



SAANYS
SPECIAL
REPORT

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STUDENT VAPING



A GROWING THREAT TO STUDENT HEALTH

As the new academic year begins, your high school and middle school students may be carrying more in their backpacks than notebooks, pens, and cellphones. Chances are good that they may also be packing vaping devices.

Student vaping has grown at alarming rates over the last few years. A recent National Youth Tobacco Survey shows e-cigarette use (vaping) increased by 78 percent between 2017 and 2018, with more than 3.6 million kids using e-cigarettes in 2018.

“Our schools mirror society, so we’re definitely seeing it. Kids are vaping more,” said Paul Fanuele, executive principal at Arlington High School in the Arlington Central School District, and a SAANYS past president.

Dick Keeler, principal of Central Valley High School (Central Valley School District) would agree. “Vaping is a major problem in our district,” he said, adding that he and other district educators became much more aware of the issue after attending a training put on by the New York State Police. “They showed us what some of these vaping devices look like – particularly the Juul, which has traditionally been the most popular one. So we were becoming educated as to what they were. Prior to really understanding that, we would be responding to people seeing smoke or smelling an unusual odor, but we didn’t know what to look for.”

“SAFER THAN” IS NOT SAFE

Vaping is a significant health concern for today's youth. While originally marketed as a healthier alternative to traditional cigarettes, vaping devices are most often sold with nicotine, which is highly addictive.

“Based on our conversations with students, I would say that most of them get addicted to vaping after just two weeks of regular use,” Keeler said.

He relayed a heartbreaking story of a Central Valley student who reached out for help. “He just broke down and admitted he was addicted. He had spent the previous night in his garage with [nicotine] chew in his mouth, a cigarette in one hand, and a vaping device in the other hand,” Keeler recalled. “We were able to put him on a treatment plan.”

It begs the question, though, of how many kids are not asking for help with nicotine addiction. Even more concerning? The vaping devices can also be used to inhale marijuana, opiates, and a host of other synthetic substances. And a majority of teens are convinced their devices simply contain flavorings.

“When we talk to students about vaping, they say it's safe; it's no big deal,” Fanuele commented.

On the contrary, a growing body of research shows a host of negative consequences, such as the development of cancerous tumors; damage to the lungs, heart, and brain; and preterm deliveries and stillbirths in pregnant women. In August 2019, national and state health agencies released advisories regarding vaping (discussed on page 4 within).

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TERMINOLOGY

ELECTRONIC CIGARETTES:

Battery-operated devices that people use to inhale an aerosol. This aerosol often contains nicotine, flavorings, and other chemicals. Electronic cigarettes are also referred to as e-cigarettes, e-vaporizers, or electronic nicotine delivery systems, e-hookahs, vapes, vape pens and mods; the latter are more powerful, customizable vaporizers. Electronic cigarettes are available in many different designs, including some that resemble pens. Most e-cigarettes have four different components: (1) a mouthpiece; (2) a power source, such as a battery; (3) a heating element called an atomizer and (4) a cartridge or reservoir that holds a liquid solution; the liquid solution is often called e-liquid or e-juice. The e-liquid is heated up and then inhaled as an aerosol through a mouthpiece.

JUUL:

The most popular brands of e-cigarettes, especially among youth. These e-cigarettes look like a USB flash drive, so they're small and easy to conceal and they can even be charged in a computer's USB port. Their size also makes them easy to use in school bathrooms, hallways and classrooms, as well as on school buses. Juul is available in flavors that appeal to youth, including mango, fruit, mint, cucumber, cotton candy, and creme brulé.

VAPING:

The act of inhaling and exhaling the aerosol, often referred to as vapor, produced by an e-cigarette or similar device.

EDUCATION

Once Fanuele and Keeler better understood the dangers of student vaping and how to detect it, the knowledge was shared, starting with educating staff members and then moving on to parents and students.

This included a community presentation in the Central Valley School District last year that attracted more than 200 audience members, including local politicians, police, firefighters, students, and parents. “It was eye-opening and it was shocking for many people because they didn’t really understand anything about the vaping products,” Keeler said.



Many Central Valley students participated after a health teacher gave them an incentive to attend with their parents. “She felt it was such a huge health topic that there was a significant ‘value-added’ factor in having the students hear the presentation, while also increasing their grades for the health class,” Keeler explained. Keeler also regularly sends updated information to staff about e-cigarettes and vaping and he shares with students via emails to the pupils’ district-provided computers.

Arlington High School health teachers are producing a video with the truths about vaping. “We have video announcements for our students, so we’ll play the video and also have the health teachers follow up with some other discussions of the dangers of vaping,” Fanuele said. “This will help raise awareness among the students. We also anticipate putting the videos on our district website.”

Both Arlington and Central Valley are also incorporating a mandatory education component to disciplinary procedures for students who are caught vaping in school.

“This is what we’re up against now. 15 or 20 years ago, a lot of my days were spent catching people smoking cigarettes,” Fanuele said.

Now, he and other educators across the country are tasked with checking school bathrooms and other facilities for something much more difficult to detect.... and likely more difficult to counteract. ■

BY THE NUMBERS

- From 2017 to 2018, there was a **78 percent increase among high schools students using e-cigarettes**, from 11.7 percent to 20.8 percent nationwide. The New York State Department of Health estimates those percentages to be higher, with **more than 25 percent of high school students vaping** in the state.
- High school students using flavored e-cigarette products also increased among current e-cigarette users to 68 percent. Flavorings are among the top three reasons young people use e-cigarettes.
- Research also shows an upsurge in the use of marijuana vaping, with **13.1 percent of surveyed 12th-graders saying they vaped marijuana in 2018**, up from 9.5 percent the previous year.
- The **surge in e-cigarette use was also seen in middle school** students, with a 48 percent increase between 2017 and 2018.
- In a survey of eighth- and 10th-graders conducted in 2018, more than 45 percent and 66 percent, respectively, said vaping devices were fairly easy or very easy to get.
- A survey of Juul users between the ages of 15 and 24 found that **63 percent were not aware that the product contained nicotine**.

(Sources: 2018 National Youth Tobacco Survey; the 2018 Monitoring the Future survey; the Truth Initiative and the New York State Department of Health)

DANGERS OF VAPING

According to the Centers for Disease Control and Prevention, the U.S. Department of Health and Human Services and the National Academies of Sciences, Engineering and Medicine, e-cigarettes/vaping pose significant risks for children, teens, and young adults.

- Most e-cigarettes contain nicotine, which is the addictive substance in more traditional tobacco products, such as cigarettes and cigars.
- Nicotine has the potential to harm adolescents' brains because the brain is still developing until age 25. For example, nicotine disrupts the brain circuits that control learning, mood, attention and impulse regulation, meaning young people who use e-cigarettes and other tobacco products are at-risk for learning and cognitive deficits, mood disorders, and permanent lowering of impulse control.
- Nicotine affects the brain's reward system, priming adolescents' brains for addiction to such other substances as alcohol, cocaine, and methamphetamine. Recent research also shows "substantial evidence that e-cigarette use increases risk of ever using combustible tobacco cigarettes among youth and young adults."
- The aerosol from heated e-liquids is harmful, as it contains cancer-causing chemicals, along with such heavy metals as nickel, tin, and lead. In addition, e-liquid flavorings, including diacetyl, have been linked to serious lung disease.
- The chemicals in e-liquids can be more concentrated than chemicals contained in a regular cigarette, meaning the side effects can be amplified.

In addition to the general harmful long-term effects, both the Centers for Disease Control and Prevention and the New York State Department of Health have issued health advisories related to a quickly rising number of vaping-associated pulmonary illnesses. (See New York's advisory at: <https://on.ny.gov/2lWy8Sa> and the federal advisory at: <http://bit.ly/2lXGdWI>.)

There is also a surge in the vaping of THC oils (tetrahydrocannabinol is the chemical compound in cannabis responsible for a euphoric high) and confirmed injuries and emergency room visits as a result. A concern among medical professionals is that some of the vaped THC is being contaminated or containing lung-damaging oils, exacerbating the medical risks.

GUIDANCE

- The Real Cost Campaign (FDA) includes posters for school bathrooms, research documents, infographics, educational materials – <http://bit.ly/2ZANptW>
- E-cigarettes Shaped Like USB Flash Drives: (CDC) – <http://bit.ly/2MGGhq5>
- Electronic Cigarettes: What's the bottom line? (CDC) – <http://bit.ly/2NKF5RU>
- Talk with Your Teen About E-Cigarettes – <http://bit.ly/2zFKmSV>
- Lesson plans and student activities (Scholastic) – <http://bit.ly/2ZwOkf3>
- Get the Facts: Electronic Cigarettes and Similar Vapor Products (NYSDOH): <https://on.ny.gov/32i8jvP>
- Keep Kids E-Cigarette Free (CDC): <http://bit.ly/2ZwMXNo>
- The Flavor Trap: How Tobacco Companies are Luring Kids with Candy-Flavored E-cigarettes and Cigars (AAP, ACS, AHA, American Lung Assn., and Campaign for Tobacco-Free Kids): <http://bit.ly/2lYEccZ>
- Know the Risks: E-Cigarettes and Young People (U.S. Surgeon General) <http://bit.ly/2jXW1rM>
- Truth Initiative – <http://bit.ly/2jXjFoh>
- Juul E-Cigarettes: Fueling A Youth Epidemic (Campaign for Tobacco-Free Kids) – <http://bit.ly/2lWu1fg>
- Parents Against Vaping E-Cigarettes <http://bit.ly/2luD0ha>
- Teens using vaping devices in record numbers (NIDA) <http://bit.ly/2kpRSNq>