes and tobacco products sold in the state in that year. Minnesota collected \$254.2 million in settlement payments in 2021, a 66.9 percent increase from 2020's \$152.3 million. Since 2000, the Gopher State has collected nearly \$4.5 billion in tobacco settlement payments.

While Minnesota collected an estimated \$779.3 million in tobacco-related monies in 2021, the state allocated only \$12.4 million in state funding towards tobacco control programs, including cessation, education, and youth prevention efforts. This is a 19.5 percent decrease in funding from 2020 levels. This amounts to 2.4 percent of taxes and 4.9 percent of settlement payments. In 2021, for every \$1 the state received in tobacco monies, it spent only \$0.02 on tobacco control efforts.



References

- 1. Data on adult smoking rates comes from the Centers for Disease Control's Behavioral Risk Factor Surveillance Survey including sections on "Demographics Race," Tobacco Use All Categories," and "E-Cigarette Use." Accessed December, 2022. https://www.cdc.gov/brfss/brfssprevalence/
- 2. Data on race was compiled using population data from the Annie E. Casey Foundation (https://datacenter.kidscount.org/) and Demographic data from the CDC to cross reference the racial population. Then, data from Smoking and Race was used to determine the percent of adults who were smoking in 2021.
- 3. Data on youth tobacco and vapor product use comes from the National Youth Tobacco Survey, accessed in December, 2022. https://www.cdc.gov/tobacco/data_statistics/surveys/nyts/index.htm.
- 4. Data on tax information comes from Orzechowski and Walker, "The Tax Burden on Tobacco Historical Compilation Volume 56, 2021. Print.
- 5. Data on tobacco settlement payments is from Campaign for Tobacco-Free Kids, "Actual Annual Tobacco Settlement Payments Received by the States, 1998-2022." Accessed December, 2022. https://www.tobaccofreekids.org/assets/factsheets/0365.pdf.
- Data on tobacco control funding is from Campaign for Tobacco-Free Kids, "Appendix A: A Hisotry of Spending for State Tobacco Prevention Programs," Accessed December, 2022. https://www.tobaccofreekids.org/assets/factsheets/0209.pdf.



The Role of Flavors

A vitally important aspect of vaping is that, in addition to having a fraction of the risk of smoking combustible tobacco, the act of vaping is more pleasing for adults. Flavors are essential to help transition adults away from smoking and help them remain smoke-free.

Flavors are appealing to adults in a wide variety of consumer goods, and it is no different with vaping. Importantly, flavored vapes create a disassociation between smoking and vaping which is instrumental in preventing relapse for former smokers who found it difficult to quit by other means. While some vapers stick to a tobacco flavor, the vast majority do not.

A wide choice of devices, nicotine strengths, and flavored liquids are integral to the success of vaping as an alternative to smoking because it enables individuals to tailor the vaping experience to suit their particular needs.

Flavors are also important in distinguishing combustible tobacco from vaping. There is no comparison between an attractive fruit flavor and the flavor of burned tobacco. Vaping is effectively a means of denormalizing tobacco and normalizing the use of a far safer alternative.

Research

A 2018 survey of nearly 70,000 American adult vapers "found flavors play a vital role in the use of electronic cigarettes and vaping devices."[i] In fact, 83.2 percent and 72.3 percent of survey respondents reported vaping fruit and dessert flavors, respectively. Most respondents indicated restricting flavors would make vaping "less enjoyable."

Analysis of EcigIntelligence's 2019 user survey found that fruits, sweets and candy, and desserts and bakery flavors "are among the most preferred flavors across all age groups."[ii] Use of tobacco flavor was preferred by less than 5 percent of those who vape. In the event that legal sales were restricted to tobacco flavor only, 69 percent of respondents said they would try to acquire their flavors from alternative methods and 25 percent stated that they would be willing to drive over 100 miles to obtain supply. This illustrates that flavors are important to the appeal of vaping over smoking and that proposals to ban flavored vaping products are more an attempt at prohibition by stealth than a serious public health measure.

A 2020 study found an association between flavors and smoking cessation. In a cohort study of more than 17,900 participants, the authors found that "adults who began vaping nontobacco-flavored e-cigarettes were more likely to quit smoking than those who vaped tobacco flavors."[iii]



Restricting Vape Flavors Perpetuates Smoking

Many lawmakers are being convinced into proposing a ban on vape flavors in the mistaken belief that they are the only driver of youth vaping. It seems to have been forgotten that youth experimentation with much more harmful combustible tobacco was at very high levels in the past when there was only tobacco flavor to offer.

Since vaping is a substitute for smoking in those who want to use nicotine, restricting vaping increases the appeal of combustible tobacco.

A July, 2021 survey in Nicotine & Tobacco Research found that one-third (33.2 percent) of survey respondents would "likely switch to [combustible] cigarettes" if flavors were banned in e-cigarettes. [i]

More alarmingly, a 2021 Yale University study found that "San Francisco's ban on flavored tobacco product sales was associated with increased smoking among minor high school students" and that "reducing access to flavored electronic nicotine delivery systems may motivate youths who would otherwise vape to substitute smoking."[ii] Further, there is a correlation between state flavored e-cigarette bans and increases in young adult smoking rates.[iii]

This should not come as a surprise because of the substitution effect of competing nicotine delivery products. Nicotine use has been prevalent for many hundreds of years, restricting less harmful nicotine-containing products effectively protects sales of harmful, combustible cigarettes.

A variety of vape flavors are beneficial to public health for several reasons:

- They provide intense competition for the cigarette trade by presenting an attraction that combustible tobacco cannot match.
- Flavors provide a more appealing alternative to smoking and lead to population level reduced harm from nicotine use if uptake and initiation of vaping instead of smoking is widespread.
- Most people who smoke do so as a result of peer pressure, whether as adolescents or adults.
- Flavors help more people to enjoy vaping instead of smoking and therefore optimize the chance that future nicotine users will be more likely to initiate with a vape than with a combustible cigarette.

Lawmakers should recognize the crucial role that flavors play in reducing combustible tobacco use and put forth policies that inform consumers of the wide variety of less harmful products on the market.

References

^[6] Lindsey Stroud, "Statewide Flavored E-Cigarette Bans Have Led to Increases in Young Adult Smoking," Townhall, October 21, 2022, https://townhall.com/columnists/lindseystroud/2022/10/20/statewide-flavored-e-cigarette-bans-have-led-to-increases-in-young-adult-smoking-n2614807 t



^[1] Konstantinos Farsalinos, "Submitting to the FDA the findings of the largest ever survey on e-cigarette flavors use by US vapers," E-Cigarette Research, August 11, 2008, http://www.ecigarette-research.org/research/index.php/whats-new/2018-2/266-us-flav.

^[2] Consumer Advocates for Smoke-free Alternatives Association, "ECigintelligence User Survey 2019," August 25, 2020, https://casaa.org/ecigintelligence-user-survey-2019/.

^[3] Abigail S. Friedman and SiQing Xu, "Associations of Flavored e-Cigarette Uptake With Subsequent Smoking Initiation and Cessation," JAMA, June 5, 2020, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7275248/.

^[4] Heather Posner et al., "Reactions to Sales Restrictions on Flavored Vape Products or All Vape Products Among Young Adults in the United States," Nicotine & Tobacco Research, March 2022, https://academic.oup.com/ntr/advance-article-abstract/doi/10.1093/ntr/ntab154/6332852?redirectedFrom=fulltext.

^[5] Abigail S. Friedman, "A Difference-in-Differences Analysis of Youth Smoking and a Ban on Sales of Flavored Tobacco Products in San Francisco, California," JAMA Pediatrics, May 24, 2021, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8145156/.

Flavors Are Not Main Reason for Youth E-Cigarette Use

In 2019, many lawmakers sought to address the increase in youth e-cigarette use by enacting various policy proposals, including banning non-tobacco flavors in e-cigarette products. According to e-cigarette opponents, flavors are designed to only attract youth and have no value in tobacco harm reduction.

While addressing youth use of any age-restricted product is laudable, numerous state and national surveys indicate that flavors are not the most commonly cited reason for e-cigarette use among youth. Rather than enacting draconian bans, lawmakers should focus on the underlying reasons for youth e-cigarette use.

State Survey Data

The Centers for Disease Control and Prevention (CDC) conducts the Youth Risk Behavior Survey (YRBS) which examines various youth data points, including tobacco and vaping use. While data is limited, some states have sought to examine why youth are using e-cigarettes.

In 2019 in aggregate analysis of four state surveys (Connecticut[i], Montana[ii], Rhode Island[iii], and Virginia[iv]), among all high school students, 59.6 percent reported having never used an e-cigarette. Of the remaining students, 18 percent cited using e-cigarettes for "some other reason," 12.1 percent reported using them because a family member and/or friend had, and only 5.2 percent reported using e-cigarettes because they were "available in flavors."

In one 2019 state survey (Vermont) of high school students that were current e-cigarette users, 51 percent reported using e-cigarettes for some "other reason," 17 percent had used them because family and/or friends, and only 10 percent reported current e-cigarette use because of flavors.[v]

National Survey Data

The Centers for Disease Control and Prevention annually conducts the National Youth Tobacco Survey (NYTS), which measures "tobacco-related behaviors, attitudes, beliefs, and exposure to proand anti-tobacco influences."[vi] Since 2016, the NYTS has examined why youth have tried and/or are using e-cigarettes.

In 2016, among middle and high school students that had ever used an e-cigarette, 39 percent reported using them because a "friend or family member used them," 31 percent cited "other," and 31 percent reported using them because they "are available in flavors such as mint, candy, fruit, or chocolate."[vii]

In 2019, among middle school and high school students that were current e-cigarette users, 55.3 percent reported vaping because they were "curious about them," 30.8 percent cited using them because a "friend or family member used them," and only 22.4 percent cited using e-cigarettes because of flavors.[viii]

The NYTS went further in 2021 and offered additional reasons for e-cigarette use than prior surveys. [ix] The results are interesting and indicative of a different trend in youth substance youth, including issues of anxiety and/or depression.



For example, in 2021, among middle and high school students that were current e-cigarette users, 43.4 percent reported using them because they were "feeling anxious, stressed, or depressed," 42.8 percent had used e-cigarettes to get a "buzz from nicotine," 28.3 percent had used them because a friend had used them, and only 13.2 percent reported using e-cigarettes because of flavors.

Among middle and high school students that had ever used e-cigarettes, 57.8 percent reported trying them because of a friend, 47.6 percent cited curiosity as a reason for use, 25.1 percent reported trying them because they were "feeling anxious, stressed, or depressed," 23.3 percent had tried them to get a "buzz from nicotine," and only 13.5 percent had reported trying e-cigarettes because they are available in "flavors, such as menthol, candy, fruit, or chocolate."

As policymakers seek to reduce youth use of age-restricted products, it is imperative that they understand the reasons why youth are using such products, including e-cigarettes. State and national data indicate that flavors is often cited as the third reason for youth e-cigarette use, and other factors are contributing to their use that will not be impacted by misguided policies such as flavor bans.

References

- 1.[1] Connecticut High School Survey, "2019 Youth Risk Behavior Survey Results," 2019,
- https://portal.ct.gov/-/media/Departments-and-Agencies/DPH/CSHS/2019CT_Codebook.pdf.
 [1] Montana Office of Public Instruction, "2019 Montana Youth Risk Behavior Survey, High School Results," 2019, https://opi.mt.gov/Portals/182/Page%20Files/YRBS/2019YRBS/2019_MT_YRBS_FullReport.pdf?ver=2019-08-23-083248-820.
- 3.[1] Rhode Island High School Survey, "2019 Youth Risk Behavior Survey Results," 2019, https://health.ri.gov/materialbyothers/yrbs/2019HighSchoolDetailTables.pdf.
- 4. [1] Virginia High School Survey, "2019 Youth Risk Behavior Survey Results," 2019, <u>https://www.vdh.virginia.gov/content/uploads/sites/69/2020/06/2019VAH-Detail-Tables.pdf</u>.
 5. [1] Vermont Department of Health, "2019 Vermont Youth Risk Behavior Survey, Statewide Results," March, 2020, <u>https://www.healthvermont.gov/sites/default/files/documents/pdf/CHS_YRBS_statewide_report.pdf.</u>
 6. [1] Office of Disease Prevention and Health Promotion, "National Youth Tobacco Survey,"
- https://health.gov/healthypeople/objectives-and-data/data-sources-and-methods/data-sources/national-youth-tobacco-surveynvts.
- 7.[1] James Tsai et al., "Reasons for Electronic Cigarette Use Among Middle and High School Students
- 8.— National Youth Tobacco Survey, United States, 2016," Morbidity and Mortality Weekly Report, Centers for Disease Control and Prevention, February 16, 2018, <u>https://www.cdc.gov/mmwr/volumes/67/wr/mm6706a5.htm?</u> cid=mm6706a5 w.
- 9.[1] Teresa W. Wang et al., "Tobacco Product Use and Associated Factors Among Middle and High School Students -United States, 2019," Morbidity and Mortality Weekly Report, Centers for Disease Control and Prevention, December 6, 2019, <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6903396/pdf/ss6812a1.pdf.</u> 10.[1] Andrea S. Gentzke et al., "Tobacco Product Use and Associated Factors Among Middle and High School Students —
- National Youth Tobacco Survey, United States, 2021," Morbidity and Mortality Weekly Report, Centers for Disease Control and Prevention, March 11, 2022, <u>https://www.cdc.gov/mmwr/volumes/71/ss/pdfs/ss7105a1-H.pdf</u>.



An estimated 30.8 million American adults smoked in 2020, or approximately 12.5 percent of the U.S. population.[1] Smoking-related disease and deaths cost the United States more than \$300 billion each year, including \$225 billion attributed to medical costs and more than \$156 billion due to lost productivity.[2]

For many years, policymakers have staunchly pushed forward with only one approach: quit or die. This failed method of smoking prevention and cessation has negligibly reduced smoking rates over the years. Yet, there is another approach: tobacco harm reduction for those who are unwilling or unable to quit smoking. In 1976, famed tobacco research Michael Russell remarked "people smoke for the nicotine, but die from the tar."[3] Today, cigarettes contain nearly 600 ingredients and when ignited release more than 7,000 chemicals in the tobacco smoke, including 69 which are known to cause cancer.[4]

Nicotine, while not benign, is not responsible for causing cancer or the other ill effects caused by combustible cigarette smoke. In fact, the U.S. Food and Drug Administration,[5] the Centers for Disease Control and Prevention,[6] and the American Cancer Society[7] all acknowledge that nicotine has addictive properties but is not responsible for the harms caused by various tobacco products.

Given that nicotine itself is not the harm-causing property of tobacco, consumers and manufacturers have moved forwarded with giving adults the options to try and switch to less harmful tobacco products, otherwise known as tobacco harm reduction.

Tobacco harm reduction takes into account the science and the individual, all the while reducing the harms related to cigarette smoking. Rather than shaming persons addicted to nicotine, tobacco harm reduction offers them an opportunity to use a less harmful product, while delivering nicotine in a manner that is effective at reducing their cravings.

Reduced harm tobacco products include: electronic cigarettes/vaping devices, heated tobacco products, nicotine replacement therapy, and smokeless and snus products. These products deliver nicotine to adult consumers in a manner that is significantly less harmful than combustible cigarettes. Moreover, there is a plethora of evidence to their reduced risks.

- E-Cigarettes: Despite media alarmism, e-cigarettes are significantly less harmful than combustible cigarettes, as noted by numerous public health agencies. In 2015, Public Health England found e-cigarettes to be 95 percent less harmful than combustible cigarettes.[8] In 2021, the agency noted that "vaping is positively associated with quitting smoking successfully."[9] In 2016, the UK Royal College of Physicians declared that e-cigarettes were unlikely to exceed five percent of the harms that are caused by smoking.[10] Not only does the UK government subsidize e-cigarettes as a cessation tool for people who smoke, vape shops can be found in hospitals in the country. In the United States, in 2018, of the estimated 10 million vapers, approximately 3 million had previously used combustible cigarettes.[11] In 2021, the FDA, through a new regulatory pathway, authorized the first e-cigarette product, finding that the product is "significantly less toxic than combusted cigarettes" and "could benefit addicted adult smokers who switch … by reducing their exposure to harmful chemicals."[12]
- Heated Tobacco: The US FDA has not only allowed for the marketing of a heated tobacco product, the manufacturer has been permitted to market it with a reduced risk claim, including that due to the product heating tobacco and not burning it, the process "significantly reduces the production of harmful and potentially harmful chemicals."[13] While the rollout in America has been limited (and currently hindered by a patent dispute), in other countries, heated tobacco products have been linked to significant reductions in adult smoking rates. A 2020 study by the American Cancer Society remarked that heated tobacco products "likely reduced cigarette sales in Japan."[14]



- **Nicotine pouches:** Nicotine pouches are used the same way as snus but deliver nicotine via infused fillers like plant-based fibers instead of pasteurized tobacco. They are the newest innovation on the nicotine market and they are as or less harmful than snus. As a result, they have been rising in popularity across the world. For example, a May 2022 study assessed the potential effect of nicotine pouches if introduced in the U.S. in 2000. The study estimated there would have been about 700,000 fewer deaths by 2050.
- Nicotine Replacement Therapy (NRT): NRT is the most endorsed form of tobacco harm reduction and is subsidized by federal and state health care quit-smoking programs. NRT includes gums, patches, lozenges, and prescription medication. Studies have found that similar rates of cessation success among users of various NRT products and smokeless and snus products.[15] Other tobacco harm reduction products have been found to be more effective. For example, a 2019 randomized controlled trial found that e-cigarettes were almost twice as effective as NRT in aiding in smoking cessation.[16]
- Smokeless: Smokeless tobacco poses much lower risks than smoking, all while containing nicotine. A 2009 Biomed Central study analyzed 89 studies of smokeless tobacco use and cancer finding "very little evidence" of smokeless tobacco producing elevated cancer risks.[17] A 2011 review of epidemiologic studies found that snus and smokeless tobacco use to be "99% less hazardous than smoking." [18]
- Snus: Snus is an oral moist tobacco often used in pouches. It originated in Sweden and has been part of the country's "tobacco culture" for more than a century. Snus has been directly linked to reducing smoking rates in the country. Swedish men, who have the highest rate of smokeless tobacco use in Europe and the lowest smoking rate, "also have the lowest rates of lung cancer and other smoking-related diseases in Europe."[19] Further, a 2020 long-term study of Swedish snus users that were former smokers concluded that over "80% found snus of great importance to succeed with smoking cessation."[20]

As cigarettes remain available, it is imperative that policymakers offer the consumers access to less harmful tobacco products. Policymakers should avoid excessive regulations, unfair taxation, and outright prohibition when enacting policies regarding novel tobacco harm reduction innovations. Lawmakers should put forth policies that both inform consumers of the wide variety of less harmful products, as well as allow the market to introduce products that are effective at both delivering nicotine in a less harmful manner and reducing smoking rates.

References

- 1. Centers for Disease Control and Prevention, "Current Cigarette Smoking Among Adults in the United States," Smoking & Tobacco Use, March 17, 2022,
- https://www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/index.html. 2. Office of the Associate Director for Policy and Strategy, "Health Topics Tobacco," Centers for Disease Control and Prevention, September 30, 2021,
- 3. M. A. H. Russell, "Low-tar medium-nicotine cigarettes: a new approach to safer smoking," British Medical Journal, June 12, 1976, https://www.bmj.com/content/bmj/1/6023/1430.full.pdf.
 4. National Cancer Institute, "Harms of Cigarette Smoking and Health Benefits of Quitting," December 19, 2017, <u>https://www.cancer.gov/about-cancer/causes-prevention/risk/tobacco/cessation-fact-</u>
- 5.U.S. Food and Drug Administration, "Nicotine Is Why Tobacco Products Are Addictive," June 29, 2022, https://www.fda.gov/tobacco-products/health-effects-tobacco-use/nicotine-why-tobacco-
- products-are-addictive.
 6. Centers for Disease Control and Prevention, "Quit smoking medicines are much safer than smoking," Tips From Former Smokers ®, January 7, 2022,
- https://www.cdc.gov/tobacco/campaign/tips/quit-smoking/quit-smoking-medications/3-reasons-to-use-medicines-when-you-quit/quit-medicines-are-safer-than-smoking/index.html. 7. American Cancer Society, "Health Risks of Smokeless Tobacco," October 28, 2020, https://www.cancer.org/healthy/stay-away-from-tobacco/health-risks-of-tobacco/smokeless-tobacco.html. 8. A. McNeill et al., "E-cigarettes: an evidence update," Public Health England, August 2015,
- https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/733022/Ecigarettes_an_evidence_update_A_report_commissioned_by_Public_Health_England_F INAL.
- 9. Ann McNeill et al., "Vaping in England, an evidence update including vaping for smoking cessation," February 2021,

- https://www.fda.gov/news-events/press-announcements/fda-permits-marketing-e-cigarette-products-marking-first-authorization-its-kind-agency. 13.[1] U.S. Food and Drug Administration, "FDA Authorizes Marketing of IQOS Tobacco Heating System with 'Reduced Exposure' Information," FDA News Release, July 7, 2020,
- https://www.fda.gov/news-events/press-announcements/fda-authorizes-marketing-igos-tobacco-heating-system-reduced-exposure-information. 14. [1] Michael Stoklosa et al., "Effect of IQOS introduction on cigarette sales: evidence of decline and replacement," Tobacco Control, July 29, 2020, https://pubmed.ncbi.nlm.nih.gov/31209129/. 15. [1] Paul R. Nelson et al., "Randomized Trial to Compare Smoking Cessation Rates of Snus, With and Without Smokeless Tobacco Health-Related Information, and a Nicotine Lozenge," Nicotine & Tobacco Research, January 24, 2018, https://academic.oup.com/ntr/article/21/1/88/4823099.
- 16.[1] Peter Hajek et al., "A Randomized Trial of E-Cigarettes versus Nicotine-Replacement Therapy," The New England Journal of Medicine, February 14, 2019, https://www.nejm.org/doi/full/10.1056/nejmoa1808779. 17. [1] Brad Rodu, "New Study Documents the Health Effects from Snus Use: Almost Zero," Tobacco Truth, January 19, 2011, https://rodutobaccotruth.blogspot.com/2011/01/new-study-documents-
- th-effects-from.htm
- 18.[1] Brad Rodu et al., "Vaping, E-Cigarettes, and Public Policy Toward Alternatives to Smoking," The Heartland Institute, February 20, 2017, https://www.heartland.org/publications-
- 19. [1] Brad Rodu, "Smoking in the European Union: How Swede It Could Be," Tobacco Truth, August 3, 2009, https://rodutobaccotruth.blogspot.com/2009/08/smoking-in-european-union-how-
- 20.[1] Tove Schilberg and Peter Wennberg, "Snus cessation patterns a long-term follow-up of snus users in Sweden," Harm Reduction Journal, September 10, 2020, https://harmreductionjournal.biomedcentral.com/articles/10.1186/s1/

