

Botvin Health Connections™



e-Cigarettes and Vaping

UTAH

Introduction

Botvin Health Connections™ is a resource for educators and facilitators in Utah who are implementing the *Botvin LifeSkills Training (LST)* program. It is intended to bring to light critical health topics such as electronic cigarettes (e-cigs) and vaping in select LST lessons. This resource is designed to provide background information on the health issue for educators as well as provide strategically placed *lesson connections* related to e-cigarettes and vaping. This resource is not intended to replace lessons, but bring emphasis on the topic or health risk for students participating in the Botvin LifeSkills Training program.

What are e-cigarettes and how do they work?

Electronic cigarettes and vape products can come in many different shapes and sizes. These devices typically can also be referred to as *e-cigs, vapes, vape pens, tanks, mods, etc.* They are also sometimes referred to as Electronic Nicotine Delivery Systems (ENDS). They can resemble regular combustible cigarettes, USB drives, or take other forms depending on the device.

Electronic cigarettes and vape products heat a liquid (typically known as *e-liquid*) to create a vapor or aerosol which is then inhaled. *Vaping* is used commonly to refer to inhaling vapor or aerosol from these devices. *E-liquid* may or may not contain nicotine and often comes in flavors that are enticing to youth (bubble gum, candy, mint, fruit, etc.).

Scope of the Problem

E-cigarette (*e-cigarettes, vapes, vape pens, etc.*) usage rates among youth have significantly increased in recent years and is an immediate public health concern. The 2018 Monitoring the Future⁽¹⁾ national survey revealed a significant increase in *vaping with nicotine*, up from 18.9% to 25.2% (8th, 10th, and 12th grades combined). Data also indicated that usage of *vaping, just flavoring* increased from 24.9% to 28.3% for the same population. However, researchers also noted that '*vaping with nicotine*' rates may be higher due to youth not fully knowing the ingredients of the e-liquid they are ingesting. In addition, cigarette smoking is still a serious health concern. Leading experts have indicated that more research is needed related to youth transitioning from e-cigarettes to traditional cigarettes, but early evidence shows that the likelihood of transition is high.

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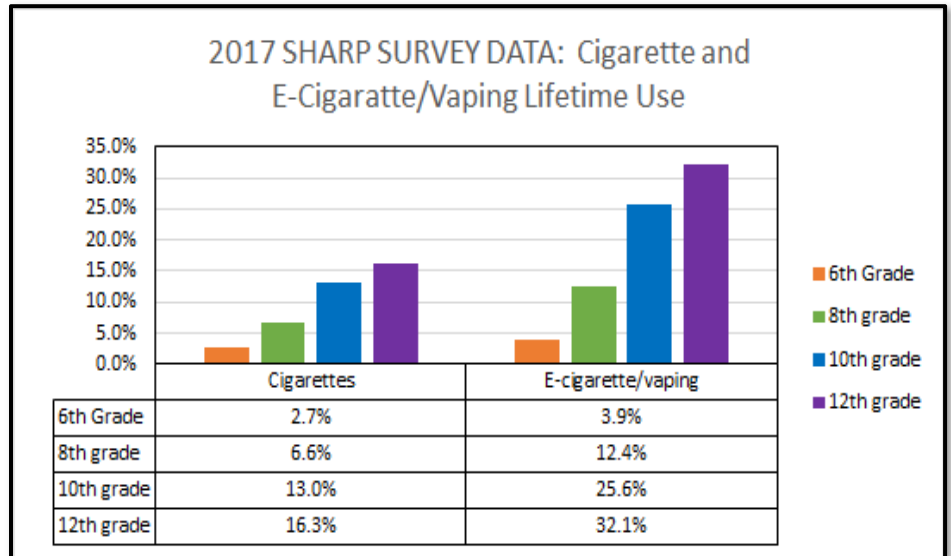
(1) Johnston, L. D., Miech, R. A., O'Malley, P. M., Bachman, J. G., Schulenberg, J. E., & Patrick, M. E. (2019). Monitoring the Future national survey results on drug use 1975-2018: Overview, key findings on adolescent drug use. Ann Arbor: Institute for Social Research, University of Michigan.



Scope of the Problem (cont.)

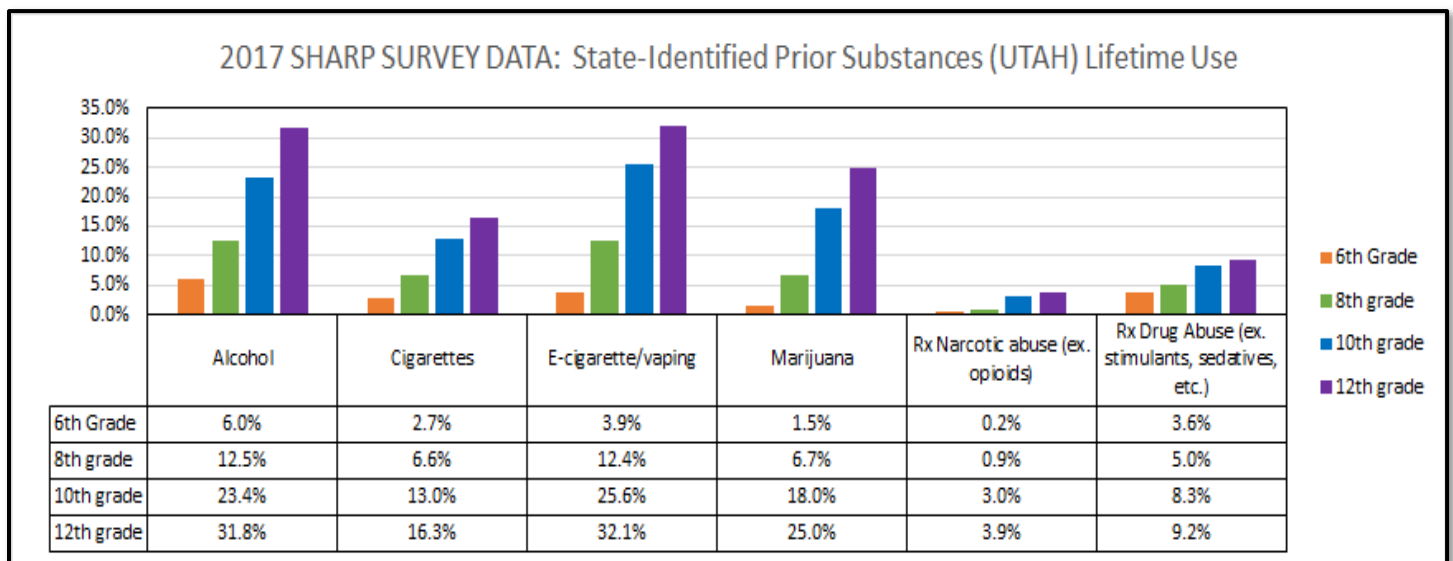
Recent survey data shows that e-cigarette use among youth has increased at an unprecedented rate. While most youth still choose not to smoke or vape, increases in usage raises serious health concerns for the future. The 2017 Student Health Risk and Prevention (SHARP)⁽¹⁾ survey reported lifetime (ever) use rates have increased among 6th, 8th, 10th, and 12th grade students⁽¹⁾ in Utah.

The increase in e-cigarette use and vaping use is alarming among youth in Utah. Concentrations of nicotine in e-liquids can vary greatly. Connecting the health risks to the skills in LST can help build resilience and relevance for students.



How does e-cigarette/vaping use among youth in Utah compare to other substances?⁽¹⁾

according to 2017 SHARP Survey Data, alcohol was the most common substance abused substance (lifetime use) among 6th, 8th, 10th, and 12th grade students. E-cigarette/vaping use doubled from 8th to 10th grade; however, so did use of cigarettes. Therefore, it is imperative that we continue to focus on the health risks and dangers of all 'youth smoking' regardless of the delivery method. The combination of all 'smoking' is of serious concern and indicates the importance of addressing all forms of use, especially products containing nicotine.

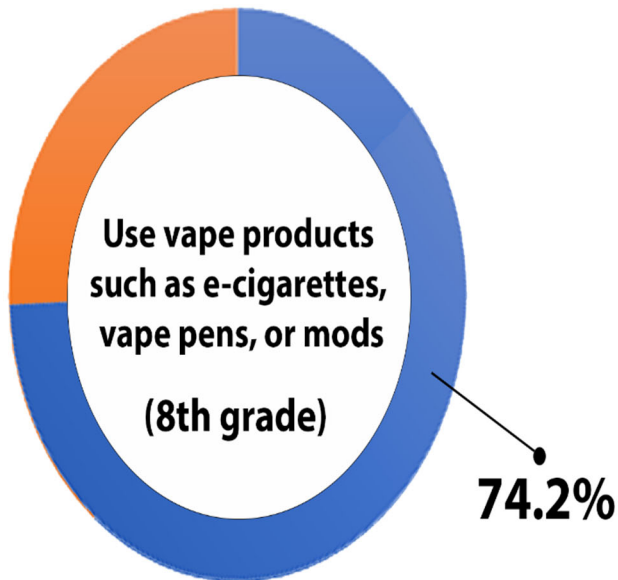


Source:

(1) State Department of Utah, Department of Human Services, Division of Substance Abuse and Mental Health (2017), Student Health Risk And Prevention (SHARP) Needs Assessment Survey Results.

Perception of Risk

(People are at Moderate or Great Risk of harming themselves if they..)_

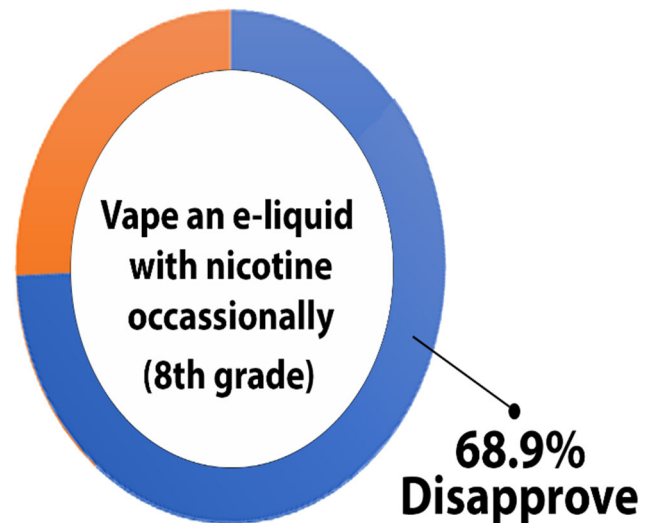


In 2017, Drug-Free Communities grantee data⁽¹⁾ demonstrated that 74.2% of 8th grade students reported that regular use of vape products is moderate or great risk. This ranks lowest among all other substances surveyed (regular drinking 82.7%, binge drinking 84.6%, smoke one or more packs of cigarettes a day 88.4%, smoke marijuana regularly 81%, use Rx drugs not prescribed to them 87.4%.)

Peer Dissapproval

Do you disapprove of people who...

Results from the 2018 Monitoring the Future National Survey⁽²⁾ highlighted that peer disapproval among 8th grade students (68.2%) related to “vaping an e-liquid with nicotine occasionally” was also one of the lowest of all substances surveyed.



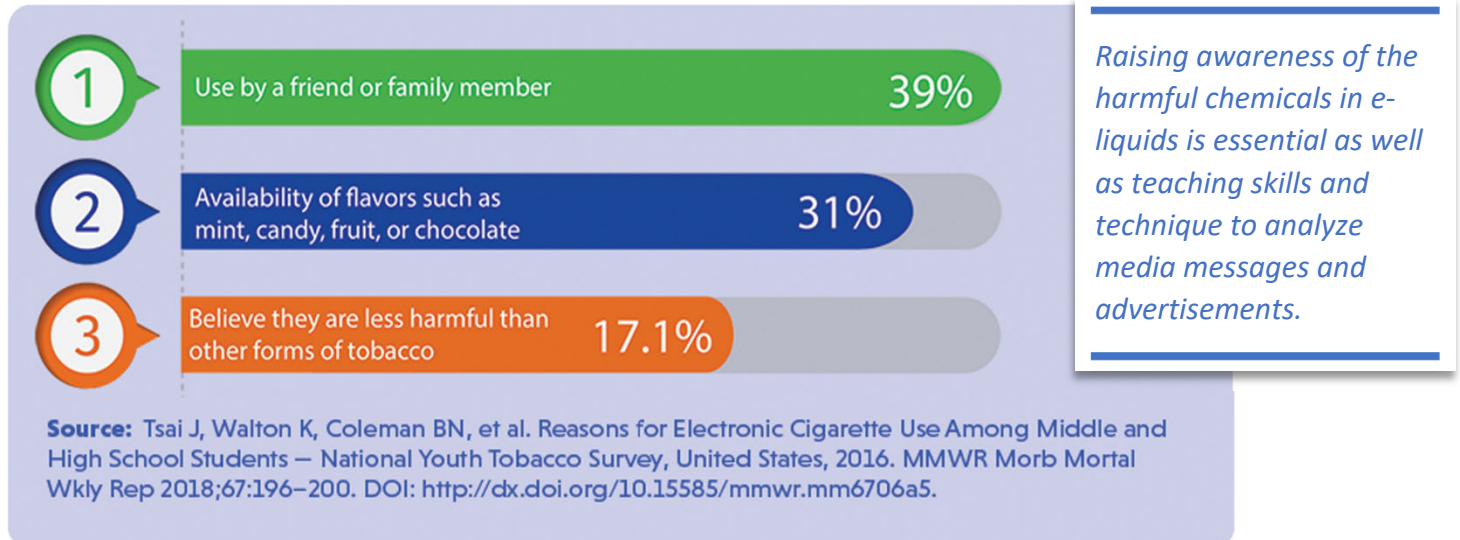
Sources:

(1) State Department of Utah, Department of Human Services, Division of Substance Abuse and Mental Health (2017), Student Health Risk And Prevention (SHARP) Needs Assessment Survey Results.

(2) Johnston, L. D., Miech, R. A., O'Malley, P. M., Bachman, J. G., Schulenberg, J. E., & Patrick, M. E. (2019). Monitoring the Future national survey results on drug use 1975-2018: Overview, key findings on adolescent drug use. Ann Arbor: Institute for Social Research, University of Michigan.

Why do kids choose to use e-cigarettes or vape?

There are numerous reasons why youth choose to engage in using e-cigarette use or vaping. Peer use is a significant risk factor for a variety of health risks and substance abuse; however, e-cigarette and vaping products and marketing tactics used to promote e-cigarettes and vaping; especially flavored e-liquid poses a unique threat to youth. The surge in flavored e-liquid which are appealing to youth not only fuel the misperception of reduced harm, but may also be packed to mimic many mainstream food-safe products⁽¹⁾.



What chemicals are in e-cigarettes (e-liquid)?

The harmful effects of combustible cigarettes are well documented. However, the ingredients in *e-liquids* can vary by brand and type. The addictive ingredient, **nicotine** raises serious concern as some *e-liquid* products can contain as much nicotine as a pack of cigarettes. *E-liquids* promoted as “nicotine-free” or “just flavoring” can be misleading. Traces of nicotine may be present in these products as well as other known harmful chemicals and metals. The list of chemicals in e-cigarettes varies; however, commonly included chemicals include propylene glycol, glycerin, formaldehyde, etc. Below are some reported ingredients contained in e-liquid and its use in consumer, commercial, and/or industrial applications⁽²⁾.

Chemicals considered safe for consumption or use by consumers in their current form may have short and long-term health consequences when vaporized and inhaled.

Propylene Glycol	Glycerin	Formaldehyde
Deodorant	Aerosol disinfectant	Cosmetics
Soap products	Weed control	Glue
Toothpaste	Acne medicine	Rug/Upholstry cleaner
House paint	Soap	Body wash

Sources:

- (1) [FTC, FDA Take Action Against Companies Marketing E-liquids That Resemble Children’s Juice Boxes, Candies, and Cookies](#); May 2018
- (2) [U.S. Department of Health and Human Services. Household products database.](#)

Botvin Health Connections™: Electronic Cigarettes and Vaping

Botvin Health Connections™



e-Cigarettes and Vaping

*The evidence supporting the Botvin LifeSkills (LST) program's effectiveness at reducing youth smoking is supported by more than 35 published studies. Significant reductions in smoking have been demonstrated at all levels: **LST Elementary** (up to 66%), **LST Middle School** (up to 87%) and the **LST High School** program has been proven to reduce general substance abuse by more than 50%.*

Botvin Health Connections: E-cigarettes and Vaping provides practical options for how to incorporate e-cigarette and vaping content within strategically identified LST lessons. E-cigarette use among youth has reached epidemic levels; smoking and other tobacco product usage remain serious health concerns. Therefore, it is imperative that we continue to address all smoking—both electronic and combustible—as early as possible.

Botvin Health Connections: E-cigarettes and Vaping is easy to integrate within your LST lessons.

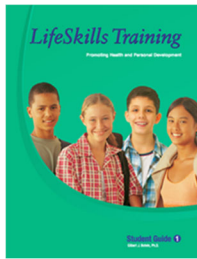
Implementation Tips

The following recommendations will help you implement Botvin Health Connections: E-cigarettes and Vaping into your existing LST lessons.

- Review the current lessons in your LST Teacher's Manual.
- Review the Connections provided for the LST levels or lesson(s) you will teach.
- Integrate the Connections. You may choose to integrate some or all of the recommended options for the target lesson(s).

If you have any questions about the use of this resource, please contact us at lstinfo@nhpamail.com; to facilitate your request, put "Botvin Health Connections" in the subject field.

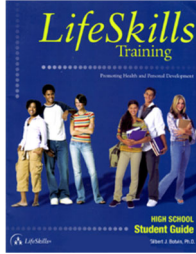
NOTE: The layout of the pages allows you to print a copy, use a 3-hole punch, and place it in your LST Teacher's Manual.



Botvin LifeSkills Training (LST) Middle School Level 1

Lesson	Connections
<p>Making Decisions</p>	<p>Decision Making Practice Student Guide p. 19; Worksheet 5 Teacher’s Manual p. 2-4 to 2-5</p> <ul style="list-style-type: none"> • Substitute or add a scenario related to smoking, e-cigarettes, or vaping.
<p>Smoking Myths and Realities</p>	<p>Introduction</p> <ul style="list-style-type: none"> • Reframe introduction to include vaping and e-cigarettes as types of smoking that will be addressed in the unit. <p>Smoking Prevalence Teacher’s Manual p. 3-2</p> <ul style="list-style-type: none"> • Include data on the percentage of teenagers who vape / use e-cigarettes • Include data on percentage of adults who vape / use e-cigarettes <p>Pros and Cons of Tobacco Use Teacher’s Manual p 3.3 – 3.4</p> <ul style="list-style-type: none"> • Include vape and e-cigarettes in Pro and Con activity. • Revise Point to Make to include vaping and e-cigarettes <p>Cost of Smoking Teacher’s Manual p. 3.4 <i>Note: Teacher will have to research the local cost of cigarettes, e-cigarettes and vape pods.</i></p> <ul style="list-style-type: none"> • Have one group of students compute the cost of smoking cigarettes and one group compute the cost of vaping. <p>Long Term Effects of Smoking Teacher’s manual p. 3.5</p> <ul style="list-style-type: none"> • Include facts about the known long-term effects of vaping and e-cigarettes • Revise Points to Make to include risks associated with vaping / e-cigarettes <p>Smoking and Your Body Teacher’s Manual p. 3.5-3.6 / Student Guide p. 25</p> <ul style="list-style-type: none"> • Include facts about the known short and long-term effects of vaping and e-cigarettes on body systems as provided elsewhere in this Botvin Health Connection™ • Revise Points to Make to include risks associated with vaping / e-cigarettes

Lesson	Connections
Smoking Myths and Realities	<p>Process of Becoming a Smoker Teacher’s Manual p 3.6 – 3.7</p> <ul style="list-style-type: none"> • Add vaping and e-cigarettes to each step <p>Social Acceptance of Smoking Teacher’s Manual p. 3.7</p> <ul style="list-style-type: none"> • Include vaping / e-cigarettes as nicotine-based products for which there are restrictions on where they can be used. <p>My Reasons for Not Smoking Teacher’s Manual p. 3.8, Student Guide Worksheet 8 p. 27</p> <ul style="list-style-type: none"> • Include reasons for not vaping or using e-cigarettes. <p>Summary</p> <ul style="list-style-type: none"> • Reference vaping / e-cigarette use in each summary point.
Smoking and Biofeedback	<p>Introduction Teacher’s Manual p. 4.2</p> <ul style="list-style-type: none"> • Include immediate physiological effects of vaping or e-cigarette use. <p>Immediate Effects of Cigarette Smoking Teacher’s Manual p. 4.2 – 4.5</p> <ul style="list-style-type: none"> • Identify that nicotine is the active ingredient in both cigarettes and vape / e-cigarettes, having the same immediate, stimulant effects on the cardio vascular and central nervous systems. <p>Summary Teacher’s Manual p. 4-11</p> <ul style="list-style-type: none"> • Reference vape / e-cigarettes as having chemical compounds, similar to cigarettes, that have immediate, stimulant effects on heart rate and nervous system. • Vape and e-cigarettes also tend to make a person more nervous.
Advertising	<p>Analyzing Cigarette and Alcohol Ads Teacher’s Manual p. 7.6 – 7.8</p> <ul style="list-style-type: none"> • Include examples of vape / e-cigarette ads for students to use for their advertisement analysis. • INTERNET SEARCH TIP: Search for high-resolution tobacco ads; high-resolution e-cigarette ads, and/or high-resolution vaping ads for the highest quality.
Assertiveness	<p>Demonstrating and Practicing Drug Refusal Skills Teacher’s Manual p. 14.11</p> <ul style="list-style-type: none"> • Include scenarios requiring the application of verbal & non-verbal assertiveness, and peer resistance techniques to vape / e-cigarette use. <p>Developing Action Plans Teacher’s Manual p. 14.11 -14.12 Student Guide Worksheet 24, p. 82</p> <ul style="list-style-type: none"> • Include a vape / e-cigarette scenario. <p>Appendix 1: Scripted Practice Teacher’s Manual p. 14.3</p> <ul style="list-style-type: none"> • Revise scenarios to include offers to vape / use e-cigarettes.



Botvin LifeSkills Training (LST) High School

Lesson	Connections
Decision Making for Health	Do It Now; Activity C: Prop Yourself Up Teacher's Manual p. 2.6 Student Guide p. 12 <ul style="list-style-type: none"> • Include 1 – 2 situations involving e-cigarettes or vaping.
Risk Taking and Substance Abuse	Do It Now; Activity C: Risky, Riskier, Riskiest Teacher's Manual pp. 3.5 – 3.7 Student Guide p. 19 <ul style="list-style-type: none"> • Add "vape just flavors" as a Medium Risk. (NOTE: Presumably students will say don't vape (low risk) or vape with nicotine (high risk) or some other variation.
The Media and Health	Think About It; Activity A: Popular Media Teacher's Manual p. 4.2 – 4.3 Student Guide p. 24 <ul style="list-style-type: none"> • Internet can include Social Media (Social Media marketing is a popular tactic used by many e-cigarette and vape companies). Lesson 2: Activity D: Talking Back to the Media Teacher's Manual pp. 4.7 – 4.9 Student Guide p. 28 <ul style="list-style-type: none"> • Note: The worksheet in the Student Guide p.28 includes cigarettes/vaping. Please make this notation in your copy of the Teacher's Manual.

Resources

Please find below some helpful resources from various sources dedicated to youth smoking prevention. This information is provided for your reference and further exploration and is not intended to replace lessons in the LST program.

TIP: Finding Advertisements:

Visit some of the sources above to see if there are examples of advertisements that might be appropriate for use with your LST lessons.

Internet Search:

Try putting the term “**high resolution**” in front of your search for ads. Putting the term high resolution in front of your search will help provide ads that can be printed for use in lessons. For example, high resolution e-cigarette ads, high resolution vaping ads, etc. You can also search by well-known brands.

Surveys

The following are some of the most commonly referenced surveys related to youth tobacco use. Below you will also find access to the 2017 SHARP Survey which includes data from 6th, 8th, 10th, and 12th grade students statewide in Utah.

[Monitoring the Future](#)

[Youth Risk Behavior Survey](#)

[National Survey on Youth and Tobacco](#)

[Student Health and Risk Prevention \(SHARP\) Survey 2017 \(State of Utah\)](#)

Fact Sheets and Other Information:

[Quick Facts on the Risks of E-cigarettes for Kids, Teens, and Young Adults](#)

[The Truth Initiative: Inspiring Tobacco-free Lives](#)

[Impact of E-Cigarettes on The Lung](#)

[National Tobacco Control Program \(NTCP\) State Fact Sheets](#)

[U.S. Federal Food and Drug Administration \(FDA\) Youth and Tobacco](#)

[E-cigarette Use Among Youth and Young Adults: A Report of the Surgeon General, 2016](#)

[Report: More and More Teens Seeing E-Cigarette Ads](#)