

Current Trends

Vaping and Juuling: What You Need to Know and Helpful Ways to Talk To Youth

COMMUNITY COUNCIL

APRIL 5, 2018



McCall Center
for Behavioral Health
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Vaping and E-Cigarettes

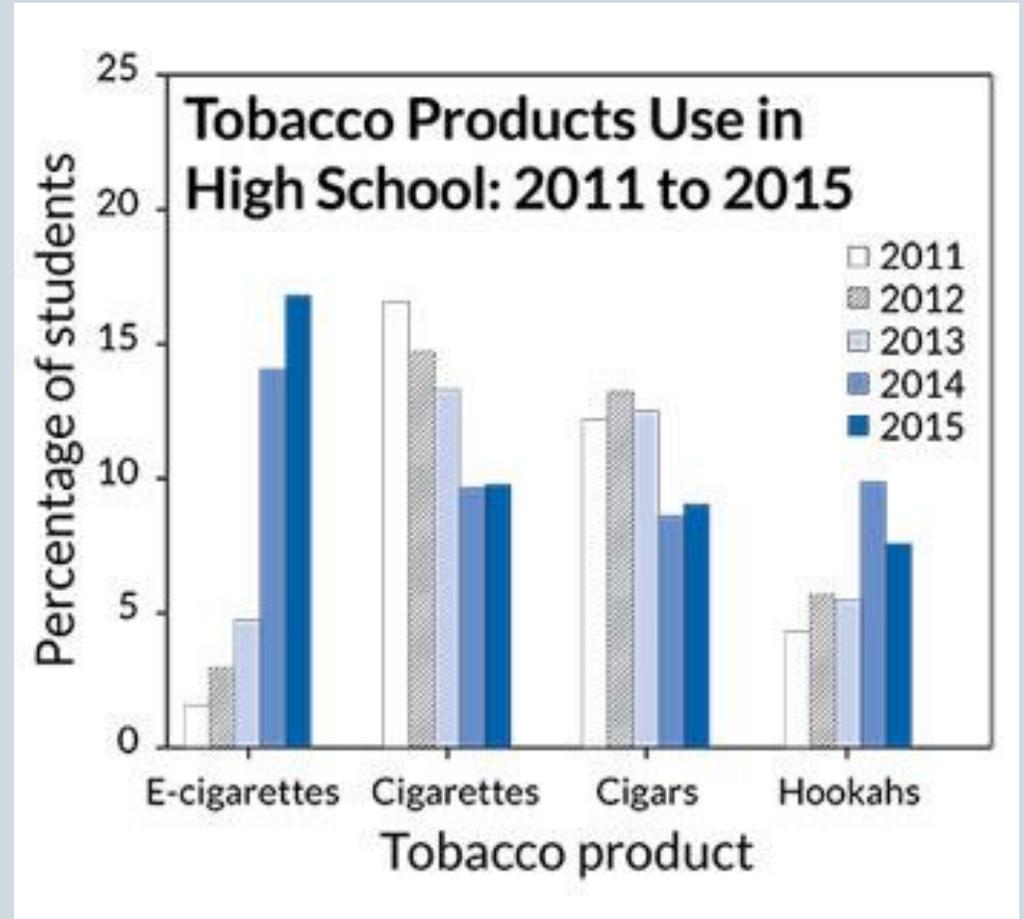


Overview

https://www.youtube.com/watch?v=9dZS_Rniak0

Recent Increases in Youth Vaping

- More than 3 million middle and high school students used e-cigarettes in 2015, up from 2.46 million in 2014.
- In 2015, e-cigarettes were the most commonly used tobacco product among students in middle and high school for the second straight year.
- In 2011, less than 2 in 100 high school students said they used e-cigarettes. By 2015, 16 out of 100 had.



Recent Increases in Youth Vaping

- Use of vaping (as with other substances) increases dramatically between grade 6 and higher grades suggesting key opportunity for intervention
- Prevalence of “ever Vape” is 25% for high school students - 30% of 12th graders reporting ever vaped from 2015 data
- In addition, nearly 6% of high school student who said that had NOT tried vaping report that they likely will in the next year
- While the percentage of student who currently smoke at both middle and high school levels has decreased significantly in the years 2011-2015, the percentage of students who use e-cigarettes has significantly increased during that same period

What is Juuling?

<https://www.youtube.com/watch?v=Pj8vKITOI5g>

Suorin Air Ultra Portable Vape Device

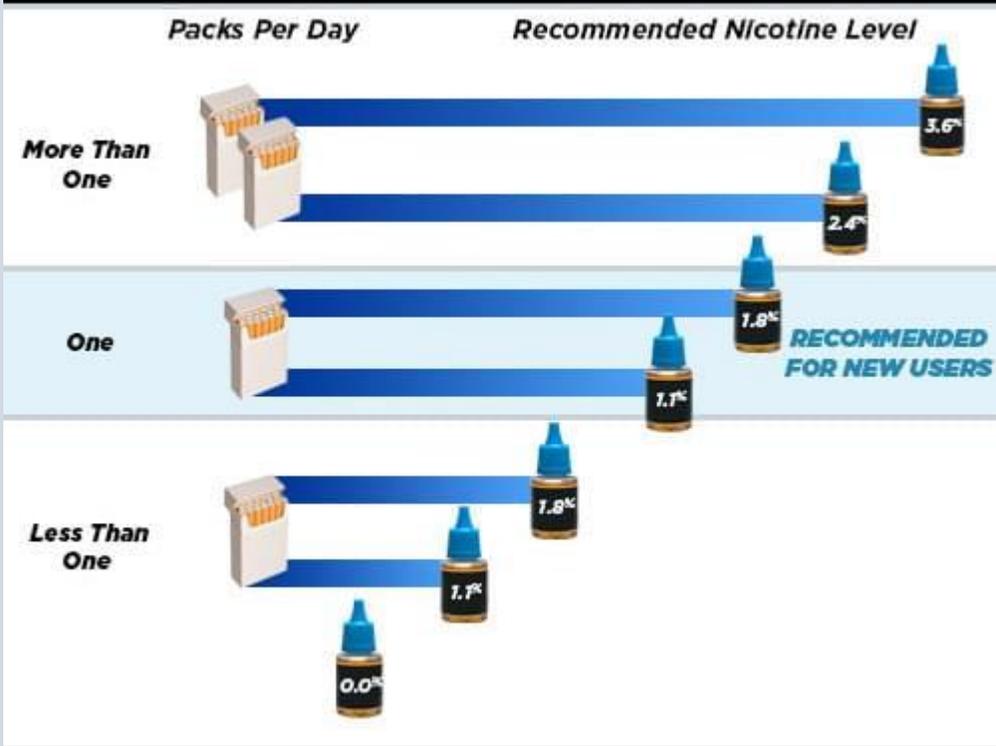


Why is Vaping so popular?

- Flavors target adolescents and younger populations (Bubblegum, popcorn, gummy bear, candy cane, cotton candy)
- Marketing saturates youth driven platforms (Instagram Feeds, Snap Chat, YouTube Channels)
- The sale of vaping supplies to minors is banned across the country but is easily purchased and accessible online
- Misconceptions that it is not as harmful as smoking, that you can control the amount of nicotine used, and that there is no second-hand harm

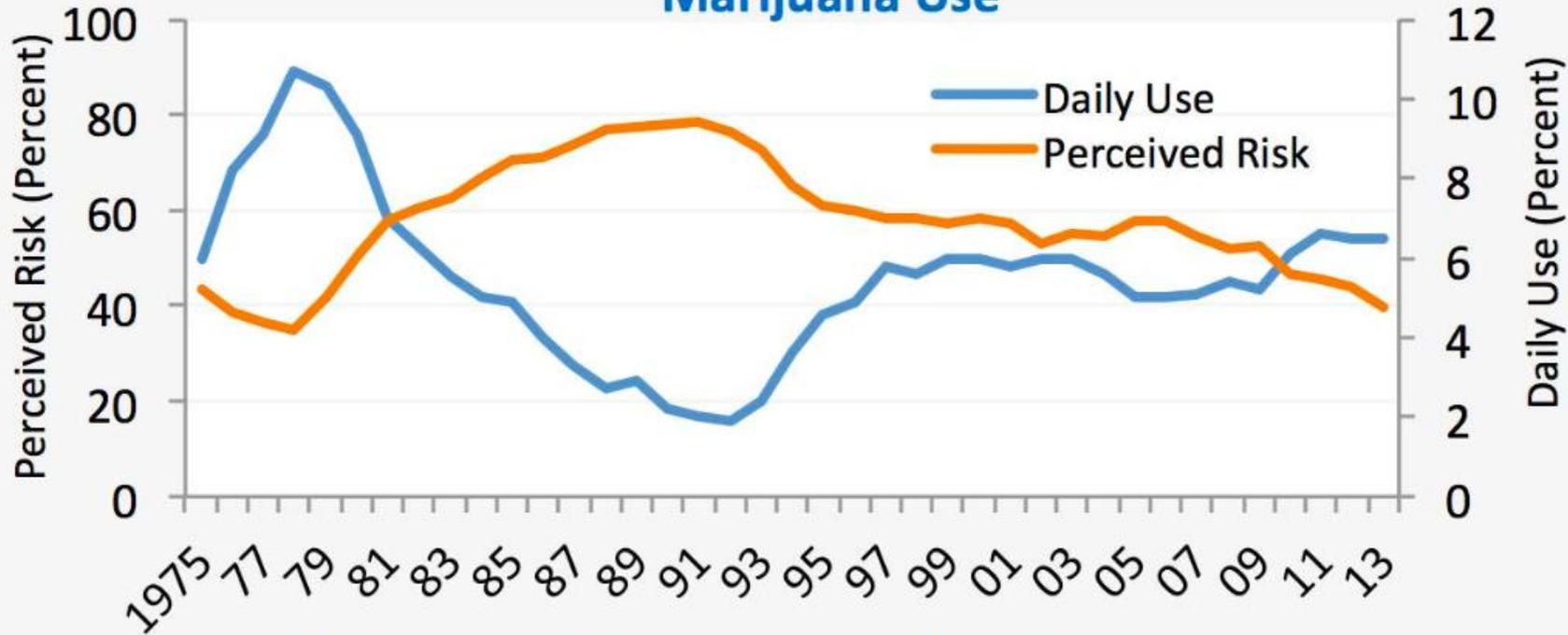


Nicotine Equivalents



A Low Perception of Harm

Percentage of U.S. 12 Grade Students Reporting Daily Marijuana Use vs. Perceived Risk of Regular Marijuana Use



Source: The Monitoring the Future study, the University of Michigan

What's the big deal about Nicotine?

- Nicotine is extremely poisonous
- Just 30 - 60 mg of nicotine (a drop of pure nicotine in liquid form) is a lethal dose for an average adult. That said, tobacco products do not contain enough nicotine to cause a fatal overdose when used as directed. For example, a typical manufactured cigarette contains about 10 mg of nicotine, but most of it goes up in smoke, with approximately one milligram of nicotine being inhaled by the smoker
- Nicotine can be lethal to children in doses as small as 10 milligrams
- Plants produce nicotine to protect themselves from predators, and people use nicotine in pesticides for the same reason
- **Nicotine can be absorbed through the skin, which is the delivery method with the nicotine patch. A spill of electronic cigarette nicotine solution (known as e-juice) can be hazardous for this reason**

Risks Associated with Vaping

- Chronic Bronchitis, Pneumonia
- Exposure to harmful chemicals and carcinogens: formaldehyde, acetaldehyde, diacetyl
- “Popcorn Lung”
- Levels of Metal Particles found in Vape Smoke are equal to if not greater than traditional cigarettes: tin, nickel, silver, iron, aluminum, silicate, and chromium
- Lithium Ion Batteries used in devices – manufacturers are not always regulated
- Increased risk of using other tobacco products
- Decreased immunity – lowers the body’s ability to fight infections
- Increased risk of developing heart disease, high blood pressure, and cancer
- Nicotine Dependence and Addiction

Nicotine Dependence and Vaping's Link to Depression

- Youth may think they are using a low dose of Nicotine when in fact it is very high because these products are not regulated
- **Nicotine can act as a Dopamine “Imposter” and artificially raise the levels of this feel good chemical**
- **Because these chemicals are increasing the feelings of dopamine and serotonin, the body begins to decrease the amount it makes naturally – which makes it difficult and unpleasant to quit nicotine produces**
- Users quickly come to depend on nicotine to positively enhance their mood and to avoid unpleasant withdrawal symptoms, including irritability, anxiety and stress

Reward Pathway in the Brain

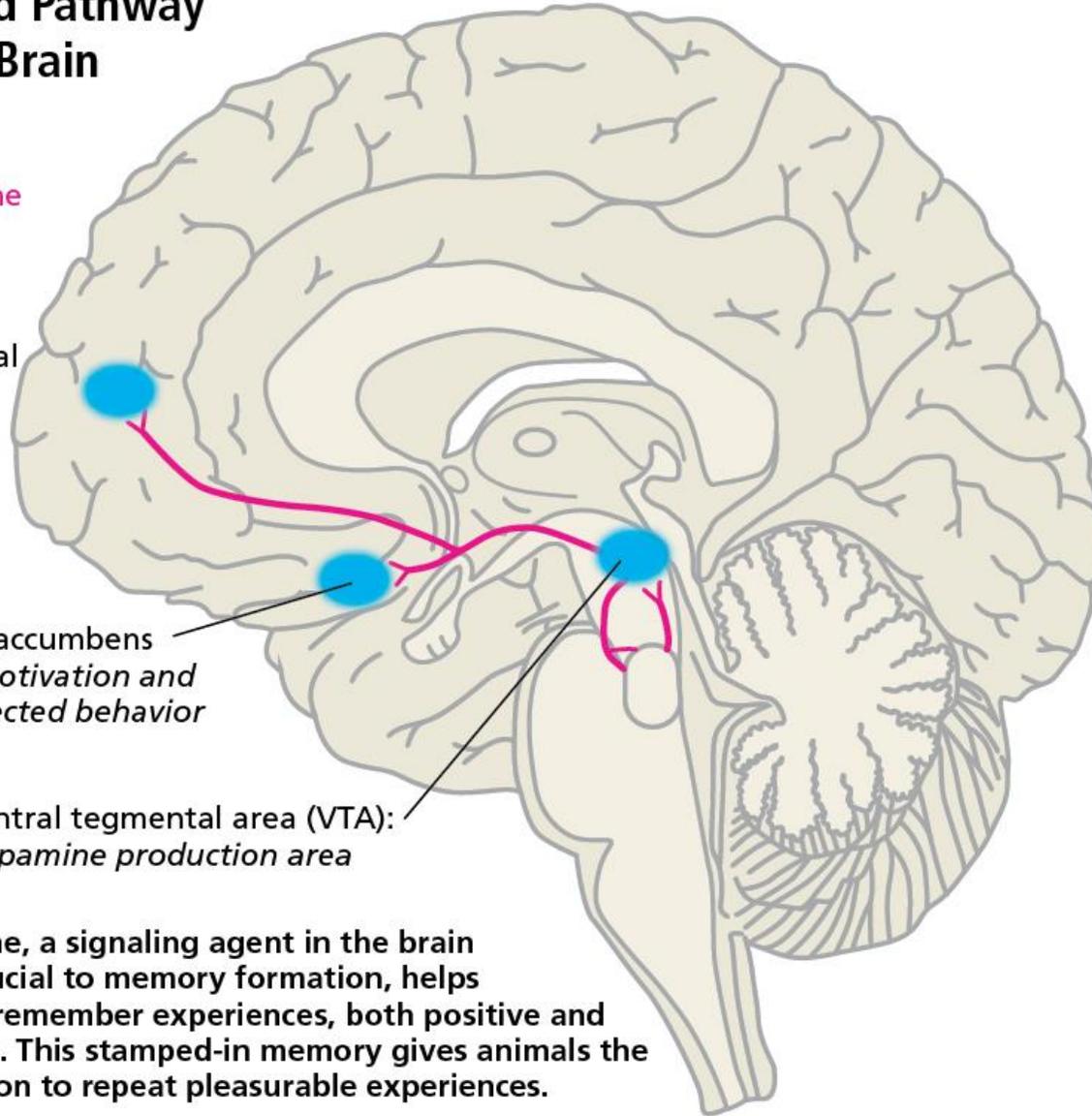
Dopamine
pathway

Prefrontal
cortex

Nucleus accumbens
(NAc): *Motivation and
goal-directed behavior*

Ventral tegmental area (VTA):
Dopamine production area

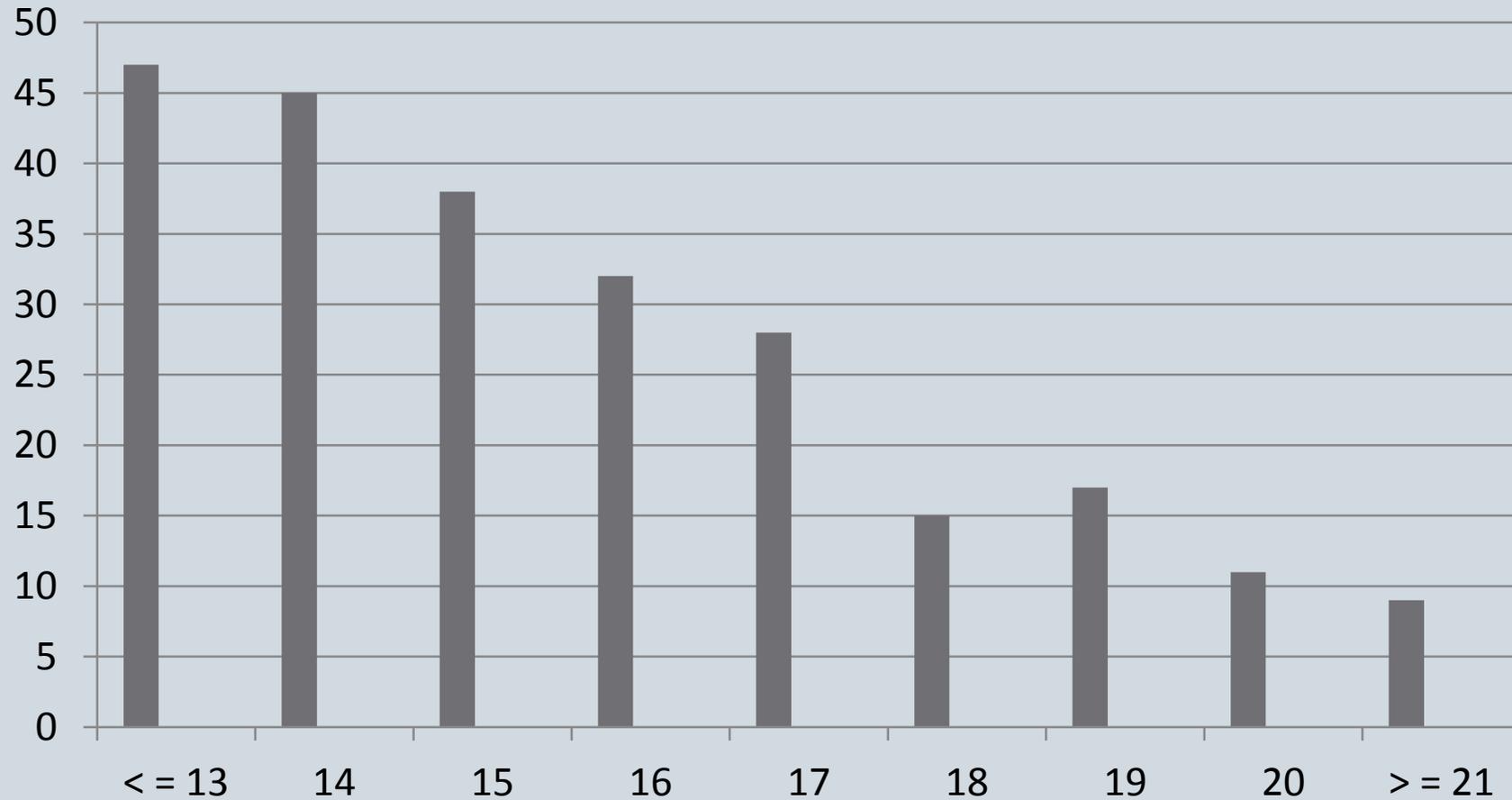
Dopamine, a signaling agent in the brain that's crucial to memory formation, helps animals remember experiences, both positive and negative. This stamped-in memory gives animals the motivation to repeat pleasurable experiences.



Risk Factors for Youth Substance Use

- **Family.** When someone in a child's family - parents, siblings, or extended family members - have a history of substance use (including troubles with alcohol, tobacco/nicotine, marijuana, prescription drugs, or other drugs), that child may have a predisposition to addiction, and will therefore be at a greater risk of a substance problem than a child without a family history.
- **Age.** Age is another important risk factor for substance abuse issues. The younger a person is when they start using alcohol or other drugs, the more likely they are to develop an addiction.
- **Cravings and Tolerance.** Because they are still developing, younger brains are more sensitive to alcohol and other drugs, and more able to "learn" addiction, than fully developed adult brains.
- **Surroundings.** Surroundings may be the most noticeable warning sign of substance use. Exposure to the use of alcohol and other drugs, whether it be within a family or a peer group, "normalizes" use so that it is perceived as "the thing to do."
- **Experiencing Learning Difficulties (ex.: ADHD)**
- **ACE's Score – Adverse Childhood Experiences**

Risk of Alcoholism by Age of First Drink



Starting the Conversation

- Educate yourself
- Talk early and often – start the conversation at a young age
- Ask about what they know or what they think
- Find Teachable Moments – Fictional Characters, Movie Stars, Athletes, Classmates, Relatives. Etc.
- Use positive communication, i.e.: Active listening – “I” Statements, offer support and empathy, avoid judgement
- Keep in mind the developing of the teenage brain
- Include your child on setting rules, consequences and consider giving them a “way out” of a risky situation, i.e. texting the “X”

How To Talk To Your Teen About DRUGS And Drug Addiction

- 1 Engage Your Teen In Conversation
- 2 Don't Talk "At" Your Teen
- 3 Use Current Events And Pop Culture
- 4 Keep Your Cool
- 5 Don't Reveal Your Own Past Drug Use
- 6 Avoid Accusations
- 7 Watch Television With Your Teens



For More Information

McCall Center for Behavioral Health

Main Number: 860-496-2100

Prevention: 860-496-2139

www.mccallcenterct.org

- <https://e-cigarettes.surgeongeneral.gov/getthefacts.html>
- <https://www.drugabuse.gov/publications/drugfacts/electronic-cigarettes-e-cigarettes>
- <https://www.nytimes.com/2017/12/14/health/teen-drug-smoking.html?hp&action=click&pgtype=Homepage&clickSource=story-heading&module=first-column-region®ion=top-news&WT.nav=top-news>
- <https://www.bostonglobe.com/metro/2017/11/15/where-teenagers-are-high-school-bathrooms-vaping/IJ6xYWWIOTKqsUGTTlw4UO/story.html>
- <https://www.newyorker.com/magazine/2018/05/14/the-promise-of-vaping-and-the-rise-of-juul>
- <https://drugfree.org/>