Substance Use Trends in Maine: Key Findings



By Tim Diomede, MPPM

September 25th 2019



Purpose (SEOW What?)

The State Epidemiological Outcomes Workgroup (SEOW) serves as a clearing house for substance use and mental health related data indicators. The SEOW is funded under the federal Substance Abuse and Mental Health Services Administration (SAMHSA) Partnership for Success grant, focused on the prevention of substance use among 12 to 25 year olds.



SEOW Objectives

- Promote systematic, data-driven decision-making
- Guide effective and efficient use of prevention resources
- Identify and track substance use trends
- Detect emerging substances/patterns
- Help secure funds and measure progress





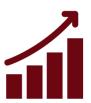
Data Notes/Disclaimers



We promote the use of data indicators that have the reputation of being accurate, reliable, and timely.



We caution data users not to rely heavily on a single indicator in their assessment and evaluation; instead, we structure and present resources within a larger context to help users look at the broader picture.



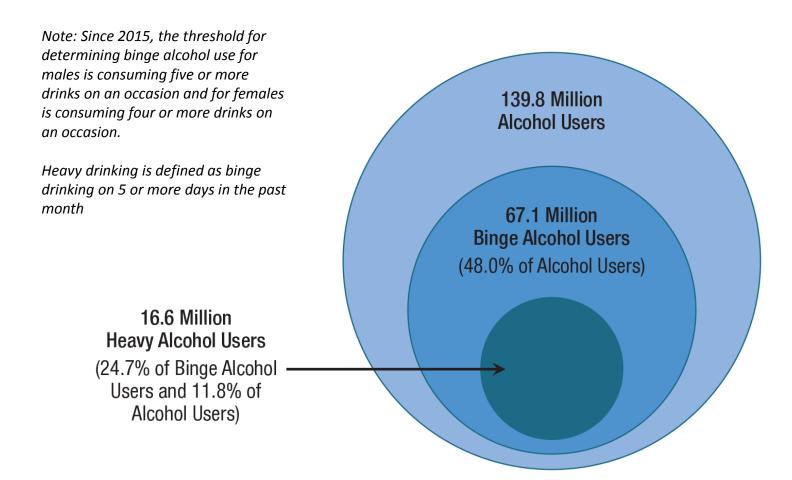
It is essential to examine trends and data over time, rather than depend on information from a single point.

Consumption

(Surveillance Data)



Current, binge, and heavy alcohol use among people 12 and older (Nationwide): 2018

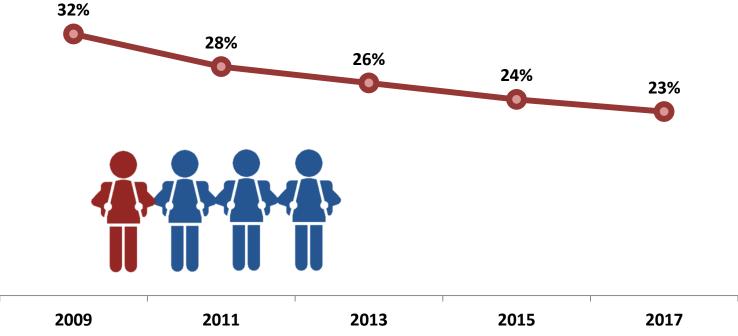


Source: NSDUH

Past month alcohol use among high school students: 2009-2017

About one in four high school students reported consuming any alcohol in the past month. The rate of consumption has been steadily declining since 2009.



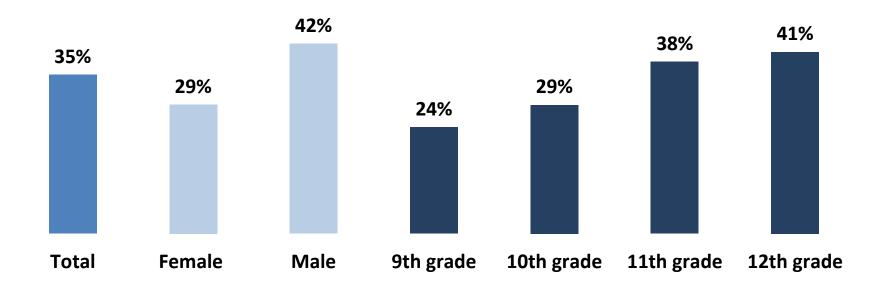


Source: MIYHS

Maine High school students (among those who have drank in the past month) who binge drank at least once in the past month: 2017



Male high school students appear more likely than females to participate in high-risk alcohol use, as are older students relative to younger students. Rates of binge drinking differ widely between 10th (29%) and 11th (38%) graders.

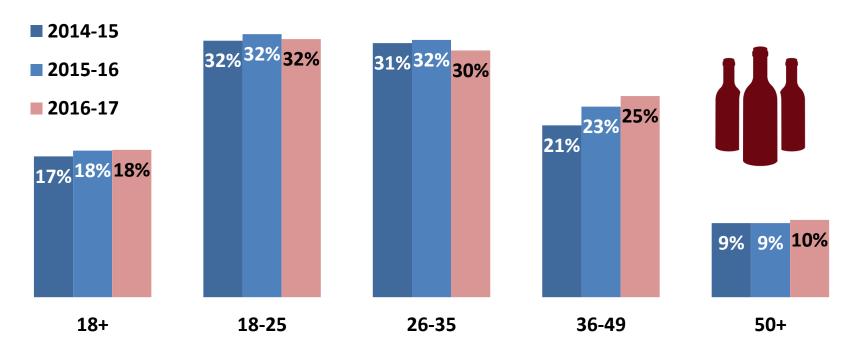


Source: MIYHS, 2017

Maine adults reporting binge drinking in the past 30 days, by age group: 2014-15 to 2016-17*

Note: 2016-17 results are preliminary

The highest binge drinking rate remains among 18 to 25 year-olds, with about one in three reporting having binge drank in the past month.



^{*2017} BRFSS estimates are preliminary.

Source: BRFSS

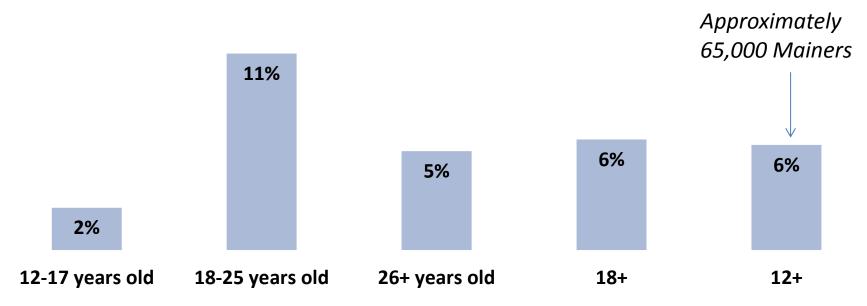
Alcohol use disorder* (dependence or abuse) in the past year in Maine, by age: 2016-17

*Note: Alcohol Use Disorder is defined as meeting criteria for alcohol dependence or abuse. Dependence or abuse is based on definitions found in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV).

Source: NSDUH

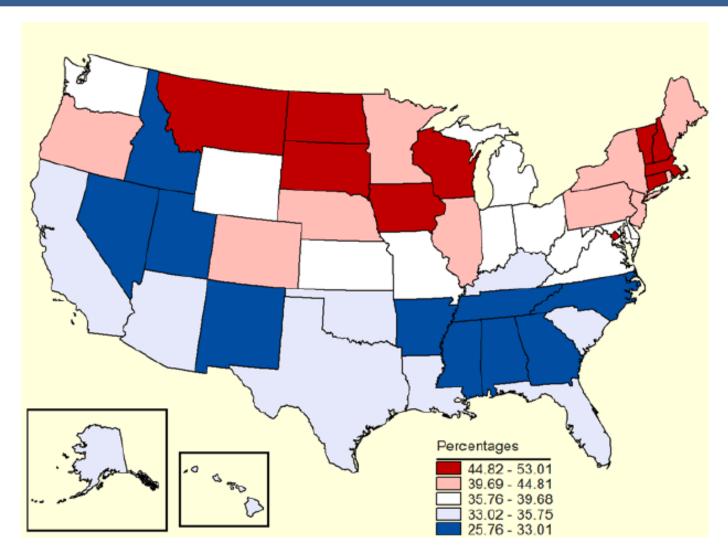
Maine residents 18 to 25 were the most likely age group to have an alcohol use disorder in 2016-17 with an estimate of 11% (13,000).





Maine Department of Health and Human Services

Past month binge alcohol use among 18 to 25 year olds, by state: 2016-17

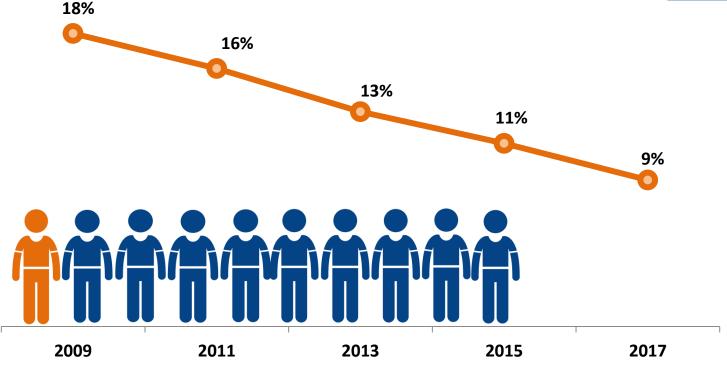


Source: NSDUH

High school students who smoked at least one cigarette during the past month: 2009–2017

The proportion of high school students who reported having smoked any cigarettes on at least one day during the past 30 days decreased by nine percentage points, from 2009 to 2017.



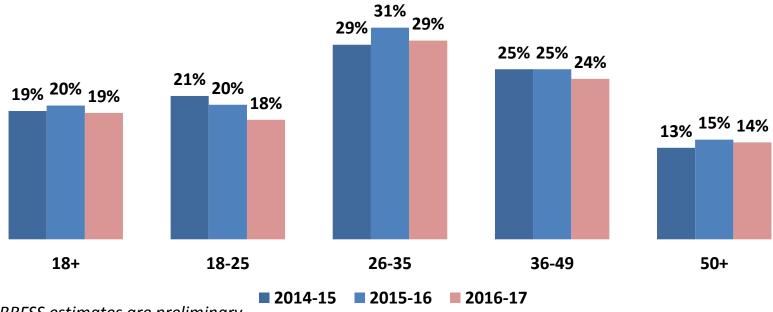


Source: MIYHS

Past month cigarette use among Maine adults, by age group: 2014–15 to 2016–17*

In 2015-16, one in five Maine adults reported being current cigarette smokers. Mainers ages 26 to 35 reported the highest rate of cigarette use at 29 percent.





*2017 BRFSS estimates are preliminary.

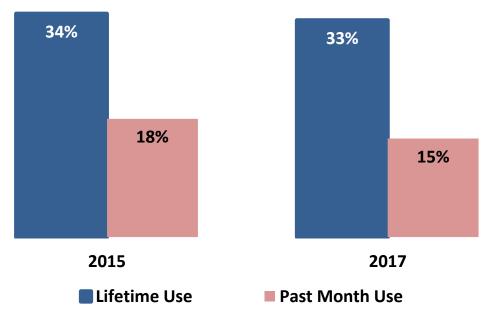
Source: BRFSS

Maine high school students who used an electronic vapor product* in the past month or lifetime: 2015-17



Source: MIYHS

One in three high school students have used an electronic vapor product in their lifetime and one in six have used one in the past month. This is consistent with data from 2015.

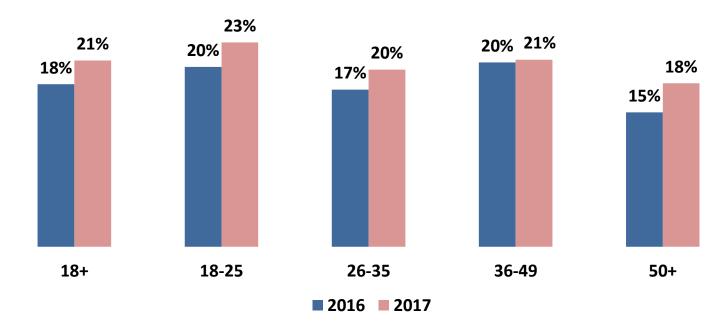


*Electronic vapor products refer to devices used to vaporize active ingredients of plant material, commonly tobacco, cannabis, or herbs for the purpose of inhalation.

Current e-cigarette use among Maine adults, by age group: 2016–2017*



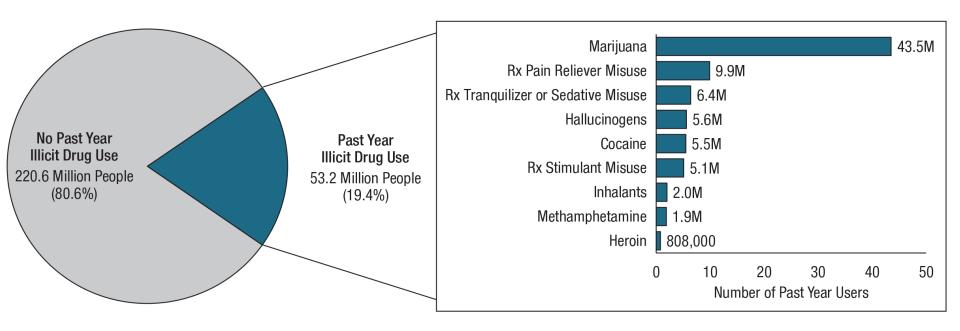
In 2017, approximately one in five Mainers 18 and older reported current use of e-cigarettes. Rates were highest among 18 to 25 year olds



^{*2017} BRFSS estimates are preliminary.

Source: BRFSS

Past year illicit drug use among people aged 12 or older (Nationwide): 2018



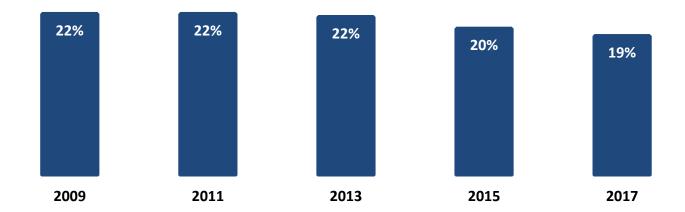
Rx = prescription.

Note: The estimated numbers of past year users of different illicit drugs are not mutually exclusive because people could have used more than one type of illicit drug in the past year.

Maine high school students who have used marijuana at least once in the past month: 2009-2017



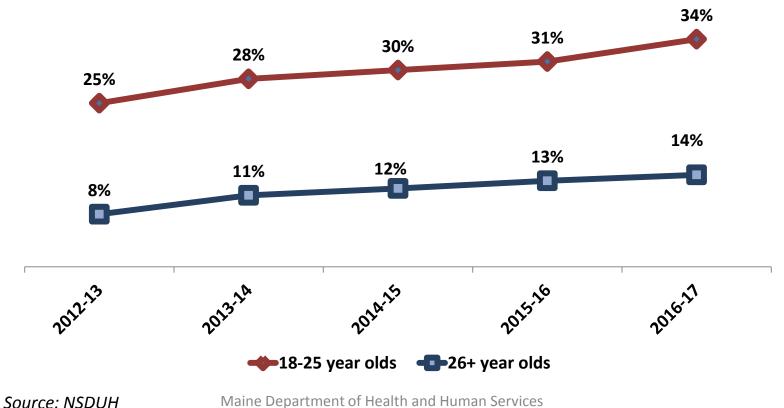
In 2017, one in five high school students reported using marijuana within the past month. Rates have been stable over time.



Maine adults reporting marijuana use in the past month: 2012-13 to 2016-17



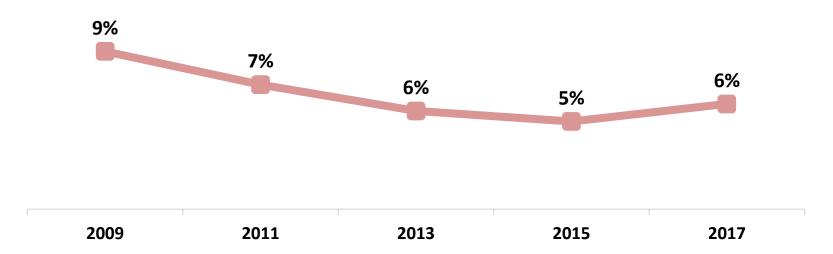
One in three Mainers ages 18 to 25 used marijuana in the past month in 2016-17, an increase of nine percentage points since 2011-12.



Maine high school students who have taken prescription drugs (any type) that were not prescribed to them in the past month: 2009-2017

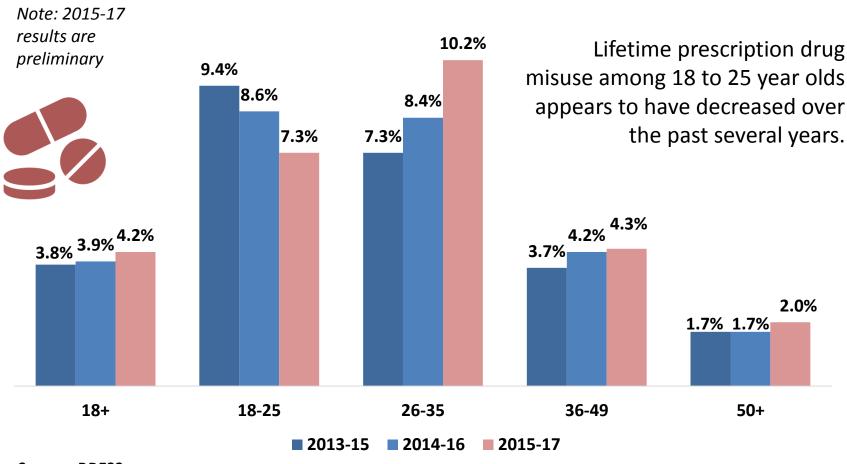
After decreasing from 2009 (9%) to 2015 (5%), the percentage of high school students reporting that they have misused a prescription medication in the past month has increased slightly to 6%.





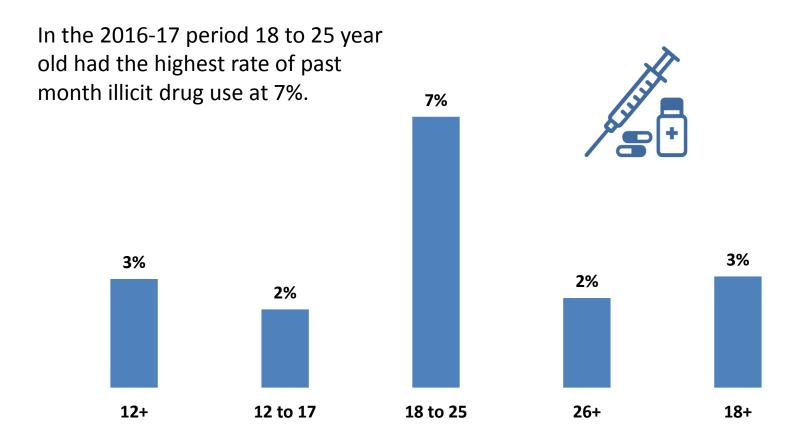
Note: Although not shown, about one in ten high school students reported having ever misused a pain medication (e.g., codeine, Vicodin, OxyContin).

Maine adults reporting having ever misused prescription drugs (any type), by age group: 2013–15 to 2015–17



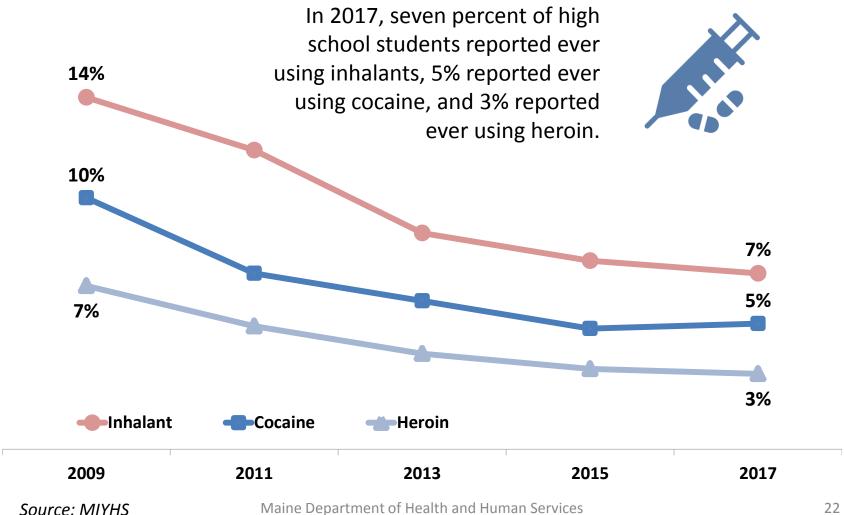
Source: BRFSS

Illicit drug use (other than marijuana)* in past month among adults in Maine, by age group: 2016-17



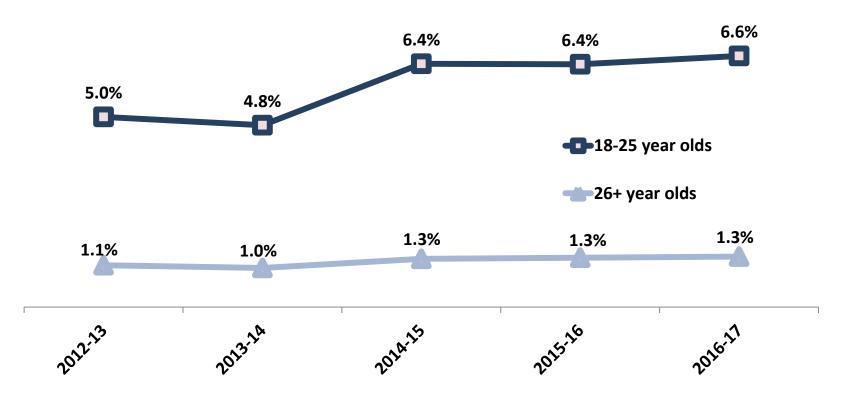
Source: NSDUH

Lifetime drug use among high school students in Maine, by drug type: 2009-2017



Adults reporting cocaine use in past year among adults in Maine, by age group: 2012–13 to 2016–17

In 2016–17, nearly 7% of young adults ages 18 to 25 reported cocaine use in the past year, compared to 1.3% of Mainers 26 and older.

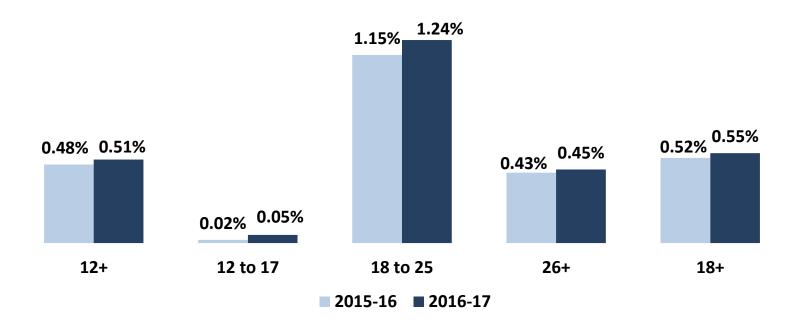


Source: NSDUH

Heroin use in the past year among adult in Maine, by age group: 2015–16 to 2016-17



Overall, it was estimated that in 2016-17, about 5,000 (0.51%) Maine residents 12 and older reported using heroin in the past year. The highest rate of use was observed among Mainers 18 to 25 (1.24%).



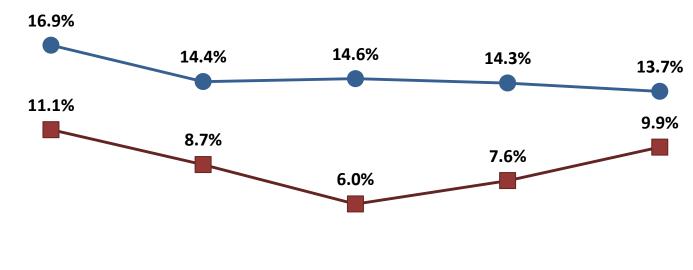
Source: NSDUH

Women reporting alcohol or cigarette use during the last trimester of pregnancy: 2013–2017

In 2017, nearly one in seven pregnant women reported cigarette using in the their last trimester. One in ten reported drinking any alcohol.



2017



Source: PRAMS

2014

2013

-Alcohol

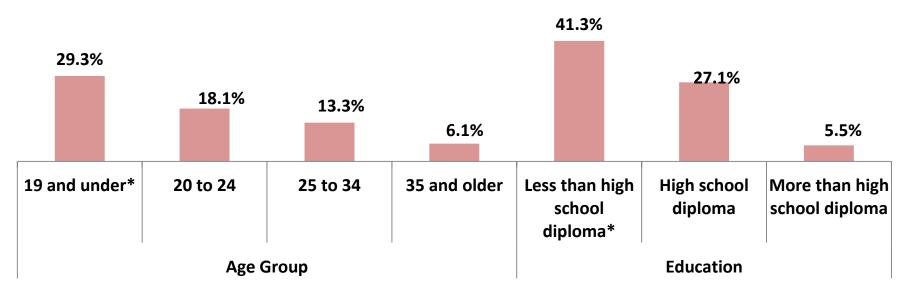
2015

2016

Women reporting cigarette use during the last trimester of pregnancy, by age and education: 2017



Rates of cigarette use during the last trimester of pregnancy were highest among younger women as well as among those with lower levels of education.



^{*}indicates variable had less than 60 respondents and may not be a reliable estimate

Source: PRAMS

Consequences/Impact



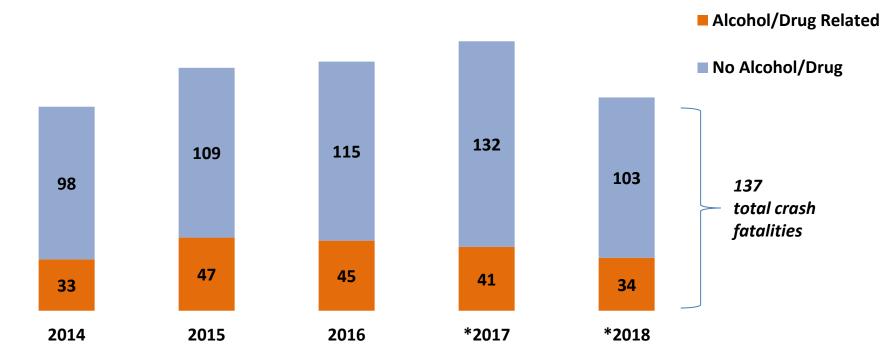




Number of fatal motor vehicle crashes in Maine, by whether they involved alcohol and/or drugs: 2014–2018



In 2018, nearly one in four (25%) fatal motor vehicle crashes involved alcohol and/or drugs.

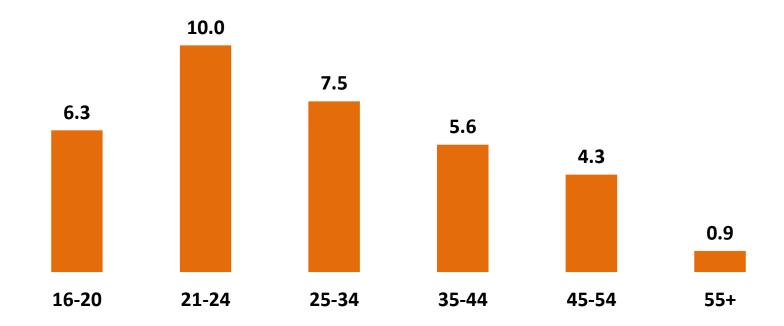


^{*2017} and 2018 results are preliminary

Alcohol/drug related motor vehicle crash fatality rate per 100,000 licensees in Maine, by age: 2015–17

In 2015-17, the rates of alcohol/drug motor vehicle crash fatalities were highest among 21 to 24 year olds, followed by 25 to 34 year olds.

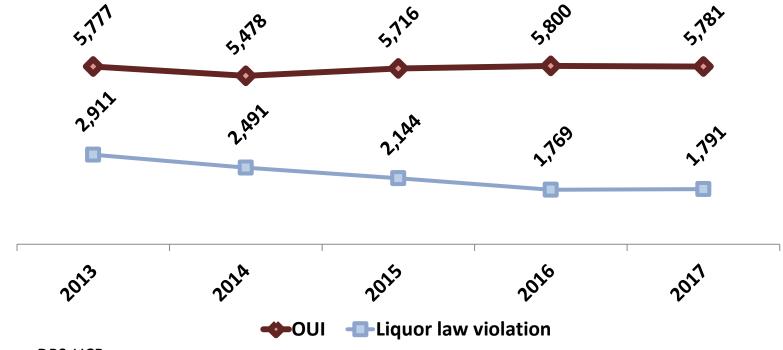




Adult arrests (18+ years old) in Maine related to alcohol, by arrest type: 2013–2017



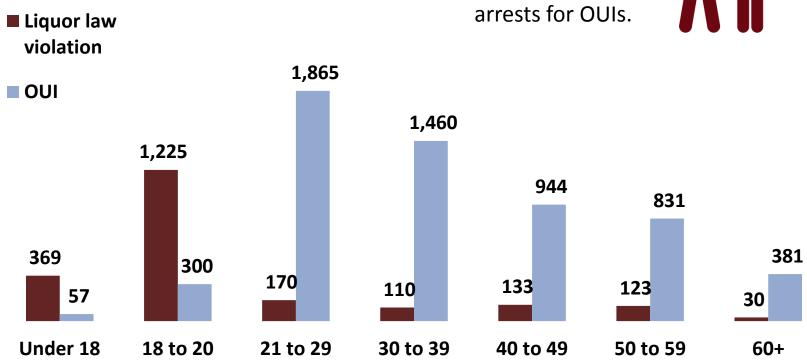
In 2017, there were 5,781 adult arrests for OUIs compared to 1,791 arrests for breaking liquor laws. Adult OUI arrests have remained relatively stable, while the number of adult liquor violations decreased by 38% since 2013.



Arrests in Maine related to alcohol, by type and age group: 2017

18 to 20 year olds observed the most arrests for liquor violations whereas 21 to 29 year olds observed the most arrests for OUIs.



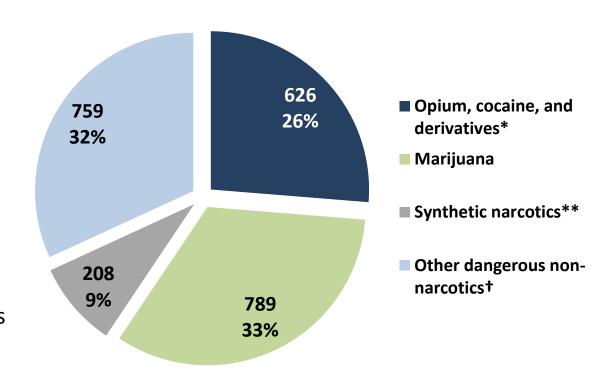


Source: DPS-UCR

Local law enforcement drug offense arrests (all ages) for possession, by drug type: 2017



Marijuana comprised the largest portion of drug arrests for possession in 2017 at 33%, dangerous non-narcotics at 32%, opium/cocaine derivatives at 26% and synthetic narcotics at 9%.



^{*}heroin/morphine, cocaine/crack

Source: DPS-UCR

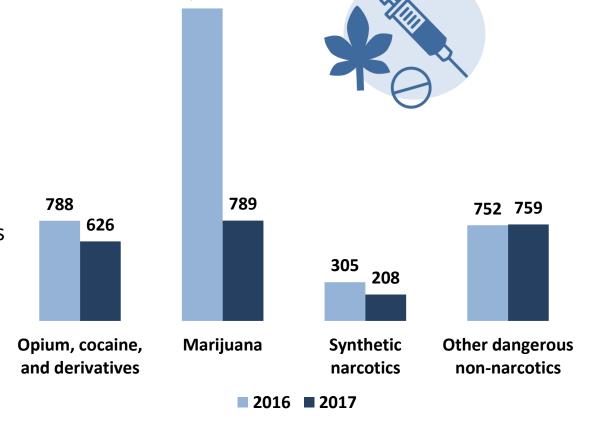
^{**}prescription drug opiates †barbiturates/sedatives and benzedrine/amphetamines

Maine Law enforcement drug offense arrests (all ages) for possession, by drug type: 2016–2017

2,457

From 2016 to 2017 arrests for possession of:

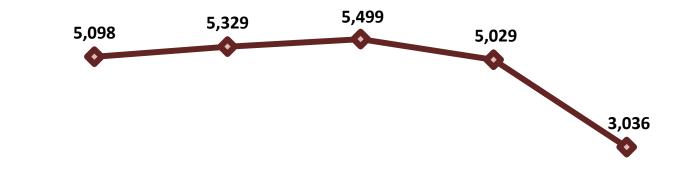
- Opium, cocaine, and derivatives (e.g., morphine, heroin, cocaine, and codeine) declined by 21%.
- Marijuana decreased by 67%.
- Other dangerous non-narcotics (e.g., barbiturates and Benzedrine) remained stable.
- Synthetic narcotics (e.g., Prescription drug opiates) decreased by 32%.

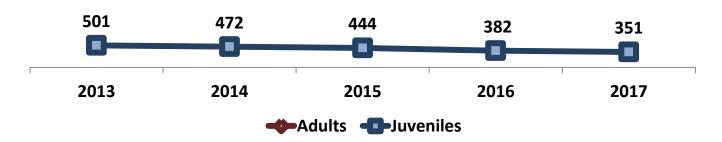


Total drug offense arrests, by age group: 2013–2017



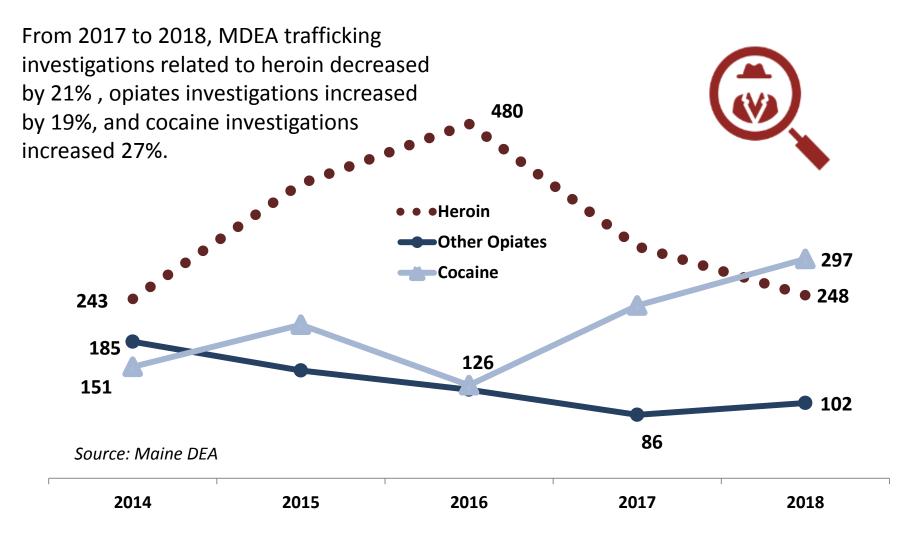
The total number of drug arrests for adults and juveniles declined in 2017. Adult arrests decreased by 40 percent and juvenile arrests decreased by 8 percent from 2016.





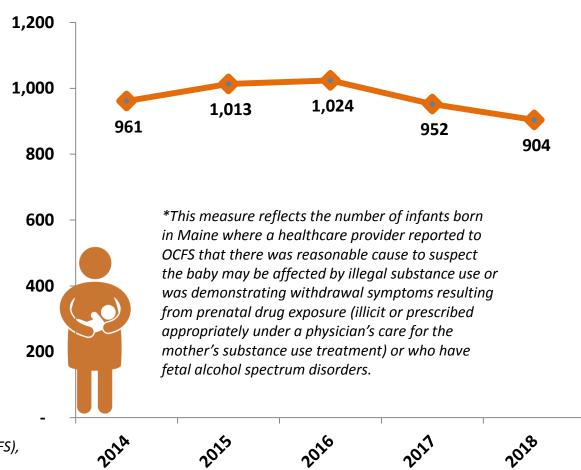
Source: DPS-UCR

Maine DEA drug trafficking investigations, by drug type: 2012–2017



Number of drug affected (substance-exposed) baby reports in Maine: 2014–2018

- In 2018, there were 904 reports to Child Protective Services regarding infants born exposed to substances
- The number of drugaffected baby reports declined by 12% from 2016 to 2018.

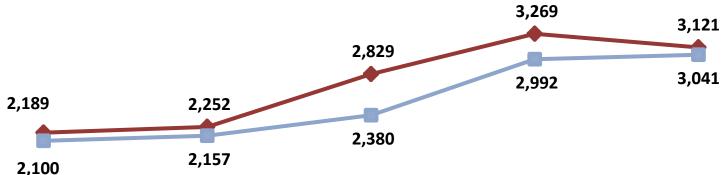


Source: Office of Child and Family Services (OCFS), Maine Automated Child Welfare Information System (MACWIS).

Number of overdose EMS responses, by substance type: 2014 - 2018



In 2018, drug/medication overdoses decreased for the first time since 2014, while those related to alcohol overdose increased slightly.

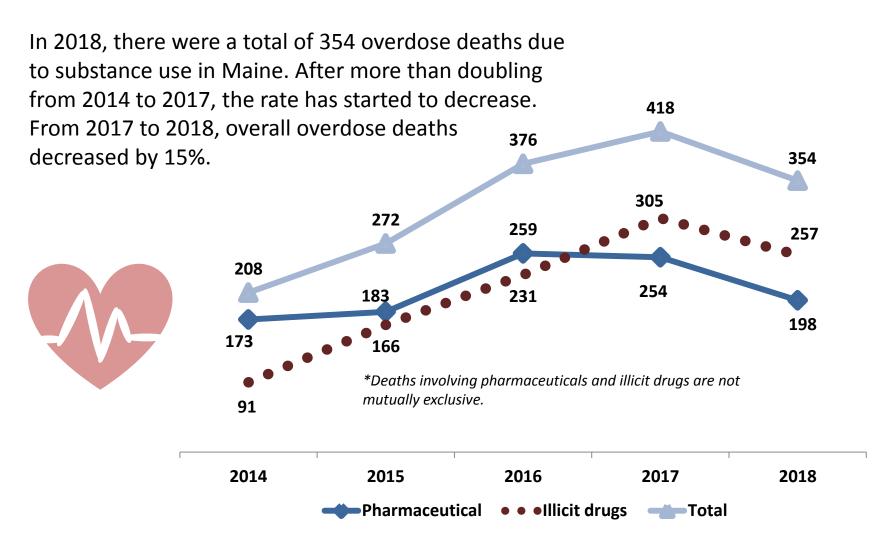


*Drugs/medication include illicit drugs and prescription drugs. Data are not broken down further than this category. This data is based on the primary impression given by the emergency responder at the scene.

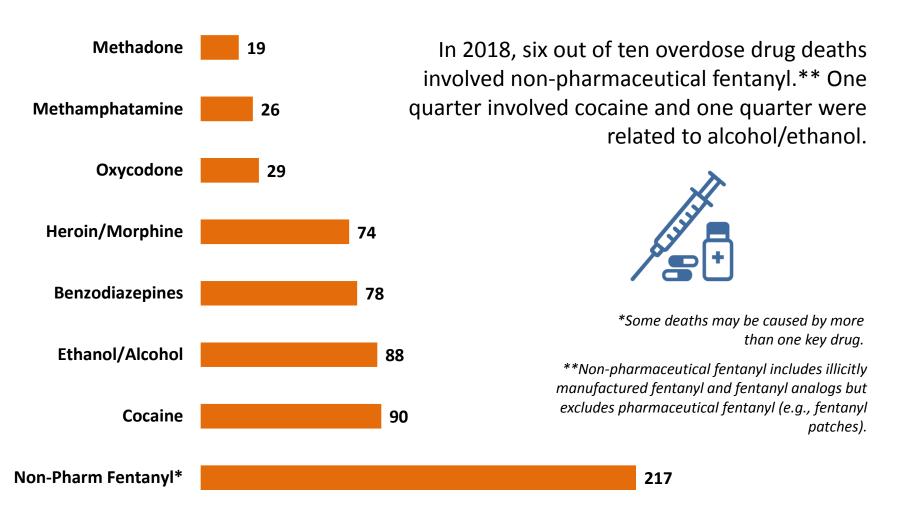


Source: EMS

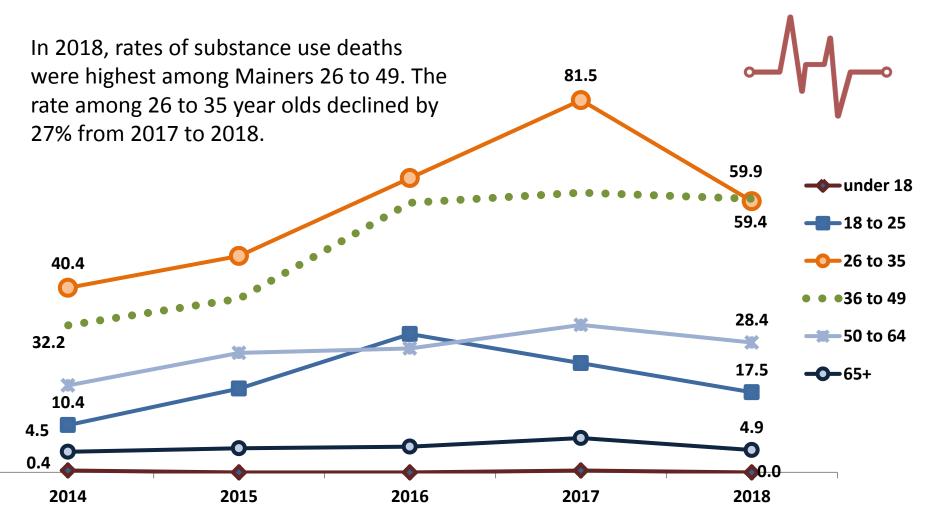
Number of deaths* in Maine caused by pharmaceuticals and/or illicit drugs, alone or in combination: 2014–2018



Number of drug deaths in Maine involving specific drug types:* 2018



Substance use and overdose deaths, per 100,000 residents, by age group: 2014–2018*

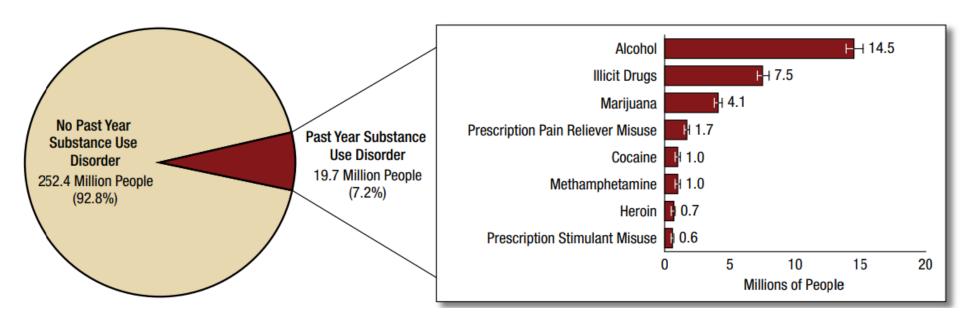


Treatment

(for substance use)



Number of people 12 and older (Nationwide) with a substance use disorder, by substance: 2017

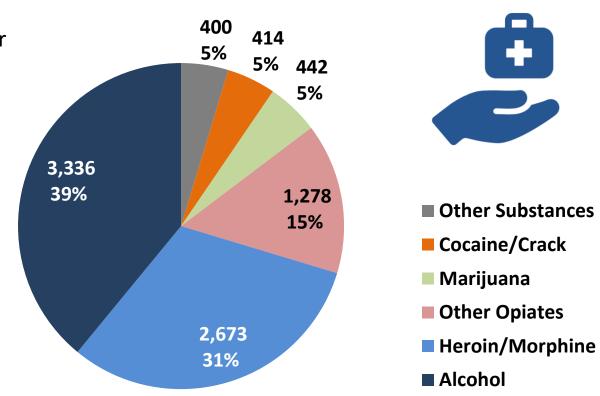


Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH *Note: substance Use Disorder is defined as meeting criteria for dependence or abuse. Dependence or abuse is based on definitions found in the Diagnostic and Statistical Manual of Mental Disorders (DSM).

Number and percentage of primary treatment admissions in Maine, by substance type: 2018*

In 2018, Two out of four primary treatment admissions were related to alcohol.

*WITS data are not static; therefore 2018 numbers may be lower than true counts. Data were retrieved on 7/25/2019.

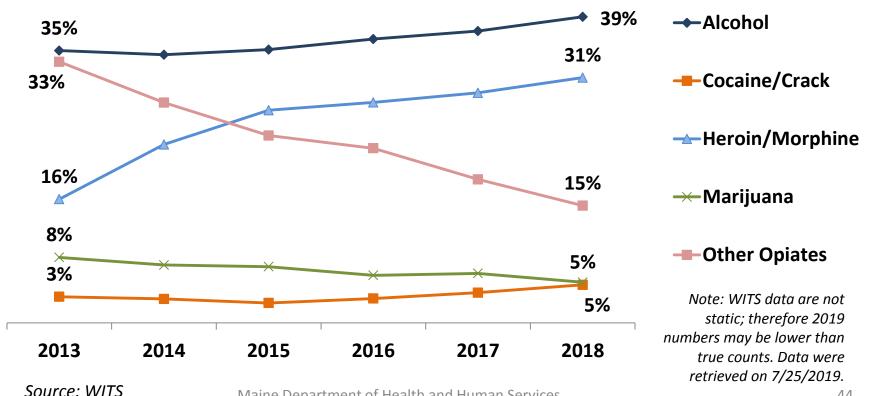


NOTE: WITS does not capture data from all treatment facilities or services provided in Maine and therefore is not a complete representation of ALL substance use treatment services provided in the state. There are many organizations and private practitioners such as primary care practitioners and independent substance use licensed counselors who are not mandated to enter data in to the system.

Proportion of primary treatment admissions in Maine, by substance type: 2013–2018



Alcohol has held the highest proportion of primary admissions since 2013 and has been steadily increasing.



Maine Department of Health and Human Services

Treatment admissions of pregnant women, by primary substance: 2013–2018*

In 2018, about eight out of ten treatment admissions for pregnant were related to illicit or prescription opiates.

----Heroin/Morphine

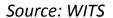
Other Opiates

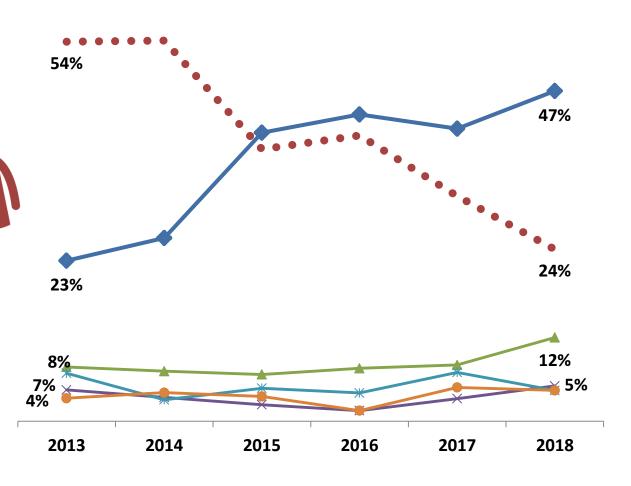
--- Marijuana

—— Cocaine/Crack

Methadone

^{*}WITS data are not static; therefore 2018 numbers may be lower than true counts. Data were retrieved on 7/25/2019.





Contributing Factors

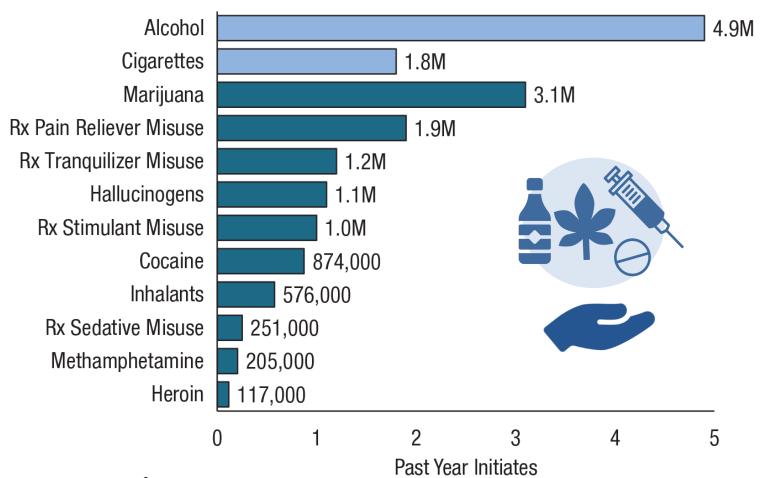
(e.g., Availability, Perceptions, Social Norms)







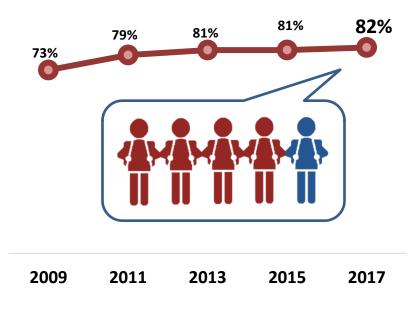
Numbers of past year initiates of substances among people 12 and older (Nationwide), by substance type: 2017



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH

Perception of harm: binge drinking weekly

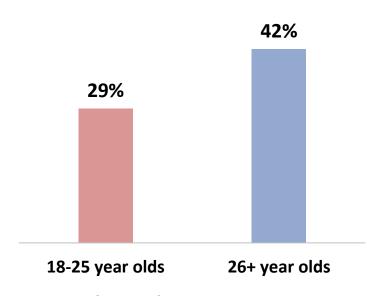
High school students perceiving harm from binge drinking weekly



Source: MIYHS

Four out of five high school students think binge drinking once or twice a week is harmful.

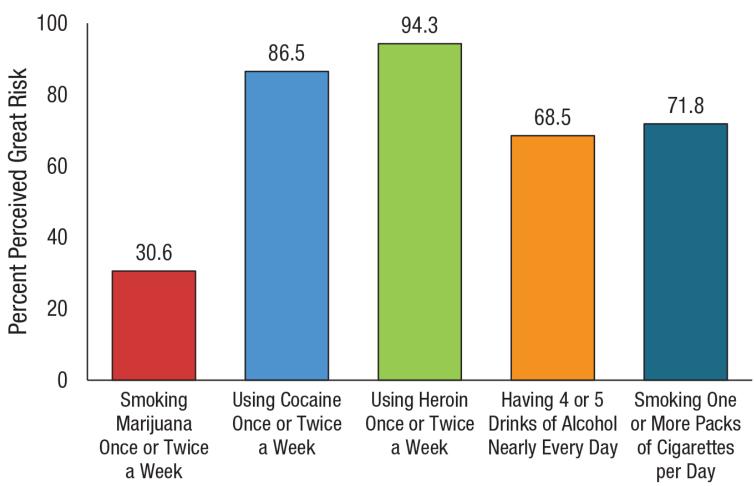
Adults perceiving great risk from binge drinking weekly, by age group



Source: NSDUH

Less than a third of young adults (18 to 25) thought that binge drinking a few times a week was risky.

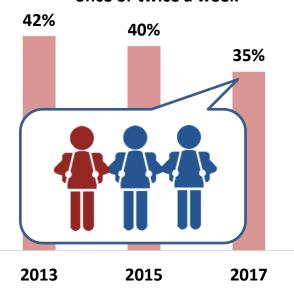
Perception of harm from substance use among people 12 and older (Nationwide), by substance and frequency: 2018



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH

Perception of harm: marijuana use

High school students perceiving risk from smoking marijuana once or twice a week



Source: MIYHS

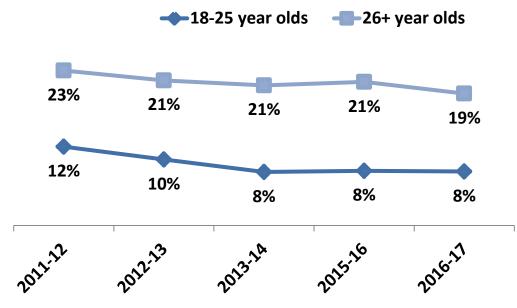
Only about a third of Maine's

high school students believe

smoking marijuana (once or

twice a week) was risky in 2017 ine Department of Health and Human

Adults perceiving risk from smoking marijuana at least once per month

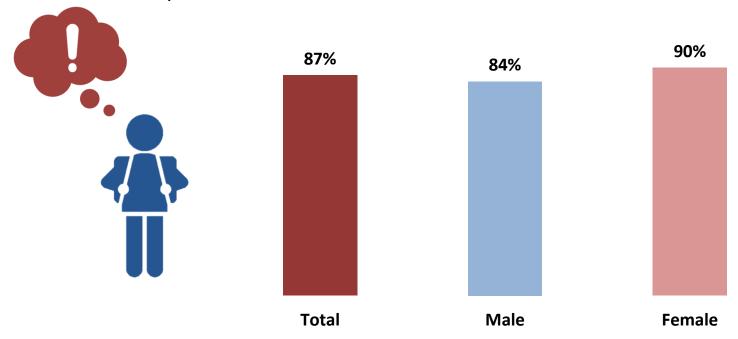


Source: NSDUH

One in ten 18 to 25 year olds believe that smoking marijuana at least once a month is harmful.

Maine high school students who felt using a prescription drug not prescribed to them was harmful, by age group: 2017

Most high school students (87%) reported that it would be harmful if they took a prescription drug that was not originally prescribed to them. Female students were more likely to perceive a risk than males.



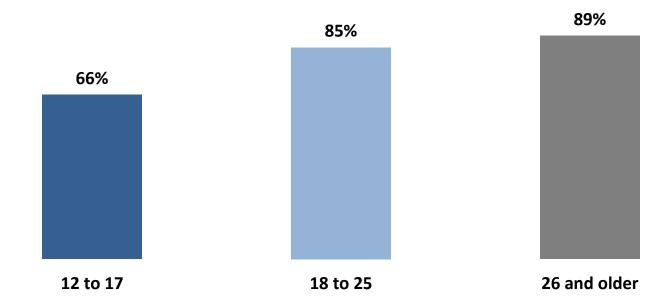
Although not shown, students who do not believe there is moderate-to-great risk in misusing prescription drugs are three times as likely to have ever misused prescription pain relievers as their peers who do perceive risk of harm.

Source: MIYHS

Mainers perceiving great risk from trying heroin once or twice, by age group: 2016-17



In 2016-17, the vast majority of adults reported that trying heroin once or twice was risky. Youth 12 to 17 were much less likely to perceive a risk; about seven out of ten thought there was great risk from trying heroin once or twice.



Source: NSDUH

Attribution Statements (Perception of Harm)

According to the 2017 Maine Integrated Youth Health Survey, high students who:





thought there was **moderate-to-great risk of harm from binge drinking** once or twice a week were half as likely to drink in the past month.



thought there was a **moderate-to-great risk in smoking marijuana** regularly were almost 7X less likely to smoke marijuana in the past month.

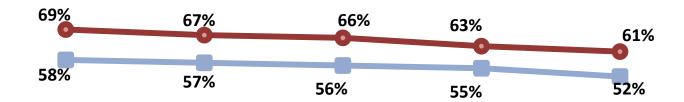


thought there was a **moderate-to-great risk in misusing prescription drugs** were 3X less likely to have ever misused prescription pain relievers.

Perception of access among high school to alcohol and marijuana

In 2017, over half of Maine's high school students believed that alcohol as well as marijuana was easy to obtain. Rates have decreased over time.







Source: MIYHS

Attribution Statements (Perception of Access)

According to the 2017 Maine Integrated Youth Health Survey, high students who:





thought **alcohol was NOT easy to obtain** were nearly 4x less likely drink alcohol within the past month.



thought **marijuana was NOT easy to obtain** were 9x less likely to use marijuana in the past 30 days.



thought **prescription drugs were NOT easy to get** were 4x less likely to have ever misused prescription pain relievers.

Attribution Statements (Perception of Access)

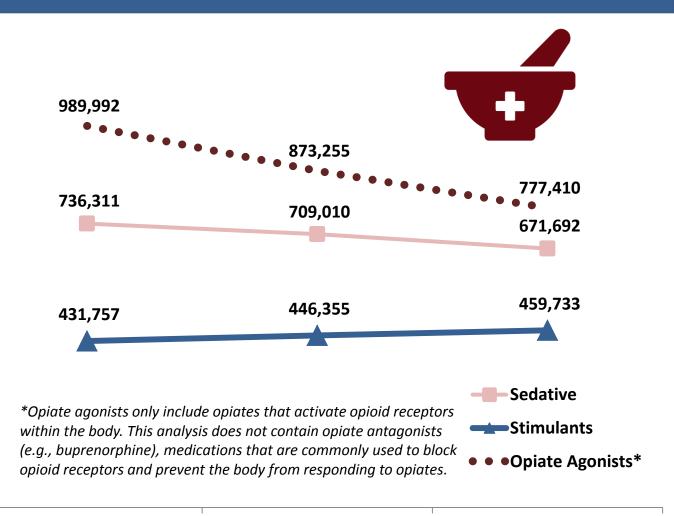
According to the 2017 Maine Integrated Youth Health Survey, high students who:



- Ithought cigarettes were NOT easy to obtain were 6x less likely to report smoking cigarettes in the past month.
- thought cocaine and amphetamines were NOT easily accessible were 8x less likely to have ever used cocaine.

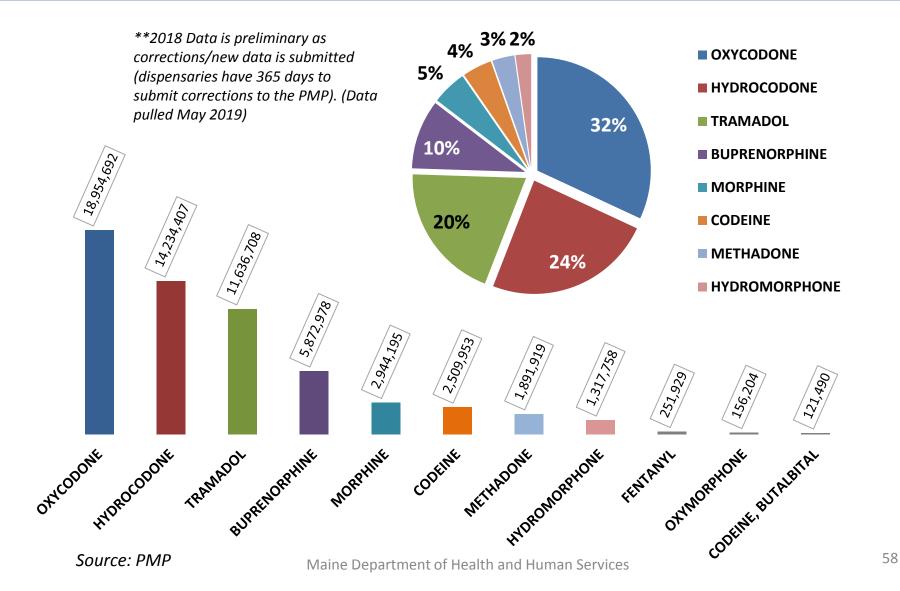
Number of prescriptions dispensed in Maine, by type*: 2016-2018

- Prescriptions for opiate agonists* decreased by 21% from 2016 to 2018
- Prescriptions for sedatives decreased by 9% from 2016 to 2018.
- Prescriptions filled for stimulants have increased by 6% since 2016.

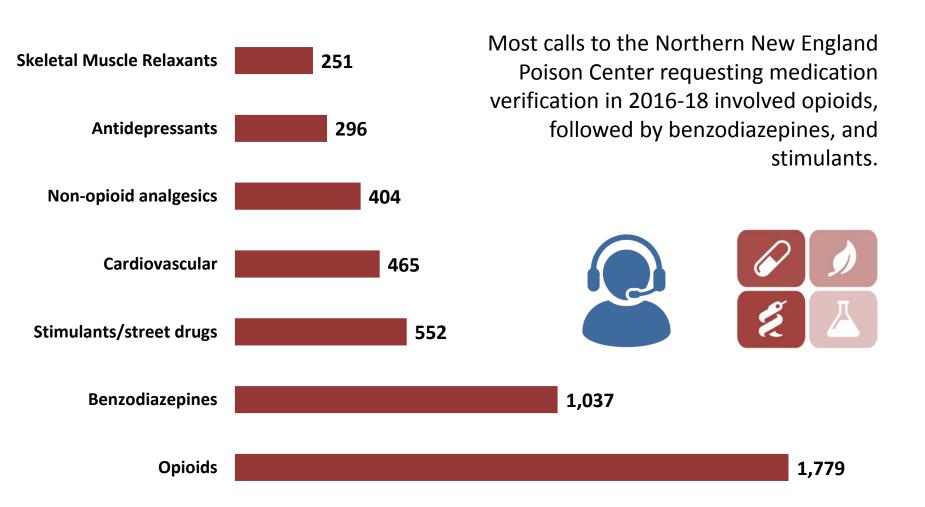


2016 2017 2018

Dispensed quantity of opiates in Maine, by type: 2018



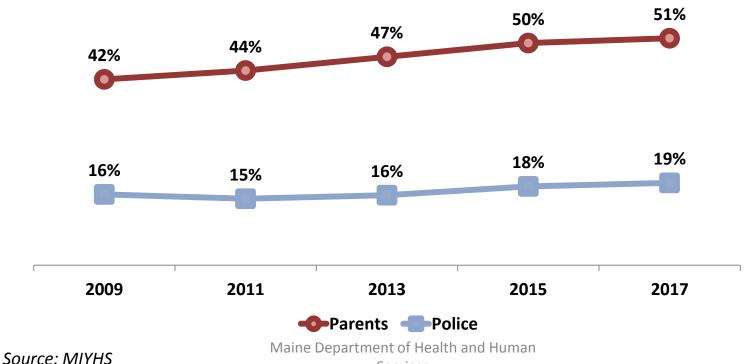
Substances most frequently requested for medication verification by non-law enforcement in Maine, by type: 2016–18



Maine high school students reporting they would be caught by parents or the police if they drank: 2009–2017



In 2017, half of Maine's high school students thought they would be caught by their parents for drinking alcohol while one in five felt they would be caught by the police. Rates of perceptions for getting caught by parents or police have been steadily increasing.



Attribution Statements (Perception of Enforcement)



According to the 2017 Maine Integrated Youth Health Survey, high students who:



believed they would be **caught by their parents for drinking alcohol** were 5x less likely to drink in the past month.

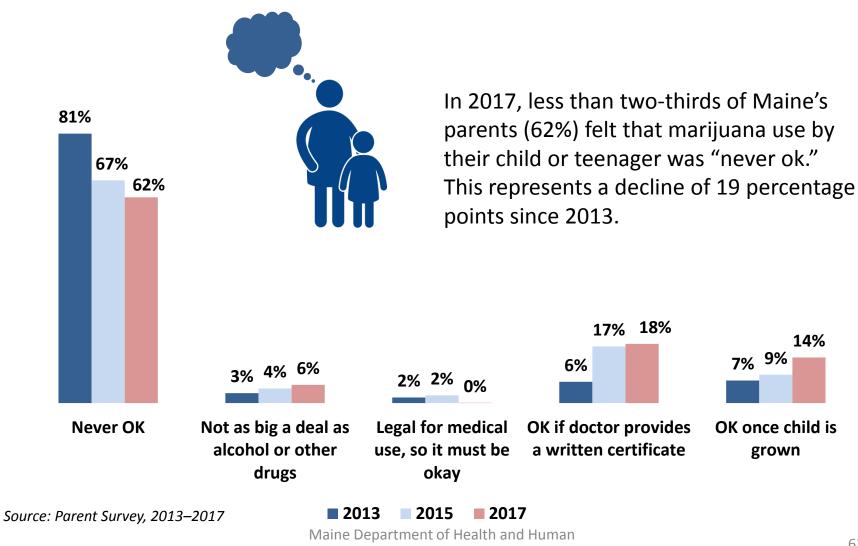


believed they would be **caught by the police for drinking alcohol** were 3x less likely to drink in the past month.



believed they would be **caught by the police for smoking marijuana** in their neighborhood were 5x less likely to smoke marijuana in the past month.

Parental attitudes in Maine regarding their teen using marijuana: 2013 – 2017

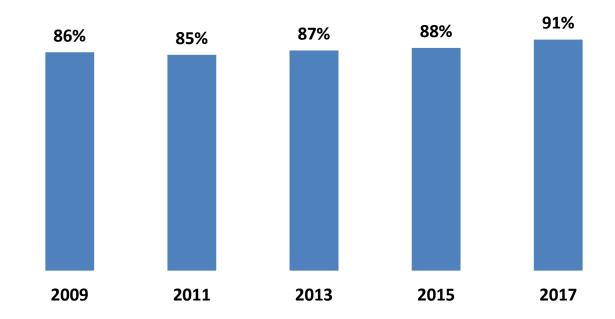


Services

Maine High school students who reported their family has clear rules about alcohol and drug use: 2009–2017

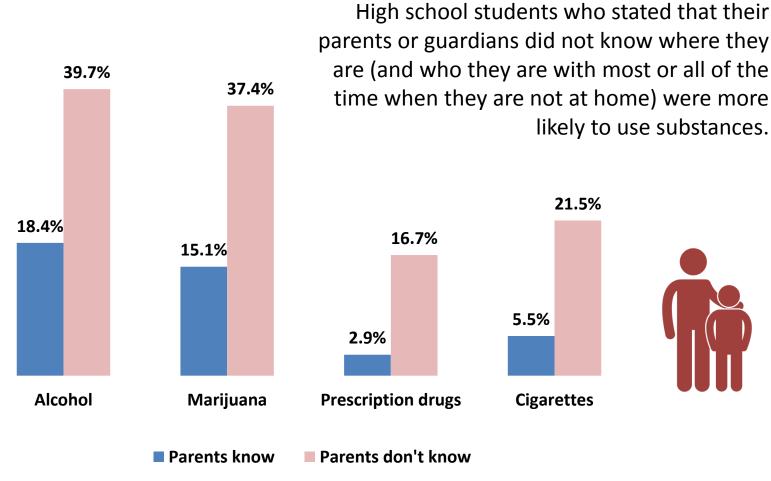


In 2017, nine in ten high school students reported that their family has clear rules around alcohol and drug use. Rates have been steadily increasing.



Source: MIYHS

Past month Maine high school substance use by whether or not their parents know where they are: 2017



Attribution Statements (Family Norms)

According to the 2017 Maine Integrated Youth Health Survey, high students who:





believe their **parents feel it is wrong for them to smoke marijuana** are 4x less likely to have used marijuana in the past month.

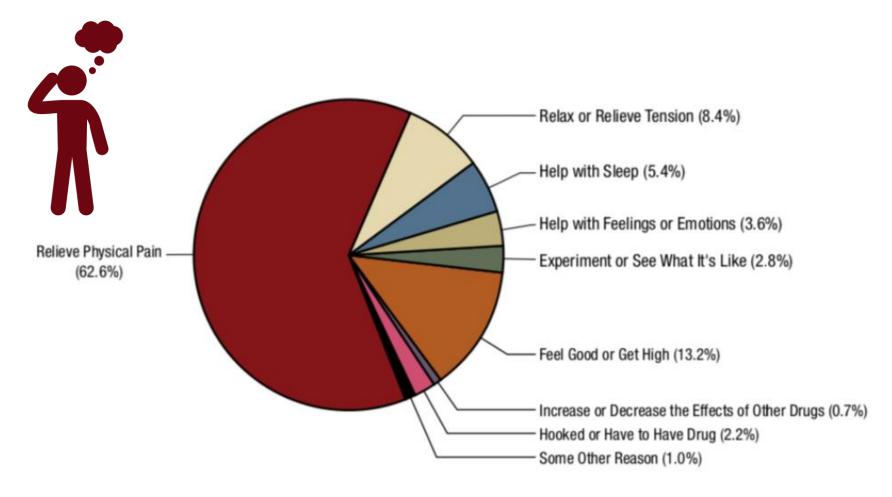


believe their **parents have clear rules about substance use** are half as likely as their peers to drink alcohol.



believe their **parents would feel it would be wrong for them to drink** were half as likely to drink alcohol in the past month.

Main reason for the most recent prescription pain reliever misuse among people age 12 or older (nationwide) who misused prescription pain relievers in the past year: 2017



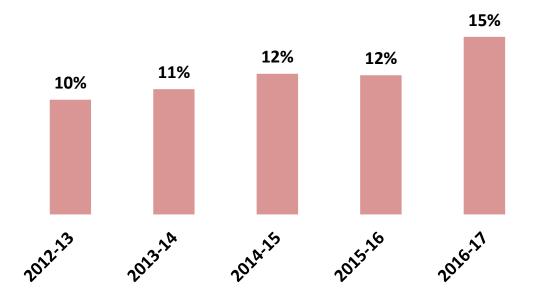
Source: National Survey on Drug Use and Health

Mental Health



Young adults (18 to 25) in Maine experiencing at least one major depressive episode* in the past year: 2013–13 to 2016–17

^{*}Major depressive episode (MDE) is defined as in the 4th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV), which specifies a period of at least two weeks when a person experienced a depressed mood or loss of interest or pleasure in daily activities and had a majority of specified depression symptoms.



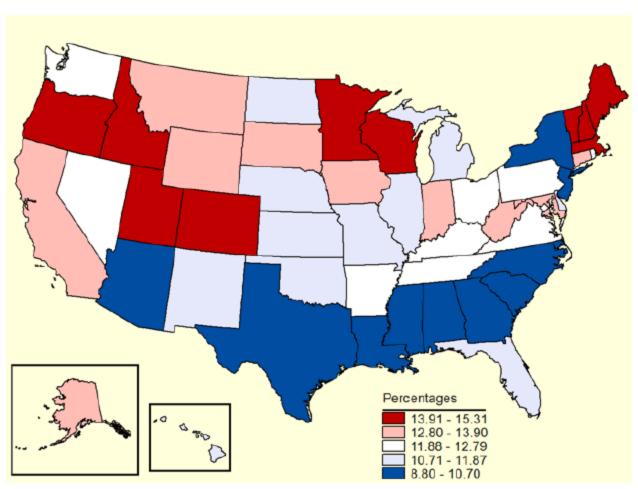
Major depressive episodes in Maine are most prevalent among young adults 18 to 25 (15%); rates have been increasing over the past several years.



■ 18-25 year olds

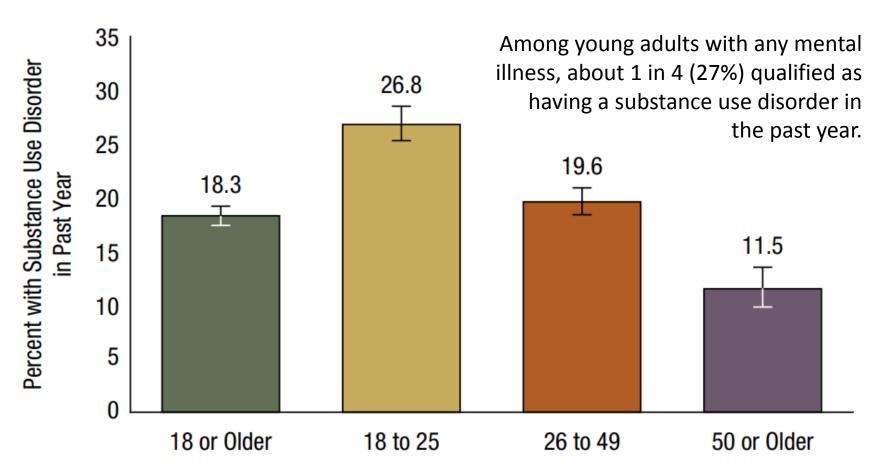
Source: NSDUH

Past year major depressive episodes among 18 to 25 year olds: 2016-17



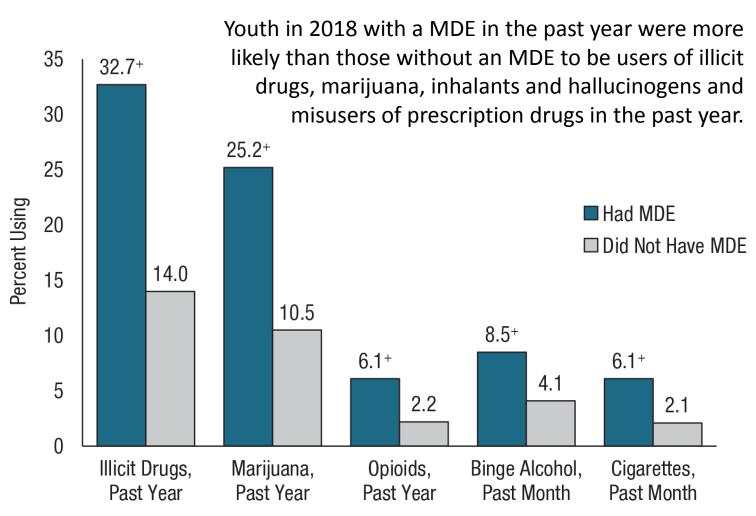
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH

Past year substance use disorder among adults (Nationwide) with any mental illness, by age group: 2017



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, NSDUH

Past year illicit drug use among youth 12 to 17 years old, by the past year major depressive episode (MDE) status <u>Nationwide</u>: 2018

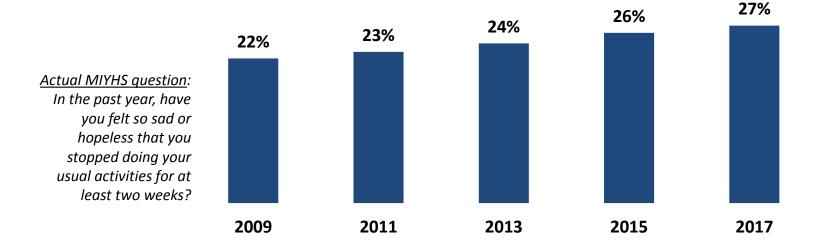


Source: NSDUH

Maine high school students who reported feeling sad or hopeless in the past year: 2009–2017



In 2017, more than one in four high school students reported feeling sad or helpless for at least two weeks in the past year. Rates have been steadily increasing over the past several years.



Source: MIYHS

Maine high school students who reported feeling sad or hopeless in the past year: 2017

Students who reported feeling hopeless or sad for at least two weeks within the past twelve months were:



- **2x** as likely to have used marijuana or to have engaged in binge drinking in the past 30 days, and
- **3x** as likely to have misused prescription drugs during the past 30 days.

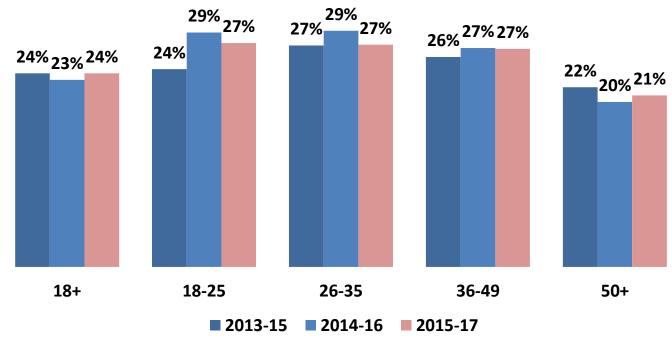
Actual MIYHS question: In the past year, have you felt so sad or hopeless that you stopped doing your usual activities for at least two weeks?

Source: MIYHS

Maine adults who have been told they have a depressive disorder by age group: 2013-15 to 2015-17*



In 2015-17, nearly a quarter of adults in Maine reported having ever been diagnosed with a depressive disorder. Rates did not vary much across age groups.

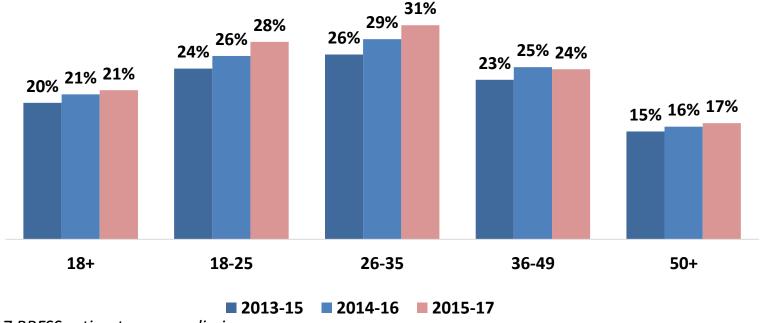


^{*2017} BRFSS estimates are preliminary. Maine Department of Health and Human Source: BRFSS

Maine adults who have been told they have an anxiety disorder by age group: 2013-15 to 2015-17*



In 2015–17, approximately one in five adults in Maine reported having ever been diagnosed with an anxiety disorder. Rates were highest among Mainers 26 to 35 and have been increasing among adult age groups.



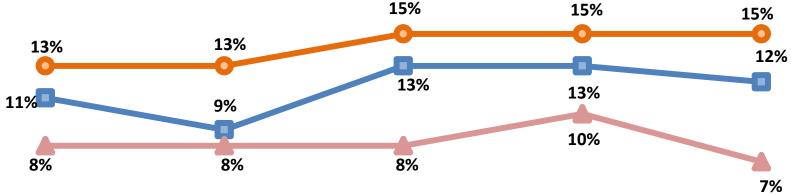
*2017 BRFSS estimates are preliminary.

Maine high school students who considered, planned, or attempted suicide in the past year: 2009–2017



Source: MIYHS

In 2017, an average of one in seven (15%) Maine high school students considered suicide and a little more than one in ten (12%) had actually made a plan for suicide





Number of 2-1-1 Maine referral calls, by service type: 2014–2018

Maine 👉 Referral calls for housing/shelter, substance 21 use, and mental health have observed increases from 2017 to 2018. 4,154 3,554 3,827 2,927 2,416 2,075 Gambling Housing/Shelter Mental Health Substance Abuse 138 80 2014 2015 2016 2017 2018

Summary

- Based on a multitude of public health surveillance sources, consequences arising from opioid use are showing signs of either slowing in pace or declining.
- As Maine continues to confront the opioid epidemic, it is crucial that we not lose sight of more traditional substances like alcohol, as well as emerging patterns such as stimulant use, marijuana use, and vaping.
- Priority prevention outcome measures such as past-month binge drinking and pastmonth tobacco use among youth in Maine continue to demonstrate progress in reducing rates of use.
- Parents appear to have gained an increased awareness and understanding of the dangers associated with risky alcohol use and habitual tobacco use among youth.
- Most teens and many parents still feel it is easy to access alcohol.
- The potential for diversion and availability of addictive prescription drugs are still a major concern.
- As prescriptions for pain relief have begun to stabilize and/or decrease, medicated assisted treatment prescriptions (e.g., buprenorphine) have increased substantially.

Summary cont.

- The changing landscape and proliferation of medical and recreational marijuana in our state also brings an increased social acceptance and potential for diversion.
- Methamphetamine, cocaine, and other potentially addictive and dangerous prescription drugs are an emerging concern in Maine.
- Maine and the Northeast states appear to have higher rates of binge drinking, illicit drug use, and major depressive episodes among young adults.
- Perception of harm from alcohol and drug use remains lower among young adults.
- Data conclude younger adults 18 to 35 are more prone to risky substance use and mental illness.
- Over the past several years, we have seen rates of depression among youth and young adults in Maine steadily increase.
- Data has revealed a relationship between mental health and substance use. Mental illness and higher rates of substance use are strongly associated.
- Research indicates that prevention strategies that foster certain protective factors (e.g., social and family support) may mitigate the risks of mental illness and substance use among youth. Maine Department of Health and Human Services

Appendix A (Data Sources)

- Behavioral Risk Factor Surveillance System (BRFSS)
- Maine Department of Public Safety (DPS), Bureau of Highway Safety (BHS), Maine Department of Transportation (MDOT)
- Maine Department of Public Safety (DPS), Uniform Crime Reports (UCR)
- Maine Department of Education (MDOE)
- Maine Drug Enforcement Agency (MDEA)
- Maine Emergency Medical Services (EMS)
- Maine Integrated Youth Health Survey (MIYHS)
- Maine Office of the Chief Medical Examiner (OCME)
- Marcella Sorg, Margaret Chase Smith Policy Center at the University of Maine
- National Survey on Drug Use and Health (NSDUH)
- Northern New England Poison Center (NNEPC)
- Office of Child and Family Services (OCFS), Maine Automated Child Welfare Information System (MACWIS)
- Office of Data, Research and Vital Statistics (ODRVS)
- CDC Parent Survey (administered by Pan Atlantic)
- Prescription Monitoring Program (PMP)
- Web Interactive Treatment System (WITS)
- 2-1-1 Maine



*For more information including a source description and source contact information please visit www.maineseow.com

Preferred Citation



Maine Department of Health and Human Services (DHHS), Maine State Epidemiological Outcomes Workgroup (SEOW). Substance Use Trends in Maine: Key Findings. 2019

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