

# PATCH SYMPOSIUM April 20<sup>th</sup>, 2022

- Vaping and Teens: The Perfect Storm for the Next Public Health Disaster

- James Meyer MD, FAAP, FSAHM
- Department of Pediatrics
- Adolescent Medicine
- Marshfield Clinic Health System

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PATCH Wausau



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- We acknowledge our negative bias toward individuals, companies and social media sources whose actions endanger the health and future of teens.

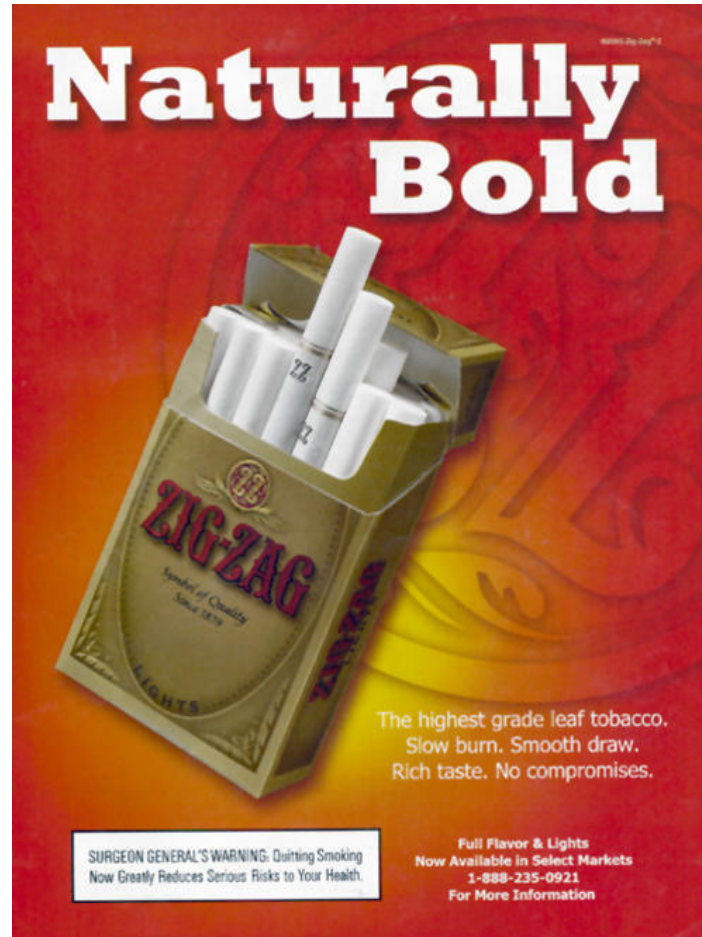


# CME Activity Objectives

- Discuss **why teens are especially at risk** for experimenting with Electronic Nicotine Delivery Systems (ENDS) or Electronic Delivery Products (EDPs), i.e. e-cigs, vaping, juuling, etc.
- Recognize the **addictive nature of nicotine** containing products
- Identify the **known and evolving serious health effects** of tobacco-derived and nicotine containing products including recent EVALI cases
- Discuss **tips** on screening for use, educating and guiding teens and their families regarding nicotine containing products/vaping



# Big Tobacco is Still Here



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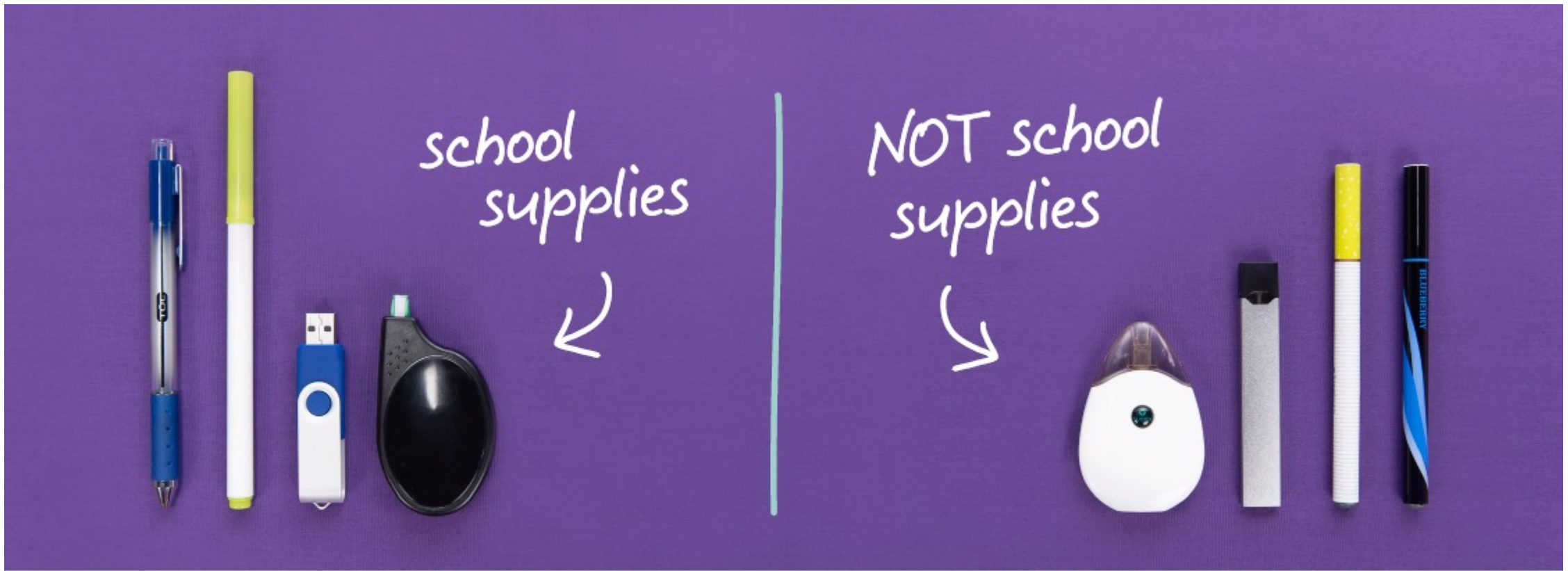
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**WARNING:** This product is not intended for use by women who are pregnant or breast feeding, or persons with or at risk of heart disease, high blood pressure, diabetes, or taking medicine for depression or asthma. Nicotine is addictive and habit forming, and it is very toxic by inhalation. Nicotine can increase your heart rate and blood pressure and cause dizziness, nausea, and stomach pain. Inhalation of this product may aggravate existing respiratory conditions.

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# What is an Electronic Nicotine Delivery System (ENDS)?

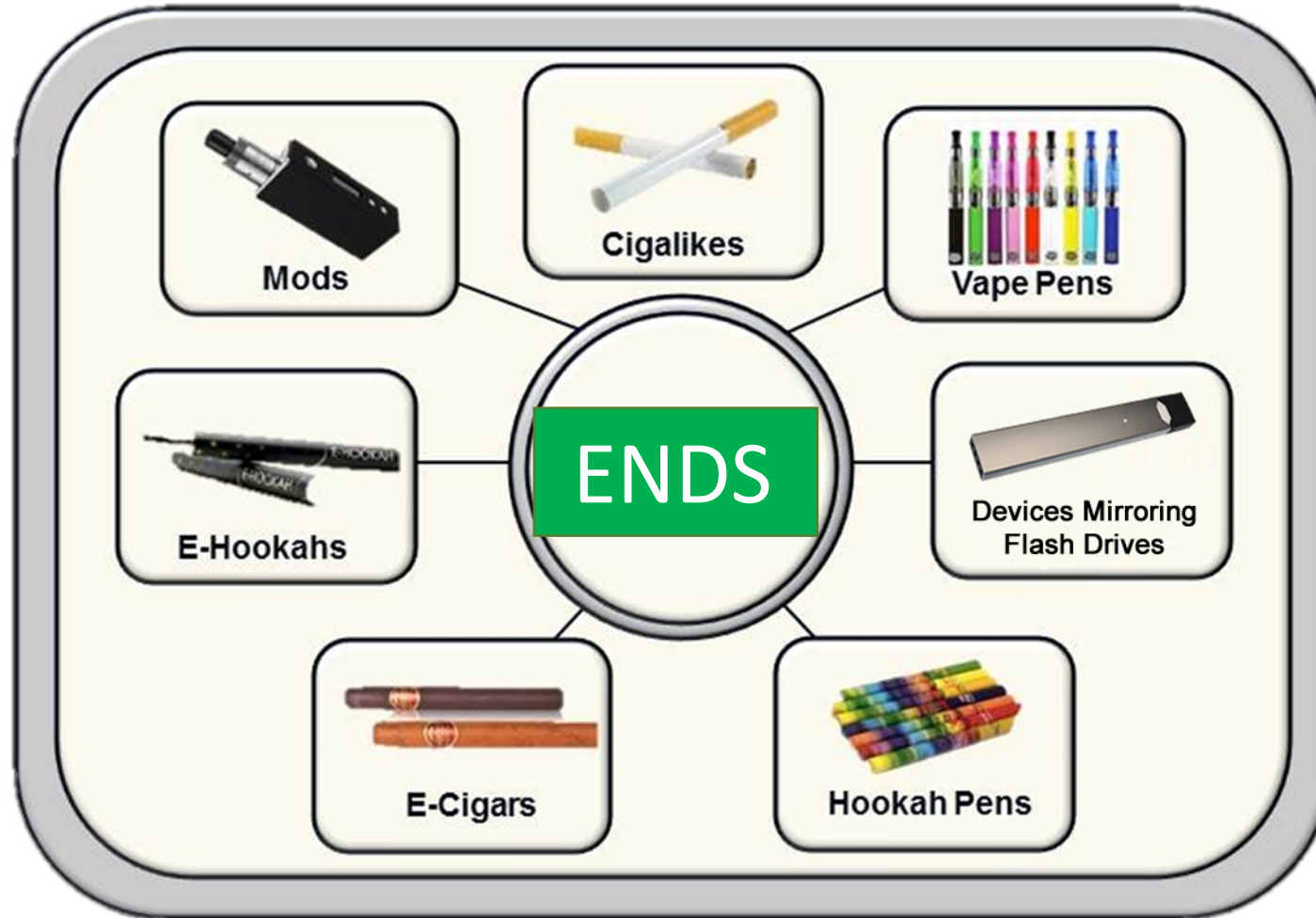
Cigalike

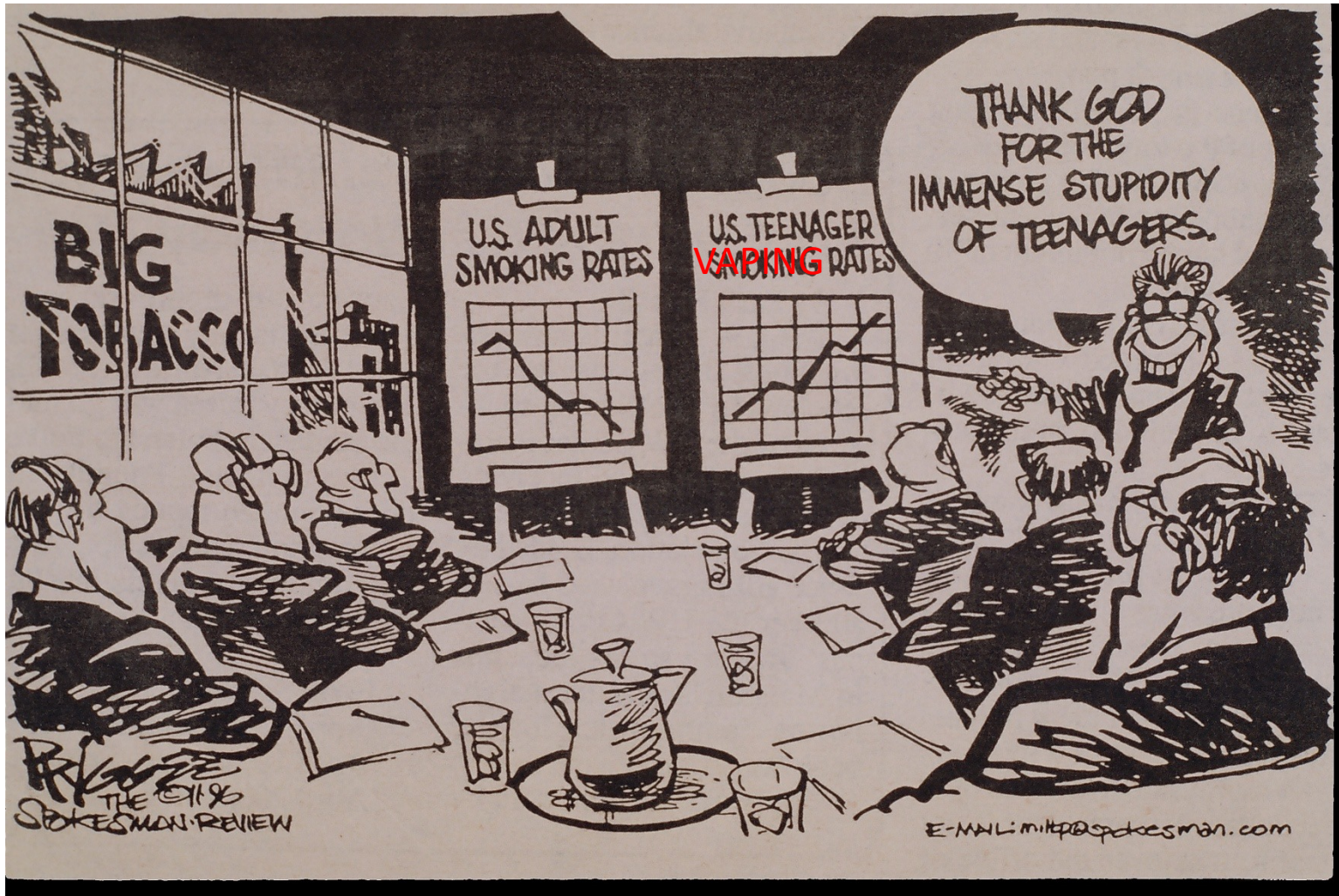


[Vaping is in an Epidemic](#)



# What is an Electronic Nicotine Delivery System?







## A Public Health Crisis



- Sept 18. 2018
- **FDA Commissioner Dr. Scott Gottlieb:**
- “We have an obligation to act on what we know. And what we know is very disturbing. Kids use of e-cigarettes has reached an epidemic level of growth.”

<https://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm620791.htm>



# FDA Launches Ad Campaign Against Youth Vaping “Epidemic”

- USA Today (9/18) reports the FDA is launching a public service campaign targeting teen vaping. [The FDA plans to place ads in 10,000 school restrooms and on websites.](#)
- NBC News (9/18) reports Mitch Zeller, Director of the FDA’s Center for Tobacco Products, said, [“E-cigarettes are now the most commonly used tobacco product among young people in the United States,”](#) adding, “we need to get the word out about the dangers of e-cigarette use among adolescents.”
- AAP News (9/18) reports the **American Academy of Pediatrics** “recently joined eight leading public health and medical organizations in filing a petition that [urges the Federal Trade Commission \(FTC\) to stop tobacco companies’ deceptive advertising to youths on social media.](#)”



## Five Lawsuits Filed Against JUUL This Week

[CNN](#) (11/19/2019) reports five lawsuits were filed against JUUL this week, claiming its “advertising campaigns target young people to use nicotine without knowing the associated risks by enticing them with flavor pods.” The suits “were filed...by the states of California and New York, two Washington state counties and a school district.”

## [All flavored e-cigarette products banned in NYC](#) [CNBC](#) (11/26/19)

The City Council moved by vote of 42 to 2 to ban the fruity, minty, candy-like flavors of e-cigarettes, which were clearly designed to appeal to young people in the first place," City Council Health Committee Chair Mark Levine said.

## Teen marijuana vaping doubles; alcohol, cigarette use declining December 18, 2019 Primary Care



***Medscape Medical News'*** [year-end survey](#). 60% (59.2%) of survey responding physicians said that vaping-related illness and deaths will be the most remembered for medical issue for 2019

### **Vaping May Be “Irresistible” To Students Living On College Campuses, NYTimes Suggests.**

The [New York Times](#) (12/22) No Parents, No Principal, No Problem.

***Health Day News Dec. 23, 2019*** - *Electronic cigarettes are marketed as an aid to quitting smoking, but most young people who vape say that's not why they indulge.*

*6 out of 10 say they vape to relax and they'd miss the stress relief of vaping if they quit(AAFP)*

## FEDERAL TOBACCO 21 LAW IS NOW IN EFFECT



- "On Dec. 20, 2019, President Trump signed legislation to amend the Federal Food, Drug, and Cosmetic Act, and raise the federal minimum age of sale of tobacco products from 18 to 21 years. It is now **illegal for a retailer to sell any tobacco product** — including cigarettes, cigars and e-cigarettes — to anyone under 21. FDA will provide additional details on this issue as they become available," the agency stated.
- Prior legislation increasing the minimum legal age to buy tobacco products to 21 already was passed by 19 states, Washington, D.C., more than 530 municipalities and counties in 31 states.
- WI had a bill that was held up in committee. **Not yet illegal for WI 18-21yo to possess these tobacco products.**
- In WI local government cannot enact law that is more restrictive than the state law.





April 5, 2022

# FDA Gains Power to Regulate Synthetic Nicotine in e-Cigarettes

[Joan Stephenson, PhD<sup>1</sup>](#)

*JAMA Health Forum.* 2022;3(4):e221140. doi:10.1001/jamahealthforum.2022.1140

**C**losing a loophole in the federal government’s oversight of e-cigarette products, new legislation gives the US Food and Drug Administration (FDA) the authority to regulate synthetic nicotine, used by some e-cigarette makers to evade a ban on flavored e-cigarettes, favored by teen vapers.

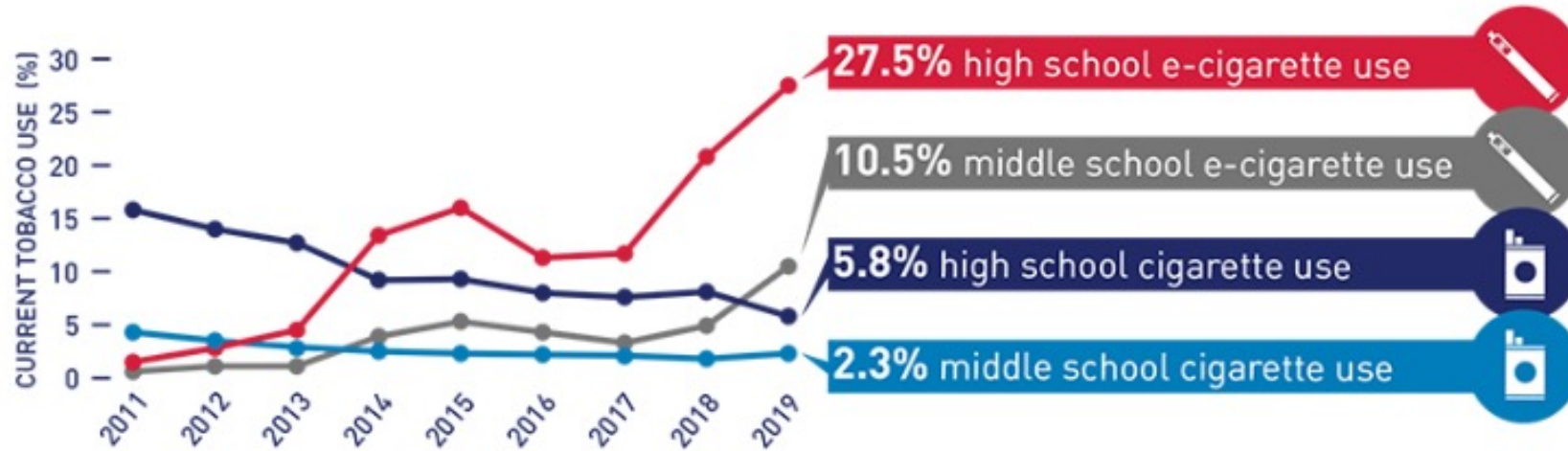
The new law became effective on April 14, 2022. Closing the synthetic nicotine loophole is intended to help advance the public health goal of reducing nicotine addiction that US teens acquire through use of flavored e-cigarettes.

This provision amends **the definition of “tobacco product”** in the Federal Food, Drug, and Cosmetic Act as “any product made or derived from tobacco, or containing nicotine from any source, that is intended for human consumption.” Under this definition, synthetic nicotine products, including flavored e-cigarettes, are included under the FDA’s tobacco regulatory authority.



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# E-cigarette/Vaping Trend National Youth Tobacco Survey

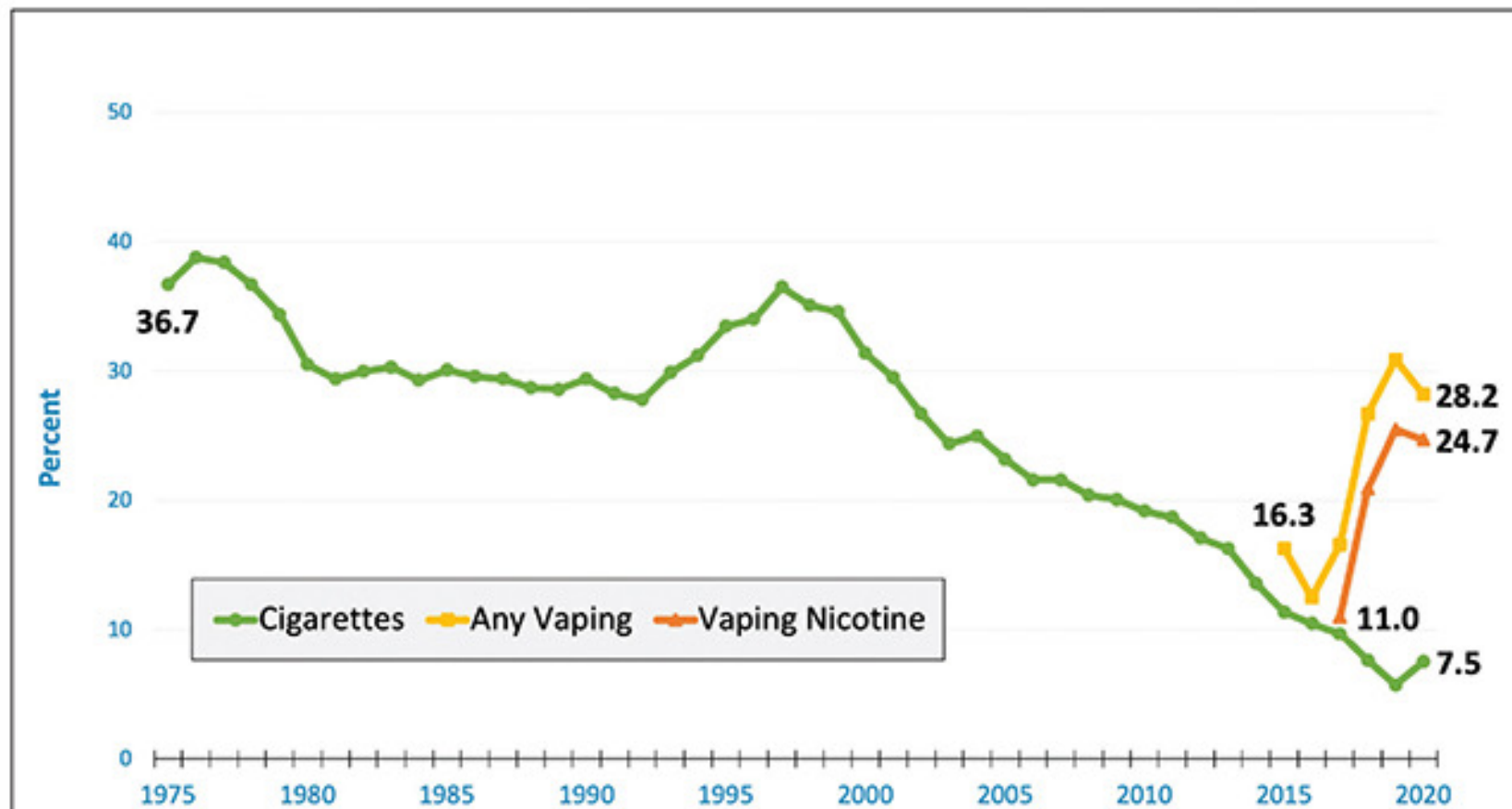


[www.fda.gov/tobacco](http://www.fda.gov/tobacco)

**OVER 5 Million**  
youth are currently using e-cigarettes



Percent of U.S. 12th grade students who reported cigarette use and vaping in the past 30 days, 1975-2020\*

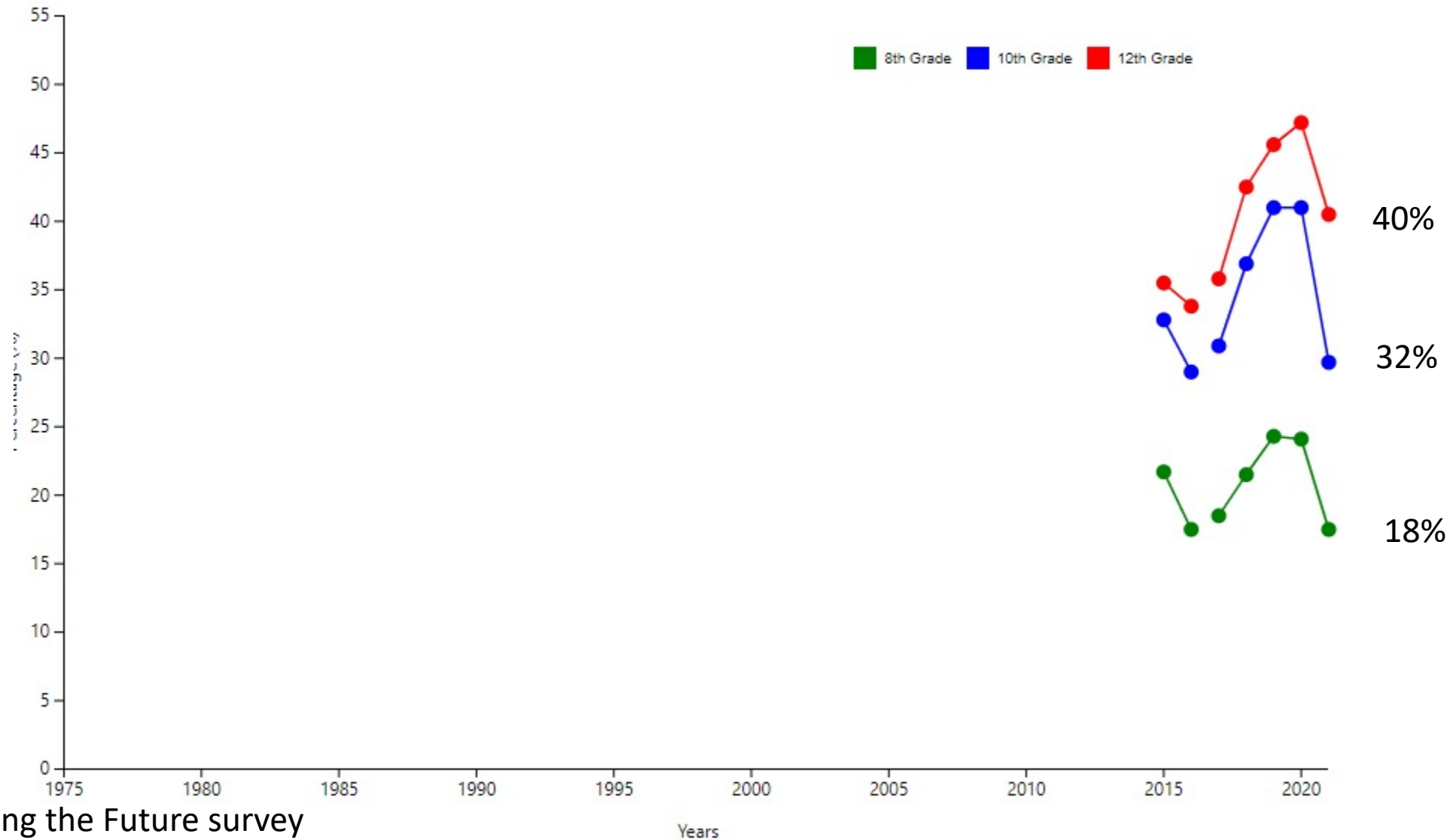


\*Data collection for 2020 stopped in March due to pandemic

Source: National Institute on Drug Abuse and University of Michigan's Institute for Social Research, Monitoring the Future Survey ([http://monitoringthefuture.org/pubs/monographs/mtf-vol1\\_2018.pdf](http://monitoringthefuture.org/pubs/monographs/mtf-vol1_2018.pdf) and <http://www.monitoringthefuture.org/data/20data/table3.pdf>)



## Any Vaping: Trends in Lifetime Prevalence of Use in Grades 8, 10, and 12

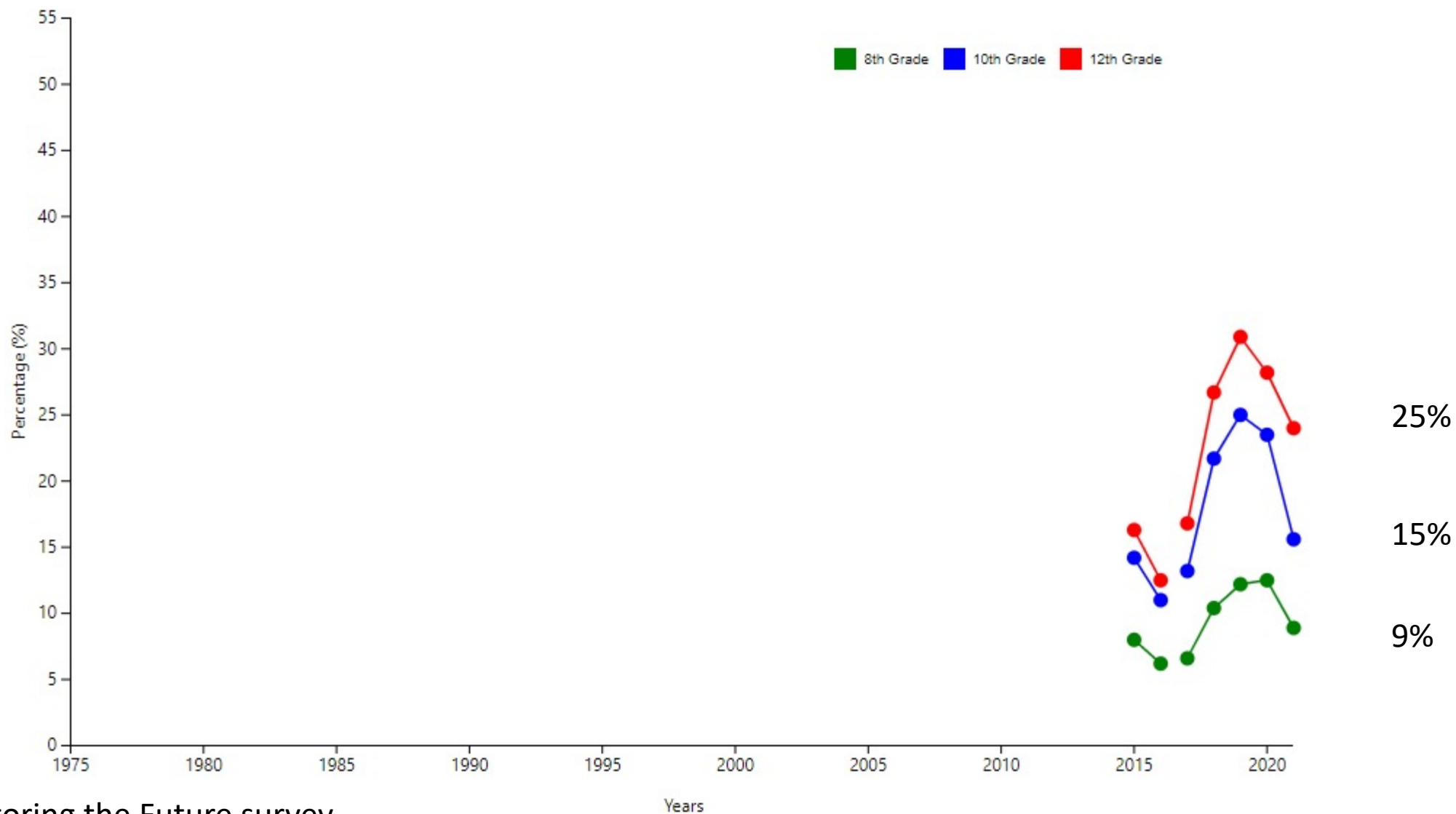


2021 Monitoring the Future survey  
conducted by the National Institute on  
Drug Abuse (NIDA).

● Lifetime ○ 12 Month ○ 30 Day

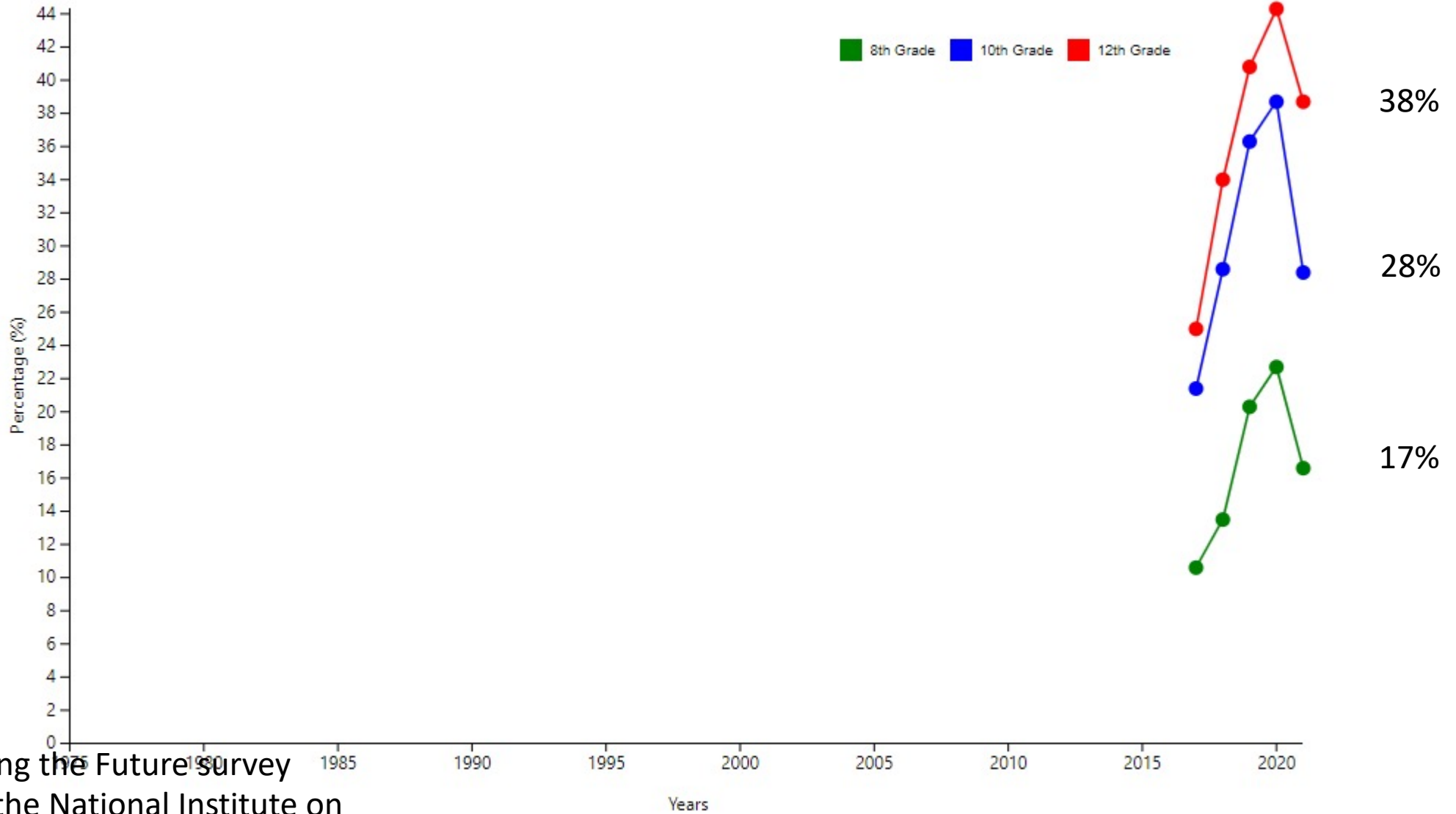


## Any Vaping: Trends in 30 Day Prevalence of Use in Grades 8, 10, and 12



2021 Monitoring the Future survey  
conducted by the National Institute on Drug Abuse (NIDA).  
○ Lifetime ○ 12 Month ● 30 Day

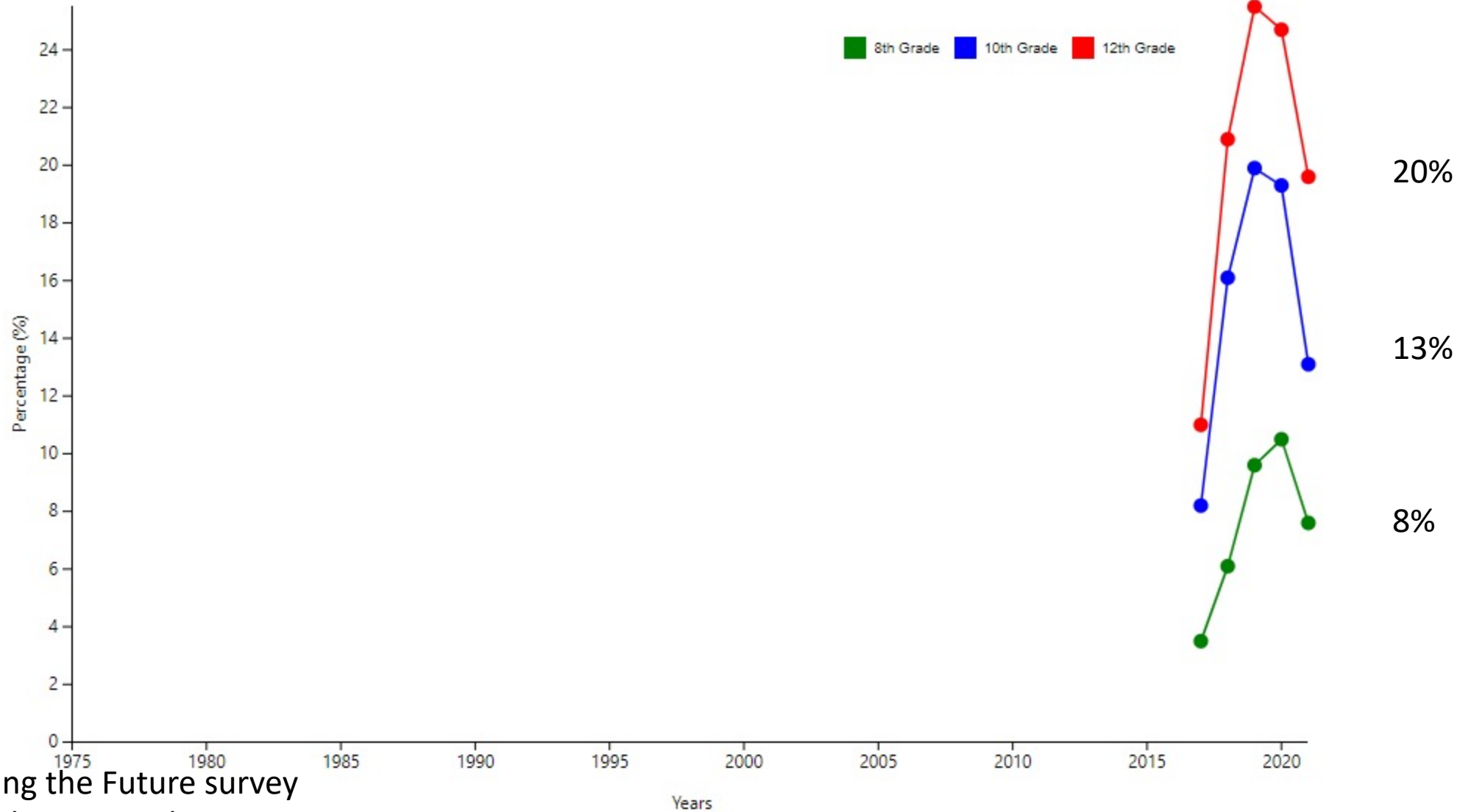
## Nicotine Vaping: Trends in Lifetime Prevalence of Use in Grades 8, 10, and 12



2021 Monitoring the Future survey conducted by the National Institute on Drug Abuse (NIDA).

● Lifetime ○ 12 Month ○ 30 Day ○ Daily

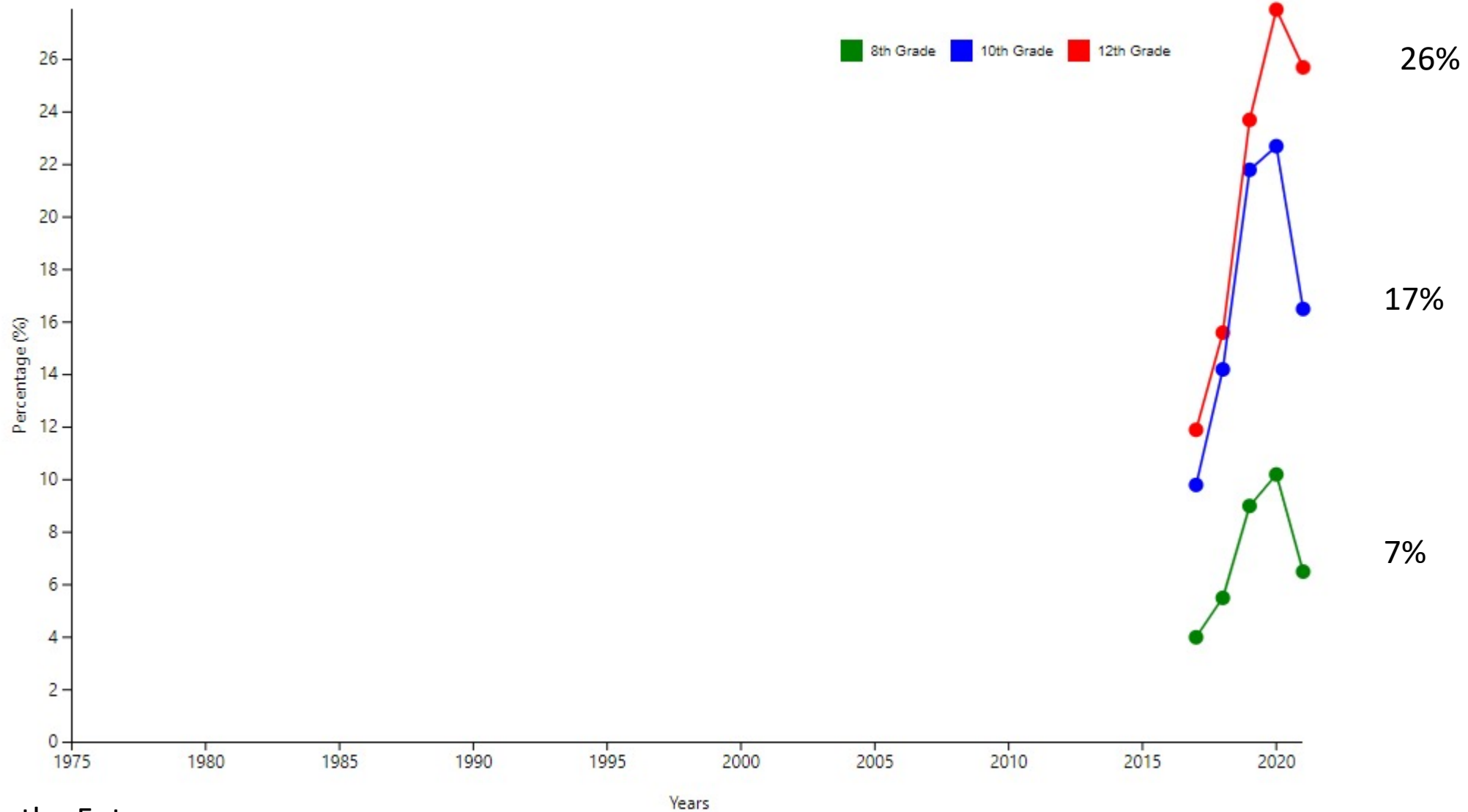
## Nicotine Vaping: Trends in 30 Day Prevalence of Use in Grades 8, 10, and 12



2021 Monitoring the Future survey  
conducted by the National Institute on  
Drug Abuse (NIDA).

○ Lifetime ○ 12 Month ● 30 Day ○ Daily

## Vaping Marijuana: Trends in Lifetime Prevalence of Use in Grades 8, 10, and 12



2021 Monitoring the Future survey conducted by the National Institute on Drug Abuse (NIDA).

● Lifetime ○ 12 Month ○ 30 Day ○ Daily



# Juul E-Cigarettes



- In 2018 accounted for 2/3 of US e-cigarette market. Majority stock owner Altria aka Phillip-Morris Inc.
- 16% of teens had tried Juul, 30% other e-cigs and 24% a cigarette.
- Resemble flash drive making it easy to conceal and use surreptitiously.
- Charges via USB port
- Deliver potent punch of highly addicting nicotine
- The [Truth Initiative Survey](#) reported that 63% of young Juul users did not know that the product always contains nicotine.
- Each e-liquid pod(5%/59mg/ml nicotine) contains the same amount of nicotine as is found in 1 to 1.5 packs of cigarettes. Now available as 3% nicotine.
- Average Juul user used more than those who smoked cigarettes or used other e-cigs.

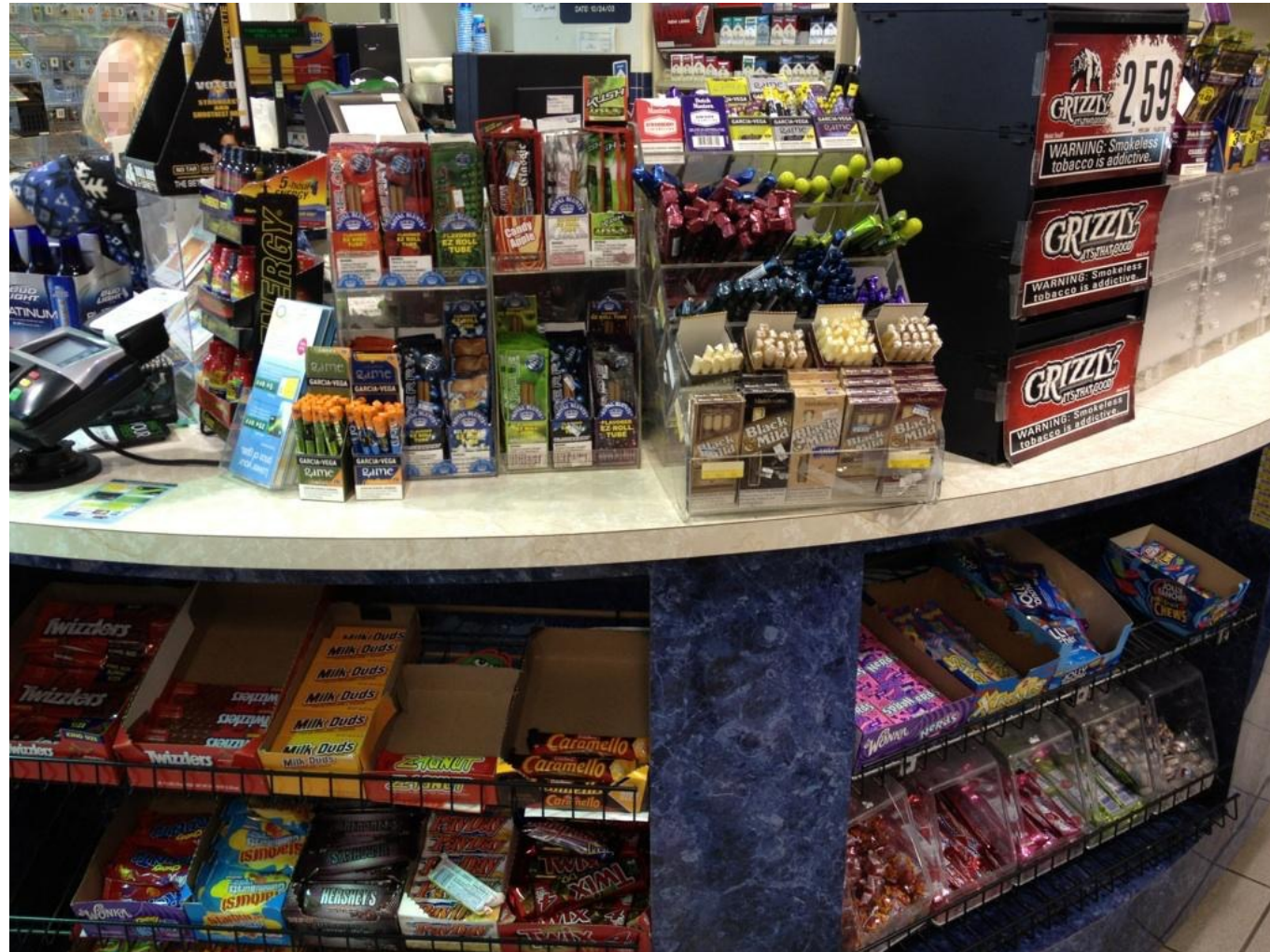


# What is the Problem?

- Appealing packaging and easily accessible
- Candy flavoring
- Cheap and addictive



# Appealing Packaging and Easily Accessible

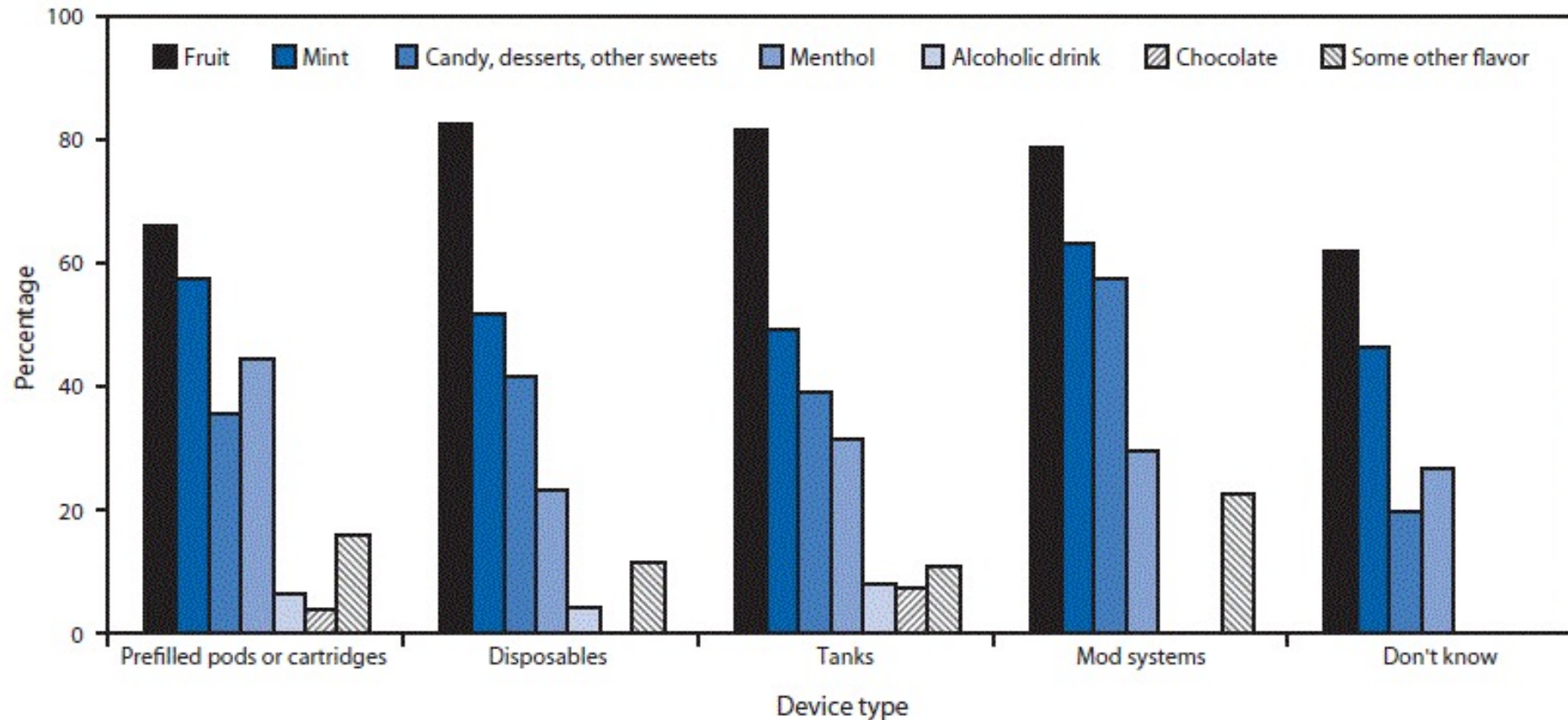








# Percent of Flavor Types Used in the Past 30 days by HS students by Type of ENDS Used. National Youth Tobacco Survey US 2020.



# AAP News

## Flavored e-cigarette restrictions tied to higher sales of menthol

Carla Kemp, Senior Editor

December 01, 2020

Health Briefs

Sales of menthol products continued to rise after the FDA's restrictions on flavored cartridge-based e-cigarettes, took effect, reaching 58% of market share.



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# Cheap and Addictive

All cigarettes are taxed at \$2.52

Why should little cigars and other cigarette-like products be treated differently? **And ENDS!**

TAX  
\$2.52

20 Cigarettes



TAX  
\$0.78\*

20 Little Cigars

\*The exact tobacco tax will differ based on wholesale prices

ENDS/E-cigs



WI tax \$ 0.05/ml

\$1.50

30cc=1 ounce

In 2022, 21 states no tax.



# Not Approved to Help Smokers Quit



**WHY QUIT?**  
**SWITCH TO BLU**

- ▶ Have the Freedom to Smoke Anywhere
- ▶ No Tobacco, No Ash, No Smell
- ▶ All Flavors Made in the U.S.A.







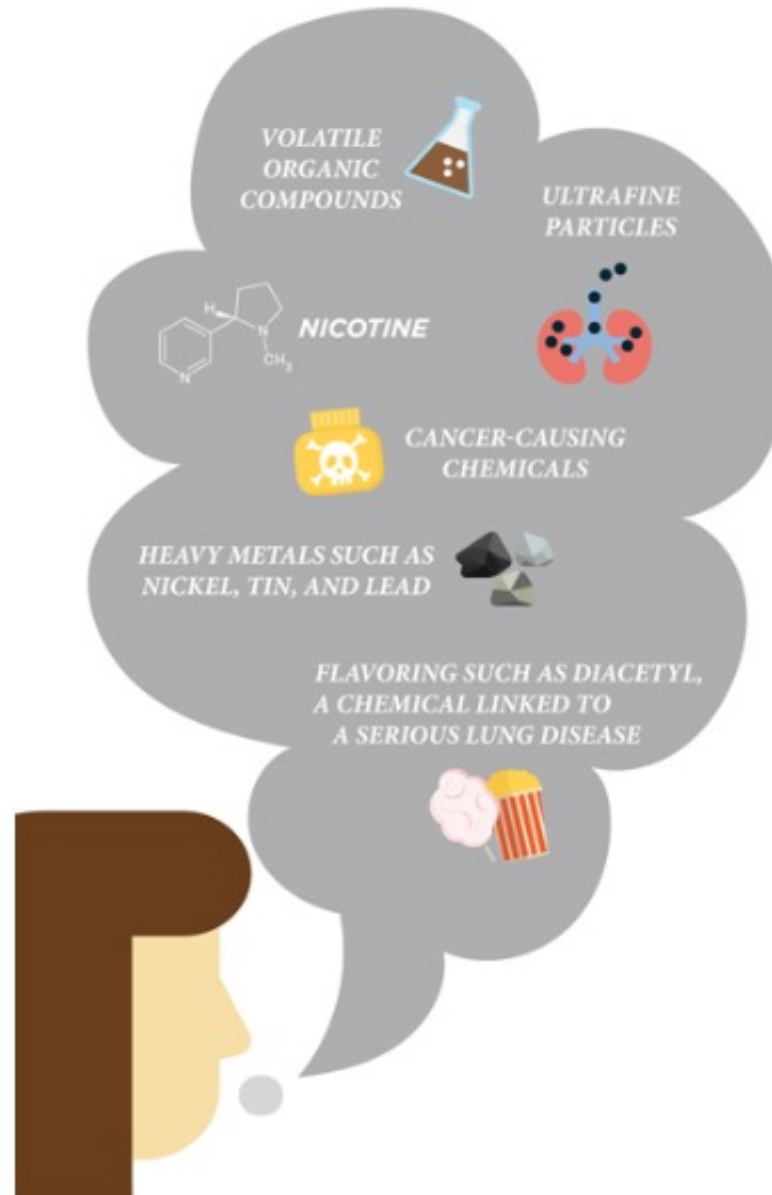
## WHY ENDS/E-Cigarettes?

- Immediate sense of relaxation/calmness.
- Likes the flavors of e-cigs. (WI 2016 88% wouldn't try if no flavor.)
- Sense of community/connectedness with other vapers.
- Challenges: best vapor cloud, smoke rings or vapor tricks.
- Stealth
- Treats low energy/fatigue
- Aid focus/pay attention
- Manage anxiety
- Not perceived dangerous like smoking cigarettes.





# What's in E-cigarette aerosol?



# What Are We Talking About?

<ul style="list-style-type: none"><li>• Propylene glycol</li><li>• Glycerin</li><li>• Flavorings (many)</li><li>• Nicotine</li><li>• NNN</li><li>• NNK</li><li>• NAB</li><li>• NAT</li><li>• Ethylbenzene</li><li>• Benzene</li><li>• Xylene</li><li>• Toluene</li><li>• Acetaldehyde</li><li>• Formaldehyde</li><li>• Naphthalene</li><li>• Styrene</li><li>• Benzo(b)fluoranthene</li></ul>	<ul style="list-style-type: none"><li>• Benzo(ghi)perylene</li><li>• Acetone</li><li>• Acrolein</li><li>• Silver</li><li>• Nickel</li><li>• Tin</li><li>• Sodium</li><li>• Strontium</li><li>• Barium</li><li>• Aluminum</li><li>• Chromium</li><li>• Boron</li><li>• Copper</li><li>• Selenium</li><li>• Arsenic</li><li>• Nitrosamines,</li><li>• Polycyclic aromatic hydrocarbons</li></ul>	<ul style="list-style-type: none"><li>• Chlorobenzene</li><li>• Crotonaldehyde</li><li>• Propionaldehyde</li><li>• Benzaldehyde</li><li>• Valeric acid</li><li>• Hexanal</li><li>• Fluorine</li><li>• Anthracene</li><li>• Pyrene</li><li>• Acenaphthylene</li><li>• Acenaphthene</li><li>• Fluoranthene</li><li>• Benz(a)anthracene</li><li>• Chrysene</li><li>• Retene</li><li>• Benzo(a)pyrene</li><li>• Indeno(1,2,3-cd)pyrene</li></ul>	<ul style="list-style-type: none"><li>• Cadmium</li><li>• Silicon</li><li>• Lithium</li><li>• Lead</li><li>• Magnesium</li><li>• Manganese</li><li>• Potassium</li><li>• Titanium</li><li>• Zinc</li><li>• Zirconium</li><li>• Calcium</li><li>• Iron</li><li>• Sulfur</li><li>• Vanadium</li><li>• Cobalt</li><li>• Rubidium</li></ul>
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Stanford Medicine's Tobacco Prevention Toolkit

vaping, e-cig, e-juice, e-liquid, vape pen, vaporizer, cig-alike, hit, rip



# Many Young Juul Users May Not Know They're Addicted



- **By [Dennis Thompson](#)**  
*HealthDay Reporter*
- FRIDAY, Oct. 19, 2018 (HealthDay News) -- Teens who use Juul e-cigarettes appear to be oblivious to the addictive potential, even when they already show signs of being hooked on the nicotine delivered by the devices, a new study shows.



**The Hooked on Nicotine Checklist.**

	Yes	No	
1) Have you ever tried to quit, but couldn't?	Y	N	
2) Do you smoke/vape <u>now</u> because it is really hard to quit?	Y	N	
3) Have you ever felt like you were addicted to tobacco/vaping?	Y	N	
4) Do you ever have strong cravings to vape/smoke?	Y	N	
5) Have you ever felt like you really needed a cigarette/vape?	Y	N	
6) Is it hard to keep from smoking/vaping in places where you are not supposed to, like school?	Y	N	
	Yes	No	
When you tried to stop vaping/smoking... (or, when you haven't used tobacco/e-cig for a while...)			
7) did you find it hard to concentrate because you couldn't vape/smoke?	Y	N	
8) did you feel more irritable because you couldn't vape/smoke?	Y	N	
9) did you feel a strong need or urge to vape/smoke?	Y	N	
10) did you feel nervous, restless or anxious because you couldn't vape/smoke?	Y	N	Total # of Y _____

# Assessing Vaping Addiction

## The Four-Item E-cigarette Dependence Scale for Assessing Adolescent E-cigarette Nicotine Dependence

To score the measure, take the mean of the item scores. Higher scores indicate higher levels of dependence.

<b>Instructions:</b> Please respond to each question marking one box per row.	Never (0)	Rarely (1)	Sometimes (2)	Often (3)	Almost Always (4)
I find myself reaching for my e-cigarette without thinking about it.					
I drop everything to go out and get e-cigarettes or e-juice.					
I vape more before going into a situation where vaping is not allowed.					
When I haven't been able to vape for a few hours, the craving gets intolerable.					







- **RAND study in Nicotine & Tobacco Research. Michael Dunbar, PHD.**

- Among roughly 2,000 teens in California from ages 16 to 20 (2015 to 2018), vaping at one time point was associated with greater risk of both e-cig use and regular cigarette smoking later on.
- E-cigarette use was also significantly associated with subsequent marijuana use in the study.



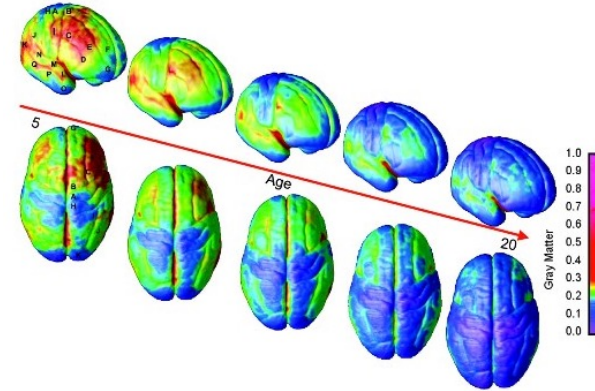
# Why are teens at risk of trying E-cigs?

## Adolescent Developmental Tasks:

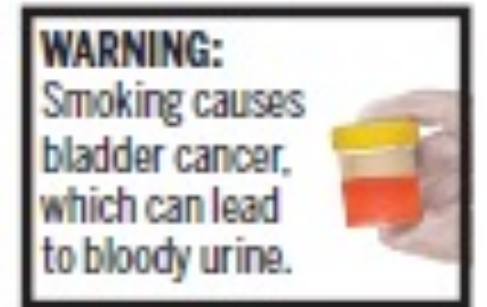
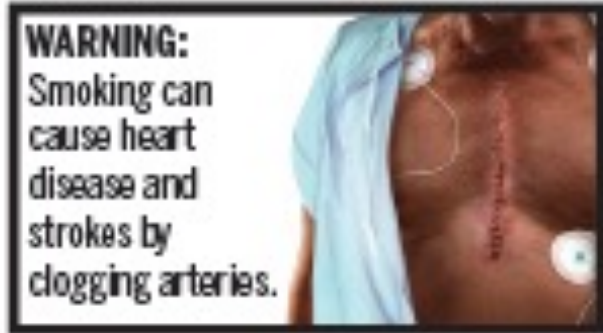
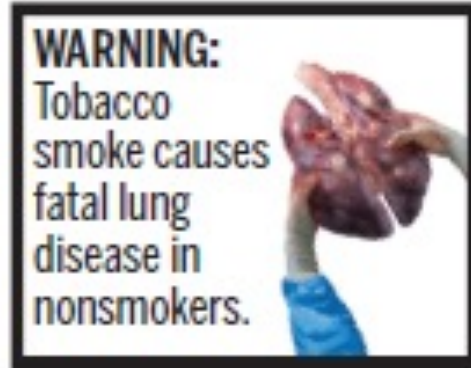
- personal identity/self image
- emancipation from family
- establish an adult sexual role
- vocation/career choice

Brain especially prefrontal cortex is still developing

- affects judgement and impulse control
- ability to think abstractly, reason deductively and problem solve.
- teen narcissism (personal fable, fantasy, imaginary audience)



On 3/17/2020 FDA Issues Final Rule on Graphic Cigarette Warning Labels (Started 6/18/2021)



# ENDS/E-Cig Health Effects



- Toxin Exposures

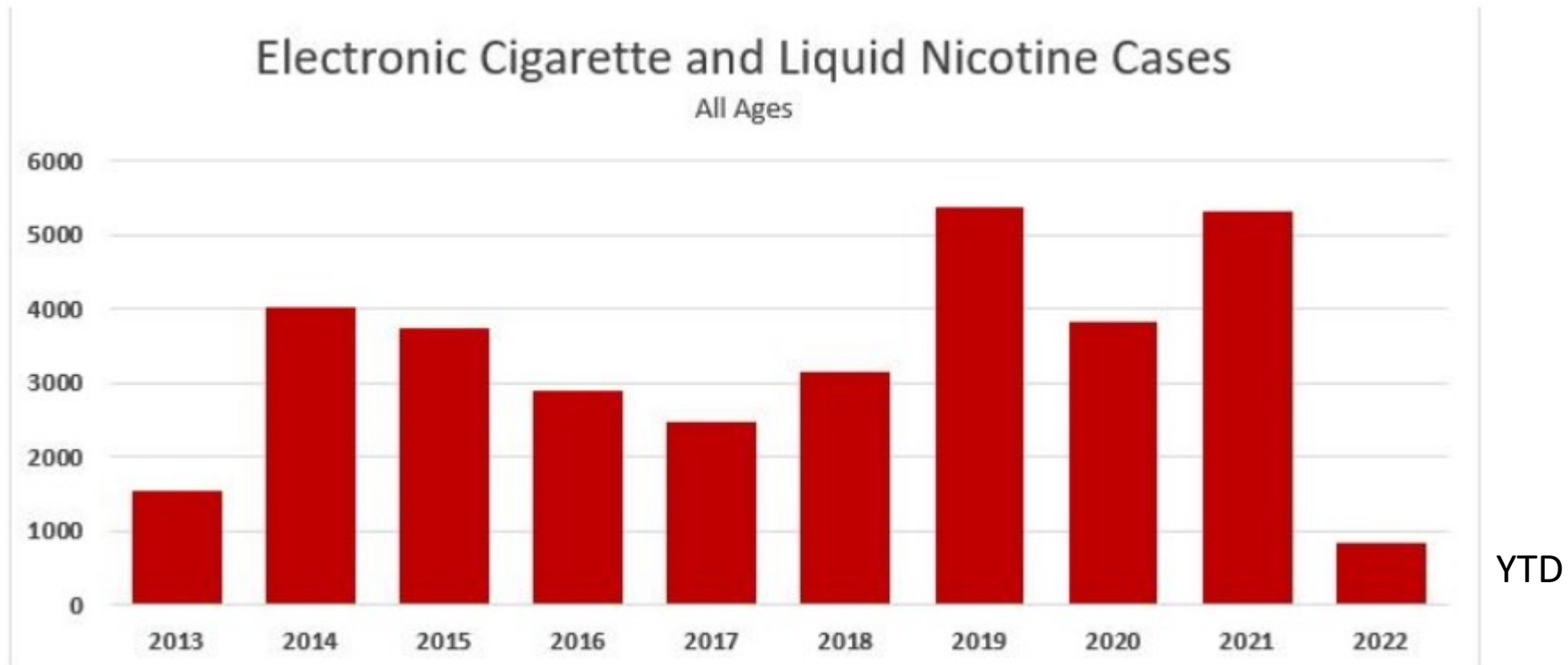
- "This product contains chemicals known to the state of California to cause cancer and birth defects or other reproductive harm."  
California Proposition 65 warning. A recent study on mice found that 22.5% of subjects exposed to "e-cigarette smoke" for 54 weeks had developed lung adenocarcinomas and 57.5% had developed bladder urothelial hyperplasia. (*Proceedings of the National Academy of Sciences*, 2019)
- Lead, nickel, tin, arsenic, other trace elements found in higher concentrations in aerosol than in unheated fluids.
- Poison Control calls escalate 300X since 2013 for young children ingesting vaping fluids(irritable, tremor, rapid heart rate, vomiting, seizures, death)



# National Poison Data System, American Association of Poison Control Centers. Through 2/28/2022.



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# ENDS/E Cigarette Burns/Explosions



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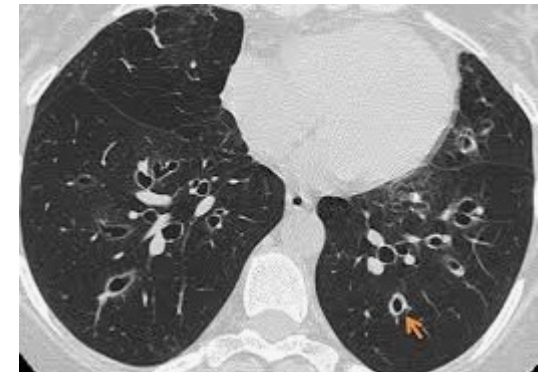
- - 2,035 e-cigarettes related burns and explosions seen in US Emergency Departments from 2015-2017.
- - 29% of the burns are classified as severe



# Nicotine via Vaping Health Effects

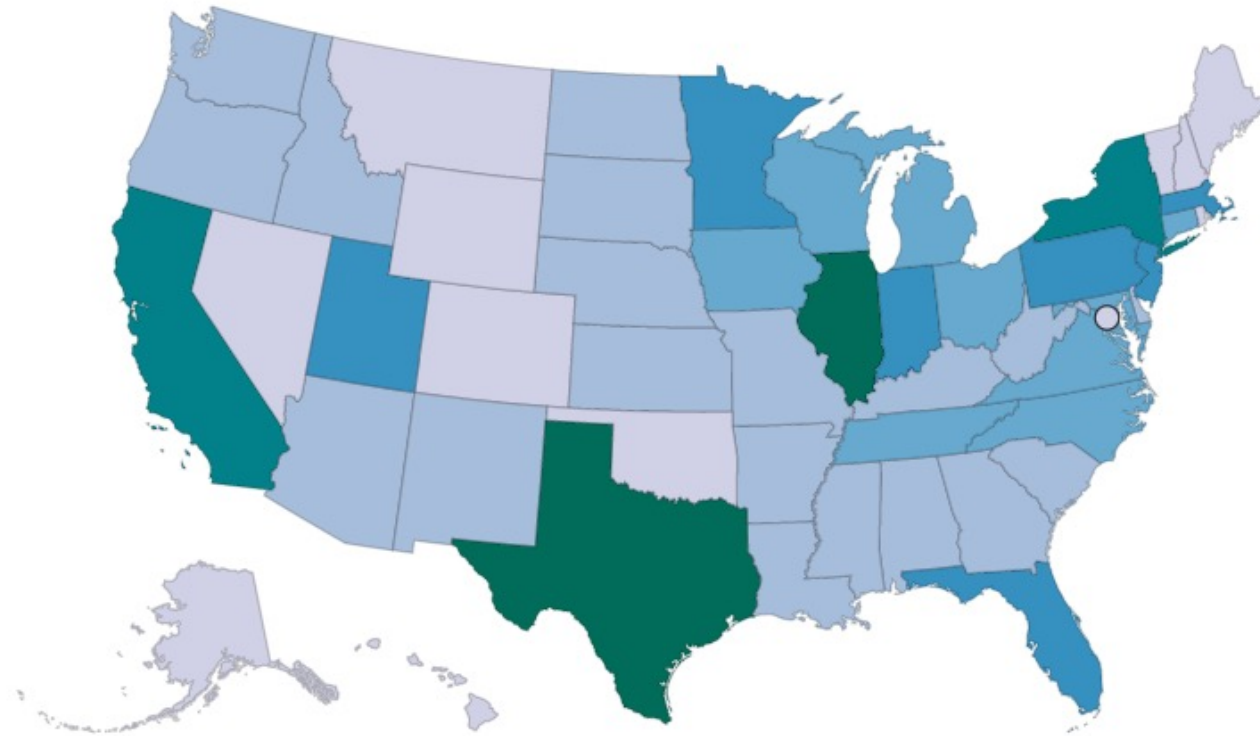


- Delayed wound healing in mice
- Nicotine effects: Increase HR, BP, premature birth
- Dental cavities: ADA E-cig aerosols have properties similar to other sucrose, gelatinous candies which promote tooth decay/cavities. Recent data: Change in bacterial flora promoting tooth decay.
- Lung Effects:
  - Popcorn lungs (bronchiolitis obliterans) : Caused by fumes of artificial butter(diacetyl) in microwave popcorn factories.
  - EVALI (E cig/Vaping Associated Lung Injury)



Number of Hospitalized EVALI Cases or Deaths Reported to CDC as of February 18, 2020

# EVALI/VAPI



## Legend

Number of hospitalized EVALI cases or deaths per state

- 0 cases
- 1-9 cases
- 10-49 cases
- 50-99 cases
- 100-149 cases
- 150-199 cases
- 200-249 cases



## EVALI/VAPI/VALI/VARDS

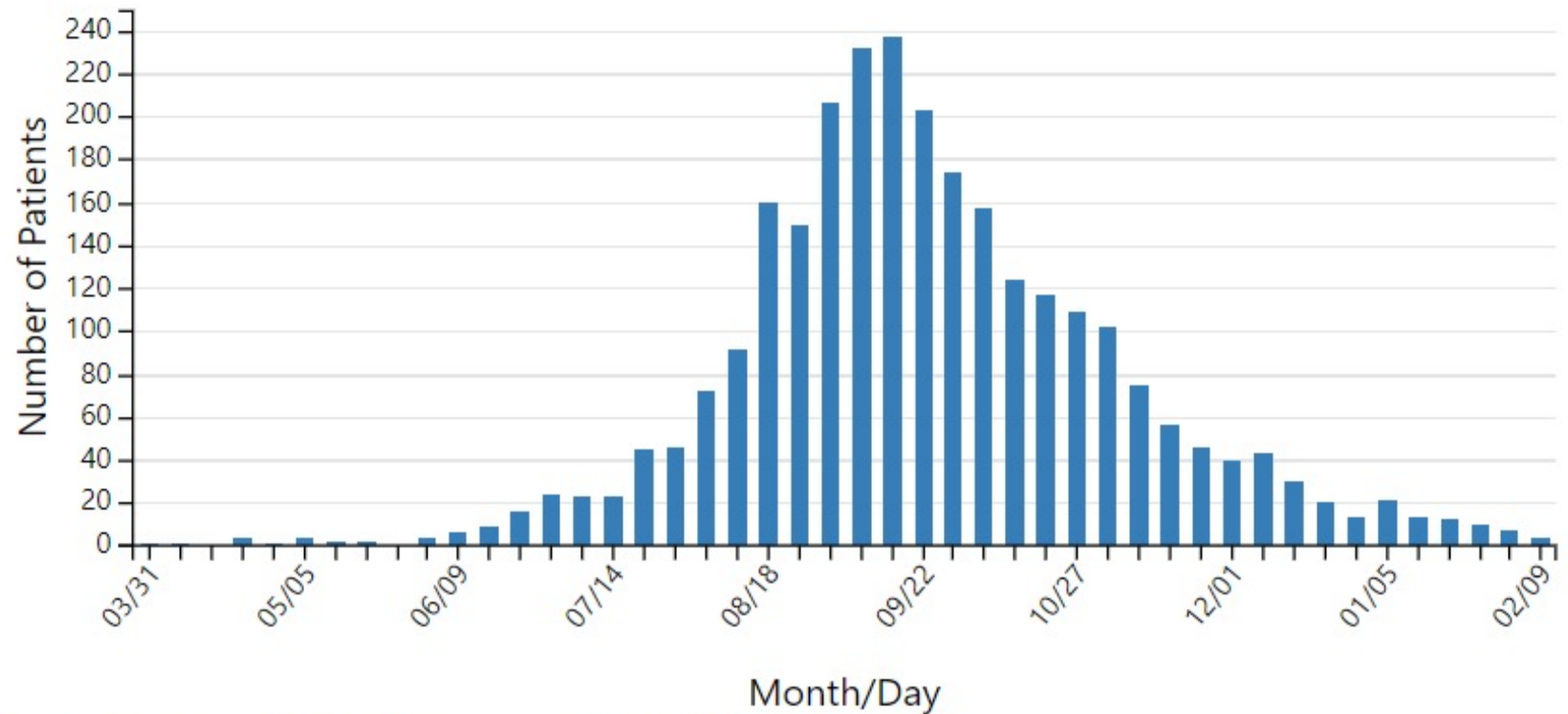


- 2708 cases as of 2/18/2020
- 68 deaths (youngest age 15).
- Start June 2019 with peak Sept 2019. CDC stopped updating national data 3/2020 but cases are ongoing.
- 85% acknowledged vaping cannabis containing fluids.
- 64% of patients are male
- Median age is 24 years ([range, 13-79 years](#)).
- The median age of those who died is [45.9 years](#) (range, 15-75 years).



# EVALI/VAPI

Dates of symptom onset and hospital admission for patients with lung injury associated with e-cigarette use, or vaping — United States, March 31, 2019–February 15, 2020



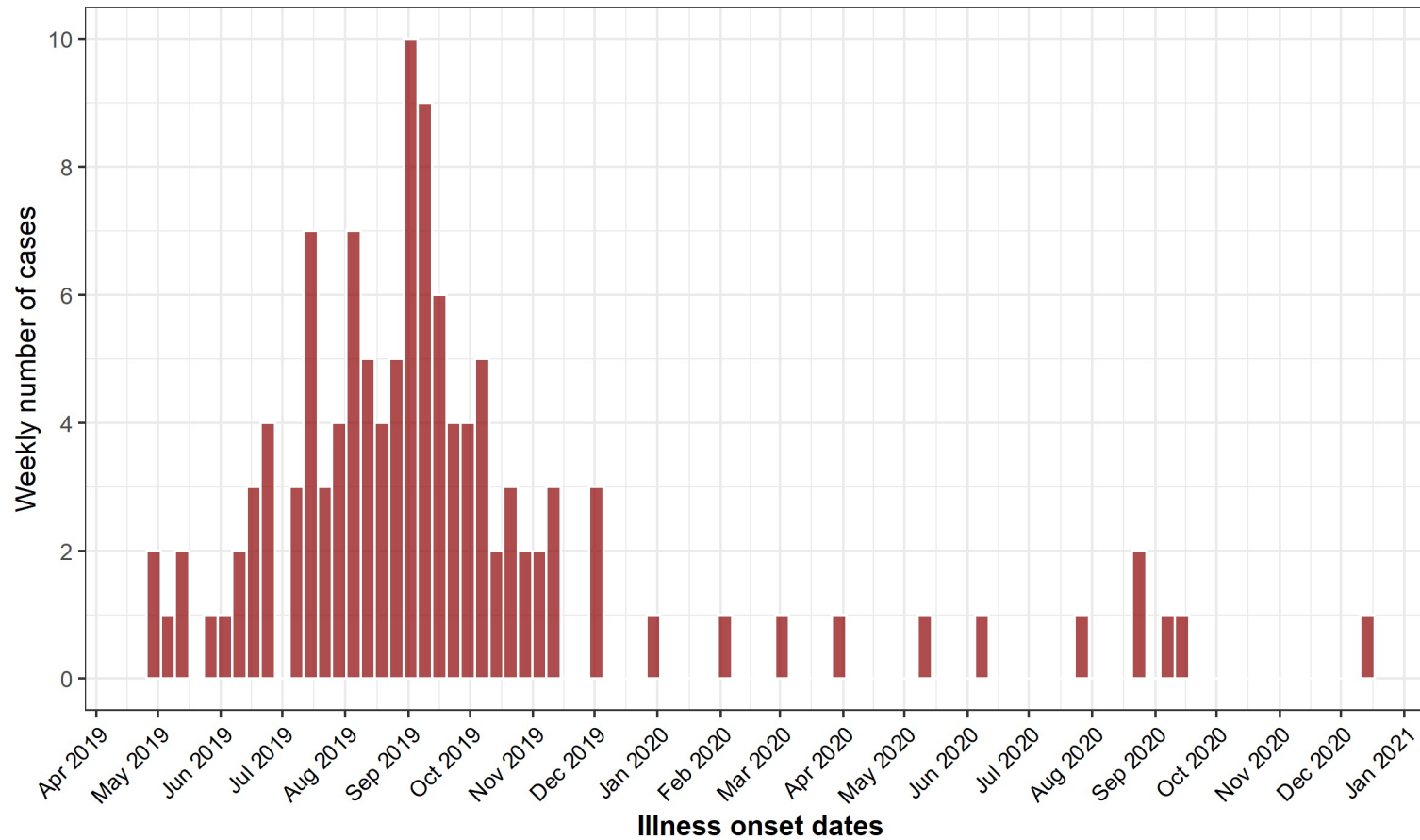
Numbers do not sum to 2,807 due to missing admission dates.







Cases of E-cigarette or Vaping Associated Lung Injury (EVALI) - Wisconsin, 2019-Present



## EVALI/VAPI/VARDS

- diagnosis of exclusion (at present there is no specific test or marker for its diagnosis, and evaluation should be guided by clinical judgment)
- symptoms similar to those associated with influenza, COVID 19 or other respiratory infections (e.g., fever, cough, headache, myalgias, or fatigue)
- EVALI might also co-occur with other respiratory infections.
- Likely chronic lung damage.
  - 31 of 1139 patients with vaping-related lung illness were re-hospitalized shortly after discharge (median age 27yrs)
  - 7 died after being discharged. Most deaths in patients with heart disease, DM, OSA, older age (median age 54yrs)



## Vitamin E acetate Linked to EVALI/VAPI/VARDS

- A study analyzing samples from 51 EVALI cases from 16 states and a comparison group of samples from 99 comparison individuals without EVALI for vitamin E acetate, plant oils, medium chain triglyceride (MCT) oil, coconut oil, petroleum distillates, and diluent terpenes.
  - Vitamin E acetate was identified in broncho-alveolar lavage (BAL) fluid samples (fluid samples collected from the lungs) from 48 of the 51 EVALI patients, but not in the BAL fluid from the healthy comparison group.
  - No other toxicants were found in BAL fluid from either group, except for coconut oil and limonene (1 EVALI patient each).
- Study U of MN: confiscated Vaping products tested prior to EVALI were negative for Vitamin E acetate compared to samples from summer 2019



## EVALI/VAPI/VARDS Decline

- Reasons for the decline are likely multifactorial.
- Increased public awareness of the risk associated with THC-containing e-cigarette, or vaping product use as a result of the rapid public health response.
- Removal of vitamin E acetate from products.
- Law enforcement actions related to illicit products.



# ORs for COVID-19 diagnosis among 2,183 young people in the U.S.:

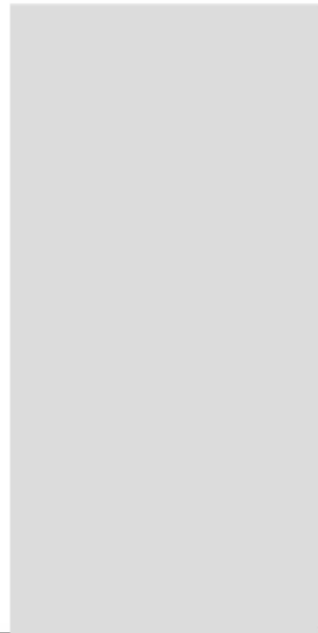
Those who used  
both e-cigarettes  
and combustible  
cigarettes

6.97



Those who used  
e-cigarettes only

5.05



Bonnie Halperin-Felsher,  
et al. Stanford University  
JAHC 8/11/2020





## Why are teens trying E-cigs?



- Do not believe they will get addicted.
- Do not think of vaping as tobacco or smoking related.
- Peer pressure to try it.
- Inadequate night time sleep with resulting daytime fatigue
- Pressures of school, finding career leading to anxiety
- Neat flavors-**fruits**, **bubble gum**, **cotton candy**, **mango**, **cucumber**, **mint**, **menthol**
- Colorful products and glamorous marketing especially on media sites.
- Stealth
- Not as bad as smoking.



# RISK of Tobacco/Nicotine Product Use

- Current use of any tobacco product:
  - 7.9% of heterosexual
  - 14.2% of students identifying as lesbian, gay, or bisexual
  - 18.9% of students identifying as transgender
- Current use of any tobacco product:
  - 5.5% of students with no psychologic distress
  - 14.2% of students reporting severe psychological distress

2021 National Youth Tobacco Survey(NYTS)



# CDC Warns of Accelerated Mental Health Crisis among Adolescents

CDC's Morbidity and Mortality Weekly Report: [Washington Post](#) (3/31/2022, Balingit), [New York Times](#) (3/31/2022, Barry).

- nationwide survey of 7,705 high school students conducted in the first half of 2021

- 44.2% describing persistent feelings of sadness or hopelessness that prevented them from participating in normal activities

- one in five saying they have contemplated suicide

- 9% reporting an attempt at suicide

- 55.1% of teenage respondents saying they suffered emotional abuse from a parent or another adult in their house in the preceding year

- 11.3% saying they suffered physical abuse

# New Focus on Prevention



- Assess for ACEs (Adverse Childhood Experiences)
- Identify patients facing toxic stress
- Epigenetics-changes in gene expression resulting in undesirable protein changes
- Stress induced metabolic changes-cortisol/adrenaline effects in fight or flight physical/psychological reactions
- Resiliency and identification of patient strengths and positive support.
- Trauma informed care



# Building Resilient Teens



- Provide early information
  - Short term effects
  - Long term social-psychological and health risks
  - Effect on others (second hand vaping)
- Skills development in ways to cope with pressures to take risks
- Build self esteem
- Use of leisure time
- Coping with normal ups and downs of life
- Be a role model in stress management, substance use.





# Building Resilient Teens



- Reinforce good, healthy behaviors
- Regular discussions about friends, other peers, risk taking behaviors.
- Look for salient moments to engage teen in discussions about health.
- Develop together a plan for teen to stop/think of pros and cons of an activity before they jump into it.
- Reinforce your belief that your adolescent will be successful and make good decisions with the plan



## USPSTF: Intervene to Keep Youth From Starting Tobacco/Nicotine Use

- On April 28, 2020 the U.S. Preventive Services Task Force posted a [final recommendation statement](#) and [final evidence summary \(www.uspreventiveservicestaskforce.org\)](#) on primary care interventions for the prevention and cessation of tobacco/nicotine use in children and adolescents.
- The USPSTF recommended that primary care clinicians provide interventions, including education or brief counseling, to prevent initiation of tobacco/nicotine use among school-age children and adolescents. This is [a "B" recommendation](#)
- The task force also found insufficient evidence to weigh the balance of benefits and harms of interventions to stop existing tobacco/nicotine use.



# Screening for Risk Taking Behaviors in Teens

- Teen interviewed alone during part of the visit(at least offer!)
- Discuss aspects of confidential care(imminent danger to self or others)
- I do not intend to make anyone feel bad but do want to help you maximize your health and future.
- Normalize screening questions
  - Many of my patients take risks which as their health care provider I want to discuss.
  - If you think a risk behavior is having a negative effect on you, your family, dating partners I want you to ask me for help.
  - Is there any thing that you engage in that you think is a problem for you or others?
- **S**creening **B**rief **I**ntervention **R**eferral **T**reatment



# Screening Brief Intervention Referral Treatment

5 A's of SMOKING/Nicotine Cessation-ask, advise, assess, assist & arrange

- Ask about friends use and perceived pressure to try(Have you been offered anything?)
- Ask about any nicotine use including cigs, chew, ENDS, vaping & cigars.
- Ask what types of vaping fluids they use, how often, cost per week.
- Ask about health effects from that use, desire to quit, who would support them, motivation to change the risk behavior



# What Can You Do?

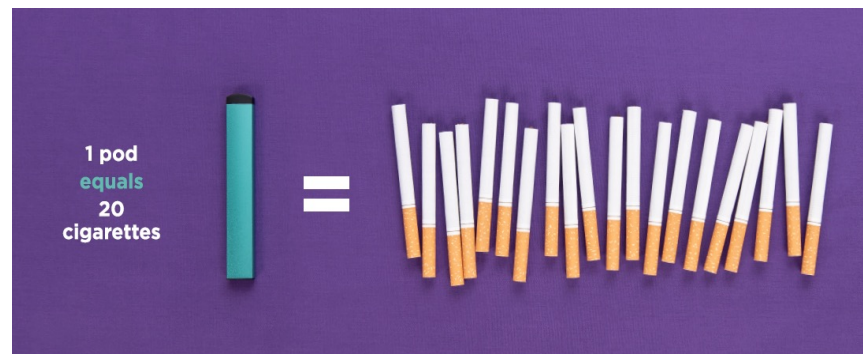
- Consider strong school policy
- Join tobacco/nicotine-free [coalition](#)
- Share the Tobacco is Changing campaign
- Focus on the addictive chemical **NICOTINE**
- Write letters to the editor: stories.
- Involve youth in preventive programs
- Educate community organizations
- Educate policy makers





# Talking with Your Teen About ENDS/E-Cigs

- Get the facts to share credible info with your teen. [E-cigarettes.SurgeonGeneral.gov](https://www.e-cigarettes.surgeongeneral.gov)
- Listen: Avoid lecturing, criticizing. Be patient!
- Why I do not want you to use ENDS/E-cigs.
  - Ingredients in E-cigs may be toxic.
  - Ingredients in E-cigs may be addicting
  - Ingredients in E-cigs may affect your developing brain in a negative way.
  - Exhaled fumes of E-cigs can have a negative effect on others around you(Second Hand aerosol).



# Teen Nicotine Addiction Treatment

- support from family and friends
- screening, detection and support by primary care provider
- identify and treat depression, anxiety, sleep issues.
- motivation to change counseling
- [Wisconsin Tobacco Quit Line - UW-CTRI - UW-Madison](#)
- [Medication use.](#)



# Can Adolescents Use Nicotine Replacement Therapy(NRT)?

- US Food and Drug Administration (FDA) has not approved NRT for youth under 18 years old.
- Research on the effectiveness of NRT for helping youth quit successfully is limited with generally more modest outcomes than in comparable adult trials.
- NO evidence of serious harm from using NRT in adolescents under 18 years old.
- Given the effectiveness of NRT for adults and the severe harms of tobacco dependence, [AAP policy recommends that pediatricians consider off-label NRT for youth who are moderately or severely addicted to nicotine and motivated to quit.](#)
- Youth under 18 years old need a prescription from a healthcare provider to access all forms of NRT.
- Non-adherence & relapse after cessation of therapy is common= teens need close F/U



# Nicotine Replacement Therapy

Form of NRT	Level of Dependence	
	Moderately Addicted	Severely Addicted
Nicotine Gum 2 & 4 mg	2mg	4mg
Nicotine Patch 7 mg, 14 mg & 21 mg	Start with 14mg patch, then step down	Start with 21mg patch, then step down
Nicotine Lozenge 2 & 4 mg	2mg	4mg



NRT gum, patch, and lozenge

# Components of a Vigorous Nicotine 21/Tobacco 21

- Illegal to sell and possess for those under age 21yrs (95% of smokers start before age 21yrs, most <18yo's who vape get it from an 18-21yo, avoid peer pressure years, avoid college hazing/partying, less drama, brain more mature).
- Enforcement of law (possession and selling)
- Licensure to sell vaping products
- Control of internet sales
- Ban on flavors including menthol
- Ban on marketing to young
- Preventive education for all teens
- Treatment programs for those addicted





## Resources/References

- E-cigarettes.SurgeonGeneral.gov
- AAP Julius B. Richmond Center of Excellence and Section on Tobacco Control: Vaping and Youth/Nicotine Replacement Therapy and Adolescent Patients: Information for Pediatricians
- [https://www.cdc.gov/tobacco/basic\\_information/e-cigarettes/index.htm](https://www.cdc.gov/tobacco/basic_information/e-cigarettes/index.htm)
- [Wisconsin Tobacco Quit Line - UW-CTRI - UW-Madison  
https://ctri.wisc.edu › quit-line](https://ctri.wisc.edu › quit-line)
- [The Teen Vaping Trend – What Parents Need to Know ...https://drugfree.org/parent-blog/the-teen-vaping-trend-what-parents-need-to-know/](https://drugfree.org/parent-blog/the-teen-vaping-trend-what-parents-need-to-know/) Dec 14, 2019
- [www.FactsOnVaping.com](http://www.FactsOnVaping.com)



# WI DHS Comprehensive Approach to E-Cigarette Epidemic

## **Use relevant, youth friendly lesson plans that address the harms of nicotine and e-cigarette use.**

E-Cigarettes and Vape Pens Tobacco Prevention Toolkit (Stanford Medicine) - *for grades 9-12*

E-Cigarette & JUUL Prevention Program (CATCH – Coordinated Approach to Child Health) – *for grades 5-12*

The Real Cost of Vaping: Understanding the Dangers of Teen E-Cigarette Use (Scholastic and the FDA) – *for grades 9-12*

Know the Risks: A Youth Guide to E-cigarettes (CDC's Office on Smoking and Health) – *for youth ages 11 – 18.*

## **Review and strengthen current tobacco-free school policy.**

Comprehensive Tobacco-Free School Policy Checklist (Wisconsin Department of Public Instruction)

Sample Comprehensive Tobacco-Free School Policy (Wisconsin Department of Public Instruction)

INDEPTH Intervention for Nicotine Dependence: Education, Prevention, Tobacco and Health (American Lung Association)

## **Engage youth to promote health messaging throughout school.**

Real Cost – Multimedia campaign by FDA's Center for Tobacco Products

Taking Down Tobacco (Campaign for Tobacco-Free Kids)

[www.thetruth.com](http://www.thetruth.com) (Truth Initiative)

Free posters (CTP's Exchange Lab)



# WI DHS Comprehensive Approach to E-Cigarette Epidemic

- **Help addicted youth quit.**
- This Is Quitting (Truth Initiative and Mayo Clinic)
- Wisconsin Tobacco Quitline (Wisconsin Department of Health Services)
- Not On Tobacco (N-O-T) (American Lung Association)
- **Provide resources to parents about talking to their teens.**
- Tobacco Is Changing (Wisconsin Department of Health)
- E-Cigarettes and Youth: What Parents Need to Know (CDC)
- E-Cigarettes, “Vapes”, and JUULs: What Parents Should Know (American Lung Association)

