

## 2018 NYSCSH Professional School Health Webinars

### E-Cigarettes and Vaping

#### Learning Goals

After participating in this learning segment learners will be able to:

- Explain why e-cigarette use by youth is a public health concern.
- Describe the prevalence of e-cigarette usage and trends in youth.
- Provide two examples of strategies manufacturers and sellers of e-cigarettes employ to increase use among adolescents.
- Identify educational resources available on the NYSCSH website to inform and educate families, teachers and the community.
- Develop an action plan to inform, educate and empower your students, school and community on the impact and risks of e-cigarette use.

#### FDA's "The Real Cost" E-Cigarette Prevention Campaign

Aimed at educating teens about the dangers of electronic cigarettes use.

#### ENDS Defined

Vapes, vaporizers, vape pens, hookah pens, electronic cigarettes (e-cigarettes or e-cigs), and e-pipes are some of the many terms used to describe electronic nicotine delivery systems (ENDS). ENDS Are Noncombustible Tobacco Products.

#### A Public Health Problem: What The Health Is Going On?

E-cigarettes are now the most commonly used tobacco product among youth.

- In 2016, more than 2 million U.S. middle and high school students used e-cigarettes in the past 30 days.
- E-cigarettes Shaped Like USB Flash Drives: Information for Parents, Educators, and Health Care Providers (CDC)

#### NYS 2017 Youth Risk Behavior Survey (YRBS)

- 2017 YRBS showed the percentage of students who ever used an electronic vapor product (including e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens) was 38.5%.
- The percentage of students who currently smoked cigarettes, cigars or used smokeless tobacco or electronic vapor products (on at least 1 day during the 30 days before the survey) was 18%.
- NYS YRBS statistics do not include NY City data.

#### What Are Electronic Cigarettes?

- Battery-operated devices that people use to inhale an aerosol. They typically contain nicotine, flavorings, and other chemicals.
- Resemble traditional tobacco cigarettes (cig-a-likes), cigars, or pipes, or even everyday items like pens or USB memory sticks. They are also called electronic non-nicotine delivery systems (ENNDS)
- Source: [CDC Electronic Cigarettes, August 2018](#)

#### Anatomy of an E-Cigarette

- Cartridge or reservoir, which holds a liquid solution (e-liquid or e- juice) containing varying amounts of nicotine, flavorings, and other chemicals
- A power source (usually a battery)
- The heating element (atomizer)
- Mouthpiece used to inhale

## **What Is Dripping?**

E-cigarettes are also being used for “dripping,” which involves vaporizing the e-liquid at high temperatures by dripping a couple of drops of e-liquid directly onto an atomizer’s coil and then immediately inhaling the vapor that is produced. Dripping e-liquids directly onto the e-cigarette atomizers can expose users to high temperatures and toxic chemicals like formaldehyde, acetaldehyde, and acetone in the vapors.

E-Cigarettes and “Dripping” Among High-School Youth, American Academy of Pediatrics, 2/2017.

## **How Does the Device Work?**

E-cigarettes produce an aerosol by heating a liquid that usually contains nicotine. Users inhale this aerosol into their lungs. E-cigarettes can be used to deliver marijuana and other drugs

## **What is in E-Cigarette Aerosol?**

Volatile organic compounds, Nicotine, Heavy metals, such as nickel, tin, and lead, Diacetyl, and Acrylonitrile.

## **Mental Health Risks from Nicotine**

- Includes depression, anxiety, and other mood disorders.
- Difficulty paying attention and concentrating Reduced impulse control.
- Adolescents with symptoms of mental health disorders (anxiety, disruptive behaviors, mood disorders). are at an increased risk for long-term nicotine dependence.

## **CDC Resource For Parents, Educators and Health Care Providers**

- Describes the risks of new e-cigarettes shaped like USB flash drives being used by students in schools.
- The use of any tobacco product including e-cigarettes is unsafe for young people.
- Young people who use e-cigarettes may be more likely to go on to use regular cigarettes.
- [www.cdc.gov/tobacco](http://www.cdc.gov/tobacco)

## **Monitoring The Future 2017**

- Monitoring The Future Survey is an annual survey of 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> graders conducted under a grant from the NIH. It surveys the behaviors, attitudes, and values of U.S. secondary school students, college students, and young adults. Over half think it is “just flavoring” in the e-vaporizer.
- [www.monitoringthefuture.org](http://www.monitoringthefuture.org)

## **Youth Prefer E-Cigarettes: drugabuse.gov**

Teens are more likely to use e-cigarettes than cigarettes. Two times as many boys use e-cigs as girls. Use increases as students go from 9th to 12th grade.

## **Teens Using E-Cigs Are More Likely to Start Smoking**

- About 1/3 of e-cig users started smoking combustible tobacco products within 6 months.
- 8% of e-cig non-users started smoking combustible tobacco products within 6 months.
- About 2/3 of teens say there is “just flavoring” in their e-cig. 13% say there is nicotine in their e-cig.

## **Marketing to Youth**

More than 9 of 10 young adult e-cigarette users said they use e-cigarettes flavored to taste like menthol, alcohol, candy, fruit, chocolate, or other sweets. More than 8 of 10 youth ages 12-17 who use e-cigarettes said they use flavored e-cigarettes. For youth and young adults, there is substantial evidence that e-cigarette use increases the risk of ever using combustible tobacco cigarettes.

[National Academies Of Science, Engineering, and Medicine 2018 Report](#)

## **Federal and NYS Laws Prohibiting Smoking**

As of November 22, 2017, e-cigarettes and similar devices are included in the state's Clean Indoor Air Act. State law also prohibits the use of tobacco products and e-cigarettes on the grounds of all public and private pre-schools, nursery schools, and elementary and secondary schools as well as in school vehicles used to transport children or school personnel.

## **NYS Bans Sale of Liquid Nicotine to Minors**

Minimum age to purchase is 18, with higher ages in specific NYS counties and NYC.

Violators are subject to a civil penalty of up to \$1,000. All liquid nicotine must be packaged in a child-resistant bottle.

## **FDA's New Tobacco Rule**

FDA regulates all tobacco products. In 2016, the FDA established a rule for e-cigarettes and their liquid solutions. Because e-cigarettes contain nicotine derived from tobacco, they are now subject to government regulation.

## **FDA Regulation of Electronic Nicotine Delivery System**

- |   |  |                         |
|---|--|-------------------------|
| • E-liquids                                     | • Certain batteries                            | • Tank systems          |
| • A glass or plastic vial container of e-liquid | • Cartomizers and clearomizers                 | • Drip tips             |
| • Cartridges                                    | • Digital display or lights to adjust settings | • Flavorings for ENDS   |
| • Atomizers                                     |  | • Programmable software |

## **FDA Tobacco Products, Vaporizers, E-Cigarettes, and other Electronic Nicotine Delivery Systems (ENDS) E-Liquid Products Misleadingly Labeled or Advertised as Food Products**

The FDA and the Federal Trade Commission (FTC) issued warning letters to companies that misleadingly labeled or advertised nicotine-containing e-liquids as kid-friendly food products such as juice boxes, candies, and cookies. In August 2018, in response to receiving the FDA and FTC letters, every product on the list was removed from the market.

## **FDA's "The Real Cost" E-Cigarette Prevention Campaign**

- Aimed at educating teens about the dangers of electronic cigarettes use.
- [The Real Cost Campaign](#)

## **Vaping Injuries from E-Cigarette Batteries**

The FDA identified 134 incidents of e-cigarette batteries overheating, catching fire or exploding in the US during a seven-year period ending in January 2016. The FDA has a portal to report a vape explosion, or any other unexpected health or safety issue with a vape. [This video shares how to report a battery explosion to the FDA.](#)

## **CDC Electronic Cigarettes Resources**

Offers a wealth of resources about health effects and the risks of using e-cigarettes. They have fact sheets, and infographics for teachers, parents and healthcare providers. [www.cdc.gov/tobacco/index.htm](http://www.cdc.gov/tobacco/index.htm)

## **Getsmartaboutdrugs.gov**

DEA resource site with resources for health educators. It includes photos of drugs and paraphernalia, statistics, trends, and consequence of use with downloadable resources for students, families, and staff. [getsmartaboutdrugs.gov](http://getsmartaboutdrugs.gov)

## **Scholastic.com E-Cigarette Resources**

- What You Need to Know Teachers Guide Lesson Plans
- Grade-tiered resources
- Academic and Domain-Specific Vocabulary Lists
- Writing Prompts
- Expanded Standards Charts

[www.headsup.scholastic.com/teachers/lesson-e-cigarettes-what-you-need-to-know](http://www.headsup.scholastic.com/teachers/lesson-e-cigarettes-what-you-need-to-know)

## **Stanford Tobacco Prevention Toolkit**

Online Toolkit for K-12 educators which includes educational modules for educators, administrators, parents/guardians, and others working with youth. [www.tobaccopreventiontoolkit.stanford.edu](http://www.tobaccopreventiontoolkit.stanford.edu)

## **2016 U.S. Surgeon General's Report on E-Cigarette Use**

First report issued by a Federal agency that comprehensively reviews the public health issue of electronic cigarettes and their impact on our nation's young people.

## **Truth Initiative**

National tobacco prevention counter-marketing campaign that speaks to youth and young adults on their terms. Delivers the facts about the health effects and social consequences of tobacco and the marketing tactics of the tobacco industry so youth and young adults can make informed decisions and influence others to do the same. Trains future leaders to help counter tobacco's influence, especially within communities of color and low-income populations. Established as part of the 1998 Master Settlement Agreement between major U.S. tobacco companies

[www.truthinitiative.org](http://www.truthinitiative.org)

## **Tobacco-Free Kids**

Resources and Advocacy, Prevention and Cessation Programs, Youth Initiatives to foster leadership and advocacy. [www.tobaccofreekids.org](http://www.tobaccofreekids.org)

## **What Is NYS Doing?**

NYSED and NYSCSH Resources and training via the NYSED and NYSCSH websites

Collaboration to support outreach to schools with evidence-based resources on e-cigarettes.

NYSDOH Tobacco Control Program works to inform communities and on prevention through local grantees.

Collaboration with NYSCSH to create awareness of resources for the reduction of tobacco use.

[www.health.ny.gov/prevention/tobacco\\_control](http://www.health.ny.gov/prevention/tobacco_control)

Advancing Tobacco-Free Communities (ATFC) facilitate Reality Check, a teen-led, adult-supported program working across NYS to prevent tobacco use in youth and make them aware of the deceptive and manipulative marketing tactics the tobacco industry uses. <http://www.tobaccofreenys.org/smoke-free-media/>

## **Youth Cigarette Use at All-Time Low-Electronic Nicotine Delivery System (ENDS) Use Doubles**

- ENDS (Electronic Nicotine Delivery System) use in NYS obtained from the most recent Youth Tobacco Survey show that:
- Cigarette smoking among high school youth use declined by 84% between 2000 and 2016.
- A low of 4.3% report current smoking in the past 30-days.
- In contrast, use of ENDS among high school youth doubled between 2014 and 2016 from 10.5% to 20.6% making ENDS the most commonly used tobacco product surpassing cigarettes, cigars, smokeless tobacco, and hookah.

## **What Schools Can Do**

- The e-cigarette industry is offering schools e-cigarette “prevention” programs.
- Although it is a local level decision for schools to decide what programs to utilize it is important to utilize the evidence-based and valid resources such as those provided in this webinar in included in the resources in your decision-making process.
- Tobacco industry-sponsored programs have been found to be ineffective in preventing youth tobacco use and can actually increase use. It is important to develop, implement, and enforce tobacco-free and e-cigarette-free policies in your schools involving all stakeholders needed for success-including students.

## **NYSED Guidance and Resources**

Guidance documents and resources for health educators are on the NYSED and NYSCSH websites.

## **School Tobacco Prevention Activities**

Red Ribbon Week is a national awareness campaign that works to prevent alcohol, tobacco, and other drug use.

Great American Smokeout is an annual event to encourage people to stop tobacco smoking. It is hosted by the American Cancer Society on the third Thursday of November.

Kick Butts Day is a national day of activism where young people are encouraged to host events that work towards a tobacco-free society.

Earth Day is a day that is observed worldwide to support environmental protections.

World No Tobacco Day is a worldwide campaign that encourages a 24-hour period of abstinence from all tobacco products.

## **Acknowledgments**

The NYS Center for School Health gratefully acknowledges the NYS Department of Health Bureau of Tobacco Control and NYS Department of Health Bureau of Chronic Disease Evaluation and Research for provision of evidence-based information, resources and statistics related to the use and impact of e-cigarettes, Electronic Nicotine Delivery Systems (ENDS) The Bureau of Tobacco Control administers the state's Tobacco Control Program (TCP) to reduce illness, disability and death related to tobacco use and secondhand smoke exposure, and to alleviate the social and economic burdens caused by tobacco use.

## **Disclaimer**

Information and resources provided do not constitute or infer an opinion or endorsement of specific programs by the New York State Education Department (NYSED) or the State.

NYSED is not responsible for the content of the individual organization materials or external website links provided as resources.

## **What Will YOU Do?**

- How will you use what you learned to elevate your lesson plans?
- What things will you start doing?
- What things will you stop doing?

## **Let's Put This Into Practice**

## **E-Cigarettes and Vaping: Truth or Fiction About Tobacco Addiction Resources**

### **American Academy of Pediatrics Resources (AAP)**

[Electronic Nicotine Delivery Systems Webpage-Fact sheet on e-cigarettes.](#)

[E-Cigarettes and “Dripping” Among High-School Youth \(2/2017\)](#)

[E-Cigarettes and Electronic Nicotine Delivery Systems: What Parents Need to Know Fact Sheet \(8/2016\)](#)

### **CDC Resources**

[Electronic Cigarettes Webpage-Provides types, use, and health implications for youth \(2/18\).](#)

### **FDA (US Food and Drug Administration) “Real Cost” Campaign Website**

[2018 e-cigarette campaign to educate teens on the dangers of e-cigarette use through ads focused on debunking myths. Includes links to ads on YouTube, Spotify and posters for high schools \(9/2018\).](#)

### **Health Powered Kids-Health Powered Kids™**

[Includes lessons and activities on nutrition, physical fitness, hygiene, and mind-body balance, health, and wellness in a series of 60+ lessons on nutrition, physical fitness and mind-body balance for youth, ages 3 to 14 years with links to national health and physical education standards. \(Alina Health\).](#)

### **National Academies of Science, Engineering, and Medicine Report: Public Health Consequences of E-Cigarettes (Released 1/23/18)**

[A comprehensive review of the literature that evaluates evidence about e-cigarettes and health was completed by the National Academies of Science, Engineering, and Medicine at the request of the FDA’s Center for Tobacco Products.](#)

### **National Institutes of Health Resources (NIH)**

[What are electronic cigarettes Webpage-Provides an overview of how e-cigarettes work, use in teens, the effect on the brain, government regulation, 2016 FDA tobacco rule and information from the US Surgeon General \(NIH, 3/18/18\)](#)

### **NYS Department of Health Tobacco Control Program**

[Contains multiple resources on tobacco use data, NYS laws on smoking, cessation information and a dedicated page on e-cigarettes with an Infographic called Get the Facts - Electronic Cigarettes \(E-cigarettes\) and Similar Devices. Includes links to NYS laws on tobacco and vaping restrictions related to youth.](#)

### **Scholastic.Com Website**

[E-Cigarettes, What You Need to Know: Teachers Guide- Provides lessons, writing prompts by grade level, worksheets videos and links to other resources \(Scholastic.com, 2015\).](#)

### **Stanford Medicine Resources Website**

[The Tobacco Prevention Toolkit-Educational modules for educators, administrators, parents/guardians, and anyone who works with youth that is aimed at preventing middle and high school students’ use of cigarettes, cigars/cigarillos, chew, hookah, and electronic cigarettes.](#)

### **Truth Initiative® Website**

[Non-profit public health organization dedicated to tobacco education, research and community engagement in tobacco dependence treatment.](#)