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## Dramatic Increases in Vaping Marijuana and Vaping Nicotine among U.S. College Students and Young Adults

National study also shows marijuana use at or near highest levels in the past four decades

ANN ARBOR— Vaping marijuana and vaping nicotine have increased dramatically among 19-22 year olds, with both more than doubling between 2017 and 2019, according to the University of Michigan’s annual U.S. national Monitoring the Future (MTF) Panel Study.

In addition, use of marijuana in any form in 2019 among young adults ages 19-22 was at or near the highest levels seen over the past four decades.

Tables and figures associated with this story are available [here](#) and [here](#).

Between 2017 and 2019, the percentage of 19-22 year olds who vaped marijuana at least once in the past 30-days (30-day prevalence) increased from 5 to 14 percent among full-time college students, and from 8 to 17 percent among those not in college. Similarly, between 2017 and 2019, the 30-day prevalence of vaping nicotine increased from 6 to 22 percent among college students and from 8 to 18 percent among 19-22 year olds not in college.

“This doubling to tripling of prevalence of vaping marijuana and vaping nicotine over just two years are among the largest increases in MTF history for any substance since the study began over 40 years ago,” said John Schulenberg, principal investigator of the Monitoring the Future Panel Study. “This is a worrisome trend given the health risks associated with vaping, including an increased risk of COVID-19 and the addictive properties of nicotine. For decades, we saw consistent drops in nicotine use in the form of cigarette smoking among young adults, especially college students. And now, with this rapid increase in vaping across a few short years, over one-in-five 19-22 year olds currently vapes nicotine.”

Another main finding from this annual national study is the continued high levels of marijuana use among 19-22 year old college students and youth not in college; annual prevalence for both groups was 43 percent in 2019, the highest it has been since the early 1980s. Using marijuana on a daily or near-daily basis has also been increasing, reaching 6 percent among college students and 15 percent among youth not in college in 2019, both percentages at or near historic highs over the past four decades.

“Daily marijuana use is a clear health risk,” said Schulenberg. “The brain is still growing in the early 20s, and as the Surgeon General recently reported, the scientific evidence indicates that heavy marijuana use can be detrimental to cognitive functioning and mental health.

“As of 2019, over one-in-seven young adults aged 19-22 who are not in college used marijuana on a daily or near-daily basis. For them, getting a foothold on the roles and responsibilities of adulthood may be all the more difficult. As for college students who are daily or near-daily

marijuana users, we know from our research and that of others that heavy marijuana use is associated with poor academic performance and dropping out of college.”

There likely are multiple reasons for the continuing increases in marijuana use among young adults, according to the researchers. One possible reason is the ongoing decline in perceptions of risk of harm from regular marijuana use. In 2019, 24% of those aged 19-22 perceived regular use of marijuana as carrying great risk of harm, among the lowest levels since 1980 when tracking of this age group began.

“Perceptions of great risk peaked at 75% in 1991, when marijuana use among college and non-college youth was at historic lows,” said Lloyd Johnston, the original principal investigator of the Monitoring the Future study. “We have consistently seen this inverse relationship between perceptions of risks of harm and actual use, with changes in perceptions of risk typically preceding changes in use.”

These findings come from the annual national [Monitoring the Future](#) Panel Study, which has been tracking substance use among American college students and youth not in college since 1980. It is conducted by a team of research professors at the University of Michigan, funded by the National Institute on Drug Abuse. Results are based on data from college students one to four years beyond high school graduation who are enrolled full-time in a two- or four-year college in March of the given year, compared with same-age high school graduates not enrolled fulltime in college.

Additional information about the findings is available from [National Institute on Drug Abuse](#).

The findings reported are from surveys conducted in the spring through fall 2019, prior to the COVID-19 pandemic. These 2019 findings provide an important “before picture” for understanding the possible impact of the pandemic experiences (and especially the academic, housing, and employment challenges) on young adult substance use. The study is currently collecting 2020 data among college students and young adults.

This ongoing annual study also examined trends in the use of other substances including alcohol and tobacco. In 2019, use of most substances remained steady or declined modestly. Study results include:

- Annual prevalence of any of the illicit drugs other than marijuana was 17 percent in 2019 for both college and non-college youth. It has declined somewhat for both groups since recent highs in 2014.
- Two of the many illicit substances measured -- cocaine and LSD -- have shown recent uneven increases among college students and youth not in college; however, the use of both of these substances remains relatively low, with annual prevalence of 6 percent or lower in 2019.
- The 2019 annual prevalence of nonmedical use of prescription narcotic drugs other than heroin, such as OxyContin and Vicodin, showed a significant five-year decline for 19-22 year olds, reaching the lowest levels reported since the late 1990s. Between 2014 and 2019, it dropped from 4.8 to 1.5 percent for college students, and from 7.7 to 3.3 percent for same-aged youth not in college.

- The annual prevalence of amphetamines continued to decline somewhat for college students to 8.1% in 2019, and to 5.9% for same-aged youth not in college. In contrast to what is true for most other illicit drugs, nonmedical amphetamine use has been higher among college students in recent years.
- Several other illicit drugs with relatively low prevalence have shown some leveling or uneven change in recent years among college students and same-aged youth not in college, including MDMA (ecstasy, Molly) and nonmedical use of sedatives (barbiturates) and tranquilizers; annual prevalence of each was 4 percent or lower in 2019 among 19-22 year olds.
- Alcohol use has been declining for several years among college students and same-aged youth not in college, although it continues to remain their drug of choice, especially among college students. In 2019, binge drinking—defined as having five or more drinks in a row at least once in the past two weeks – was 33 percent for college students and 22 percent for youth not in college. Prevalence of having 10 or more drinks in the past two weeks (a measure of high intensity drinking) has been fairly level for college students and youth not in college (it was 11 percent for both in years 2015-2019 combined).
- Cigarette use among young adults continues its long-term decline, with 30-day prevalence at 7.9 percent in 2019 for college students (near the all-time low); it reached a new all-time low of 16 percent in 2019 for same-aged youth not in college.

For more information, see:

National Institute on Drug Abuse. [Drug Topics: College-age and Young Adults](#)

Schulenberg, J.E., Johnston, L.D., O'Malley, P.M, Bachman, J.G., Miech, R.A., & Patrick, M.E. (2020). [Monitoring the Future national survey results on drug use, 1975-2019: Volume 2, College students and adults ages 19-60](#). Ann Arbor: Institute for Social Research, The University of Michigan, 476 pp.