

JANUARY

2025

A Breath of Fresh Air:
Reducing Youth
Vaping in
Tennessee





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A Breath of Fresh Air: Reducing Youth Vaping in Tennessee

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January 2025

Recommended citation:

Tennessee Advisory Commission on Intergovernmental Relations. 2025. *A Breath of Fresh Air: Reducing Youth Vaping in Tennessee*.



Tennessee Advisory Commission on Intergovernmental Relations. This document was produced as an Internet publication.



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January 31, 2025

The Honorable Randy McNally
Lieutenant Governor and Speaker of the Senate

The Honorable Cameron Sexton
Speaker of the House of Representatives

Members of the General Assembly
State Capitol
Nashville, TN 37243

Ladies and Gentlemen:

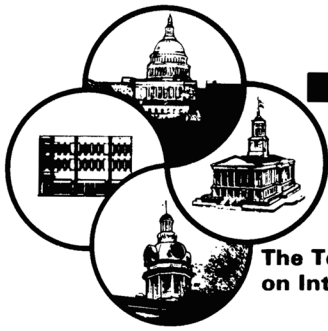
Transmitted herewith is the commission's report in response to Public Chapter 937, Acts of 2024, which requested the commission study the effects of vaping and the use of all vapor products by persons under twenty-one years of age, including initiation of vapor product usage, health outcomes, enforcement of underage sales, best practices to address usage on school grounds, taxation, and access to cessation products and services. The Act also directed the commission to identify the prevalence of vaping among the under twenty-one population, including demographics and usage trends. The report finds two potential pathways worth pursuing to address youth vaping that won't unduly burden businesses or adults who choose to vape. One focuses on the enforcement of existing laws banning sales of vapes to those under 21, while the other focuses on programs for encouraging prevention and cessation of vaping for young people. The commission therefore recommends that the General Assembly require vapor product retailers to check the ID of all purchasers, regardless of age (i.e., universal carding), the General Assembly establish licensing for vapor product retailers, the General Assembly increase consistent and recurring funding for the Tennessee Department of Health's Tobacco Use Prevention and Control Program to expand existing prevention and cessation efforts in Tennessee, and that the Tennessee Department of Education require school districts to report more specific substance abuse information, including vaping offenses, in their annual discipline reports.

The commission approved the report on January 31, 2025, and it is hereby submitted for your consideration.

Respectfully yours,

Senator Ken Yager
Chairman

Cliff Lippard
Executive Director



TACIR

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MEMORANDUM

TO: Commission Members

FROM: Cliff Lippard
Executive Director 

DATE: 31 January 2025

SUBJECT: Public Chapter 937, Acts of 2024 (Youth Vaping)—Final Report for
Approval

The attached commission report is submitted for your approval. It was prepared in response to Public Chapter 937, Acts of 2024, which directed the commission to study the effects of vaping and the use of all vapor products by persons under twenty-one years of age, including initiation of vapor product usage, health outcomes, enforcement of underage sales, best practices to address usage on school grounds, taxation, and access to cessation products and services. The Act also directed the commission to identify the prevalence of vaping among the under twenty-one population, including demographics and usage trends.

Following the presentation of the draft recommendation that the General Assembly establish licensing for vapor product retailers, staff added the following:

- During discussion at the December 2024 commission meeting, other approaches raised by commission members include disciplining businesses failing to comply with vaping regulations through their beer permits—if those businesses have beer permits—and authorizing local governments to establish vapor product boards to handle licensing and violations, similar to existing local beer boards.
- In addition, staff of the Department of Health say vapor product retail licensing should also include tobacco products and any other product that contains nicotine.

The recommendations remain unchanged. **The commission recommends that**

- **the General Assembly establish licensing for vapor product retailers.**

- **the General Assembly require vapor product retailers to check the identification of all purchasers, regardless of age (i.e., universal carding),**
- **the General Assembly increase consistent and recurring funding for the Tennessee Department of Health's Tobacco Use Prevention and Control Program to expand existing prevention and cessation efforts in Tennessee, and**
- **the Tennessee Department of Education require school districts to report more specific substance abuse information, including vaping offenses, in their annual discipline reports.**

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Summary and Recommendations: A Breath of Fresh Air: Reducing Youth Vaping in Tennessee

Young people in Tennessee are vaping at more than twice the national rate (22% versus 10%) without fully understanding the harm it is doing to their bodies. Vaping has only been around since about 2011, so the long-term effects are not well understood, but the short-term effects are. As is the case for smokers, vapers can expect to experience increased rates of asthma, cardiovascular disease, chronic obstructive pulmonary disease (COPD), hypertension, oral disease, stroke, and other diseases. Most vapor products contain nicotine, which is especially harmful to young people, who are more susceptible to nicotine addiction because of their still developing brains.

Tennessee's laws on vaping in public have become more restrictive, and the minimum age to vape was increased to 21—the same as for tobacco products. But apart from a one-year dip in 2017, Tennessee's youth vaping rate has been relatively stable since 2015. Given the high youth vaping rates in Tennessee, Public Chapter 937, Acts of 2024, directed the Tennessee Advisory Commission on Intergovernmental Relations to study the effects of vaping and the use of all vapor products by persons under 21 years of age (see appendix A). The commission has identified several solutions tailored to preventing youth access and promoting cessation without either overburdening adults 21 years or older who choose to vape or without harming businesses that are selling vapor products legally and responsibly.

Young people in Tennessee are vaping at more than twice the national rate, and despite more restrictive laws, Tennessee's youth vaping rate has been relatively stable since 2015.

What is a Vape?

Vaping products are electronic devices that heat a liquid to produce an aerosol that is inhaled by the user. They may be referred to as e-cigarettes, vapes, vape pens, dab pens, dab rigs, tanks, mods, pod-mods, or electronic nicotine delivery systems (ENDS). Vapor products are categorized into open and closed systems. Open systems use refillable e-liquids. Closed systems or pod systems use pre-filled pods or cartridges. Both open and closed systems have varying nicotine content, so those wanting to quit smoking can gradually reduce their nicotine intake. Young people are more likely to use closed systems than open systems because of their lower initial cost, ease of use, and concealability. For example, one vapor product looks like and doubles as a pen. See also diagram on page 8.

Although there is agreement that young people shouldn't vape, some oppose anti-vaping measures that are not youth-targeted.

There is broad agreement young people shouldn't vape, but disagreement on how to discourage it.

Health advocates have long worked for stronger regulation of tobacco products, and they have also turned their attention to reducing youth vaping. Vape shop and convenience store owners agree that something should be done to reduce youth vaping; they are concerned that overregulation could reduce legal sales to adults and drive people to smoke cigarettes. They tout the potential to improve health outcomes by switching from cigarettes to vapor products. But the evidence suggests that the relative benefit of vaping compared to cigarette use is less than was once hoped, something the Commissioner of Tennessee's Department of Health likened to jumping out of a 45th floor window instead of a 50th floor window. Many young vapers have never smoked, and many smokers that start vaping become dual users—using both cigarettes and vapor products—which is more harmful than just using one or the other.

Taxes, flavor bans, or vapor product directories might reduce youth vaping, but are not targeted to youth users, and could negatively affect the vaping industry.

Health advocates promote taxation and flavor bans to discourage youth vaping, and a vapor product directory could be used to implement a flavor ban by rejecting any flavored products. Products generally viewed as substitutes for vapes already have additional taxes applied to them—cigarettes are taxed at \$0.62 per pack of 20, and other tobacco products (e.g., cigars, chewing tobacco, snuff, etc.) are subject to a 6.6% tax on their wholesale cost—and there is widespread criticism that flavored vapes are marketed toward young people; for similar reasons, federal law limits cigarettes to only one flavor: menthol. Although there is strong evidence taxation and flavor bans decrease overall sales of vapor products, including vapor products used by young people, vape store owners oppose them because of the negative effect on their businesses and the possibility of pushing some vapers to use cigarettes or other tobacco products.

A vapor product directory would list which products may be sold within a jurisdiction and could be used to ban flavors. Yet there is limited research showing whether a vape directory would decrease youth vaping rates. Convenience store owners support the idea, but vape shop owners say a state directory would be redundant with the Food and Drug Administration's (FDA) list of authorized vapor products, would be difficult to maintain, and wouldn't reduce youth access to vapor products. Moreover, none of these solutions—regardless of their effectiveness—is targeted to prevent youth vaping.

Tennessee could focus on alternatives that are tailored toward reducing youth vaping rather than vaping overall.

The commission has identified two potential pathways to address youth vaping that won't unduly burden businesses or adults who choose to vape. One focuses on the enforcement of existing laws banning sales of vapes to those under 21, while the other focuses on programs for encouraging prevention and cessation of vaping for young people. The evidence suggests that both pathways are worth pursuing.

Universal carding could improve enforcement of under-21 laws.

Federal law prohibits the sale of vapor products to individuals under age 21—the same age restriction as tobacco products. Tennessee requires retailers to check the identification (ID) of any individual that appears to be under age 30 and is attempting to purchase a vapor product. But one state, Louisiana, requires retailers to check the ID of anyone purchasing vapor products, regardless of age, often referred to as universal carding. Although it's too early to tell whether Louisiana's policy has been effective against youth vaping, representatives of convenience stores say that when universal carding was enacted for carryout beer purchases in Tennessee in 2006, it reduced underage access to beer by one-quarter. The law was subsequently expanded to include all alcohol products, and advocates say it helps deter underage purchases by taking the judgment call of who to card away from the clerk. Because of its potential to reduce the sale of vapor products to those under the age of 21, **the commission recommends that the General Assembly require vapor product retailers to check the ID of all purchasers, regardless of age (i.e., universal carding).**

Requiring a retail license to sell vapor products could also improve enforcement.

Forty states, not including Tennessee, require vapor product retailers to be permitted or licensed, and these states tend to have lower rates of youth vaping. For wholesalers and distributors, Tennessee does require licenses for tobacco products, administered by the Tennessee Department of Revenue, but this is not required for vapor products. Tennessee also has an existing tobacco and vapor product inspection program—Synar—for underage sales of tobacco and vapor products. But the state's Synar inspectors say that they are not aware of all the stores that sell vapes in Tennessee and, therefore, are not inspecting all of them.

Licensing could help enforcement of the state's underage sales laws by helping inspectors identify vapor product retailers; the licensing fee revenue could be used to administer the license, for example, issuing, suspending, or revoking licenses; and both health advocates and pro-

Better enforcement of existing laws banning sales of vapes to those under 21 and encouraging prevention and cessation of vaping for young people won't unduly burden businesses or adults who choose to vape.

Prevention and cessation programs are more effective than punishment alone in reducing youth vaping but are underfunded in Tennessee.

vaping stakeholders are supportive. For these reasons, **the commission recommends that the General Assembly establish licensing for vapor product retailers.**

During discussion at the December 2024 commission meeting, other approaches raised by commission members include disciplining businesses failing to comply with vaping regulations through their beer permits—if those businesses have beer permits—and authorizing local governments to establish vapor product boards to handle licensing and violations, similar to existing local beer boards. In addition, staff of the Department of Health say vapor product retail licensing should also include tobacco products and any other product that contains nicotine.

Prevention and cessation programs are effective at reducing youth vaping, but funding is limited; punishment alone is less effective.

Available evidence shows that prevention and cessation programs are some of the most effective ways to reduce youth vaping. Prevention programs like CATCH My Breath decreased youth initiation of e-cigarette use by 45%, according to one study. Another study found that a cessation program, Not On Tobacco (NOT), doubled the likelihood of quitting. Evidence-based prevention and cessation programs were found to be more effective than punishment alone at lowering youth vaping. Health advocates and education administrators say strategies like fines and vape detectors don't help students quit, and suspensions can hurt their education by taking them out of school.

Instead, health advocates and administrators say efforts to reduce youth vaping should also include educational programs. Some programs like the American Lung Association's Intervention for Nicotine Dependence: Education, Prevention, Tobacco and Health (INDEPTH) are designed to be alternatives to suspension that help students quit vaping. Similarly, some juvenile justice courts in Tennessee offer restorative counseling services as an alternative to punishment.

Despite the evidence of effectiveness, many Tennessee counties lack such programs, especially cessation programs. Only 28 counties have both prevention and cessation programs. Another 36 counties report having only prevention programs with no cessation programs, and the remaining 31 report no prevention or cessation programs at all.

One barrier to expanding prevention and cessation programs is funding. State funding for the Tennessee Department of Health's Tobacco Use Prevention and Control Program, which supports vaping prevention and cessation programs, has been inconsistent and relatively low compared to other states. There was no state funding for the program in fiscal years

2018-19 and 2020-21, and only \$2 million in fiscal years 2019-20, 2021-22, and 2022-23 to \$2.6 million in fiscal year 2023-24. In 2014, the Centers for Disease Control (CDC) recommended state funding levels for state tobacco and vaping control programs, including a recommendation of \$75.6 million per year for Tennessee—about 15 times Tennessee’s actual funding for the state tobacco control program in fiscal year 2013-14 and about 29 times in fiscal year 2023-24. Together, the 50 states fund 22% of the CDC’s recommendation versus 3% in Tennessee. Every 50% increase in state funding of control programs decreased youth vaping by 7.46%, according to one study, so increasing Tennessee’s funding to 22% of CDC’s recommendation, to \$16.6 million per year, could lead to around a 30% decrease in youth vaping in Tennessee. To combat youth vaping, **the commission recommends that the General Assembly increase consistent and recurring funding for the Tennessee Department of Health’s Tobacco Use Prevention and Control Program to expand existing prevention and cessation efforts in Tennessee.**

School districts collect disciplinary data but reports to the Department of Education don’t specify the offense.

More detailed discipline data would provide policymakers with better information on which substances are being abused most often; where to focus enforcement, prevention, and cessation efforts; and to aid future research on youth substance use. Recognizing the need to address youth vaping in Tennessee, **the commission recommends that the Tennessee Department of Education require school districts to report more specific substance abuse information, including vaping offenses, in their annual discipline reports.**

Increasing vaping control program funding to \$16.6 million could lead to a 30% decrease in youth vaping across Tennessee.

Analysis: A Multifaceted and Youth-Focused Approach to Reducing Youth Vaping in Tennessee

Both vapor product retailers and health advocates agree that children should not vape. Vaping is especially harmful to young people, who are more susceptible to nicotine addiction because of their still developing brains.¹ To curb youth vaping, Tennessee has banned vaping on school grounds and increased the legal age for selling, distributing, buying, or possessing vapor products from 18 to 21.² Nevertheless, youth vaping remains widespread in Tennessee—21.6% of high school students vape compared with 10.0% nationally (2023).³

Given the high youth vaping rates in Tennessee, Public Chapter 937, Acts of 2024, directed the commission to study the effects of vaping and the use of all vapor products by persons under 21, including the initiation of vapor product usage, the prevalence of vaping, demographic and use trends, health outcomes, enforcement of underage sales, best practices to address usage on school grounds, taxation, and access to cessation products and services. See appendix A.

In 2023, about 22% of Tennessee high school students vaped, more than double the national rate of 10%.

¹ Moseley 2023; and Newport Institute “How Vaping Affects Mental Health.”

² Tennessee Code Annotated, Section 39-17-1505.

³ Tennessee Department of Education 2024; and Centers for Disease Control 2023b. See figure 1.



What is a vape?

Vapor products are electronic devices that heat a liquid to produce an aerosol that is inhaled by the user.

They may be referred to as

- e-cigarettes
- vapes
- vape pens
- dab pens
- electronic nicotine delivery systems (ENDS).
- dab rigs
- tanks
- mods
- pod-mods



Vapor products are categorized into open and closed systems.

- **Open systems** use a refillable e-liquid
- **Closed systems** or pod systems use pre-filled pods or cartridges. E-liquid cannot be refilled, a new vape must be used once the e-liquid runs out. Example of manufacturers and brands, JUUL, ELF bars, VIHO

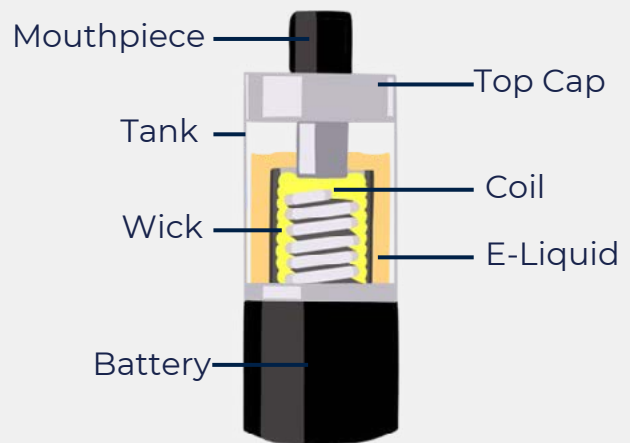
Vapor products can be purchased in retail stores or online shops. Some can double as a pen or highlighter and be easy for youth to hide. These devices can also be purchased in discreet packaging.

Children or young adults are more likely to initiate with disposable vapes or closed systems. A Stanford study found that more adolescents and young adults were using disposable than reusable pod-based devices.



How Vapes Work

- Open system vapes can be turned on with the “on” button or **switch**. Closed system vapes typically do not have an “on” switch and are ready for use out of the box.
- The **battery** powers the device and can be charged. The *atomizer* typically contains the coil and wick, which heat the e-liquid, turning it into an aerosol.
- The **e-liquid** may contain nicotine, flavorings, THC, and other chemicals. E-liquid typically consists of four main ingredients: propylene glycol, vegetable glycerin, nicotine, and flavoring (may not contain vegetable glycerin, nicotine, or flavoring).
- Vapor appears from the **mouthpiece**, ready to be inhaled.



Note: This is an example of a closed system vapor product—devices vary.

“When considering the potential benefits of e-cigs, researchers compared the results to someone jumping off at the 45th floor of a building versus the 50th floor of the building.”

Dr. Ralph Alvarado, Tennessee Commissioner of Health

Vaping is still harmful.

Vapor product users can expect to experience increased odds—compared to those who choose to not smoke or vape—of developing the same types of diseases as smokers.⁴ As is the case for smokers, vapers can expect to experience increased rates of asthma, cardiovascular disease, chronic obstructive pulmonary disease (COPD), hypertension, oral disease, stroke, and other diseases, though the risks are still lower than smoking, at least in the short and medium term.⁵ Vaping also increases risks that users’ babies do not breast feed, have preterm birth, or have low gestational weight gain. Risks for users also increase for arthritis, atopic dermatitis, bone fracture, cancer, coronavirus disease infection, difficulty concentrating, fatty liver disease, hospitalization or emergency department visit, impaired vision, oral human papillomavirus, sleep apnea, sleep disorders, and poor general health, according to research.⁶ Dual use—i.e., both smoking cigarettes and vaping—was associated with 20% to 40% higher odds of disease than smoking alone.⁷

There is still ongoing debate on the relative risk of vaping versus smoking traditional cigarettes, particularly for people who have never smoked. Studies have shown that e-cigarettes are significantly less likely to cause cancer, heart disease, and respiratory diseases compared to traditional cigarettes.⁸ A 2015 study by Public Health England found that e-cigarettes are around 95% less harmful to health than tobacco and have the potential to help smokers quit smoking by allowing users to step down the nicotine levels in their vapor products.⁹ But a 2024 analysis of 107 studies found that while vaping is at least somewhat less harmful overall in the short and medium term, how its health consequences will compare to smoking in the long term is uncertain.¹⁰ Available evidence suggests that vaping is not risk-free but is nevertheless a less harmful alternative to traditional smoking.

Vaping has been shown to help some cigarette smokers quit smoking, which can have significant health benefits, though, like cigarette use, vaping increases the risk of health complications.¹¹ Research by the University of Dundee, UK, found that cigarette smokers that switched to e-cigarettes had an improvement in vascular health within four weeks over a two-year trial period, with a 13% reduction in cardiovascular events like heart attacks.¹²

⁴ Glantz, Nguyen, and da Silva 2024; and Wills et al. 2020.

⁵ Glantz, Nguyen, and da Silva 2024.

⁶ Ibid.

⁷ Ibid.

⁸ National Academies of Sciences, Engineering, and Medicine 2018.

⁹ McNeill et al. 2015; and Interview with Daniel Gillis, president, Tennessee Smoke Free Association, Erica Penley, member, Bass Berry Sims, and Terri Livezey, director of communications, Tennessee Smoke Free Association, April 30, 2024.

¹⁰ King’s College London 2022.

¹¹ Glantz, Nguyen, and da Silva 2024.

¹² University of Dundee 2019.

Another UK study found that levels of exposure to cancer and other toxins were lower in individuals who vape compared to those who smoke traditional tobacco products.¹³ The deputy chief medical officer for England said that

if the choice is between smoking and vaping, choose vaping. If the choice is between vaping and fresh air, choose fresh air.¹⁴

One of the primary concerns surrounding the use of vapor products is the potential for nicotine addiction.¹⁵ Nicotine is a highly addictive substance found in both traditional combustible cigarettes and many vapor products, and which can have detrimental effects on brain development, particularly in young people.¹⁶ Studies have shown that nicotine exposure during adolescence may impair cognitive function, mood regulation, and impulse control.¹⁷ Nicotine can increase feelings of anxiety and stress in young people who are still developing emotionally, worsening their mental health.¹⁸ Nicotine may also increase heart rate and blood pressure, potentially contributing to cardiovascular problems in the long term.¹⁹

Aside from nicotine, vapor products may contain other harmful chemicals like formaldehyde, acrolein, and acetaldehyde.²⁰ These chemicals, when heated and inhaled, can produce toxic byproducts that can damage the lungs.²¹ Vaping can lead to respiratory problems like coughing, wheezing, and the exacerbation of asthma symptoms.²² The inhalation of these aerosols and chemicals from vaping liquids can irritate the lungs and lead to inflammation.²³ These products may also contain toxic metals like nickel, tin, or lead which have been found to cause lung damage.²⁴

A development in recent years has been the emergence of e-cigarette or vapor product use-associated lung injury (EVALI).²⁵ This is a severe lung injury with symptoms including abdominal pain, chest pain, cough, fever, nausea, shortness of breath, vomiting, and weight loss.²⁶ The number

Vapor products may contain nicotine or other harmful chemicals.

¹³ King's College London 2022.

¹⁴ Ibid.

¹⁵ Lowrey 2023; and Moseley 2023.

¹⁶ US Food and Drug Administration 2024h.

¹⁷ Goriounova and Mansvelter 2012; and Newport Institute "How Vaping Affects Mental Health."

¹⁸ Truth Initiative 2021a; and Astarita et al.

¹⁹ Glantz, Nguyen, and da Silva 2024.

²⁰ Moseley 2023; and US Food and Drug Administration 2020.

²¹ Centers for Disease Control 2024a; and Centers for Disease Control 2024c.

²² Centers for Disease Control 2024a; Centers for Disease Control 2024c; and US Surgeon General 2010.

²³ Centers for Disease Control 2024a; Centers for Disease Control 2024c; and US Surgeon General 2010.

²⁴ Centers for Disease Control 2024a; Centers for Disease Control 2024c; and National Academy of Sciences, Engineering, and Medicine 2018.

²⁵ Yale Medicine E-cigarette, or Vaping Product, Use Associated Lung Injury (EVALI).

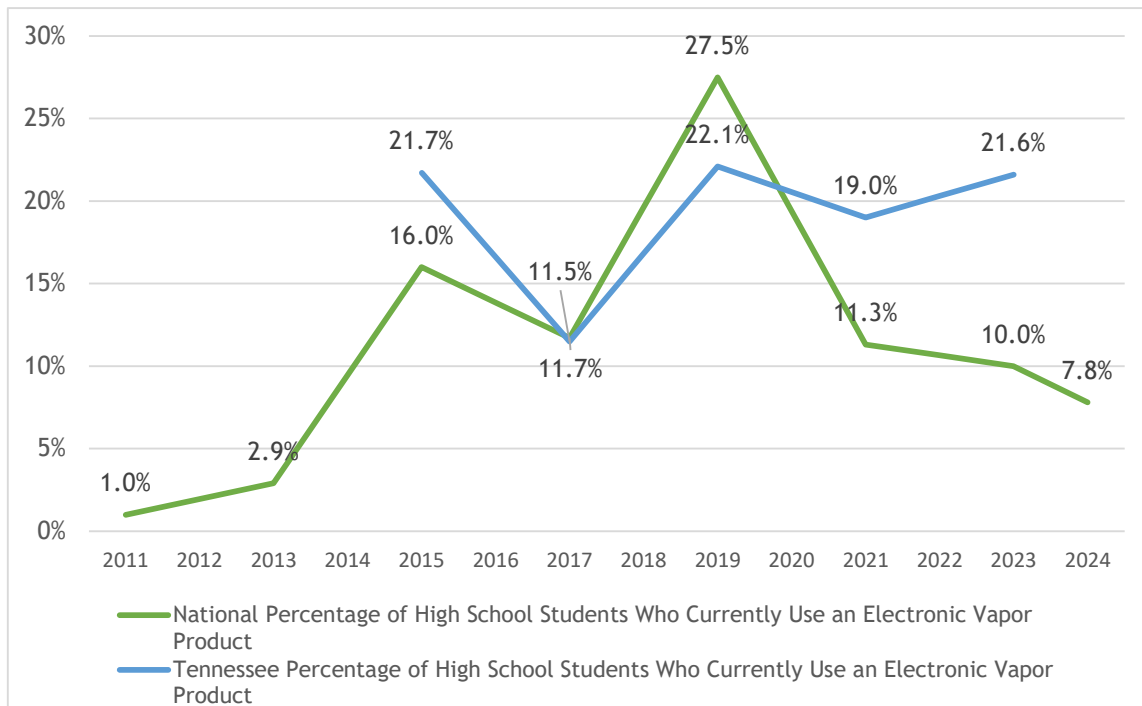
²⁶ Ibid.

of EVALI cases began decreasing around 2020, perhaps because of the removal of vitamin E acetate from many vapor products, though tracking of EVALI was disrupted by COVID-19.²⁷

Youth vaping is prevalent in Tennessee.

Youth vaping is more prevalent in Tennessee than it is nationally, though the percentage of young people who are vaping varies across time, age groups, and surveys. For example, there was a significant rise in the use of vapor products among high school students nationally from 2011 to 2019, increasing from 1.0% to 27.5% of students. Although the national rate has since decreased to 10.0% in 2023, Tennessee’s rate did not experience a similar decrease and was more than twice the national rate at 21.6%. The national rate has since decreased further to 7.8% in 2024 (the Tennessee rate is not yet available for 2024).²⁸ See figure 1.

Figure 1. Comparison of National and Tennessee High School Usage of Electronic Vapor Products, 2011 to 2024



Source: Tennessee Department of Education 2024; Centers for Disease Control 2016b; Centers for Disease Control 2018b; Centers for Disease Control 2018c; Center for Tobacco Products 2019; Center for Tobacco Products 2021; Centers for Disease Control 2023b; and US Food and Drug Administration 2024e.

²⁷ The Lancet 2020.

²⁸ US Food and Drug Administration 2024e.

A dip in vaping rates in 2017 coincided with the implementation of the Deeming Rule,²⁹ which granted the FDA greater authority to regulate e-cigarettes, including pre-market review, labeling and health warnings, an age restriction (18 at the time), and marketing restrictions.³⁰ Nevertheless, youth vaping surged again from 2017 to 2019 in part because of the popularity of JUUL products.

Other surveys show that a greater percentage of 8th, 10th, and 12th grade public school students said they have tried vaping than smoking—31.9% versus 12%,³¹ and 20.9% of 18- to 24-year-olds vaped in 2023,³² slightly less than the percentage for high schoolers (21.6%).³³

Vapor product usage varies across sex, race, and grade level.

A 2023 survey of Tennessee high schoolers found differences in vaping based on sex, race, and grade level.³⁴ For example, 12th grade students vaped more than lower grade levels. And although Black students were more likely than White or Hispanic/Latino students to have tried vapes or currently use vapes, they were less likely to be high frequency users—3.9% compared to 9.8% of white students. In figure 2, “current use” is defined as any use within the past 30 days, and “high frequency use” is defined as 20 or more uses in the previous month.

Surveys find that vapor product usage by young people varies according to sex, race, and grade level.

²⁹ US Food and Drug Administration 2021a. The FDA’s Deeming Rule extends their authority to regulate tobacco products to ENDS like e-cigarettes and vapes in part because of the lawsuit against JUUL Companies that stated they marketed their products to young people.

³⁰ US Food and Drug Administration 2024b.

³¹ Tennessee Department of Mental Health & Substance Abuse Services 2024b. The Tennessee Together Student Survey captures data on youth behaviors, attitudes, and social norms related to substance misuse, emotional wellness, and other risk behaviors among Tennessee 8th, 10th, and 12th grade public school students.

³² Centers for Disease Control Behavior Risk Factor Surveillance Survey (BRFSS).

³³ Tennessee Department of Education 2024.

³⁴ Ibid.

Figure 2. Vaping Prevalence of Tennessee High School Students Based on Sex, Race, and Grade Level, 2023



Source: Tennessee Department of Education 2024.

Whether male or female students vaped more varied across surveys. In figure 2, a greater percentage of female than male high school students were current users (23.8% versus 18.5%). However, vaping by male students was more prevalent than vaping by female students in some other surveys of middle school, high school, and college students. The 2023-2024 Healthy Minds Survey found that a greater percentage of male 18- to 20-year-old college students currently used vapor products than females (9% versus 2%).³⁵ A 2023 survey of Tennessee 8th, 10th, and 12th graders found that a greater percentage of males who vape were high frequency users (71% versus 68% for females).

³⁵ Staff analysis of Healthy Minds Survey Data 2023-24.

Young men are cited more often for vaping offenses compared to young women.

Juvenile justice court data provided by the Tennessee Administrative Office of the Courts show a greater number of young men are disciplined for vaping- or smoking-related offenses. In 2023, there were a total of 3,308 status offenders³⁶ referred to juvenile court for possessing or using a tobacco or vapor product, or smoking hemp, down from 3,508 in 2022. Of these offenses, young men were cited more often than young women,³⁷ 2,042 to 1,258 respectively, possibly because of more co-offenses (e.g., violent crime) or because they attempt more purchases.³⁸ Less than 1% (0.6%) of female students bought a vape themselves, whereas 14.6% of male students did.³⁹ Anecdotally, female students may be able to hide vapor products and their use better than male students.⁴⁰

Multiple factors influence whether young people start vaping.

Many current users of vapor products first started using long before it was legal for them to do so. For both boys and girls, the average age when they first used vapor products with nicotine was 13.8 years old and 13.6 years old for vapor products with flavoring only.⁴¹ Exploratory behavior is a common aspect of childhood development, and vaping may pique youth curiosity with a variety of flavors like “blue Jolly Rancher,” “cotton candy,” “peach icy,” and with perceived trendiness.⁴² Marketing and advertising tactics used to sell vapor products, especially through social media where these products are promoted and this behavior is normalized, may influence young people to start vaping.⁴³

There is widespread criticism of vape companies for marketing strategies that appear to target young people.⁴⁴ Strategies include colorful packaging, appealing flavors, and advertisements on social media platforms. The 2022-23 TN Together survey showed that 38.2% of students were exposed to online messaging that encouraged underage substance use, including

Curiosity, flavors, perceived trendiness, and marketing may influence young people to start vaping.

³⁶ An individual who is charged with an offense that would be legal if they were 21 years or older. Other status offenses include truancy or possessing alcohol.

³⁷ Abrams 2023.

³⁸ Tennessee Administrative Office of the Courts Juvenile Justice Statistics 2023. Referrals include other offenses in addition to vaping-related offenses.

³⁹ Tennessee Department of Education 2024.

⁴⁰ Interview with Melinda McCart, regional consultant, Tennessee Department of Education, July 26, 2024.

⁴¹ Tennessee Department of Mental Health & Substance Abuse Services 2024a; Centers for Disease Control 2018b; and Centers for Disease Control 2023a.

⁴² Neill Harris and Martin 2020; Centers for Disease Control 2018b; Centers for Disease Control 2024e; Olsson et al. 2019.

⁴³ Centers for Disease Control 2018b; Truth Initiative 2018; and interview with Maddie Bushnell, government relations director, American Cancer Society, May 16, 2024.

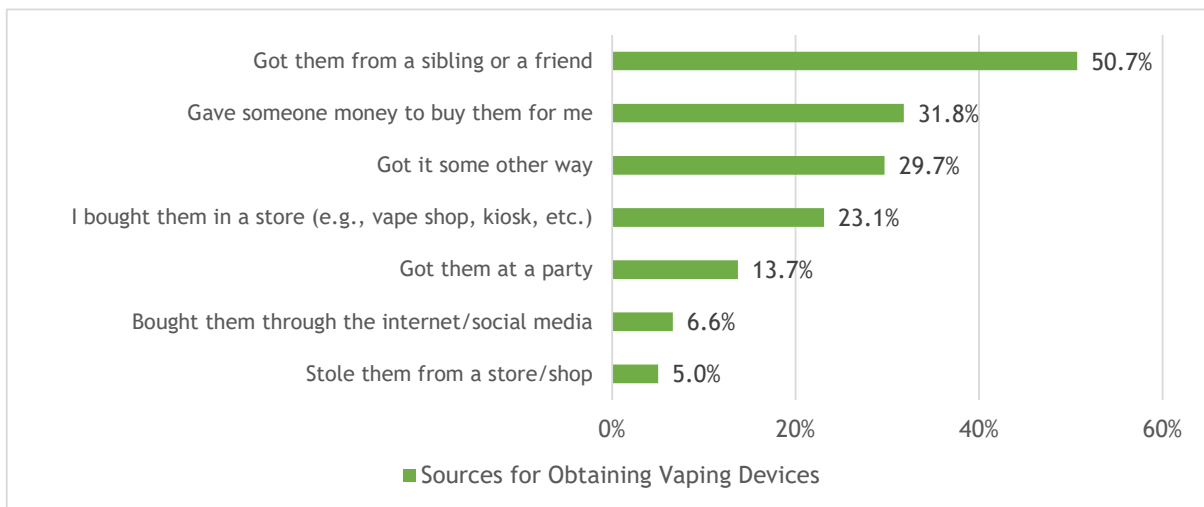
⁴⁴ Blumenthal 2024; Diaz et al. 2023; Centers for Disease Control 2018a; and Pierce, Sargent, and Portnoy 2018.

activities like underage drinking and using vapor products.⁴⁵ For example, before peak JUUL popularity, the brand heavily promoted their products on social media, spending \$1 million on platforms like Twitter and Instagram, while holding more than half of the e-cigarette market by the end of the fourth quarter in 2017.⁴⁶

Vapor products are easier to access than cigarettes, according to students.

Tennessee students report it is easier to obtain vapor devices than tobacco products. Of 23,011 8th, 10th, and 12th grade Tennessee public school students surveyed, 50.3% reported that it was difficult to get tobacco products like cigarettes, whereas only 37.5% reported it being difficult to get a vapor device.⁴⁷ The reason for this isn't fully clear. It's possible that it could be related to the variety of sources for obtaining vaping devices. According to the 2023 TN Together survey, about half (50.7%) of students reported getting their vapor product from a sibling or a friend.⁴⁸ Students give someone else money to purchase vapor products for them more than they buy them in a store on their own (31.8% versus 23.1%).⁴⁹ Getting them at a party, buying them online, and stealing them were less common.⁵⁰ See figure 3.

Figure 3. Tennessee Students' Sources for Obtaining Vaping Devices, 2023



Note: Students were able to select more than one source, so percentages sum to more than 100%.

Source: Tennessee Department of Mental Health and Substance Abuse Services 2024a.

⁴⁵ Tennessee Department of Mental Health & Substance Abuse Services 2024a.

⁴⁶ Huang et al. 2018.

⁴⁷ Tennessee Department of Mental Health & Substance Abuse Services 2024a.

⁴⁸ Ibid.

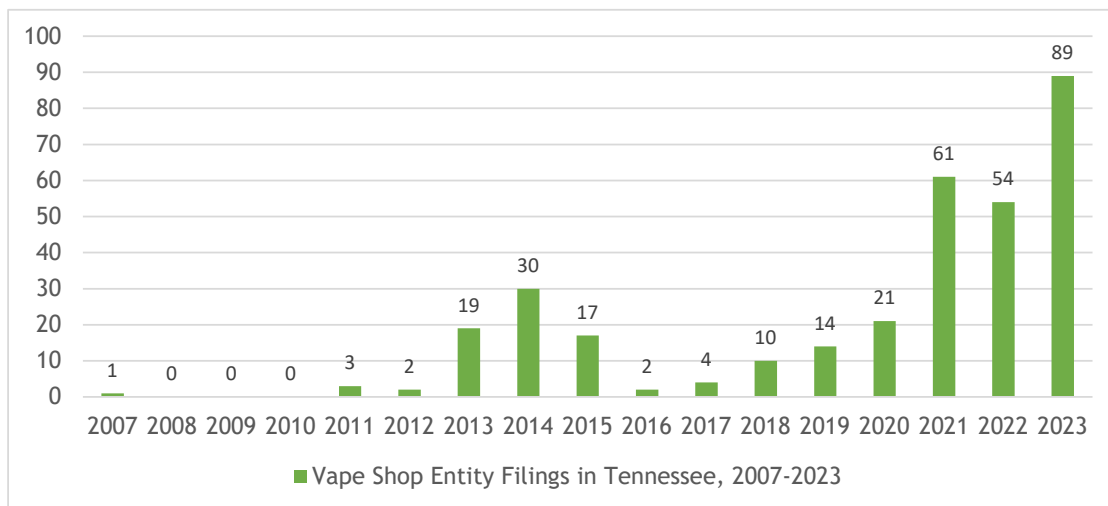
⁴⁹ Ibid.

⁵⁰ Ibid.

The number of vape shop entities is increasing.

According to an estimate by the Tennessee Fuel and Convenience Store Association, there are approximately 6,000 tobacco product retailers in Tennessee, many of which also sell vapor products.⁵¹ In addition to these stores, the number of specialty vape shops continues to increase. Since 2007, the number of vape shop entity filings—for example a general partnership, sole proprietorship, or limited liability corporation—in Tennessee has increased significantly (see figure 4) each entity may have several locations.

Figure 4. Vape Shop Entity Filings in Tennessee, 2007-2023



Note: Entities can include more than one physical location.

Source: Staff analysis of Tennessee Secretary of State entity filing data.

Young people are influenced to vape by friends and family.

Peer pressure may play a significant role in the initiation of youth vaping. Young people may start vaping because their peers are doing it, as 37.8% of students surveyed reported that at least one of their closest friends had vaped nicotine in the past year.⁵² Stakeholders say that young people may initiate vaping because a family member vapes, for example, their parents.⁵³ Less than half of students (48.2%) reported talking with their parents about the dangers of vaping.⁵⁴

⁵¹ Senate Bill 2079 and House Bill 2114 fiscal note of the 111th General Assembly.

⁵² Tennessee Department of Mental Health & Substance Abuse Services 2024b.

⁵³ Interview with staff of Southeast Regional Health Office, July 12, 2024; and interview with Gabriella Smith, northeast regional coordinator, Tennessee Commission on Children & Youth, June 14, 2024.

⁵⁴ Tennessee Department of Mental Health & Substance Abuse Services 2024a.

Young people rarely start vaping to quit smoking, and those that vape are more likely to start using cigarettes than those that don't.

Young people initiate vaping for a variety of reasons but rarely to stop smoking cigarettes.

Young people typically do not start vaping as a way to stop using cigarettes.⁵⁵ Rather, they may begin vaping because they don't understand vaping's risks; fewer adolescents perceive vaping as harmful than perceive cigarettes as harmful—73.4% versus 84.3%.⁵⁶ In comparison, a greater percentage of college students believe that vapor products and cigarettes are harmful, 92% and 91%, respectively, according to the 2023-24 Healthy Minds Survey.⁵⁷

Young people tend to begin vaping as a form of experimentation that leads to continued use.⁵⁸ Research shows that 18- to 24-year-old users of vapor products often start vaping without prior use of traditional tobacco cigarettes.⁵⁹ Some young people may even turn to vaping to cope with stress, anxiety, or other emotional issues.⁶⁰

Young people who vape are more likely to start smoking cigarettes than young people who do not vape.

There is a concern that vaping could serve as a gateway to smoking traditional cigarettes for young people who otherwise may not have initiated tobacco use. Compared to those who do not use e-cigarettes, adolescents that use these products are more likely to start smoking tobacco.⁶¹ A study found that prior vaping was four times more likely to lead to subsequent cigarette smoking among adolescents aged 13 to 19.⁶² Another study found that approximately 15.3% of current cigarette use in 12 to 15-year-olds could be attributed to past e-cigarette/vapor product use.⁶³ In addition, some young people become dual users, which is 20% to 40% more harmful than smoking alone.⁶⁴

Federal, state, and local governments regulate vapor products in Tennessee.

Federal, state, and local governments have enacted laws and regulations to reduce youth vaping, protect public health, and mitigate the risks associated with these products. Federal and state laws (including Tennessee state law)

⁵⁵ Centers for Disease Control 2018b.

⁵⁶ Tennessee Department of Mental Health & Substance Abuse Services 2024a; Gaddy, Vasquez, and Brown 2022; Amrock, Lee, and Weitzman 2016; and Rohde et al. 2018.

⁵⁷ Staff analysis of Healthy Minds Survey Data 2023-24 provided in email correspondence with Erin Voichocki, study coordinator, Healthy Minds Network, September 16, 2024.

⁵⁸ Harlow et al. 2022; see also Neill Harris and Martin 2020.

⁵⁹ Neill Harris and Martin 2020.

⁶⁰ Newport Institute "How Vaping Affects Mental Health".

⁶¹ O'Brien et al. 2021.

⁶² Ibid.

⁶³ Neill Harris and Martin 2020.

⁶⁴ Glantz, Nguyen, and da Silva 2024.

prohibit the sale of vapor products to individuals under the age of 21.⁶⁵ For vapor products that are derived from tobacco or nicotine, packaging and advertisements must include health warnings about the addictive nature of nicotine and the potential health risks associated with vaping.⁶⁶

The primary federal regulatory agency overseeing vapor products is the Food and Drug Administration (FDA).⁶⁷

The Tobacco Control Act, enacted in 2009, gave the FDA authority to regulate tobacco products, including cigarettes, cigars, and smokeless tobacco. It required warning labels on tobacco products, prohibited the sale of tobacco products to minors, restricted marketing of tobacco products, and allowed the FDA to review and authorize new tobacco products.⁶⁸ Effective August 8, 2016, the Deeming Rule brought vapor products under the regulatory framework established by the Tobacco Control Act. It extended the FDA's regulatory authority to cover e-cigarettes, vape pens, and other electronic nicotine delivery systems (ENDS), establishing requirements for manufacturers, importers, and retailers of vapor products.⁶⁹ Manufacturers of vapor products are required to submit applications for pre-market authorization (PMTA) to the FDA.⁷⁰ This process requires demonstrating that the products meet certain standards of public health before they can be legally marketed.⁷¹ If the application fails, the manufacturer may submit a new application or appeal the decision.⁷² For example, see *FDA v. Wages and White Lion Investments, LLC*. To date, there have been more than 27 million application submissions; FDA has denied more than 26 million of them and has authorized 34 e-cigarette products and devices.⁷³

The FDA has attempted to restrict the sale of flavored vapor products, particularly those most appealing to young people, like fruit and candy flavors, to reduce youth initiation and addiction to nicotine.⁷⁴ As with cigarettes, menthol is the only FDA-authorized vapor product flavor;⁷⁵ however, in January 2024, the Fifth Circuit Court of Appeals ruled that the FDA acted unlawfully when denying a request from e-cigarette manufacturers seeking a PMTA for flavored products.⁷⁶

The Food and Drug Administration has authorized 34 e-cigarette products and devices out of 27 million application submissions.

⁶⁵ US Food and Drug Administration 2024f; and Tennessee Code Annotated, Section 39-17-1505.

⁶⁶ 21 CFR Part 1140; and US Food and Drug Administration 2021a.

⁶⁷ US Food and Drug Administration 2022.

⁶⁸ Family Smoking Prevention and Tobacco Control Act Public Law No 111-31 of 2009

⁶⁹ US Food and Drug Administration 2021a; and Federal Register 2016.

⁷⁰ 21 United States Code Service, Section 387j; Center for Tobacco Products 2022; and US Food and Drug Administration 2024d.

⁷¹ Center for Tobacco Products 2022; and US Food and Drug Administration 2019.

⁷² Email correspondence with staff of the US Food and Drug Administration Center for Tobacco Products on December 13, 2024.

⁷³ US Food and Drug Administration 2024a; and email correspondence with staff of the US Food and Drug Administration Center for Tobacco Products on December 6, 2024.

⁷⁴ US Food and Drug Administration 2023.

⁷⁵ US Food and Drug Administration 2021b.

⁷⁶ *FDA v. Wages and White Lion Investments, LLC* of the United States Fifth Circuit.

Tennessee’s Synar program uses secret shoppers to enforce laws prohibiting sales to people under the age of 21.

During a recent hearing before the US Senate Judiciary Committee, the National Association of Tobacco Outlets (NATO) said there is an increasing number of unauthorized or illegal products on the market, specifically flavored products from China, which now comprise over 50% of the market. NATO characterized the FDA’s current enforcement as “piecemeal” and called for stronger actions such as injunctions and civil penalties against manufacturers and distributors of illicit vapor products.⁷⁷ Stakeholders also expressed frustration with the FDA’s slow pace of enforcement.⁷⁸

The FDA has worked to improve enforcement. In June of 2024, the Justice Department and the FDA created the Interagency ENDS Enforcement Task Force.⁷⁹ Law enforcement partners include the US Department of Justice; US Customs and Border Protection; US Marshals Service; US Postal Inspection Service; Bureau of Alcohol, Tobacco, Firearms and Explosives; Federal Trade Commission; and Homeland Security Investigations. According to the FDA, the task force has been successful. For example, on October 22, 2024, the FDA announced the seizure of approximately three million units of unauthorized e-cigarette products, with an estimated retail value of \$76 million.⁸⁰

The Tennessee Department of Agriculture enforces Tobacco 21 throughout the state.

Federal law prohibits the sale of tobacco and vapor products to individuals under the age of 21.⁸¹ In addition, as of 2024, 42 states have enacted similar Tobacco 21 (T21) legislation⁸²—prohibiting purchase, use, and possession of tobacco and vapor products by individuals under the age of 21. Federal law requires states to conduct compliance checks of tobacco and vapor product retailers through what are known as Synar programs.⁸³ Tennessee’s Synar program is administered by the Department of Agriculture using secret shoppers—people under the age of 21 who attempt to make a purchase.⁸⁴

Department staff say not every store gets inspected every year. One reason for this is that it is challenging to recruit enough secret shoppers. In addition, many of the shops may not be on the list to be inspected because they are not regulated (e.g., because they don’t sell food), though inspectors

⁷⁷ Spross 2024.

⁷⁸ Christensen 2024.

⁷⁹ US Food and Drug Administration 2024c; and email correspondence with staff of the US Food and Drug Administration on October 30, 2024.

⁸⁰ Email correspondence with staff of the US Food and Drug Administration on October 30, 2024.

⁸¹ Public Law No. 116-94, div. N, tit. I, sub. F, sec. 603, 133 Stat. 2534, 3123-24.

⁸² American Lung Association 2024d.

⁸³ Substance Abuse and Mental Health Services Administration 2024.

⁸⁴ Interview with Heidi Martinez, tobacco enforcement and Synar coordinator, Tennessee Department of Agriculture, June 17, 2024.

can add shops that they come across.⁸⁵ Only nine stores inspected in 2023 were clearly identifiable as vape shops.⁸⁶

Of the 1,685 stores that were inspected in 2023, 66% were inspected once, 30% were inspected twice, and 3% were inspected three or more times. The department prioritizes shops that have failed compliance checks in the past and shops that they receive complaints about; however, just 3.9% of the underage purchase attempts were successful in fiscal year 2021-22, increasing to 5.9% in fiscal year 2023-24.⁸⁷ Stakeholders say adding more inspections could improve compliance.⁸⁸ Senate Bill 2079 by Senator Reeves and House Bill 2114 by Representative Smith of the 111th General Assembly would have required at least two inspections per year for each location that sells tobacco and hemp products used for smoking, though it did not pass.

Stores that sell to anyone aged less than 21, for example, the Synar program's secret shoppers, are subject to fines, which increase if there are more violations over a five-year period—penalties range from a warning letter to fines of \$500 to \$2,000 for retailers found selling to underage individuals. Failure to pay these fines could result in legal action being taken against these businesses. The fine revenue is directed to the state's general fund.⁸⁹ A judge with experience in handling juvenile justice court cases, particularly those involving substance abuse, recommended increasing the fines or fining on the first offence.⁹⁰

State law authorizes local governments to regulate vaping to some extent.

The Non-Smoker Protection Act prohibits smoking and vaping in most enclosed public places, including workplaces, restaurants, and bars, aiming to protect public health from the harmful effects of secondhand smoke.⁹¹ Local governments have since established similar regulations, for example, the City of Kingsport has made it a \$50 offense for any person to use an electronic smoking device on city property.⁹² Knox County has also prohibited the use of vapor products on the grounds of a public park, playground, or greenway, or any public property that is accessible to use

Synar inspectors are not aware of all stores that sell vapor products in Tennessee, so not every store is inspected.

⁸⁵ Ibid.

⁸⁶ TACIR staff analysis of Tennessee Synar inspections data; and email correspondence with Bev Fulkerson, chief administrator, Department of Mental Health, August 23, 2025.

⁸⁷ Tennessee Department of Agriculture "Synar Program - Tobacco Prevention for Youth"; and Tennessee Department of Agriculture Tobacco 2024.

⁸⁸ Interview with Shannon Quinby, eastern regional director, Tobacco 21, June 12, 2024; and interview with Shannon Baker, director of advocacy, American Lung Association, May 15, 2024.

⁸⁹ Interview with Heidi Martinez, tobacco enforcement and Synar coordinator, Tennessee Department of Agriculture, June 17, 2024.

⁹⁰ Interview with Scarlett Ellis, judge, Scott County General Sessions Court, September 24, 2024.

⁹¹ Tennessee Code Annotated Section 39-17-1801-1812; and see Public Chapter 551, Acts of 2021, which added the use of vapor products to the Non-Smoker Protection Act.

⁹² Kingsport, Tennessee Code of Ordinances Section 62-233.

Some alternatives that have been enacted in other states face opposition in Tennessee.

by youth and is owned or controlled by Knox County.⁹³ Public Chapter 1110, Acts of 2022, repealed preemption of local governments for age-restricted venues that are not retail tobacco stores, retail vapor product stores, and cigar bars.⁹⁴ Metro Nashville has since prohibited smoking and the use of vapor products in age-restricted venues.⁹⁵

Some alternatives for reducing youth vaping are not youth focused and face opposition.

Health advocates want to reduce all vaping, not just youth vaping, and thus support a wide array of alternatives, including ones that some vaping-related business owners oppose because they are not youth-focused and would reduce legal sales to adults.⁹⁶ For example, vaping-related businesses oppose flavor bans. Nevertheless, some other states have enacted these alternatives, including vapor product taxes (32), comprehensive smoke-free laws that include vapor products (19), vapor product directories (11), and flavor bans (9). See map 1.

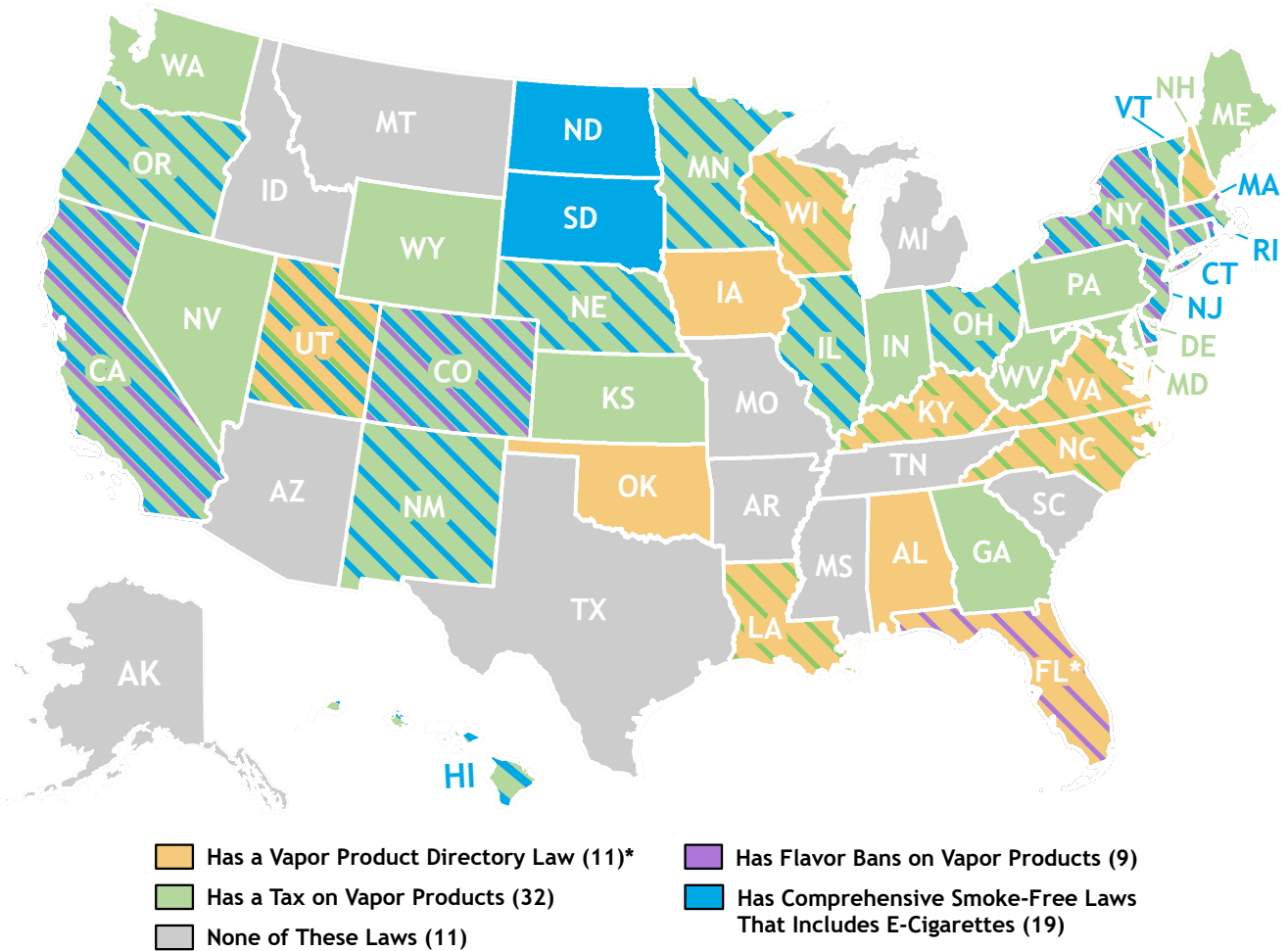
⁹³ Knox County, Tennessee Code of Ordinances, Section 27-16.

⁹⁴ See Tennessee Code Annotated, Section 39-17-1551(b)(1) for the preemption of legislation concerning the regulation of tobacco products, smokeless nicotine products, and vapor products; and see Tennessee Code Annotated Section 39-17-1804, for a list of exceptions to the Non-Smoker Protection Act.

⁹⁵ Metro Government of Nashville and Davidson County, Tennessee Code of Ordinances, Section 10.19.020.

⁹⁶ Interview with Shannon Baker, director of advocacy, American Lung Association, May 15, 2024; interview with Maddie Bushnell, government relations director, American Cancer Society, May 16, 2024; and panel on youth vaping at commission meeting on September 11, 2024.

Map 1. States' Laws for Vapor Products: Taxes, Flavor Bans, Directories, and Comprehensive Smoke-Free Laws, 2024



Source: Commission staff analysis of other states' laws.

Taxing Vapor Products

By applying additional taxes to vapor products, Tennessee could potentially deter youth vaping and decrease both youth and adult vapor product use, though some may switch back to cigarettes.⁹⁷ Studies have shown that increasing the price of vapor products through taxation is an effective way to reduce consumption,⁹⁸ but estimates of their effectiveness vary.⁹⁹ One study estimated that an additional 10% tax could reduce vaping by middle

⁹⁷ Abouk et al. 2022.

⁹⁸ Abouk et al. 2022; and Zheng et al. 2016.

⁹⁹ Abouk et al. 2022.

Taxing vapor products could reduce youth vaping but could also encourage some young people to switch to cigarettes.

school and high school students just 0.6% to 2.1%.¹⁰⁰ Previous studies that included adults estimated decreases of up to 27.7% in the long run.¹⁰¹

Taxes on vapor products can have unintended consequences. One study estimated that a \$1 tax reduces the likelihood of young people obtaining ENDS through retail sources by 41.1% but increased the likelihood of them obtaining ENDS through social sources by 16.1%.¹⁰² Another study said a 10% tax on e-cigarettes was associated with 0.7% of young people that use vapor products switching to cigarettes.¹⁰³

Currently, Tennessee is one of only 18 states that does not levy a specific tax on vapor products beyond the general sales tax.¹⁰⁴ But the state does levy additional taxes on tobacco products—cigarettes are taxed at \$0.62 per pack of 20, and other tobacco products (e.g., cigars, chewing tobacco, snuff, etc.) are subject to a 6.6% tax on their wholesale cost.¹⁰⁵ Of the 32 states that do tax vapor products, 14 tax based on the product’s value (i.e., ad valorem), eight just tax based on a dollar amount per milliliter of vaping solution, and 10 have a combination of the two, taxing open and closed systems differently. For example, Georgia taxes open systems at 7% of the wholesale cost and closed systems at \$0.05 per milliliter.¹⁰⁶

Stakeholders disagree on whether to tax vapor products and on how to structure the tax. Convenience store owners are open to a wholesale tax to fund a product directory and other enforcement efforts,¹⁰⁷ having supported an amendment to Senate Bill 1492 by Senator Reeves and House Bill 888 by Representative Hawk in the 113th General Assembly, which included a per milliliter tax on both open and closed systems, albeit at different rates (\$0.05 and \$0.07 per mL, respectively), but the bill did not pass.¹⁰⁸

Health advocates prefer taxing vapor products at parity with tobacco products like cigarettes;¹⁰⁹ the current tax rate for cigarettes was set in 2007.¹¹⁰ They also support increasing Tennessee’s cigarette tax to at least

¹⁰⁰ Abouk et al. 2022.

¹⁰¹ Zheng et al. 2016.

¹⁰² Abouk et al. 2022.

¹⁰³ Ibid.

¹⁰⁴ Hoffer and Macumber-Rosin 2024. See map 1.

¹⁰⁵ Tennessee Code Annotated Section 67-4-1004; and Tennessee Department of Revenue 2023.

¹⁰⁶ Official Code of Georgia Annotated, Section 48-11-2.

¹⁰⁷ Panel on youth vaping at commission meeting on September 11, 2024.

¹⁰⁸ Fiscal Memo for Senate Bill 1492, House Bill 888, as amended (004782), 113th General Assembly.

¹⁰⁹ Interview with Shannon Baker, director of advocacy, American Lung Association, May 15, 2024; interview with Maddie Bushnell, government relations director, American Cancer Society, May 16, 2024; and panel on youth vaping at commission meeting on September 11, 2024.

¹¹⁰ Public Chapter 368, Acts of 2007.

\$1 per pack;¹¹¹ the 50-state average is \$1.96.¹¹² Senate Bill 2079 by Senator Reeves and House Bill 2114 by Representative Smith in the 111th General Assembly would have taxed vaping cartridges at \$0.62 each (the same rate as the cigarette tax) and would have added products that contain nicotine to the definition of “tobacco products,” effectively subjecting nicotine vapor products to Tennessee’s existing 6.6% wholesale tax on tobacco products other than cigarettes, but the bill did not pass. A national pro-vaping group said taxing at parity may give “big tobacco” and closed systems an advantage.¹¹³ Vape shop owners oppose such taxes because they would not be targeted to young people—the taxes would increase costs for all vapers, including adults.¹¹⁴

Commission staff estimated various taxing structures’ effects on youth vaping in Tennessee and on tax revenue. For example, extending the existing 6.6% wholesale tax on tobacco products other than cigarettes to include vapor products could reduce youth vaping by an estimated 0.2% to 11.4% and generate \$8.5 million to \$9.6 million. Stakeholders suggested that the tax revenue could be used to enhance control or enforcement efforts.¹¹⁵ See table.

Revenue from a tax on vapor products could be used to enhance vaping control or enforcement efforts.

¹¹¹ Interview with Shannon Baker, director of advocacy, American Lung Association, May 15, 2024; interview with Maddie Bushnell, government relations director, American Cancer Society, May 16, 2024; and panel on youth vaping at commission meeting on September 11, 2024.

¹¹² Campaign for Tobacco-Free Kids 2024c.

¹¹³ Interview with Alex Clark, CE, Consumer Advocates for Smoke-free Alternatives Association, May 16, 2024.

¹¹⁴ Interview with Daniel Gillis, president, Tennessee Smoke Free Association, Erica Penley, member, Bass Berry Sims, Terri Livezey, director of communications, Tennessee Smoke Free Association, Mallory Kirby, senior public policy attorney, Bass Berry and Sims, and Chris Lautz, vice president, Tennessee Smoke Free Association, July 2, 2024.

¹¹⁵ Interview with Emily LeRoy, executive director, Tennessee Fuel and Convenience Store Association, June 21, 2024; and interview with John Sinclair, deputy attorney general, and Lorrie Lamberth, attorney, Tennessee Office of the Attorney General, July 26, 2024.

Table. Estimated Percentage Decrease in Youth Vaping Based on Tax Structure, Federal Fiscal Year 2022-23

Type of Tax	Tax Rate	Estimated Percentage Decrease in Youth Vaping	Estimated Tax Revenue, Fiscal Year 2022-23
Wholesale Tax	5%	0% to 9%	\$6.7 million to \$7.3 million
	10%	0% to 17%	\$12 million to \$15 million
	15%	1% to 26%	\$16 million to \$22 million
Per mL tax on closed systems; percentage of price tax on open systems (bifurcated)	\$1 per mL (closed); 5% (open)	0% to 6%	\$15 million to \$16 million
	\$2 per mL (closed); 10% (open)	0% to 11%	\$29 million to \$32 million
	\$3 per mL (closed); 15% (open)	1% to 17%	\$41 million to \$48 million
Retail Tax	5%	0% to 9%	\$9 million to \$10 million
	10%	1% to 17%	\$17 million to \$20 million
	15%	1% to 26%	\$22 million to \$30 million

Note: Greater decreases in youth vaping are associated with less tax revenue and vice versa. Bifurcated taxes have different tax rates for closed and open systems.

Source: Staff analysis based on elasticity estimates, estimates of the number of people who vape in Tennessee, and other estimates.

Comprehensive Smoke-Free Laws

People who are around those who vape may be exposed to secondhand e-cigarette aerosol, which can also be harmful to their health. In December 2016, the US Surgeon General released a report stating that e-cigarette aerosol (the cloud of vapor produced by vaping) is not harmless and may contain nicotine and other harmful chemicals.¹¹⁶ Since then, 19 states, not including Tennessee, have added e-cigarettes to their comprehensive smoke-free laws. Tennessee extended its Non-Smoker Protection Act to vaping in 2021,¹¹⁷ but Tennessee’s law is not comprehensive because the state makes exceptions for some public spaces (e.g., cigar bars, and bars).¹¹⁸

Making Tennessee’s law comprehensive would be helpful in reducing vaping prevalence in Tennessee, particularly among young people, according to health advocates. They say the restrictions would discourage young people from initiating vaping because making vaping less visible and accessible would avoid normalizing it.¹¹⁹

¹¹⁶ US Surgeon General 2016.

¹¹⁷ Tennessee Code Annotated, Sections 39-17-1801 et seq; and Public Chapter 551 (2021).

¹¹⁸ Tennessee Code Annotated Section 39-17-1804; and American Lung Association 2024c.

¹¹⁹ Interview with Maddie Bushnell, government relations director, American Cancer Society, May 16, 2024; and interview with Shannon Baker, director of advocacy, American Lung Association, May 15, 2024.

Flavor Bans

To reduce youth smoking, federal law limits cigarettes to only one flavor, menthol.¹²⁰ Likewise, menthol is the only flavor the Food and Drug Administration (FDA) has authorized for vapor products, though other flavored vapor products are widely available while FDA enforcement is being litigated.¹²¹

The widespread availability of flavored vapor products has sparked controversy in recent years. Some argue that flavors like candy or fruit are intentionally designed to appeal to younger people.¹²² As a result, nine states, not including Tennessee, have enacted bans on flavored vapor products.¹²³ This includes Massachusetts, which banned all online and retail sales within the state of vapor products, flavored or otherwise.¹²⁴

Vape shop owners oppose flavor bans because they decrease sales to adults and not just minors.¹²⁵ This is likely because adults like many of the same flavors that young people do. According to one study, both adults and young people list fruits, candy, desserts, sweets, menthol, and mint among their most used flavors. The primary difference in their preferences was that adults use tobacco-flavored vapor products much more than young people do.¹²⁶

Vapor Product Directories

One way the state could implement a flavor ban is to create a directory of allowed products, effectively banning the sale of any products not listed in the directory.¹²⁷ For example, including only the 34 e-cigarette products with FDA-authorization in a directory would effectively ban all flavoring except menthol.¹²⁸ But administering a vapor product directory that also includes products with pending PMTAs could prove challenging. The FDA does not disclose which products have pending PMTAs, only which products have been authorized or denied, which may make it difficult for states to verify the status of products. States rely on manufacturer-provided documents when deciding whether to approve their applications.¹²⁹

Some states ban flavored vapes, citing their appeal to young people, but adults like many of the same flavors that young people do.

¹²⁰ Public Health Law Center 2024a.

¹²¹ US Food and Drug Administration 2024a.

¹²² Truth Initiative 2021b; and Neill Harris and Martin 2020.

¹²³ Romeh Ali and Seaman 2022; and Ducharme 2019.

¹²⁴ Massachusetts General Laws Chapter 270, Section 28(b)–(c) (2024); and Ducharme 2019. Sellers in Massachusetts may make online sales to individuals located in other states.

¹²⁵ Panel on youth vaping at commission meeting on September 11, 2024.

¹²⁶ Schneller et al. 2019.

¹²⁷ Panel on youth vaping at commission meeting on September 11, 2024.

¹²⁸ US Food and Drug Administration 2024a. Three major Tobacco companies (RJ Reynolds, Altria, and Japan Tobacco International) currently hold all 34 PMTA authorizations.

¹²⁹ Interview with John Sinclair, deputy attorney general, and Lorrie Lamberth, attorney, Tennessee Office of the Attorney General, July 26, 2024.

There is no research showing whether a vape directory would decrease youth vaping rates.

There is no research showing whether a vape directory would decrease youth vaping rates.¹³⁰ Nevertheless, 11 states, not including Tennessee, have a vapor product directory.¹³¹ States vary in how strict they are when considering applications, and as a result, the number of vapor products in states' directories varies greatly. For example, Louisiana's has just 472 products,¹³² Alabama's has 982 products,¹³³ and Oklahoma's has 12,214 products.¹³⁴

In Tennessee, there is disagreement between retailers regarding vapor product directories, with convenience stores supporting them and vape shop owners opposing them.¹³⁵ Convenience store owners say that directories are one of the best methods for keeping bad products off the market. Vape shop owners say that a directory would be redundant with federal regulation and hard to maintain because of ongoing litigation and the need to process applications.¹³⁶

There is some agreement on alternatives that target youth vaping.

There is some agreement between stakeholders on alternatives that target youth vaping without either overburdening adults 21 years or older who choose to vape or harming businesses that are selling vapor products legally and responsibly. These include requiring vapor product retailers to check the ID of all purchasers regardless of age (i.e., universal carding),¹³⁷ establishing retail licensing,¹³⁸ and expanding prevention and cessation programs in the state.¹³⁹ All 50 states use both federal (CDC) and state funding for vaping prevention and cessation programs.¹⁴⁰ Most states (40) have retail licensing for vapor products, one state has universal carding (Louisiana), and two states have required carding those under either 50 or 40 (Colorado and Nevada, respectively). See map 2.

¹³⁰ Haynes, Rodriguez, and Alere 2024.

¹³¹ Tennessee does, however, have a directory for cigarettes. See Tennessee Code Annotated, Sections 67-4-2601 et seq.

¹³² Louisiana Office of Alcohol and Tobacco Control 2024.

¹³³ Alabama Department of Revenue 2024.

¹³⁴ Oklahoma ABLE Commission 2024.

¹³⁵ Panel on youth vaping at commission meeting on September 11, 2024.

¹³⁶ Ibid.

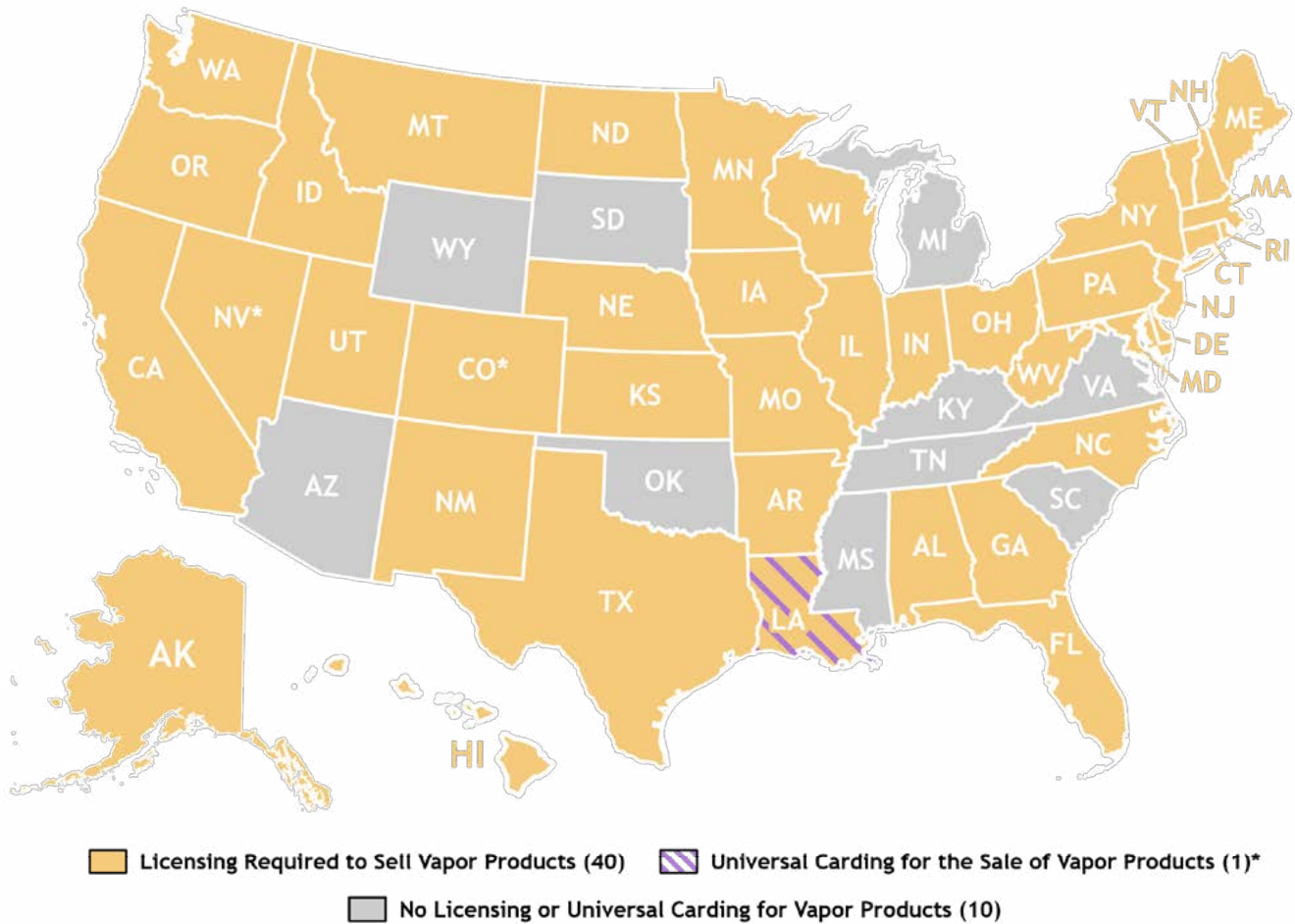
¹³⁷ Phone call with Daniel Gillis, president, Tennessee Smoke Free Association, September 25, 2024; and panel on youth vaping at commission meeting on September 11, 2024.

¹³⁸ Interview with Daniel Gillis, president, Tennessee Smoke Free Association, Erica Penley, member, Bass Berry Sims, Terri Livezey, director of communications, Tennessee Smoke Free Association, Mallory Kirby, senior public policy attorney, Bass Berry and Sims, and Chris Lautz, vice president, Tennessee Smoke Free Association, July 2, 2024; and panel on youth vaping at commission meeting on September 11, 2024.

¹³⁹ Panel on youth vaping at commission meeting on September 11, 2024.

¹⁴⁰ Centers for Disease Control 2024b; and Campaign for Tobacco Free Kids 2024b.

Map 2. States' Laws for Vapor Products: Licensing and Universal Carding, 2024



*Colorado requires carding for anyone under age 50 and Nevada under age 40.

Source: Public Health Law Center 2024b; and WeCard 2024

Universal Carding

Federal and Tennessee law require retailers to check IDs of individuals purchasing vapes who are under the age of 30.¹⁴¹ Since 2021, Louisiana has required ID checks for all vapor product purchases.¹⁴² Commission staff did not find any studies assessing whether universal carding has been effective in Louisiana. Data from the state show a decrease in vaping in the past 30 days among young adults from 28.9% in 2022 to 21.6% in 2023¹⁴³ but an increase among high schoolers from 24% in 2021 to 30% in 2023.¹⁴⁴

¹⁴¹ 21 CFR Part 1140; and Tennessee Code Annotated, Section 39-17-1504(d).

¹⁴² Louisiana Revised Statute Section 26:911.

¹⁴³ Centers for Disease Control Behavioral Risk Factor Surveillance System.

¹⁴⁴ Trahan, Platt, and Lehigh 2024.

Tennessee has licensing for tobacco wholesalers but not for tobacco or vapor product retailers.

Convenience store owners and vape shop owners are both in favor of universal carding for vapor products. Representatives for convenience stores say that universal carding, which was implemented for carryout beer purchases in Tennessee in 2006, was successful in reducing underage access to alcohol by one-quarter. The law was subsequently expanded to include all alcohol products, and advocates say it helps deter underage purchases by taking the judgment call of who to card away from the clerk.¹⁴⁵

Retail Licensing

Both health advocates¹⁴⁶ and pro-vaping stakeholders¹⁴⁷ support licensing vapor product retailers in Tennessee. Vape shop owners aren't against licensing, if fees are nominal and used to track retail shops that sell these products.¹⁴⁸ Research indicates retail licensing could be effective for reducing youth vaping in Tennessee. For example, a systematic review of regulatory strategies for preventing and reducing nicotine vaping among young people found that sales licenses "were generally shown to be associated with decreased rates of youth vaping."¹⁴⁹ Extending licensing to retailers may help in identifying more shops for the state's Synar inspectors, who may not be aware of many vape shop locations in Tennessee. The state's Federal Fiscal Year 2023-24 Synar report stated that

most non-licensed outlets are being placed into the system while inspectors are out in route to another inspection, meaning many of Tennessee's tobacco outlets are not accounted for.¹⁵⁰

Most states (40), not including Tennessee, require vapor product retailers to be permitted or licensed.¹⁵¹ Tennessee requires licenses administered by the Department of Revenue for tobacco wholesalers but not for vapor products.¹⁵² Senate Bill 2079 by Senator Reeves and House Bill 2114 by Representative Smith in the 111th General Assembly did not pass but would have required retail vape shops to obtain a tobacco license, and the Tennessee Department of Agriculture would have been required to set a

¹⁴⁵ Panel on youth vaping at commission meeting on September 11, 2024; and phone call with Daniel Gillis, president, Tennessee Smoke Free Association, September 25, 2024.

¹⁴⁶ Panel on youth vaping at commission meeting on September 11, 2024; interview with Shannon Baker, director of advocacy, American Lung Association, May 15, 2024; and interview with Maddie Bushnell, government relations director, American Cancer Society, May 16, 2024.

¹⁴⁷ Interview with Daniel Gillis, president, Tennessee Smoke Free Association, Erica Penley, member, Bass Berry Sims, Terri Livezey, director of communications, Tennessee Smoke Free Association, Mallory Kirby, senior public policy attorney, Bass Berry and Sims, and Chris Lautz, vice president, Tennessee Smoke Free Association, July 2, 2024; and panel on youth vaping at commission meeting on September 11, 2024.

¹⁴⁸ Interview with Alex Clark, chief executive officer, Consumer Advocates for Smoke-free Alternatives Association, May 16, 2024.

¹⁴⁹ Reiter et al. 2023.

¹⁵⁰ Tennessee Department of Agriculture 2024.

¹⁵¹ Public Health Law Center 2024b.

¹⁵² Tennessee Code Annotated Section 67-4-1015.

license fee at a level to ensure the department’s enforcement and licensing activities are fully funded. The additional inspections would have cost \$2.4 million per year, about \$400 per store, according to the fiscal note. Other states charge various license fees, ranging from \$6 (New Hampshire) to \$800 (Connecticut), and Alabama does not charge for its retailer permit.¹⁵³

During discussion, other approaches raised by commission members include authorizing local governments to create local vapor product boards to issue licenses and respond to violations, similar to existing local beer boards.¹⁵⁴ Businesses in Tennessee wanting to sell vapor products would then need to obtain a license from their local vapor product board. The board would be responsible for administering laws related to vapor product sales in their jurisdiction.

Local beer boards currently possess the authority to enforce prohibited conduct, including criminal activity on the premises such as the illegal sale of age-limited products, against beer permit holders.¹⁵⁵ State law authorizes local beer boards to promote public health, morals, and safety in their communities, which could include suspending or revoking beer permits of businesses making sales of vapor products to people under 21 years of age.¹⁵⁶

In addition to commission member discussions, staff of the Department of Health say vapor product retail licensing should also include tobacco products and any other product that contains nicotine. They say that could help avoid creating regulatory loopholes and gray areas for retailers that do not sell vapor products but do sell traditional tobacco products or other products containing nicotine. For example, Zyn, a smokeless nicotine product, is quickly growing in popularity with young people.¹⁵⁷

Public Chapter 423, Acts of 2023, enacted similar requirements for hemp-derived cannabinoids, requiring suppliers and retailers to obtain licensure prior to commencement of business. An initial supplier license costs \$500 and a retailer license \$250, and both require annual renewal. All sales of cannabinoid products are subject to an additional 6% sales tax;¹⁵⁸ half of the revenue from this tax is allocated to the Department of Revenue, and the other half is allocated to the Department of Agriculture to be used exclusively for the regulation of hemp-derived cannabinoid products. It also established child-safety packaging and labeling requirements, as well as restrictions against advertising that appeals to minors.

Local beer boards are authorized to suspend or revoke beer permits of businesses making sales of vapor products to people under 21 years of age.

¹⁵³ Centers for Disease Control 2024d; and Alabama Code, Section 28-11-7.

¹⁵⁴ Commission meeting on December 19, 2024.

¹⁵⁵ Jeff Peach, Town Attorney, City of Smyrna, speaking at the commission meeting on December 19, 2024.

¹⁵⁶ Tennessee Code Annotated Section 57-5-106.

¹⁵⁷ Email correspondence with staff of the Tennessee Department of Health, December 20, 2024.

¹⁵⁸ Tennessee Code Annotated, Section 67-6-232.

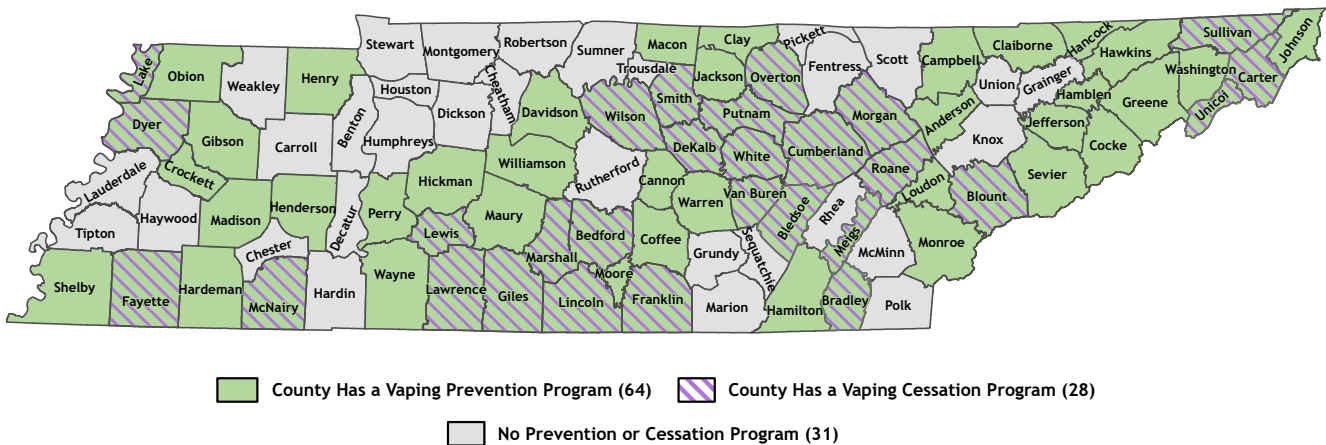
Many counties in Tennessee lack vaping prevention and cessation programs in their schools.

Prevention and Cessation Programs

Available evidence shows that prevention and cessation programs can be some of the most effective ways to reduce youth vaping.¹⁵⁹ For example, a prevention program, CATCH My Breath, decreased youth initiation of e-cigarette use by 46%, according to one study.¹⁶⁰ CATCH My Breath emphasizes peer-led activities to empower students with avoidance, refusal, and exit strategies.¹⁶¹ Another study found that a cessation program, Not On Tobacco (NOT), doubled the likelihood of quitting.¹⁶² Not On Tobacco (NOT) teaches self-management, stress management, and techniques to manage nicotine dependency, and family and peer pressure.¹⁶³

Many Tennessee counties lack such programs, especially cessation programs. Only 28 counties have both prevention and cessation programs. Another 36 counties report having only prevention programs with no cessation programs, and the remaining 31 report not having any programs.¹⁶⁴ See map 3 and appendix B. One barrier to expanding prevention and cessation programs is funding.

Map 3. Prevention and Cessation Programs in Tennessee’s 95 Counties, 2024



Note: Local governments and others may be doing more than what is reported here.

Source: Email correspondence with staff of the Tennessee Department of Health’s Tobacco Use Prevention and Control Program, October 1, 2024.

¹⁵⁹ Kelder et al. 2020; Dino et al. 2001; Horn et al. 2005.

¹⁶⁰ Kelder et al. 2020.

¹⁶¹ Interview with Marcella Bianco, director of government partnerships, CATCH My Breath, on July 17, 2024.

¹⁶² Horn et al. 2005.

¹⁶³ American Lung Association 2024b.

¹⁶⁴ Staff analysis of Tennessee Department of Health Tobacco Use Prevention and Control Program county data; and email correspondence with Liz Johnson, public health program director, Tennessee Department of Health Division of Family Health and Wellness, October 1, 2024.

Tennessee's Tobacco Use Prevention and Control Program

The Tennessee Department of Health's (TDH) Tobacco Use Prevention and Control Program (TUPCP) supports vaping prevention and cessation programs in Tennessee. TUPCP provides resources and support for healthcare providers, community organizations, schools, and local governments who want to reduce youth vaping with quit lines, counseling services, youth prevention programs, and similar prevention and cessation services.¹⁶⁵ Recently, their focus has been on vaping.¹⁶⁶ See appendix C for descriptions of prevention and cessation programs in Tennessee.

The program is funded through a combination of state appropriations and grants from the Centers for Disease Control (CDC), which supports state-level tobacco control efforts nationwide.¹⁶⁷ Annual federal funding from the CDC is about \$1.7 million.¹⁶⁸ Tennessee's funding for TUPCP has been inconsistent and relatively low compared to other states,¹⁶⁹ and according to TDH staff, funding is a barrier to expanding prevention and cessation programs in the state.¹⁷⁰ There was no state funding for the program in fiscal years 2018-19 and 2020-21, and only \$2 million to \$2.6 million in other years. In 2014, the Centers for Disease Control (CDC) recommended state funding levels for state tobacco and vaping control programs, including a recommendation of \$75.6 million per year for Tennessee—about 15 times Tennessee's actual funding for the state tobacco control program in fiscal year 2013-14 and about 29 times in fiscal year 2023-24. Together, the 50 states fund 22.0% of the CDC's recommendation versus 3.4% in Tennessee.¹⁷¹ See figure 5.

Tennessee's Tobacco Use Prevention and Control Program supports vaping prevention and cessation efforts, but funding has been inconsistent and relatively low compared to other states.

¹⁶⁵ Tennessee Department of Health Tobacco Use Prevention and Control Program (TUPCP).

¹⁶⁶ Interview with Liz Johnson, public health program director, and Jacob Black, epidemiologist, Tennessee Department of Health Division of Family Health and Wellness, April 30, 2024.

¹⁶⁷ Interview with Liz Johnson, public health program director, and Jacob Black, epidemiologist, Tennessee Department of Health Division of Family Health and Wellness, April 30, and June 20, 2024.

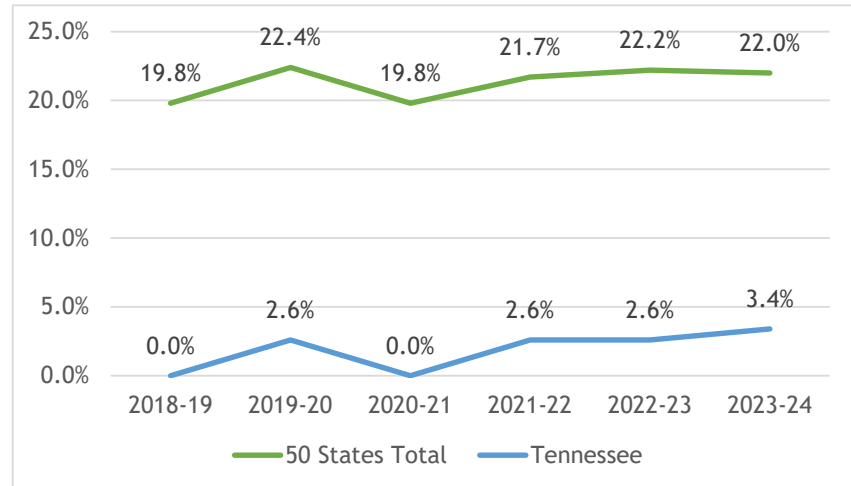
¹⁶⁸ Email correspondence from Liz Johnson, public health program director, Tennessee Department of Health Division of Family Health and Wellness on August 9, 2024.

¹⁶⁹ Campaign for Tobacco-Free Kids 2024a.

¹⁷⁰ Interview with Liz Johnson, public health program director, and Jacob Black, epidemiologist, Tennessee Department of Health Division of Family Health and Wellness, June 20, 2024.

¹⁷¹ Campaign for Tobacco-Free Kids 2024b.

Figure 5. State Funding of State Tobacco Use Prevention Control Programs, Percent of CDC Recommendation Levels Fiscal Years 2018-19 to 2023-24



Note: Local governments and others may be doing more than what is reported here.

Source: Campaign for Tobacco-Free Kids 2024b.

Every 50% increase in state funding of control programs decreased youth vaping by 7.46%, according to one study,¹⁷² so increasing Tennessee’s funding to 22% of CDC’s recommendation, to \$16.6 million per year, could lead to around a 30% decrease in youth vaping in Tennessee.¹⁷³

Tennessee is also spending less on cessation programs than what is recommended. In 2016, only 8% of Tennessee’s program funding went towards cessation programs versus the 46% recommended by the CDC.¹⁷⁴

Tennessee has existing revenue streams from settlements with the vaping and tobacco industries that could be used to fund vaping control programs.

Tennessee was one of 33 states to settle a lawsuit with JUUL, a popular vaping brand that had been accused of marketing practices that contributed to increased rates of youth vaping.¹⁷⁵ The settlement includes monetary compensation and injunctive relief like prohibitions on youth-

¹⁷² Tauras et al. 2021.

¹⁷³ Staff analysis based on Tauras et al. 2021.

¹⁷⁴ Centers for Disease Control 2016a; 2016 is the latest year available in the data; conversations with Liz Johnson and others have confirmed that cessation funding remains a relatively small percentage.

¹⁷⁵ Tennessee Attorney General & Reporter 2022; US Food and Drug Administration 2019; and Public Health Law Center JUUL Litigation Settlement.

targeted marketing and brand promotions.¹⁷⁶ JUUL must conduct annual compliance checks on retailers to prevent sales to minors, with non-compliance potentially leading to penalties or restrictions on selling JUUL products. This is in addition to the compliance checks conducted by the Tennessee Department of Agriculture’s Synar program.¹⁷⁷

Funds from the JUUL settlement are not earmarked for specific purposes and are received in structured payments. After six annual payments, JUUL can decide whether to provide one lump sum payment or continue payments over the next 10 years.¹⁷⁸ The total settlement payout to states is \$434.9 million, with Tennessee receiving \$13 million.¹⁷⁹ Discussions within the Tennessee Attorney General’s Office are ongoing about potentially directing these funds to health programs like TDH’s Tobacco Use Prevention and Control Program. For fiscal year 2025-26, TDH requested \$2.6 million in JUUL settlement funds to reach 75,000 students with youth tobacco and vape cessation programs, a media campaign, and youth conferences.¹⁸⁰

Tennessee also receives annual payments from tobacco companies as part of the Master Settlement Agreement (MSA)—the 1998 legal settlement between four major tobacco companies and 46 states, including Tennessee, under which the companies agreed to make payments to the states to offset the harms from tobacco use.¹⁸¹ In 2023, Tennessee received \$163.9 million from tobacco companies that joined the MSA and \$3.8 billion since 1998.¹⁸² The revenue totaled \$146.2 million in 2024,¹⁸³ and according to staff of the Tennessee Attorney General’s Office, the funds are typically not earmarked for specific purposes.¹⁸⁴

Tennessee has received \$3.8 billion in annual payments from tobacco companies under the Master Settlement Agreement since 1998 and will be receiving \$13 million from the JUUL settlement.

¹⁷⁶ Interview with John Sinclair, deputy attorney general, and Lorrie Lamberth, attorney, Tennessee Office of the Attorney General, July 26, 2024; and Tennessee ex rel. Skrmetti v. JUUL Labs, Inc., No. 22-1620-III (Tenn. 2022).

¹⁷⁷ Interview with John Sinclair, deputy attorney general, and Lorrie Lamberth, attorney, Tennessee Office of the Attorney General, July 26, 2024.

¹⁷⁸ Interview with John Sinclair, deputy attorney general, and Lorrie Lamberth, attorney, Tennessee Office of the Attorney General, July 26, 2024; and Tennessee ex rel. Skrmetti v. JUUL Labs, Inc., No. 22-1620-III (Tenn. 2022).

¹⁷⁹ Tennessee Attorney General & Reporter 2022.

¹⁸⁰ Email correspondence with Lorrie Lamberth, attorney, Tennessee Office of the Attorney General, August 14, 2024; Tennessee Department of Finance and Administration 2024; and Budget Hearings for the Tennessee Department of Health, November 6, 2024.

¹⁸¹ Tennessee Attorney General & Reporter 2022; Joint Legislative Budget Committee 2021; and Public Health Law Center 2019.

¹⁸² Tennessee Attorney General & Reporter 2023; and Campaign for Tobacco Free Kids 2024c.

¹⁸³ Tennessee Attorney General & Reporter 2023; and Campaign for Tobacco Free Kids 2024c.

¹⁸⁴ Interview with John Sinclair, deputy attorney general, and Lorrie Lamberth, attorney, Tennessee Office of the Attorney General, July 26, 2024.

Research shows that interventions combining skill-building, counseling, family involvement, and community engagement are more effective in reducing youth vaping than punishment alone.

Some interventions are better than others for reducing youth vaping.

Interventions that focus on building skills to resist peer pressure and make healthy choices have demonstrated effectiveness.¹⁸⁵ Modifying adult cessation curricula for teens has been found to be insufficient; teens and young children need programs specifically tailored to their needs and developmental level.¹⁸⁶ Many of the available behavioral cessation support for youth and young adults revolves around telephone or texting lines. The American Academy of Pediatrics provides a list of available text lines for young people.¹⁸⁷ According to health advocates and previous studies, supporting kids through counseling services, group interactions, understanding their triggers and stressors, and replacing vaping with healthy options are better than punitive measures.¹⁸⁸ Staff of the Tennessee Department of Education and a General Sessions Court Judge say there is a need for a rehabilitative approach that includes counseling and support while keeping students engaged in their education.¹⁸⁹

Programs that engage parents, provide them with information and tools to discuss e-cigarettes, and train them to have open and supportive conversations with their children about e-cigarettes and substance use are beneficial, according to one study.¹⁹⁰ Community-based campaigns that can include local events, media outreach, and partnerships with community organizations that raise awareness about the risks of e-cigarettes and promote healthy lifestyles can also be effective and may help deter future use.¹⁹¹

Campaigns using social media, apps, and online platforms have had mixed results.¹⁹² The effectiveness of these campaigns often depends on their design, targeting, and the engagement of the audience. Digital interventions that actively involve young people in the creation and dissemination of messages may be more effective in reaching and influencing their peers.¹⁹³ Interventions that combine multiple strategies—like education, skill-building, family involvement, and community engagement—tend to be more successful than single-component interventions.¹⁹⁴ Programs that provide ongoing support and follow-up like repeated contact to reinforce

¹⁸⁵ American Lung Association 2024a; Tennessee Department of Health 2023; and Mylocopos et al. 2024.

¹⁸⁶ American Heart Association 2020; and American Lung Association 2024b.

¹⁸⁷ American Academy of Pediatrics 2024.

¹⁸⁸ American Lung Association 2024b; Dino et al. 2001; and Horn et al. 2005.

¹⁸⁹ Interview with Melinda McCart, regional consultant, Tennessee Department of Education, July 26, 2024; and interview with Scarlett Ellis, judge, Scott County General Sessions Court, September 24, 2024.

¹⁹⁰ Mylocopos et al. 2024; and Centers for Disease Control 2024c.

¹⁹¹ American Lung Association 2024a; Tennessee Department of Health 2023; and Mylocopos et al. 2024.

¹⁹² Mylocopos 2024; Massey, Brockenberry, and Harrell 2021; US Food and Drug Administration 2024g; Centers for Disease Control 2024c.

¹⁹³ Mylocopos 2024; Massey, Brockenberry, and Harrell 2021.

¹⁹⁴ Substance Abuse and Mental Health Services Administration 2020.

smoking cessation messages and encouraging continued efforts to quit, rather than one-time interventions, are more likely to have sustained effects.¹⁹⁵

Health advocates and education administrators say strategies like fines and suspensions don't help reduce youth vaping. These methods don't help young people quit, and suspensions can hurt their education by allowing them to stay home instead of in school.¹⁹⁶ See appendix D for a summary of misbehavior levels for tobacco or vape use by students in Tennessee school systems.

Instead, they say efforts to reduce youth vaping should also include educational programing.¹⁹⁷ For example, the American Lung Association's Intervention for Nicotine Dependence: Education, Prevention, Tobacco and Health (INDEPTH) is designed to be an alternative to suspension that helps students quit vaping.¹⁹⁸ Similarly, some juvenile justice courts in Tennessee offer restorative counseling services as an alternative to punishment.¹⁹⁹

Many young people who vape are trying to quit.

In 2023, the Tennessee Youth Risk Behavior Survey (YRBS) found that 60.8% of high school students surveyed had tried to quit using tobacco products, including vapor products. The percentage of students that tried to quit varies based on demographics (see figure 6).

Fines and suspensions
don't help young people
quit vaping.

¹⁹⁵ Hooker et al. 2018.

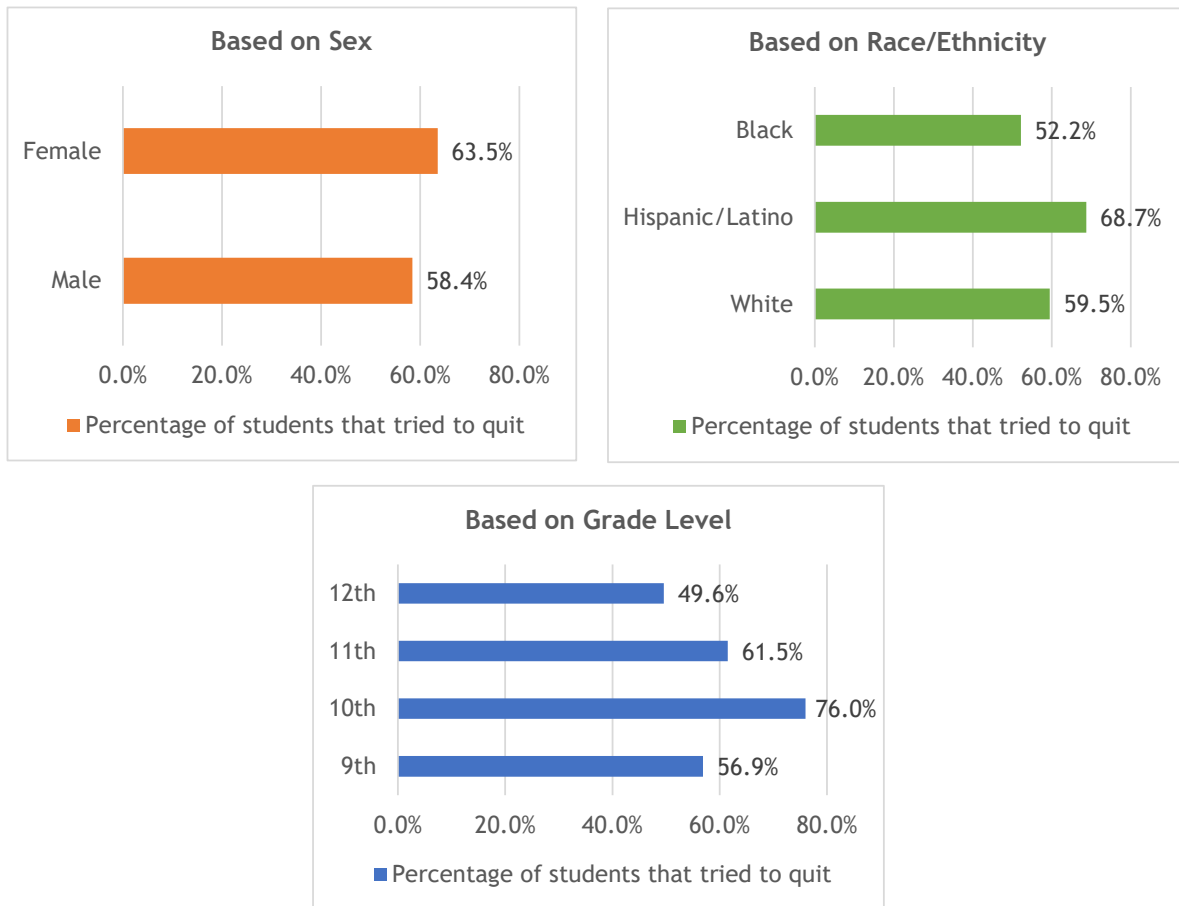
¹⁹⁶ Interview with Shannon Baker, director of advocacy, American Lung Association, May 15, 2024; interview with Lori Paisley, assistant commissioner coordinated school health, and Amy Owen, senior policy director, Tennessee Department of Education, May 09, 2024; interview with Melinda McCart, regional consultant, Tennessee Department of Education, July 26, 2024; interview with Marcella Bianco, director of government partnerships, CATCH My Breath, July 17, 2024; and interview with Liz Johnson, public health program director, and Jacob Black, epidemiologist, Tennessee Department of Health Division of Family Health and Wellness, April 30, 2024.

¹⁹⁷ Interview with Shannon Baker, director of advocacy, American Lung Association, May 15, 2024; interview with Lori Paisley, assistant commissioner coordinated school health, and Amy Owen, senior policy director, Tennessee Department of Education, May 09, 2024; interview with Melinda McCart, regional consultant, Tennessee Department of Education, July 26, 2024; interview with Marcella Bianco, director of government partnerships, CATCH My Breath, July 17, 2024; and interview with Liz Johnson, public health program director, and Jacob Black, epidemiologist, Tennessee Department of Health Division of Family Health and Wellness, April 30, 2024.

¹⁹⁸ American Lung Association 2024a.

¹⁹⁹ Interview with Scarlett Ellis, judge, Scott County General Sessions Court, September 24, 2024; and interview with Sharon Guffee, judge, Williamson County Juvenile Court, July 10, 2024.

Figure 6. Percentage of Students That Tried to Quit Using All Tobacco Products Including E-Cigarettes, 2023



Source: Tennessee Department of Education 2024.

School districts collect disciplinary data but reports to the Department of Education don't specify the offense.

School districts already collect data concerning vaping incidents on school grounds, though such data is only reported to the Department of Education in general terms and does not separate vaping from similar incidents like substance use.²⁰⁰ More detailed disciplinary data would provide policymakers with better information on which substances are being abused most often; where to focus enforcement, prevention, and cessation efforts; and to aid future research.

²⁰⁰ Interview with TDOE Lori Paisley, assistant commissioner coordinated school health, and Amy Owen, senior policy director, Tennessee Department of Education, May 9, 2024.

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Erica Vick Penley, Member
Bass, Berry, and Sims

Erin Voichoski, Data Manager
Healthy Minds Network

Leah Watkins, Superintendent
Henry County Schools

Andrenita West, Statistician
Office on Smoking and Health
Centers for Disease Control and Prevention

Tyler Wright, Regional Health Council
Coordinator
Tennessee Department of Health

Appendix A. Public Chapter 987, Acts of 2024



State of Tennessee

PUBLIC CHAPTER NO. 937

SENATE BILL NO. 2278

By Massey, Jackson

Substituted for: House Bill No. 2433

By Terry, Davis, Garrett, Hardaway, White, Ragan

AN ACT to amend Tennessee Code Annotated, Title 25; Title 39; Title 47 and Title 67, relative to tobacco and vapor products.

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF TENNESSEE:

SECTION 1. The Tennessee advisory commission on intergovernmental relations (TACIR) is directed to conduct a study on the effects of vaping and the use of all vapor products by persons under twenty-one (21) years of age. TACIR shall include in the study, but is not limited to, initiation of vapor product usage, health outcomes, enforcement of underage sales, best practices to address usage on school grounds, taxation, and access to cessation products and services. The study must identify the prevalence of vaping among such persons, including demographic information and usage trends.

SECTION 2. TACIR shall submit a report disclosing the findings of the study to members of the general assembly no later than January 31, 2025.

SECTION 3. This act takes effect upon becoming a law, the public welfare requiring it.

SENATE BILL NO. 2278

PASSED: April 22, 2024



RANDY McNALLY
SPEAKER OF THE SENATE



CAMERON SEXTON, SPEAKER
HOUSE OF REPRESENTATIVES

APPROVED this 6th day of May 2024



BILL LEE, GOVERNOR

Appendix B. Youth Vaping Prevention and Cessation Programs by Tennessee County

County	Prevention Programs	Cessation Programs
Anderson	INDEPTH, HealthSmart, CATCH My Breath	None Reported
Bedford	CATCH My Breath, HealthSmart, INDEPTH, Hidden in Plain Sight	INDEPTH, NOT
Benton	None Reported	None Reported
Bledsoe	INDEPTH	INDEPTH, NOT
Blount	INDEPTH, HealthSmart	NOT
Bradley	INDEPTH	INDEPTH, NOT
Campbell	HealthSmart	None Reported
Cannon	HealthSmart, Stanford Toolkit	None Reported
Carroll	None Reported	None Reported
Carter	INDEPTH, NOT, HealthSmart, Hidden in Plain Sight	NOT
Cheatham	None Reported	None Reported
Chester	None Reported	None Reported
Claiborne	HealthSmart, CATCH My Breath, INDEPTH	None Reported
Clay	HealthSmart, Stanford Toolkit	None Reported
Cocke	INDEPTH, HealthSmart, CATCH My Breath	None Reported
Coffee	CATCH My Breath, HealthSmart, Stanford Toolkit	None Reported
Crockett	CATCH My Breath	None Reported
Cumberland	HealthSmart, Stanford Toolkit, Escape the Vape, Life Choices Maze	INDEPTH
Davidson	Know The Risks	None Reported
Decatur	None Reported	None Reported
DeKalb	HealthSmart, Stanford Toolkit, Life Choices Maze, Hidden in Plain Sight, Escape the Vape	INDEPTH
Dickson	None Reported	None Reported
Dyer	CATCH My Breath, You and Me Vape-Free	Healthy Futures
Fayette	INDEPTH, D.A.R.E Program, P.A.V.E., Let's Talk	INDEPTH, D.A.R.E.
Fentress	None Reported	None Reported
Franklin	INDEPTH	INDEPTH, NOT
Gibson	CATCH My Breath	None Reported
Giles	CATCH My Breath, HealthSmart, Hidden in Plain Sight, INDEPTH	INDEPTH
Grainger	None Reported	None Reported
Greene	INDEPTH, Health Smart, Hidden in Plain Sight	None Reported
Grundy	None Reported	None Reported
Hamblen	HealthSmart	None Reported
Hamilton	Stanford Toolkit	None Reported
Hancock	HealthSmart, Hidden in Plain Sight, Escape the Vape	None Reported
Hardeman	CATCH My Breath	None Reported
Hardin	None Reported	None Reported

County	Prevention Programs	Cessation Programs
Hawkins	HealthSmart, Hidden in Plain Sight, Escape the Vape	None Reported
Haywood	None Reported	None Reported
Henderson	Tar Wars, CATCH My Breath, Stanford Tobacco Toolkit	None Reported
Henry	Stanford Tobacco Toolkit	None Reported
Hickman	CATCH My Breath, HealthSmart, Stanford Toolkit	None Reported
Houston	None Reported	None Reported
Humphreys	None Reported	None Reported
Jackson	HealthSmart, Stanford Toolkit	None Reported
Jefferson	INDEPTH, HealthSmart, CATCH My Breath	None Reported
Johnson	INDEPTH, CATCH My Breath, HealthSmart, Hidden in Plain Sight	None Reported
Knox	None Reported	None Reported
Lake	CATCH My Breath, You and Me Vape-Free	Healthy Futures
Lauderdale	None Reported	None Reported
Lawrence	CATCH My Breath, Stanford Toolkit, INDEPTH, Hidden in Plain Sight	INDEPTH
Lewis	CATCH My Breath, Stanford Toolkit, Escape the Vape, Hidden in Plain Sight	INDEPTH
Lincoln	CATCH My Breath, HealthSmart, Stanford Toolkit, Hidden in Plain Sight	INDEPTH
Loudon	INDEPTH, HealthSmart, CATCH My Breath	None Reported
McMinn	None Reported	None Reported
McNairy	Stanford Toolkit	Vector Solutions Education
Macon	HealthSmart, Stanford Toolkit	None Reported
Madison	Hidden In Plain Sight	None Reported
Marion	None Reported	None Reported
Marshall	CATCH My Breath, HealthSmart, INDEPTH, Hidden in Plain Sight	INDEPTH, NOT
Maury	CATCH My Breath, Stanford Toolkit	None Reported
Meigs	INDEPTH	INDEPTH, NOT
Monroe	INDEPTH, HealthSmart	None Reported
Montgomery	None Reported	None Reported
Moore	CATCH My Breath, HealthSmart, Stanford Toolkit	None Reported
Morgan	INDEPTH	NOT
Obion	CATCH My Breath	None Reported
Overton	Stanford Toolkit, HealthSmart, Hidden in Plain Sight, CATCH My Breath	INDEPTH
Perry	CATCH My Breath, HealthSmart, Stanford Toolkit	None Reported
Pickett	None Reported	None Reported
Polk	None Reported	None Reported
Putnam	HealthSmart, Stanford Toolkit	INDEPTH
Rhea	None Reported	None Reported
Roane	INDEPTH, HealthSmart, CATCH My Breath	NOT
Robertson	None Reported	None Reported

County	Prevention Programs	Cessation Programs
Rutherford	None Reported	None Reported
Scott	None Reported	None Reported
Sequatchie	None Reported	None Reported
Sevier	INDEPTH, HealthSmart, CATCH My Breath	None Reported
Shelby	Everfi	None Reported
Smith	Hidden in Plain Sight, Escape the Vape, HealthSmart, Stanford Toolkit, Life Choices Maze	INDEPTH
Stewart	None Reported	None Reported
Sullivan	CATCH My Breath	INDEPTH, NOT
Sumner	None Reported	None Reported
Tipton	None Reported	None Reported
Trousdale	None Reported	None Reported
Unicoi	INDEPTH, NOT, HealthSmart, Hidden in Plain Sight	NOT
Union	None Reported	None Reported
Van Buren	HealthSmart, Stanford Toolkit	INDEPTH
Warren	HealthSmart, Stanford Toolkit	None Reported
Washington	INDEPTH, HealthSmart, Hidden in Plain Sight, Stanford Toolkit, Escape the Vape	None Reported
Wayne	CATCH My Breath, Stanford Toolkit, INDEPTH, Hidden in Plain Sight	None Reported
Weakley	None Reported	None Reported
White	HealthSmart, Stanford Toolkit	INDEPTH
Williamson	Escape the Vape	None Reported
Wilson	Escape the Vape, Hidden in Plain Sight, INDEPTH	NOT for Me Online

Source: Tennessee Department of Health

Appendix C. Youth Vaping Prevention and Cessation Programming in Tennessee

Local health departments partner with the Tennessee Department of Education (TDOE) to provide a Coordinated School Health program to promote the well-being of students. These partnerships involve joint events, like tobacco prevention programs, to ensure positive education and health outcomes. Managed Care Organizations (MCOs) under TennCare ([BlueCare](#), [United Healthcare](#), and [Wellpoint](#)) also provide various programs to support quitting. These include outreach and education about the dangers of vaping and tobacco, as well as resources for quitting, peer-to-peer support programs and health coaching, and incentives for completing quitting programs. TennCare covers approved smoking and vaping cessation medication for its members, see list of approved products here [Preferred Drug List \(PDL\)](#). See table for a list of other available and recommended programs.

Program	Prevention/ Cessation	Summary	Reference
ATS Bridge	Prevention	A three-pronged program focused on raising awareness of the opioid epidemic and other substances like vapor products, assisting those that are seeking treatment, and encouraging them to sustain sobriety.	ATS the Bridge
CATCH My Breath	Prevention	Coordinated Approach to Child Health (CATCH) or the Catch My Breath program, funded by CVS Health, focuses on preventing youth vaping through evidence-based curriculum from grades 5 to 12.	CATCH My Breath Vaping Prevention
INDEPTH	Prevention	Intervention for Nicotine Dependence: Education, Prevention, Tobacco and Health (INDEPTH) program aims to educate teens about the dangers of tobacco and vapor product use and equip them with skills to resist peer pressure to smoke or vape throughout four, 50-minute courses.	INDEPTH: An Alternative to Suspension or Citation
Project Aspire	Cessation	Pilot program designed to address vaping addiction among students. The program adopts a tiered approach, integrating community partnerships and educational initiatives to support students struggling with vaping and related issues.	

Program	Prevention/ Cessation	Summary	Reference
Tennessee QuitLine	Cessation	A free telephone-based, texting and web-based service that provides proactive counseling in English and Spanish to help quit using tobacco and vapor products. The QuitLine serves Tennessee residents who are tobacco users in any stage of readiness to quit. The QuitLine offers information, counseling services, tailored materials, and referrals.	Tennessee Tobacco QuitLine
The Truth Initiative	Prevention and cessation	Nonprofit organization focused on tobacco control and prevention and recently vaping. This organization uses research, advocacy, and educational campaigns to decrease tobacco use among youth.	Truth Initiative: inspiring lives free from smoking, vaping, and nicotine
Not On Tobacco (NOT)	Cessation	Not on Tobacco (NOT) program is a voluntary smoking and vaping cessation program designed for youths aged 13-19. It provides a supportive environment where teens work together to quit smoking with the help of trained facilitators.	N-O-T: Not On Tobacco—Proven Teen Smoking and Vaping Cessation Program
Stanford University’s Stanford Tobacco Prevention	Prevention	Initiatives include research, community outreach programs, and educational resources aimed at reducing youth and adult tobacco and vapor product use through prevention strategies and advocacy.	Tobacco Prevention Toolkit Tobacco Prevention Toolkit Stanford Medicine
Stanford Safety First	Prevention and cessation	A harm reduction-based drug, tobacco, and vaping intervention curriculum designed to educate and support students in making informed and safer choices regarding drug and alcohol use. The curriculum includes facts about drugs including their harms and benefits, as well as activities, and safety measures in case students are already using.	Safety First Halpern-Felsher REACH Lab Stanford Medicine

Program	Prevention/ Cessation	Summary	Reference
EverFi	Prevention	A digital education platform that partners with organizations and schools to offer interactive courses on a variety of topics, including substance abuse prevention like vaping. Their tobacco education programs are designed for different age groups and cover topics like the health effects of tobacco use, addiction, and refusal skills.	Vaping: Know the truth EVERFI
Tar Wars	Prevention	An educational program developed by the American Academy of Family Physicians intended for elementary school children. The program educates students about the short-term and long-term effects of tobacco use, the manipulation tactics of the tobacco industry, and the benefits of living tobacco-free. Though content was discontinued May 31, 2024.	Tar Wars
Dover Youth 2 Youth	Prevention	A youth-led organization in Dover, New Hampshire, focused on preventing substance abuse, including tobacco and vapor products. They engage in peer education, advocacy campaigns, and community events to raise awareness and promote healthy choices among youth.	Lab Rat Campaign - Dover Y2Y
Samantha Skunk & Donnie Dinosaur	Prevention	Characters used in educational programs aimed at young children to teach them about the dangers of tobacco, drugs, and other harmful substances like vapor products. The programs typically use storytelling, games, and interactive activities to convey health messages in an age-appropriate manner.	Samantha Skunk
Tobacco Tales	Prevention and cessation	An educational program that uses personal narratives and storytelling to educate youth and communities about the harmful effects of tobacco use. It aims to increase awareness, change attitudes, and promote behavior change regarding tobacco consumption.	Tobacco Tales - Tobacco Prevention Program for Early Elementary
Escape the Vape	Prevention and cessation	A program focused on addressing the rising use of e-cigarettes among teens. It provides resources, support, and information to help teens quit vaping or prevent them from starting. The program emphasizes the health risks associated with vaping and offers strategies for cessation.	Vaping Truths – Escape the Vape

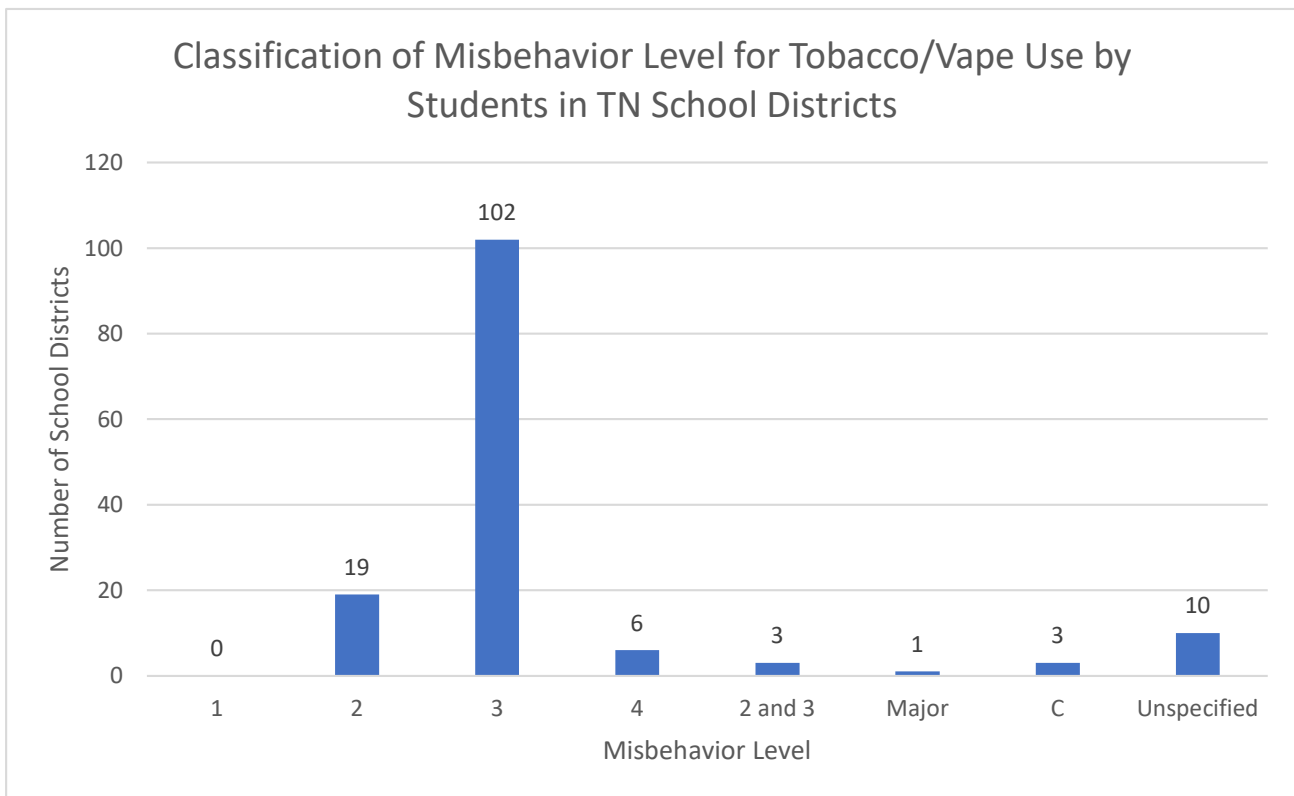
Program	Prevention/ Cessation	Summary	Reference
Hidden in Plain Sight	Prevention	An educational program for parents and caregivers to help them recognize signs of teen substance use, including tobacco and vapor products. It provides insights into current trends, hiding spots for substances, and communication strategies to address substance use with teenagers effectively.	Hidden in Plain Sight Power to the Parent
Michigan Model for Health	Prevention	A curriculum that teaches students the knowledge and skills they need to build and maintain healthy behaviors and lifestyles.	HOME Michigan Model for Health™
Tobacco Education Resource Library	Prevention	The program provides free resources for teachers, students, and parents to learn more about the dangers of vaping nicotine.	Tobacco Education Resource Library
This is Quitting	Cessation	A free-text messaging program helps teens build skills to quit vaping.	This is Quitting truth
My Life, My Quit	Cessation	A telephone and text-based program that provides coaching to students who want to quit using tobacco and vapor products.	My Life My Quit

Appendix D. Classification of Misbehavior Level for Tobacco/Vape Use by Students in TN School Districts

The Tennessee School Boards Association (TSBA) develops model policies based on federal and state laws and regulations for school districts, including tobacco and vaping prevention policies. These model policies are intended to help guide school boards and administrators in the process of adopting their own guidelines. Districts are encouraged to review and tailor these model policies to fit their needs.

TSBA policy 1.803, in response to the Environmental Tobacco Smoke/Pro-Children Act of 1994, states that each school board must adopt a policy prohibiting smoking in all indoor facilities used to provide regular or routine K-12 education services. TSBA policy 6.3, in response to Tennessee Code Annotated 49-6-4002, states that each school board must adopt a policy that prohibits the illegal use, possession, distribution, and sale of tobacco, alcohol, and other drugs by students, along with other forms of disorderly conduct.

Policy 6.3 requires each school board to develop a code of conduct that describes the behavior expected of students and the consequences students face for misbehaving. Many (102 out of 144) school districts in the state categorize the use, possession, distribution, and sale of tobacco or vapor products as a level 3 misbehavior. See table below.



Level 1: This level includes minor misbehavior on the part of the student which impedes orderly classroom guidelines or interferes with the orderly operation of the school, but which can usually be handled by an individual staff member.

Level 2: This level includes misbehavior whose frequency or seriousness tends to disrupt the learning climate of the school. These misbehaviors do not represent a direct threat to the health and safety of others but have educational consequences serious enough to require corrective action on the part of administrative personnel.

Level 3: This level includes acts directly against persons or property but whose consequences do not seriously endanger the health or safety of others in the school.

Level 4: This level of misbehavior includes acts which result in violence to another's person or property, or which pose a threat to the safety of others in the school. These acts are so serious that they usually require administrative actions which result in the immediate removal of the student from the school, the intervention of law enforcement authorities, and/or action by the Board.

*Major: This category is used by the Paris Special School District.

*C: This category is used by the Germantown Municipal School District and Memphis-Shelby County School District.

*Staff contacted these schools districts to verify the definition of these misbehavior levels but was unable to confirm their definitions.