

2023 Electronic Cigarette (E-Cigarette) Report

As Required by

Texas Health and Safety Code,

Section 161.0902

January 2023

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Executive Summary

<u>Texas Health and Safety Code, Section 161.0902</u>, requires the Department of State Health Services (DSHS) to report to the Governor, Lieutenant Governor, and Speaker of the House of Representatives on the use of electronic cigarettes (e-cigarettes) in Texas.

E-cigarettes are devices that simulate smoking by using a mechanical heating element, battery, or electronic circuit to deliver nicotine or other substances by inhalation. Tobacco companies have marketed e-cigarettes as a safer alternative to smoking and as a tool to help people quit smoking. To date, however, the U.S. Food and Drug Administration (FDA) has not approved any e-cigarette to aid in smoking cessation.¹ Since 2014, e-cigarettes have been the most commonly used tobacco product among youth in the U.S.

According to statewide survey data:

- 5.9 percent of adults in Texas report currently using e-cigarettes in 2021.²
- 11.2 percent of high school students in Texas reported using e-cigarettes in the past 30 days in 2021.³
- 5.6 percent of middle school students in Texas reported using e-cigarettes in the past 30 days in 2021.⁴

DSHS supports state and local efforts to educate youth, parents, and young adults about the potentially harmful health effects of e-cigarette use. This is accomplished

⁴ Ibid.

¹ U.S. Food and Drug Administration. (2022). E-Cigarettes, Vapes, and other Electronic Nicotine Delivery Systems (ENDS). Retrieved from <u>www.fda.gov/tobacco-products/products-ingredients-components/e-cigarettes-vapes-and-other-electronic-nicotine-delivery-systems-ends</u>.

² Texas Department of State Health Services. (2022). 2021 Texas Behavioral Risk Factor Surveillance System.

³ Texas Department of State Health Services. (2022). 2021 Texas Youth Tobacco Survey.

through engagement with tobacco prevention and control coalitions and regional coordinators; education on local ordinances; coordinating youth and young adult prevention efforts such as Say What! and Peers Against Tobacco; monitoring tobacco use rates, which includes e-cigarette use; and offering confidential and free cessation services to Texans. DSHS will continue these efforts to address e-cigarette use in Texas.

1. Introduction

<u>Texas Health and Safety Code, Section 161.0902</u> requires DSHS to report to the Governor, Lieutenant Governor, and Speaker of the House of Representatives on the use of e-cigarettes in Texas.

The report must be submitted no later than January 5 of each odd-numbered year, and at a minimum, must include the following information:

- A baseline of statistics and analysis regarding retail compliance with Texas statute.
- A baseline of statistics and analysis regarding illegal e-cigarette sales, including sales to minors, enforcement actions concerning minors, and sources of citations.
- E-cigarette controls and initiatives by DSHS, or any other state agency, including an evaluation of the effectiveness of the controls and initiatives.
- The future goals and plans of DSHS to decrease the use of e-cigarettes.
- The educational programs of DSHS and the effectiveness of those programs.
- The incidence of use of e-cigarettes by region in the state, including use of e-cigarettes by ethnicity.

This report provides data on e-cigarette use and retailer compliance, as well as the initiatives carried out by DSHS and other state agencies to prevent e-cigarette use and promote cessation.

2. Background

E-cigarettes are known by various names, including electronic nicotine delivery systems (ENDS), vapes, and vape pens. They may also be known as the product brand name (e.g., JUUL, Puff Bar). For the purposes of this report, these products are collectively referred to as e-cigarettes.

Overview

Many e-cigarettes may look like conventional cigarettes, cigars, or pipes, but others resemble pens, USB sticks, highlighters, and other non-tobacco products. E-cigarettes come in many shapes and sizes. Most have a battery, a heating element, and a place to hold a liquid. E-cigarettes produce an aerosol by heating a liquid that usually contains nicotine, flavorings, and other chemicals that help to make the aerosol.⁵ Users inhale this aerosol into their lungs. Bystanders can also breathe in this aerosol when the user exhales into the air.⁶ As the user draws on the e-cigarette, the battery heats the e-liquid to produce aerosol, which is inhaled into the lungs.

E-cigarettes were invented in 2003. Since then, conventional tobacco companies and e-cigarette companies have developed several generations of these devices.⁷

Youth Use Epidemic

Following a significant increase in youth use of e-cigarettes nationally in 2017-2018, the U.S. Surgeon General issued an advisory declaring youth use of e-

⁵ CDC: <u>https://www.cdc.gov/tobacco/basic_information/e-cigarettes/about-e-cigarettes.html</u>

⁶ CDC: <u>https://www.cdc.gov/tobacco/basic_information/e-cigarettes/about-e-cigarettes.html</u>

⁷ CASAA. (2022). Historical Timeline of Vaping & Electronic Cigarettes. Retrieved from <u>https://casaa.org/education/vaping/historical-timeline-of-electronic-cigarettes</u>.

cigarettes an epidemic in December 2018.⁸ Research found and continues to demonstrate that commonly reported reasons for e-cigarette use among youth and young adults include flavoring and taste, curiosity, and low-perceived harm.^{9, 10}

The legal age of access to tobacco products is regulated at both the state and federal levels. To combat youth tobacco use in Texas, the 86th Texas Legislature passed <u>Senate Bill 21</u>, which increased the legal age for the sale, distribution, possession, purchase, consumption, or receipt of cigarettes, e-cigarettes, or tobacco products from age 18 to 21 years old in the state. Senate Bill 21 went into effect on September 1, 2019.

Federal legislation amended the Federal Food, Drug, and Cosmetic Act in December 2019, raising the federal minimum age of sale of tobacco products, including ecigarettes, from age 18 to 21 years old. In an effort to further address the youth epidemic, in January 2020 FDA issued a policy prioritizing enforcement against certain unauthorized¹¹ flavored e-cigarette products (other than tobacco or menthol flavors) that appeal to youth.¹² This policy primarily focused on cartridge-based ecigarette products. As a result, some entirely disposable e-cigarettes (i.e., those that do not contain a pod cartridge or refillable tank) became popular among youth. However, in July 2020, FDA notified e-cigarette companies to remove their flavored

⁸ Centers for Disease Control and Prevention. (2018). Surgeon General's Advisory on Ecigarette Use Among Youth. Retrieved from <u>www.cdc.gov/tobacco/basic information/e-</u> <u>cigarettes/surgeon-general-advisory/index.html</u>.

⁹ U.S. Department of Health and Human Services. (2016). E-Cigarette Use Among Youth and Young Adults: A Report of the Surgeon General.

¹⁰ Gentzke, A.S., Wang, T.W., Cornelius, M., et al. (2022). Tobacco Product Use and Associated Factors Among Middle and High School Students — National Youth Tobacco Survey, United States, 2021. MMWR. DOI: <u>http://dx.doi.org/10.15585/mmwr.ss7105a1</u>.

¹¹ On August 8, 2016, all e-cigarette products became subject to FDA regulatory authority, including the premarket authorization requirements in the Federal Food, Drug, and Cosmetic Act. All e-cigarette products on the market at that time needed to have authorization from the FDA to be legally marketed. However, at its discretion, FDA had deferred enforcement of the premarket authorization requirements. To date, only a few of these products have been <u>authorized</u> by the FDA.

¹² U.S. Food and Drug Administration. (2020). FDA finalizes enforcement policy on unauthorized flavored cartridge-based e-cigarettes that appeal to children, including fruit and mint. <u>www.fda.gov/news-events/press-announcements/fda-finalizes-enforcement-policy-unauthorized-flavored-cartridge-based-e-cigarettes-appeal-children</u>.

disposable e-cigarettes and youth-appealing e-liquid products from the market for not having the required premarket authorization.¹³

The Centers for Disease Control and Prevention (CDC) Foundation reported that, from February 23, 2020, to February 20, 2022, sales of flavored disposable ecigarettes increased by 215.4 percent, from 2.8 million units to 8.8 million units.¹⁴ Additionally, the 2020 National Youth Tobacco Survey reported that among current e-cigarette users in middle and high school, 89.9 percent used flavored ecigarettes.¹⁵

In 2021, the 87th Texas Legislature passed <u>Senate Bill 248</u>, which requires ecigarette retailers to obtain an e-cigarette retailer permit. The bill became effective September 1, 2021. As of January 1, 2022, e-cigarette retailers are required to obtain an e-cigarette retailer permit through the Texas Comptroller of Public Accounts (CPA) before selling e-cigarettes in Texas.

In March 2022, federal legislation passed clarifying the FDA's authority to regulate tobacco products, including e-cigarettes, that contain nicotine from any source, including synthetic nicotine. The law went into effect in April 2022.¹⁶

Health Effects

Tobacco companies have marketed e-cigarettes as a safer alternative to smoking and as a tool to help people quit smoking. However, the U.S. Preventive Services Task Force, a group of experts that makes recommendations on preventive health

¹³ U.S. Food and Drug Administration. (2020). FDA Notifies Companies, Including Puff Bar, to Remove Flavored Disposable E-Cigarettes and Youth-Appealing E-Liquids from Market for Not Having Required Authorization. <u>www.fda.gov/news-events/press-announcements/fda-notifies-companies-including-puff-bar-remove-flavored-disposable-e-cigarettes-and-youth</u>.

¹⁴ CDC Foundation. (2022). Monitoring U.S. E-Cigarette Sales: National Trends. Data Brief. Issue 18. Retrieved from <u>www.cdcfoundation.org/National-E-CigaretteSales-DataBrief-2022-Feb20?inline</u>.

¹⁵ Wang TW, Neff LJ, Park-Lee E, Ren C, Cullen KA, King BA. (2020). E-cigarette Use Among Middle and High School Students — United States, 2020. MMWR. DOI: <u>http://dx.doi.org/10.15585/mmwr.mm6937e1</u>.

¹⁶ U.S. Food and Drug Administration. (2022). Requirements for Products Made with Non-Tobacco Nicotine Take Effect April 14. <u>www.fda.gov/tobacco-products/ctp-</u> <u>newsroom/requirements-products-made-non-tobacco-nicotine-take-effect-april-14</u>.

care, has concluded that there is insufficient evidence to recommend e-cigarettes for smoking cessation in adults.¹⁷ Although e-cigarettes may help some adult smokers quit, others may transfer their nicotine addiction from conventional cigarettes to e-cigarettes.¹⁸ To date, FDA has not approved any e-cigarette to aid in smoking cessation or authorized any companies to make a modified risk claim.^{19, 20}

Research on the long-term health and safety consequences of e-cigarette use is still unclear. However, most e-cigarettes contain nicotine, volatile organic chemicals, heavy metals, and carcinogens, all of which can have negative effects on health. The U.S. Surgeon General reports that 99 percent of e-cigarettes contain nicotine, the same addictive chemical found in conventional tobacco products. Aside from addiction, long-term nicotine exposure can lead to increased blood pressure, heart rate, and problems associated with diabetes. E-liquids can have toxic effects, especially to children, and can cause nicotine poisoning if consumed or absorbed through the skin. Additionally, the adolescent brain is not fully developed until about age 25 years old. Nicotine exposure during adolescence can harm the developing brain and cause addiction.²¹

https://tobaccoinduceddiseases.biomedcentral.com/articles/10.1186/1617-9625-12-21.

¹⁷ U.S. Preventive Services Task Force. (2021). Interventions for Tobacco Smoking Cessation in Adults, Including Pregnant Persons: US Preventive Services Task Force Recommendation Statement. JAMA. 325(3):265–279. DOI: https://doi.org/10.1001/jama.2020.25019.

¹⁸ Rahman, M.A., Nicholas, H., Wilson, A., Worrall-Carter, L. (2014). Electronic cigarettes: patterns of use, health effects, use in smoking cessation, and regulatory issues. Tobacco Induced Diseases, 12(21).

¹⁹ U.S. Food and Drug Administration. (2022). E-Cigarettes, Vapes, and other Electronic Nicotine Delivery Systems (ENDS). Retrieved from <u>www.fda.gov/tobacco-products/products-ingredients-components/e-cigarettes-vapes-and-other-electronic-nicotine-delivery-systems-ends</u>.

²⁰ A modified risk claim refers to a <u>modified risk tobacco product</u>. Per Section 911 of the Federal Food, Drug, and Cosmetic Act, the term "modified risk tobacco product" means any tobacco product that is sold or distributed for use to reduce harm or the risk of tobacco-related disease associated with commercially marketed tobacco products.

²¹ Centers for Disease Control and Prevention. (2018). Surgeon General's Advisory on Ecigarette Use Among Youth. Retrieved from <u>www.cdc.gov/tobacco/basic information/e-</u> <u>cigarettes/surgeon-general-advisory/index.html</u>.

3. Regulating Tobacco Access in Texas

Texas Health and Safety Code, Chapter 161, Subchapters H and R, pertain to the regulation of tobacco access and distribution in Texas. <u>Subchapter H</u> contains provisions related to the legal age of tobacco access, verifying identification, retail warning notices and training, tobacco vending machines, the distribution of free tobacco products, and e-liquid packaging. <u>Subchapter R</u> relates to delivery sales of tobacco products. The Texas Comptroller of Public Accounts (CPA) enforces these provisions. Statute allows the CPA to work with law enforcement to enforce legal age of access law through unannounced inspections using underage decoys.

The <u>CPA's Tobacco Enforcement Program (TEP) website</u> contains more information about the tobacco regulations they enforce.

Enforcement of State Legal Age of Sale Law

Prior to fiscal year 2022, both DSHS and the Health and Human Services Commission (HHSC) funded state tobacco enforcement efforts. At the end of fiscal year 2021, DSHS stopped funding enforcement efforts due to lack of funding. However, HHSC continued tobacco enforcement activities through its TEP.

The HHSC TEP oversees the majority of retailer compliance and efforts to reduce youth access to cigarettes, e-cigarettes, and other tobacco products. The CPA TEP performs some retailer compliance efforts on a limited basis through its Criminal Investigation Division (CID). The CID conducts inspections based on anonymous, public submissions to the <u>CPA's E-Cigarette and Tobacco Hotline</u>.

The HHSC TEP contracts with the Texas School Safety Center (TxSSC) at Texas State University to conduct tobacco enforcement activities to reduce access and availability to minors. On behalf of HHSC, TxSSC solicits applications from local law enforcement agencies to conduct controlled buys/stings and follow-up-controlled buys/stings of tobacco-permitted and e-cigarette retail outlets statewide.

Controlled buys/stings involve local law enforcement agencies recruiting persons who are younger than the legal tobacco sale age (underage purchasers) to attempt to buy conventional tobacco products or e-cigarettes. If a retailer makes a sale to an underage purchaser during these controlled buys/stings, local law enforcement issues a citation. TxSSC sends a monthly report of these citations to the CPA. From May 1, 2021, to August 31, 2022, TxSSC, with funding from HHSC TEP, contracted with 45 law enforcement agencies. These agencies conducted 13,870 controlled buys/stings with a total of 804 violations. The overall violation rate was 5.8 percent. Out of those totals, there were 6,219 e-cigarette buys and stings and 408 e-cigarette violations. The e-cigarette violation rate was 6.6 percent.

4. Prevalence of E-Cigarette Use in Texas

DSHS uses multiple data sources to monitor tobacco use trends, including use of ecigarettes, among youth and adults.

Youth Use of E-Cigarettes

Nationally, in 2021, the Centers for Disease Control and Prevention (CDC) estimated that 11.3 percent of high school students and 2.8 percent of middle school students had used e-cigarette products in the past month.²²

The 2021 Texas Youth Tobacco Survey (YTS) provides the latest figures on the prevalence of e-cigarette use among youths in Texas. Additional data are available in <u>Appendix A</u>.

According to the 2021 Texas YTS:²³

- 16 percent of middle and high school students reported having used or tried e-cigarettes in 2021, a statistically significant reduction from 2020 (21.1 percent) and 2018 (22.8 percent). By school level in 2021, 21 percent of high school students and 10.2 percent of middle school students reported ever using e-cigarettes.^{24, 25}
- 19.6 percent of white students reported ever using e-cigarettes, compared to 14.7 percent of Hispanic students, 11.8 percent of black students, and 17 percent of students reporting other race/ethnicity.

²² Gentzke AS, Wang TW, Cornelius M, et al. (2022). Tobacco Product Use and Associated Factors Among Middle and High School Students — National Youth Tobacco Survey, United States, 2021. MMWR. DOI: <u>http://dx.doi.org/10.15585/mmwr.ss7105a1</u>.

²³ Texas A&M University. (2022). 2021 Texas Youth Tobacco Survey.

²⁴ Texas A&M University. (2021). 2020 Texas Youth Tobacco Survey.

²⁵ Texas A&M University. (2019). 2018 Texas Youth Tobacco Survey.

- 8.6 percent of middle and high school students reported using e-cigarettes in the past month. By school level, 5.6 percent of middle school students and 11.2 percent of high school students reported using e-cigarettes in the past month, which is also less than 2020 (7.1 percent and 14.3 percent, respectively).
- 7.8 percent of males and 9.2 percent of female students reported use of ecigarettes in the past month.
- 10.5 percent of white students reported using e-cigarettes in the past month, compared to 8.1 percent of Hispanic students, 6.1 percent of black students, and 8.2 percent of students reporting other race/ethnicity.
- The prevalence of having ever used conventional cigarettes was 16.3 percent among high school and 9.4 percent among middle school students.
- The past month use of conventional cigarettes among high school and middle school students was 3.7 percent and 2.5 percent, respectively.

Adult Use of E-Cigarettes

The 2021 Texas Behavioral Risk Factor Surveillance System (BRFSS)²⁶ survey provides the latest figures on the prevalence of e-cigarette use among adults in Texas. <u>Appendix A</u> references additional survey details.

According to the 2021 Texas BRFSS:²⁷

²⁶ The Texas Behavioral Risk Factor Surveillance System (BRFSS), initiated in 1987, is a federally supported landline and cellular telephone survey that collects data about Texas residents regarding their health-related risk behaviors, chronic health conditions, and use of preventive services. Texas BRFSS is an important tool for decision-making throughout DSHS and the public health community. Public and private health officials at the federal, state, and local levels rely on the BRFSS to identify public health problems, set priorities and goals, design policies and interventions, as well as evaluate the long-term impact of these efforts.

²⁷ Texas Department of State Health Services. (2022). 2021 Texas Behavioral Risk Factor Surveillance System.

- 36.2 percent of adults had used or tried an e-cigarette product, compared to 21.7 percent in 2020.²⁸
- 40.5 percent of white adults reported ever using or trying e-cigarette products, compared to 36 percent of black adults, 31.2 percent of Hispanic adults, and 36.1 percent of respondents identifying as other/multiracial adults.
- Over half (57.3 percent) of adults ages 18-29 reported ever using ecigarettes. This is the highest prevalence among all age groups.
- 5.9 percent of adults reported currently using an e-cigarette product, which is a 25.5 percent increase compared to 2020 (4.7 percent).
- 7.0 percent of males reported current e-cigarette use, compared to 4.9 percent of females.
- 6.5 percent of white adults reported currently using e-cigarette products, compared to 3.5 percent of black adults, 6.4 percent of Hispanic adults, and 5.1 percent of respondents identifying as other/multiracial adults.
- Current cigarette smokers were most likely to report concurrently using ecigarette products (13.8 percent). Among former smokers, 10.6 percent reported currently using e-cigarettes.
- Among those who never smoked conventional cigarettes, 27.8 percent reported having tried e-cigarettes and 2.9 percent reported currently using e-cigarettes.

E-Cigarette Use Among Conventional Tobacco Users

DSHS used the 2021 Texas BRFSS survey results to better understand the dual use of e-cigarettes and conventional cigarettes.

According to the 2021 Texas BRFSS²⁹:

²⁸ Texas Department of State Health Services. (2021). 2020 Texas Behavioral Risk Factor Surveillance System.

²⁹ Texas Department of State Health Services. (2022). 2021 Texas Behavioral Risk Factor Surveillance System.

- 64.9 percent of current smokers reported having used or tried an e-cigarette product.
- The prevalence of current e-cigarette use was higher among current smokers (13.8 percent) than former smokers (10.6 percent).
- Current smokers were more likely to report having used or currently using ecigarettes than former smokers or people who have never smoked conventional cigarettes.

5. E-Cigarette Controls and Initiatives

DSHS follows the <u>Centers for Disease Control and Prevention's (CDC) Best Practices</u> for <u>Comprehensive Tobacco Control Programs</u>, which treats e-cigarettes the same way as conventional tobacco products in its tobacco control efforts. DSHS also includes e-cigarette education and prevention in existing outreach efforts.

Current Initiatives

Tobacco Prevention and Control Coalitions

In 2018, DSHS awarded funds to three organizations to organize and operate comprehensive community coalitions in six counties for five years, from September 1, 2018, to August 31, 2023. Comprehensive community coalitions follow the CDC's Best Practices for Comprehensive Tobacco Control Programs and the <u>Substance</u> <u>Abuse Mental Health Services Administration's Strategic Prevention Framework</u> to create the following six goals:

- Prevent tobacco use among young people.
- Promote compliance and support adequate enforcement of federal, state, and local tobacco laws.
- Increase cessation among young people and adults.
- Eliminate exposure to secondhand smoke.
- Reduce tobacco use among populations with the burden of tobacco-related health disparities.
- Support the development of statewide capacity.

The coalitions have adapted their outreach to integrate e-cigarette education into various platforms and tailor their strategy based on the audience. The total impact of the coalitions' outreach efforts is outlined in <u>Appendix B</u>, Table 1 and Figures 1-4. In fiscal year 2019, the coalitions adopted the <u>Stanford Prevention Toolkit</u> curriculum. This curriculum focuses on both conventional and emerging tobacco products, including e-cigarettes.

Tobacco Prevention and Control Regional Coordinators

DSHS has eight tobacco prevention and control regional coordinators, covering all DSHS Public Health Regions (PHRs), who work to promote the Texas Tobacco Prevention and Control Program efforts in areas without a local health department. Regional coordinators serve as subject matter experts and provide education on ecigarettes to PHR staff, including nurses and community health workers, and to staff at local health departments. They also provide education to multiple community-based stakeholder organizations, including school districts, School Health Advisory Councils, worksites, youth organizations, healthcare organizations, community-based coalitions, and law enforcement.

Local Policies and Environmental Strategies

DSHS contracts with the University of Houston to maintain the <u>Texas Smokefree</u> <u>Ordinance Database website</u>. This website tracks and details all known Texas municipal ordinances enacted to reduce or eliminate exposure to secondhand smoke, including whether an ordinance includes e-cigarettes in its definition of smoking. Local communities may create reports from the database when reviewing local ordinances.

The University of Houston examines five focal settings that local ordinances may cover: municipal worksites, private worksites, restaurants, bars in restaurants, and bars not in restaurants. For each focal setting, a rating and a descriptor are assigned to indicate the extent to which the ordinance helps to protect from secondhand smoke exposure. The ratings are as follows:

Rating	Descriptor	Criteria
5	100% Smokefree	No smoking allowed in a particular setting.
4	Moderate	Designated smoking areas are allowed if separately ventilated. The owner or manager may choose to be smokefree or designate separately or independently ventilated smoking areas.
3	Mixed	Either no smoking is allowed OR designated smoking areas are allowed if separately or independently ventilated, but coverage is partial due to exceptions, ambiguities, or legal issues.

Rating	Descriptor	Criteria
2	Limited	Designated smoking areas allowed or required.
1	No Coverage	No restrictions on smoking in the stated setting, even if a secondhand smoke ordinance exists.

Of the 1,220 municipalities in Texas, 99 have 100 percent smokefree ordinances as evaluated by the University of Houston.³⁰ As of August 31, 2022:

- 60 percent of the Texas municipal population is protected by 100 percent smokefree ordinances in all five focal settings.
- 69 percent of the Texas municipal population is protected by 100 percent smokefree ordinances in three or more focal settings.

The DSHS-funded community coalitions have educated their local communities about comprehensive local ordinances.

Texas Tobacco Quitline

The Texas Tobacco Quitline (TTQL) provides confidential, free, and convenient cessation services to Texans to help them quit all tobacco products. The TTQL offers up to five counseling sessions (Quit Coaching) to Texans ages 13 and older as well as two weeks of free nicotine replacement therapy to participants ages 18 and older. Counseling sessions are also available in several languages. Texans can call the TTQL at 1-877-YES-QUIT (1-877-937-7848) or quit online using the web-based program at <u>YesQuit.org</u>.³¹

Live Vape Free Program

As an extension of the TTQL, the Live Vape Free Program is available to help teens and adults learn about the harms of vaping, hear from their peers, and have a place to take action once they are ready to quit. There are two core components to the Live Vape Free Program: Live Vape Free Teen and Live Vape Free Adult.

³⁰ University of Houston Law Center Health Law & Policy Institute. (2022). Texas Smoke-Free Ordinance Database. Retrieved from <u>http://shsordinances.uh.edu</u>.

³¹ Nicotine replacement therapy is not available for those who elect to quit online using the web-based program.

Live Vape Free Teen is an interactive texting program that helps teens ages 13-17 years old build motivation, a quit plan, and a strategy to stay quit. Teens can get started by texting VAPEFREE to 873373.

Live Vape Free Adult offers self-paced online content that prepares concerned adults to kickstart the conversation with teens about vaping, including video, interactive activities, and a toolkit that supports initiating and ongoing discussion with teens. Adults can sign up for or learn more about the Live Vape Free Program at <u>RallyHealth.com/Live-Vape-Free</u>.

Texas Tobacco Prevention and Control Youth Movement – Say What!

DSHS funds the Texas School Safety Center at Texas State University to lead the Texas tobacco prevention and control youth movement, Say What! (Students, Adults, and Youth Working Hard Against Tobacco). Established in 2011, Say What! currently has 219 active school and community groups across the state and has several initiatives that include e-cigarette education and awareness. Say What! also works with a Youth Advisory Board (Teen Ambassadors) made up of 10-15 high school and college students from across Texas. Teen Ambassadors provide guidance to the statewide Say What! program and educate peers, adults, and stakeholders on the harmful effects of tobacco and e-cigarette use.

Additionally, Say What! offers several free resources to assist registered groups in their local tobacco and e-cigarette prevention efforts. These resources include kits which consist of educational materials that connect tobacco and e-cigarette prevention messages with the overall statewide prevention messaging.

- In fiscal year 2021, Say What! awarded a total of 210 kits to local Say What! member groups across Texas. 159 groups provided feedback on the kits. These groups impacted a total of 48,914 Texans (36,311 youth and 12,603 adults).
- In fiscal year 2022, Say What! awarded a total of 253 kits to local Say What! member groups across Texas. 196 groups provided feedback on the kits. These groups impacted a total of 105,549 Texans (90,377 youth and 15,172 adults).

Say What! participants and groups receive support through regional, statewide, and online trainings. Regional Action Summits focus on training youth to create change by improving health and well-being while gaining experience and skills to become

leaders in their communities. Summit participants receive prevention training to guide youth and adult partners in increasing awareness and addressing e-cigarette use within community and social settings, including schools. <u>Appendix C</u>, Table 2 outlines total training participants per year.

The annual statewide Say What! conference focuses on advancing the work of community and school-based youth groups around tobacco and e-cigarette prevention. Educational workshops emphasize educating participants about the emerging body of research on e-cigarettes. The 2022 annual summer conference occurred in person and primarily focused on e-cigarette prevention. <u>Appendix C</u>, Table 3 outlines total participants per year.

Say What! provided one online training module on the <u>Say What! website</u>. Say What! also conducts social media outreach. <u>Appendix C</u>, Figure 1 and Table 1 contains examples of their social media efforts as well as data on reach.

Texas Tobacco Prevention and Control College Initiative - Peers Against Tobacco

Peers Against Tobacco (PAT) is a tobacco prevention and control program for colleges and universities in Texas. The program is also referred to as the College Initiative. The program is funded by DSHS and is coordinated by The University of Texas at Austin (UT Austin) Tobacco Research and Evaluation Team. PAT aims to reduce the use and initiation of all tobacco, combustible, and alternative tobacco products, including e-cigarettes, among college and university students ages 18-25 years old in Texas. The program works to achieve this by raising awareness about the potential dangers of e-cigarettes, correcting misperceptions, and improving upon current tobacco free campus policies.

During the 2020-2021 school year, 17 postsecondary institutions (19 campuses; two institutions have two participating campuses each) participated in PAT implementation. During the 2021-2022 school year, 19 postsecondary institutions (27 campuses; two institutions each have two participating campuses and one institution has 7 participating campuses) participated in PAT implementation.

The program implements a media campaign to bring awareness to the dangers of e-cigarettes and other emerging tobacco products. <u>Appendix D, Figure 1</u> provides an example of this outreach. Additionally, PAT administers a college survey every year to participating schools to assess students' knowledge, attitudes, and behaviors related to commercial tobacco products and alternative tobacco products,

including e-cigarettes. The survey was sent to 17 postsecondary institutions in 2021, and 19 postsecondary institutions in 2022. See <u>Appendix D</u> for more information about the college survey.

The <u>Texas College Tobacco Policy Database</u>, maintained by UT Austin, lists the campus tobacco policies of postsecondary institutions in Texas and rates each policy based on level of comprehensiveness. Specifically, each institution's policy is broken down into several smaller components, including if it references conventional cigarettes, smokeless tobacco, and e-cigarettes, and if advertising and sales were comprehensively addressed (i.e., prohibited on campus completely). The database also assesses whether policies prohibit e-cigarettes in all indoor areas of any campus building, on all campus outdoor grounds, and in campus-owned vehicles.

Future Goals and Plans

DSHS will continue to address e-cigarettes as part of its comprehensive tobacco prevention and control efforts. This includes continuing to:

- Monitor tobacco use prevalence to recognize emerging tobacco products, including e-cigarettes.
- Implement initiatives focused on youth and young adults, such as Say What! and PAT, to reduce the initiation of all tobacco products in Texas.
- Share information and resources from the statewide Vapes Down media campaign on the <u>DSHS vaping website</u>.
- Engage trusted adults who are influential among youth and young adults on evidence-based strategies to prevent youth use of emerging tobacco products, including e-cigarettes, through tobacco prevention and control coalitions and regional coordinators.
- Provide confidential, free, and convenient cessation services to Texans ages 13 years and older through the TTQL and the Live Vape Free Program.
- Track and detail all known Texas municipal ordinances enacted to reduce or eliminate exposure to secondhand smoke.

• Implement evidence-based paid and earned mass-reach health communication interventions through Say What!, PAT, and tobacco prevention and control coalitions.

6. Conclusion

Research on the long-term health effects of e-cigarette use is still unclear. However, e-cigarettes can contain nicotine, heavy metals, and carcinogens. Increases in e-cigarette use among youth have resulted in many national, state, and local public health agencies implementing policies and programs to prevent youth initiation and use as well as encourage cessation.

DSHS supports state and local efforts to educate youth, parents, and young adults about the potentially harmful health effects of e-cigarette use. This is accomplished through engagement with tobacco prevention and control coalitions and regional coordinators; education on local ordinances; coordinating youth and young adult prevention efforts such as Say What! and Peers Against Tobacco; monitoring tobacco use rates, which includes e-cigarette use; and offering confidential and free cessation services to Texans.

DSHS will continue to address e-cigarette use as a part of its comprehensive tobacco prevention and control efforts.

List of Acronyms

Acronym	Full Name		
BRFSS	Behavioral Risk Factor Surveillance System		
CDC	Centers for Disease Control and Prevention		
CI	Confidence Interval		
CID	Criminal Investigative Division		
СРА	Texas Comptroller of Public Accounts		
DSHS	Department of State Health Services		
E-cigarette	Electronic Cigarette		
FDA	U.S. Food and Drug Administration		
HHSC	Health and Human Services Commission		
ΡΑΤ	Peers Against Tobacco		
PHR	Public Health Region		
Say What!	Students, Adults, and Youth Working Hard Against Tobacco!		
TEP	Tobacco Enforcement Program		
ТНС	Tetrahydrocannabinol		
TTQL	Texas Tobacco Quitline		

Acronym	Full Name
TYSSC	Towas School Safety Contor
TxSSC	Texas School Safety Center
	University of Toylog at Austin
UT Austin	University of Texas at Austin
VTC	Vouth Tohacco Survey
YTS	Youth Tobacco Survey

Appendix A. Youth and Adult E-Cigarette Prevalence Rates

Table 1. Percentage of Youth, Grades 6 to 12, who Report Ever and Past Month Useof E-Cigarette Products, by Demographic Characteristics, Texas, 2021.

Demographics	Percent of Ever E- Cigarette Use ¹	Percent of Past Month E-Cigarette Use ²
All Youth (Grades 6-12)	16.0	8.6
Sex		
Male	14.6	7.8
Female	17.2	9.2
Race/Ethnicity		
White	19.6	10.5
Hispanic	14.7	8.1
Black	11.8	6.1
Other	17.0	8.2
School Level		
Middle School	10.2	5.6
High School	21.0	11.2
Grade		
Grade 6	6.3	3.5
Grade 7	9.1	4.9
Grade 8	15.1	8.3
Grade 9	16.4	9.5
Grade 10	20.7	10.7
Grade 11	24.0	12.6
Grade 12	24.0	12.4

Data Source: Texas A&M University, 2021 Texas Youth Tobacco Survey.

¹ Students reporting ever having used or tried an e-cigarette.

² Students reporting use of an e-cigarette in the past 30 days.



Graph 1: Trends in Youth E-Cigarette Use, Texas, 2014-2021

Data Source: Texas A&M University, 2014-2021 Texas Youth Tobacco Survey.

	Ever E-Cigarette Use ¹			Current E-Cigarette Use ²		
Demographics	Estimated No. of Adults	Percent	95% CI	Estimated No. of Adults	Percent	95% CI ³
All Adults	7,513,178	36.2	34.5 - 37.9	1,225,228	5.9	5.0 - 6.9
Sex						
Male	4,164,313	41.0	38.6 - 43.5	708,135	7.0	5.8 - 8.4
Female	3,348,864	31.6	29.2 - 34.1	282,614	4.9	3.7 - 6.5
Age Group (years)						
18 to 29	2,497,117	57.3	52.8 - 61.6	645,631	14.8	11.6 - 18.7
30 to 44	2,510,769	43.2	39.8 - 46.6	396,598	6.8	5.4 - 8.6
45 to 64	1,802,367	28.3	25.6 -31.1	152,682	2.4	1.7 - 3.3
65 and older	613,976	15.9	13.2 - 18.9	24,756	0.6	0.4 - 1.1
Race Ethnicity						
White	3,561,855	40.5	38.3 - 42.8	568,771	6.5	5.3 - 7.9

Table 2. Percentage Number and Percentage of Adults Who Report Ever and Current E-Cigarette Use,by Demographics, Texas 2021.

¹ Respondents who answered "yes" to the question, "Have you ever used or tried an e-cigarette, vape pen, or e-hookah?"

² Ever e-cigarette users who answered "every day" or "some days" to the question "Do you currently use this/these products every day, some days, or not at all?"

³ CI: (Confidence Interval) Statistical significance is based upon evaluation of overlap among the 95 percent confidence intervals, which are defined as a range of values where there is a specified probability that the value of a parameter lies within it.

	Ever	E-Cigarette	Use ¹	Curre	nt E-Cigaret	te Use²
Black	863,364	36.0	30.6 - 41.8	83,849	3.5	2.0 - 6.0
Hispanic	2,384,171	31.2	28.2 - 34.5	480,617	6.3	4.7 - 8.4
Other/ Multiracial	514,124	36.1	29.2 - 43.6	73,092	5.1	3.0 - 8.8

Table 3. Number and Percentage of Adults Who Report Ever and Current E-cigarette Use, by Place of Residence,Texas, 2021.

	Ever	Ever E-Cigarette Use		Current E-Cigarette Use		
	Estimated No. of Adults	Percent	95% CI	Estimated No. of Adults	Percent	95% CI
All Adults	7,513,178	36.2	34.5 - 37.9	1,225,228	5.9	5.0 - 6.9
Public Health Region (PHR)						
1	388,220	50.5	41.4 - 59.4	50,301	6.5	3.6 - 11.6
2	151,704	35.1	25.6 - 46.0	26,920	6.2	2.3 - 16.0
3	1,790,099	33.1	30.3 - 35.9	336,485	6.2	4.8 - 8.1
4	303,652	41.4	33.0 - 50.3	67,004	9.1	4.7 - 17.1
5	181,668	31.7	25.1 - 39.1	32,093	5.6	3.2 - 9.6
6	2,233,238	45.7	40.8 - 50.7	237,290	4.9	3.1 7.6
7	832,032	33.1	30.2 - 36.2	153,440	6.1	4.8 - 7.8
8	701,729	35.1	30.4 - 40.2	112,256	5.6	3.6 - 8.6
9	207,898	45.9	34.1 - 58.2	4,213	0.9	0.3 - 2.7
10	223,155	39.6	33.6 - 45.9	34,209	6.1	3.5 - 10.5

11 296,719 21.8 18.7 - 25.2 65,959 4.8 3.5 - 6.7	11	296,719	21.8	18.7 - 25.2	65,959	4.8	3.5 - 6.7
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Table 4. Number and Percentage of Adults Who Report Ever and Current E-Cigarette Use, by SmokerStatus, Texas, 2021.

	Ever E-Cigarette	Use ¹		Current E-Cigarette Use ²			
Smoker Status	Estimated No. of Adults	Percent	95 % CI	Estimated No. of Adults	Percent	95 % CI ³	
All Adults	7,513,178	36.2	34.5 - 37.9	1,225,228	5.9	5.0 - 6.9	
Smoker Status							
Current Smoker	1,756,664	64.9	60.2 - 69.4	374,643	13.8	10.9 - 17.4	
Former Smoker	1,859,646	44.9	41.2 - 48.7	439,915	10.6	7.9 - 14.1	
Never Smoker	3,829,789	27.8	25.8 - 29.9	395,482	2.9	2.2 - 3.8	

¹ Respondents who answered "yes" to the question, "Have you ever used or tried an e-cigarette, vape pen, or e-hookah?"

² Ever e-cigarette users who answered "every day" or "some days" to the question "Do you currently use this/these products every day, some days, or not at all?"

³ CI: (Confidence Interval) Statistical significance is based upon evaluation of overlap among the 95 percent confidence intervals, which are defined as a range of values where there is a specified probability that the value of a parameter lies within it.



Graph 2: Percentage of Adults Who Report Ever E-Cigarette Use, by Demographics, Place of Residence, and Smoker Status, Texas, 2021



Graph 3: Trends in Adult E-Cigarette Use, Texas, 2016-2021

Appendix B. Tobacco Prevention and Control Coalitions

Table 1: Coalition E-Cigarette Outreach Impact, September 1, 2020, to August 31,2021

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Outreach Activities	Totals
Goal 1: Prevention	
Number of e-cigarette educational materials disseminated to the public	3,032
Number of in-person e-cigarette presentations conducted for youth	132
Number of youths attending e-cigarette presentations	11,436
Number of in-person e-cigarette presentations conducted for adults	139
Number of adults attending e-cigarette presentations	434
Number of unique media messages have been created for the public	46
Goal 2: Enforcement and Compliance ¹	
Number of total controlled buys conducted (any tobacco product purchase attempted)	738
Number of controlled buys conducted (e-cigarette purchase attempted)	501
Goal 3: Increase Cessation	
Number of worksite consultations conducted that included information about e-cigarettes	42
Number of healthcare consultations conducted that included information about e-cigarettes	15
Goal 4: Secondhand Smoke	
Number of communities educated about including e- cigarettes in their smokefree policies	18

¹ DSHS does not fund enforcement and compliance activities. Some tobacco prevention and control coalitions are contracted by the Texas School Safety Center, with funding from Health and Human Services Commission's Texas Tobacco Enforcement Program, to conduct controlled buys.

Appendix C. Say What!

Table 1: Say What! E-Cigarette Social Media Total Impact Results¹ by Fiscal Year

Platform	Fiscal Year 2021 Total Impact	Fiscal Year 2022 Total Impact
Instagram	8,171	6,070
Facebook	5,342	2,777
Twitter	10,190	8,090
TikTok	1,860	211

Table 2: Say What! Action Summit Metrics by Year

Description	September 1, 2020 – August 31, 2021 ²	September 1, 2021 – August 31, 2022
Number of summits conducted	5	5
Number of youths attending the summits	77	341
Number of adults attending the summits	102	134
Total number of summit participants	179	475

Table 3: Texas Tobacco Free Conference Metrics by Year

Conference	2021 Virtual Conference	2022 Live Conference
Metric	(July 26-28, 2021)	(July 26-29, 2022)
Number of Youth Groups	28	23

¹ Total impact results combine metrics for reach, impressions, interactions, and views.

 $^{^{\}rm 2}$ Fiscal year 2021 Action Summits were held via Zoom and data indicates participants at live broadcasts.

Conference Metric	2021 Virtual Conference (July 26-28, 2021)	2022 Live Conference (July 26-29, 2022)
Number of Youth Participants	260	170
Number of Adult Participants	171	95
Total number of Participants	431	265

Appendix D. Peers Against Tobacco

College Survey

The University of Texas at Austin (UT Austin) administers a college survey every year to participating schools to assess students' knowledge, attitudes, and behaviors related to tobacco products and alternative tobacco products, including ecigarettes. The survey was sent to 17 colleges in Spring 2021 and 19 colleges in Spring 2022. In academic year 2020-2021, a total of 17,600 complete responses from students ages 18-29 years were received. Participants were predominately female (63.2 percent), white (64.7 percent), and first year undergraduates (28.1 percent). In academic year 2021-2022, a total of 17,388 complete responses from students ages 18-29 were received. Participants were predominately female (57.3 percent), white (58 percent), and first year undergraduates (27.9 percent).

In the 2020-2021 academic year:

- 43 percent of students reported ever having used e-cigarettes.
- For current use (in the last 30 days), the most prevalent products used by respondents were e-cigarettes (39.9 percent), conventional cigarettes (27.2 percent), smokeless tobacco (24.3 percent), cigars (20.3 percent), and hookah (6.9 percent).

In the 2021-2022 academic year:

- 42.9 percent of students reported ever having used e-cigarettes.
- For current use (in the last 30 days), the most prevalent products used by respondents were e-cigarettes (19.1 percent), conventional cigarettes (7.9 percent), cigars (4.8 percent), hookah (2.2 percent) and smokeless tobacco (2.0 percent).

Platform	Impressions ¹	Reach ²	
Instagram	1,700,000	483,000	
Facebook	624,000	185,000	
Totals	2,324,000	668,000	

Table 1: Peers Against Tobacco Social Media Campaign Results, Fiscal Year 2021

Table 2: Peers Against Tobacco Social Media Campaign Results, Fiscal Year 2022

Platform	Impressions	Reach
Instagram	2,100,000	782,000
Facebook	751,000	292,000
Totals	2,851,000	1,074,000

¹ The number of times visuals and social media posts were seen.

² The number of people who saw the messaging.

Appendix E. Texas Tobacco Prevention and Control Websites

Organization/Initiative	Website
Bay Area Council on Drugs & Alcohol	https://www.bacoda.org
Behavioral Health Solutions of South Texas	https://www.bhsst.org
Department of State Health Services	https://www.dshs.texas.gov
Live Vape Free	https://www.rallyhealth.com/Live-Vape-Free
Peers Against Tobacco	https://www.peersagainsttobacco.org
Texas School Safety Center	https://txssc.txstate.edu
The Coalition	https://www.angelinacoalition.org
Texas Say What!	https://txsaywhat.com
Texas Smokefree Ordinance Database	http://shsordinances.uh.edu
Texas Tobacco Quitline	https://yesquit.org