



Vaping Makes History

Unless you've been hibernating in an Icelandic snow cave, you've likely seen some of the recent headlines about how e-cigarette use among youth skyrocketed in 2018. What was once considered by many to be a passing fad is becoming more entrenched in the culture. Many of today's adolescents have embraced the vaping lifestyle, downloading smartphone apps targeted at smoking teens, and buying expensive accessories to store and display their e-juice and assorted paraphernalia ("vape stands" will cradle your gear in walnut, natural or "titan red.")



In 2014, the use of e-cigarettes eclipsed traditional smoking among youth. In 2018, vaping eclipsed itself and steamrolled its way into history. It was the largest annual increase ever recorded, *for any substance*. When you think of over 1,000 year-to-year substance use changes that researchers at *Monitoring the Future* have documented since 1975, this kind of surge really gives us pause.

- 8th grade – increase of 3.7% since 2018
- 10th grade – increase of 8.5% since 2018
- 12th grade – increase of 9.9% since 2018

What about the flip side? Is vaping a good and safe alternative for teens? Can the JUUL e-cig serve as a means of harm reduction for young people, something that would deter them from using tobacco cigarettes? This is the pill that Big Tobacco would like all of us to swallow. But for these questions, currently on the minds of many health researchers, it looks like the answers are all *no*. New findings from our research partners at RAND has shown that, among youth aged 16–18 who had never smoked cigarettes, those who reported vaping in the last 30 days were nearly 4 times as likely

to go on to smoke combustible cigarettes in the next year than those who had not vaped in the last 30 days.¹⁰¹ If you tack on chemical-laden flavorings that can irritate the lungs and stomach lining, vape clouds wafting formaldehyde, arsenic, aluminum, and lead, and randomly-exploding devices, vaping emerges as a very dangerous practice, rife with risk. What we may have on our hands is another gateway drug.

Project ALERT developed a curriculum focused on the three most common, problematic substances that youth were using in the '90s – alcohol, tobacco, and marijuana. But since the tide has turned, and the crowned JUUL now holds court where the traditional combustible cigarette once ruled, we're encouraging our program partners to incorporate some of the myths and realities of using e-cigarettes into those lessons that have a tobacco focus. Our latest version of the [full curriculum, available for download](#), includes many references to e-cigarettes, and we've just published an updated version of our *E-cigarette and Vaping supplemental guide*. Please take some time in these lessons to address the dangers of vaping with your students, and share a few of the most important and widespread misconceptions:

...that vaping is a safer alternative to traditional cigarettes

...that youth who prefer e-cigarettes do not use traditional cigarettes

...that vaping carries minimized health risks

...that e-cigarettes are a good tool for teens for cessation from regular cigarettes

What questions about vaping are your students asking? Are issues about traditional cigarettes re-entering the conversation? Let us know at projectalert@rand.org. We're always interested in hearing from you!

Charting the Trends in 2018: MTF Reports Some Flatlining, Some Decreases, But Then There's Vaping...

In 2018, about 44,500 students in 392 secondary schools in the United States participated in the *Monitoring the Future*



¹⁰¹ CNN.com. *Why the vaping issue is just so complicated*. December 17, 2018. Available at: <https://www.cnn.com/2018/12/17/opinions/vaping-juul-teenagers-and-adults-dunbar-damico/index.html>.

prevalence of use study, with sample sizes of about 14,800 in 8th grade, 15,100 in 10th grade, and 14,500 in 12th grade.

Here's what trending for past-month use among 8th graders: ^{2[1]}

- **8.2% used alcohol**, compared to 8.0% in 2017 and 7.3% in 2016
- **2.1% have been drunk**, compared to 2.2% in 2017 and 1.8% in 2016
- **2.2% smoked traditional cigarettes**, compared to 1.9% in 2017 and 2.6% in 2016
- **5.6% used marijuana**, compared to 5.5% in 2017 and 5.4% in 2016
- **10.4% used a vaporizer** (for example, an e-cigarette) compared to 6.6% in 2017 and 6.2% in 2016
 - **6.1% used a vaporizer to consume nicotine**; compared to 3.5% in 2017
 - **2.6% used a vaporizer to consume marijuana**; compared to 1.6% in 2017
 - **8.1% used a vaporizer to consume flavoring only**; compared to 5.3% in 2017
- **1.8% used inhalants**, compared to 2.1% in 2017 and 1.8% in 2016

The 2018 survey continues to track national estimates of nicotine vaping, marijuana vaping, flavoring-only vaping, and *any* vaping. All these vaping sub-categories experienced significant increases for 8th, 10th, and 12th grade, with use by high school seniors trending higher than that of their younger peers.

Read the full press release from Monitoring the Future [here](#). See all current *MTF* reports [here](#).

E-Cigarette and Vaping Supplement: Check Out Our Latest Update

JUUL? What's a JUUL? Is juuling different from vaping? What's a mod? Is there nicotine in an e-cigarette? Are e-cigs safer than tobacco cigarettes? Do e-cigarettes deter kids from using tobacco? Are they legal for teens?



¹ Johnston, L. D., Miech, R. A., O'Malley, P. M., Bachman, J. G., Schulenberg, J. E., & Patrick, M. E. (2019). Monitoring the Future national survey results on drug use 1975–2018: Overview, key findings on adolescent drug use. Ann Arbor: Institute for Social Research, University of Michigan.

These questions are on the minds of many educators and students in 2019. To help our Project ALERT partners stay informed on this growing concern, we've just released an update of our E-cigarette & Vaping supplemental guide. This resource is intended for use both in the classroom and as a take-home tool to help middle school students understand the risks that accompany e-cigarette use.

You can find this and all our supplements--for marijuana, club drugs, and opioids and heroin--at <https://www.projectalert.com/resources/supplements>.

Keeping Current: 2019 Manual Now Available

What are Project ALERT staffers doing every January? If you guessed that we're sitting by our computers, logged on to the *Monitoring the Future* web site, and hitting "refresh" over and over again, and basically holding our breath until new prevalence of use data are published, then you guessed right!

Once again, we've updated several pieces of the curriculum. This time each year, we incorporate revised use data reported for the previous year into the Overview and Core Lessons 1, 2, 3, 4, 8, Alternate 8, and 11. One of the ways to increase program success is to be certain that we're conveying the most accurate and current patterns of use information to students. Imagine if you were sharing 2017 vaping info with your class – you'd be *way off the mark!* So, we encourage you to download and print the updated sections or take out your red pencil and apply these edits to your old version before presenting these lessons.



You can download the 2019 version of the full manual, as well as individual lessons, at <https://www.projectalert.com/account>.

What You Need to Know About JUUL

This brief fact sheet (see next page) provides some very helpful information about JUUL, the nation's most popular brand of e-cigarette. This can be a useful resource for educators as well as a great take-home tool for students.

https://www.aafp.org/dam/AAFP/documents/patient_care/tobacco/juuling-fact-sheet-patient.pdf



WHAT IS JUUL®?

JUUL is a brand of electronic cigarette (e-cigarette) or vaping device.¹

JUUL (pronounced jewel) looks like a USB drive, and is promoted as an alternative to combustible cigarettes and existing e-cigarettes or vaping devices.¹

“JUULing” is the term used when using JUUL.¹

How does JUUL work?

JUUL contains nicotine. JUUL cartridges, called pods, contain flavored oils that turn into vapor when heated.² Each pod contains roughly the same amount of nicotine as a pack of cigarettes.^{1,2}

JUUL has interchangeable pods with an assortment of flavor options.¹ The nicotine form is referred to as nicotine salts.¹ The taste and sensation of the nicotine salts are more similar to conventional cigarettes, making JUUL different than other types of e-cigarettes.¹ However, inhaling vapor from nicotine salts goes down smooth and doesn't produce irritation in the chest and lungs that combustible cigarettes do.³

JUUL has a higher concentration of nicotine than many other e-cigarette options.¹ Listed as 5% nicotine by weight, JUUL has more than twice the amount of nicotine concentrate. Other brands of e-cigarettes, typically have concentrations of 2.4% or less.¹



What is the threat to youth?

Similar to other e-cigarettes, JUUL comes in a variety of flavors, including fruit medley, mango, cool mint, and crème brûlée.¹ **Most youth who experiment with tobacco begin with a flavored product,**⁴ as the flavors appeal to youth.⁵

Youth are particularly aware of JUUL, as nearly 1 in 5 students age 12 to 17 have seen JUUL used in school.⁶

Since **JUUL resembles a USB flash drive**, it is increasingly used by students in classrooms, hallways, restrooms, and at school sporting events.⁷

Sixty-three percent of JUUL users age 15 to 24 did not know JUUL contains nicotine.⁸ Youth may start using e-cigarettes because they believe they are harmless. **Nicotine, a key ingredient in tobacco products, is an addictive drug.**

Tobacco use by and around children and adolescents is a particular concern due to increased risk for addiction and passive exposure. Smoking is a known cause of cancer, heart disease, stroke, and chronic obstructive pulmonary disease. Young people who use e-cigarettes, such as JUUL, are more likely to transition to combustible cigarettes.⁹

References

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