



# EVERYTHING YOU WANT TO KNOW ABOUT VAPING

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# Discussion Topics

- What is Vaping?
- What is JUULing?
- Who is Vaping (and Why)?
- Is Vaping Safe?
- Are there Regulations in Place to Protect out Kids?
- What can Parents do?
- Questions



# What is vaping?

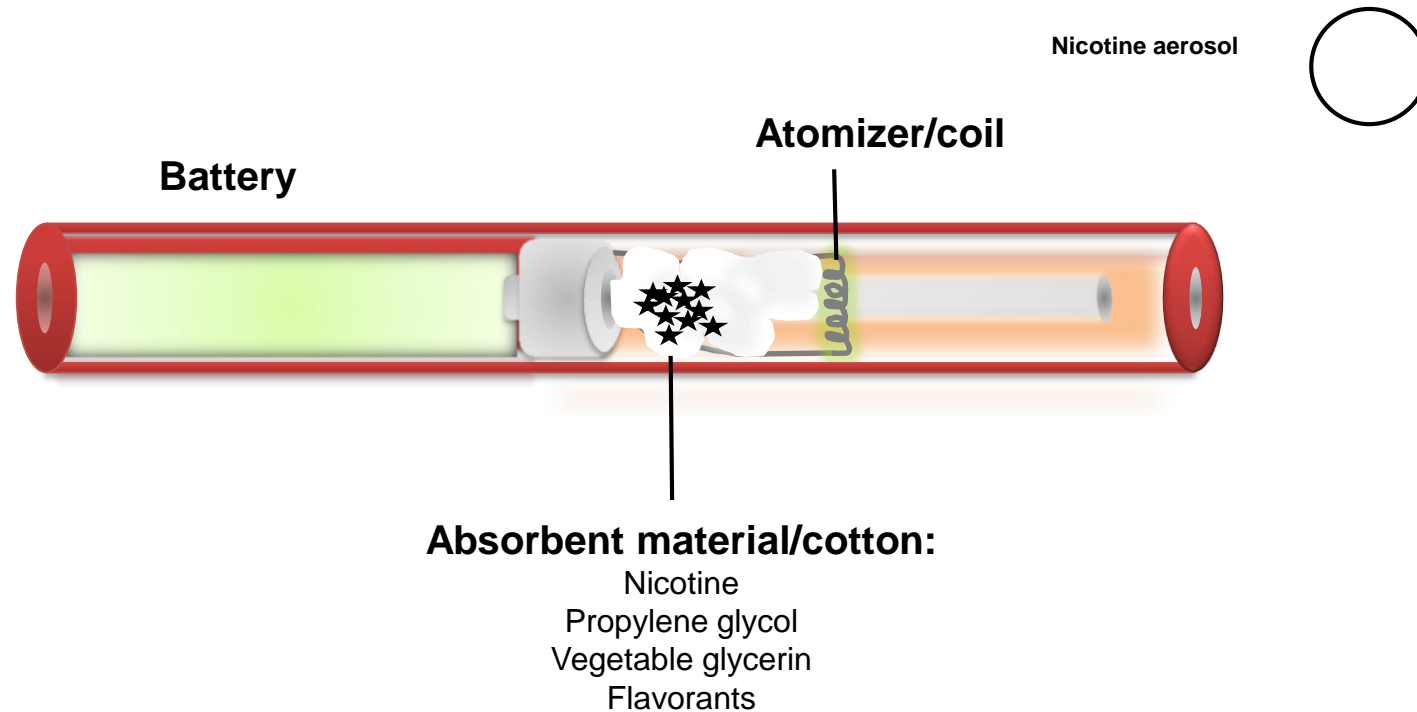
- Electronic Nicotine Delivery System (ENDS): battery operated device that “vaporizes” a liquid nicotine for inhalation
- Other names: electronic cigarette, e-cigarette, e-cig, e-hookah, vape, vape pen, vape stick, tank, mod
- Many different brand names: JUUL, VUSE, Blu, V2, VaporFi, Halo



# A Brief History of E-Cigarettes

- Hon Lik, a Chinese pharmacist and researcher, is credited for the invention of the modern e-cigarette.
  - Developed to help smokers quit
  - Reportedly developed the device after his father, a smoker, died of lung cancer
- First introduced in 2003/2004
- Entered the U.S. market in 2006/2007
  - Briefly “banned” in 2009, as the FDA classified them as unapproved drug delivery devices
  - In 2009 the FDA was given jurisdiction of tobacco products, and e-cigarettes became classified as a tobacco product.
  - This allowed e-cigarettes to become a regulated industry

# Anatomy of an E-Cigarette



# E-Cigarette Types

There are 3 basic types of e-cigarettes on the market:

- Minis or Ciglikes (\$7-\$10)



- Mid-size, Re-chargeable, Pen (\$20-\$40)



- Mods or Tanks (\$60-\$1,000+)



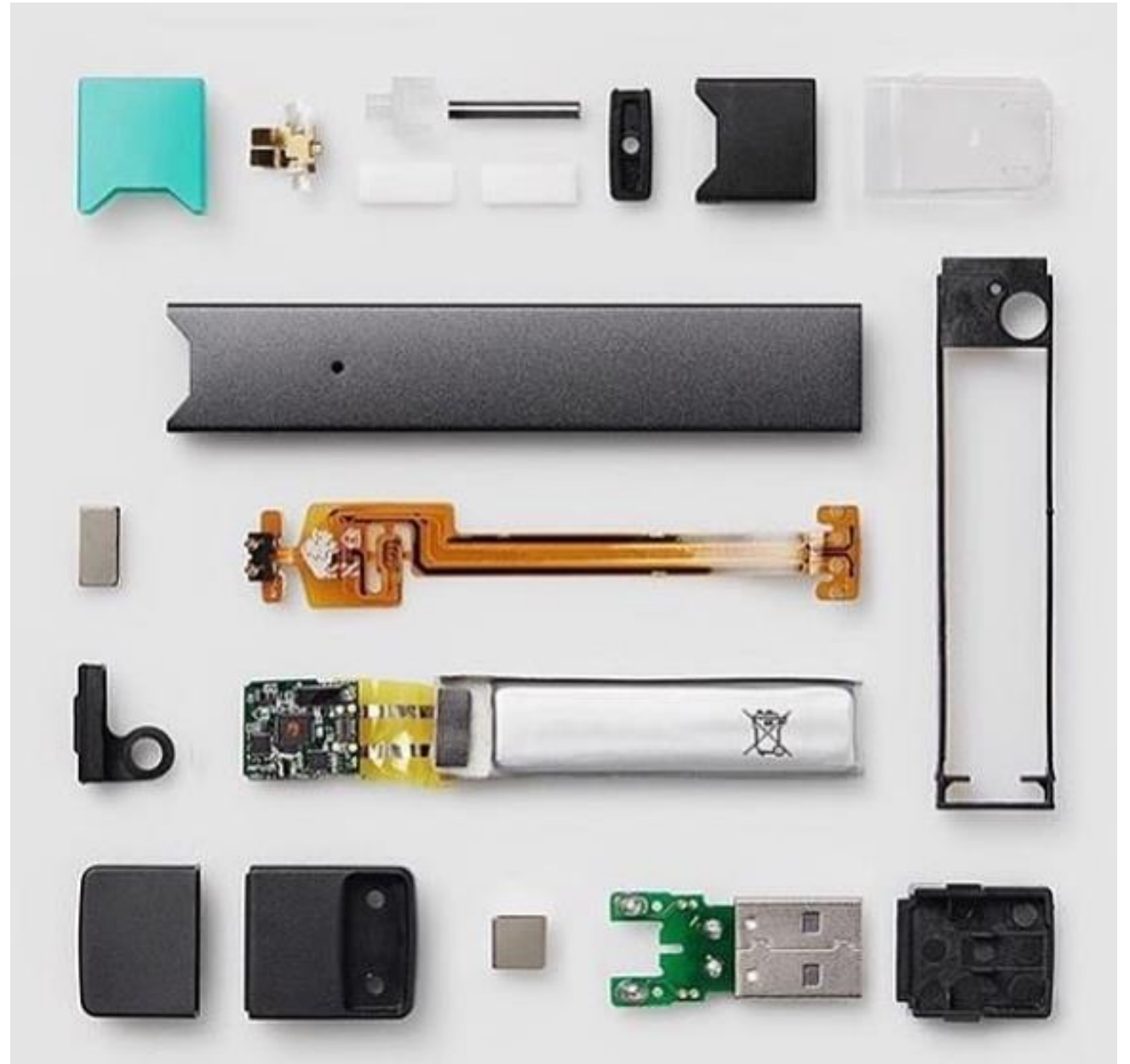


# So, What is JUULing?



- Most popular among students
- Small, sleek design, similar to a USB flash drive
- Produce a very faint aerosol - very discrete
- Comes in multiple flavors: mango, crème brulee, cucumber, cool mint, fruit medley
- Charges on a laptop or through any USB port

# Anatomy of a JUUL





# Nicotine in JUULs



- The biggest concern with JUULs among youth is that it delivers the same amount of nicotine that is found in a pack of cigarettes to the body and brain
- All JUUL pods contain the same amount of nicotine – 59 mg/ml
- Nicotine content equivalent to **smoking an entire pack of cigarettes**
- The pods are not refillable
- JUUL contains salt-based nicotine, instead of “free-base” nicotine

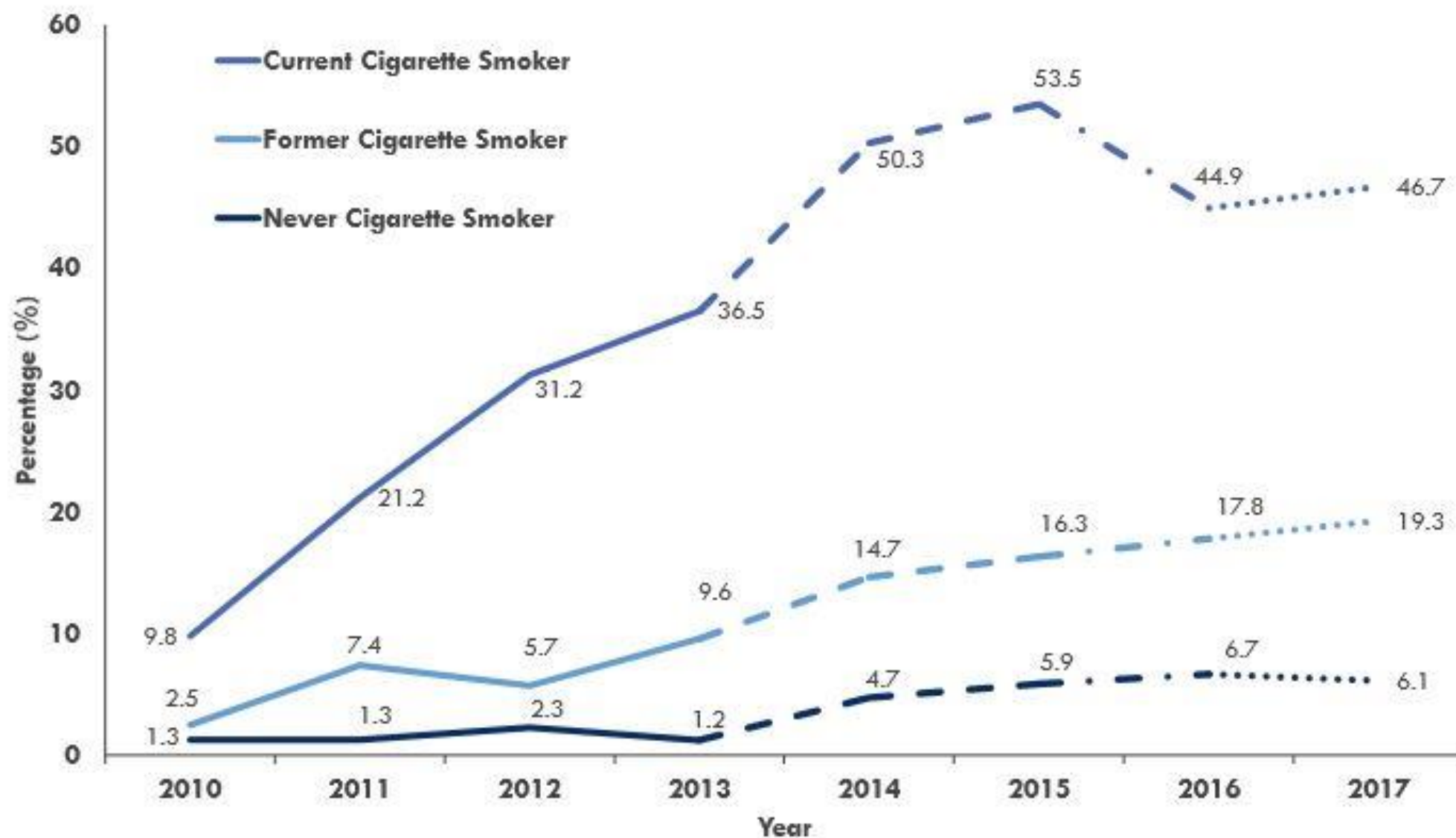


Who is vaping?



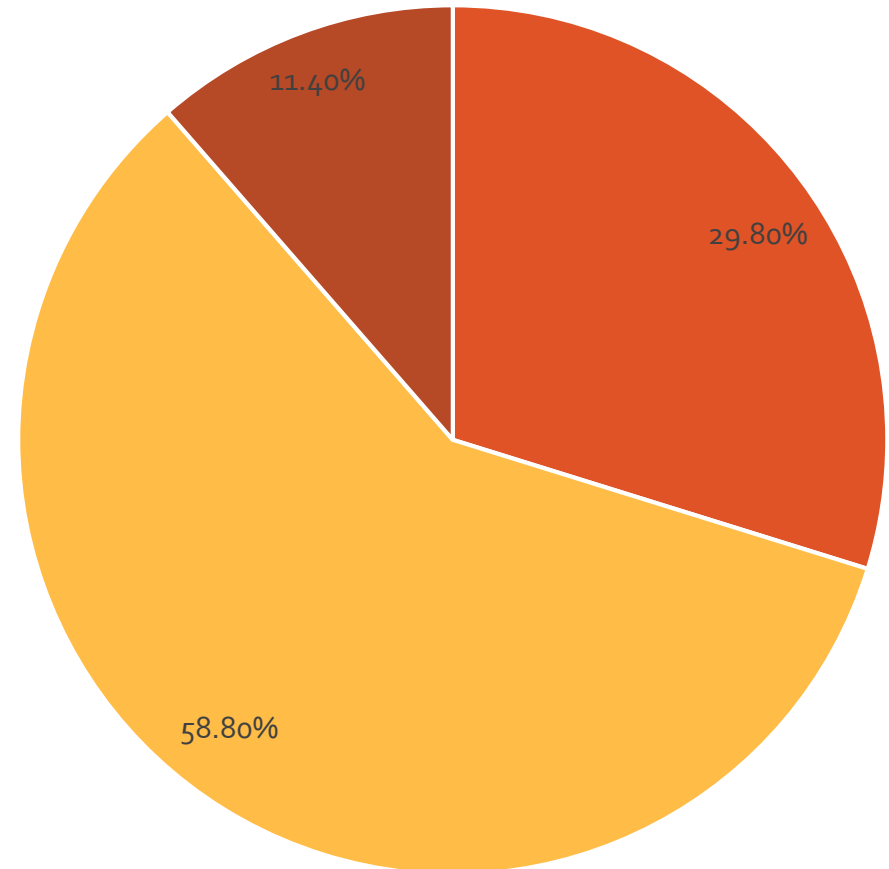


## Ever Use of E-cigarettes Among Adults, by Cigarette Smoking Status—U.S., 2010-2017



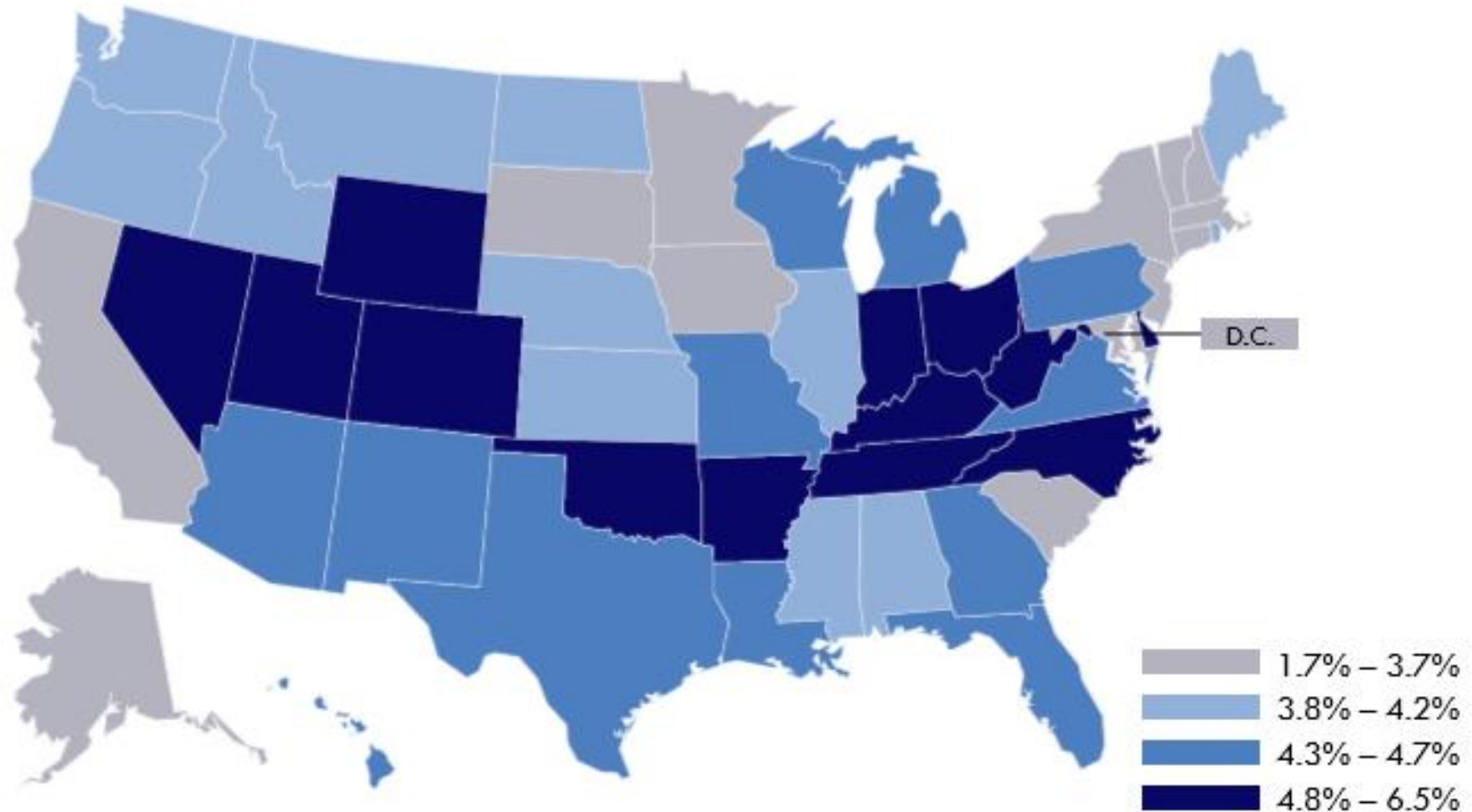
# Adult E-Cigarette Use

- In 2016, 3.2% of U.S. adults were current e-cigarette users
- In 2015, Among e-cigarette users overall:
  - 29.8% were former regular smokers
  - 58.8% were current cigarette smokers
  - 11.4% had never been regular cigarette smokers

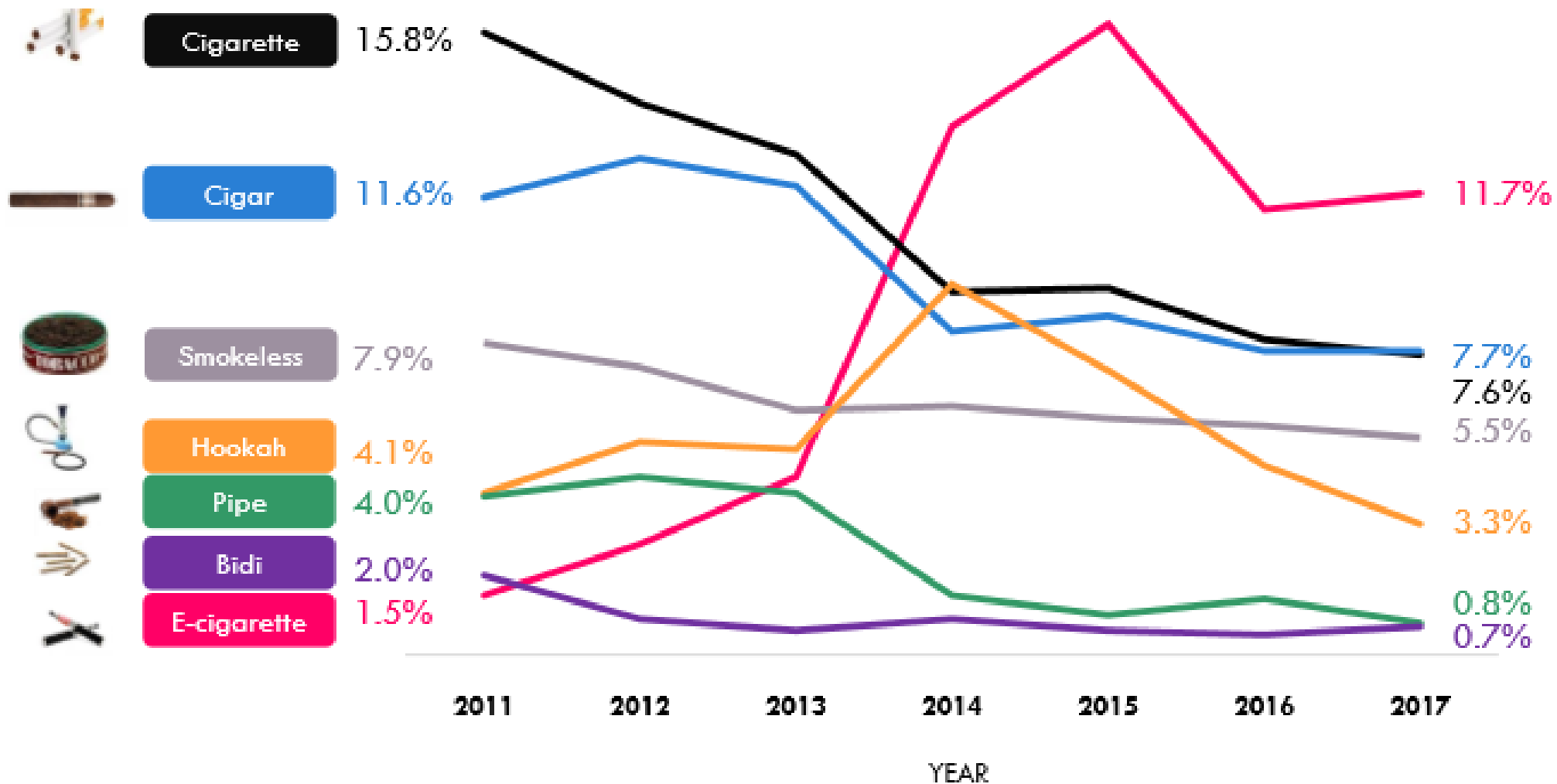


■ Former Regular Smokers   ■ Current Smokers   ■ Had never been regular cigarette smoker

## Current E-cigarette Use Among U.S. Adults BRFSS 2017 (January –September)

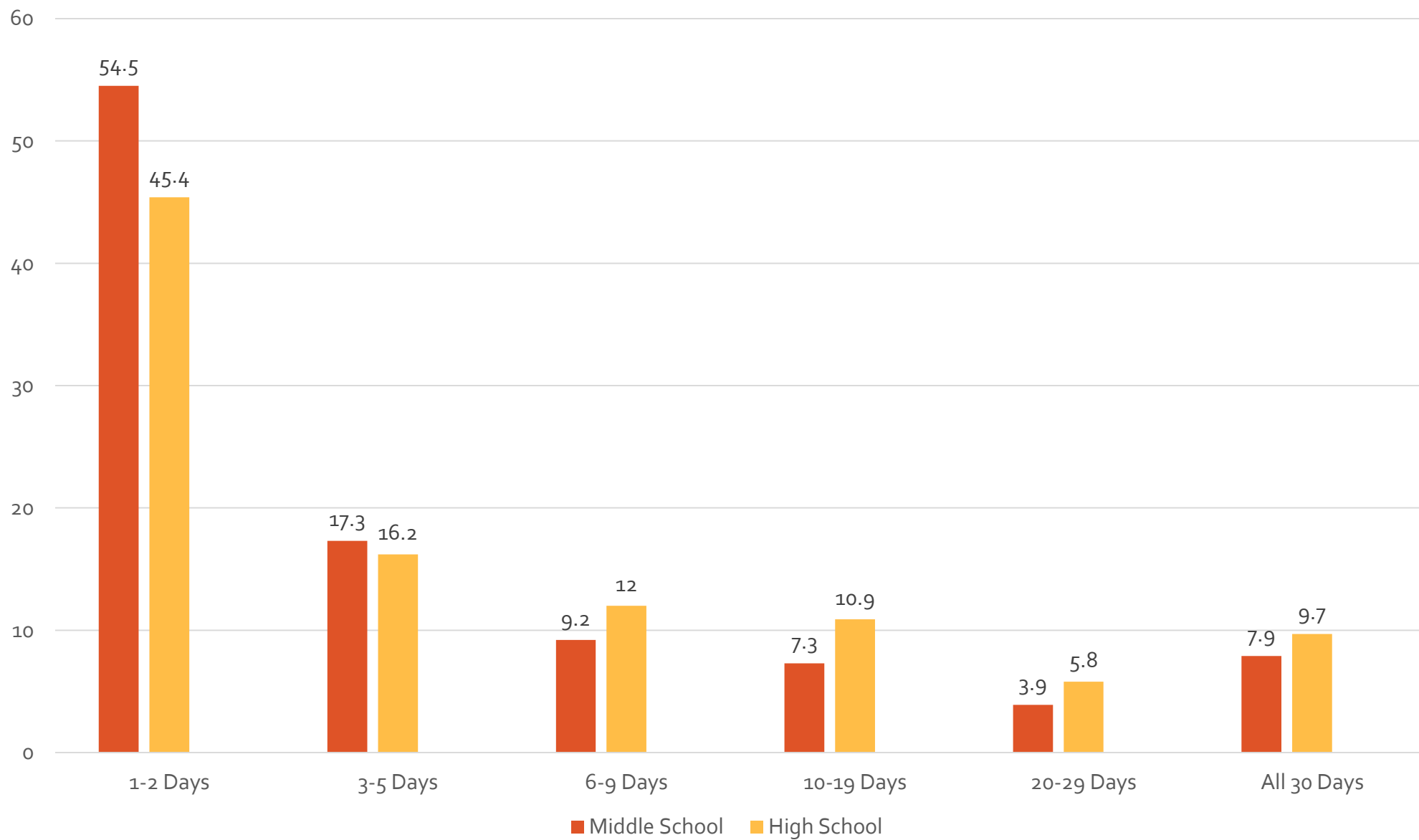


## Current Tobacco Product Use Among U.S. High School Students by Tobacco Product – NYTS 2011-2017





## Frequency of Youth E-Cigarette Use

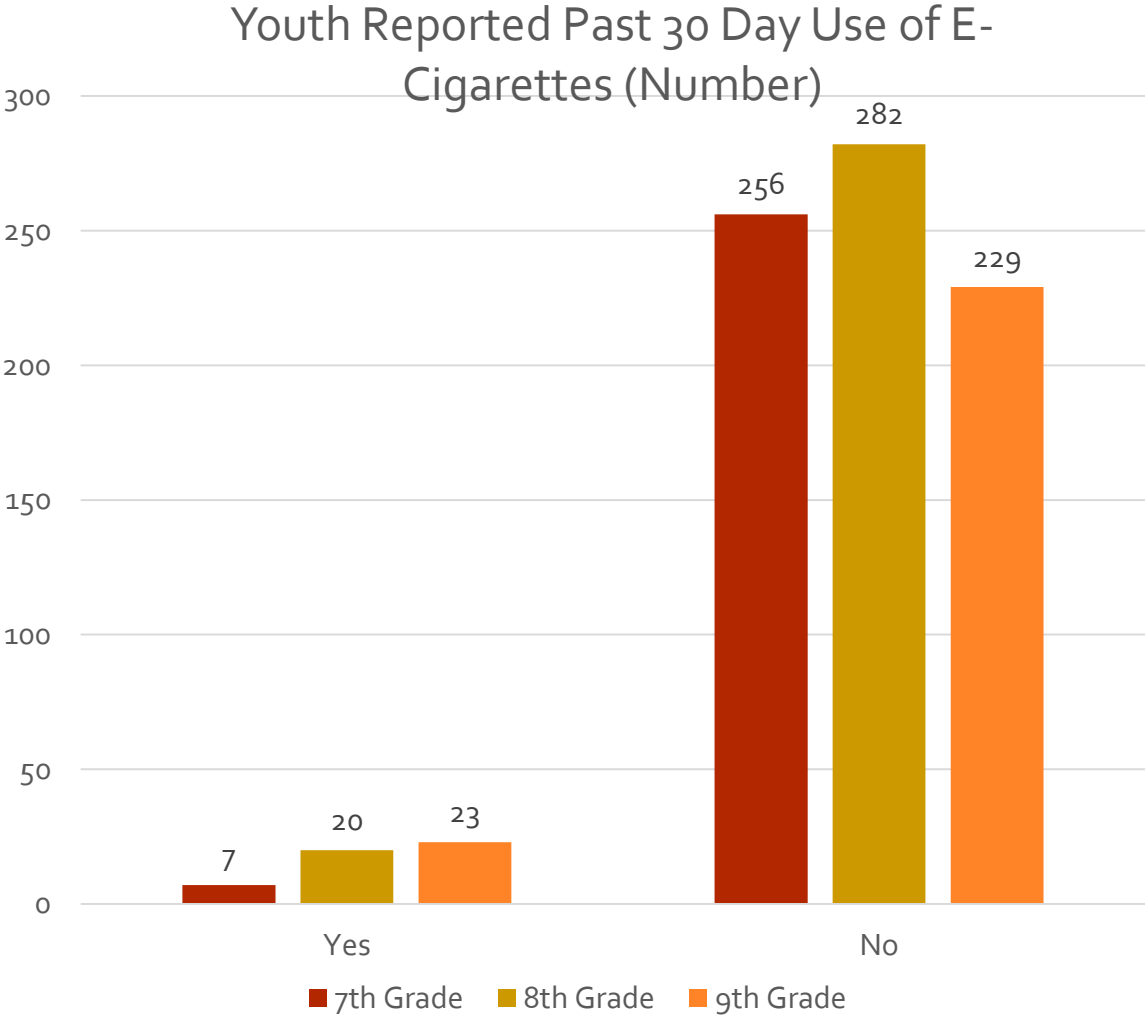
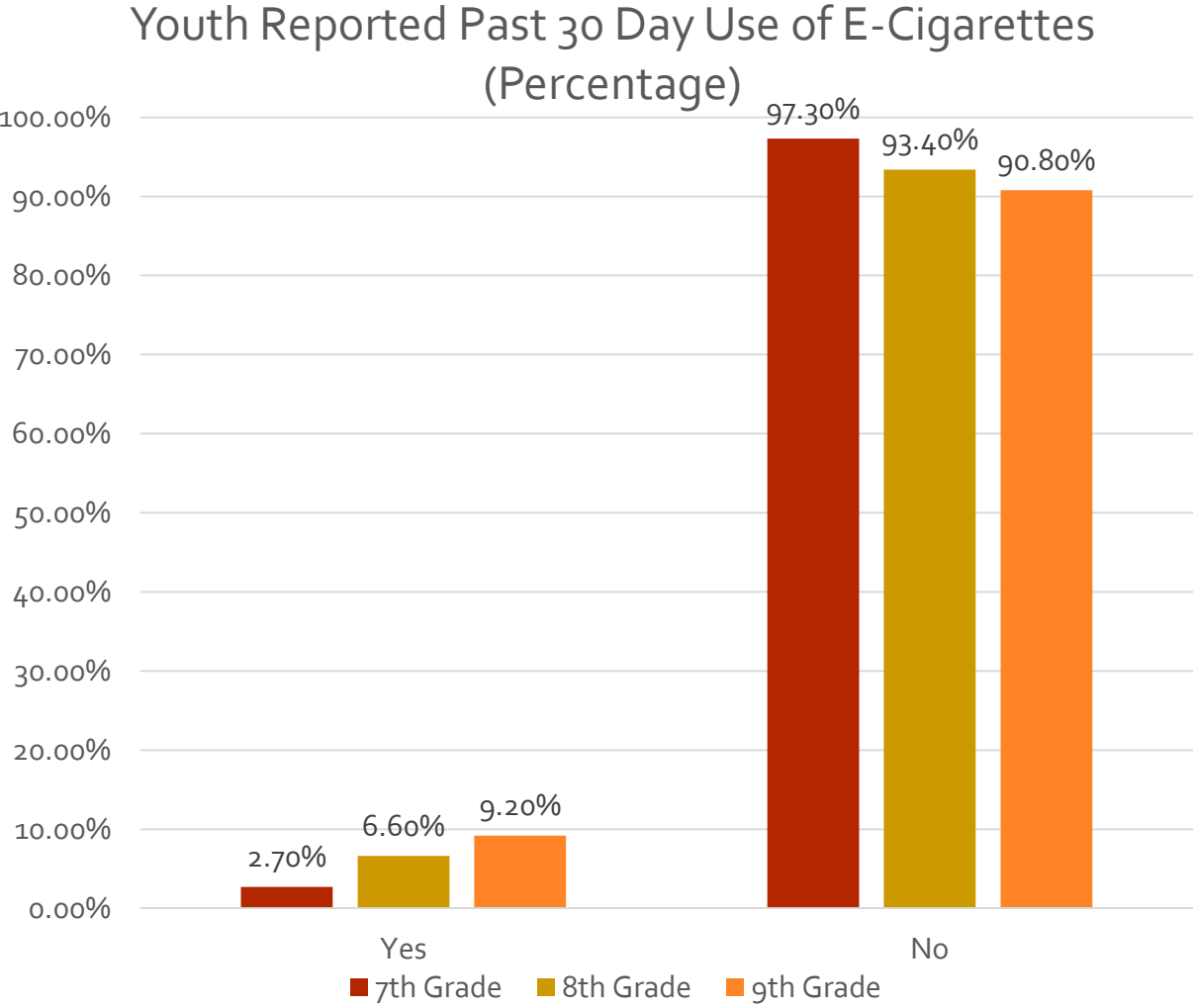


# Pride Survey Data – Cincinnati Region

## Availability

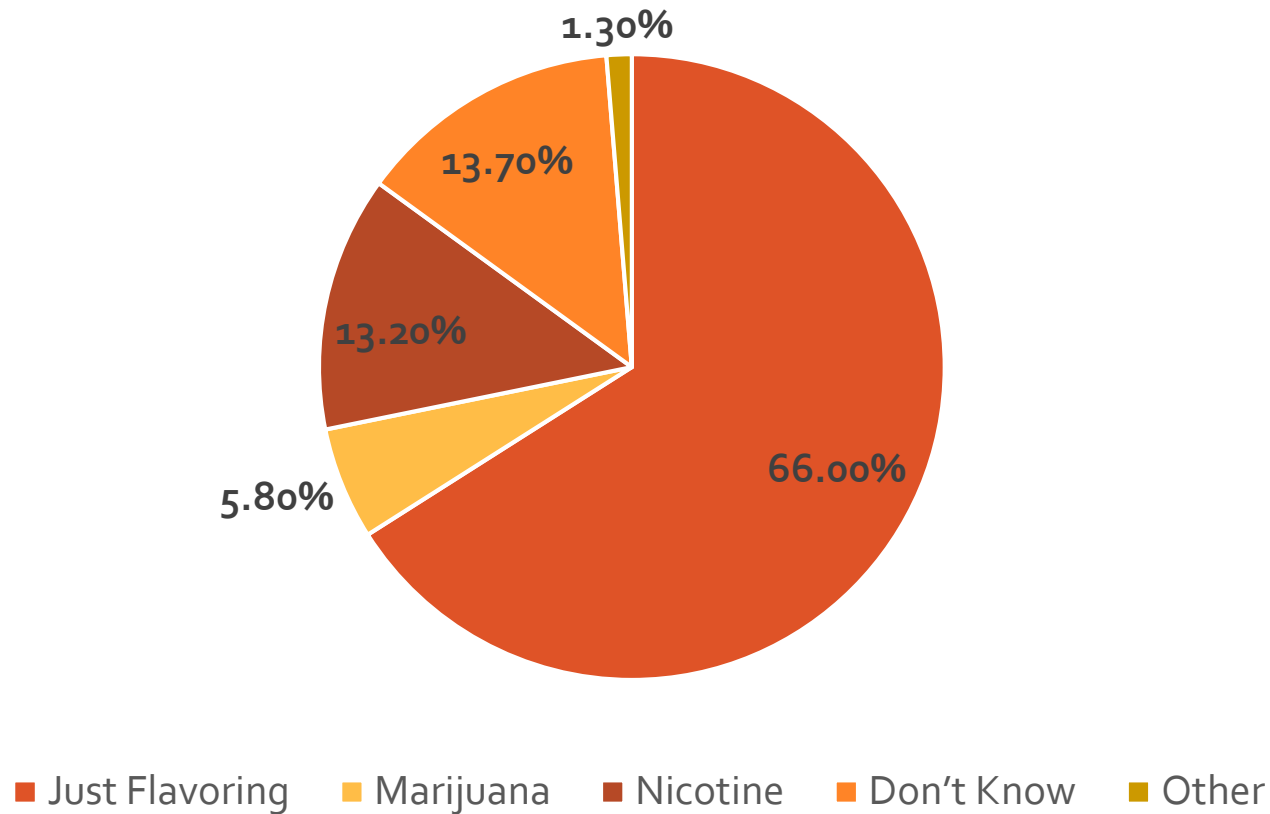
2018 Student Drug Use Survey	Fairly Easy/Very Easy
Alcohol	38.7%
Cigarettes/Tobacco	36.2%
Marijuana	27.3%
Prescription Drugs	22.3%
Electronic-Vapor	39.0%

# What Does the Kings School District Numbers Say?

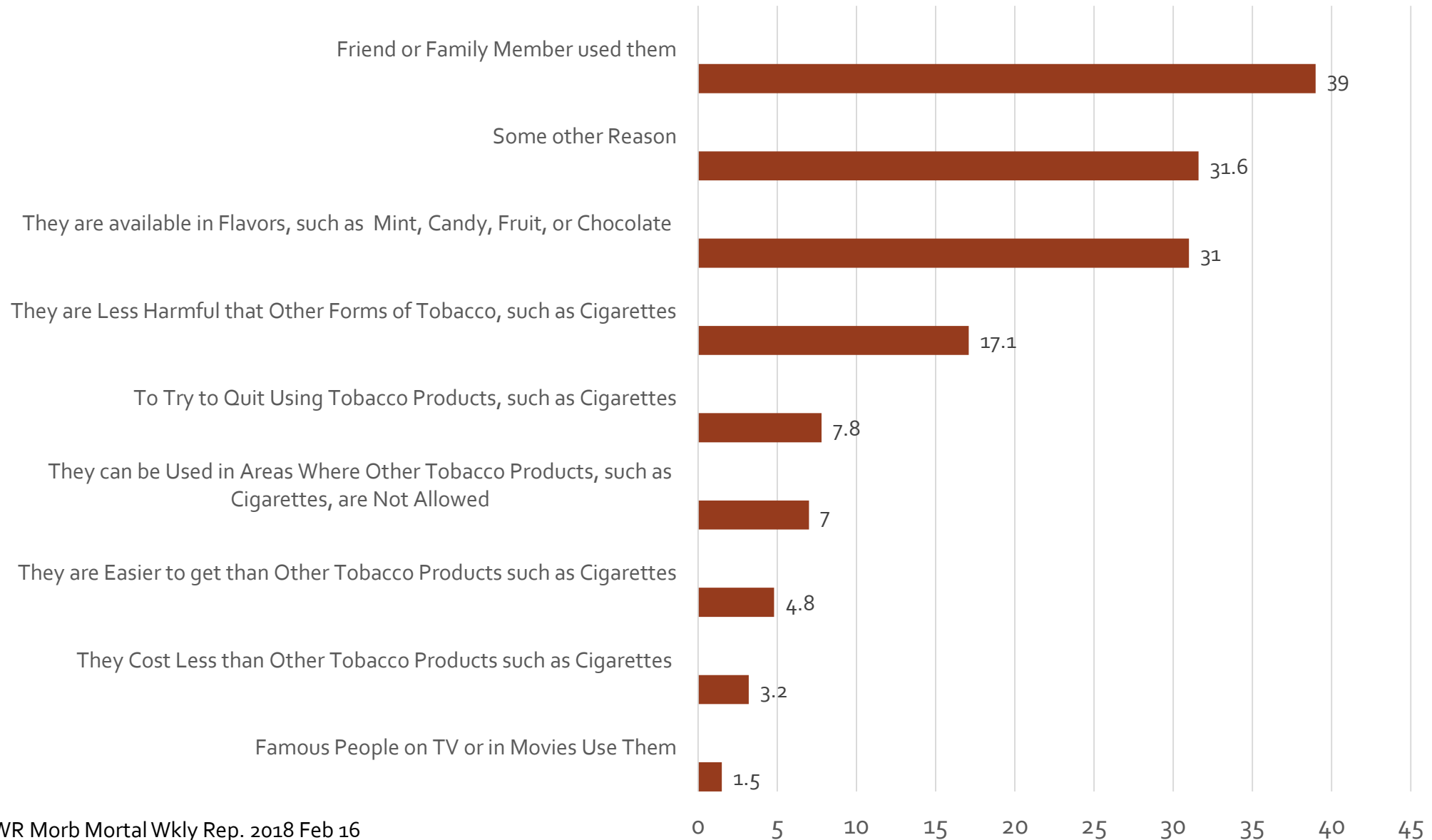


# Do Kids Know What's In Them?

What Do Teens Say Is In Their E-Cigarette?

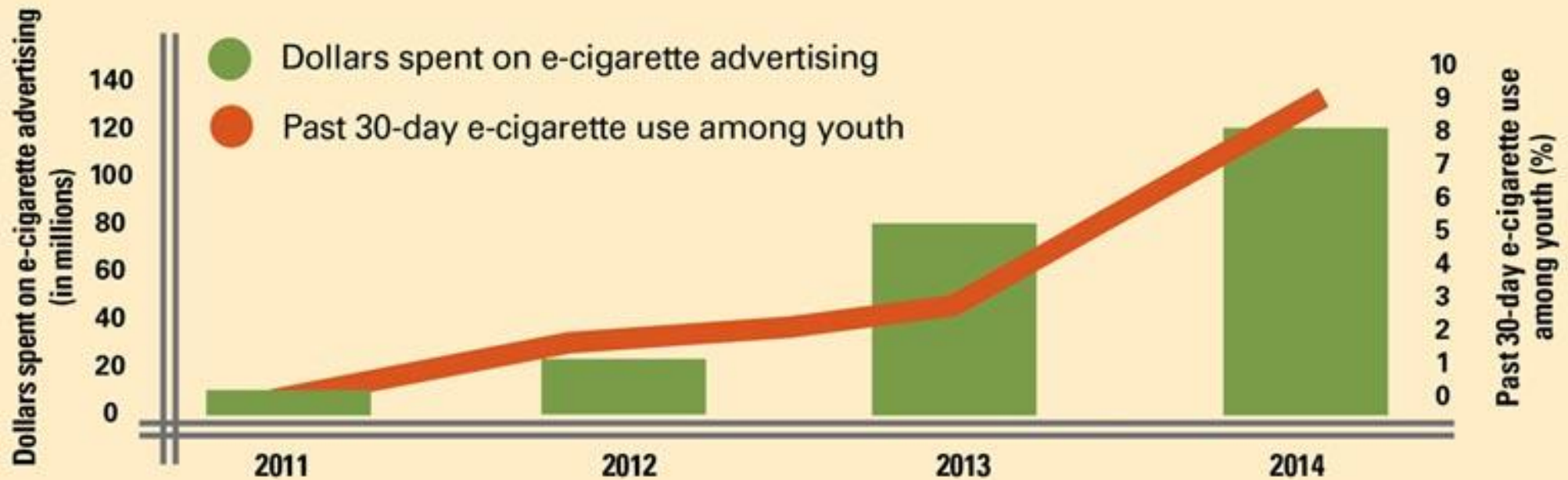


# Reasons for Youth E-Cigarette Use



# Marketing and Youth

## E-cigarette use among youth is rising as e-cigarette advertising grows



SOURCE: National Youth Tobacco Survey, 2011-2014; Kim et al (2014), Truth Initiative (2015).





## E-CIGARETTE ADS

REACH NEARLY

# 4 IN 5

## U.S. MIDDLE AND HIGH SCHOOL STUDENTS

More than 20 million youth saw e-cigarette ads in 2016.

### PERCENT OF STUDENTS EXPOSED TO E-CIGARETTE ADS

2014

68.9

2015

73.0

2016

78.2

### YOUTH EXPOSURE TO E-CIGARETTE ADS, 2016



RETAIL STORES

68.0% 17.7 MILLION



TELEVISION

37.7% 9.7 MILLION



INTERNET

40.6% 10.6 MILLION



NEWSPAPERS & MAGAZINES

23.9% 6.2 MILLION

Efforts to reduce youth exposure to e-cigarette ads are important to prevent and reduce youth use of these products.



Source: National Youth Tobacco Survey



# 85%

of e-cigarette users ages  
12-17 use flavors

menthol  
alcohol  
candy

fruit  
chocolate  
sweets

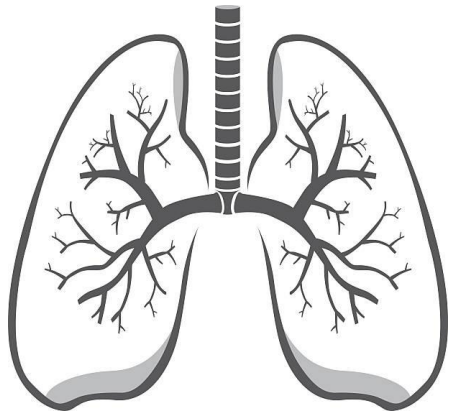


# Is Vaping Safe?

- Safer ≠ Safe!
- Flavorings contain chemicals that can be toxic when inhaled
  - Propylene glycol, glycerol, benzoic acid, acetone, ethylbenzene, formaldehyde, rubidium, nicotine
- Vapes can produce second and thirdhand smoke
- Nicotine affects the brain AND body
- Vaping teens are more likely to move onto combustible cigarettes and other tobacco products.

# Short and Long Term Health Effects

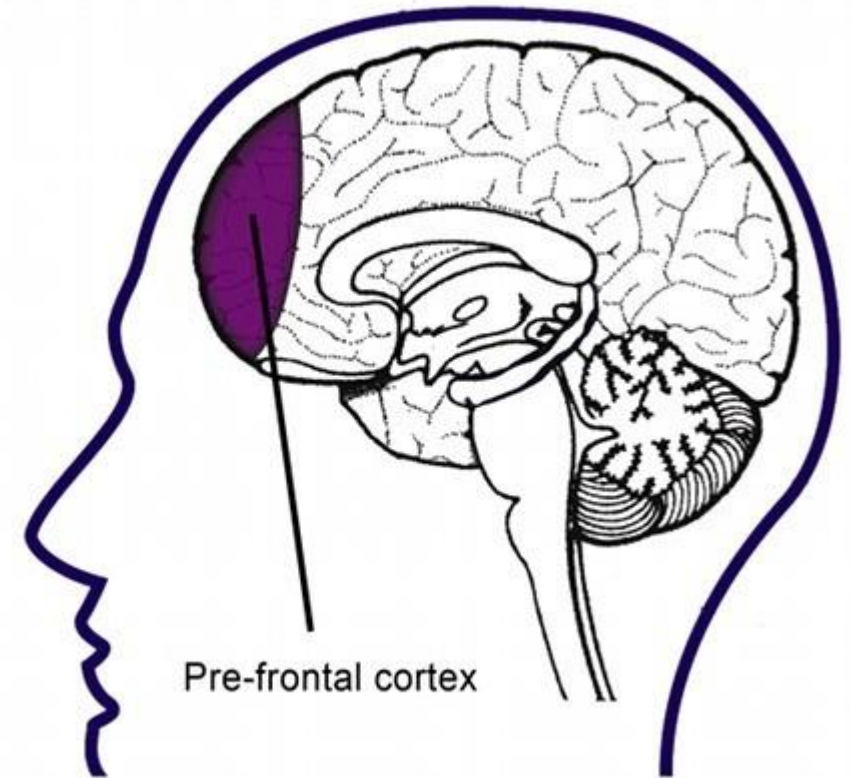
- Causes irritation in the nose, throat and lungs
- Increased likelihood to develop bronchitis, pneumonia and sinus infections
- Can cause coughing, shortness of breath and wheezing
- Can cause cracking and drying skin
- Can cause addiction and affect brain development
- ???





# Nicotine Addiction in Adolescence

- The brain continues to develop up until about age 25
- Adolescents are more likely to develop addictions than adults because of this period of brain growth
- The pre-frontal cortex is the last area of the human brain to develop. This part of the brain is responsible for:
  - Weighing outcomes
  - Forming judgements
  - Controlling impulses and emotions
- The adolescent brain also forms strong connections based on experiences – and the more a behavior is repeated, the stronger that connection in the brain.



- Nicotine is an addictive drug, and exposure to it in adolescence can harm brain development.  
This includes:
  - More risky behavior
  - Development of mood disorders
  - Permanent lowering of impulse control
  - Can disrupt the growth of brain circuits that control attention and learning
  - Increase susceptibility to develop other addictions to drugs, such as cocaine
- Many youth and young adults who try e-cigarettes are more likely to try other tobacco products, such as regular cigarettes, cigars, hookah and smokeless tobacco.
- Some evidence shows that e-cigarette use is linked to alcohol use and other substance use, such as marijuana.





# Exploding Devices

**REPLACE** the  
batteries in your  
vape if they get  
**damaged or wet.**

Find more tips on avoiding vape battery  
explosions at [www.fda.gov/tobacco](http://www.fda.gov/tobacco).

CENTER FOR TOBACCO PRODUCTS



# Marijuana in e-cigarettes?



- Some e-juices contain THC, the psychoactive drug that produces the feeling of being high
- Sometimes referred to as “dabbing” – a specific process for vaping THC
  - A blowtorch is used to heat a metal “nail” to over 900 degrees
  - Butane Hash Oil (BHO) is dropped through the nail, releasing a short burst of aerosols that passes through a water pipe and is then inhaled
- Nearly 1 in 11 U.S. students, including 1/3 of those who ever used e-cigarettes, had used cannabis in e-cigarettes in 2016.
- E-cigarettes can be used as a delivery system for cannabinoids and potentially for other illicit drugs.



# Marijuana Waxes









# What is the FDA doing?

- Until 2016, the e-cigarette industry had very little FDA involvement
- No ban on flavors
- No regulation on ingredients, little accuracy of reported nicotine levels in e-liquids
- Until recently, no pressure on the e-cigarette industry to discourage minor use
  - JUUL is one of the big offenders that is now being watched closely by the FDA
- Still, there is little being done at the moment

# What can Parents do?

Talk to your kids about the dangers of vaping

Before the talk...

- Get the Facts
  - [E-cigarettes.SurgeonGeneral.gov](https://www.e-cigarettes.surgeongeneral.gov)
  - [cdc.gov/tobacco/basic\\_information/e-cigarettes](https://www.cdc.gov/tobacco/basic_information/e-cigarettes)
- Be Patient and Ready to Listen
- Set a Positive Example
  - 1-800-QUIT-NOW





# Starting the Conversation

- Find the Right Moment
  - Seeing someone use an e-cigarette in person or in a video
  - Passing an e-cigarette shop when you are walking or driving
  - Seeing an e-cigarette advertisement in a store or magazine or on the internet
- Ask for Support
  - Ask your health care provider/pediatrician
  - Other positive role models whom you know are aware of the risks of e-cigarettes, such as relatives, a school nurse, teacher, coach, faith leader, or counselor.
- Be Prepared to Answer their Questions



# Potential Questions/Pushback from your Teen

“Why don’t you want me to use e-cigarettes?”

Sample response: E-cigarettes contain harmful chemicals. When people use e-cigarettes, they breathe in tiny particles that can harm their lungs. Science shows that most e-cigarettes also contain nicotine, even ones that are advertised as nicotine-free. This is an addictive drug that can harm your brain development, which can affect your memory and concentration. I don’t want that to happen to you!

“What’s the big deal about nicotine?”

Sample response: Your brain doesn’t stop developing until about age 25. The Surgeon General reported that nicotine is addictive and it can harm your brain development. When you use nicotine, it can make it harder for you to concentrate, learn, or control your impulses. Science also shows that nicotine can put you at risk for becoming addicted to other drugs later in life. I’m not saying all this to scare you – I just want you to be aware and know the facts because your health and safety are most important to me.

“But e-cigarettes are safer than regular cigarettes!”

Sample response: Because your brain is still developing, scientific studies show that it isn’t safe for you to use any tobacco product that contains nicotine, including e-cigarettes. Whether you get nicotine from an e-cigarette or a cigarette, it’s still risky and affects your brain. Some e-cigarette batteries have exploded and hurt people too. There’s still a lot unknown about the long term health effects since the devices haven’t been around that long. It’s just not worth all the risks!

“E-cigarettes don’t have nicotine – it’s just water and flavoring.”

Sample response: I used to think that too. But I learned that most e-cigarettes contain nicotine, even the ones that say they don’t. There are also other chemicals in them that can be harmful too. Some even contain heavy metals, such as lead and nickel, that are very harmful to breath in. Let’s look at the Surgeon General’s website on e-cigarettes together so you can see the information I found about the dangers of e-cigarettes.

“I (or my friends) have tried e-cigarettes and it was no big deal.”

Thank you for being honest with me. It may not seem like a big deal now, but science shows that e-cigarettes contain ingredients that are addictive and could harm different parts of your body. In the future, I hope you remember what we talked about today and stay away from e-cigarettes or other tobacco products, such as cigarettes. Next time we go to the doctor, we should ask about the risks of nicotine, e-cigarettes and other tobacco products.

“You use(d) tobacco, so why shouldn’t I?”

If I could live my life over again, I never would have started smoking. I learned that people who smoke cigarettes are much more likely to develop, and die from, certain diseases than other people who don’t smoke. This was really scary, so I quit smoking. Quitting was really hard, and I don’t want you to go through that. The best thing is to not start at all.

# Keep the Conversation Going!



- Send an Informative Text, E-mail or Facebook Message/social media post
- Take Advantage of Opportunities to Talk
- Give Praise for Smart Decisions

### *Share facts and resources.*

- Just learned that many e-cigarettes have nicotine in them. That's the drug that makes cigarettes so addictive. Nicotine can also mess with your brain development.
- Just saw a report from the Surgeon General that e-cigarettes can mess with how your brain develops and might even affect your mood and focus. Please don't use any products that contain nicotine.
- Hope none of your friends use e-cigarettes around you. Even breathing the cloud they exhale can expose you to nicotine and chemicals that can be dangerous to your health.



# Takeaways...

- There are many different types of e-cigarettes on the market, with new designs and products coming out each day
- Nearly all e-cigarettes will contain some level of nicotine, with JUUL's containing especially high levels of nicotine.
- Most teens don't use e-cigarettes, but many are unaware about the dangers and believe they are safe to use.
- The tobacco/e-cigarette industry markets heavily to teenagers
- Vaping isn't harmless and comes with many risks, especially for those under the age of 25
- While the FDA is working to tighten regulations on the industry, it's up to parents and trusted adults to educate children on the dangers of e-cigarette use



# Questions?

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Looking for more information on tobacco prevention in Warren County? Check out the Substance Abuse Prevention Coalition of Warren County's website:

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

