



American Heart Association.

KIDS | **AMERICAN**
HEART | **HEART**
CHALLENGE™ | **CHALLENGE™**

WELCOME!

WE WILL BEGIN SHORTLY



Youth Tobacco & Vaping: A National Epidemic

Dr. Jeffrey Willett



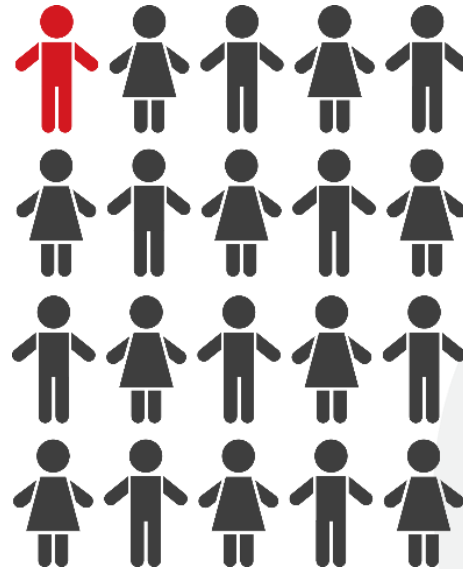
**VP of Tobacco Strategy,
American Heart Association**

FEWER TEENS ARE SMOKING CIGARETTES THAN EVER BEFORE



1997

1-IN-4 HS STUDENTS
SMOKED



2020

1-IN-20 HS STUDENTS
SMOKE

TRAGICALLY, VAPING IS THE NEW YOUTH TOBACCO EPIDEMIC



2020

1-IN-5 HS STUDENTS
USE E-CIGARETTES

Teens and Vaping

- E-cigarettes are the most used tobacco products among youth.
- 3.6 million teens were current e-cigarette users in 2020.
- Fruit, mint and menthol are the most used flavored nicotine liquids among teens.
- Between 2019-20, disposable e-cigarette use has skyrocketed!

1,000%

increase of disposable
e-cigs among high
school students

500%

increase of disposable
e-cigs among middle
school students

Dr. Sharonica L. Hardin-Bartley



**Superintendent, University
City School District, MO**

**Chair Elect, AHA Metro St.
Louis Board of Directors**



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Dr. Theodore L. Wagener

**Director, Center for Tobacco
Research at Ohio State**

**Co-Leader, Cancer Control
Program, OSU CCC**

**Associate Professor, Dept. of
Internal Medicine**



What is an e-cigarette?



Battery-powered devices that produce an inhaled aerosol – usually containing nicotine.

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Most Popular E-cigarettes Among Youth



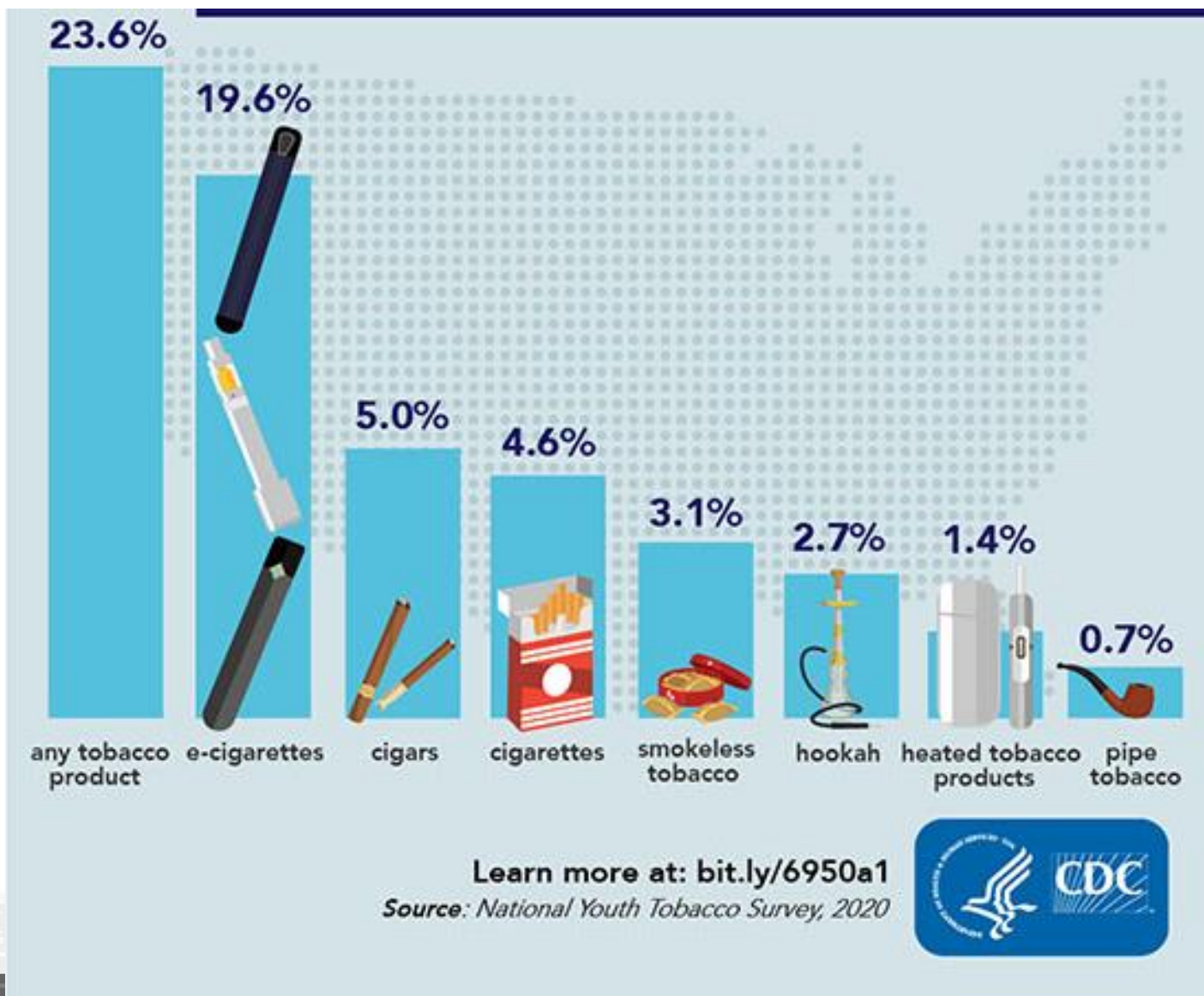
bidi
STICK



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 THE OHIO STATE UNIVERSITY
COMPREHENSIVE CANCER CENTER

Current Use among High School Students



Decline in use during 2020 due to COVID:

- ✓ 58% reported reduced access to retail environments
- ✓ 46% reported less sharing of e-cigarettes among social sources

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E-cigarette Evolution

Smaller and easier to use



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E-cigarette Evolution

More reliable

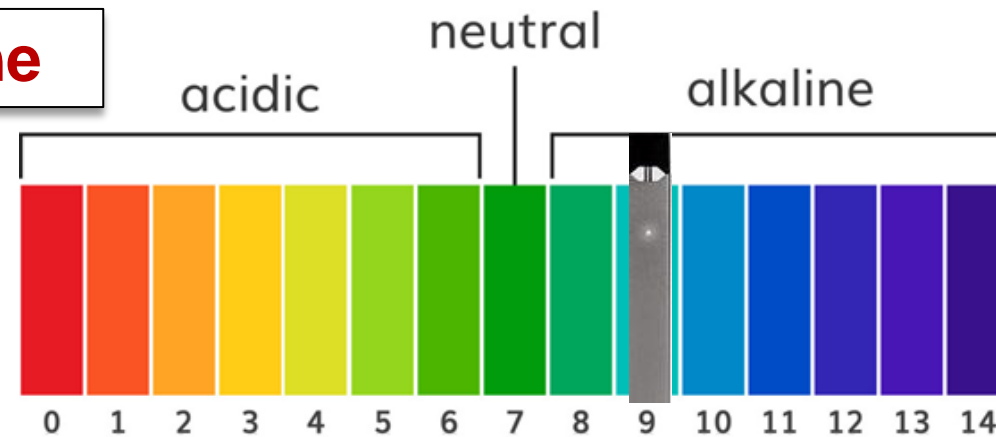
More appealing

- Flavors and more palatable nicotine

Flavors



Nicotine



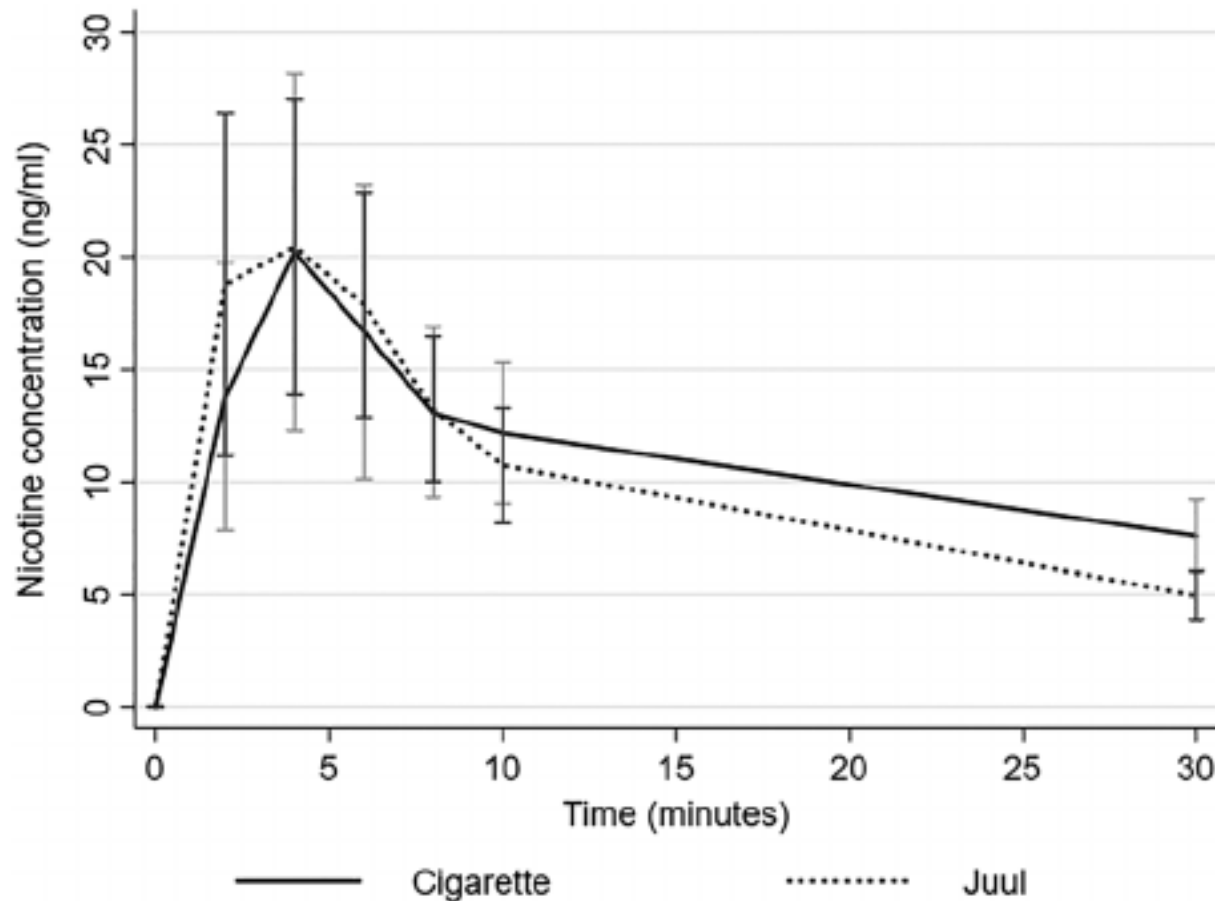
Nicotine Salts

Free-Base Nicotine

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E-cigarette Evolution

Better nicotine delivery = more addictive



Original research

Trends in e-cigarette brands, devices and the nicotine profile of products used by youth in England, Canada and the USA: 2017–2019

David Hammond,¹ Jessica L Reid ,¹ Robin Burkhalter,¹ Richard J O'Connor,² Maciej L Goniewicz ,² Olivia A Wackowski ,³ James F Thrasher,⁴ Sara C Hitchman ⁵

ABSTRACT

Background The e-cigarette market has rapidly evolved, with a shift towards higher nicotine concentration and salt-based products, such as JUUL; however, the implications for youth vaping remain unclear.

Methods Repeat cross-sectional online surveys were conducted in 2017, 2018 and 2019, with national samples of youth aged 16–19 years recruited from commercial panels in Canada (n=12 018), England (n=11 362) and the USA (n=12 110). Regression models examined differences between countries and over time in the types of e-cigarette products used (design and nicotine content), reasons for using brands and differences in patterns of use, sociodemographics and dependence symptoms by brand/nicotine content.

Results In 2019, the use of pod- or cartridge-style e-cigarettes was greater in Canada and the USA than England, with Smok and JUUL the leading brands in all countries. In 2019, youth vapers in England were less likely to report using e-cigarettes with $\geq 2\%$ nicotine (12.8%) compared with Canada (40.5%; adjusted OR (AOR)=4.96; 95% CI 3.51 to 7.01) and the USA (37.0%; AOR=3.99, 95% CI 2.79 to 5.71) and less likely to report using nicotine salt-based products (12.3%) compared with Canada (27.1%; AOR=2.77, 95% CI 1.93 to 3.99) and the USA (21.9%; AOR=2.00, 95% CI 1.41 to 2.85).

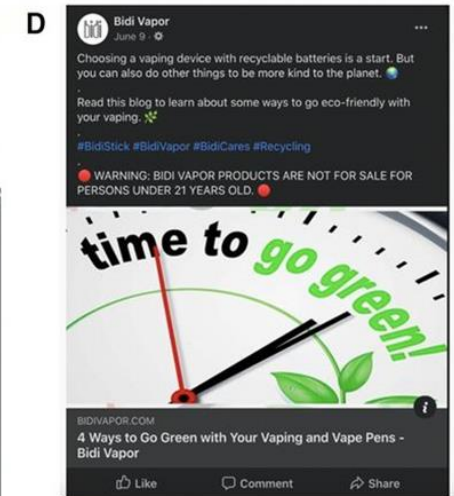
ml., whereas the standard version of JUUL on the market in the USA contains 59 mg/mL.^{1–4} Such high nicotine concentrations would typically produce a bitter, aversive sensation in the mouth and throat for conventional e-cigarettes with free-base nicotine; however, JUUL's nicotine salt formulation with benzoic acid generates aerosols with a lower pH level, which is known to reduce unpleasant nicotine taste and irritation in the upper airways.^{1, 6–7} Ultimately, consumers determine nicotine uptake through their puffing behaviours;⁸ however, nicotine salt e-liquids may facilitate greater nicotine delivery by making it easier to inhale high concentrations, particularly among novel users.

There are mixed findings as to whether nicotine concentration is associated with greater dependence among adult vapers.^{9, 10} Most studies to date were conducted prior to the emergence of high-nicotine salt-based (HNSB) products; in addition, most adult vapers have a history of tobacco smoking and nicotine dependence, which complicates efforts to characterise the abuse liability of e-cigarettes. Several studies suggest that youth vapers who use HNSB products are more likely to report symptoms of dependence, such as perceived addiction to vaping, compared with non-JUUL or non-pod products,^{11–13} with one study finding no

E-cigarette Evolution - Evolving Marketing Strategies

E-cigarette manufacturers are focusing largely on social media

- Youth and young adults are the largest consumer of social media



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Promising School-Based Intervention Approaches

Intervention	Description	Jurisdiction	Population	Source
The Tobacco Prevention Toolkit	Toolkit to be delivered by educators and aimed toward tobacco, e-cigarettes, and vaping	US (but available online)	For middle and high school students	Stanford University (School of Medicine)
CATCH My Breath Youth E-cigarette Prevention Program	Provides schools with a free curriculum for middle and high schoolers to educate them on vaping	US (but available online)	Ages 11-18	CATCH (Coordinated Approach to Child Health)
Get Smart About Tobacco - Health and Science Education Program	Provides educators and schools with lessons, posters, hands-on experiments and fact sheets about smoking (includes e-cigs)	US (but available online)	For students in grades 3-7	Scholastic
E-Cigarettes: What You Need to Know (Teacher's Guide)	Provides teachers with resources and student materials about e-cigarettes	US (but available online)	For students in grades 6-12	Scholastic
Vaping and JUULING Lesson Plans	Curriculum for teachers to educate about the harms of vaping	US (but available online)	For middle and high school students	Physician Advocacy Network
School E-cigarette Toolkit	Provides tools and resources to address vaping products in schools	Minnesota	School staff, for students	Minnesota Dept. of Health

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Programs are effective when they focus on...

- Information on the products, how they are addictive, and potentially harmful to the brain, lungs, and heart
- Information on how the tobacco industry develop products specifically to appeal to youth *via* flavors (e.g., fruit, mint, menthol, alcohol)
- Helping students develop refusal skills
- Addressing social influences
 - Peers
 - Social media and point of sale advertising
- Use of handouts and interactive in-class activities to complement didactics and discussion

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Risk Factors for Youth Use

Youth are more likely to use e-cigarettes and tobacco if:

- If they frequently see people their age using tobacco
- If their friends use tobacco
- If a parent uses tobacco
- If they suffer from depression, anxiety, or stress
- Lack of support or involvement from parents

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Vaping's End through Research and Innovation For Youth

AHA's End Nicotine Addiction in Children and Teens (ENACT) Grant

- Cardiovascular, pulmonary, metabolic, and cognitive health effects of e-cigarettes
- E-cigarette product regulations that will reduce the addiction potential of e-cigarettes
- Effective, scalable and easily accessible vaping cessation intervention that is urgently needed



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AHA's Tobacco-Free Schools Framework





THE AMERICAN HEART ASSOCIATION'S
**TOBACCO-FREE
SCHOOLS TOOLKIT**



Generously supported by
CVSHealth
FOUNDATION

- Policy and code of conduct recommendations for implementing a supportive approach to address youth vaping.
- Recommendations for tobacco prevention education, tobacco cessation and alternatives to suspension.
- heart.org/antivaping under Administrators tab.



Why a supportive approach?

Keep kids in the classroom and support academic achievement.

Exclusionary discipline increases the likelihood of:

- Negative educational outcomes
- Lower test scores
- Lower graduation rates
- A lower likelihood of enrolling in postsecondary education.





Why a supportive approach?

Student well-being and mental health are related to vaping and tobacco use.

Students who report feelings of sadness and hopelessness, and who reported seriously considering suicide are more likely to vape.

- Exclusionary discipline does not address underlying issues related to tobacco use and vaping and may exacerbate them.





Why a supportive approach?

Most students want to quit.

Schools are the frontline of the vaping epidemic and uniquely positioned to support students who want to quit:

- Ensure every student is aware of cessation resources through the school or community.
- Ensure every student interested in quitting is supported in identifying and enrolling in a cessation program.



An exemplary tobacco-free school framework addresses:

- **DEFINITION** – tobacco products is defined to include ALL tobacco products: cigarettes, e-cigarettes, smokeless tobacco and other forms of tobacco;
- **PROHIBITIONS** – the district has a policy that prohibits use of all tobacco products by students, staff and ALL visitors while on school property and at ALL school-sponsored events;
- **INDUSTRY** – the district has a policy that prohibits tobacco industry promotional activities, including tobacco industry-supported prevention and cessation programs;
- **DISCIPLINE** – the district has policies and/or codes of conduct that reflect a restorative disciplinary approach for students who possess and/or use tobacco; and
- **SUPPORT** – the district adopts strategies that ensure all students interested in quitting are referred to a program designed to help them quit.



AHA is here to help

- **Information and Resources:** AHA's Tobacco Free Schools Toolkit and many resources are available at www.heart.org/antivaping.
- **Technical Assistance and Support:** email us at AHATobaccoFreeSchools@heart.org to receive support for planning and implementing your school's tobacco-free framework.
- **Stipends for Implementation:** School districts that implement a Tobacco-Free School framework are eligible to apply for stipends supporting implementation.





<https://tobaccoendgame.yourethecure.org/>



SHARE YOUR STORY

SPREAD THE WORD

ABOUT US



TOBACCO *Endgame*

"We are rejecting the tobacco industry's manipulative marketing and boldly declaring - We will be the generation that ends tobacco and nicotine addiction for good." -Ilana, 20

Join THE MOVEMENT

Together, we have the power to end vaping and nicotine addiction. Your voice can make a difference today.

Our STORIES

Teens across the country are sharing their stories and making a difference in their communities.

JEREMIAH'S STORY



ABIGAIL'S STORY





Vaping cessation text messages for teens and young adults

- Confidential, available 24/7
- Easy to enroll: text **HEART** to 887-09
- Option to set a quit date
- Over 12 weeks of daily text messages
 - Interactive messages to get to know users
 - On-demand support for cravings, stress, relapse, and more
 - Assessments at 2 weeks and 1, 2, 3 months post-enrollment



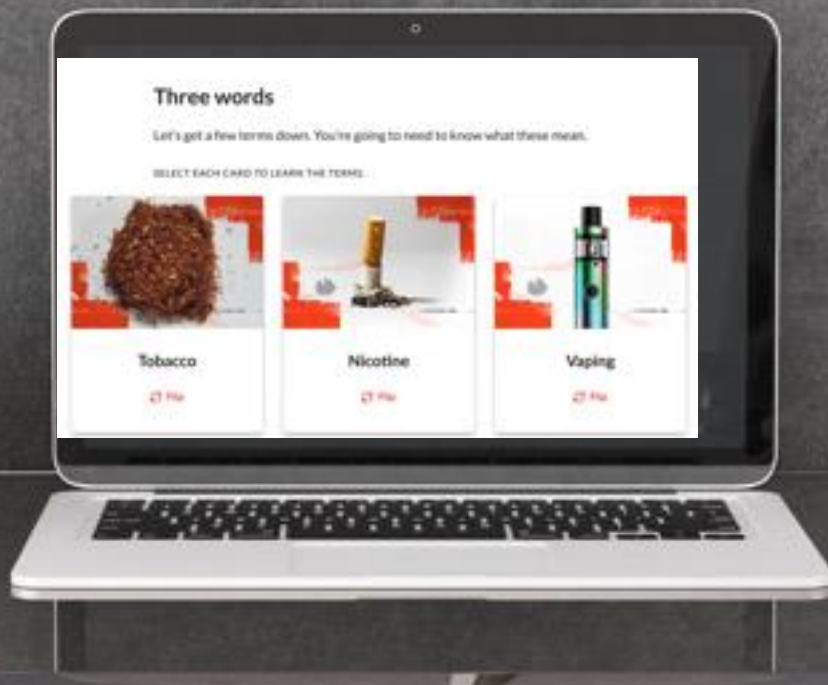
Vaping: Know the truth

Grade Level: 8th – 12th

Course Length: 4 lessons, 5-10 minutes each

Aligns with National Health Education Standards

Suggested Class Fit: Health, FACS, PE, Advisory



Vaping: Know the truth is a digital course created by Truth Initiative and Kaiser Permanente, in collaboration with the American Heart Association, on vaping prevention and resources to quit made available at no cost to students and teachers.

Course Highlights

- Interactive scenarios to model and reinforce course topics
- Real stories from youth
- Mobile device ready

Lesson Topics

- Dangers of Vaping
- Addiction & Nicotine
- Refusal Skills
- Resources to Quit



American Heart Association Nation of Heartsavers™

- The American Heart Association (AHA) Nation of Heartsavers™ is a national movement around well-being, education, safety and emergency preparedness in our communities by developing a Cardiac Emergency Response Plan (CERT). The AHA serves in communities educating audiences to unite and encourage more people to live a healthy lifestyle and be prepared for the next level of education with STEM, nutrition and physical activity programs, as well as how to act in an emergency, be it for CPR, first aid, or safety.
- The AHA is accepting applications for a new recognition program honoring schools and school districts as a part of a Nation of Heartsavers. Schools that actively participate in educational programs such as CPR and First Aid training, and are active participants in STEM, nutrition programs, tobacco/vaping policies and have weekly student physical activity on campus may apply for the program. Inaugural applicants that meet the **criteria** will be awarded an official **Heartsaver School/School District** certificate of award and **Heartsaver School Digital Badge** for the 2020-2021 school year.
- We can all make a difference in the growth of our future leaders through education. We want to recognize your efforts as a school focused on education and growth in your community. We look forward to welcoming your school as a **Heartsaver School/School District** and creating the next Generation of Heartsavers™.

QUALIFY IN 5 CATEGORIES:

1. CPR, AED and Cardiac Emergency Response Plan (CERT) Programs
2. Kids Heart Challenge and American Heart Challenge Programs
3. Vaping and Tobacco Policies and Programs
4. Nutrition and Well-Being Programs
5. STEM Programs

HEARTSAVER SCHOOL RECOGNITION

- Letter of appreciation from AHA to the Principal with a note to the Superintendent/PTA
- Certificate of Recognition (digital)

TIMING

- Launch: July-Aug 2021





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KidsHeartChallenge@heart.org