



Electronic Nicotine Delivery Systems (E-Cigarette) Report

**As Required By
Texas Health and Safety Code, Section 161.0902**



**Department of State Health Services
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Executive Summary

Senate Bill 97, 84th Legislature, Regular Session, 2015 amended [Texas Health and Safety Code, Section 161.0902](#) to require DSHS to report on the status of e-cigarettes in Texas.

E-cigarettes, also known as Electronic Nicotine Delivery Systems, are devices that simulate smoking by using a mechanical heating element, battery, or electronic circuit to deliver nicotine or other substances by inhalation. In May 2016, the U.S. Food and Drug Administration amended a rule to include e-cigarettes in its legal definition of a tobacco product, thus restricting their sale to minors. This rule complements Texas state law regarding possession and access of ENDS among minors. On October 1, 2015, amendments to the Texas Health and Safety Code went into effect adding ENDS to state tobacco regulations.

Because ENDS are relatively new, there is limited research on their safety and health effects; however, ENDS are known to contain nicotine, volatile organic chemicals, and carcinogens. While ENDS are commonly promoted as a safer alternative to smoking and as a tool to help people quit smoking, this has not been proven. Current and former smokers were significantly more likely to report having used, or currently using, ENDS than people who never smoked.

In August 2016, several federal provisions took effect restricting the sale of newly-regulated tobacco products to youth. The FDA contracts with states, including Texas, to help enforce federal regulations. Since August 1, 2016, when compliance inspections began to include ENDS, 2,056 inspections have been completed resulting in 12 ENDS being purchased by minors.

Surveys indicate that more than 17 percent of adults in Texas, 35 percent of high school students, and 12 percent of middle school students have used ENDS. Males in every age category were more likely to report ENDS use than females. Among adults, the highest prevalence were those between the ages of 18 and 29 (34.8 percent). There were no significant differences in prevalence by race/ethnicity.

DSHS has worked to include ENDS prevention into its existing tobacco prevention activities. DSHS funds 9 organizations to organize and operate comprehensive community coalitions in 12 counties to reduce tobacco use. DSHS regional tobacco coordinators are part of an interdisciplinary team of health professionals who provide health education and outreach. The Texas Youth Prevention Program involves the SAY WHAT! (Students, Adults, and Youth Working Hard Against Tobacco) Movement, which has several initiatives related to education and awareness. This work includes providing informational materials and Tobacco-Free School kits to Texas school districts. DSHS also oversees the Peers Against Tobacco program for colleges and universities across the state.

The DSHS Tobacco Prevention and Control Program will continue to address ENDS as part of its comprehensive tobacco control efforts. Currently, information regarding ENDS is still very limited, but as more information becomes available, DSHS will begin to create interventions to address the needs and gaps regarding ENDS use.

Introduction

[Texas Health and Safety Code, Section 161.0902](#), as amended by Senate Bill 97, 84th Legislature, Regular Session, 2015, requires the Department of State Health Services (DSHS) to produce a report on the use of e-cigarettes in Texas. The report must include the following:

- A baseline of statistics and analysis regarding illegal e-cigarette sales, including:
 - Sales to minors
 - Enforcement actions concerning minors
 - 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 regions in this state, including use of e-cigarettes by ethnicity

Background

Defining Electronic Nicotine Delivery Systems (ENDS)

The term for e-cigarettes preferred by the Centers for Disease Control and Prevention (CDC) is Electronic Nicotine Delivery Systems (ENDS). ENDS refers to any device that simulates smoking by using a mechanical heating element, battery, or electronic circuit to deliver nicotine or other substances by inhalation. Common names for ENDS include:

- Electronic Smoking Devices
- E-cigarettes
- E-cigs
- E-cigars
- E-hookah
- Hookah pens
- Vape pens
- Personal vaporizers

Many ENDS may look like cigarettes, but produce vapor instead of smoke. They are comprised of three compartments: a battery, which is the heat source; a cartridge containing a fluid called e-liquid or e-juice comprised of propylene glycol and/or vegetable glycerin, nicotine, various chemicals (often including toxins, and other pollutants); and a vaporizer, which transforms the e-liquid into vapor, or aerosol.¹ As the user draws on the device, the battery heats the e-liquid to produce vapor, which is inhaled. Use of an ENDS is called vaping and shops with a significant focus on selling ENDS are called vape shops. The e-liquid is often flavored, with more than 5,000 flavors available.

Food and Drug Administration Regulation

¹ Americans for Nonsmokers' Rights. 2014. Electronic smoking devices and secondhand aerosol. Retrieved from: <http://www.no-smoke.org/pdf/ecigarette-secondhand-aerosol.pdf>

On May 10, 2016, the U.S. Food and Drug Administration (FDA) finalized a rule extending its authority to regulate all products meeting the legal definition of a tobacco product, including e-cigarettes, cigars, pipe tobacco, nicotine gels, hookah tobacco, and dissolvables not previously under the FDA's authority. Due to the very recent adoption of this rule, limited data and information is currently available. Since research and regulation of ENDS is in the early stages, the full health and safety impacts are not fully known; however, ENDS are known to contain nicotine, volatile organic chemicals, and carcinogens (cancer causing agents).¹

ENDS that contain and deliver nicotine have the capacity to be addictive and can also lead to increased blood pressure, heart rate, and problems associated with diabetes.² Secondhand exposure to ENDS aerosol may also cause negative health effects due to the nicotine, ultrafine particles, and toxins that are released into the air.¹

ENDS are commonly promoted as a safer alternative to smoking and as a tool to help people quit smoking, but this has not been proven. Although ENDS may help some smokers quit, others transfer their cigarette addiction to ENDS or use both.³

According to the 2015 Texas Behavioral Risk Factor Surveillance System (BRFSS) survey, 60.6 percent of current smokers reported having used or tried an ENDS product. The prevalence of current use of ENDS products was almost three times higher among current smokers (18.2 percent) than former smokers (6.4 percent). Current and former smokers were significantly more likely to report having used, or currently using, ENDS than people who never smoked.

The recent FDA rule also requires manufacturers of all newly-regulated products to show that the products meet the applicable public health standards set forth in the law and receive marketing authorization from the FDA, unless the product was on the market as of February 15, 2007. The tobacco product review process gives the agency the ability to evaluate important factors such as ingredients, product design, and health risks, as well as their appeal to youth and non-users.

The FDA expects that manufacturers will continue selling their products for up to two years while they submit a new tobacco product application, and an additional year while the FDA reviews the application.⁴

Retail Compliance Statistics and Analysis

On August 8, 2016, several federal provisions took effect restricting the sale of newly-regulated tobacco products to youth.

² National Conference of State Legislatures. (2014, June 16). Alternative nicotine products: Electronic cigarettes. Retrieved from <http://www.ncsl.org/research/health/alternative-nicotine-products-e-cigarettes.aspx>

³ 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). Retrieved from <http://www.tobaccoinduceddiseases.com/content/12/1/21>

⁴ U.S. Food and Drug Administration. 2016. FDA takes significant steps to protect Americans from dangers of tobacco through new regulation Retrieved from: <http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm499234.htm>

- Retailers must not sell e-cigarettes, hookah or pipe tobacco, or cigars to people under 18 years of age, and must check a photo ID of everyone under the age of 27 who is attempting to purchase such products
- Retailers must not sell tobacco products covered under the rule in a vending machine (except in a facility where people under the age of 18 are never allowed on the premises)
- Retailers, manufacturers, importers, and distributors must not give away free samples of any newly-regulated tobacco products

The FDA contracts with states to help enforce federal regulations. The Texas Tobacco Compliance Program began implementing the new FDA rule by conducting compliance inspections in August 2016. Since August 1, 2016, 2,056 compliance inspections have been conducted with 12 ENDS being purchased by a minor.

The federal provisions complement Texas laws which went into effect October 1, 2015, adding ENDS products to tobacco enforcement under the Texas Health & Safety Code. State enforcement related to ENDS products began in May 2016. Results from these enforcement activities showed that out of a total of 1,507 inspections where minors attempted to purchase ENDS products, 77 (5.11 percent) resulted in an illegal sale. This compares to a violation rate of 6.09 percent for traditional cigarettes where 439 retailers sold to a minor out of 7,214 inspections. Areas with the highest rates for illegal sales to minors were Health Service Region (HSR) 2/3 and 4/5N, which include north and northeast of Texas. Texas is divided into 11 Health Service Regions; see Appendix A for a map.

Prevalence of ENDS Use in Texas

In 2015, a module was added to the BRFSS survey that collected prevalence data on the use of ENDS products among adults in Texas. According to the survey, 17.2 percent of adults have used or tried an ENDS product. Males were more likely to report having used an ENDS (22.2 percent), and currently using one (6.4 percent). Rates among females were 12.6 and 3.3 percent, respectively. The highest prevalence was among adults ages 18 to 29 years (34.8 percent). Current smokers were significantly more likely to report having tried (60.6 percent) and currently using (18.2 percent) ENDS products than former smokers (17.1 percent and 6.4 percent, respectively), and people who never smoked (6.9 percent and 1.0 percent, respectively) (Appendix A, Tables 2-5 and Graph 1).

According to the 2016 Texas Youth Tobacco Survey (YTS), 25.4 percent of middle and high school students have used or tried ENDS. Among these students, 10.7 percent reported using ENDS in the past 30 days. The prevalence of having tried ENDS was higher among high school students (35.6 percent) compared to middle school students (12.7 percent), especially students in grades 11 (41.4 percent) and 12 (46.7 percent). The prevalence of having used traditional cigarettes among middle school students was 12.8 percent and among high school students, 31.6 percent, which is similar to that of ENDS.

Of youth who reported using ENDS in the past month, 12.2 percent were male and 9.3 percent were female, but the difference was not statistically significant. There were no significant differences in prevalence by race/ethnicity. The prevalence of ever use and past month use of

ENDS is similar to that of traditional cigarettes (23.1 percent and 8.1 percent, respectively) among middle and high school students. Due to the sampling method used to conduct the YTS, data at the regional-level is not available (Appendix A, Table 1).

Current DSHS E-Cigarette Controls and Initiatives

DSHS does not currently have any statewide initiatives focusing solely on ENDS prevention or education, but includes these products in existing tobacco control initiatives where applicable. Since ENDS products entered the market fairly recently, research is still in the early stages of development. However, DSHS follows the CDC's Best Practices for Comprehensive Tobacco Control Programs, which treats ENDS the same way as traditional tobacco products in its tobacco control efforts. DSHS includes ENDS education and prevention in existing outreach efforts.

DSHS-Funded Community Coalitions

In 2014, DSHS funded 9 organizations, to organize and operate comprehensive community coalitions in 12 counties for 5 years. Comprehensive community coalitions follow the CDC's Best Practices and the Substance Abuse Mental Health Services Administration's (SAMHSA) Strategic Prevention Framework to create the following six goals:

- Goal 1: Prevent tobacco use among young people
- Goal 2: Ensure compliance with state and local tobacco laws with adequate enforcement
- Goal 3: Increase cessation among young people and adults
- Goal 4: Eliminate exposure to secondhand smoke
- Goal 5: Reduce tobacco use among populations with the highest burden of tobacco related health disparities
- Goal 6: Develop and maintain state and community capacity for comprehensive tobacco prevention and control

All the coalitions have adapted their outreach to include information about ENDS. Activities include:

- Incorporating ENDS information into evidence-based curricula, including Towards No Tobacco and Teens Against Tobacco Use
- Providing educational materials to the public at health fairs, presentations, consultations, School Health Advisory Council meetings, and other community events
- Conducting presentations for youth and adults, specifically covering ENDS
- Creating specific media messages for the public (Appendix A, Figure 1)
- Educating local communities about including ENDS in smoking policies
- Recruiting middle schools to participate in pilot testing of the CATCH (Coordinated Approach To Child Health) My Breath ENDS curriculum
- Educating business and health care sectors about ENDS
- Disseminating tobacco-free/e-cigarette-free policy signage from the Texas School Safety Center for use in schools (additional information about the Texas School Safety Center is below)
- Partnering with local law enforcement to conduct controlled buys to test which establishments sell ENDS to minors

Regional Coordinators

Eight DSHS Regional Tobacco Coordinators covering all DSHS HSRs (Appendix A, Map 1) are part of an interdisciplinary team of health professionals who provide health education and direct health services to areas without a local health department. As tobacco subject matter experts, regional coordinators provide education on ENDS to HSR staff and to multiple community-based stakeholder organizations including schools, community-based coalitions, work sites, youth organizations, health care organizations, and law enforcement. Regional coordinators have incorporated ENDS education and outreach into their work as follows:

- Provided resources about tobacco prevention, including ENDS, to middle and high schools
- Trained peer leaders to educate youth and parents about potential health effects of ENDS and enforcement of state law on sales of ENDS
- Disseminated information about enforcement activities on ENDS to law enforcement and community stakeholders
- Developed education modules for health care professionals, including nurses and community health workers
- Provided information about the state Quitline (1-877-YES-QUIT) and counseling services to help tobacco users quit, including users of ENDS
- Provided training on ENDS to mental health and substance abuse treatment centers
- Provided technical assistance related to municipalities' smoke-free and tobacco-free ordinances
- Provided resources to colleges and universities on ENDS prevention curriculum and tobacco-free policies including ENDS

Local Policies and Environmental Strategies

DSHS contracts with the University of Houston Law Center to maintain a statewide database containing a list of all known Texas municipal ordinances regulating exposure to secondhand smoke and secondhand aerosol. The database is currently being redesigned; once the upgrade is complete, it will include a search feature for ENDS. Currently, there are 28 cities in Texas that have a city ordinance prohibiting the use of ENDS in different venues (Appendix A, Table 6).^{5,6} Studies continue to demonstrate that exposure to secondhand smoke is causally linked to cancer and other serious health consequences among children and adults. Placing restrictions on smoking in public places is a key strategy to limit the public's exposure to secondhand smoke and secondhand aerosol. The DSHS-funded community coalitions have educated their local communities about comprehensive local ordinances. Since 2014, 11 cities have passed ordinances, seven of which include language regarding ENDS.

⁵ American Nonsmokers' Rights Foundation. (2015). U.S. State and Local Laws Regulating Use of Electronic Cigarettes. Retrieved from <http://www.no-smoke.org/pdf/ecigslaws.pdf>

⁶ University of Houston Law Center Health Law & Policy Institute. (2016). Texas Smoke-Free Ordinance Database. Retrieved from <http://shsordinances.uh.edu/>

Texas Youth Prevention Program

DSHS funds the Texas School Safety Center at Texas State University to lead the SAY WHAT! (Students, Adults, and Youth Working Hard Against Tobacco) Movement. Developed with involvement of young Texans, SAY WHAT! has several initiatives that have incorporated ENDS education and awareness.

SAY WHAT! Website

The initiative's official website has been updated to include a "Tobacco EDU" section highlighting an educational video series on nicotine/tobacco effects on the brain. This series includes an educational segment on ENDS (www.txsaywhat.com/tobacco-edu). In addition, the main resources section of the website includes a link to CATCH My Breath, the youth ENDS prevention program (www.txsaywhat.com/resources).

SAY WHAT! Tobacco Facts Mini-Grant Kit

The SAY WHAT! program offers free mini-grant kits to assist registered SAY WHAT! groups in their tobacco and ENDS prevention efforts. These projects-in-a-box include educational materials that connect the tobacco and ENDS prevention messages with the overall statewide prevention messaging (txsaywhat.com/mini-grant-kits).

SAY WHAT! Action Summits

SAY WHAT! Action Summits were conducted at six regional locations in 2016 to empower and train youth to become leaders and create changes in the health and well-being of their communities. Summit participants received environmental prevention training to address social, physical, economic, and cultural conditions that contribute to youth tobacco and ENDS use. In 2016, 389 youth and 161 adults participated in the SAY WHAT! Action Summits for a total of 550 participants. Post assessment data collected after each Summit showed youth participants felt motivated to host their own Community Action Event.

SAY WHAT! Texas Tobacco-Free Prevention Conference

The 2016 SAY WHAT! Texas Tobacco-Free Prevention Conference took place July 17-20 in Montgomery, Texas. The conference offered an exciting, interactive training opportunity focused on taking community and school-based youth groups to the next level in tobacco prevention, including ENDS products. Educational workshops placed an emphasis on educating participants about the emerging body of research on ENDS. Sessions included a panel of doctors answering questions, as well as representatives from national and regional partners presenting information related to ENDS and vaping.

The conference was attended by 30 SAY WHAT! youth member groups from across Texas. A total of 255 youth and 146 adults attended the conference. Participants completed pre- and post-tests, which indicated an increase in knowledge about key tobacco and ENDS facts presented at

the conference. At the conclusion, the majority of participants showed an increase in confidence to conduct educational and awareness activities in their hometowns and schools, as well as to advocate for tobacco/ENDS prevention overall.

Tobacco-Free/ENDS-Free School Signage and Educational Materials

With the passage of S.B. 97 and the addition of ENDS to provisions of the Texas Education Code related to tobacco-free schools, the SAY WHAT! Program created Tobacco-Free Schools kits and signage for campuses to create awareness of these changes and to aid Texas school districts in creating a tobacco-free, ENDS-free environment (Appendix A, Figure 2).

In August 2015, all 1,170 Texas school superintendents received a complimentary tobacco-free school sign along with a letter notifying them of changes to the law for the coming school year. In addition, all 7,900 principals in Texas received a postcard notifying them of the availability of complimentary Tobacco-Free Schools kits. All resources were made available online for downloading and printing through the SAY WHAT! Website (<http://txsaywhat.com/resources>).

From September 2015 through July 2016, the following materials were distributed to more than 500 schools in 250 school districts:

- 4,100 aluminum signs
- 2,000 laminated posters
- 200 Tobacco-Free Schools Kits

CATCH My Breath

CATCH My Breath is a middle school ENDS prevention curriculum that equips students with the knowledge and skills needed to make informed decisions regarding ENDS use. DSHS-funded community coalitions recruited schools to participate in the pilot test for this curriculum. In May 2016, 2,255 students in grades 6-8 in 26 schools across 5 states participated in the pilot. After completing the program, feedback was collected from 1,371 students. Results showed that 86 percent were less likely to use ENDS, 86 percent knew more about ENDS, 82 percent would look at ENDS advertisements differently, and 70 percent discussed what they learned with family and/or friends.

Peers Against Tobacco

Peers Against Tobacco (PAT) is a multi-component tobacco prevention program for colleges and universities in Texas. Also referred to as the College Initiative, the program is funded by DSHS and is coordinated by the University of Texas at Austin Tobacco Research and Evaluation Team. PAT aims to reduce the use and initiation of all tobacco and ENDS use among 18-25 year old college and university students in Texas. The project works to achieve this through raising awareness about the potential dangers of ENDS, correcting misperceptions that some levels of tobacco use are safer than others, and improving upon current campus tobacco policies. The project incorporates the following components at participating campuses:

- A peer-led media campaign, including social media messages
- A peer group

- Conducting environmental and campus scans – documentation of the tobacco environment which includes visiting different tobacco retailers around campus and recording information about tobacco products and marketing present on site
- Implementing an online tobacco prevention curriculum
- Creating tobacco-free campus policy initiatives

Several media ads and social media messages were created to educate students that ENDS can be just as addictive and potentially harmful as traditional cigarettes (Appendix A, Figure 1).

Future Goals and Plans

The DSHS Tobacco Prevention and Control Branch and its contractors will continue to address ENDS as part of its comprehensive tobacco control efforts. Currently, information regarding ENDS is still very limited, but as more information becomes available, DSHS will begin to create interventions to address the needs and gaps regarding ENDS use. DSHS has applied for a CDC competitive grant of \$656,365. If awarded, DSHS will focus specific attention on outreach in East Texas, which has some of the highest tobacco prevalence rates in Texas and the nation. Efforts will include prevention of all tobacco products, with a strong emphasis on ENDS among young people ages 12-24. DSHS and its contractors will continue creating community-specific media messages and conducting public education on ENDS.

Conclusion

Due to the relatively recent availability of ENDS and limited research on its effects, the health dangers of ENDS are not fully known. Most ENDS contain nicotine, as well as ultrafine particles and toxins. Surveys in Texas indicate that more than 17 percent of adults, 35 percent of high school students, and 12 percent of middle school students have used ENDS. DSHS staff, contractors, and youth peer leaders have implemented outreach strategies to educate youth, parents, and young adults about potential detrimental health effects of ENDS use, as well as Texas laws prohibiting ENDS sales to minors and use on school property. DSHS has provided education signage about the new law to tobacco retailers and will be conducting FDA tobacco compliance checks to enforce the FDA rule on ENDS.

Appendix A: Tables and Graphs

Map 1. Texas Map Displaying Locations of Health Service Regions and Regional Headquarters

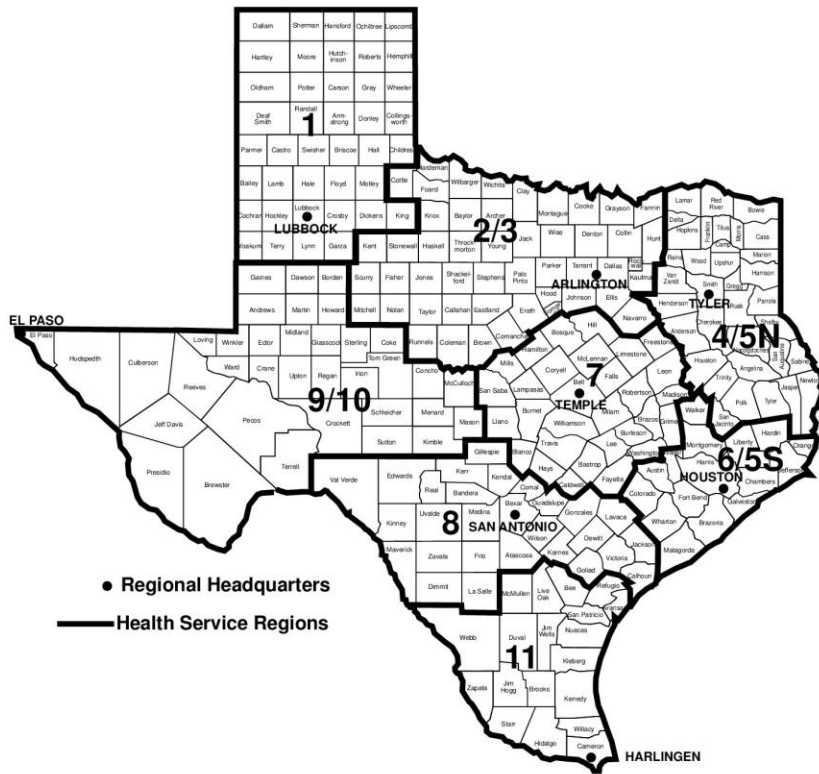


Table 1. Percent of Youth Grades 6 to 12 Who Report Past Month and Ever Use of ENDS by Demographic Characteristics, Texas 2016

Demographic Characteristics	Ever Use*			Past Month Use**		
	%	95% CI		%	95% CI***	
		Lower Limit	Upper Limit		Lower Limit	Upper Limit
All Youth Grades 6-12	25.4	22.2	28.5	10.7	9.2	12.3
Grade Level						
Grade 6	7.0	5.5	8.6	3.6	2.2	5.0
Grade 7	11.1	6.9	15.3	5.3	3.2	7.4
Grade 8	19.8	14.2	25.5	9.5	5.7	12.3
Grade 9	25.5	20.9	30.1	13.5	8.6	18.3
Grade 10	32.0	27.1	37.0	14.5	10.3	18.7
Grade 11	41.4	36.1	46.8	14.9	10.9	18.9
Grade 12	46.7	40.2	53.2	15.0	8.8	21.3
School Level						
Middle School	12.7	10.0	15.5	6.2	4.5	7.8
High School	35.6	31.7	40.0	14.4	12.0	16.8
Gender						
Female	22.1	19.0	25.5	9.3	7.6	11.0
Male	28.4	24.5	32.3	12.2	10.0	14.4
Race/Ethnicity						
Hispanic	26.2	22.2	30.2	10.3	8.3	12.4
White	25.5	21.7	29.2	12.2	9.6	14.7
Black	20.2	13.6	26.8	6.8	3.4	10.2
Other	28.6	21.7	35.4	14.3	9.4	19.1

Data Source: Texas Youth Tobacco Survey (YTS), 2016, Texas A&M University, College Station, Texas

***Ever Use:** Ever having tried an electronic cigarette.

****Past Month Use:** Use of an electronic cigarette in the past 30 days.

*** **CI (Confidence Intervals):** Statistical significance is based upon evaluation of overlap among the 95% 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.

Table 2. Prevalence of ENDS Ever Use and Current Use Among Adults 18 Years and Older by Demographic Characteristics, Texas 2015

Demographic Characteristics	Ever Use				Current Use			
	Estimated No. of Adults	%	95% CI		Estimated No. of Adults	%	95% CI	
			Lower Limit	Upper Limit			Lower Limit	Upper Limit
All Adults Who Have Used	2,276,049	17.2	15.8	18.6	631,325	4.8	4.0	5.5
Gender								
Male	1,407,753	22.2	19.9	24.6	404,427	6.4	5.0	7.8
Female	868,296	12.6	11.0	14.2	226,898	3.3	2.6	4.0
Age Group (years)								
18 to 29	861,913	34.8	30.1	39.6	220,184	8.9	6.1	11.7
30 to 44	628,553	18.6	15.8	21.4	172,706	5.1	3.5	6.7
45 to 64	671,390	14.4	12.3	16.4	196,346	4.2	3.2	5.2
65 and older	112,508	4.3	3.3	5.4	41,839	1.6	1.0	2.3
Race/Ethnicity								
White	1,267,845	20.3	18.3	22.2	432,416	6.9	5.6	8.2
Black	226,973	17.6	12.3	22.9	50,095	3.9	1.9	5.9
Hispanic	627,773	13.1	10.6	15.5	107,430	2.2	1.2	3.2
Other /Multiracial	--	--	--	--	--	--	--	--

Abbreviations: CI, confidence interval

Data Source: Texas Behavioral Risk Factor Surveillance Public Use Data File, 2015. Texas Department of State Health Services, Center of Health Statistics, Austin, Texas.

Table 3. Number and Percentage of ENDS Ever Use and Current Use Among Adults 18 Years and Older by Health Service Region, Texas 2015

Place of Residence	Ever Use				Current Use			
	Estimated No. of Adults	%	95% CI		Estimated No. of Adults	%	95% CI	
			Lower Limit	Upper Limit			Lower Limit	Upper Limit
All Adults Who Have Used	2,276,049	17.2	15.8	18.6	631,325	4.8	4.0	5.5
Health Service Region								
1	115,323	21.1	15.9	26.2	33,969	6.2	2.9	9.5
2/3	544,668	15.9	12.8	19.1	165,617	4.8	3.1	6.6
4/5N	151,864	18.3	14.1	22.4	54,086	6.5	3.3	9.8
6/5S	429,437	15.2	11.6	18.8	87,775	3.1	1.8	4.3
7	361,687	21.5	18.3	24.8	87,552	5.2	3.6	6.9
8	255,627	17.4	13.3	21.5	73,906	5.0	2.2	7.8
9 / 10	179,764	21.2	17.2	25.2	57,823	6.8	4.6	9.0
11	138,613	12.9	9.3	16.4	41,244	3.8	1.7	6.0

Abbreviations: CI, confidence interval

Data Source: Texas Behavioral Risk Factor Surveillance Public Use Data File, 2015. Texas Department of State Health Services, Center of Health Statistics, Austin, Texas.

Table 4. Number and Percentage of ENDS Ever Use and Current Use Among Adults 18 Years and Older by Cigarette Smoker Status, Texas 2015

Smoker Status	Ever Use				Current Use			
	Estimated No. of Adults	%	95% CI		95% CI	%	95% CI	
			Lower Limit	Lower Limit			Lower Limit	
All Adults Who Have Used	227,6049	17.2	15.8	18.6	631,325	4.8	4.0	5.5
Current Smoker	1,189,593	60.6	56.3	65.0	356,854	18.2	14.6	21.9
Former Smoker	518,543	17.1	14.6	19.6	193,343	6.4	4.7	8.0
Never Smoker	563,248	6.9	5.5	8.3	79,847	1.0	0.5	1.5

Abbreviations: CI, confidence interval

Data Source: Texas Behavioral Risk Factor Surveillance Public Use Data File, 2015. Texas Department of State Health Services, Center of Health Statistics, Austin, Texas.

Table 5. Number and Percentage of Types of ENDS Products Used Among Adults Who Report Trying ENDS Products, Texas 2015

Product Type	Estimated No. of Adults	%	95% CI	
			Lower Limit	Lower Limit
E-cigarette	1,490,091	68.2	64.0	72.5
Vape Pen	810,583	37.1	32.7	41.5
E-hookah	374,634	17.2	13.5	20.9
Other	--	--	--	--

Abbreviations: CI, confidence interval

Data Source: Texas Behavioral Risk Factor Surveillance Public Use Data File, 2015. Texas Department of State Health Services, Center of Health Statistics, Austin, Texas.

Table 6. List of Texas Cities with Local Laws Prohibiting the Use of ENDS in Public Venues, Texas 2016

City	100% Smoke-Free Venue	Currently a DSHS-funded Coalition Area
Boerne	R	
Bonham	RB	
Burkburnett	WRB	Yes
Denton	WRB	
Desoto	WRBG	
Duncanville	WRBG	
Edinburg	WRBG	Yes
El Paso	WRB	
Frisco	WRB	
Harlingen	WRBG	
Highland Village	WRB	
Joshua	WRB	
Little Elm	WRB	
Lufkin	WRBG	Yes
Mission	WRBG	Yes
Missouri City	WRBG	
Pharr	WRBG	Yes
Port Arthur	WR	
San Angelo	WRB	
San Marcos	WRB	
Seagoville	WRB	
Sherman	RB	
Socorro	WRB	
Universal City	WRB	
Waco	WRB	
Waxahachie	WRBG	Yes
Weatherford	R	
Wichita Falls	WRB	Yes

W = Non-Hospitality Workplaces

R = Restaurants

B = Bars

G = Gambling Facilities

Graph 1. Prevalence of Ever Using or Trying an Electronic Nicotine Delivery System (ENDS) Among Adults, 18 Years and Older, by Demographic Characteristics, Region, and Smoker Status, Texas 2015

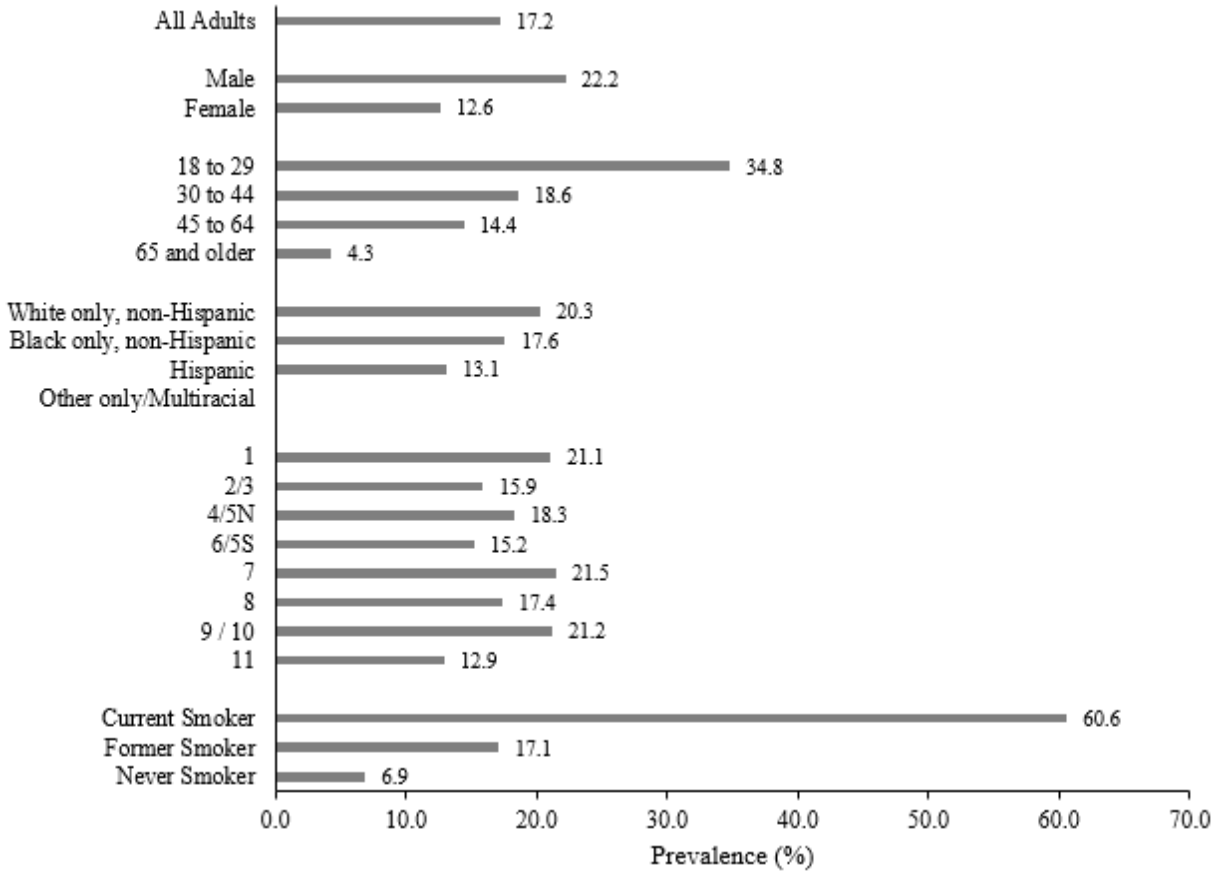


Figure 1: Sample of a Coalition's Specific E-Cigarette Media Ad

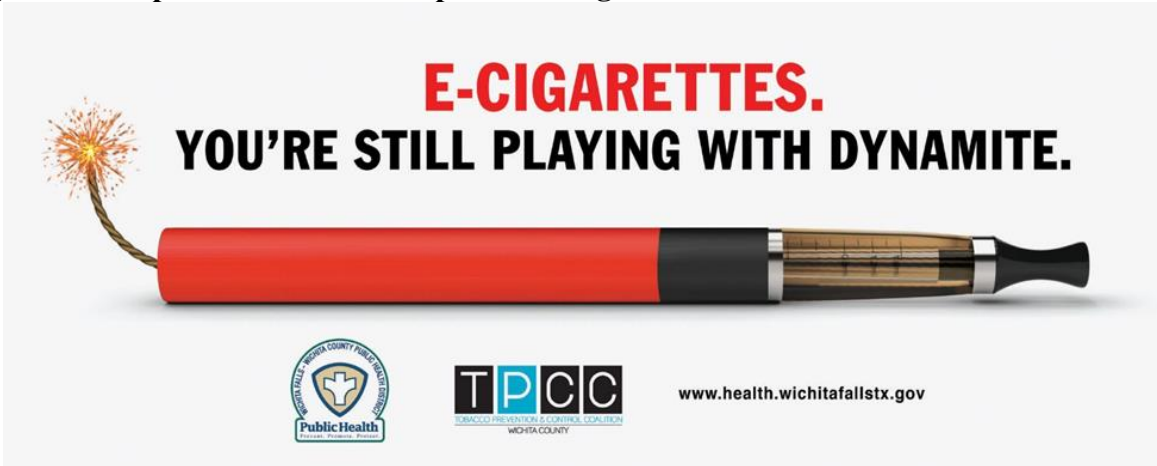


Figure 2: Sample of a Tobacco-Free School Sign



Figure 3: Sample Social Media Message for Peers Against Tobacco

