Study: Teen vaping levels off after surges; rates still high
by Melissa Jenco, News Content Editor

Editor's note: This story was updated on Dec. 17 after the National Institute on Drug Abuse updated its figures for daily nicotine and marijuana vaping.

Teen vaping rates did not increase from 2019 to early 2020 but remain high, with more than 39% of 12th-graders reporting past-year vaping of nicotine or marijuana.

Data from the annual Monitoring the Future study on vaping and use of cigarettes, alcohol and drugs were released Tuesday. The study was conducted by the University of Michigan's Institute for Social Research and funded by the National Institute on Drug Abuse (NIDA).

The team conducted about 11,821 surveys in early 2020, stopping in mid-March with about a quarter of the usual figure due to the pandemic. The sample still is nationally representative.

Nicotine vaping

In 2020, about 17% of eighth-graders, 31% of 10th-graders and 35% of 12th-graders reported past-year nicotine vaping, nearly the same as the previous year but roughly double the rates in 2017, according to the study.

Daily or near daily nicotine vaping shows a downward trend among the two older groups but did not decline significantly. Daily rates were 6% among 10th-graders and 9% among 12th-graders.

"The rapid rise of teen nicotine vaping in recent years has been unprecedented and deeply concerning since we know that nicotine is highly addictive and can be delivered at high doses by vaping devices, which may also contain other toxic chemicals that may be harmful when inhaled," NIDA Director Nora D. Volkow, M.D., said in a news release. "It is encouraging to see a leveling off of this trend though the rates still remain very high."

Researchers took a deeper look at nicotine vaping among 10th- and 12th-graders in a JAMA Pediatrics article.
They noted several events may have impacted the vaping numbers, including the 2019 epidemic of lung injuries related to vaping. In 2020, about 27% of teens perceived occasional nicotine vaping to be harmful up from 21% the year before. About 49% perceived regular nicotine vaping as harmful up from 39%, according to the study.

Other recent changes included raising the age to purchase tobacco to 21 at the end of 2019 and federal officials pulling flavored e-cigarettes except tobacco and menthol from the market in early 2020. Refillable tanks also were exempt.

The study found perceived accessibility of vaping products declined from 2019, but about 86% of teens still consider them fairly easy or very easy to obtain. About 80% of those who vaped in the past month said they still could easily obtain flavors that were pulled from the market.

The study also noted the drop in popularity of JUUL, known for being easy for teens to hide and coming in a variety of flavors. In late 2019, JUUL Labs stopped selling flavors other than tobacco and menthol, and teens reported using fewer of these products in 2020. However, their use of other vaping products increased.

**Marijuana**

Marijuana is the most used illicit drug among adolescents. Use in any form remained steady for all grades in 2020. About 11% of eighth-graders, 28% of 10th-graders and 35% of 12th-graders reported past-year use.

After a spike in 2019, past-year marijuana vaping leveled off this year. About 8% of eighth-graders, 19% of 10th-graders and 22% of 12th-graders had vaped marijuana in the past year. Daily marijuana vaping rates were 2% for 10th-graders and less than 3% of 12th-graders.

**Cigarettes**

Cigarette use among teens is at or near historic lows, according to the study. Past-month use was about 2% among eighth-graders, 3% among 10th-graders and 8% among 12th-graders.

**Alcohol**

Alcohol use has been steady for the past five years. About 21% of eighth-graders, 41% of 10th-graders and 55% of 12th-graders reported past-year alcohol use. Past-month use was 10%, 20% and 34%, respectively.

**Other drugs**

About 16% of eighth-graders, 30% of 10th-graders and 37% of 12th-graders reported past-year use of any illicit drug, including marijuana.

Past-year use of many of the drugs on the list were low. Among 12th-graders, rates were 4% for LSD, 2% for synthetic cannabinoids, 3% for cocaine, 2% for ecstasy, 1% for methamphetamine and 0.3% for heroin.

However, researchers noted a concerning rise in misuse of several substances among eighth-graders. Rates of past-year misuse were 6% for inhalants and 5% for both amphetamines and cough medicine. Rates of inhalant and amphetamine use were below 4% in 2016. The rate of cough medicine misuse was under 2% in 2015.

**Impact of the pandemic**

NIDA is funding additional studies to look more closely at the pandemic’s impact on teen substance use. In a blog post, Dr. Volkow noted for much of the year teens have been away from their friends who can be strong
influences, but they also have been under increased stress. The pandemic also may have affected access to vape products.

"Adolescence is an important period of social and emotional development, and the pandemic has disrupted many of the processes that impact that development," Dr. Volkow wrote. "NIDA research has pivoted to ensure we address this unique time in history as we pursue scientific solutions to the impacts of drug use and addiction across the lifespan."

**Resources**

- National Institute on Drug Abuse
- AAP policy "Substance Use Screening, Brief Intervention, and Referral to Treatment for Pediatricians"
- AAP policy "E-Cigarettes and Similar Devices"
- AAP policy "Clinical Practice Policy to Protect Children from Tobacco, Nicotine and Tobacco Smoke"
- AAP policy "The Impact of Marijuana Policies on Youth: Clinical, Research, and Legal Update"
- AAP clinical report, "Counseling Parents and Teens About Marijuana Use in the Era of Legalization of Marijuana"
- AAP policy" Alcohol Use by Youth and Adolescents: A Pediatric Concern"
- AAP Julius B. Richmond Center of Excellence e-cigarette website
- Information for parents from HealthyChildren.org about marijuana
- Information for parents from HealthyChildren.org about talking to teens about drugs and alcohol
- Information for parents from HealthyChildren.org about vaping