


Juul: from Craze to Epidemic

 smeharbinger.net/juul-from-craze-to-epidemic

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In April 2017, **Harbinger investigated** a new type of electronic cigarette, the Juul, being found in the hands of a few students around the school. At this point in time, only 13 percent of East students could be found owning the device. But now, as the **FDA has announced the usage of Juuls** among minors as being an “epidemic,” 31 percent of students at East own a Juul of their own, going through an average of 2-3 pods a week.



by Elizabeth Ballew

In April of 2017, Haney confiscated the first Juul at East ever. Now, Haney confiscates one a day – with each catch coming with a two to three-day suspension.

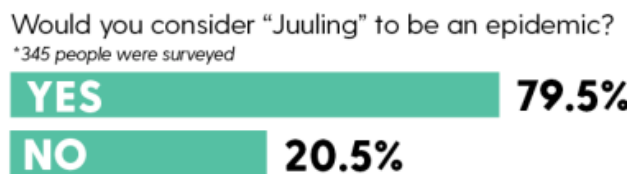
In a **press release** issued Sept. 12, the FDA labelled Juuling as an epidemic, which is no mistake according to attorney Esfand Y. Nafisi, who is leading a class action lawsuit against Juul.

In the recent Harbinger poll of 345 students, 83.7 percent of them consider Juuling to be an epidemic.

According to the Center for Disease Control and Prevention, cigarette smoking declined among teens and middle schoolers from 2011 to 2017. Then Juul happened. According to a Jan. 9, 2018 report from the Campaign for Tobacco free kids, there were over 2.1 million youth e-cigarette users. Now, the teenage generation has been labelled Juul's Guinea Pig Generation by the Public Health Law Center – and the long-term health effects are unknown.

According to Nick Clemons,* Juul is everywhere. Bathrooms, basement parties, parking lots. A normal hallway occurrence is to be asked, "Can I rip your Juul? Let's meet in the bathroom in five."

The FDA stated in a press release on Sept. 18 that about 80 percent of youth do not see great risk of harm from regular use of e-cigarettes. The FDA finds this to be "particularly alarming considering that harm perceptions can influence tobacco use behaviors."



The long term effects of vaping are unknown – but the long term effects of nicotine aren't. And one Juul pod, a replaceable cartridge filled with nicotine and flavorings, contains the same amount as an entire pack of cigarettes.

According to Dr. Nikki Nollen from the Department of Preventive Medicine at KU Medical Center, nicotine rewires the brain. Exposure to nicotine can damage brain development by disrupting and altering the growth and structure of the circuitry part of the brain that controls attention, learning and susceptibility to addiction, according to the **Public Health Law Center**.

"Adolescents who would never use regular cigarettes are smoking Juul which is exposing these adolescents to pretty large amounts of nicotine," Nollen said. "Nicotine by itself is a harmful drug, so we're getting adolescents who would have not had any exposure to nicotine now getting exposed to nicotine."

Nicotine also affects the heart rate and blood pressure. According to Pulmonary & Critical Care medicine doctor Scott Rawson, who works at Overland Park Regional Medical Center, there is no clear end point when Juuling – people will just Juul through a two hour movie and go through pods without considering nicotine intake. Opposed to the clear end point in cigarettes – there is an understanding of how many cigarettes have been smoked. Besides the effects of nicotine, he has also discovered "popcorn lung," a type of pneumonia that causes intense inflammation that destroys lung tissue. He has been more frequently treating popcorn lung in teens, which is believed to be caused by the flavoring in Juuls and electronic cigarettes.

Rawson thinks we won't be able to see the long term consequences of Juuling for another 15 to 20 years. The vast majority of his patients have stopped tobacco smoking, but he now fears for how much his patients are vaping in place of the cigarettes.

"We spent a generation trying to get people to stop smoking," Rawson said. "And now I worry that we're starting a new generation of new smokers. And so the smoking rate will actually go up."

Juuling is unregulated by the FDA, meaning anything could be in the pod. And while the Juul website claims to not add any carcinogens, cancer causing chemicals, to their products, IB Chemistry 2 decided to test it for themselves after a groupchat debate. The class used a Juul pod to perform a 2,4 DNP — a test required for their curriculum — that detects the carcinogens Ketones and Aldehydes. Their results for the pods were positive, meaning both contained carcinogens.

While Juuls do contain carcinogens, cigarettes still contain more. This is what makes e-cigarettes beneficial for adult smokers looking to quit according to Nollen.

While it can be beneficial for adult smokers, Jodi Radke, Regional Advocacy Director for the Campaign for Tobacco Free Kids, said there are plenty of unknowns about the product. They aren't regulated. There is no requirement for ingredient disclosure. Long term studies don't exist.

Health effects are one of the reasons senior Thomas Graves* is quitting. For the past two-and-a-half years, he has, on average, used one pod per day. Aside from health concerns, his Juul was a strain on his wallet as he spent \$20 to \$40 per week on pods.

ep·i·dem·ic
noun a widespread occurrence of something in a community at a particular time.

But when he was addicted and didn't have his Juul, he became irritable and craved it. When he couldn't get his fix on vacation, he had a homeless man buy pods for him when he couldn't get his own.

Graves fell into the easily addictive Juul cycle. Hit it once — get the buzz. Go back to it — try to recreate the feeling. The feeling fades — do it more and more, over and over again, but it was too late. The nicotine controlled him.

But after his decision to quit, Juuling is still a constant itch for him — without it he feels light-headed, and the worst part is knowing that hitting a Juul would resolve all of these problems. But he knows it's not worth the risk of potential health effects.

According to Nollen, nicotine rewires the brain. Exposure to nicotine can damage brain development by disrupting and altering the growth and structure of the part of the brain that

controls attention, learning and susceptibility to addiction according to the Public Health Law Center.

While the effects of nicotine in e-cigarettes are not exclusive to Juul, 75 percent of the market that uses e-cigarettes opt for a Juul according to Radke. Two years ago, Haney would confiscate vapes of all sizes, shapes and colors and he “couldn’t keep up with what was a vaping device.” Now, Haney mainly confiscates solely Juuls because he believes the other devices are too hard to hide.

Nafisi said that the e-cigarette industry was not experiencing explosive growth and it was thought of as “nerdy” by teens and adults before Juul hit the market. Then, Juul had their breakout year in 2017 with a 700 percent increase in commercial growth. While the use of vapes has increased exponentially over the past two years, Radke has seen the use of cigarettes go down.

“There’s no reason to be ingesting more nicotine than a cigarette would give you if these products are meant as an alternative the cigarettes,” Nafisi said.

Senior Lily Welch* is worried about the health effects of this as well, so she doesn’t Juul. She doesn’t see the point, as she doesn’t know what’s in it or what it does to her body.

Besides the health effects, her mom being a smoker has also made Welch be against smoking.

A smoker since age 18, Welch’s mom needed to get her fix of nicotine at a family gathering and resorted to taking a single hit of sister’s Juul. It was too strong. She couldn’t handle the nicotine content. Welch wonders, *if one Juul hit had this much impact on a new user, what could it do to someone who is addicted?*

THE FACTS

design by grace padon

A breakdown of all things Juul

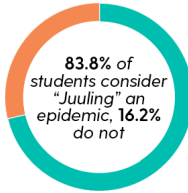
AN EPIDEMIC Information courtesy of our survey results

IS JUULING AN EPIDEMIC?

On Sept. 12, FDA Commissioner, Scott Gottlieb, deemed teenage vape culture an "epidemic."

epidemic

noun
A widespread occurrence of something in a community at a particular time.



ADDICTION Information courtesy of EverydayHealth

SIGNS OF ADDICTION

You can't stop

You feel like you need to use a Juul all the time

You experience withdrawal symptoms

Anxiety, irritability, restlessness, difficulty concentrating

You find it difficult to not Juul in places you shouldn't

At a church, library, school, movie theater or hospital

ADDICTION AT EAST



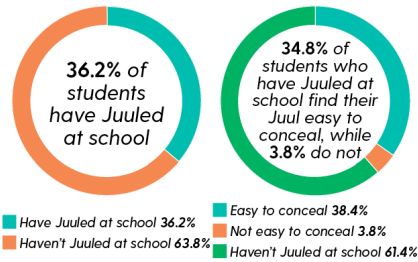
JUUL IN SCHOOL

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18 percent of students had seen Juuls used in school in a survey given to more than 1,000 youth between ages 12 and 17 in April 2018.

the truth initiative

STUDENTS WHO HAVE USED A JUUL AT SCHOOL



THE RISK Information courtesy of Know the Risk

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Until age 25, the brain is still growing. Because addiction is a form of learning, teenagers can get addicted more easily than adults.

The nicotine in e-cigarettes can prime the adolescent brain for addiction to other drugs such as cocaine.

know the risk

POD TALK Information courtesy of the CDC, Esfand Y. Nafisi and our survey results

NICOTINE CONTENT CAPS

EU 20 mg per mL of nicotine fluid

US 60 mg per mL of nicotine fluid

The US's nicotine content cap is **three times** the EU's nicotine content cap.

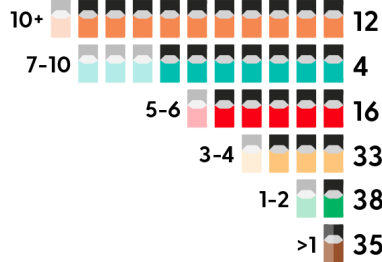


Each Juul Pod contains **59 mg** per mL of nicotine fluid.

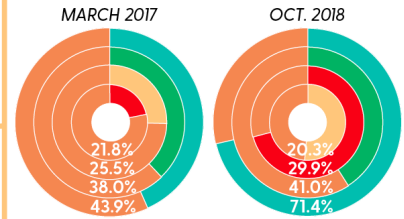
WHAT'S IN A JUUL POD?

- 90%** PROPYLENE GLYCOL AND GLYCERINE creates a vapor
- 2-5%** POD FLAVORING provides the taste profile
- <4%** BENZOIC ACID provides a cigarette-like satisfaction
- <5%** NICOTINE a stimulant from the tobacco plant

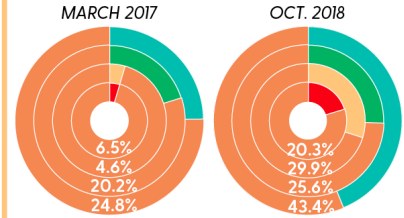
THE AMOUNT OF JUUL PODS STUDENTS WHO JUUL GO THROUGH IN A WEEK



STUDENTS WHO HAVE USED A JUUL



STUDENTS WHO OWN A JUUL



Legend: Upperclassmen Males (teal), Upperclassmen Females (orange), Underclassmen Males (green), Underclassmen Females (red)

TIMELINE OF EVENTS

JUNE 1, 2015

Juul, the electronic cigarette, was introduced by PAX Labs.

APRIL 3, 2017

The Harbinger published an article about Juuls at East.

APRIL 2018

Juul Labs committed \$30 million over the next three years dedicated to independent research, youth prevention and community engagement efforts, including parent education.

JUNE 14, 2018

Juul will no longer use models on social media platforms and will focus on testimonials from adult smokers who switched to Juul.

SEPTEMBER 2018

The FDA sent letters to Juul Labs giving them 60 days to lay out their plans to address widespread youth use of their products.

OCTOBER 2, 2018

The FDA made an unannounced inspection of Juul headquarters, ceasing more than a thousand documents said to be related to the company's sales and marketing practices.



by Carolyn Popper

The Food and Drug Administration conducted a surprise investigation at Juul Labs **Sept. 28**, seizing over 1,000 pages of documents regarding the corporation’s marketing strategies. Juul CEO Kevin Burns responded in a press release.

“We are committed to preventing underage use, and we want to engage with FDA, lawmakers, public health advocates and others to keep Juul out of the hands of young people.”

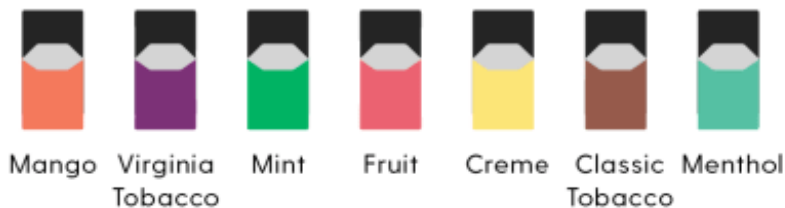
Regional Advocacy Director of Tobacco Free Kids Jodi Radke believes Juul’s initial intent was never to prevent smoking. The corporation never applied to be sold as a cessation product, which are products such as nicotine patches or nicotine chewing gum. Cessation products are approved under the Family Smoking Prevention and Tobacco Control Act that assist smokers who want to quit.

“If cessation was their goal, they would have marketed the product differently in the beginning,” Radke said. “I think there was intent behind creating a demographic audience to create users that would become long term.”

Esfand Y. Nafisi, an attorney currently in the midst of two class action lawsuits against Juul for causing serious addiction, believes that despite Juul’s recent efforts, “the cat is completely out of the bag,” and it is too late to prevent underage users from continuing to use the product due to their marketing that has attracted teens, whether they have targeted the group or not.

MARKETING STRATEGIES

FLAVORED PODS:



TAKE A LOOK: TEEN DIRECTED ADVERTISING



Scan these QR codes to see Juul’s controversial ads that the FDA believes markets to teens

CELEBRITY INFLUENCE





WHO WANTS ME TO DROP
A JUUL SKIN? @FFRECORDS

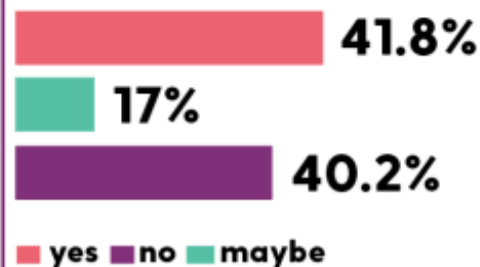
bella thorne

OTHER CELEBRITIES THAT JUUL:

BELLA HADID JENNIFER LAWRENCE
CODY KO

THE NUMBERS

Do you think that Juul intentionally markets to people who are underage with their “kid-friendly” flavors?



*345 people were surveyed

“The youth epidemic that the FDA declared is not an accident,” Nafisi said. “Everything you could do to create a youth epidemic, Juul did.”

In a poll of 345 students, 26 percent of students believe Juul was not intentionally marketing to people who are underage with their “kid-friendly” flavors.

Last April, the almost \$16 billion company dedicated \$30 million towards youth and parent education and community efforts for the next three years to prevent underage usage of Juuling. These efforts include raising the minimum age to purchase tobacco products from 18 to 21 and ending the use of young models in advertisements, and instead featuring an older demographic of smokers who switched from cigarettes to Juul.

In an effort to prevent and combat underage use, Juul implemented a nicotine warning label on packaging, and has worked to simplify names of pod flavors — the pre-filled and disposable cartridges storing nicotine and flavor. Juul’s Senior Communications Manager Ted Kwong stated in an email that the company has been aggressively working with social media platforms to remove the portrayal of the product in unauthorized and youth-driven manners.

Juul debuted their product in 2015 through an ad campaign called “Vaporized.” The advertisement featured 20 to 30-year-olds using the flash drive-shaped e-cigarette, set against an array of bright yellows, pinks and blues of geometric shapes. Despite the young models and bright colors, Juul said they never sought out teenagers.

“It looks like a kids’ play place,” marketing teacher Amanda Doane said. “The bright yellow is definitely a color you use to attract children. The models they use look very young and they are trying to target teens.”

Due to the backlash and accusations they received over their marketing appealing to teens, Juul redesigned their website to a sleeker layout and only include real smokers in advertisements as opposed to 20-year-old women wearing red lipstick.

Under Juul’s marketing and social media code on their website, they write, “We ensure responsible placement of our product designed to limit exposure to an underage demographic.” The corporation has instilled an age verification before entering the website and Instagram account. But, according to *Juul and the Guinea Pig Generation*, an article posted by Public Health Law Center, 7 in 10 teens are exposed to e-cigarette ads.

QuickTrip on State Line Road posts a Juul advertisement on the front door with the \$19.99 starter pack price in bold. One of the restrictions suggested by the Public Health Law Center is to sell solely in adult-only licensed retailers – off-limits to those under 21. QuickTrip not only sells the product in their stores, but also advertises the products to an all-age audience.

E-cigarette advertisements, including those from Juul, have a strong presence on the internet. E-cigarette use among youth is rising as e-cigarette advertising grows, according to Public Health Law Center.

Celebrities such as Bella Hadid, Jennifer Lawrence and youtuber Cody Ko have all been photographed Juuling recently. They are not advertising for Juul or being sponsored, but rather doing Juul’s handiwork by presenting a concept that is ‘cool,’ according to Nafisi.

But Juul remains steadfast in their commitment to preventing underage use of vapor products, according to a press release by CEO Kevin Burns. Juul responded to FDA’s surprise inspection in a statement released by saying it was a “constructive and transparent dialogue” and they look forward to complying with the FDA’s requests.

The FDA sent Juul a request for marketing documents in April, with which Juul complied.

“It’s a little bit surprising that the FDA performed a surprise visit on the same topic,” Nafisi said. “They obviously felt the need to do that, and you’re wondering why.”

Junior Brett Preston* doesn’t think an adult smoker who is accustomed to the taste of cigarettes will mind whether their pod tastes of mango or mint. Instead, he thinks Juul is “100 percent marketing to teens.”

However, Juul stated in a press release, “We believe restricting access to flavors will negatively impact current adult smokers in their journey to switch from combustible cigarettes...Appropriate flavors help adult smokers who do not want to be reminded of the tobacco-taste of a cigarette.”

Mango is sophomore Clarence Rode's* favorite pod flavor. His least favorite is tobacco. Mango pods are harder to come by – they are the sweetest and most desired according to Rode. Tobacco leaves a bad taste in his mouth, and if they were the only option, Rode would search for a different e-cigarette and abandon Juul.

FDA research showed that 80 percent of youth ages 12-17 and nearly 75 percent of young adults ages 18-25 who were current tobacco users in 2014 reported that the first tobacco product they ever used was flavored.

“Bubble gum, or fruit, I’m not immediately thinking health hazard, right?” Indian Hills Middle School Principal Blake Revelle said. “I think sometimes that is interpreted as to be less hazardous than if it were you know [labeled as] toxic waste.”

In 2009, the Family Smoking Prevention and Tobacco Control Act granted the FDA the authority to ban cigarettes with characterizing flavors, except menthol and tobacco. At this time, e-cigarettes weren't popular – Juul had not been invented. According to Public Health Law Center, while it has full authority to do so, the FDA has not yet extended the prohibition of flavors to Juuls. According to Nafisi, Juul is able to continue without the same regulation because of their mission to prevent smoking addictions.

While the FDA has not chosen to prohibit Juul's use of flavored pods, they have regulated pod names such as 'creme brulee' to just 'creme' and 'cool cucumber' to 'cucumber' to make the flavors sound less appealing, according to The New York Times.

“There's no less risk of teens getting hooked on a Juul than on a cigarette, if not higher, if it were offered in sweet flavors that are easy to consume,” Nafisi said.



by Emily Fey

As soon as she opened the door to the fifth floor girls' bathroom, freshman Maliyah Darrington saw a long line of students and a cloud of smoke coming from a stall. She immediately felt uncomfortable when she realized she was inhaling a mix of chemicals with every breath she took.

“It makes me uncomfortable because I know I am being exposed to second-hand vape,” Darrington said. “I don't want to be ingesting or coming into contact [with vape smoke]. They don't really know what it is doing to your body yet. It could be really bad and no one knows it.”

Darrington dislikes how students are using school bathrooms to fulfill their craving for nicotine, and she hates how a Juul — a product she has never touched — could have an effect on her health in the future in addition to making her late to English class.

In 2017, a poll of 497 East students showed that 31 percent had used a Juul before. Now, according to a poll of 345 students, that number has almost doubled with 63 percent of students responding they have used the discrete device that's taking over the e-cigarette market.

Juul “buzzes” — the feeling a student feels after inhaling copious amounts of nicotine — have transformed from just another way to have fun at parties to a feeling students have become reliant on, with 16 percent of students claiming they are addicted to the product. Due to this increase, East administration, Johnson County Mental Health and national organizations such as the FDA and **Tobacco Free Kids** are working to keep Juuls and other e-cigarettes out of the hands of minors by educating a new generation of nicotine addicts about the long-term effects of the product.

63%
of students have used a Juul before

The FDA's latest attempt to address the growing epidemic of underage e-cigarette is their **“The Real Cost”** Youth E-Cigarette Prevention Campaign. The campaign plans to target nearly 10.7 million youth, ages 12 to 17, who have used electronic cigarettes or are open to trying them, according to the FDA. Educational posters meant to pose questions to students about the dangers of vaping are being sent to high schools around the nation.

Associate Principal Britton Haney and other administrators will begin taping the anti-vaping signs they were sent by the FDA in the bathrooms — the most common place for students to get their nicotine fix.

When sophomore Clarence Rode* walks into the boy's bathroom for his second Juul break of the day, the blue walls will be plastered with the FDA posters displaying the slogan “Some of the grossest things in this bathroom are in that vape.” He doesn't believe this specific poster will have any effect on his yearning to take a hit. He'll just go straight into the stall and inhale the “sweet” mango pod vapor.

“[The impact the poster has on me] depends on what it says on it,” Rode said. “If it mentioned some pretty good health points on what it does to your health, I would probably think it was a bad idea [to Juul]. But if [the sign] just said ‘stop vaping,’ it would just be a joke.”

Haney knows the posters won't reverse every Juul user's addiction. But he hopes at least one student will look at the posters and consider the possible long-term effects of using the product.

But now, Student Resource Officer Lacey Daly is working with Jamie Katz, Prevention Coordinator for **Johnson County Mental Health**, on not only preventing Juul use, but also helping students who are already addicted. They are working on bringing ASPIRE – an online program through MD Anderson Cancer Center that explains the dangers of tobacco and nicotine use to kids – to East students. The program is also designed as a cessation program, meaning it also gives information and tips to students already addicted on how to quit according to Katz.

While bringing ASPIRE to East is a work in progress, there is an increase in the punishment for students who are caught with Juuls and other e-cigarette devices. The first time a student is caught with a Juul, the punishment will be a three day out-of-school suspension. But if the student commits a second offense, they will receive a citation from a SRO, which will require a mandatory court date with up to a \$100.

"I think this could help people stop Juuling [in school] because it attaches a legal threat to students who are caught, rather than just a school suspension," senior Thomas Graves* said.

The popularity of the Juul seemed to be a high school issue, but has now transferred over to Indian Hills Middle School. Principal Blake Revelle said that over the past two years electronic cigarette use – including Juuls – at the middle school level has "increased significantly" due to the popular flavorings they offer and how easy the product is to obtain.

When Revelle sits down to talk with a student who was caught with a Juul or other electronic cigarette, half of the time he finds that the student doesn't actually know what substances they are inhaling, or that the device is illegal to use under the age of 18.

To inform the Indian Hills' community about the epidemic of Juuling, Indian Hills counselors are presenting a "Clear the Air About Vaping" talk for parents to attend Oct. 29. The presentation will educate parents about the health concerns with vaping and how to spot potential underage use.

INCREASING EDUCATION

The Drug Abuse Resistance Education program, or DARE, now integrates e-cigarette education within their lessons about drug and alcohol use.

“

I very quickly saw that [vaping] is going to be something that kids in middle school will be faced with so that's why I wanted to get in front fo that stuff early

brian wolf dare officer

The fight to keep Juuls out of the hands of minors isn't just happening within schools, it is happening at the state level as well. Regional advocacy director for Tobacco Free Kids Jodi Radke works with legislators at the local, state and federal level to advocate for laws that will hinder one of the Juul's most attractive characteristics to students: its easy accessibility.

Tobacco Free Kids has helped create legislation that raises the tobacco and nicotine purchasing age from 18 to 21 in 19 cities in Kansas, including Prairie Village, Leawood and Overland Park. With widespread support of this legislation, Radke hopes in the future no student will be able to purchase a Juul without being 21 in the entire state of Kansas.

"We strongly support [raising the legal purchasing age to 21] because it removes a very critical point of accessibility for high schoolers that are able to obtain these products and purchase them legally and then resell them to their younger peers to help offset the cost of their purchase of a Juul and pods," Radke said.

Radke is also campaigning to remove flavored e-cigarette products from the shelves of gas stations and vape shops. She believes if cigarettes are not allowed to be flavored under the Family Smoking Prevention and Tobacco Control Act of 2009, Juul shouldn't be able to have flavored pods that attract underage users such as Rode – he would never use a Juul if the only flavor they sold was tobacco.

"All of these policies work synergistically together, they all compliment one and other," Radke said. "As we begin to pass these policies that we know have evidence behind them that show us they reduce use rates amongst kids, hopefully when we are successful in that it won't only decrease combustible cigarette use but e-cigarettes as well."