

As students head back to classes in Barnstable this fall, many of them will be hearing a cautionary public health message – vaping is harmful to your health.

School administrators will also engage parents and community leaders to help tackle the problem of youth vaping and look to begin nicotine cessation programs for students who are already addicted to e-cigarettes.

Why so much attention? From Cape Cod to California, the use of electronic nicotine delivery systems has undergone an explosion in popularity among school-age children, who are lured by the fruity flavors, easy-to-use dispensers, and the misguided notion that the sweet-tasting mist they inhale is harmless.

Health experts warn that vaping is anything but harmless. The flavor pods contain carcinogenic chemicals that can damage lung tissue, along with adult doses of highly addictive nicotine. One \$4 pod for JUUL (the most popular brand of vaping dispenser used by students) provides about 200 puffs and as much nicotine as a full package of 20 cigarettes, according to company literature. Meanwhile, studies have shown that because teenagers' brains are still developing, young adults are more susceptible to nicotine addiction than adults who smoke or vape.

During a news conference last December, U.S. Surgeon General Jerome Adams declared America's youth vaping problem an "epidemic" – one day after the University of Michigan's Monitoring the Future Survey showed that more than one in three high school seniors reported they had used vaping materials in the past 12 months. The national Centers for Disease Control and Prevention said the number of high school students who use e-cigarettes rose from less than 2 percent in 2011 to more than 20 percent – or some 3 million students – in 2018.

Vaping systems use battery power to heat a liquid that releases puffs of flavored aerosol, along with varying amounts of nicotine. Students know that the sleek devices can be quickly used, and then tucked away into a sweatshirt sleeve or a pants pocket. And because there is no lingering smoke, the practice is hard to detect. But educators at Barnstable High School know the telltale signs, including the aroma of bubble-gum, cotton candy or sweet, fruity flavors wafting from the restrooms.

Students will tell you that "everybody's doing it" said Superintendent of Schools Meg Mayo-Brown, noting that those who don't vape sometimes feel intimidated about using the school rest rooms. Meanwhile, Nursing and Wellness Coordinator Pam Ciborowski said vape users are showing up at the health office to ask for cough drops for their sore throats. She noted that students are advised about the dangers of vaping, but some have already been hooked. This year, she said, the schools will look to implement a nicotine cessation program.

IT'S A COMMUNITY HEALTH PROBLEM

Administrators say the youth vaping problem has come on so quickly, that many parents and members of the community are still unaware of the potential dangers to their children. Students will tell you "it's harmless," Mayo-Brown said, but many of the young users who participated in national surveys didn't know the vapor contained nicotine. And while most vaping is happening among high school students, there have been some instances at the Intermediate School, as well. Ciborowski noted that parents have even purchased vaping materials for their children, not knowing that the devices deliver harmful doses of nicotine.

“There's still a sense – from a parent's perspective or another adult's perspective – of not really understanding the ins and outs of vaping,” Mayo-Brown said in a telephone interview. “It's hard to know: What are these things? What do they look like? What do they do?” she said. “So as a parent, you have to do your due diligence and figure out what this is.”

Mayo-Brown said the schools' initial effort has been to confiscate vaping materials when students are caught with them and to impose disciplinary measures, including suspensions and Saturday school. That's still going to happen, she said. But educators have also been trying to make students and their parents more aware of the dangers involved with inhaling nicotine. E-cigarette use has been a topic at athletic night meetings, where attendance can exceed 400 students, teachers, parents, and coaches. Police have talked about vaping, along with substance abuse problems, at the Barnstable Youth Commission's HYCC gatherings. Students have also produced a video on vaping that is shown in home rooms, said Ciborowski.

“We're really grappling with the best way to approach this,” Mayo-Brown explained. “Most recently, our stance has been a disciplinary stance. It's a tobacco product; it's illegal to have on school grounds,” she said. But because the problem is so pervasive, there needs to be a broad solution that combines more education and prevention.

“As we tackle vaping, it has to be a community effort that involves parents, schools, and community organizations to have a wrap-around model for our students,” she said. It can't be just a school-based solution because students are only attending classes for about six hours each day, and they can vape at any time and in almost any place.

Mayo-Brown plans to convene a stakeholder group this year to examine what's working in other school districts and to implement solutions in Barnstable. One idea is turning Saturday school discipline sessions into a four-hour program that includes education about the dangers of vaping, along with prevention and cessation efforts.

EASY ACCESS TO VAPING MATERIALS

Those who manufacture and market vaping materials are quick to point out that the products are made for adults and are sold as a safer alternative to cigarettes. Massachusetts has raised the age for purchasing e-cigarettes and vaping materials from 18 to 21. But teens are still finding ways to get their hands on the adults-only merchandise.

An older friend or sibling can buy vaping paraphernalia. Or students can purchase the supplies online with a prepaid credit card – like a Visa gift card. Websites only require that buyers check a box to attest that they are over the age of 18, Ciborowski said.

Kids are clever, said Mayo-Brown. They know how to get around the rules. She noted a school resource officer's story about a student who used a Visa gift card to purchase vaping materials and had them sent to a neighbor's house. He then used the online tracking option to learn when the package would be delivered and went to the neighbor's to intercept it, explaining that he “accidentally” had the package sent to the wrong address.

Online, the popular JUUL brand devices, which resemble long, sleek USB flash drives, are widely available. A \$30 starter kit includes the electronic dispenser, a charging station that plugs into a USB port

on any laptop, and four packets of vaping material (called pods). Refills cost about \$15 for four pods, which each deliver 200 puffs or the equivalent of one pack of cigarettes. Flavors range from mango to mint to a sweet-smelling fruit medley, and third-party brands sell pods with even more flavors and varying amounts of nicotine. Students can personalize their JUUL dispensers by purchasing colorful skins, with dozens of options for less than \$10 at WalMart.com.

For those who want to vape more than just nicotine, online stores sell cannabis products loaded into JUUL-ready vaping pods. There are also numerous online articles and YouTube instructional videos showing how to load a JUUL pod with cannabis oil. Mayo-Brown said Barnstable has encountered some instances of students vaping THC (the active ingredient in marijuana), but there is far more nicotine being consumed.

THE GOAL IS STUDENT HEALTH

Ultimately, the goal of educators at Barnstable's Public Schools is to help prepare students for life experiences, attending to their physical, social, emotional, and academic needs, said Mayo-Brown.

"So this isn't about discipline. This is really about caring and attending to the needs of our students and making sure they understand the impact to their physical and mental health when they're using addictive products, such as nicotine.

"As adults, we know, it's harmful to their bodies. And we need to address that. Not only in the school system, but as a community."