



Vaping and Beyond: Teen Drug Terms and Trends

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Monitoring the Future

- The University of Michigan has an ongoing research project called Monitoring the Future that has followed adolescent substance abuse trends since 1975.
- The project anonymously surveys 8th, 10th, and 12th grade students across the nation including annual follow-up surveys for a number of years after graduation.
- Each year over 45,000 students from approximately 400 schools across the country are surveyed.



What is this research telling us?

- More than 1.3 million high school students started vaping nicotine last year
- Increase in teen vaping from 2017 to 2018 was the largest in the history of the study (43 year old study)
- Nicotine vaping nearly doubled from 2017 to 2018:

Past 30 day use

- 12th grade: increased from 11% to 21%
- 10th grade: increased from 8% to 16%
- 8th grade increased from 3.5% to 6%



What else is this research telling us?

- Marijuana vaping also increased from 2017 to 2018:

Past 30 day use

- 12th grade: increased from 4.9% to 7.5%
 - 10th grade increased from 4.3% to 7%
 - 8th grade increased from 1.6% to 2.6%
- Cigarette use among 8th and 10th graders remained steady after declining for decades
- Binge drinking and prescription opioid use declined (especially in 12th grade)

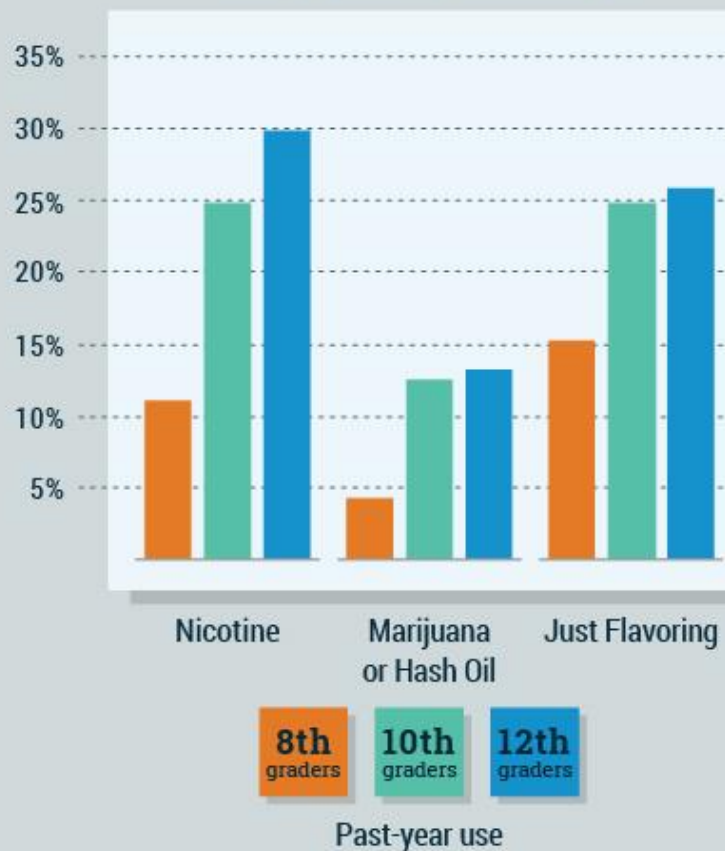


TEENS USING VAPING DEVICES IN RECORD NUMBERS

PAST-YEAR VAPING



WHAT DO TEENS SAY THEY ARE VAPING?



Vaping Statistics

E-Cigarette/Vaping	2016	2018
Students (all 10 th & 12 th graders surveyed) who have used nicotine e-cigarette /vaping product in the past 30 days	12%	26%
Students who have used vaping product in the past year	-	29%
Students who used e-cigarette for the first time ever in the past year	13%	24%

Source: Illinois Youth Survey 2018 (suburban Cook, DuPage Counties)

What is Vaping?

Term used to describe when a substance is heated to the point of releasing vapor (vaporizing) but not combusted (lit on fire)

- Inhaling and exhaling the aerosol, often referred to as vapor, which is produced by an e-cigarette or similar device
- Increasing in popularity as a way to ingest nicotine and cannabis
- Usually relatively odorless, and difficult to distinguish between nicotine and cannabis vape



What's in E-cigarettes/E-juice?

- The FDA has not evaluated any of the e-liquids currently on the market and does not regulate these products. FDA requires vape manufacturers to reveal ingredients in e-liquids, but not the harmful carcinogens in the heated vapor. FDA is considering significant restriction on flavors.
- *Ingredients in e-liquid (e-juice): Nicotine, flavoring, humectant (propylene glycol or vegetable glycerin)*
- *Once heated: Formaldehyde, Acetaldehyde, Acrolein, Particulates and Toxic Metals*



Common Chemicals in Vapes (42)

Acetaldehyde (paint stripper) Formaldehyde

Acetone

Isoprene (rubber)

Acrolein

Lead

Benzene (pest and gas)

Nickel

Cadmium (car batteries)

Propional

Chromium

Propylene Glycol (deicing)

Diacetyl (popcorn lung)

Tin

Diethylene Glycol (afreeze)

Toluene (poison industrial solvent)

Nicotine and the Adolescent Brain

- Nicotine use has spiked in the last couple years with emergence of vaping
- Use in adolescence interferes with natural brain development in some key areas
- Nicotine impairs development of the prefrontal cortex (area responsible for decision making, judgment, and planning)

Teen Brain



Risk for Progression of Use

- Over 90% of adults with a severe substance use disorder began use under age 18.
- Children who begin using at or before age 13 have a 47% risk of developing a severe substance use disorder during their lifetime, age 17 run about 25%, age 21 run 10%

Juul

Specific vaping product from Pax Labs similar to an e-cigarette used to ingest nicotine (\$30)

- Liquid contains nicotine salts extracted from the tobacco leaf (2x nicotine of previous e-cigs)
- Variety of flavors:
 - Cool mint
 - Mango
 - Crème Brule



Suorin Air/Drop

Another common vaping product from Goldreams Technology in China (\$20-\$35)

- Comes with refillable nicotine cartridge
- Size of a credit card
- Looks like battery
- E-liquids in flavors



Phix

Another common vaping product from ECS Global (\$35)

- Slightly stronger battery than Juul
- Variety of flavors:
 - Strawberry
 - Spearmint
 - Mango
 - Butterscotch



E-juice and Pods

- Currently 7,700 flavors of e-juice available
 - A bottle of e-juice contains enough nicotine to kill an adult
- Pods come in many flavors as well
 - Each pod is the equivalent of a pack of cigarettes



Mods

Modified e-cigarette or vape pen. Often refers to modification of the battery that powers the device.

- Stronger, longer lasting, and more consistent batteries increase the intensity of the vapor
- The mods can also involve the casing and atomizer (the part that creates the vapor).
- Vape on steroids



Vape Pens Pose Fire/Explosion Risk

195 incidents of explosion or fire involving electronic cigarettes were reported by U.S. media between 2009 and 2016, according to the Federal Emergency Management Agency.

- [Texas man dies after vape pen he was using exploded](#)
- [Deadly Florida house fire caused by exploding vape pen](#)



Dabs

Dabs is a highly concentrated butane hash oil (BHO) created in a process where high quality cannabis is blasted with butane and extracted or used in a Dab Pen

- A type of marijuana extract that is vaporized to get high (heated and inhaled)
- Contains 70-90% THC compared to 5-15% THC in regular cannabis
- Also called, wax, oil, shatter/glass, crumble, and budder



Vaping pot is more powerful than smoking it

- At the same level of THC, vaping leads to higher blood concentrations of the chemical than smoking, as well as higher levels of impairment
- Vaping pot can cause hallucinations, vomiting and paranoia
- Adolescents are more likely to vape marijuana than smoke it



Rig

A rig is a device used to vaporize and inhale dabs.

- Looks similar to a water pipe or bong
- Usually a nail is heated with a hand-held torch to a high temperature and a small piece of the concentrate is 'dabbed' onto a nail
- Vapor released is then inhaled through the pipe



Vaping Alcohol

Alcohol is heated and then vapor is inhaled

Risk for overdose

Bypasses liver

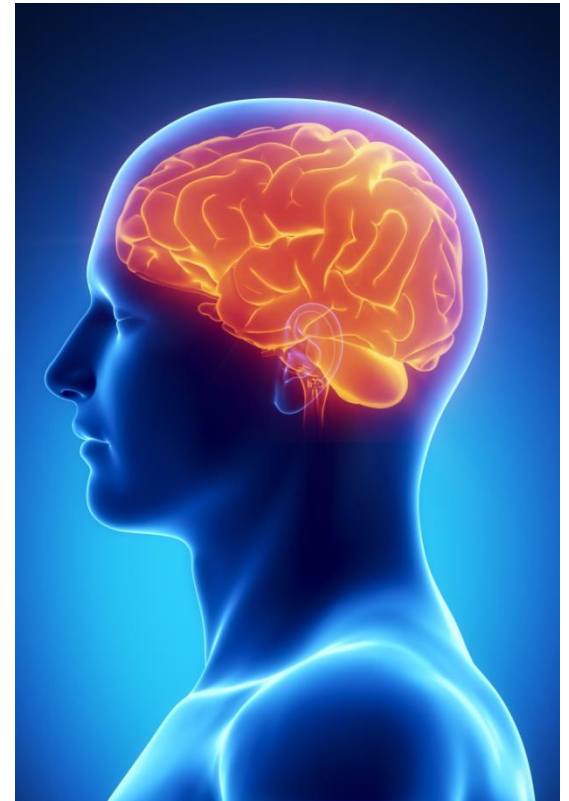
Effects more potent

A Revolutionary Way To Experience Your Spirits



Marijuana

- Rapid brain growth in key parts of the brain continues into the 20s.
- Too much attention is being paid to legalization and not enough to impact on brain development.
- Hippocampus (memory), amygdala (emotion and anxiety), nucleus accumbens (motivation), hypothalamus (appetite, stress), cerebellum (muscle coordination)



CBD Oil

Abbreviation for Cannabidiol (one of the active ingredients in the cannabis plant).

- CBD is not psychoactive (mind-altering) in its pure form
- FDA approved medication to reduce seizures in children with rare forms of epilepsy
- CBD sold in stores not regulated/tested
- Inconsistent amounts of CBD
- Acute poisoning, seizures, nausea
- Loss of consciousness, hallucinations



K2/Spice

Most widely known specific names for types of synthetic marijuana

- Industrial chemicals are sprayed on pieces of dried plant material
- In April 2018, four people died and 153 others sick in Illinois from consuming synthetic marijuana that was laced with rat poison.
- Their symptoms included coughing up blood, blood in the urine, nose, or gums, and internal bleeding



Bars (Ladders)

Another name for the rectangular shaped Xanax (*anti-anxiety medication*) with three lines in them (*typically 2mg per 'bar'*).

- The term “barred out” means being highly sedated due to Xanax consumption.
- School bus (yellow ‘bar’)
- Hulks, green monsters (green)



Addies

Slang term for ADHD medication Adderall. It is a mixture of amphetamine salts.

- Commonly prescribed for ADHD
- Occasionally abused by students seeking a competitive advantage in their studies
- Replaced Ritalin as ADHD med
- Vyvanse



Tips for Parents

- **Have a curious (not accusatory or suspicious) conversation with you teen**
- **Ask open ended questions (What do you think of this whole vaping thing? Why do you think kids get into these things?)**
- **Set expectations toward the end of the conversation based on research/science (ie. Brain development, chemicals, risk for substance use disorder) and not moral judgment**
- **Set a good example (do you use alcohol? Is it responsible?)**

Sources

- <https://www.cdc.gov/media/releases/2018/p0607-youth-tobacco-use.html>
- https://e-cigarettes.surgeongeneral.gov/documents/2016_sgr_full_report_non-508.pdf
- <https://www.fda.gov/TobaccoProducts/GuidanceComplianceRegulatoryInformation/Manufacturing/ucm602792.htm#9>
- <https://www.hsph.harvard.edu/news/press-releases/e-cigarette-flavoring-chemicals-linked-to-respiratory-disease/>
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- <https://www.thoracic.org/about/newsroom/press-releases/journal/e-cigarettes-may-trigger-unique-and-potentially-damaging-immune-responses.php>
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- <http://gaspforair.org/gasp/gedc/pdf/E-CigSmoke.pdf>



Rosecrance Naperville

2135 City Gate Lane #300
Naperville, IL 60563

Services offered:

- Free confidential drug and alcohol evaluations
- Early intervention services
- Assistance to families who need help finding resources
- Prevention resources and presentations for parents and students
- Substance abuse awareness training and education for professionals, community organizations and parents
- Urine drug screens offered at an additional cost



Rosecrance La Grange

47 6th Ave., Suite L
La Grange, IL 60525

Services offered:

- Free confidential drug and alcohol evaluations
- Early intervention services
- Adolescent Intensive Outpatient Program (IOP)
- Adult Intensive Outpatient Program
- Assistance to families who need help finding resources
- Prevention resources and presentations for parents and students
- Substance abuse awareness training and education for professionals, community organizations and parents
- Urine drug screens offered at an additional cost

Rosecrance Des Plaines

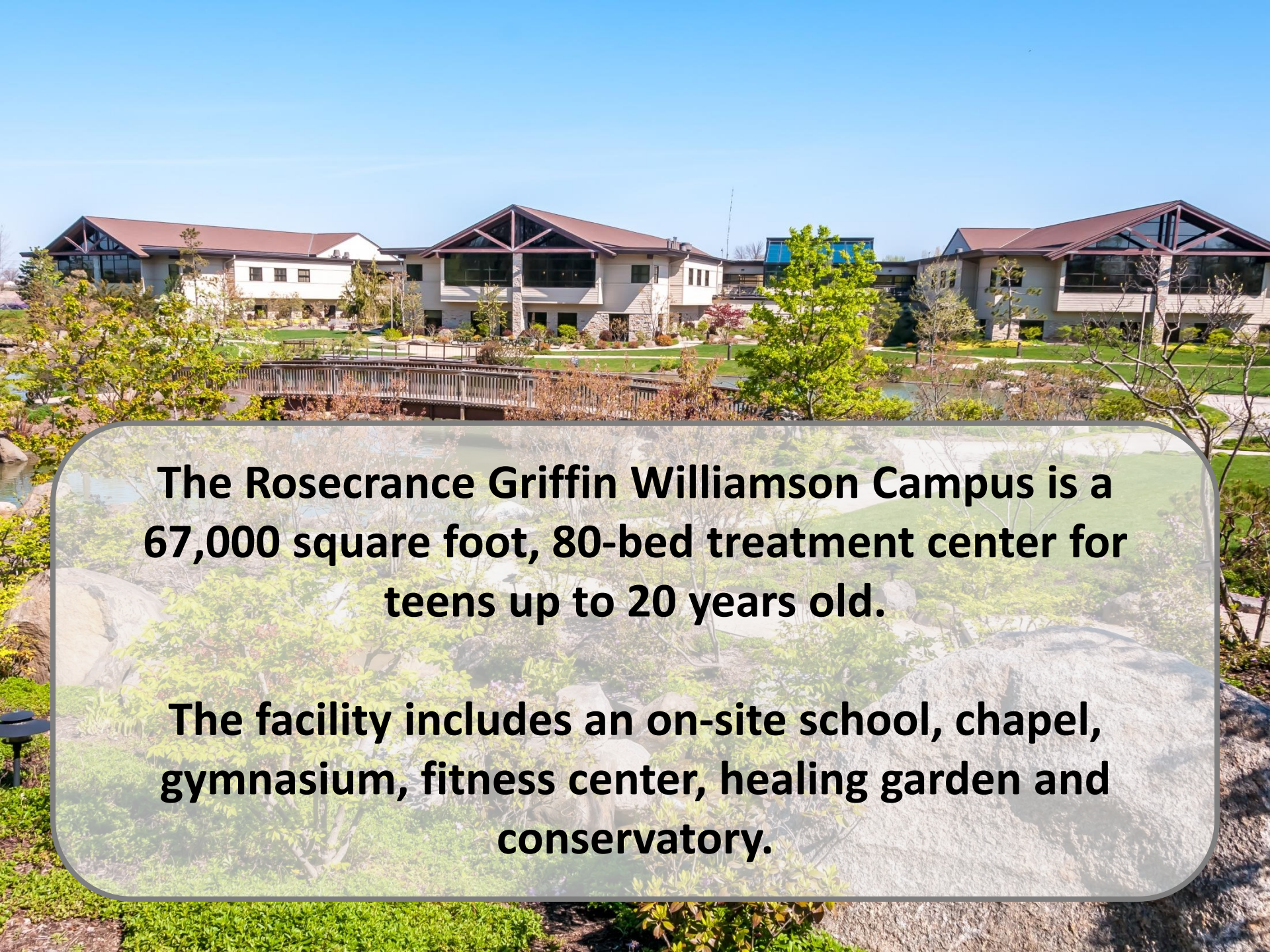
Evidence-based substance abuse and mental health treatment for adults

Services provided:

- Assessments
- Partial Hospitalization Program (PHP)
- Medication-Assisted Treatment (MAT)
- Day Intensive Outpatient Program (IOP)
- Night Intensive Outpatient Program (NIOP)
- Continuing Care (CC)
- Individual mental health counseling



Rosecrance Des Plaines
701 Lee St. Suite 800
Des Plaines, IL 60016

A wide-angle photograph of the Rosecrance Griffin Williamson Campus, a large, modern, two-story building with a prominent red-tiled roof and large glass windows. The building is surrounded by lush green landscaping, including trees and shrubs. In the foreground, there is a wooden bridge over a small pond or stream. The sky is clear and blue.

The Rosecrance Griffin Williamson Campus is a 67,000 square foot, 80-bed treatment center for teens up to 20 years old.

The facility includes an on-site school, chapel, gymnasium, fitness center, healing garden and conservatory.

Specialized Programming for Teens with Mental Health Disorders



Rosecrance Griffin Williamson Campus

1601 University Drive
Rockford, IL 61107

We have expanded our program to include treatment for the following challenges facing teens as a **primary diagnosis**:

- Mood disorder
- Bi-polar disorder
- Major depression
- Anxiety disorder
- Post Traumatic Stress Disorder (PTSD)
- Victims of abuse
- Self-destructive behaviors
- Suicidal behaviors
- Poor impulse control

Clients will see a psychiatrist twice a week or as needed during treatment. Clinicians are master's prepared.

Specialized Programming for Teens with Mental Health Disorders



Rosecrance Griffin Williamson Campus

1601 University Drive
Rockford, IL 61107

General treatment modalities may include:

- Personal medication management
- Individual and family therapy
- Group therapy
- Recreational therapy.

Specialized groups will address:

- Depression
- Mood management
- Cognitive Behavior Therapy (CBT) skills
- Dialectical Behavior Therapy (DBT) skills
- Drug and alcohol prevention
- Life skills

Other activities include:

- Therapeutic drumming, art, horticulture, yoga, ropes course, fitness, team building, and soothing room and mindfulness practice.



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