



National Institute  
on Drug Abuse

# Drug Facts

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## Monitoring the Future Survey: High School and Youth Trends 2019

More than 42,500 students from nearly 400 public and private schools across the country participated in this year's Monitoring the Future (MTF) Survey of drug use and attitudes among American 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> graders. Encouraging trends continue to be seen for cigarette use, with past month use down by approximately 20-30 percent compared to the mid-1990's. Declines were seen in five-year trends of lifetime, past year, past month and binge alcohol use and in overall rates of lifetime, past year and past month illicit drug use, excluding marijuana, among 10<sup>th</sup> and 12<sup>th</sup> graders. Notably, misuse of prescription opioids among high school seniors is at its lowest rate since the survey began assessing it. Despite these promising trends, the 2019 MTF results show a continued dramatic increase in vaping.

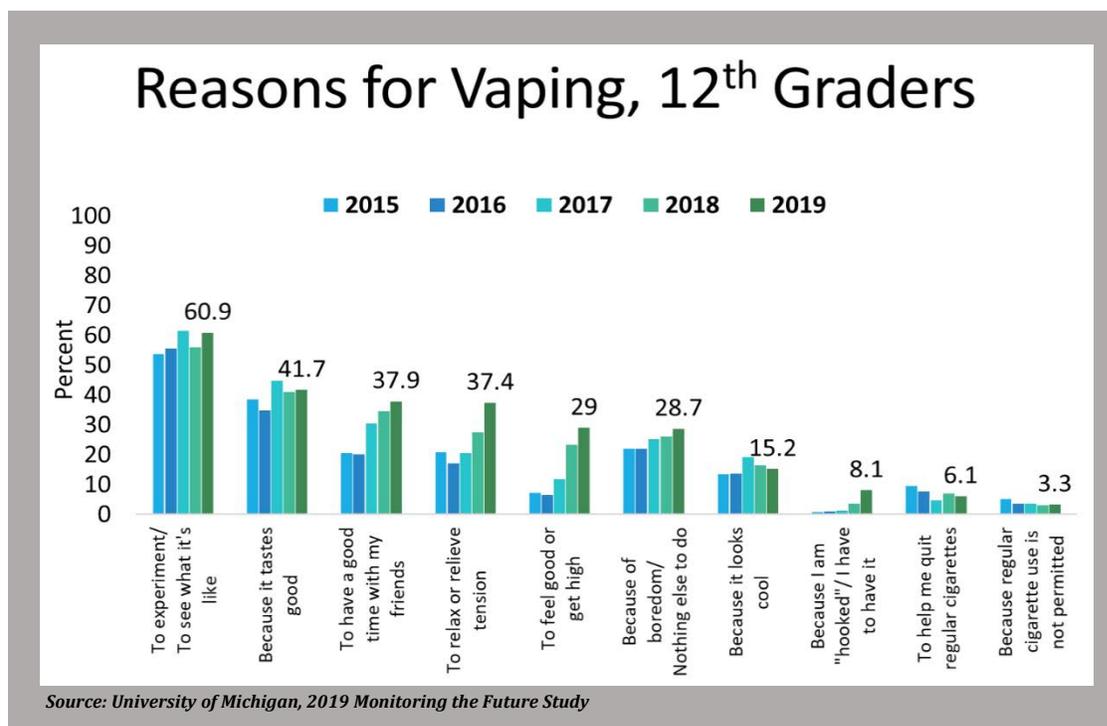
2019 Monitoring the Future Survey Key Findings: Percent Reporting Use of Selected Substances							
	8 <sup>th</sup> Grade	10 <sup>th</sup> Grade	12 <sup>th</sup> Grade		8 <sup>th</sup> Grade	10 <sup>th</sup> Grade	12 <sup>th</sup> Grade
<b>Vaping, Any</b>				<b>Tobacco w/ Hookah</b>			
Past Year	20.1	35.7	40.6	Past Year			5.6
Past Month	12.2	25.0	30.9	Past Month	1.3	2.4	4.0
<b>Vaping, Nicotine</b>				<b>Flavored Little Cigars</b>			
Past Year	16.5	30.7	35.3	Past Month	2.2	3.7	7.7
Past Month	9.6	19.9	25.5	<b>Narcotics Other than Heroin</b>			
<b>Vaping, Marijuana</b>				Past Year			2.7
Past Year	7.0	19.4	20.8	Past Month			1.0
Past Month	3.9	12.6	14.0	<b>Marijuana</b>			
<b>Vaping, Just Flavoring</b>				Past Year	11.8	28.8	35.7
Past Year	14.7	20.8	20.3	Past Month	6.6	18.4	22.3
Past Month	7.7	10.5	10.7	Daily	1.3	4.8	6.4
<b>Cigarettes</b>				<b>Alcohol</b>			
Past Month	2.3	3.4	5.7	Past Month	7.9	18.4	29.3
Daily	0.8	1.3	2.4	Daily	0.2	0.6	1.7
½ Pack +/Day	0.2	0.5	0.9	Binge	3.8	8.5	14.4

Change from 2018 to 2019

■ Significant Increase      ■ Significant Decrease

*Source: University of Michigan, 2019 Monitoring the Future Study*

Some of the most common reasons that high school seniors reported they vape are to, “experiment”, “because it tastes good”, “to have a good time with my friends”, and “to relax or relieve tension.” Over the past year, the two-fold rise in the percent of 12<sup>th</sup> graders that say they vape because they are “hooked” is of particular concern. This report supports other published findings that flavor additives, especially sweet flavors like fruit and mint, are appealing to youth. Overall, reported rates of past month vaping appear to exceed any other kind of substance use, including alcohol and marijuana, for all three grades; and in each grade past year vaping is second only to alcohol.



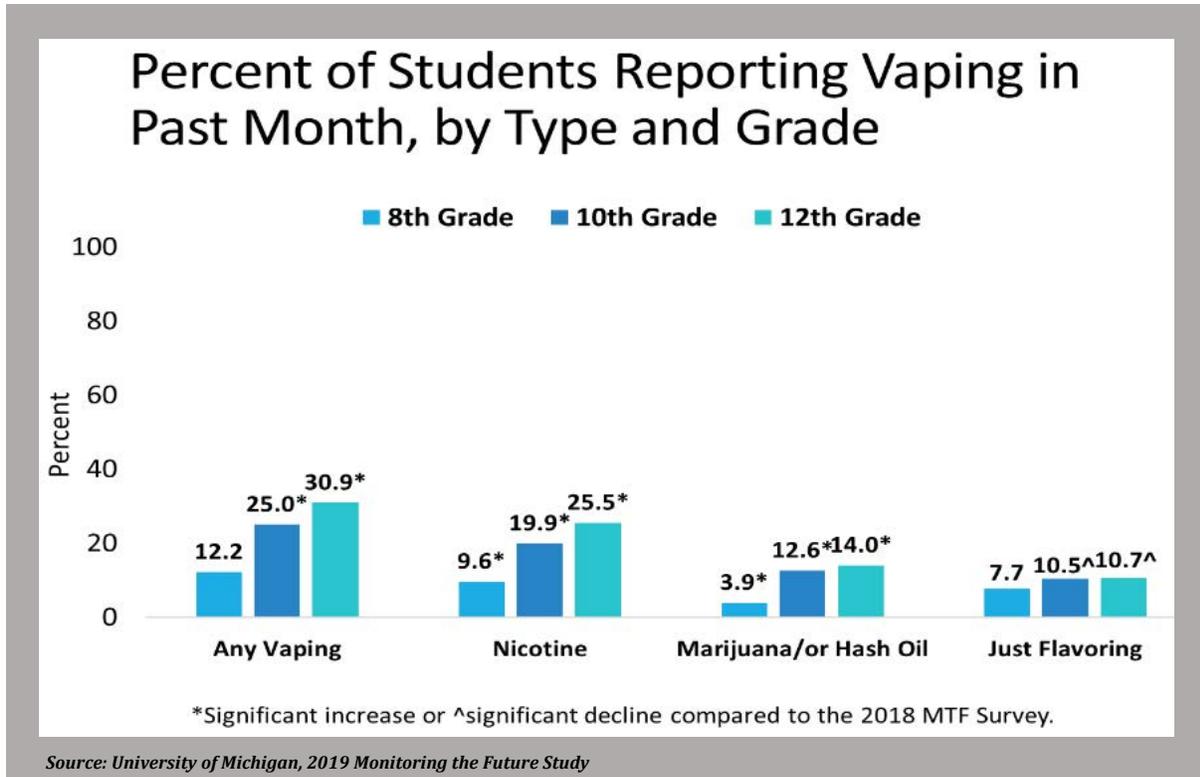
## Vaping

In 2014, the MTF survey introduced questions about electronic vaporizer devices. In 2015, participants were asked what they thought they were vaping, and in 2017 questions specifically about vaping nicotine, marijuana, and “just flavoring” were added.

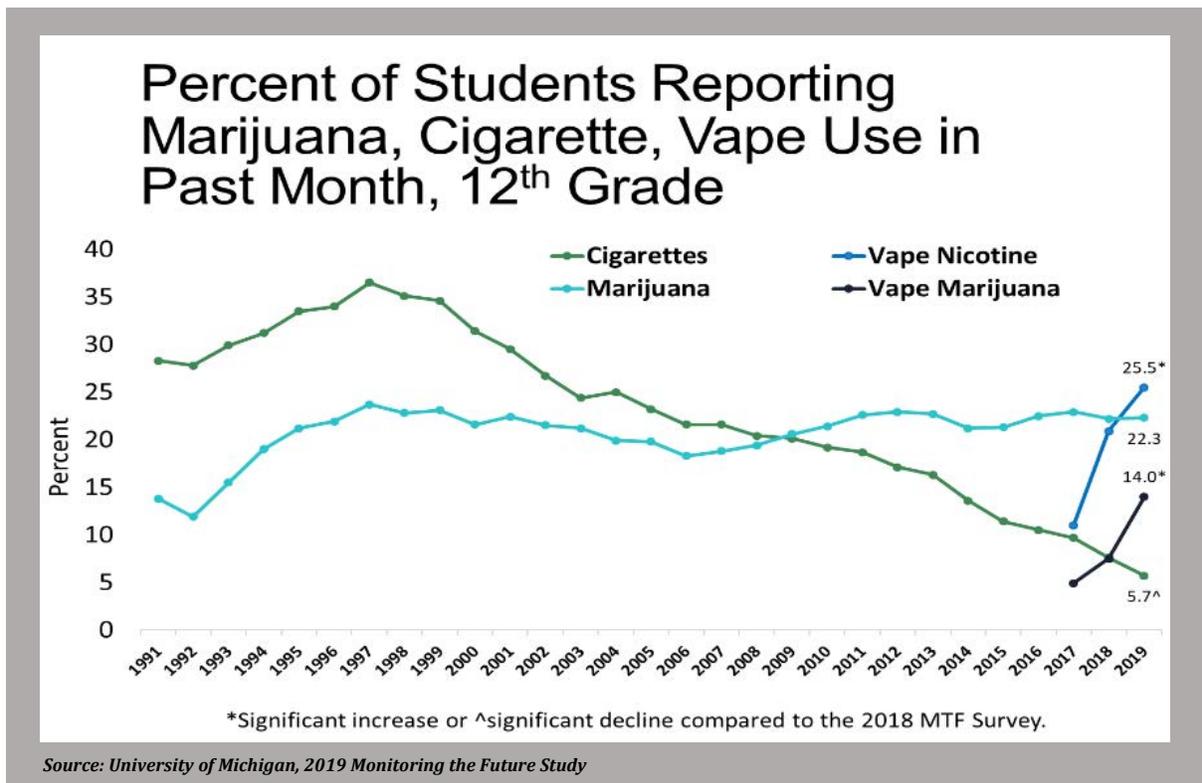
**Results from this year’s survey reveal significant increases in vaping by all grades.** Past month use of any vaping increased from 21.7 to 25.0 percent among 10<sup>th</sup> graders and from 26.7 to 30.9 percent among high school seniors—that means one in four 10<sup>th</sup> graders and one in three 12<sup>th</sup> graders qualify as current users of vaping products—and most report using the JUUL specific brand. Moreover, 82.0 percent of high school seniors report that vaping devices are easy to get.

**When asked to report on what they are vaping, most teens say nicotine.** Past month nicotine vaping has increased annually and more than doubled from 2017 to 2019 in all grades. This year, 9.6, 19.9 and 25.5 percent of respective 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> graders reported vaping nicotine in the past month. Interestingly, the percent of teens that think it is risky to vape nicotine has increased over the same 2-year period but remains low. In 2019, 21.4 percent of high school seniors

reported that there is great risk of harm from occasionally vaping nicotine and 38.0 percent reported great risk of harm from vaping nicotine regularly. Similar differences were also seen among 10<sup>th</sup> graders (20.5 percent reported thinking it is harmful to vape nicotine occasionally versus 39.9 percent who reported perceiving harm in regularly vaping nicotine) and 8<sup>th</sup> graders (21.5 percent versus 41.9 percent). As with vaping devices, a majority of 12<sup>th</sup> graders, 80.4 percent, reported it is easy to get e-liquid with nicotine for vaping.



**The percent of teens that reported past month marijuana vaping also rose**, from 2.6 to 3.9 percent of 8<sup>th</sup> graders; 7.0 to 12.6 percent of 10<sup>th</sup> graders; and from 7.5 to 14.0 percent of 12<sup>th</sup> graders. This increase in past month marijuana vaping in high school seniors is the second largest single-year increase ever measured in the 45-year history of the MTF survey, and was only surpassed by the increase in nicotine vaping between 2017 and 2018.



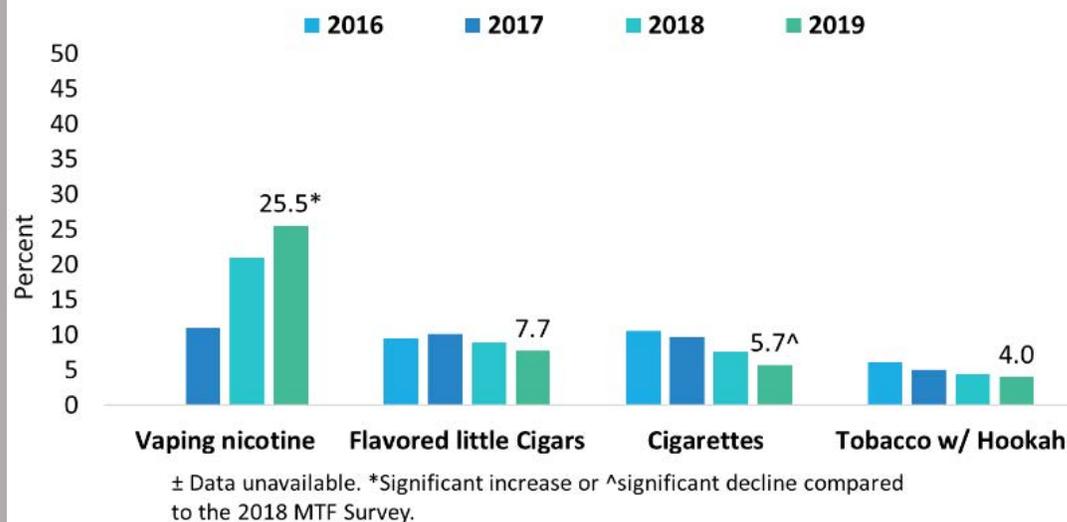
**Unlike other vaping measures, a decline was seen across all prevalence periods in teen vaping of “just flavoring”** among 10<sup>th</sup> and 12<sup>th</sup> graders, with 10.5 and 10.7 percent reporting past month use, respectively. It is important to note that students do not always know what is in the e-liquid they are vaping and labeling is inconsistent. The most popular brands on the market do not offer options that are nicotine-free, and research shows that teens are attracted to nicotine vaping by the flavored products they offer.

### Other Nicotine and Tobacco Use

**Cigarette smoking continued a downward trend and significantly fell among 12<sup>th</sup> graders reporting past month use, daily use or consumption of one-half pack or more per day.** Past month cigarette smoking was reported by 2.3 percent of 8<sup>th</sup>, 3.4 percent of 10<sup>th</sup>, and 5.7 percent of 12<sup>th</sup> graders. Only 2.4% of 12<sup>th</sup> graders said they smoked cigarettes daily, a significant decline from 2018. However, this encouraging news is tempered by the 11.7% of high school seniors that said they vaped nicotine daily in 2019, the first year daily vaping use has been measured.

**Significant five-year declines in cigarette smoking were reported by all grades and across all prevalence periods, including lifetime use.** A 26 percent decrease was seen among 8<sup>th</sup> graders reporting lifetime use—from 13.5 percent in 2014 to 10 percent in 2019. Among 10<sup>th</sup> graders, there was a 37 percent drop in the same five-year period, from 22.6 to 14.2 percent. And among high school seniors, lifetime use fell 35 percent from 34.4 percent in 2014 to 22.3 percent in 2019.

## Percent of 12th Graders Reporting Past Month Use of Selected Tobacco Products



Source: University of Michigan, 2019 Monitoring the Future Study

**Reported use of flavored little cigars or cigarillos declined over the past five years** in all grades with 2.2, 3.7, and 7.7 percent of 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> graders reporting past month use, respectively; and this year, more teens in 8<sup>th</sup> and 10<sup>th</sup> grade think there is a great risk of harming oneself from regularly smoking little cigars or cigarillos, including those with flavor.

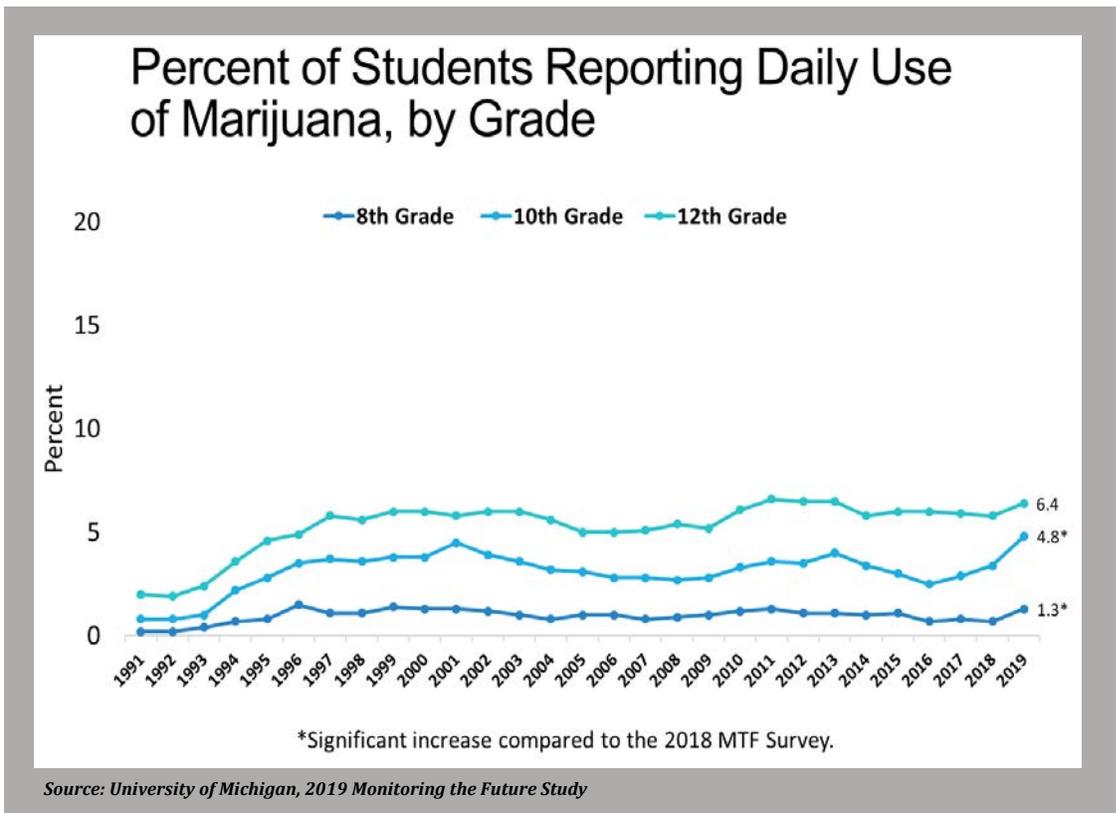
**Past month use of tobacco using a hookah** was reported by 1.3, 2.4, and 4.0 percent of respective 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders—a decline, compared to peaks in 2016, for all grades. **Large cigars also saw a five-year decrease in 10<sup>th</sup> graders** with 2.1 percent reporting past month use.

### Marijuana Use

**Past month, past year and lifetime marijuana use remained steady among 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> graders.** This year, 6.6 percent of 8<sup>th</sup>, 18.4 percent of 10<sup>th</sup>, and 22.3 percent of 12<sup>th</sup> graders reported past month marijuana use while 11.8, 28.8, and 35.7 of respective 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders reported past year use. When asked about how teens are consuming marijuana, 86.4 percent say they smoke it.

**Daily marijuana use, however, increased among 8<sup>th</sup> and 10<sup>th</sup> graders.** Daily use is defined as use on 20 or more occasions in the past 30 days and was reported by 1.3 percent of 8<sup>th</sup> graders, 4.8 percent of 10<sup>th</sup> graders and 6.4 percent of 12<sup>th</sup> graders. While these percentages may seem low, they represent an increase of 85.7 percent among 8<sup>th</sup> graders and 41.2 percent among 10<sup>th</sup> graders, compared to 2018. The percentage of teens who think that regular use of marijuana is risky has been trending down since the mid-2000's. In 2019, 52.3 percent of 8<sup>th</sup> graders, 39.6

percent of 10<sup>th</sup> graders and 30.3 percent of 12<sup>th</sup> graders perceived great harm from regular marijuana smoking. Despite the expansion of state medical marijuana laws, the perception of availability did not change in the past year and long-term trends suggest a gradual decline in the percent of teens saying marijuana is easy to get.



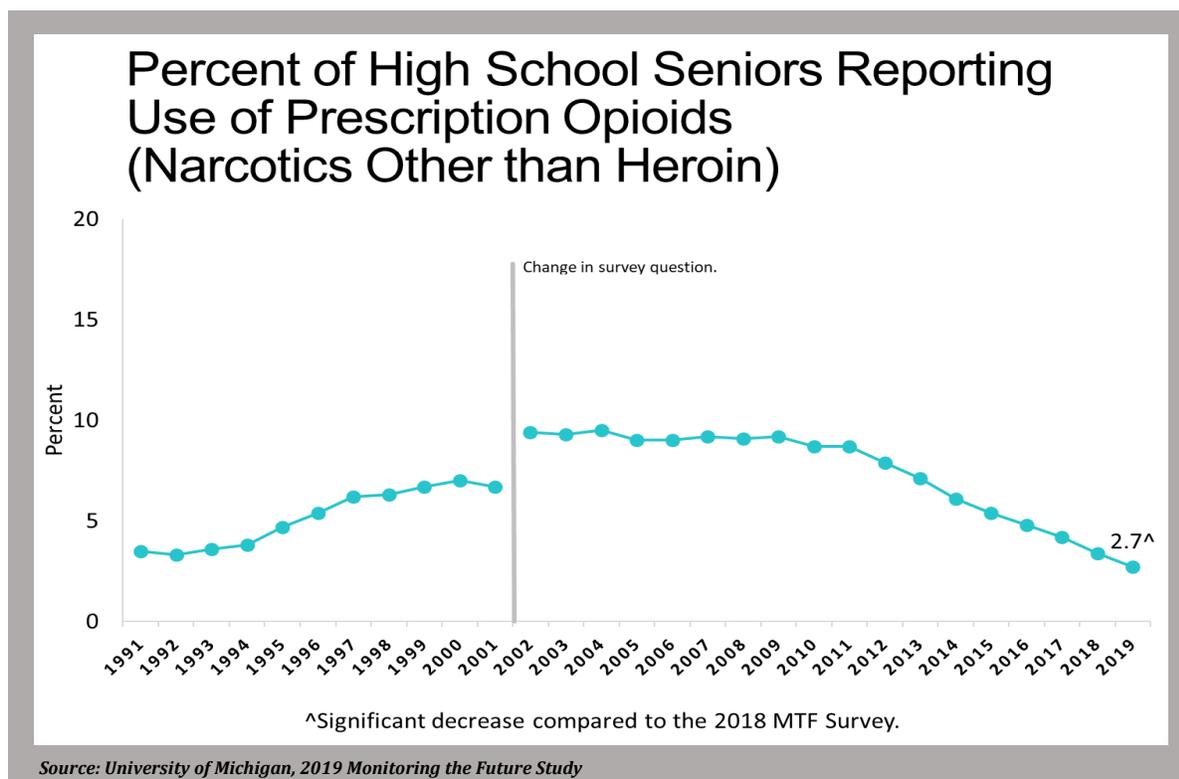
## Alcohol Use

**Lifetime, past year, and past month alcohol use and binge drinking continued to show significant five-year declines in 10<sup>th</sup> and 12<sup>th</sup> graders.** Past month use of alcohol was reported by 7.9 percent, 18.4 percent, and 29.3 percent of 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> graders, respectively. Among 10<sup>th</sup> and 12<sup>th</sup> graders, this reflects a respective decrease from 23.5 percent and 37.4 percent in 2014. Binge drinking (defined as consuming five or more drinks in a row in the past two weeks) also fell significantly among 10<sup>th</sup> and 12<sup>th</sup> graders between 2014 and 2019. This year’s survey found that 3.8 percent of 8<sup>th</sup>, 8.5 percent of 10<sup>th</sup>, and 14.4 percent of 12<sup>th</sup> graders reported binge drinking.

**The percent of high school teens reporting lifetime alcohol use declined compared to peak years.** Lifetime use was reported by 24.5 percent of 8<sup>th</sup> graders—a 56.1 percent drop from a peak of 55.8 percent in 1994. Among 10<sup>th</sup> graders, lifetime use declined by 40.2 percent from a peak of 72 percent in 1997 to 43.1 in 2019. And among high school seniors, 58.5 percent reported lifetime use in this year’s survey, a 28.4 percent drop compared to a peak of 81.7 percent in 1997.

## Opioid Use

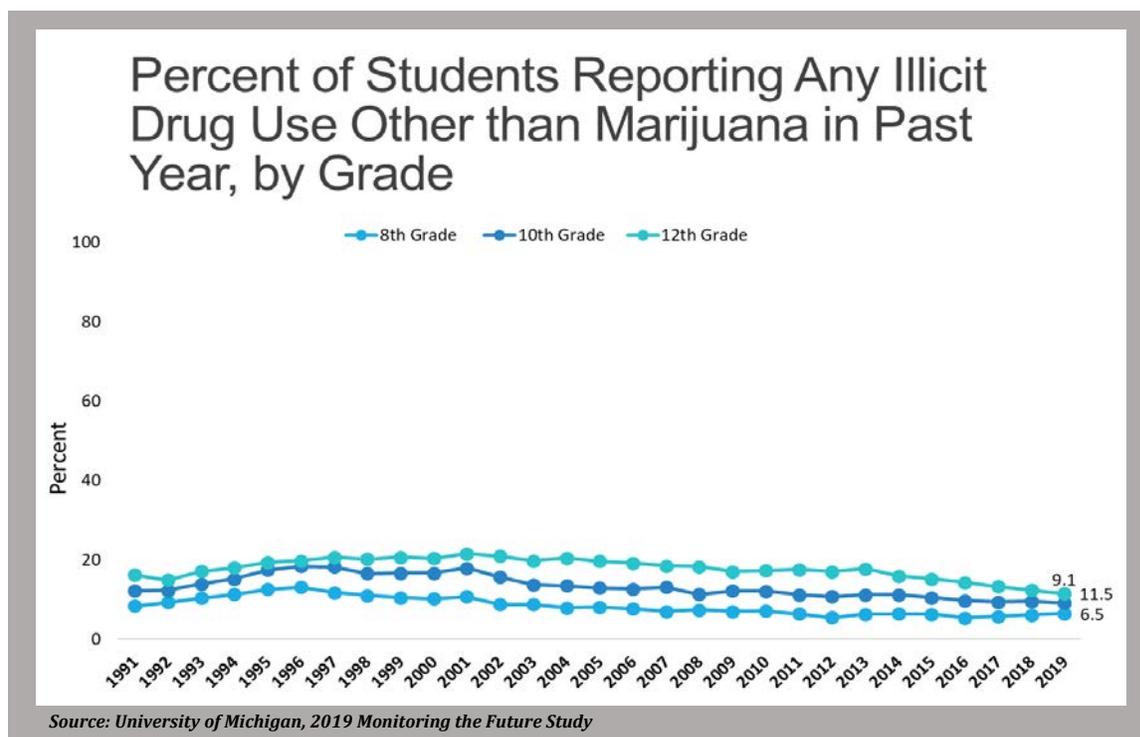
**Past year prescription opioid misuse (reported in the survey as ‘narcotics other than heroin’) continued a significant decline among 12<sup>th</sup> graders**, with 2.7 percent reporting use in 2019. A significant five-year decline was reported for Vicodin among 10<sup>th</sup> and 12<sup>th</sup> graders and for Oxycontin among 12<sup>th</sup> graders. Past year use of Vicodin declined from 3.4 percent in 2014 to 1.1 percent in 2019 among 10<sup>th</sup> graders and from 4.8 percent to 1.1 percent in the same period among 12<sup>th</sup> graders. Oxycontin was reported by 1.7 percent of 12<sup>th</sup> graders in 2019, a nearly 50 percent drop compared to 3.3 percent in 2014. Rates of prescription opioid misuse are now at their lowest levels since they were first recorded by the survey. In addition, heroin use remains low with five-year declines in past year use from 0.5 percent in 2014 to 0.3 percent in 2019 among 10<sup>th</sup> graders and from 0.6 percent to 0.4 percent, over the same period, among 12<sup>th</sup> graders.



## Other Illicit Drug Use

Survey findings reflect steady rates of other illegal drug use in this population, including cocaine, methamphetamine, and over-the-counter cough and cold medicines. Past year use of cocaine was reported by 0.7 percent of 8<sup>th</sup> graders, 1.5 percent of 10<sup>th</sup> graders and 2.2 percent of 12<sup>th</sup> graders. While use has remained low, there has been a gradual decline in the percent of 12<sup>th</sup> graders that perceive great risk from trying cocaine once or twice; from 54.4 percent in 2013 to 48.0 percent in 2019. Methamphetamine use remained low and steady, with use across all prevalence periods at less than 1 percent in all grades.

Minor changes were seen in the use of amphetamines, LSD and synthetic cannabinoids. The lifetime and past month use of amphetamines remained steady from 2018 to 2019, but past year use decreased among high school seniors and a five-year decline in past month, past year and lifetime use was reported by 10<sup>th</sup> and 12<sup>th</sup> graders. Five-year increases were seen in lifetime use of LSD in all grades, in past year use in 12<sup>th</sup> graders and in past month use in 10<sup>th</sup> graders. The past year use of synthetic cannabinoids (also called spice/K2 or synthetic weed) saw a five-year decrease from 5.4 to 2.6 percent among 10<sup>th</sup> graders and from 5.8 to 3.3 percent among 12<sup>th</sup> graders; but saw a one-year increase by 8<sup>th</sup> graders, with 2.7% reporting past year use.



## Learn More

For more information about the Monitoring the Future survey and results, please visit:

- the [Monitoring the Future website](#)
- [NIDA's Monitoring the Future webpage](#)

Researchers interested in accessing data from the Monitoring the Future Survey may access it from the National Addiction & HIV Data Archive Program (NAHDAP) at <https://www.icpsr.umich.edu/icpsrweb/NAHDAP/>.

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