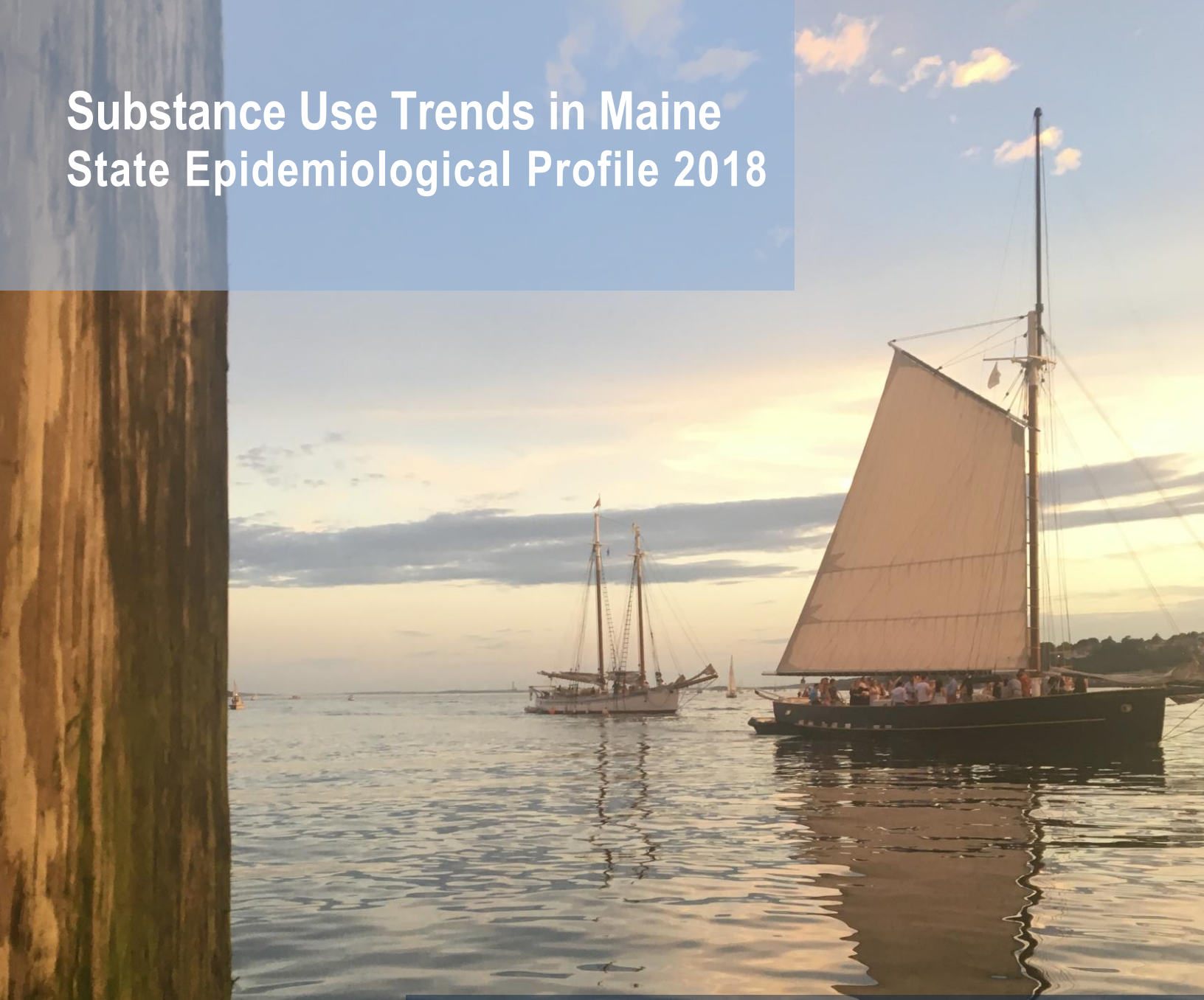
Substance Use Trends in Maine
State Epidemiological Profile 2018



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Maine Department of Health and Human Services
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State Epidemiological Profile 2018

THIS REPORT IS PRODUCED FOR
THE MAINE DEPARTMENT OF HEALTH AND HUMAN SERVICES
STATE EPIDEMIOLOGICAL OUTCOMES WORKGROUP (SEOW)
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Executive Summary

This report takes into account the objectives of the Maine Department of Health and Human Services (DHHS), Maine Center of Disease Control and Prevention (CDC): to identify substance use patterns in defined geographical areas, establish substance use trends, detect emerging substances, and provide information for policy development and program planning. It also highlights all the prevention priorities identified in the Maine CDC strategic prevention plan: underage drinking, high-risk drinking among 18–25-year olds, misuse of prescription drugs among 18–25-year olds, and marijuana use in 12–25-year olds; it also monitors the progress being made to address these priorities. This report includes data available through the 2017 calendar year. Key findings of this report are highlighted below.

Consumption of Substances

- In 2017, less than one in four high school students reported consuming alcohol in the past month. The rate of consumption has been decreasing steadily since 2009.
- In 2017, among high school students who reported drinking in the past month, approximately one-third reported they had five or more drinks in a row at least once in the past month. Males appear more likely than females to participate in this behavior, as are older students relative to younger students.
- Among adults 18 to 20, there was a slight increase of one percentage point in alcohol use in the past month from 2013-15 (40%) to 2014-16 (41%) and a four percentage point decrease in underage adults at risk for heavy drinking from 2013-15 (8%) to 2014-16 (4%). Rates for past month binge drinking have remained relatively stable (24%).
- In 2015–16, 18 to 25 year-olds appeared to be more at risk from heavy alcohol use, with about one in ten reporting that they consumed at least one alcoholic drink per day in the past 30 days. Rates do not vary widely among age groups but they have increased slightly.
- The highest binge drinking rates continue to be observed among the 18 to 25-year-olds and 26 to 35-year-olds with about one in three reporting binge drinking within the past month. Rates among all adult age groups have remained relatively stable.
- In 2015-16, 65,000 (6%) Mainers 12 and older qualified as having an alcohol use disorder. A little over one in ten (12%) eighteen to 25 year olds qualified as having an alcohol disorder in 2015–16; this is consistent with recent years and is a decrease since 2008–09.
- The use of tobacco products among high school students continues to steadily decline. In 2017, less than one in ten students reported having smoked a cigarette within the past month. About one in three high school students reported having ever used a vaping product and about one in seven reported using tobacco in the past month. Among students who had ever used a vaping product, half reported that the last time they had

used it was just flavoring, a quarter reported it to be tobacco based oil, one in eight reported it was Marijuana based oil, and eight percent were unsure.

- During 2015-16, one in five Mainers 18 and older reported being current cigarette smokers. Adults between the ages of 26 and 35 were the most likely age group to smoke cigarettes, with nearly a third (31%) being current smokers. Rates of cigarette use among young adults appear to be steadily decreasing for the past several years.
- In 2017, about one in five high school students reported using marijuana within the past month; rates have decreased slightly in recent years. The highest rates of marijuana use among adults were observed among 18 to 25 year olds (31%). Marijuana use rates among adult Mainers have been steadily increasing over the past several years.
- The percentage of high school students reporting that they have misused a prescription medication in the past month increased slightly from 2015 (5%) to 2017 (6%). In 2017, about one in ten high school students reported to have misused a prescription pain medication during their lifetime.
- Non-medical use of prescription pain relievers is more likely among young adults between the ages of 18 and 25 compared to adults age 26 and older. Seven percent of 18 to 25 year olds reported having misused pain relievers in the past year.
- During 2014-16, the highest rates of lifetime prescription drug misuse were observed among adults between the ages of 18 and 25; nearly one in ten (9%) reported misusing prescription drugs within their lifetime. In recent years, rates have remained stable.
- In 2015–16, there was an annual average of 12,000 Mainers 12 and older who used marijuana for the first time in their life. Five thousand initiates were between 12 and 17 and 5,000 were between 18 and 25. A notable increase was observed among 26 and older initiates from 2014-15 to 2015-16.
- In 2015–16, six percent of 18 to 25 year olds, three percent of youth 12 to 17 year olds, and two percent of those 26 and older reported having used illicit drugs other than marijuana in the past year. Rates among 18 to 25 year olds have declined slightly since 2011–12.
- In 2015-16, about six percent of 18 to 25 year olds and one percent of Mainers 26 and older reported they had used cocaine at least once in the past year. Rates among 18 to 25 year olds have increased slightly in recent years.
- In 2017, seven percent of high school students reported ever using inhalants, five percent reported ever using cocaine, and three percent reported ever using heroin. Lifetime rates for inhalant use continue to decrease, but the lifetime use rates of cocaine and heroin have remained unchanged since 2015.
- In 2015-16, .48 percent of Mainers 12 and older (approximately 5,000 residents) self-reported that they had used heroin within the past year. The highest prevalence was observed among 18 to 25 year olds, reporting a rate of 1.15%.

- In 2015, nearly one in seven pregnant women reported smoking cigarettes in their last trimester, and six percent reported consuming any alcohol. Both cigarette as well as alcohol use rates observed decreased from 2013 to 2015. 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.

Consequences Resulting from Substance Use and Misuse

- In 2017, there were 952 reports to Child Protective Services regarding infants born exposed to substances (drug affected babies); this accounted for about eight percent of the live births in Maine had substance exposed reports. After steadily increasing from 2013 to 2016, the number of drug affected baby reports declined by seven percent from 2016 to 2017.
- Total OUI (Operating under the influence) arrests have remained stable over the past several years; whereas arrests pertaining to violating liquor laws (excluding OUIs) have decreased substantially. Liquor law violations among those under 21 have decreased by half from 2012 to 2016 while adult OUI arrests among 30 to 39 year olds have increased by 20 percent from 2014 to 2016. Twenty one to 29 year olds continue to have the highest number of annual OUIs.
- In 2016, about eight out of ten drug-related offenses were for possession rather than sale and manufacturing. From 2015 to 2016, adult and juvenile arrests related to drugs declined by nine percent. In 2016, nearly six out of ten drug offense arrests for possession were for marijuana. While rates of arrest for possession related to marijuana and synthetic narcotics have remained consistent, the percent of arrests for opium related crimes decreased by nine percent and arrests for other dangerous non-narcotics increased by five percent from 2015 to 2016.
- In 2017, the majority of Maine Drug Enforcement Agency (MDEA) trafficking investigations involved heroin, followed by cocaine, and other opiates. From 2016 to 2017, MDEA trafficking investigations related to heroin decreased by a third, investigations related to other opiates decreased by a quarter, and investigations involving cocaine increased by a third. Manufacturer investigations related to methamphetamine decreased by more than half from 2016 to 2017.
- Pharmacy robberies have steadily decreased from 2014 (20 robberies) to 2017 (2 robberies).
- While the overall number of motor vehicle crashes has increased by 15 percent from 2013 to 2017, the proportion of alcohol and/or drug related motor vehicle crashes has remained stable at four percent.
- In 2017, drivers between the ages of 21 and 24 had the highest rate of alcohol/drug-related crash rates, followed by drivers between the ages of 25 to 34 years old. In recent years, 25 to 34 year olds as well as 16 to 20 year olds observed increased rates involving

impaired driving crashes. Although not explicitly shown, 16 to 20 year olds as well as 25 to 34 year olds experienced increases of at least 25 percent in the number of impaired crashes from 2013 to 2017. Furthermore, although not shown, males were almost three times as likely to be the driver in an impaired crash in 2017.

- In 2016, nearly one in four (22%) fatal motor vehicle crashes involved alcohol and/or drugs. While there were more fatal crashes recorded, 2017 had the smallest percentage related to drug/alcohol impairment over the last five years.
- In 2015-17, the rates of alcohol/drug-related motor vehicle crash fatalities were highest among 21 to 24 year olds, followed by 25 to 34 year olds. Following a decline in past years, recent rates of alcohol/drug related fatalities have increased across all age ranges.
- EMS responses related to drugs and/or alcohol have been increasing for the past several years. From 2013 to 2017, drug/medication overdoses increased by 62 percent while those related to alcohol overdose increased by 43 percent. Rates of drug/medication overdose responses were disproportionately highest among Mainers 26 to 35 while those related to alcohol overdose were highest among 18 to 25 year olds. The number of 26 to 35 year olds involved in an EMS response related to drugs/medication more than doubled from 2013 to 2017.
- In 2017, there were a total of 418 overdose deaths due to substance use in Maine. After more than doubling from 2013 to 2016, the rate of change has slowed. From 2016 to 2017, overall overdose deaths increased by eleven percent. In 2017, seven out of ten overdose deaths were related to illicit drugs while six out of ten percent involved a pharmaceutical drug. It is important to note that deaths involving pharmaceuticals and illicit drugs are not mutually exclusive.
- Non-pharmaceutical fentanyl continues to play a major role in drug-related deaths comprising about a third of total deaths, whereas the influence of heroin, benzodiazepine, and methadone began to decline in 2017. However, alcohol, benzodiazepines, cocaine and heroin still made up a large proportion of drug-related deaths in 2017.
- All age groups, with the exception of 18 to 25 year olds, observed an increase in drug-related deaths per 100,000 people in 2017. Adults 26 to 35 years of age continue to report the highest rates. Substance use and overdose-related deaths per 100,000 for 26 to 35 year olds have nearly quadrupled since 2013.
- In 2017, cardiovascular diseases and Ischemic cerebrovascular (stroke) diseases were more prevalent among Mainers than alcoholic cirrhosis diseases. Deaths related to alcoholic cirrhosis were nearly twice as likely among men as women. Rates have remained relatively stable over the past several years.
- In Maine, suicide rates are nearly 13 times higher than homicide rates; the rate of suicides has increased by 20 percent from 2016 and 2017. Suicides are nearly four times as likely among men compared to women, and most prevalent among adults 50 to 64

years old. In addition, deaths due to homicide are more than twice as likely among men; rates are highest among younger adults between the ages of 26 to 35.

Factors Contributing to Substance Use and Misuse

- Nearly two out of three high school students continue to think it would be easy to obtain alcohol; this rate has steadily declined from 2009 (69%) to 2017 (61%).
- Social access continues to be a primary way that underage youth obtain alcohol. Of those students who obtained alcohol, nearly two out of five reported that someone had given it to them and the proportion of those who were given alcohol has been growing steadily.
- Among parents of middle and high school students, more than a third (37%) felt it was possible for their teen to access alcohol they had purchased without their knowledge. This is a decrease of thirteen points from 2015. This decrease also coincides with a ten percentage point increase in parents who report not keeping alcohol in the house.
- In 2017, about one in five parents felt that, at home, their child would be able to access prescription medications that were not prescribed to their teen, without permission. This is a decrease from 2015 when nearly a third of parents felt their child could access prescriptions. This decline in the perception of accessibility coincides with a twelve point increase of parents reporting that they do not keep prescriptions in the home.
- More than half of high school students believed that marijuana is easy to obtain. This rate has steadily declined from 2009 to 2017.
- The proportion of high school students who were sold, offered or given an illegal drug on school property has remained the same from 2015 to 2017 (20%).
- From 2015 to 2017, the number of prescriptions prescribed for opiate agonists (excluding partial agonists such as buprenorphine) decreased by twenty three percent while the number of prescriptions for sedatives decreased by fifteen percent, and prescriptions dispensed for stimulants increased by two percent. In 2017, just over half of the all narcotic doses (agonists as well as partial agonists) dispensed contained the primary active ingredients of either oxycodone or hydrocodone.
- Most calls to Northern New England Poison Center requesting medication verification in 2015-17 involved opioids, followed by benzodiazepines, and stimulants.
- Six out of ten high school students think there is moderate to great risk of harm from drinking alcohol regularly (one to two drinks every day). This perception of harm has remained relatively stable from 2009 to 2017.
- Four out of five high school students think binge drinking once or twice a week is harmful. Perception of harm from binge drinking remains much lower among adults. More than seven out of ten young adults (18 to 25) thought that binge drinking a few times a week was not risky.

- In 2017, about one-third of high school students felt smoking marijuana once or twice a week was risky. In 2015-16, less than one in ten 18 to 25 year olds perceived smoking marijuana at least once per month as risky. Perceptions of harm regarding marijuana use have decreased among both youth and adults over the past several years.
- In 2017, the vast majority of high school students (87%) reported that it would be harmful if they took a prescription drug that was not prescribed to them. Female students were more likely to perceive a risk than males. Rates have been stable for the past several years.
- In 2015-16, more than eight out of ten adults reported that trying heroin once or twice was of moderate to great risk. However, youth 12 to 17 were much less likely to perceive a risk. Only about six out of ten 12 to 17 year olds thought there was great risk from trying heroin once or twice.
- In 2017, half of high school students thought they would be caught by their parents for drinking alcohol while only about one in five felt they would be caught by the police. Perceptions of getting caught by parents or police have increased over the past several years.
- In 2017, about one quarter of high school students thought they would be caught by police for smoking marijuana. Therefore, the majority of high school students were not worried about being caught by the police for smoking marijuana. Rates have remained relatively stable over the past several years.
- High school students largely believe that their parents and adults in their community think it would be wrong for them to drink alcohol regularly. In 2017, more than nine out of ten students perceived that their parents would think it was wrong for them to use alcohol. This was compared to three out of four students who felt that adults in their community would think it was wrong. The perception of disapproval remained stable in both parents and adults in the community from 2013 to 2017.
- Although high school students generally believe that their parents think it would be wrong for them to smoke marijuana; perceptions of disapproval have slowly decreased from 2009 to 2017. About one in five high school students felt their parents would not disapprove.
- The percentage of parents who felt it was never okay for their teen to use marijuana has substantially decreased from 2013 (81%) to 2017 (62%). In 2017, about one in six parents felt it would be okay if their teen used marijuana as long as they had a written certificate from a doctor or if the child is grown.
- In 2017, nine in ten high school students reported that their family has clear rules around alcohol and drug use. However, one in ten students still did not think their family had clear rules about drugs and alcohol use and were therefore at higher risk for underage alcohol use than their peers. Rates of perception of clear rules around drug use have been steadily increasing since 2011.

- More than a third (37%) of parents believe that their child would be able to access alcohol they had purchased without their knowledge. This is a substantial decline from 2017 (50%). In addition, one in seven parents of 7th to 9th graders reported that they do not keep alcohol in the house.
- The prevalence of substance use, suicide ideation and feelings of sadness and helplessness are higher among high school students who report certain risk factors. Children are much more likely to report feelings of sadness and helplessness if they have not had eight hours or more of sleep, report three or more adverse childhood experiences or feel that they matter.

Mental Health, Suicide and Co-occurring Disorders

- There is a downward trend of mental illness in all age groups. Adults experiencing at least one major depressive disorder in the past year remained the same from 2014-15 to 2015-16. Nearly one in five adults in Maine reported experiencing any mental illness in the past year with adults 18 to 25 experiencing the highest rate (22%).
- In 2014-16, nearly one in four adults in Maine reported having ever been diagnosed with depression compared to one in five reporting to have been diagnosed with anxiety. Rates of depression among 18 to 25 year olds have been steadily increasing. Adults ages 26 to 35 reported the highest rates of anxiety. However, nearly a third of 18 to 25 year-olds and 26 to 35 year-olds report having been told they have a depressive disorder.
- The percentage of Maine high school students who reported feeling sad or helpless for at least two weeks in the past year steadily increased from 22 percent in 2009 to 27 percent in 2017.
- 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; rates have remained relatively stable. Students who had reported they had attempted suicide decreased from 2015 (10%) to 2017 (7%).
- In 2017, the percentage of high school students who had consumed alcohol in the past month and also had serious thoughts of suicide within the past year continues to be nearly one in four (24%); this is more than double the rate compared to students who did not drink.
- In 2016, over half (51%) of all substance use treatment admissions also involved a mental health disorder.
- 2-1-1 Maine referral calls related to mental health services have outnumbered calls related to shelter/housing as well as substance use for the past several years. Referral calls for mental health, housing/shelter, and substance use have observed steady declines in recent years while calls related to gambling have remained relatively stable.

Treatment Admissions for Substance Use

- More than one in three substance use treatment admissions listed alcohol as the primary reason for treatment in 2017, followed by heroin/morphine, and other opiates/synthetics. In 2017, nearly half (49%) of primary admissions were related to either opioids or opiates which is consistent with previous years. The proportion of primary admissions related to synthetic opiates continues to decrease as primary admissions involving heroin/morphine continue to increase.
- Out of the admissions that listed a secondary substance, nearly one in three was related to marijuana and about one in five was related to synthetic opiates. Rates related to synthetic opiates have steadily decreased while rates involving cocaine/crack have gradually increased.
- In 2017, nearly 80 percent of pregnant substance use treatment admissions were related to opioids/opiates. In recent years, the percentage of pregnant treatment admissions primarily due to other synthetic opioids has steadily declined while the proportion related to heroin has increased.
- The proportion of pregnant women who were admitted for treatment primarily due to other synthetic opiates has been declining since 2013, from 57 percent to 39 percent. Over the same period, the proportion of pregnant women admitted for heroin increased from 22 percent in 2013 to 43 percent in 2017.

Introduction

Demographics of Maine

The state of Maine had an estimated population of 1,335,907 people in 2017. With 19 percent of the population being 65 years old and older, a higher proportion than the overall US population (16%), Maine is considered an "aging" state. However, 19 percent of the state's population is also under the age of 18 years old, a lower proportion than the average for the United States (23%). According to the 2017 U.S. Census estimate, 95 percent of Maine's population is White, non-Hispanic, followed by 1.6 percent who are Hispanic, 1.5 percent who are Black, 1.2 percent who are Asian, and 0.7 percent who are American Indian. There are five Native American tribal communities in Maine: the Penobscot, the Passamaquoddy (Pleasant Point and Indian Township), the Maliseet and the Micmac, but their numbers are likely underreported on the census. Washington, Androscoggin, and Cumberland are the most racially diverse counties, each home to communities made up of people from many ethnic backgrounds and national origins; this is due in large part to refugee resettlement programs located within these counties.

Maine has four metropolitan areas throughout the state, numerous small towns and communities, and vast areas that are virtually unpopulated. While the average number of people per square mile was 43.1 in 2017, this greatly varies by county. The most densely populated counties were Cumberland with 337.2 people per square mile and Androscoggin with 230.2 persons per square mile, while the least densely populated counties were Piscataquis with 4.4, Aroostook with 10.8 and Washington with 12.8 persons per square mile.

Maine is also a diverse state economically. The median household income was $50,826 for the period of 2012-16, lower than the United States median income of $55,322. This varies greatly by location within the state. The southern coastal counties, such as Cumberland (where most of the population is located) have much higher median incomes than the northern, rural, and less densely populated counties, such as Piscataquis and Washington. At $61,902, Cumberland has the highest median household income and is one of only two Maine counties where the median income is higher than the national median income (the other is York at $59,132). At the other end of this range, Piscataquis County has the lowest median income of $36,938. Aroostook County has the second lowest median income at $38,087 a year.

It is within the context of these demographic characteristics that substance use in Maine must be examined.

Purpose of this Report

This report takes into account the primary objectives to identify substance use patterns in defined geographical areas, examine substance use trends, detect emerging substance use, and provide information for policy development and program planning. It also highlights prevention priorities such as underage drinking, high-risk drinking among 18–25 year olds, misuse of prescription drugs among 12–25 year olds, marijuana use in 12–25 year olds, and slowing the spread of methamphetamine use; it also monitors the progress being made to address these priorities.

This report includes data available through June 2018. Older and unchanged data are included when more recent data were not available. Five major types of indicators are included: self-reported substance consumption, consequences related to substance use, factors contributing to substance use, indicators about mental health and substance use, and treatment admissions. For additional data and resources please visit the Maine State Epidemiological Outcomes Workgroup (SEOW) data dashboard at www.MaineSEOW.com.

Organization of the Report

This report is used by a variety of people for many reasons. Some need a snapshot of the current status of a particular substance, while others are looking for longer-term trends. Still others may be seeking information on a particular population. Sometimes these points of view do not require new data, but rather special comparisons or presentations. To accommodate these diverse needs, the report is organized as follows:

- The **Executive Summary** provides the reader with a brief overview of the larger report. It includes statistics and findings, but does not contain graphical illustrations, long-term trends or comparative findings.
- The section **Data Sources, Indicators and Selection Criteria** describes the data sources and indicators that are included in the profile, as well as the process used to determine which indicators should be included in the profile.
- The **Full Report** presents the reader with more in-depth comparative and trend analyses for indicators that are critical to substance use and is broken into five major sections.
    - *Consumption* trends and patterns among some of the most used substances, in order to provide the reader a deeper understanding of those substances.
    - *Consequences* related to substance use, such as traffic accidents and poisonings.
    - *Factors* that contribute to substance use overall, such as norms and perceptions.
    - *Mental Health* indicators and how they relate to substance use.
    - Recent trends in *substance use treatment* admissions.

Data Sources, Indicators and Selection Criteria

This report includes data that were gathered from a number of sources. A detailed description of each source is provided below, consisting of information about the data included in each source, the strengths and weaknesses, and retrieval or contact information. This report includes data available through the 2017 calendar year.

A number of criteria are used annually to determine what information should be included in this report. A small SEOW workgroup applies these standards to each indicator and selects the best possible data source (or sources) to be included. Indicators that are determined to be redundant, no longer useful, or too confusing are updated in order to provide the reader with a streamlined and more comprehensive report. Each criterion is defined below:

- **Relevance:** To be included, each of the indicators must be directly related to substance use. The indirect effects of substance use reach throughout society in such areas as crime, health and education. However, this report limits indicators to those which can be directly related to substance use (*e.g.*, ambulance responses in which substance use was recorded as a factor, rather than generating an estimate of the percentage of all responses that could be related to substance use).
- **Timeliness:** Each of the indicators includes the most updated data available from the source. The timeliest data included are from the previous six months or year, but some data as old as three years may be included; this happens when the most recently collected data from the source are not yet available due to the timing of data collection and the publication of this report. The sources that reflect older information are included when they meet other important criteria. For example, the National Survey on Drug Use and Health, for which the most recent data available are from 2015-16, provides data that are highly relevant and reliable.
- **Availability:** For an indicator to be included in this report, data regarding its use must be available from a reliable source. That is, a question must be asked on a representative survey or an office must record incidents, and the source must be willing to release the results either to the general population, or the SEOW and/or its members. As stated above, the most recent data available from those sources are included in this report.
- **Reliability:** In order to include trended data in this report, the data available for each indicator must be reliable and comparable from year to year. They need to reflect the same indicator in the same manner for the same population each year.
- **Trending:** Trends are included in this survey for indicators in which reliable and comparable data are available from multiple years. In some instances, trending is limited or not possible due to limited availability of the data, changes in the way in which the data was collected or changes in the survey question. For example, questions regarding the use of specific substances have been included and discontinued in use surveys as those substances have become more or less of a concern. Therefore, trending is only available for their use in the years those questions were included in the survey.

As described previously, there are multiple purposes for this report. One is to provide a snapshot of the most recent data regarding substance use, while another is to examine trends over time. Therefore, each indicator may have multiple sources of data that are included. While each indicator provides a unique and important perspective on substance use in Maine, none should individually be interpreted as providing a full picture of trends related to substance use in Maine. That is to say, the percentages and figures from one data source do not always align with the data and percentages from a similar source. Older data are often included to examine an indicator among a specific population or to identify trends over time. When discussing rates of prevalence, however, the user should rely upon the most recent data source available.

Description of Data Sources

Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS is a national survey administered on an ongoing basis by the National Centers for Disease Control and Prevention (CDC) to adults in all 50 states, several districts and territories. The instrument collects data on adult risk behaviors, including alcohol and drug use. The most recent data available are from 2016. Due to methodological changes in weighting and sampling, data prior to 2011 cannot be trended with more current data. In some instances, due to smaller sample sizes, multiple years of data are combined in efforts to produce more reliable estimates. **Contact:** Melissa Damren, Maine BRFSS Coordinator; melissa.damren@maine.gov; (207) 287-1420.

Maine Department of Public Safety (DPS), Bureau of Highway Safety (BHS), Maine Department of Transportation (MDOT). The Bureau of Highway Safety is responsible for tracking all fatalities that occur on Maine's highways and reporting this information through the Fatal Analysis Reporting System (FARS). The data represented provides information on highway crashes and fatalities. Much of this information is gathered from the FARS system, which records data on fatal crashes in Maine for input into a larger national record-keeping system of statistical data. FARS data is also used by BHS and the Maine State Police to analyze enforcement priorities and schedules. Impaired driving is one of the most serious traffic risks facing the nation, killing thousands every year. **Contact:** For FARS data/fatal crashes, contact Lauren Stewart, Highway Safety Director; lauren.v.stewart@maine.gov; (207) 626-3841. For all other crash data, contact the Maine DOT; (207) 624-3000.

Maine Department of Public Safety (DPS), Uniform Crime Reports (UCR). UCR data includes drug and alcohol arrests. Drug arrests include sale and manufacturing as well as possession of illegal substances. Liquor arrests include all liquor law violations. OUI arrests are arrests for operating a motor vehicle under the influence of a controlled substance. DPS data are now available from 2016. Arrest data may reflect differences in resources or focus of law enforcement efforts, so may not be directly comparable from year to year.
Retrieval: http://www.maine.gov/dps/cim/crime_in_maine/cim.htm

For UCR statistical purposes, “arrests” also include those persons cited or summonsed for criminal acts in lieu of actual physical custody. These forms categorize the arrests by offense classification (both Part I and Part II crimes), and by age, sex and race. The same individual may be arrested several times over a period of time; each separate arrest is counted. A person may be arrested on several charges at one time; only one arrest is counted and is listed under the most serious charge. For UCR purposes, a juvenile is counted as “arrested” when the circumstances are such that if he or she were an adult, an arrest would result; in fact, there may not have been a formal charge.

Maine Drug Enforcement Agency (MDEA). The MDEA through its regional multi-jurisdictional task forces is the lead state agency in confronting drug trafficking crime. The data included in this report represents those arrested for a drug offense but does not indicate what other drug(s) may have been seized. For example, a person may be arrested for the sale of cocaine but also be in possession of oxycodone and marijuana. It is important to note that arrests and multi-jurisdictional drug enforcement are resource-dependent; such funds fluctuate from year to year, and must be reallocated to combat highest priority threats. **Contact:** Roy E. McKinney, Director; roy.e.mckinney@maine.gov; (207) 626-3852.

Maine Emergency Medical Services (EMS). Maine EMS is a bureau within the Maine Department of Public Safety (DPS) and is responsible for the coordination and integration of all state activities concerning Emergency Medical Services and the overall planning, evaluation, coordination, facilitation and regulation of EMS systems. EMS collects data statewide from the 272 licensed ambulance and non-transporting services. It is mandated that services submit an electronic patient care report to Maine EMS within one business day of patient contact. Data are compiled upon request. **Contact:** Timothy Nangle, Maine Emergency Medical Services; timothy.e.nangle@maine.gov; (207) 626-3860.

Maine Integrated Youth Health Survey (MIYHS). The MIYHS is a statewide survey administered biennially since 2009 through a collaborative partnership between Maine Department of Health and Human Services and Maine Department of Education. Its purpose is to quantify health-related behaviors and attitudes of 5th through 12th graders by direct student survey. The survey collects information on student substance use, risk factors related to substance use, as well as consequences, perceptions and social risk factors related to substances, and collects information on many other health factors. MIYHS defines binge-drinking as consuming five or more drinks in a row. As of the date of this report, the most recent data available are from 2015. **Contact:** Reid Plimpton, Center for Disease Control and Prevention reid.plimpton@maine.gov; (207) 287-5084

Maine Office of the Chief Medical Examiner. The Maine Office of the Chief Medical Examiner investigates all deaths associated with drug overdose. Analysis of these cases is currently funded by the Office of Attorney General. The death data are reported on a quarterly and an annual basis after cases are finalized, and released through the Attorney General's Office. Drug categories reported to SEOW include methadone, cocaine, benzodiazepines, oxycodone, fentanyl, and heroin/morphine. **Contact**: Dr. Marcella Sorg, Director, Rural Drug & Alcohol

Research Program, Margaret Chase Smith Policy Center, University of Maine mhsorg@maine.edu.

National Survey on Drug Use and Health (NSDUH). The NSDUH is a national survey administered annually by the Substance Abuse and Mental Health Services Administration (SAMHSA) to youth grades 6 through 12 and adults ages 18 and older. The instrument collects information on substance use and health at the national, regional and state levels. The advantage of NSDUH is that it allows comparisons to be made across the lifespan (that is, ages 12 and up). However, NSDUH is not as current as other data sources; as of this report, data at the state level are available from 2015–16.

Older data are included for trending and comparative purposes. In 2016, a number of changes were made to the NSDUH questionnaire and data collection procedures resulting in the establishment of a new baseline for a number of measures. Therefore, estimates for several measures included in prior reports are not available. For details, see Section A of the "20152016 National Survey on Drug Use and Health: Guide to State Tables and Summary of Small Area Estimation Methodology" at https://www.samhsa.gov/data/report/2015-2016-nsduhguide-state-tables-and-summary-sae-methodology

NSDUH defines Illicit Drugs as marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or any prescription-type psychotherapeutic used non-medically; Binge Alcohol Use as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least one day in the past 30 days; Dependence or abuse based on definitions found in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V); and Serious Mental Illness (SMI) as a diagnosable mental, behavioral, or emotional disorder that met the criteria found in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V) and resulted in functional impairment that substantially interfered with or limited one or more major life activities. Retrieval: https://www.samhsa.gov/data/report/2016-national-survey-drug-use-and-healthmethodological-summary-and-definitions

Northern New England Poison Center (NNEPC). The Northern New England Poison Center provides services to Maine, New Hampshire, and Vermont. A poisoning case represents a single individual's contact with a potentially toxic substance. Intentional poisoning includes those related to substance use, suicide and misuse. Data include the number of confirmed cases where exposures are judged to be substance use-related (*i.e.*, an individual's attempt to get high). NNEPC collects detailed data on specific substances involved in poisonings, including the categories of stimulants/street drugs, alcohol, opioids, asthma/cold and cough, benzodiazepines, antidepressants, and pharmaceuticals, as well as other substances.

The category of stimulants/street drugs includes marijuana and other cannabis, amphetamine and amphetamine-like substances, cocaine (salt and crack), amphetamine/dextroamphetamine, caffeine tablets/capsules, ecstasy, methamphetamine, GHB, and other/unknown stimulants/street drugs. The category alcohol includes alcohol-containing products such as

mouthwash. The opioid category includes Oxycodone, Hydrocodone, buprenorphine, methadone, tramadol, morphine, propoxyphene, codeine, hydromorphone, stomach opioids, Meperidine (Demerol), heroin, Fentanyl, and other/unknown opioids. Data available from the poison center are reported on a continual daily basis and are included through December 2015. These data are only reflective of cases in which the Poison Center was contacted. **Contact:** Colin Smith, Northern New England Poison Center; SMITHC12@mmc.org; (207) 662-7085.

Office of Child and Family Services (OCFS), Maine Automated Child Welfare Information System (MACWIS). The Office of Child and Family Services (OCFS) assists Maine's children and families by providing Child Welfare, Children's Behavioral Health , Early Childhood, and Preventive services and supports. The Maine Child Welfare Information System (MACWIS) is the single electronic repository for Maine child welfare information and aides in the recording, tracking, and processing of all child welfare duties and functions. **Contact:** Lori Geiger, Information Service Manager; lori.geiger@maine.gov; (207)-624-7911.

Data, Research and Vital Statistics (DRVS). DRVS is an office within the Maine CDC. Death certificates are the source documents for the data on the vital events in Maine. The data include either all deaths occurring in Maine or only deaths to Maine residents depending upon the indicator. Based on death certificate database ICD10 codes for alcohol or drug related deaths. Data include unintentional, self-inflicted, assault and undetermined intent deaths. **Contact:** Anne Rogers, Data, Research and Vital Statistics; anne.rogers@maine.gov; (207) 287-5468.

Parent Survey. In 2006, the Maine Office of Substance Abuse and Mental Health Services (SAMHS) commissioned Pan Atlantic Research, a Maine-based marketing research and consulting firm, to conduct baseline quantitative market research with parents of teenagers throughout the state on a range of issues related to underage drinking. The 2006 research was a component of a broader project being conducted in preparation for a parent social marketing campaign, the objective of which was to reduce teenage drinking in the State of Maine through improved parenting techniques and enhanced parental involvement. Pan Atlantic Research has subsequently conducted benchmarking research on this project for SAMHS and the Maine Center for Disease and Control in 2007, 2008, 2009, 2011, 2013, 2015 and now in 2017. Since 2008, the research has been designed to be more directly comparable to the 2009 (and future) Maine Integrated Youth Health Surveys (MIYHS). Also since 2008, the sample has been stratified on a statewide basis according to Maine's eight public health districts (150 completed surveys per PHD). Additionally, the sample composition since 2008 includes parents of 7th to 12th graders (200 per grade – 1,200 total). The survey was redesigned in 2017 to increase the emphasis on questions relating to teenage use of marijuana and prescription drugs. Contact: Jason Edes, Director of Research, Pan Atlantic Research; jedes@panatlanticresearch.com; (207) 221-8877 ext. 100.

Pregnancy Risk Assessment Monitoring System (PRAMS). PRAMS is an ongoing, population-based surveillance system designed to identify and monitor selected maternal behaviors and experiences before, during, and after pregnancy among women who have recently given birth

to a live infant. Data are collected monthly from women using a mail/telephone survey. **Contact:** Thomas Patenaude, PRAMS Coordinator, Maine CDC; Thomas.Patenaude@maine.gov; (207) 287-5469.

Prescription Monitoring Program (PMP). PMP maintains a database of all transactions for class C-II through C-IV drugs dispensed in the state of Maine. Drug categories used in this report include opiates, sedatives, and stimulants. The counts included in this report represent the number of prescriptions and doses dispensed between 2013 and 2017. **Contact:** Office of Substance Abuse and Mental Health Services; SAMHS.PMP@maine.gov; (207) 287-2595.

Web Infrastructure for Treatment Services (WITS). 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 Maine. WITS is the State system that all licensed substance use treatment agencies are required by licensing rule to submit all substance use treatment services rendered into. However, 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. Analyses in this report are based on client-reported primary, secondary and tertiary drug(s) of choice as well as other demographic and background information that is collected at intake. It is important to note that the WITS system is not static; therefore, 2017 numbers may be artificially low. Drug categories included in this report are alcohol, marijuana, cocaine, heroin, synthetic opiates, methadone/buprenorphine and benzodiazepines. **Contact:** Office of Substance Abuse and Mental Health Services; SAMHS.PMP@maine.gov; (207) 287-2595.

2-1-1 Maine. 2-1-1 Maine is a free, confidential resource for individuals to connect to thousands of health and human services in Maine. 2-1-1 Maine maintains a statewide directory of resources including services for substance use, mental health, gambling addiction, housing, childcare and more. Individuals can contact 2-1-1 Maine and access needed information and referrals by calling 2-1-1 and speaking with a trained specialist in Maine, by texting their zip code to 898-211 and communicating with a Maine-based specialist, or by visiting www.211maine.org. 2-1-1 Maine's Contact Center operates 24 hours a day, seven days a week, 365 days a year. 2-1-1 Maine is a collaborative effort of the Maine Department of Health and Human Services, the United Ways of Maine, and The Opportunity Alliance as the Contact Center partner. **Contact:** info@211maine.org; Dial 2-1-1 or 1-866-811-5695; Text your zip code to 898-211.

Consumption of Substances

Consumption of alcohol, cigarettes, marijuana, and prescription drugs can have detrimental effects on an individual's well-being, including increased risks of morbidity, addiction, chronic diseases, and mortality, and has a harmful effect on society as a whole, including increased motor vehicle accidents and crime. It is the manner and frequency with which people drink, smoke, and use drugs that are often linked to particular substance-related consequences. To understand the magnitude of substance use consequences, it is important to first understand the prevalence of substance use consumption itself. Consumption includes overall use of substances, any use (ever and in the past month), heavy consumption (such as binge drinking), and consumption by high risk groups (e.g., youth, college students, 18 to 25 year olds, etc.)

Alcohol remains the substance most often used by Mainers across the lifespan, especially youth. In particular, risky alcohol use, such as binge drinking, remains a concern among adults 18 to 35, with nearly one in three reporting such behavior in the past month. Alcohol use among Maine's high school students has slowly declined since 2009; however, approximately a third of students who drank in the past month reported having five or more drinks in a row at least once in the past month. Forty-one percent of underage adults (18 to 20-year-olds) reported having a drink in the past month and a quarter reported binge drinking within the past month. Furthermore, young adults (18 to 25) who qualify as having an alcohol use disorder remained the same from 2014-15 to 2015-16; however, they were still the most likely age group to have an alcohol use disorder in 2015-16 with an estimate of 12 percent.

After alcohol, cigarettes, marijuana, vapor products, and prescription drug are the next most commonly used drugs in Maine. Parents continue to report that they believe their children are honest with their consumption of substances, but there continues to be a gap between use and belief of use. Youth are continuing to use more often than parents appear to know. With the exception of cigarettes, the young adult population ranks highest in their rate of use of these substances among adults in Maine.

Marijuana use among young adult Mainers, as well as use by those 26 and older, has been steadily increasing over the past several years. About one in three young adults (18 to 25-year-olds) and one in six residents 26 years and older reported use within the past month. There was a slight increase in the number of initiates 26 years and older, and marijuana users also appear to be starting earlier in life.

In terms of tobacco use, nearly one in three Mainers ages 26 to 35 reported smoking cigarettes within the past month compared to one in five adults between 18 and 35; rates of tobacco use have progressively declined among youth and young adults in Maine but remain somewhat consistent among more mature age groups. In addition, tobacco use among pregnant women continues to be a concern; nearly one in five reported cigarette use in their last trimester.

Trends for electronic vapor products were added to the report this year. Since emerging as an alternative form of smoking, vapor products have overtaken cigarettes as a preferred form of

consumption for high school students who reported use in the past month. Approximately one in seven high school students have used a vapor product in the past month, and at least half of the time the product was just flavoring. High school students reported that a quarter of the time they vaped nicotine based oil, 13 percent of the time it was marijuana or has oil based, and eight percent were not sure what they had vaped. This last category, while concerning, is accounted for by the fact that a large portion of high school students had borrowed the vapor product from a friend instead of procuring their own.

In recent years, rates of prescription drug misuse among high school students have decreased while rates among adults have remained stable. During 2014-16, approximately one in ten adults between the ages of 18 and 35 reported misuse of a prescription drug at least once in their lifetime. Furthermore, based on surveillance data, illicit drug rates (e.g., heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used non-medically) have been declining among Maine's youth and young adults for the past several years. According to NSDUH, in 2015-16, less than one percent of Mainers 12 and older reported that they had used heroin in the past year with use highest use among young adults 18 to 25 years (1.15%).

Alcohol

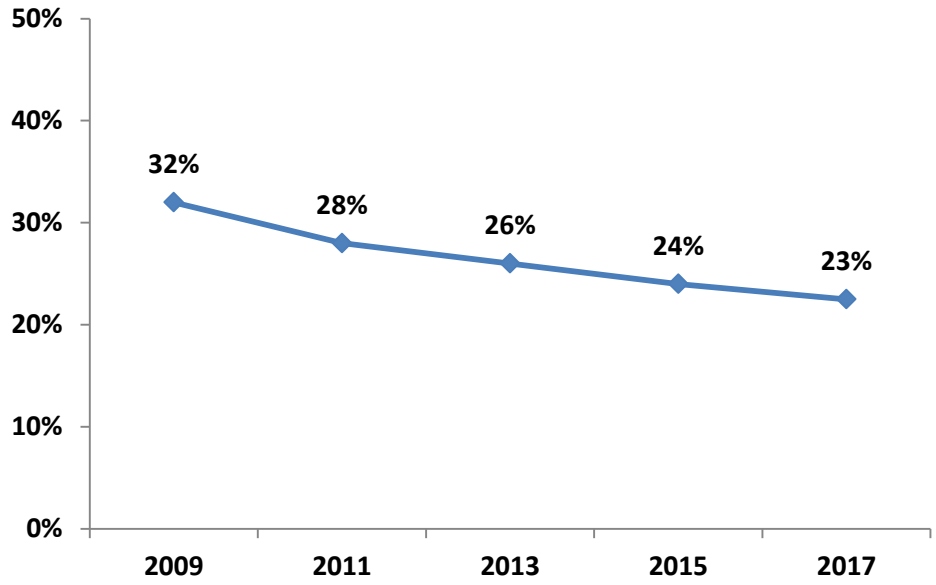
Indicator Description: CURRENT ALCOHOL USE AMONG YOUTH. This measure shows the percentage of high school students who reported having had one or more alcoholic drinks on one or more days within the past month.

Why Indicator is Important: Alcohol is the most often used substance among youth in Maine. In addition to the risks alcohol consumption carries for adults, developing adolescent brains are especially susceptible to the health risks of alcohol consumption. Adolescents who consume alcohol are more likely to have poor grades and be at risk for experiencing social problems, depression, suicidal thoughts, assault, and violence.

Data Source(s): MIYHS, 2009–2017

Summary: In 2017, less than one in four high school students reported consuming alcohol in the past month. The rate of consumption has been decreasing steadily since 2009.

Figure 1. High school students reporting alcohol use in the past month: 2009–2017



Source: MIYHS, 2009–2017

- The percentage of high school students consuming alcohol in the past month has declined from 32 percent in 2009 to 23 percent in 2017.
- Although not shown, 25 percent of high school students who have ever consumed alcohol reported having their first drink of alcohol before the age of 13.

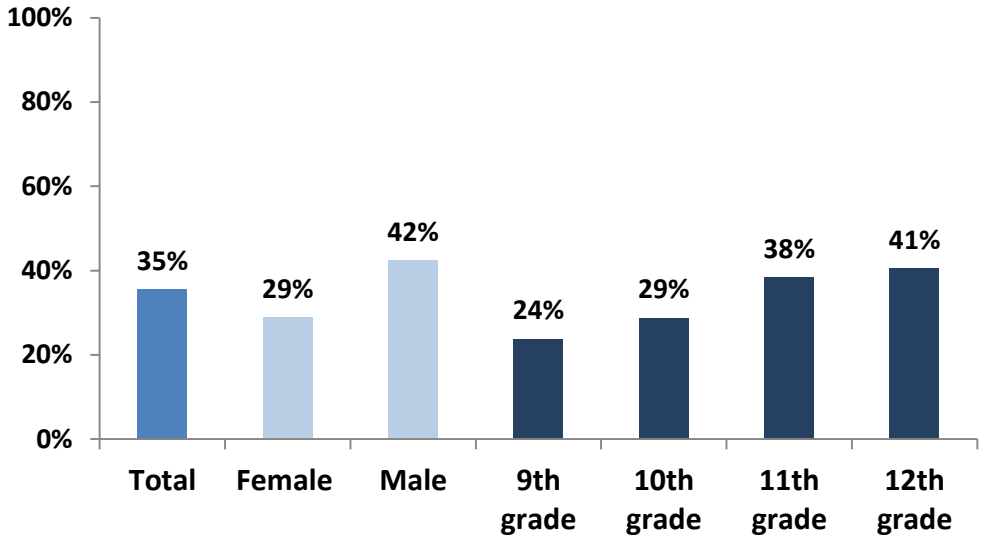
Indicator Description: CURRENT HIGH-RISK ALCOHOL USE AMONG YOUTH. This indicator displays the percentage of youth who reported having had five or more alcoholic drinks in a row in the past two weeks and on at least one day within the past month. In 2017, the MIYHS redesigned the question asked of students regarding the frequency of binge drinking. Therefore, 2017 data cannot be compared to previous years for trending.

Why Indicator is Important: Youth are more likely to binge drink than adults when they consume alcohol. High-risk alcohol use contributes to violence and motor vehicle crashes and can result in negative health consequences for the consumer, including injury and chronic liver disease. Youth who engage in high-risk drinking are also more likely to use other substances and engage in risky and antisocial behavior.

Data Source(s): MIYHS, 2017.

Summary: In 2017, among high school students who reported drinking in the past month, approximately one-third of them reported they had five or more drinks in a row at least once in the past month. Although not shown, this accounts for approximately eight percent of all high school students. Males appear more likely than females to participate in this behavior, as are older students relative to younger students.

Figure 2. High school students (among those who have drank in the past month) who had five or more drinks in a row at least once in the past month: 2017



Source: MIYHS, 2017

- Among high school students who reported drinking in the past month, nearly a quarter of 9th graders reported that they had engaged in binge drinking within the past month compared to more than a third of 12th graders reporting the same.

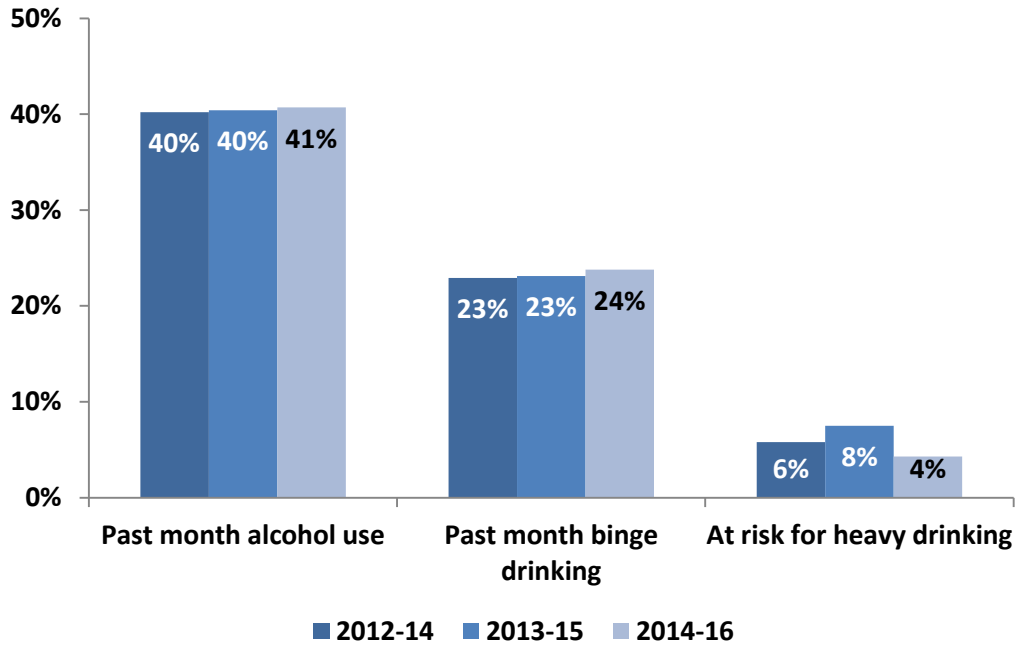
Indicator Description: CURRENT ALCOHOL USE AMONG UNDERAGE ADULTS. This indicator portrays the alcohol use patterns among adults between the ages of 18 and 20. Specifically, this indicator reflects the percentage of 18 to 20-year-olds who reported consuming any alcohol in the past month.

Why Indicator is Important: Alcohol is one of the most often-used substances by underage adults in Maine. Excessive and high-risk alcohol use may contribute to violence and result in many negative health consequences for the consumer. Drinking alcohol can also have negative health effects and lead to such consequences as alcohol-related motor vehicle crashes and increased injuries.

Data Source(s): BRFSS, 2012-2016

Summary: Among adults 18 to 20, there was a slight increase of one percentage point in alcohol use in the past month from 2013-15 (40%) to 2014-16 (41%) and a four percentage point decrease in underage adults at risk for heavy drinking from 2013-15 (8%) to 2014-16 (4%). Rates for past month binge drinking have remained relatively stable (24%).

Figure 3. Adults ages 18 to 20 reporting drinking in past 30 days by type of drinking: 2012–14 to 2014-16



Source: BRFSS, 2012-14, 2013–15, 2014-2016

- During the 2014-16 period, among Mainers between the ages of 18 and 20, 41 percent reported consuming any alcohol in the past 30 days, 24 percent reported binge drinking, and four percent were at risk from heavy alcohol use. Alcohol consumption patterns among 18 to 20-year-olds have remained relatively stable since 2012-14.

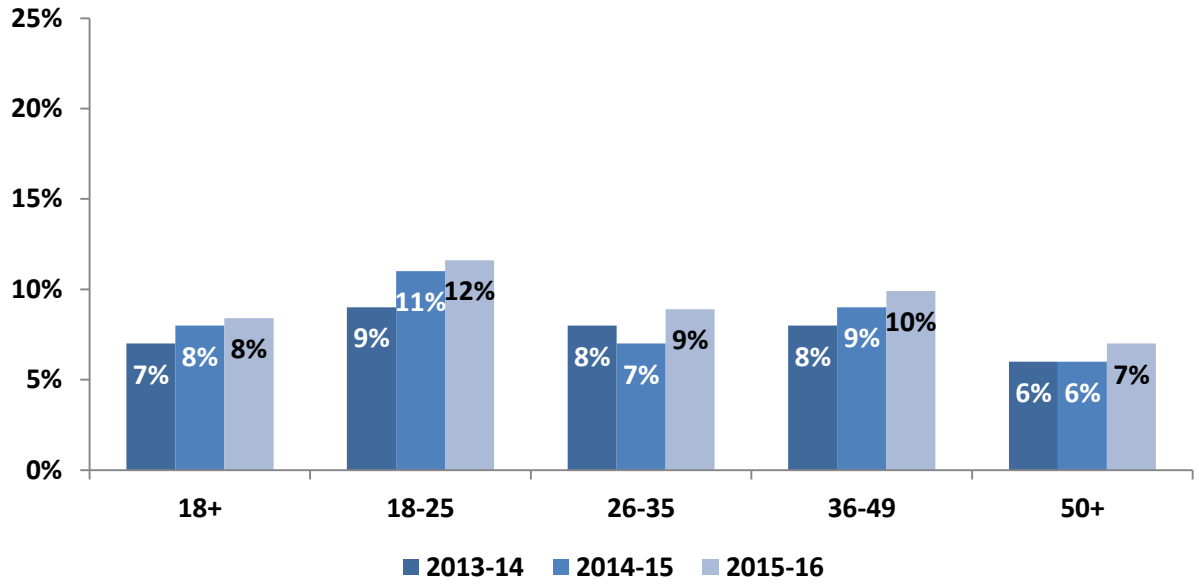
Indicator Description: AT RISK FROM HEAVY ALCOHOL USE. This indicator examines the percentage of Maine residents who are at risk of suffering consequences from heavy drinking in the past month. At risk from heavy drinking is defined as more than two drinks per day (14 per week) for a man or more than one drink per day for a woman (seven per week).

Why Indicator is Important: People who consume alcohol frequently are at increased risk for a variety of negative health consequences, including alcohol use and dependence, liver disease, certain cancers, pancreatitis, heart disease, and death. It has also been found that the more heavily a person drinks the greater the potential for problems at home, work, and with friends.[1]

Data Source(s): BRFSS, 2013–2016

Summary: In 2015–16, 18 to 25-year-olds appeared to be more at risk from heavy alcohol use, with about one in ten reporting that they consumed at least one alcoholic drink per day in the past 30 days. Rates do not vary widely among age groups but they have increased slightly.

Figure 4. Adults at risk from heavy alcohol use in past 30 days, by age group: 2013-14 to 2015-16



Source: BRFSS, 2012-14, 2013–15, 2014-2016

- During the period 2015–16, eight percent of adults 18 and over reported having consumed alcohol on a daily basis, putting them at risk from heavy alcohol use. From 2013-14 to 2015–16, rates among adults have increased slightly.

[1] Citation from Alcoholscreening.org, a service of Join Together and the Boston University School of Public Health. Retrieved from http://www.alcoholscreening.org/Learn-More.aspx?topicID=8&articleID=26 on 8/8/2017.

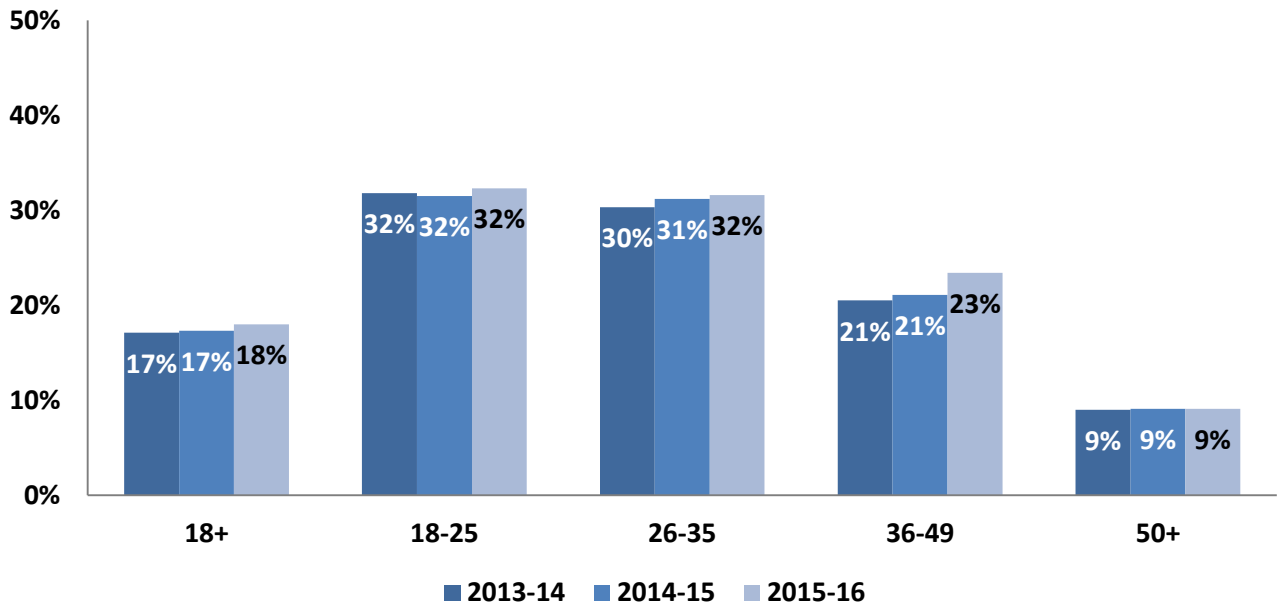
Indicator Description: **CURRENT HIGH-RISK ALCOHOL USE AMONG ADULTS.** This indicator reflects the percentage of adults who reported consuming several alcoholic beverages in a row for at least one day within the past month.[2]

Why Indicator is Important: Binge drinking is considered to be a type of high-risk drinking, meaning it increases the risk for many health and social related consequences. High-risk alcohol use has been linked to injury (such as falls, fights, and suicides), violence, crime rates, motor vehicle crashes stroke, chronic liver disease, addiction, and some types of cancer.

Data Source(s): BRFSS, 2013–2016

Summary: The highest binge drinking rates continue to be observed among 18 to 25-year-olds and 26 to 35-year-olds with about one in three reporting binge drinking within the past month. Rates among all adult age groups have remained relatively stable.

Figure 5. Adults reporting binge drinking in past 30 days, by age group: 2013–14 to 2015-16



Source: BRFSS, 2012-14, 2013–15, 2014-2016

[2] BRFSS defines binge drinking as five or more drinks in one sitting for a male and four or more drinks in one sitting for a female.

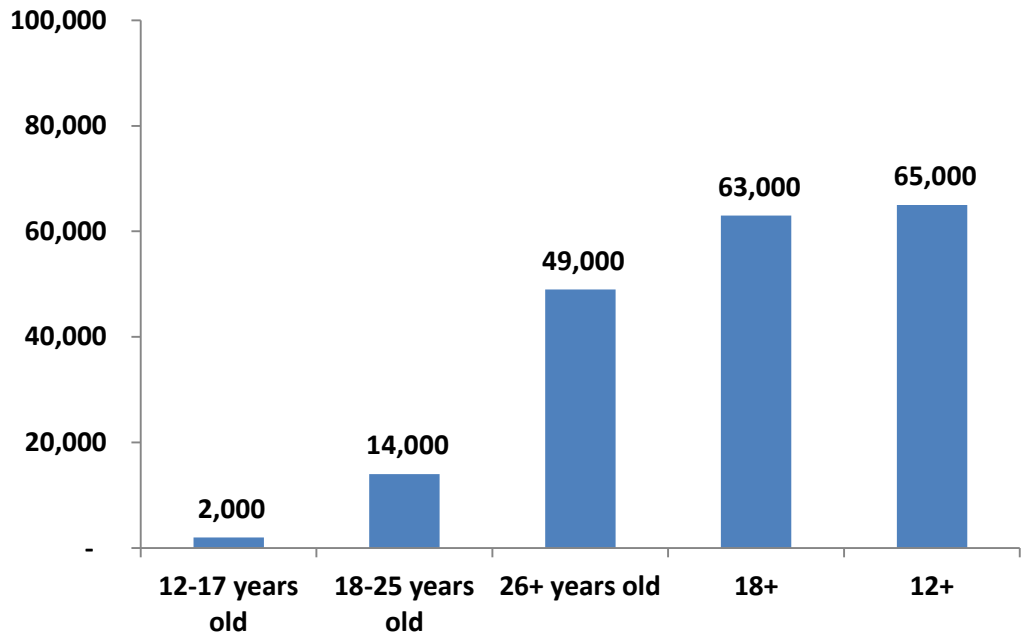
Indicator Description: ALCOHOL USE DISORDER. Alcohol Use Disorder is defined as meeting criteria for alcohol dependence or abuse. Dependence or abuse is based on definitions found in the 5th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V).

Why Indicator is Important: Alcohol dependence and abuse increase the risk for many health and social related consequences. High-risk alcohol use has been linked to injury (such as falls, fights, and suicides), violence, crime rates, motor vehicle crashes stroke, chronic liver disease, addiction, and some types of cancer.

Data Source(s): NSDUH, 2008-09 to 2014-15

Summary: In 2015-16, 65,000 (6%) Mainers 12 and older qualified as having an alcohol use disorder. A little over one in ten (12%) eighteen to 25 year olds qualified as having an alcohol disorder in 2015–16; this is consistent with recent years and is a decrease since 2008–09.

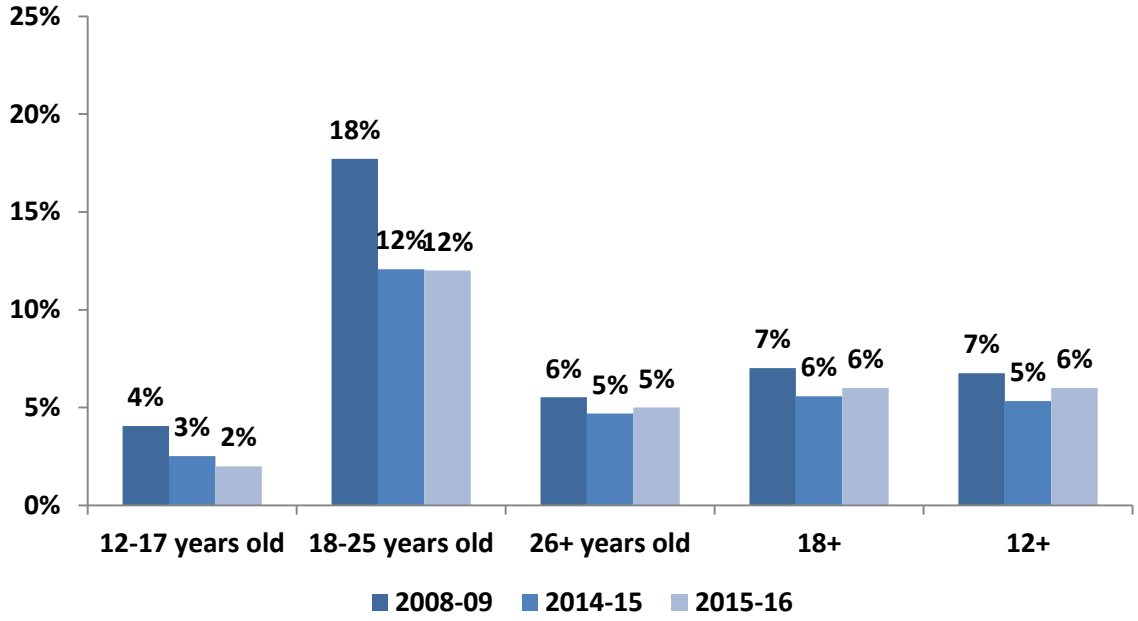
Figure 6. Alcohol use disorder in the past year, by age (estimated in thousands): 2015–16



Source: NSDUH, 2015–16

- According to NSDUH estimates, during 2015–16, 65,000 Maine residents 12 and older qualified as having an alcohol use disorder within the past year.

Figure 7. Percent of alcohol use disorder in the past year, by age: 2008-09 to 2015–16



Source: NSDUH, 2008–09 to 2015–16

- Maine residents 18 to 25 were the most likely age group to have an alcohol use disorder in 2015-16 with an estimate of 12 percent. During the period of 2015–16, two percent of Mainers between 12 and 17 years old qualified as having an alcohol use disorder; this was a decrease of two percentage points from 2008–09 (4%). All other age categories remained consistent with percentages from 2008-09 and 2014-15.

Tobacco and Vapor Use

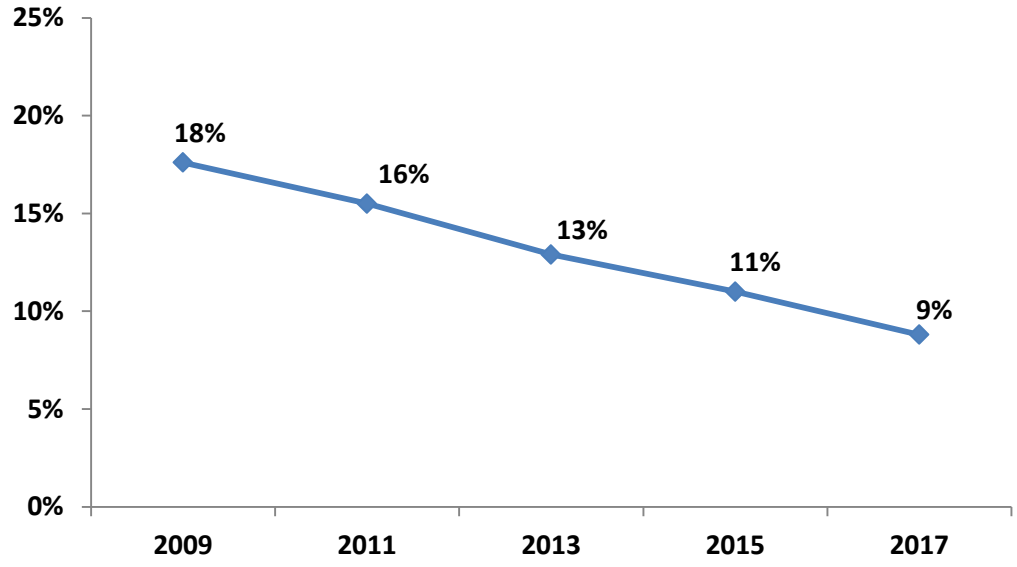
Indicator Description: CURRENT TOBACCO AND VAPOR USE AMONG YOUTH. This indicator illustrates the percentage of youth who reported using cigarettes, cigars, smokeless tobacco, and vapor products (*e.g.,* electronic cigarettes, vaporizers).

Why Indicator is Important: Use of tobacco is associated with greater risk of negative health outcomes, including cancer, cardiovascular, chronic respiratory diseases, and can lead to death. In addition, there is a growing amount of research that suggests electronic vapor products may not be a safe alternative to traditional tobacco products and can also contribute to respiratory problems.

Data Source(s): MIYHS, 2009–2017

Summary: The use of tobacco products among high school students continues to steadily decline. In 2017, less than one in ten students reported having smoked a cigarette within the past month. About one in three high school students reported having ever used a vaping product and about one in seven reported using in the past month. Among students who had ever used a vaping product, half reported that the last time they had used it was just flavoring, a quarter reported it to be tobacco based oil, one in eight reported it was Marijuana based oil, and eight percent were unsure.

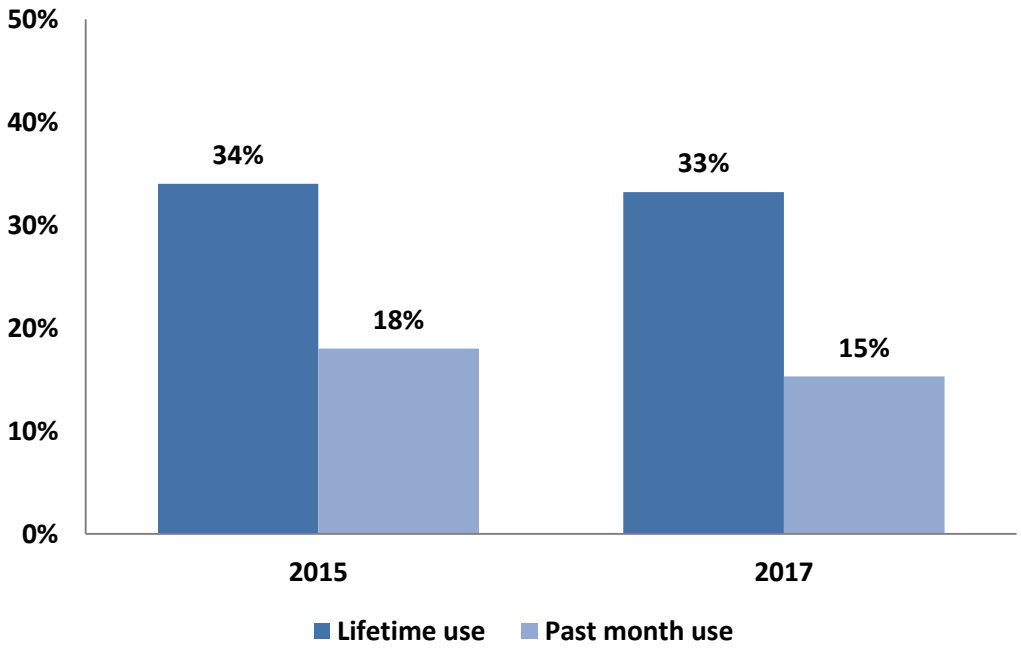
Figure 8. High school students who smoked at least one cigarette during past month: 2009–2017



Source: MIYHS, 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 (18%) to 2017 (9%).
- Although not pictured, among students who reported current cigarette use in 2017, 12 percent reported smoking more than 10 cigarettes per day. In addition, among students who have ever smoked an entire cigarette, 28 percent reported having done so before age 13. Furthermore, students are three times as likely to have smoked in the past month if they live with someone else that smokes than if they live with only nonsmokers.

Figure 9. High school students who used an electronic vapor product* in the past 30 days or lifetime: 2015-2017

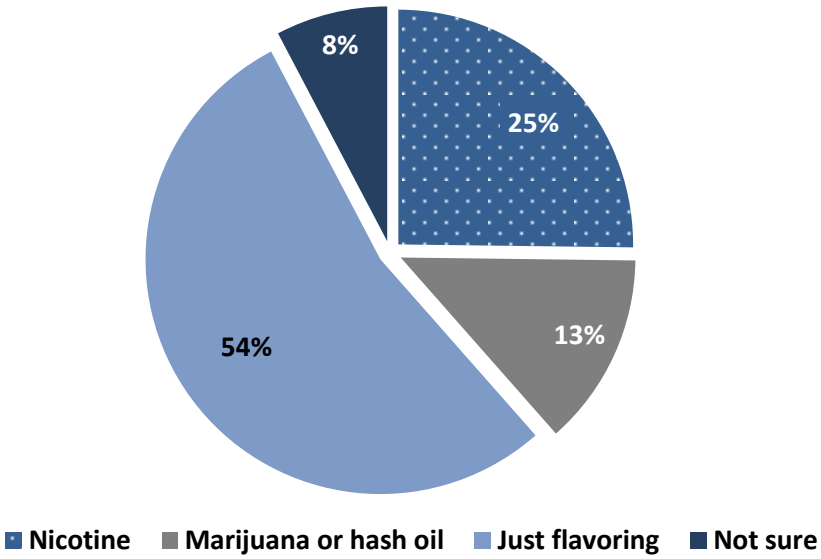


Source: MIYHS, 2015-2017

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

- In 2017, about one in three high school students reported having ever used an electronic vapor product and about one in six reported having done so in the past month. This is relatively consistent with 2015 reports.

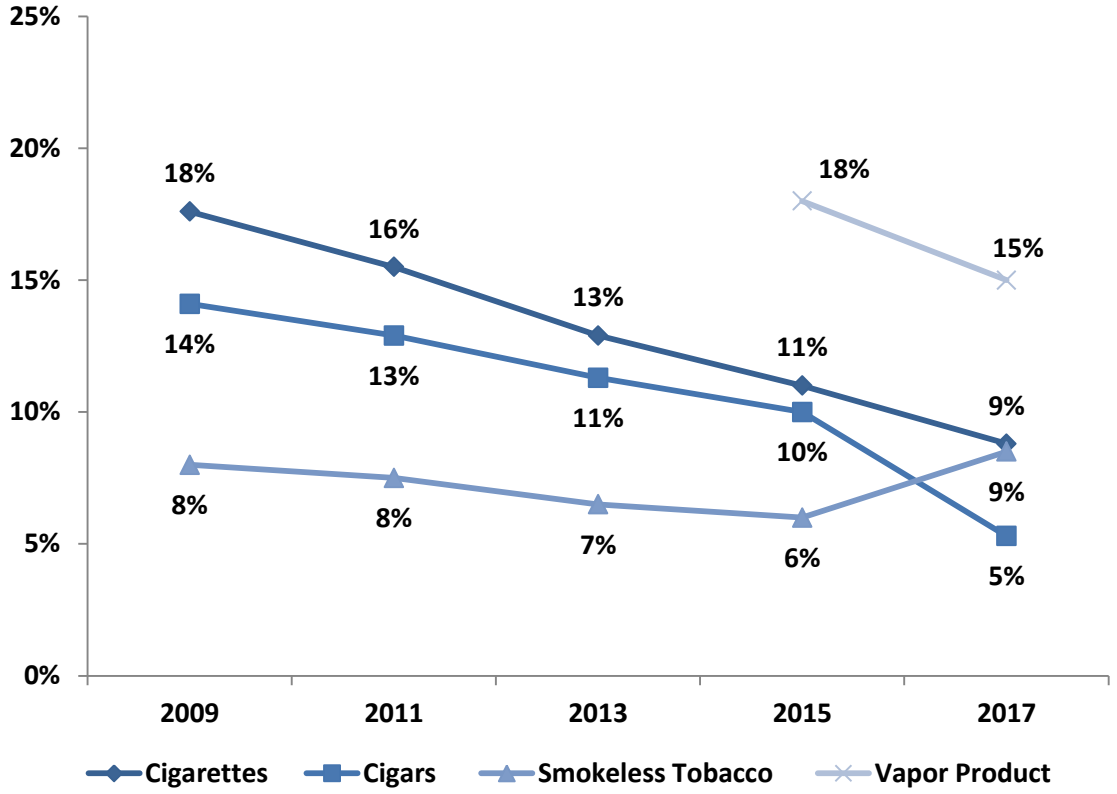
Figure 10. Type of Vapor Product Used by High School Students (among those who reported ever using): 2017



Source: MIYHS, 2017

- In 2017, among high school students who reported ever using a vapor product, most reported that the last time they had vaped it was just flavoring (54%). One in four were using nicotine (25%) and about one in eight were using marijuana (13%). Eight percent were not sure what kind of liquid was in the vapor product.
- Although not pictured, most high school students who used a vapor product reported that they obtained it by borrowing it from someone else (40%). Smaller percentages were attributed to buying one at a convenience store.

Figure 11. High school students who used tobacco during past month, by tobacco type: 2009–2017



Source: MIYHS, 2009–2017

- Since emerging as an alternative form of smoking, vapor products have overtaken cigarettes as a preferred form for high school students who reported use in the past month; however, the preference of all tobacco types continues to decrease, with the exception of smokeless tobacco which experienced a three point increase from 2015 (6%) to 2017 (9%).

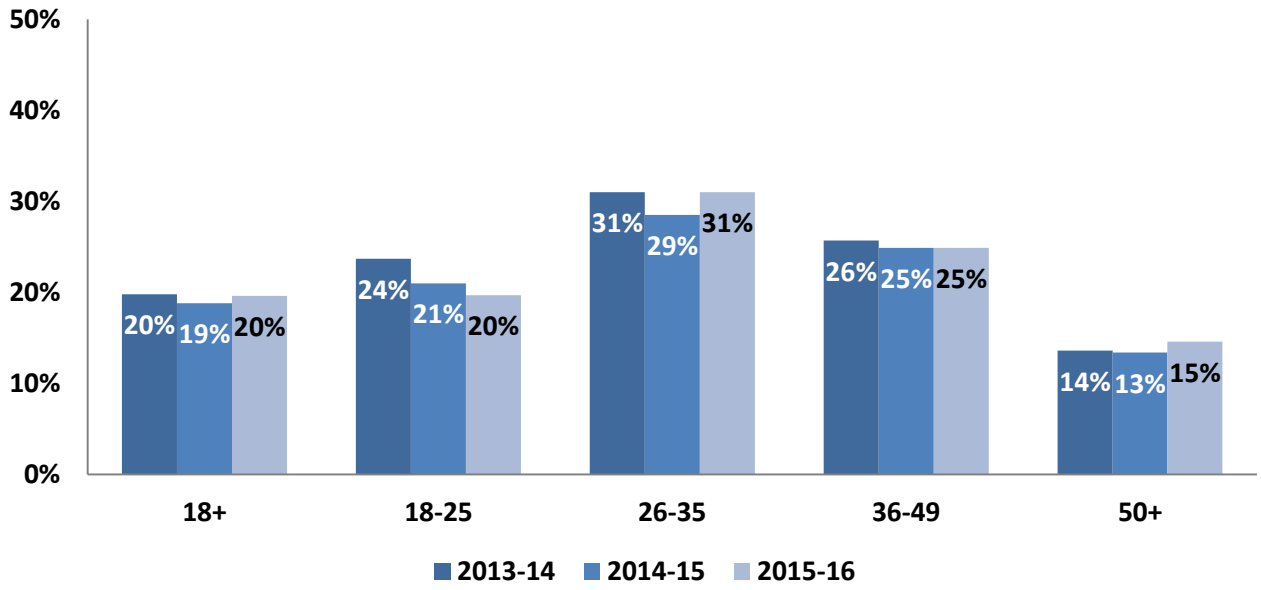
Indicator Description: CIGARETTE USE AMONG ADULTS. This indicator depicts cigarette use among adults who reported smoking at least 100 cigarettes in their lifetime and currently smoke cigarettes either every day or every couple of days.

Why Indicator is Important: Tobacco use has been linked to several negative health outcomes, including cancer, cardiovascular, chronic respiratory diseases, and can lead to death. Second-hand smoke is also associated with many negative health outcomes, such as increased colds, flu, asthma, bronchitis, lung cancer, and low birth weight babies.

Data Source(s): BRFSS, 2013–2016

Summary: During 2015-16, one in five Mainers 18 and older reported being current cigarette smokers. Adults between the ages of 26 and 35 were the most likely age group to smoke cigarettes, with nearly a third (31%) being current smokers. Rates of cigarette use among young adults appear to be steadily decreasing for the past several years.

Figure 12. Past month cigarette use among adults, by age group: 2013–14 to 2015–16



Source: BRFSS, 2012-14, 2013–15, 2014-2016

- During 2015-2016, 20 percent of Maine adults reported being current cigarette smokers. Mainers ages 26 to 35 reported the highest rate of cigarette use at 31 percent, followed by 36 to 49 year olds at 25 percent, and 18 to 25 year olds at 20 percent. Rates among young adults (18 to 25) have been steadily decreasing while older age groups have remained relatively stable.

Marijuana

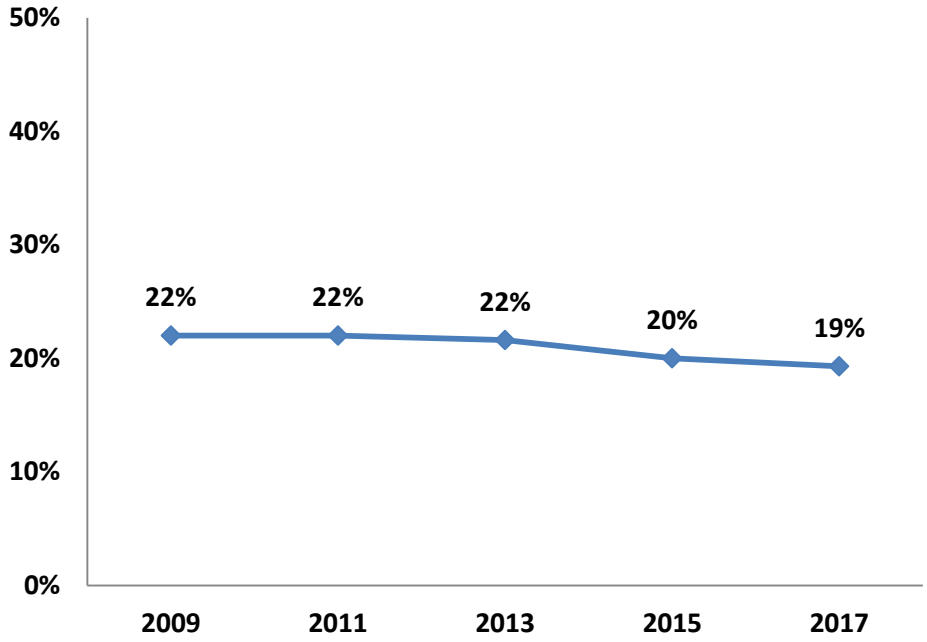
Indicator Description: CURRENT MARIJUANA USE. This measure shows the percentage of Mainers who reported using marijuana in the past month. This is presented for high school students and across the lifespan (*i.e.*, among Mainers over the age of 12).

Why Indicator is Important: Marijuana can be addictive and is associated with increased risk for respiratory illnesses and memory impairment. Also, youth who begin smoking marijuana at an early age are more likely to develop a substance use disorder and dependence later in life.[3]

Data Source(s): MIYHS 2009–2017; NSDUH, 2009–10 to 2015–16; BRFSS, 2012–14, 2013–15, and 2014–16

Summary: In 2017, about one in five high school students reported using marijuana within the past month; rates have decreased slightly in recent years. The highest rates of marijuana use among adults were observed among 18 to 25 year olds (31%). Marijuana use rates among adult Mainers have been steadily increasing over the past several years.

Figure 13. High school students who have smoked marijuana at least once in the past month: 2009–2017

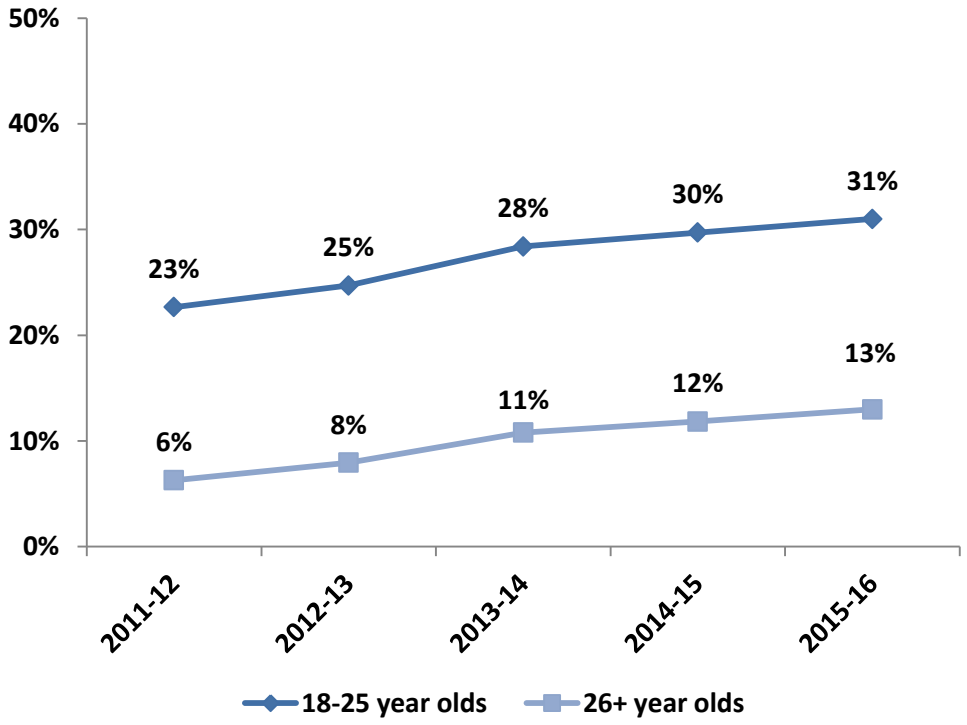


Source: MIYHS, 2009–2017

[3] Kosterman, R., Hawkins, J. D., Guo, J., Catalano, R. F., & Abbott, R. D. (2000). The dynamics of alcohol and marijuana initiation: Patterns and predictors of first use in adolescence. *American Journal of Public Health, 90*, 360-366.

- The percentage of high school students who used marijuana one or more times during the past month decreased from 2013 (22%) to 2017 (19%). Conversely, according to the 2017 Parent Survey, nearly 95 percent of parents of middle school and high school students believed their child had not used marijuana in the past 30 days.
- Although not pictured, in 2017, among high school students who had ever used marijuana, 19 percent did so before the age of 13.

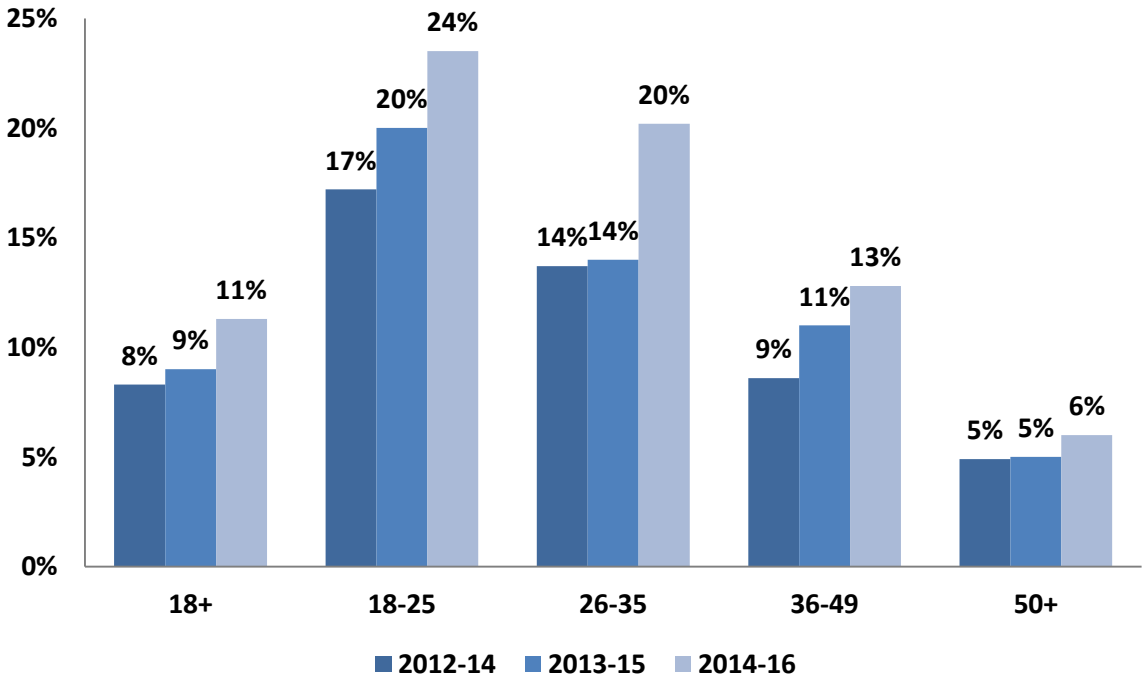
Figure 14. Adults reporting marijuana use in past month, by age group: 2011–12 through 2015–16



Source: NSDUH, 2011–12 to 2015–16

- According to NSDUH, thirty-one percent of Maine residents 18 to 25 used marijuana in the past month in 2015–16, an increase of eight percentage points since 2011–12. Marijuana use rates among those 26 and older increased by six percentage points from seven percent in same time period.

Figure 15. Adults reporting marijuana use in past month, by age group: 2012–14 to 2014-16



Source: BRFSS, 2012-14, 2013–15, 2014-2016

- According to the 2014-16 BRFSS, eleven percent of Maine adults (18 and older) reported using marijuana within the past 30 days. The highest rate was observed among 18 to 25-year-olds (24%), followed by 26 to 35-year-olds (20%), 36 to 49-year-olds (13%), and Mainers 50 and older (6%). Marijuana use has increased in all age groups since 2012-14.

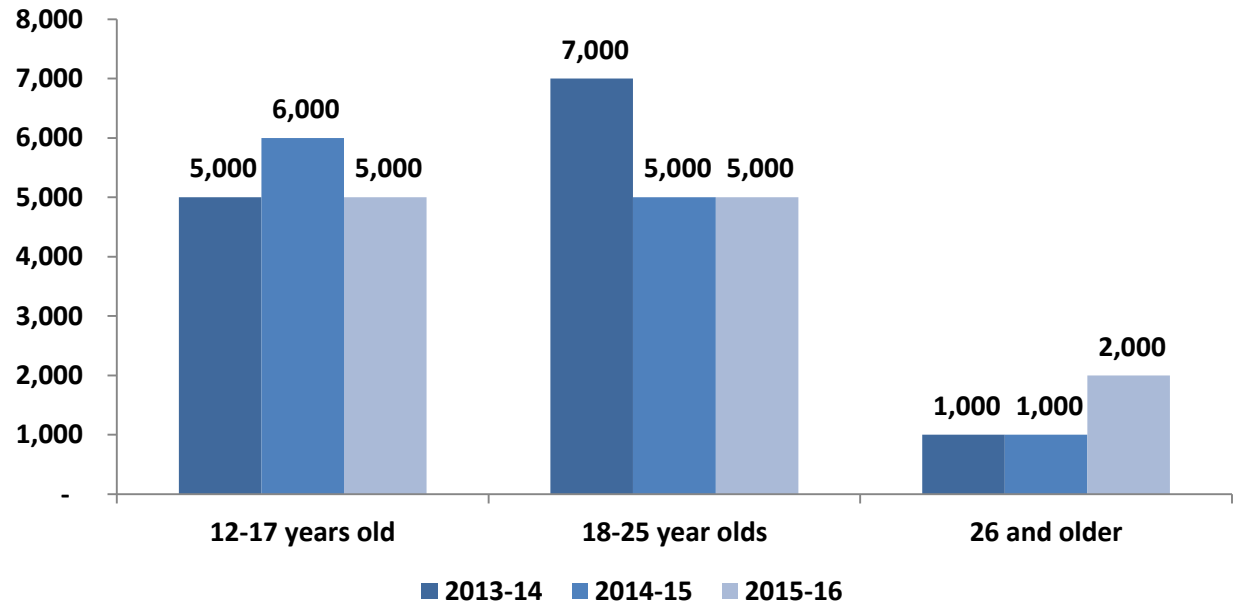
Indicator Description: INITIATION OF MARIJUANA. This measure shows the average number of Mainers that used marijuana for the first time in their life. Average annual number of marijuana initiates = $X_1 \div 2$, where X_1 is the number of marijuana initiates in the past 24 months.

Why Indicator is Important: Marijuana can be addictive and is associated with increased risk for respiratory illnesses and memory impairment. Also, youth who begin smoking marijuana at an early age are more likely to develop substance abuse and dependence later in life.[4]

Data Source(s): NSDUH, 2013–14 to 2015–16

Summary: In 2015–16, there was an annual average of 12,000 Mainers 12 and older who reported using marijuana for the first time in their life. Five thousand initiates were between 12 and 17 and 5,000 were between 18 and 25. A notable increase was observed among 26 and older initiates from 2014-15 to 2015-16.

Figure 16. Average annual number of marijuana initiates, by age group: 2013-14 to 2015-16



Source: NSDUH, 2013–14 to 2015–16

- During 2015–16, there was an annual average of 5,000 marijuana initiates between the ages of 12 and 17 and 18 to 25. From 2014–15 to 2015–16, the average annual number of initiates 26 and older increased by 1,000.

[4] Kosterman, R., Hawkins, J. D., Guo, J., Catalano, R. F., & Abbott, R. D. (2000). The dynamics of alcohol and marijuana initiation: Patterns and predictors of first use in adolescence. *American Journal of Public Health, 90*, 360-366.

Prescription Drugs

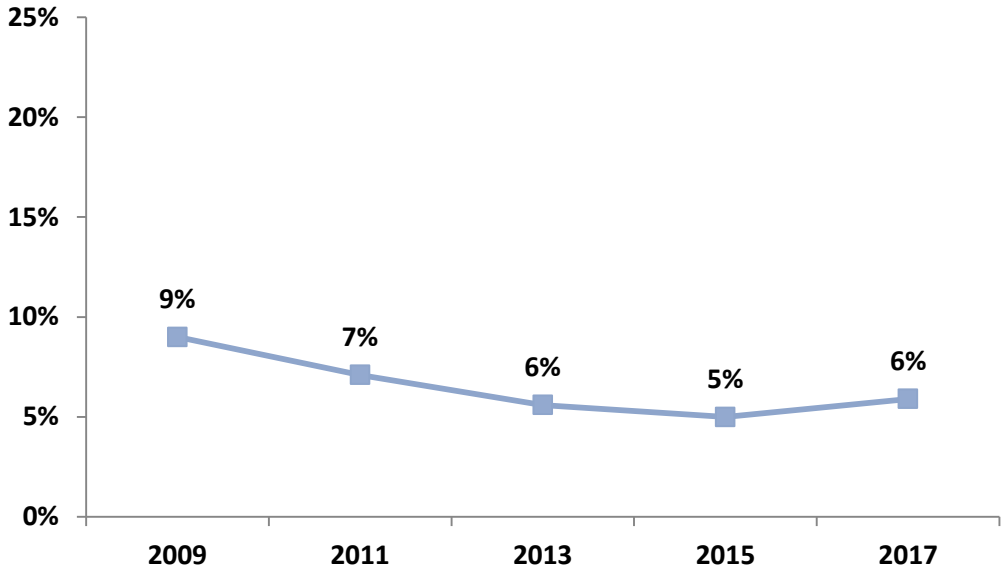
Indicator Description: MISUSE OF PRESCRIPTION DRUGS AMONG YOUTH. This indicator presents the percentage of youth who reported using prescription medications (any type) that were not prescribed to them by a doctor.

Why Indicator is Important: Misuse of prescription drugs may lead to consequences such as unintentional poisonings or overdose, which could lead to death, automobile crashes, addiction, and increased crime.

Data Source(s): MIYHS, 2009–2017.

Summary: The percentage of high school students reporting that they had misused a prescription medication in the past month increased slightly from 2015 (5%) to 2017 (6%). In 2017, about one in ten high school students reported to have misused a prescription pain medication during their lifetime.

Figure 17. High school students reporting misuse of prescription drugs (any type) in in the past month: 2009–2017



Source: MIYHS, 2009–2017

- From 2009 to 2017, the proportion of students who reported misusing prescription drugs (any type) increased slightly from 2015 (5%) to 2017 (6%). Although not shown, about ten percent of high school students reported having ever misused a pain medication (e.g., codeine, Vicodin, OxyContin).
- Although not shown, in 2017, high school students who did not perceive a moderate to great risk of harm from taking prescription drugs that were not prescribed to them were nearly five times as likely to take them in the past month as high school students who did perceive a risk of harm.

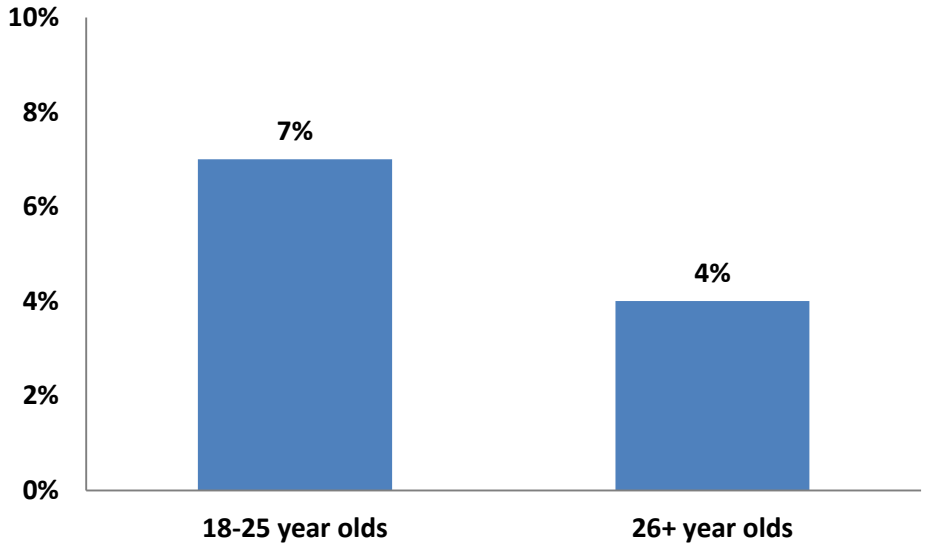
Indicator Description: NONMEDICAL USE OF PAIN RELEIVERS AMONG ADULTS. This indicator reflects the percentage of adults who reported using prescription pain relievers, specifically for reasons other than their intended purpose in the past year. In 2015-16, the variable around pain reliever misuse was redesigned to incorporate use in any way not directed by a doctor, including use without a prescription of one's own; use in greater amounts, more often, or longer than told; or use in any other way not directed by a doctor. Prescription psychotherapeutic subtypes were revised in 2016; one effect was the comparability of codeine products between 2015 and 2016. Therefore, 2015-16 cannot be used to evaluate trends with previous years' data.

Why Indicator is Important: Misuse of prescription drugs may lead to consequences such as unintentional poisonings, overdose, which could lead to death, dependence and increased crime.

Data Source(s): NSDUH, 2015-16

Summary: Non-medical use of prescription pain relievers is more likely among young adults between the ages of 18 and 25 compared to adults age 26 and older. Seven percent of 18 to 25 year olds reported having misused pain relievers in the past year.

Figure 18. Non-medical use of pain relievers among adults in the past year, by age group: 2015-16



Source: NSDUH, 2015-16

- Among Mainers 18 to 25, seven percent reported non-medical use of pain relievers in the past year compared to four percent of adults 26 years and older.

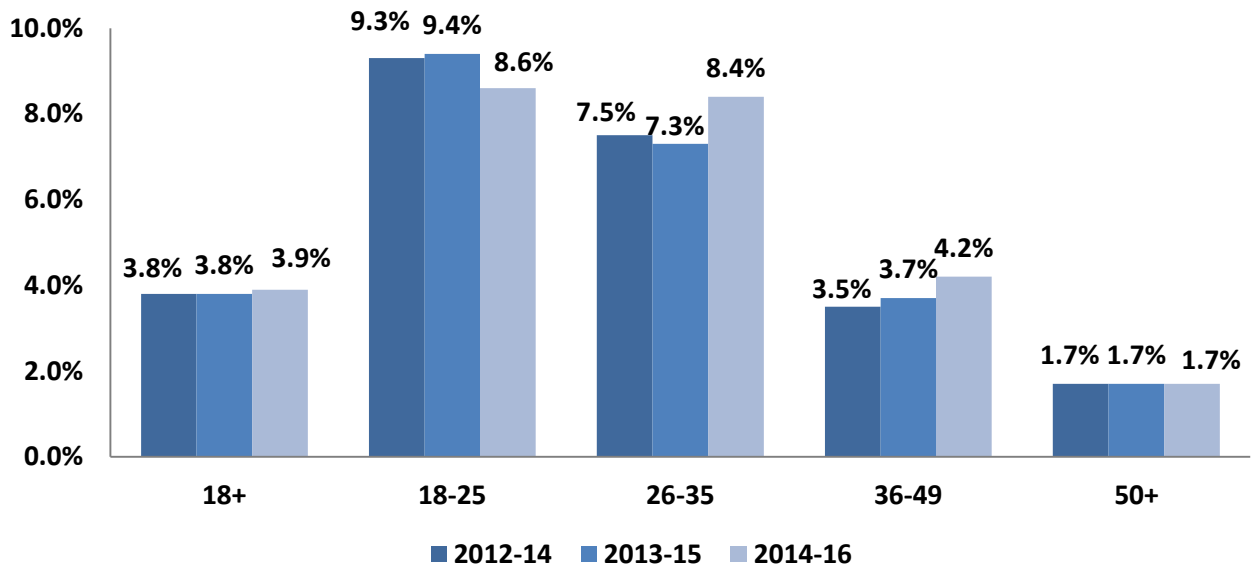
Indicator Description: MISUSE OF PRESCRIPTION DRUGS AMONG ADULTS. This measure reflects the percentage of adults in Maine who reported using prescription drugs (any type) not prescribed to them by a doctor, or using them in a way other than the way in which they were prescribed, at least once in their lifetime.

Why Indicator is Important: Misuse of prescription drugs may lead to consequences such as unintentional poisonings, overdose, which may lead to death, dependence and increased crime.

Data Source(s): BRFSS, 2012–2016

Summary: During 2014-16, the highest rates of lifetime prescription drug misuse were observed among adults between the ages of 18 and 25; nearly one in ten (9%) reported misusing prescription drugs within their lifetime. In recent years, rates have remained stable.

Figure 19. Misuse of prescription drugs (any type) among adults in their lifetime, by age group: 2012–14 to 2014–16



Source: BRFSS, 2012-14, 2013–15, 2014-2016

- During the 2014-16 period, about four percent of adults 18 and older in Maine reported having misused prescription drugs during their lifetime. The highest rate of misuse was among adults 18 to 25 years old (9%), followed by 26 to 35 year olds (8%), 36 to 49 year olds (4%), and Mainers 50 and older (2%). Rates among age groups have remained relatively stable since 2012–14.

Other Illegal Drugs

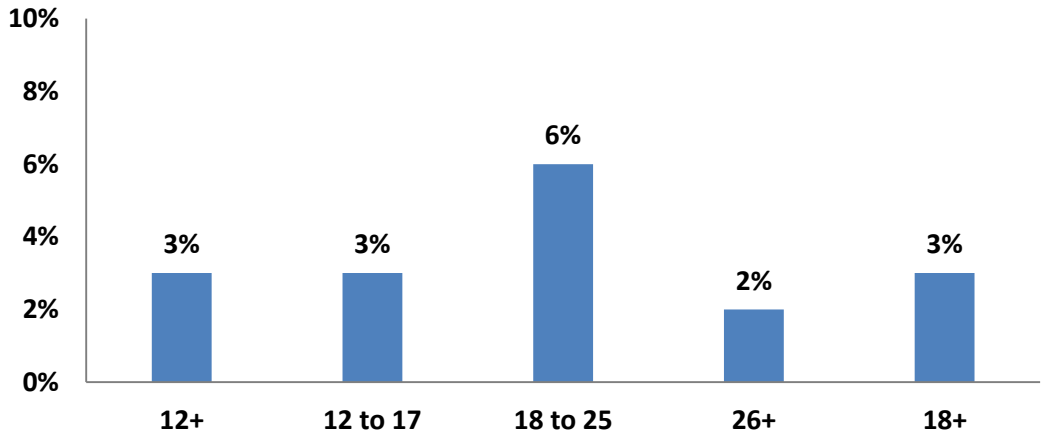
Indicator Description: ILLICIT DRUG USE (OTHER THAN MARIJUANA). This indicator reflects the percentage of individuals who used illicit drugs (other than marijuana) within the past month. Illicit drugs other than marijuana include cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used non-medically.

Why Indicator is Important: Use of illicit drugs can cause impaired brain function and damage to the nervous system and other organs. Even occasional use may cause heart attack, suffocation, or death.

Data Source(s): NSDUH, 2015-16

Summary: In 2015–16, six percent of 18 to 25 year olds, three percent of youth 12 to 17 years old, and two percent of those 26 and older reported having used illicit drugs (other than marijuana) in the past year. Rates among 18 to 25 year olds have declined slightly since 2011–12.

Figure 20. Illicit drug use (other than marijuana)* in past month, by age group: 2015-16



Source: NSDUH, 2015-16

**Illicit drugs other than marijuana include cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used non-medically.*

- In 2015–16, six percent of young adults between 18 and 25 years old reported having used illicit drugs other than marijuana use in the past year, compared to three percent among youth ages 12 to 17, and two percent among those 26 and older. Although not shown, rates among 18 to 25 year olds have decreased slightly since 2011-12 while rates among youth and Mainers 26 and older have remained relatively unchanged.

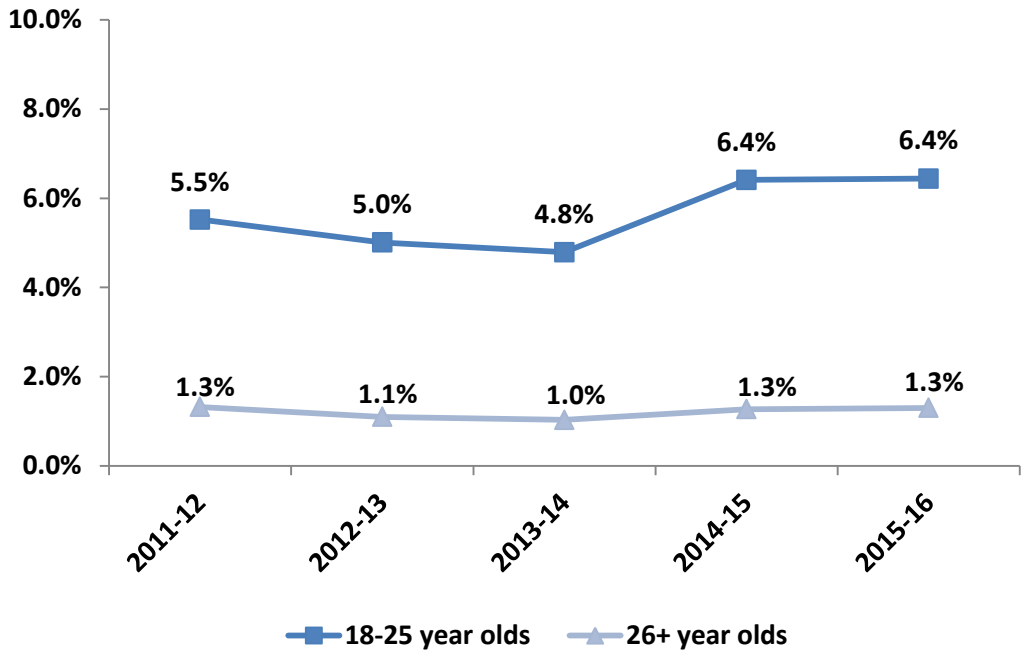
Indicator Description: COCAINE USE AMONG ADULTS. This indicator illustrates the percentage of Maine residents who have used cocaine. The measure reflects rates of use within the past year.

Why Indicator is Important: Cocaine is highly addictive. Use of cocaine is associated with adverse health effects such as cardiac events, seizures, and stroke. It also increases the risk of cognitive impairment, injury, and crime.

Data Source(s): NSDUH, 2011–12 to 2015–16; MIYHS, 2009–2015

Summary: In 2015-16, about six percent of 18 to 25 year olds and one percent of Mainers 26 and older reported they had used cocaine at least once in the past year. Rates among 18 to 25 year olds have increased slightly in recent years.

Figure 21. Adults reporting cocaine use in past year, by age group: 2011–12 to 2015–16



Source: NSDUH, 2011–12 to 2015–16

- In 2015-16, six percent of young adults ages 18 to 25 reported cocaine use in the past year, compared to just one percent among those 26 and older. Rates among 18 to 25 year olds have increased slightly from 2013-14 (4.8%) to 2015-16 (6.4%) while rates among those 26 and older have remained stable.

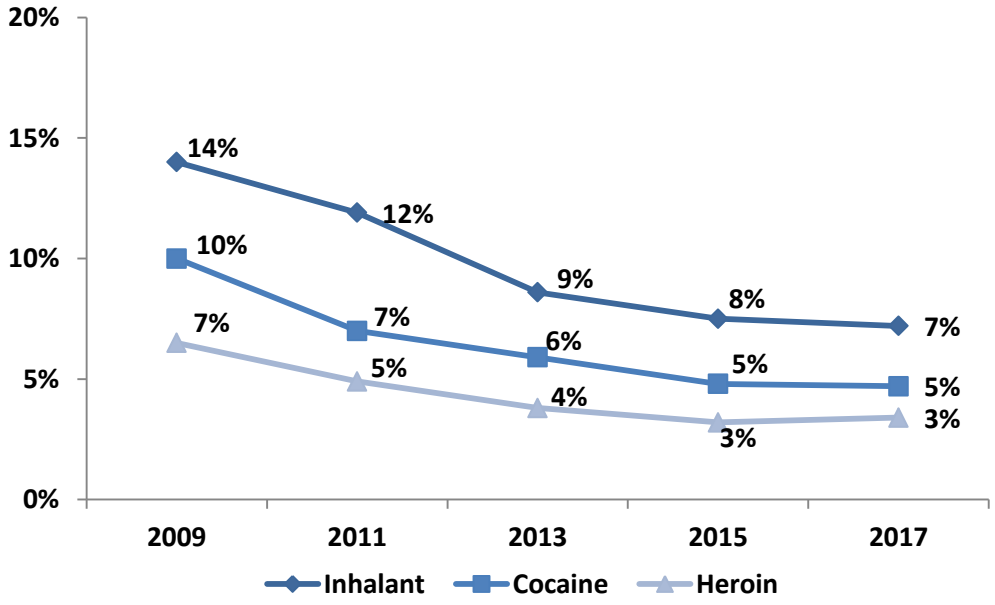
Indicator Description: INHALANT, COCAINE/CRACK, AND HEROIN USE AMONG YOUTH. This indicator depicts the percentage of high school students who reported having used inhalants, cocaine/crack, or heroin in their lifetime. Inhalants include substances such as glue, aerosol spray cans, paints or sprays.

Why Indicator is Important: Use of drugs such as inhalants, cocaine/crack, and heroin can cause impaired brain function and damage to the nervous system and other organs. Even occasional use may cause heart attack, suffocation, or death.

Data Source(s): MIYHS, 2009–2017

Summary: In 2017, seven percent of high school students reported ever using inhalants, five percent reported ever using cocaine, and three percent reported ever using heroin. Lifetime rates for inhalant use continue to decrease, but the lifetime use rates of cocaine and heroin have remained unchanged since 2015.

Figure 22. High school students reporting inhalant, cocaine/crack, or heroin use in their lifetime 2009–2017



Source: MIYHS, 2009–2017

- In 2017, seven percent of Maine high school students reported having ever used inhalants; this was followed by cocaine (5%), and heroin (3%). From 2009 to 2017, the lifetime rate of inhalant use declined by seven percentage points while the lifetime rate of cocaine/crack use decreased by five percentage points, and the lifetime rate of heroin decreased by four percentage points.

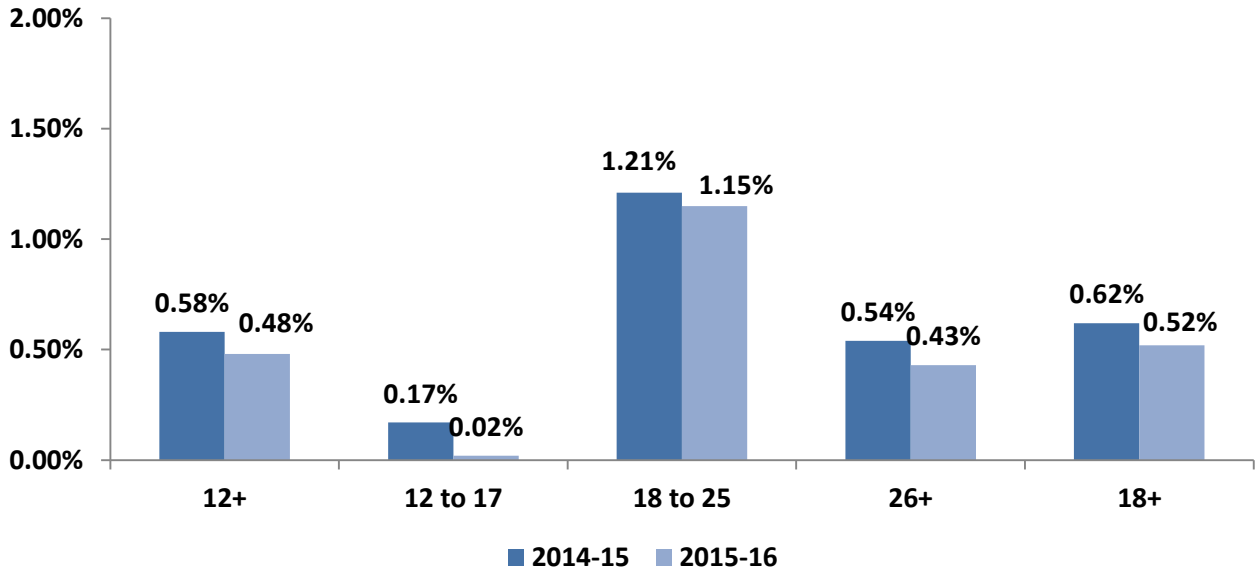
Indicator Description: HEROIN USE AMONG YOUTH AND ADULTS. This indicator depicts the percentage and approximate number of Mainers who reported heroin in the past 12 months.

Why Indicator is Important: Use of drugs such as heroin can cause impaired brain function and damage to the nervous system and other organs. Even occasional use may cause heart attack, suffocation, or death. Long term effects from heroin use can include but are not limited to irreversible damage to the liver or kidneys and risk of contracting communicable diseases.

Data Source(s): NSDUH, 2014–15 and 2015-16

Summary: In 2015-16, .48 percent of Mainers 12 and older (approximately 5,000 residents) self-reported that they had used heroin within the past year. The highest prevalence was observed among 18 to 25 year olds, reporting a rate of 1.15%.

Figure 23. Heroin use in the past year, by age group (percentage and approximate number in thousands): 2014–15 to 2015-16



Source: NSDUH, 2014–15 to 2015-16

- The highest rate of heroin use was observed among 18 to 25 year olds (1.15%); this was followed by residents 26 and older (.43%), and 12 to 17 year olds (.02%). Use of heroin in all age groups has declined since 2014-15.

Substance Use and Pregnancy

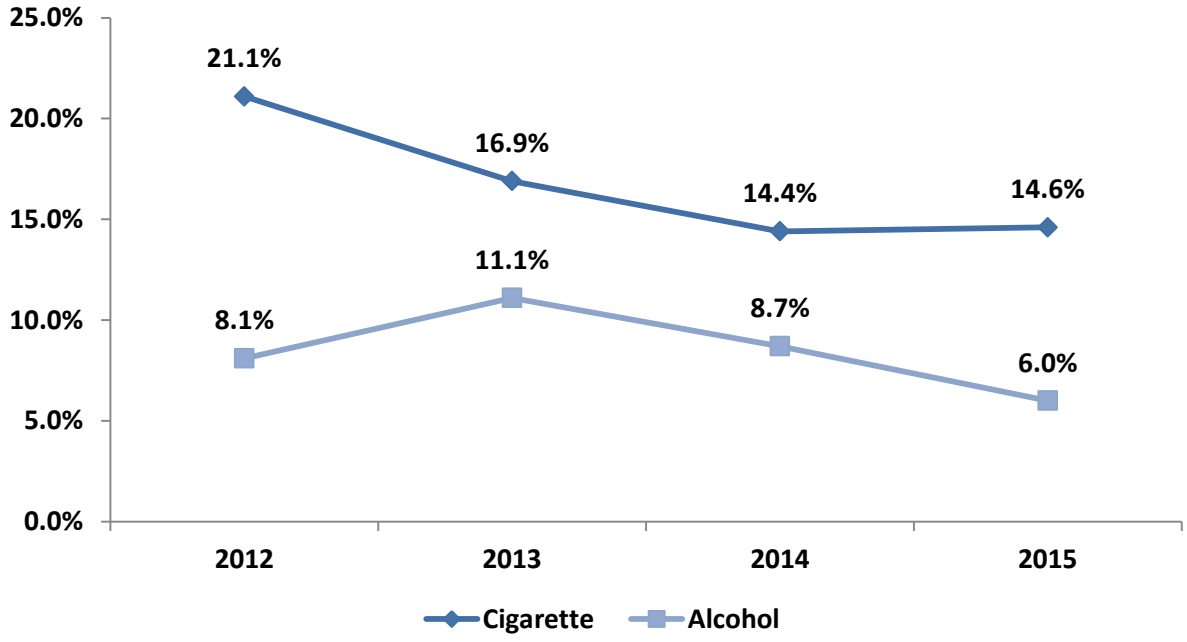
Indicator Description: ALCOHOL AND CIGARETTE USE DURING THE LAST TRIMESTER. This indicator reflects the percentage of mothers who reported smoking cigarettes or drinking any alcohol during the last three months of pregnancy.

Why Indicator is Important: Exposure to alcohol can cause damage to the fetus during all stages of pregnancy. Because the minimum quantity of alcohol required to produce those damaging effects is unknown, the American Academy of Pediatrics recommends complete abstinence from alcohol for pregnant women. Babies born to mothers who smoked during pregnancy can have lower birth weights than those whose mothers did not smoke. The U.S. Surgeon General warns against smoking during pregnancy. Substance use during pregnancy can cause a host of short-term and long-term developmental delays to the fetus and child.

Data Source(s): PRAMS, 2012-2015

Summary: In 2015, nearly one in seven (15%) pregnant women reported smoking cigarettes in their last trimester, and six percent reported consuming any alcohol. Both cigarette as well as alcohol use rates observed decreases from 2013 to 2015. 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.

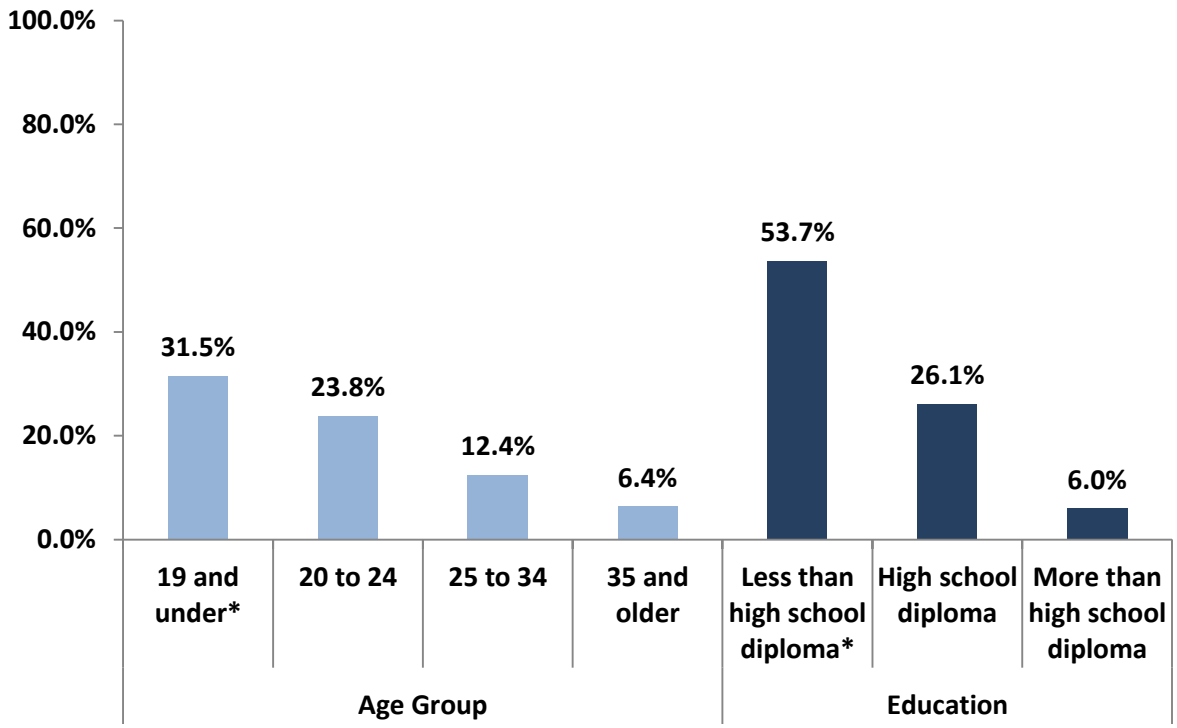
Figure 24. Women reporting alcohol or cigarette use during last trimester of pregnancy: 2012–2015



Source: PRAMS, 2012–2015

- About 15 percent of women reported smoking cigarettes during the last three months of pregnancy in 2015 compared to six percent reporting having consumed any alcohol during their last trimester. Cigarette use among women during their last trimester decreased by six percentage points from 2012 to 2015, while alcohol use decreased by five percentage points since 2013.

Figure 25. Women reporting cigarette use during last trimester of pregnancy, by age and education: 2015



Source: PRAMS, 2015

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

- In 2015, rates of cigarette use were highest among women under the age of 19 (31.5%*), followed by 20 to 24 year olds (23.8%), 25 to 34 year olds (12.4%), and 35 and older women (6.4%). Cigarette use rates were also highest among those without a high school diploma (53.7%*), followed by those with only a high school diploma (26.1%), and those with more than a high school diploma (6%).

Consequences Resulting from Substance Use and Misuse

Both individuals and communities suffer the consequences of substance use in terms of increased health care and criminal justice needs, resources, and costs. While a great deal of information regarding substance use can be obtained from the data described in the previous section (consumption), information on the effects of that use on individuals and communities can be derived from what has come to be called "consequence" data. Consequences are defined as the social, economic, and health problems associated with the use of alcohol and illicit drugs. Examples of these include illnesses related to alcohol, drug overdose deaths, property and personal crimes, as well as driving accidents, poisonings, and suicides that involve alcohol or drugs.

Risky alcohol use continues to have a detrimental effect on the health and safety of Mainers, particularly among youth and young adults. Alcohol/drug-related crash fatalities are a major consequence of alcohol consumption. Nearly one in four fatal motor vehicle crashes in 2017 involved alcohol/drugs. From 2013 to 2017, the total number of motor vehicle crashes has increased by 15 percent, while the number of crashes involving impaired drivers increased by 12 percent from 2013. The proportion of crashes related to alcohol and/or drugs has remained relatively stable at around four percent. Arrests related to operating under the influence have remained stable for most of the population; however 30 to 39 year olds continue to see an increase, rising 21% since 2014. Fortunately, liquor law violations among youth in Maine have been steadily decreasing over the past several years.

In recent years, consequences arising from synthetic opiates (*e.g.,* prescription pain relievers) have dramatically declined as those related to illicit opioids (*e.g.,* heroin, non-pharmaceutical fentanyl) have risen steadily. The shift to more potent and volatile opioids has had a profound impact on overdoses, crime, and health in Maine. In 2017 there were 247 fatal overdoses involving Non-Pharmaceutical Fentanyl reported, an increase of nearly thirty percent from 2016. Non-pharmaceutical fentanyl continues to play a major role in drug-related deaths comprising about a third of total deaths, whereas the influence of heroin, benzodiazepine, and methadone began to decline in 2017. However, alcohol, benzodiazepines, cocaine and heroin still made up a large proportion of drug-related deaths in 2017.

Maine Drug Enforcement Agency trafficking investigations related to heroin have decreased by nearly thirty percent since 2016. Additionally, the number of MDEA manufacture investigations as well as the number of lab incidents related to methamphetamine has decreased drastically from 2016 to 2017. Furthermore, DEA investigations related to the trafficking of cocaine increased by 40 percent from 2016 to 2017. As Maine and the Northeast grapple with the opiate/opioid epidemic, it is crucial to monitor other emerging drugs as well. Drugs such as methamphetamine, cocaine, and other potentially addictive and dangerous prescription drugs (*e.g.,* benzodiazepines, stimulants) have had a progressively grave impact in Maine.

As for drug possession arrests, those related to opium, cocaine and derivatives increased by 69 percent from 2012 to 2017, while arrests for the possession of marijuana decreased by ten

percent from 2012 to 2017. In 2017, nearly six out of ten drug offense arrests for possession were for marijuana. It is anticipated that the shifting landscape of Maine laws and regulations regarding the medicinal and recreation use of marijuana will continue to have a significant impact on drug possession arrests in Maine.

EMS responses related to drugs and/or alcohol haven been increasing for the past several years. From 2013 to 2017, drug/medication overdoses increased by 62 percent while those related to alcohol overdose increased by 43 percent. Rates of drug/medication overdose responses were disproportionately highest among Mainers 26 to 35 while those related to alcohol overdose were highest among 18 to 25 year olds. The number of 26 to 35 year olds involved in an EMS response related to drugs/medication more than doubled from 2013 to 2017. Furthermore, males 36 and older were twice as likely to have been involved in an EMS response related to an alcohol overdose. After more than doubling from 2013 to 2016, the number of EMS administered naloxone administrations have begun to level off. In 2017, nearly seven out of ten individuals receiving naloxone by the EMS were male. Rates are disproportionately highest among males 26 to 34 years old.

Substance use during pregnancy can cause a host of short-term and long-term developmental delays to the fetus and child. In 2017, nearly 1,000 live births in Maine had reports stating the infant had been exposed and/or affected by substances; this accounted for about eight percent of the live births in Maine. After steadily increasing from 2013 to 2016, the number of reports to Child Protective Services regarding infants born affected by substance use or infants affected by prenatal exposure to substances has declined by seven percent from 2016 to 2017.

Substance Exposed/Drug Affected Babies

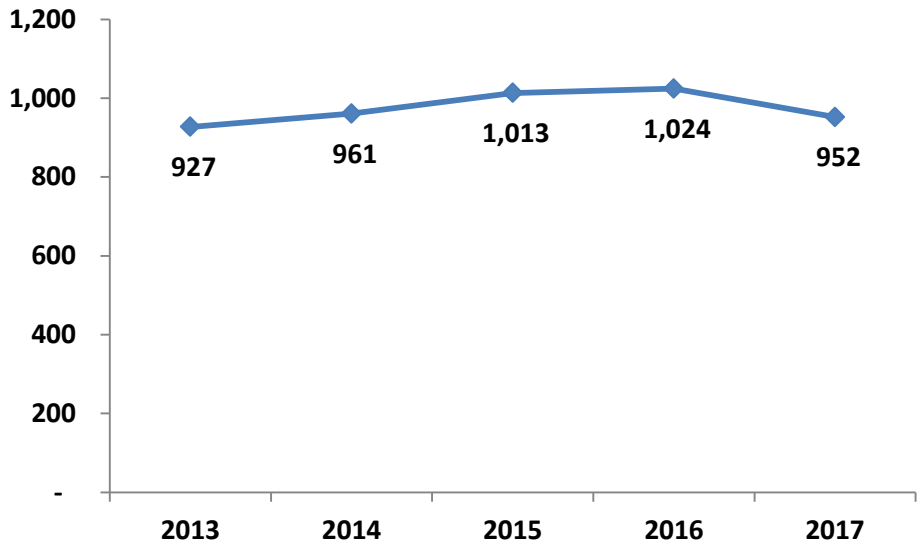
Indicator Description: BABIES BORN EXPOSED/AFFECTED TO SUBSTANCES. This indicator reflects the number of infants born in Maine where a healthcare provider reported to the Office of Child and Family Services (OCFS) that there was reasonable cause to suspect the baby may be either affected by illegal substance use, demonstrating withdrawal symptoms resulting from prenatal drug exposure (illicit or prescribed), or have fetal alcohol spectrum disorders. This measure potentially excludes instances where the infant was exposed to substances and did not show withdrawal symptoms after birth, instances where the birth of an infant affected by substances was not reported to OCFS, and any other instances in which there were discrepancies between reporters when interpreting the law.[7]

Why Indicator is Important: Prenatal exposure to alcohol, tobacco, and illicit drugs has the potential to cause a wide spectrum of physical, emotional, and developmental problems for these infants. The harm caused to the child can be significant and long-lasting, especially if the exposure is not detected and the effects are not treated as soon as possible.

Data Source(s): OCFS/MACWIS, 2013–2017

Summary: In 2017, there were 952 reports to Child Protective Services regarding infants born exposed to substances (drug affected babies); this accounted for about eight percent of the live births in Maine had substance exposed reports. After steadily increasing from 2013 to 2016, the number of drug affected baby reports declined by seven percent from 2016 to 2017.

Figure 26. Number of drug affected (substance-exposed) baby reports: 2013–2017

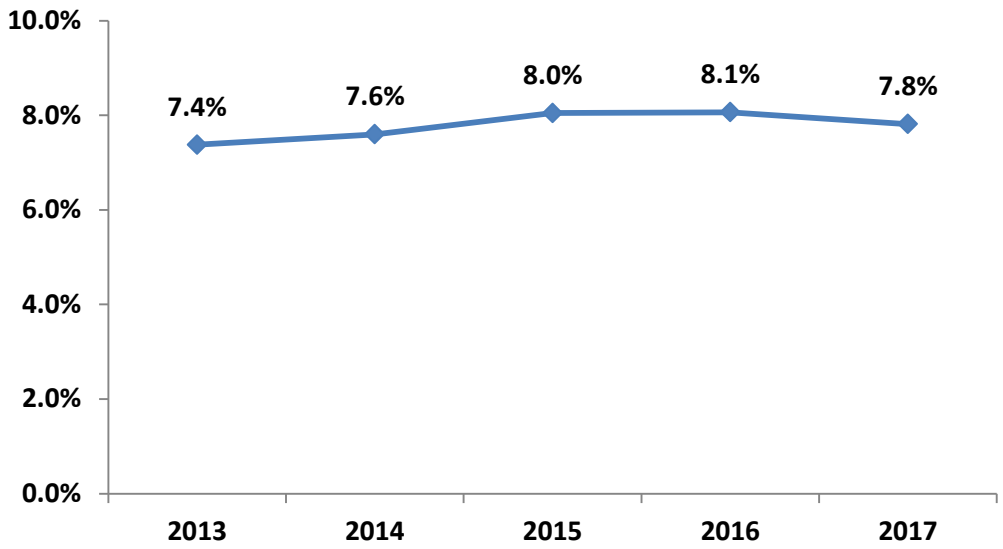


[7] Title 22, §4011-A; notification of prenatal exposure to drugs or having fetal alcohol spectrum disorders.

Source: OCFS/MACWIS, 2013–2017

- The number of reports to Child Protective Services regarding infants born affected by substance use or babies affected by prenatal exposure to substances decreased by 72 from 2016 to 2017. This represents a seven percent decrease for the time period.

Figure 27. Proportion of live births with drug affected (substance exposed) reports: 2013–2017



Source: OCFS/MACWIS, 2013–2017

- The proportion of live births with substance exposure decreased slightly in 2017, but the rate has remained relatively consistent around eight percent over the last five years.

Criminal Justice Involvement

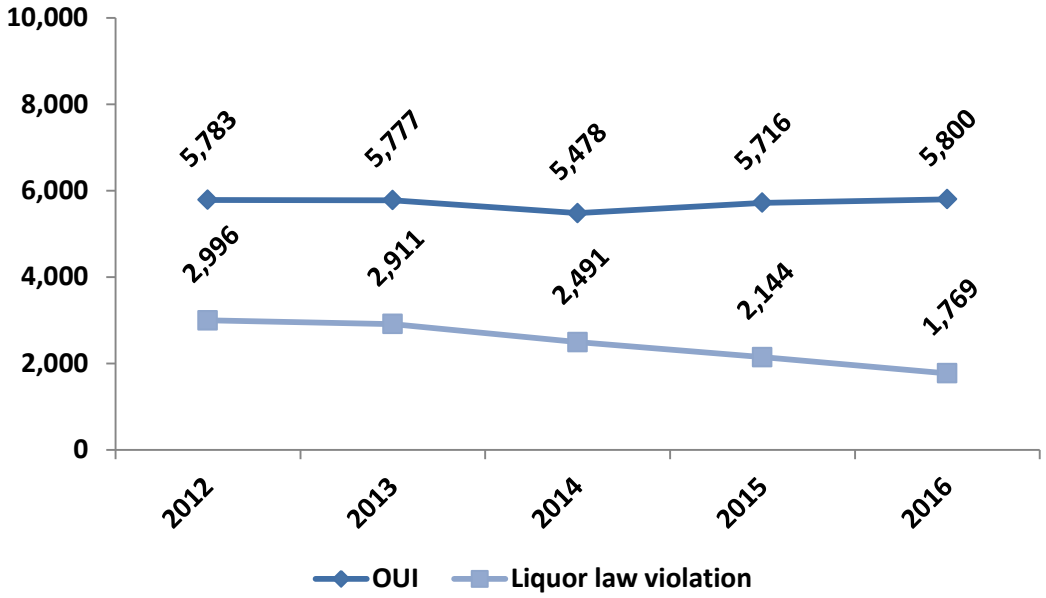
Indicator Description: ARRESTS RELATED TO ALCOHOL. This indicator reflects arrests related to alcohol and includes Operating Under the Influence (OUI) and liquor law violations. The data includes those who were released without having been formally charged.

Why Indicator is Important: OUI and liquor law arrest rates can be an indication of the rate of criminal behavior, but it is important to note that they are also an indication of the level of law enforcement. Arrests rates are expected to increase with increased enforcement regardless of whether criminal behavior changes.

Data Source(s): DPS-UCR, 2012–2016

Summary: Total OUI (Operating under the influence) arrests have remained stable over the past several years, whereas arrests pertaining to violating liquor laws (excluding OUIs) have decreased substantially. Liquor law violations among those under 21 have decreased by half from 2012 to 2016 while adult OUI arrests among 30 to 39 year olds have increased by 20 percent from 2014 to 2016. Twenty-one to twenty-nine year olds continue to have the highest number of annual OUIs.

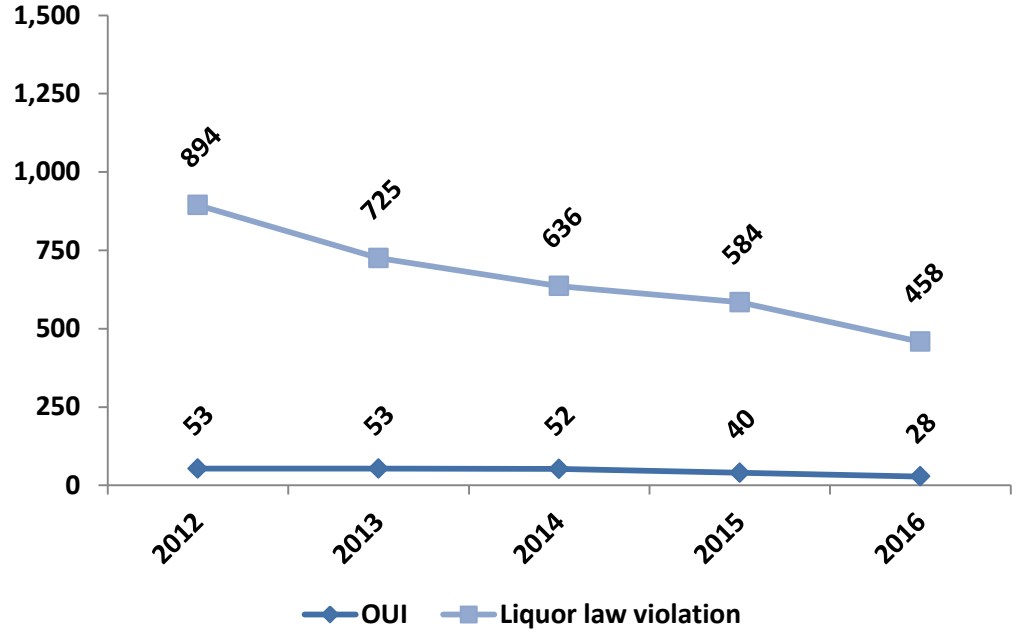
Figure 28. Adult arrests (18+ years old) related to alcohol, by arrest type: 2012–2016



Source: DPS-UCR, 2012–2016

- In 2016, there were 5,800 adult arrests for OUIs compared to 1,769 arrests for breaking liquor laws. The number of adult OUI arrests has remained relatively stable since 2012, while the number of adult liquor violations decreased by 41 percent.

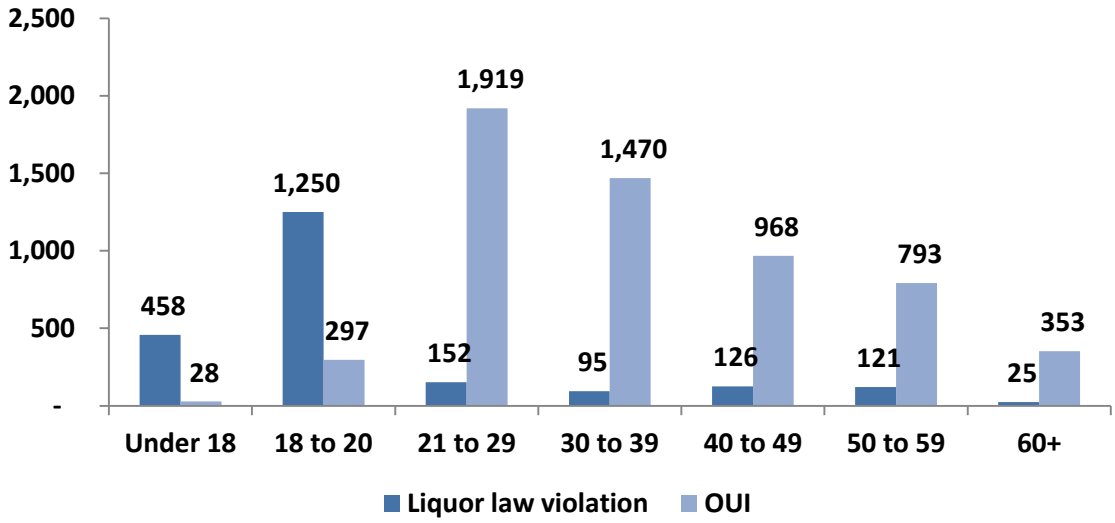
Figure 29. Juvenile arrests (<18 years old) related to alcohol, by arrest type: 2012–2016



Source: DPS-UCR, 2012–2016

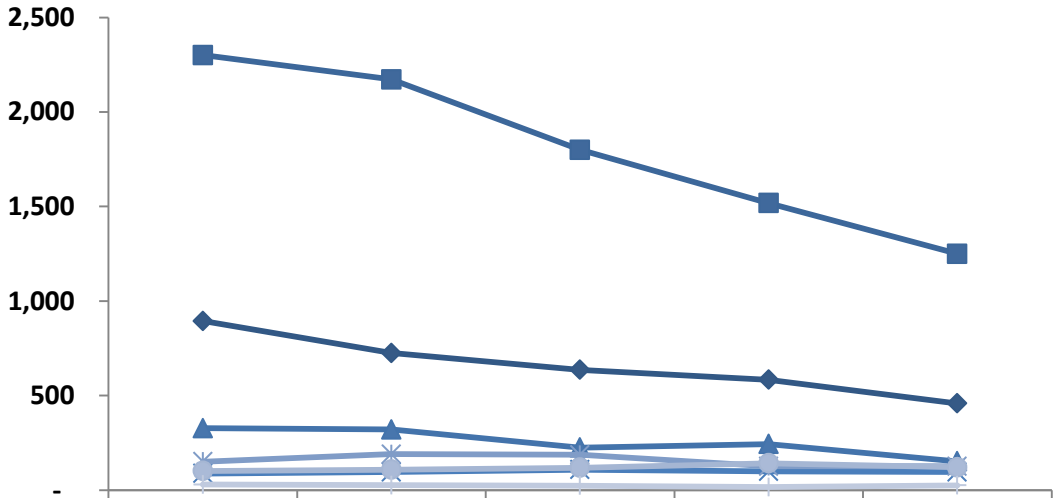
- Alcohol-related arrests among juveniles differ from adult arrests related to alcohol in that there are more arrests for liquor law violations than OUIs. In 2016, there were 458 juvenile arrests for breaking liquor laws and 28 for OUI arrests. Juvenile liquor law violations have decreased by 46 percent since 2012, whereas juvenile OUI arrests decreased by 47 percent from 2012 (53) to 2016 (28).

Figure 30. Arrests related to alcohol, by age group: 2016



Source: DPS-UCR, 2016

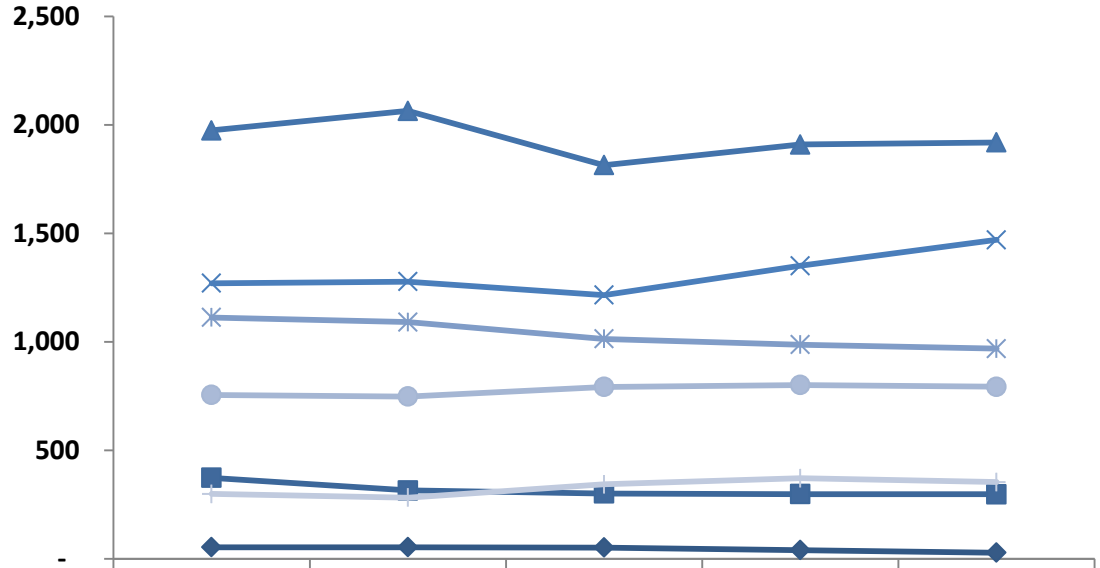
Figure 31. Arrests related to liquor law violations, by age group: 2012 to 2016



	2012	2013	2014	2015	2016
Under 18	894	725	636	584	458
18 to 20	2,301	2,172	1,800	1,518	1,250
21 to 29	327	320	225	243	152
30 to 39	88	95	108	99	95
40 to 49	150	190	187	126	126
50 to 59	101	108	118	142	121
60+	29	26	23	16	25

Source: DPS-UCR, 2016

Figure 32. Arrests related to operating under the influence, by age group: 2012 to 2016



	2012	2013	2014	2015	2016
Under 18	53	53	52	40	28
18 to 20	373	315	301	298	297
21 to 29	1,974	2,064	1,814	1,909	1,919
30 to 39	1,270	1,277	1,215	1,350	1,470
40 to 49	1,112	1,091	1,013	987	968
50 to 59	755	748	792	801	793
60+	299	282	343	371	353

- As previously noted, the number of arrests related to OUI and liquor law violations differs among adults and juveniles. This pattern remains when comparing the number of arrests among those of legal drinking age to those who are under 21. In 2016, there were 458 liquor law violations for people under 18 and 1,250 for people between the ages of 18 to 20. This is compared to 152 liquor law violations for those between the ages of 21 and 29, and even fewer among older age groups.
- The opposite can be seen in OUI violations. In 2016, there were 28 arrests for those under the age of 18 and 297 for 18 to 20 year olds, compared to 1,919 OUIs for those between the ages of 21 and 29 (more than any other age group). While most age groups appear to be stable, Mainers between the ages of 30 and 39 observed a 21 percent increase in OUI arrests from 2014 to 2016. The number of OUIs generally decreases across adulthood.

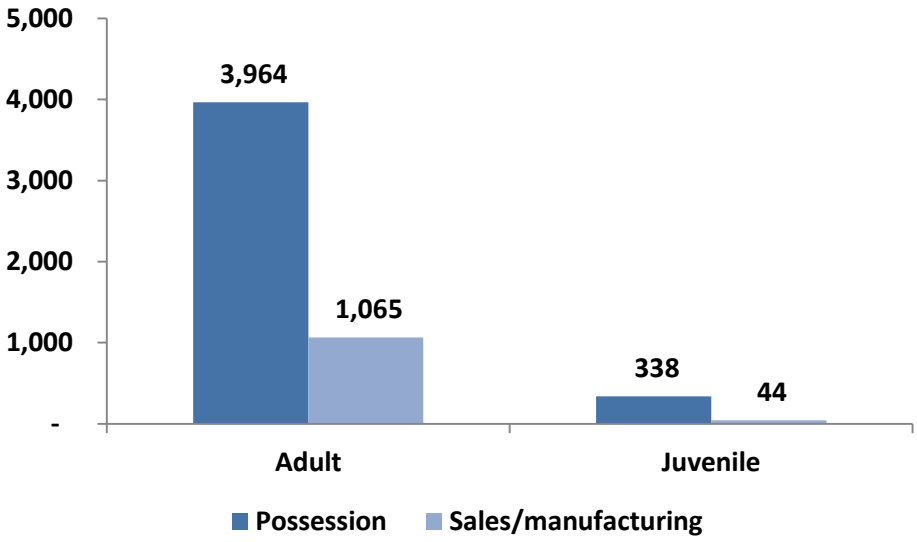
Indicator Description: ARRESTS RELATED TO DRUGS. This indicator reflects the number of arrests made by Maine law enforcement agencies that were related to drugs and includes manufacturing, sales, and possession.

Why Indicator is Important: Arrest rates for drug sales, manufacturing and drug possession can be an indication of the rate of criminal behavior, but it is important to note that they are also an indication of the level of law enforcement. Arrest rates are expected to increase with increased enforcement regardless of whether criminal behavior changes.

Data Source(s): DPS-UCR, 2012–2016

Summary: In 2016, about eight out of ten drug-related offenses were for possession rather than sale and manufacturing. From 2015 to 2016, adult and juvenile arrests related to drugs declined by nine percent. In 2016, nearly six out of ten drug offense arrests for possession were for marijuana. While rates of arrest for possession related to marijuana and synthetic narcotics have remained consistent, the percent of arrests for opium related crimes decreased by nine percent and arrests for other dangerous non-narcotics increased by five percent from 2015 to 2016.

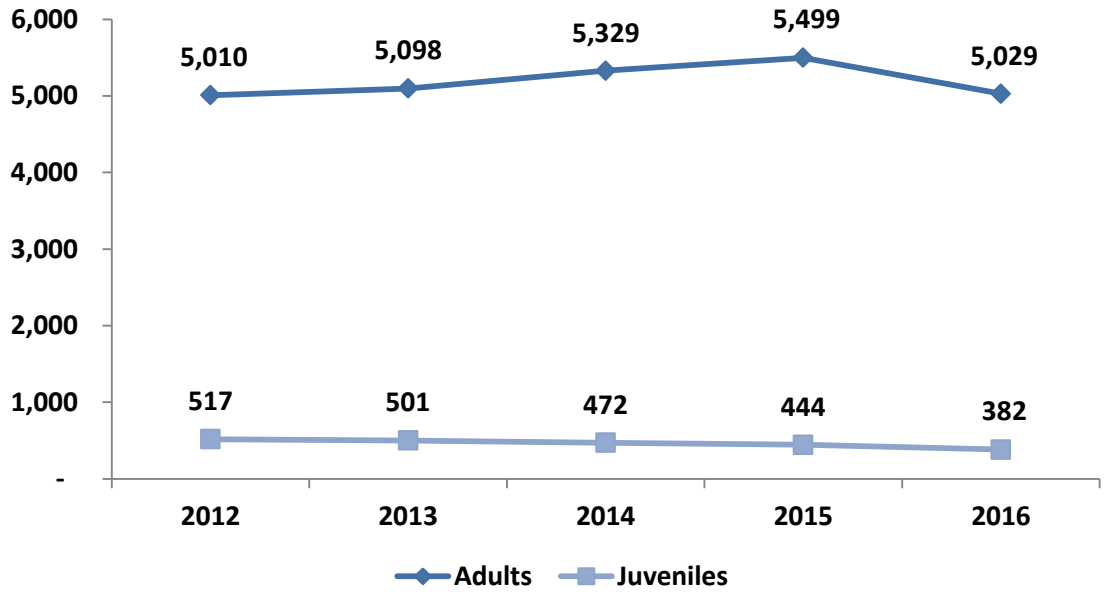
Figure 33. Adult and juvenile drug offenses, by offense type: 2016



Source: DPS-UCR, 2016

- Possession continues to be the leading drug offense for juveniles and adults (3,964 for adults, 338 for juveniles) rather than sales/manufacturing (1,065 for adults and 44 for juveniles) in 2016.
- Although not shown, of the 5,411 total drug arrests; 3,920 were male and 1491 were female. This means that approximately three out of four (72%) arrests related to drugs were among males.

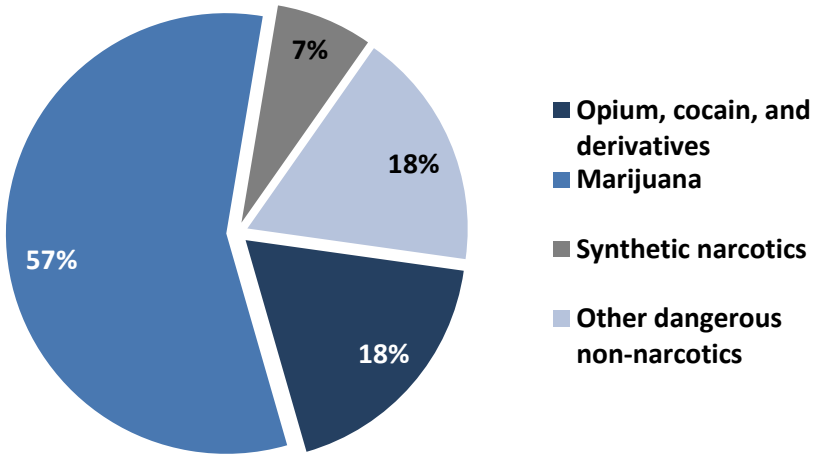
Figure 34. Total drug offense arrests, by age group: 2012–2016



Source: DPS-UCR, 2012–2016

- The total number of drug arrests for adults and juveniles declined in 2016. Adult arrests decreased by nearly 10 percent and juvenile arrests decreased by 14 percent since 2015.

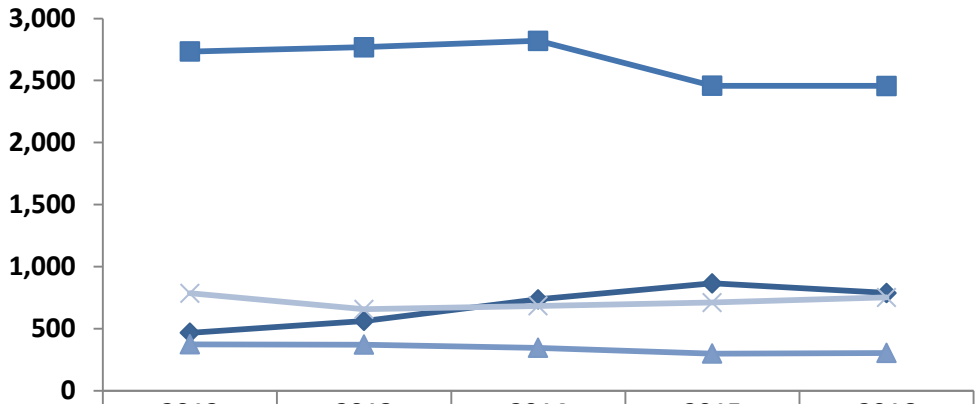
Figure 35. Local law enforcement drug offense arrests (all ages) for possession, by drug type: 2016



Source: DPS-UCR, 2016

- Marijuana comprised the largest portion of drug arrests for possession in 2016 at fifty-seven percent, followed by opium, synthetic narcotics, and other dangerous non-narcotics.

Figure 36. Local law enforcement drug offense arrests (all ages) for possession, by drug type: 2012–2016



	2012	2013	2014	2015	2016
Opium, cocaine, and derivatives	467	563	737	865	788
Marijuana	2,734	2,769	2,820	2,458	2,457
Synthetic narcotics	374	371	346	300	305
Other dangerous non-narcotics	786	656	683	711	752

Source: DPS-UCR, 2012-2016

- From 2015 to 2016, arrests for possession of opium (e.g. morphine, heroin, cocaine, and codeine) declined by nine percent; however, arrests for other dangerous non-narcotics (e.g. barbiturates and Benzedrine) increased by five percent. Arrest rates for marijuana and synthetic narcotics (e.g. Demerol and methadone) remained largely unchanged.

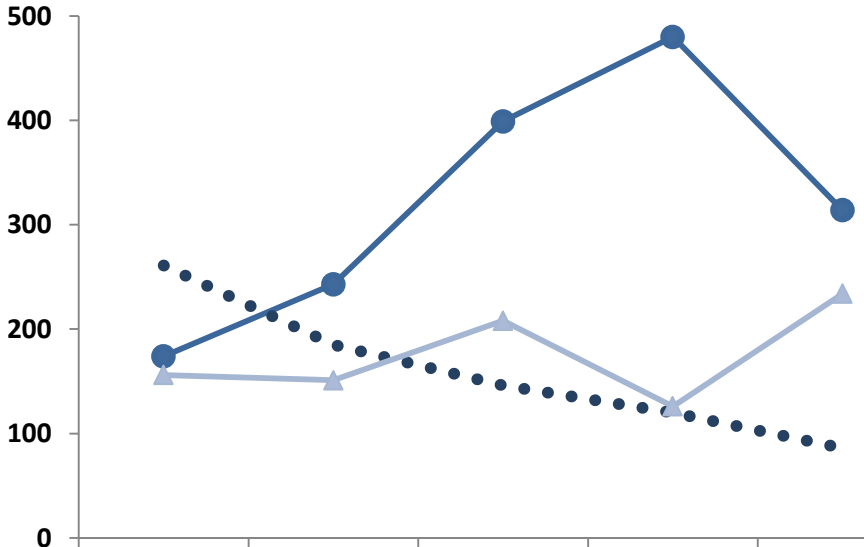
Indicator Description: DRUG ENFORCEMENT AGENCY DRUG TRAFFICKING AND MANUFACTURING INVESTIGATIONS. This indicator reflects trafficking investigations made by the Maine's Drug Enforcement Agency (MDEA), by drug type. The MDEA through its regional multi-jurisdictional task forces is the lead state agency in confronting drug trafficking crime.

Why Indicator is Important: Drug investigation counts can be an indication of the rate of criminal behavior, but it is important to note that they are also an indication of the level of law enforcement. Drug manufacturing investigations are expected to increase with increased enforcement regardless of whether criminal behavior changes.

Data Source(s): MDEA-UCR, 2013–2017

Summary: In 2017, the majority of MDEA trafficking investigations involved heroin, followed by cocaine, and other opiates. From 2016 to 2017, MDEA trafficking investigations related to heroin decrease by a third, investigations related to other opiates decreased by a quarter, and investigations involving cocaine increased by a third. Manufacturer investigations related to methamphetamine decreased by more than half from 2016 to 2017.

Figure 37. MDEA drug trafficking investigations, by drug type: 2013–2017

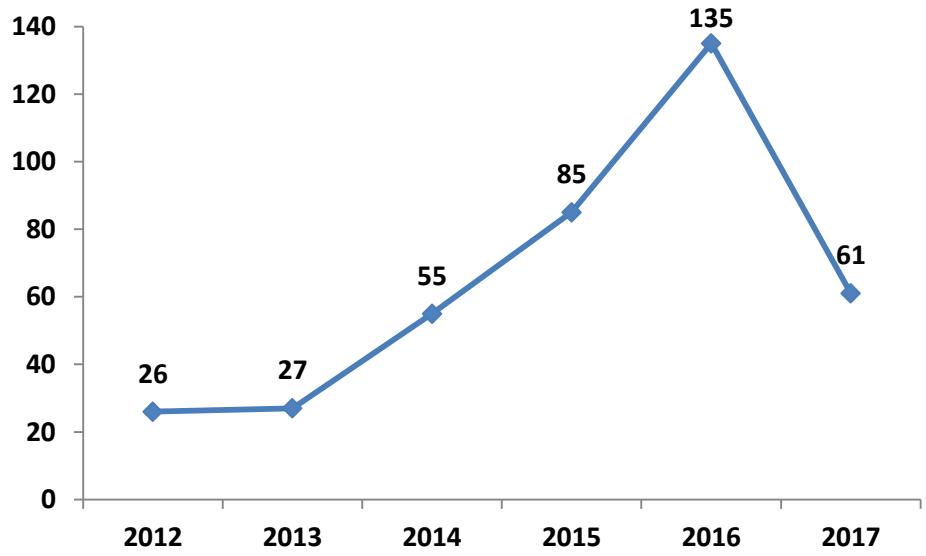


	2013	2014	2015	2016	2017
Heroin	174	243	399	480	314
Other Opiates	261	185	146	120	86
Cocaine	156	151	208	126	234

Source: MDEA, 2013–2017

- In 2017, trafficking investigations related to heroin decreased by 35 percent and cocaine investigations increased by 40 percent, bringing the investigation of these two substances more closely aligned. Investigations of other opiates have steadily declined, decreasing 67 percent since 2013.

Figure 38. MDEA methamphetamine manufacturing investigations: 2013–2017



Source: MDEA, 2013–2017

- Investigations of methamphetamine manufacturing decreased by 55 percent from 2016 to 2017.
- Although not shown, there were 58 methamphetamine labs/dumpsites related responses by the MDEA in 2017, representing a 53 percent decrease from 2016 (126 responses). According the Maine DEA, this observed decrease is due in part to an influx in imported mass manufactured crystal methamphetamine.

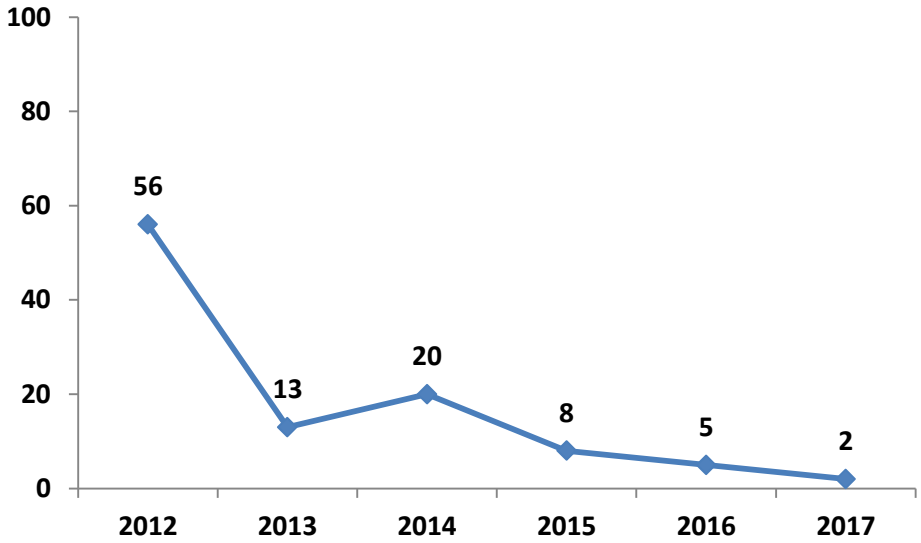
Indicator Description: PHARMACY ROBBERIES. This indicator reflects the number of pharmacy robberies in the state of Maine as tracked by the Maine Drug Enforcement Agency (MDEA).

Why Indicator is Important: The number of pharmacy robberies can indicate the demand for pharmaceutical drugs. Pharmacy robberies contribute to a higher demand for law enforcement resources, lost earnings for retailers, and trauma to those involved. In addition, robberies increase the availability of prescription drugs in the community, which contributes to misuse by individuals without a prescription.

Data Source(s): MDEA-UCR, 2013–2017

Summary: Pharmacy robberies have steadily decreased from 2014 (20 robberies) to 2017 (2 robberies).

Figure 39. Number of pharmacy robberies in Maine: 2011–2017



Source: MDEA, 2013–2016

- In 2017, two pharmacies were robbed. This represents a 90 percent decrease since 2014.

Motor Vehicle Crashes Involving Alcohol/Drugs

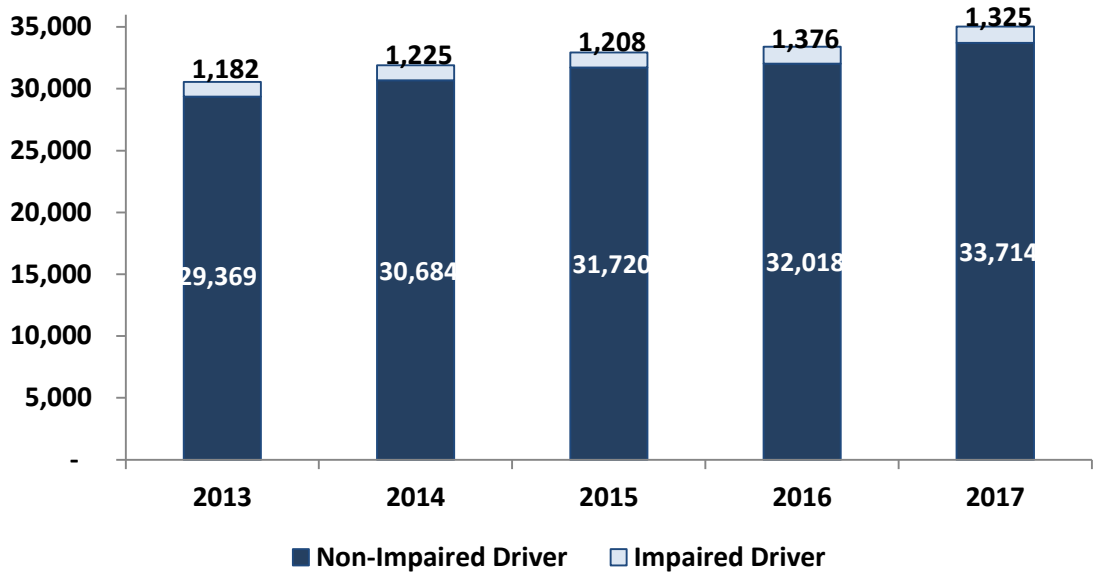
Indicator Description: **MOTOR VEHICLE CRASHES INVOLVING ALCOHOL AND/OR DRUGS.** This indicator shows the number of motor vehicle crashes in which alcohol was a factor, meaning at least one driver had consumed medication, drugs, or alcohol.

Why Indicator is Important: Motor vehicle crashes are the second leading cause of traumatic brain injury, with 29 percent of traumatic brain injuries occurring from motor vehicle crashes.[8]

Data Source(s): MDOT, BHS, 2013–2017

Summary: While the overall number of motor vehicle crashes has increased by 15 percent from 2013 to 2017, the proportion of alcohol and or drug related motor vehicle crashes has remained stable at four percent.

Figure 40. Number of motor vehicle crashes, by whether they involved impaired drivers: 2013–2017



Source: MDOT, BHS, 2013–2017

- The total number of motor vehicle crashes has increased by 15 percent from 2013 (30,551) to 2017 (35,039) while crashes involving impaired drivers increased by 12 percent from 2013 (1,182) to 2017 (1,325). The proportion of crashes related to alcohol and/or drugs has remained relatively stable at around four percent.

[8] 2006 Maine Injury Report, Maine Center for Disease Control, Injury Prevention Program. Retrieved on 7/15/2016 from http://www.maine.gov/dhhs/mecdc/population-health/inj/documents/final08year3maine2006injuryreport.pdf

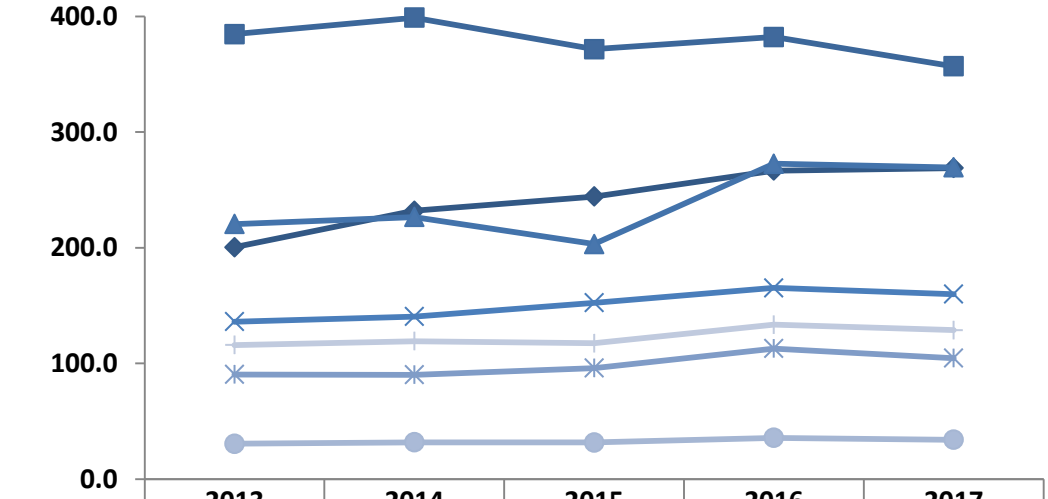
Indicator Description: ALCOHOL/DRUG RELATED MOTOR VEHICLE CRASH RATE. This indicator presents the number of motor vehicle crashes involving impaired drivers under the influence of alcohol and/or drugs/medication, relative to the licensed population. The rate per 100,000 allows us to see the frequency with which an occurrence emerges within a population over time. In this case, the population is the number of licensees (among a particular age group) in Maine. Where applicable, the number of licensees used to calculate the rate reflects the relevant age group.

Why Indicator is Important: Nearly one in four of all motor vehicle crashes resulting in fatalities involved alcohol and/or drugs.

Data Source(s): MDOT, BHS, 2013–2017

Summary: In 2017, drivers between the ages of 21 and 24 had the highest rate of alcohol/drug-related crash rates, followed by drivers between the ages of 25 to 34. In recent years, 25 to 34 year olds as well as 16 to 20 year olds observed increased rates involving impaired driving crashes. Although not explicitly shown, 16 to 20 year olds as well as 25 to 34 year olds experienced increases of at least 25 percent in the number of impaired crashes from 2013 to 2017. Furthermore, although not shown, males were almost three times as likely to be the driver in an impaired crash in 2017.

Figure 41. Alcohol/drug-related motor vehicle crash rate per 100,000 licensees, by age group: 2013–2017



	2013	2014	2015	2016	2017
16-20	200.4	232.0	244.2	266.7	268.8
21-24	384.6	398.8	371.6	382.1	356.8
25-34	220.5	226.6	203.2	272.6	269.4
35-44	136.0	140.5	152.5	165.3	159.8
45-54	90.4	90.2	95.9	112.8	104.6
55+	30.6	31.9	31.6	35.7	34.0
16+	115.9	119.2	117.4	133.5	128.8

Source: MDOT, BHS, 2013–2017

- Maine drivers ages 21 to 24 had the highest alcohol-related crash rate in 2017 (356.8 per 100,000 licensees); rates among this age group have remained relatively stable for the past several years. In 2017, the second highest rates of alcohol/drug-related motor vehicle crashes were observed among drivers between the ages of 25 to 34 (269.4 per 100,000 licensees), followed closely by drivers ages 16 to 20 (268.8 per 100,000 licensees). Both the 16 to 20 year olds, as well as the 25 to 34 year olds, observed notable increases in impaired crash rates over the past several years.
- Although not explicitly shown, the number of impaired crashes among 16 to 20 year olds increased by 26 percent from 2013 to 2017 while the number of impaired crashes involving drivers 25 to 34 increased by 25 percent.

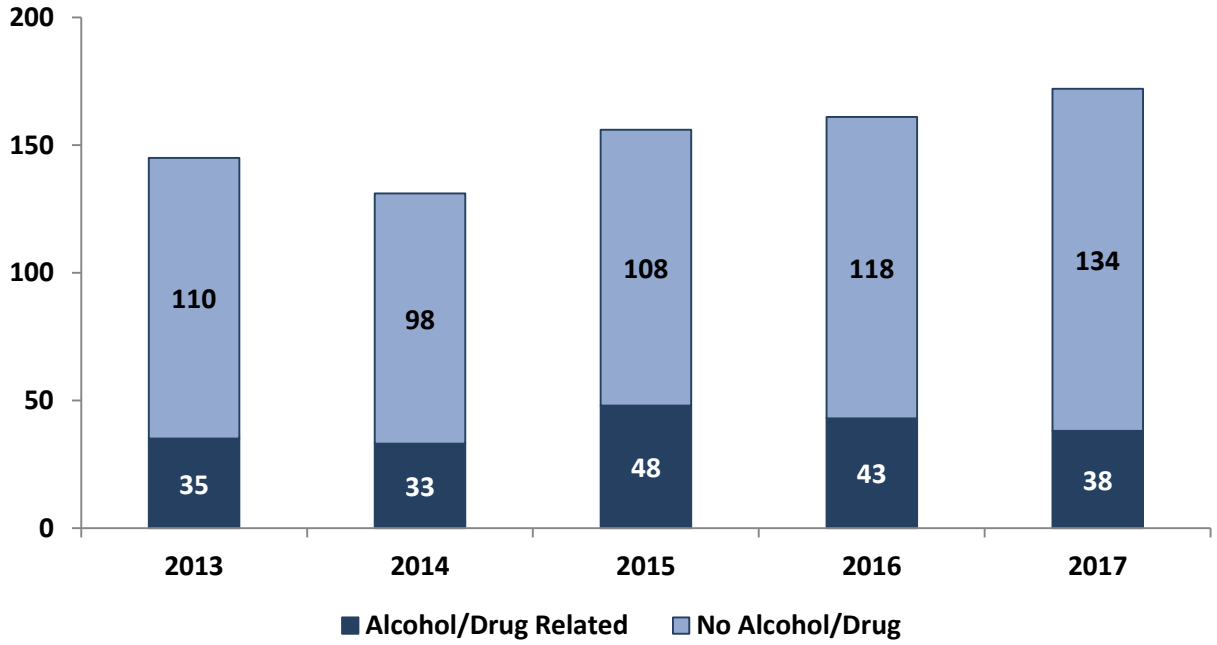
Indicator Description: NUMBER OF FATAL MOTOR VEHICLE CRASHES INVOLVING ALCOHOL/DRUGS. This indicator presents the number of fatal motor vehicle crashes where alcohol was a factor in the crash. This means that at least one driver had a blood alcohol content (BAC) of at least .08 or greater and/or was under the influence of drugs/medication. This indicator includes total fatalities of anyone (e.g., pedestrian, passenger) involved in the crash. It is important to note that small fluctuations from year to year do not indicate overall trends.

Why Indicator is Important: Alcohol/drug related crash fatalities are a major consequence of alcohol/drug consumption. Although alcohol/drugs were involved in only four percent of all crashes, about one in four fatal motor vehicle crashes in 2017 involved alcohol/drugs.

Data Source(s): MDOT, BHS, 2013–2016

Summary: In 2017, about one in five (22%) fatal motor vehicle crashes involved alcohol and/or drugs. While there were more overall fatal crashes recorded in 2017 than in 2016, 2017 had the smallest percentage related to drug/alcohol impairment over the last five years.

Figure 42. Number of fatal motor vehicle crashes, by whether they involved impaired drivers: 2013–2017



Source: MDOT, BHS, 2013–2017

- Approximately 22 percent (38 of 172) of fatal motor vehicle crashes involved an alcohol or drug-impaired driver. Although not explicitly shown, this is a decline from 29 percent in 2015 and 27 percent in 2016.

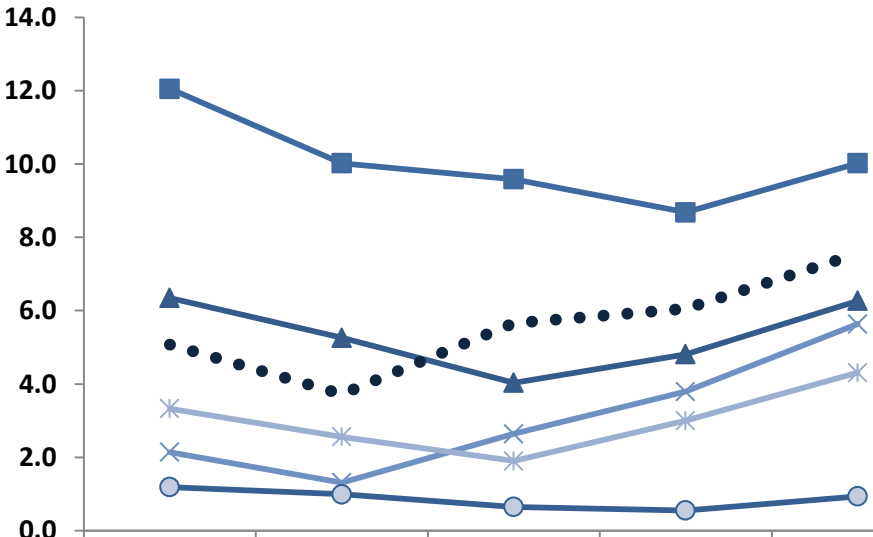
Indicator Description: ALCOHOL/DRUG RELATED MOTOR VEHICLE CRASH FATALITY RATE. This indicator presents the number of fatalities resulting from motor vehicle crash fatalities that involved alcohol (drivers with a blood alcohol content of .08 or greater) and/or drugs, relative to the licensed population. The rate per 100,000 allows us to see the frequency of this occurrence within a population over time. In this case, the population is the number of licensees in Maine. Where applicable, the number of licensees used to calculate the rate reflects the relevant age group.

Why Indicator is Important: Nearly one in four of all motor vehicle crashes resulting in fatalities involve alcohol and/or drugs.

Data Source(s): MDOT/BHS, 2011–13 to 2015–17

Summary: In 2015-17, the rates of alcohol/drug-related motor vehicle crash fatalities were highest among 21 to 24 year olds, followed by 25 to 34 year olds. Following a decline in past years, recent rates of alcohol/drug related fatalities have increased across all age ranges.

Figure 43. Alcohol/drug related motor vehicle crash fatality rate per 100,000 licensees, by age: 2011–13 to 2015–17



	2011-13	2012-14	2013-15	2014-16	2015-17
16-20	6.3	5.3	4.0	4.8	6.3
21-24	12.0	10.0	9.6	8.7	10.0
25-34	5.1	3.7	5.7	6.0	7.5
35-44	2.1	1.3	2.6	3.8	5.6
45-54	3.3	2.6	1.9	3.0	4.3
55+	1.2	1.0	0.6	0.6	0.9

Source: MDOT, 2011–13 to 2015–17

- In 2015–17, the highest rate of fatalities from alcohol/drug-related motor vehicle crashes was among drivers ages 21 to 24 (10.0 per 100,000 licensees). Rates among this age group have notably increased since 2014–16 (8.7 per 100,000 licensees).
- The second highest rate in 2015–17 was among 25 to 34 year olds with 7.5 alcohol/drug-related motor vehicle fatalities per 100,00 licensees.

Overdoses and Related Deaths

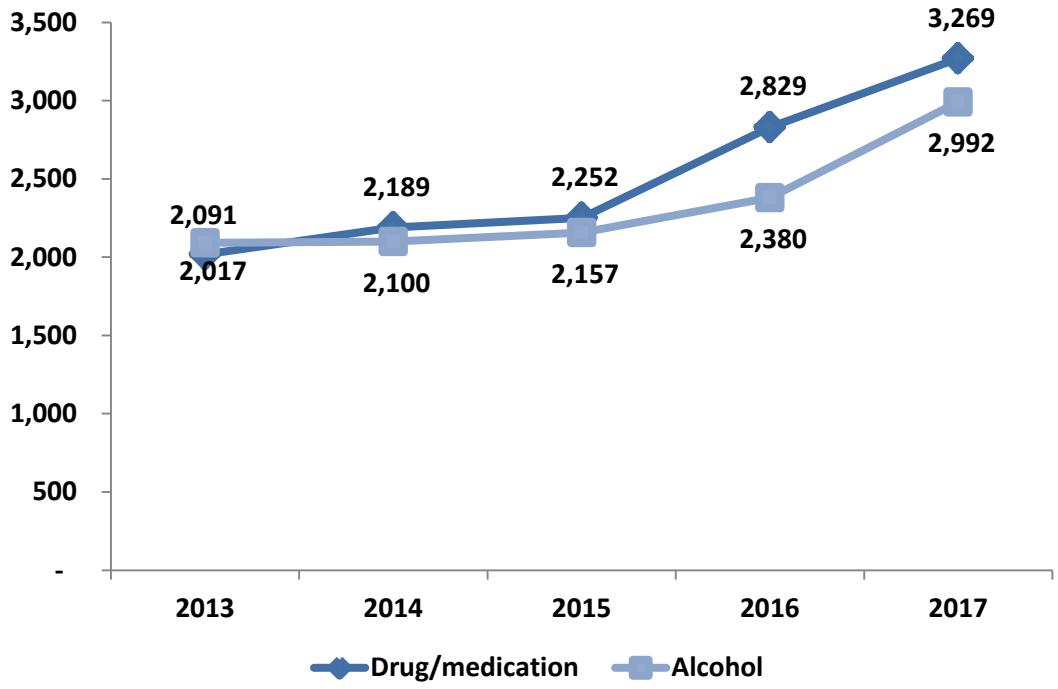
Indicator Description: **EMS OVERDOSES.** This indicator shows the number of persons receiving help from Emergency Medical Services (EMS) related to an overdose from 2012 to 2015. This data is based on the primary impression given by the emergency responder at the scene.

Why Indicator is Important: Overdosing on a substance can cause serious physical harm resulting in hospitalization and even death. Responding to overdoses also uses valuable EMS resources.

Data Source(s): Emergency Medical Services, 2013–2017

Summary: EMS responses related to drugs and/or alcohol haven been increasing for the past several years. From 2013 to 2017, drug/medication overdoses increased by 62 percent while those related to alcohol overdose increased by 43 percent. Rates of drug/medication overdose responses were disproportionately highest among Mainers 26 to 35 while those related to alcohol overdose were highest among 18 to 25 year olds. The number of 26 to 35 year olds involved in an EMS response related to drugs/medication more than doubled from 2013 to 2017.

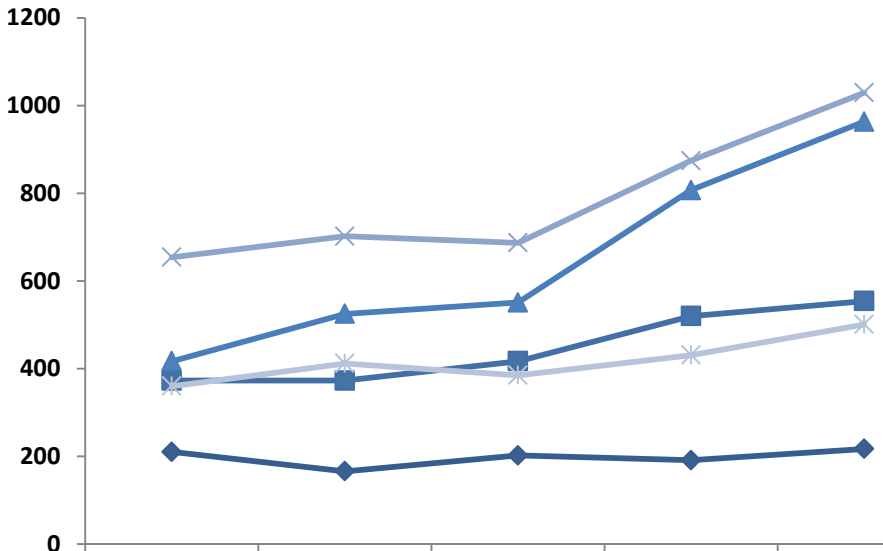
Figure 44. Number of overdose EMS responses, by type: 2013–2017



Source: EMS, 2013–2017

- In 2017, EMS responded to 3,269 individuals experiencing a drug/medication overdose; this represents a 62 percent increase since 2013. A 43 percent increase was evidenced in EMS overdose responses related to alcohol between 2013 (2,091) and 2017 (2,992).

Figure 45. Number of overdose EMS responses related to drugs or medication, by age group: 2013–2017

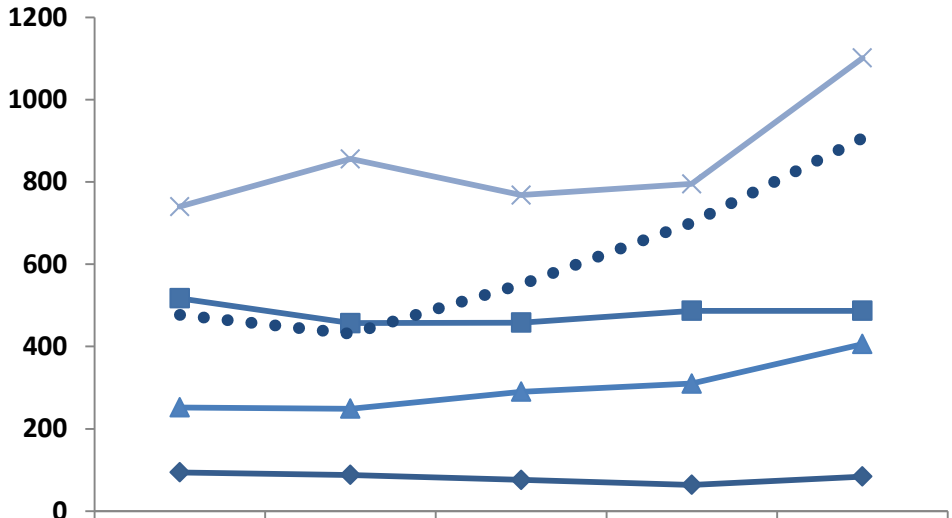


	2013	2014	2015	2016	2017
Under 18	210	166	202	191	217
18 to 25	373	373	417	520	554
26 to 35	417	525	551	807	963
36 to 54	654	702	687	874	1029
55+	360	412	385	431	501

Source: EMS, 2013–2017

- In 2017, there were 1,029 drug/medication EMS overdose responses among Mainers 36 to 54 years of age, followed by 26 to 35 year olds (963), 18 to 25 year olds (554), and those 55 and older (501).
- All age groups, with the exception of minors under the age of 18, observed notable increases in the number of EMS overdose responses related to drugs/medication from 2013 to 2017. Mainers 26 to 35 observed an increase of 131 percent from 2013 to 2017; this was followed by 26 to 35 year olds (57%), and those 18 to 25 (49%).

Figure 46. Number of overdose EMS responses related to alcohol, by age group: 2013–2017

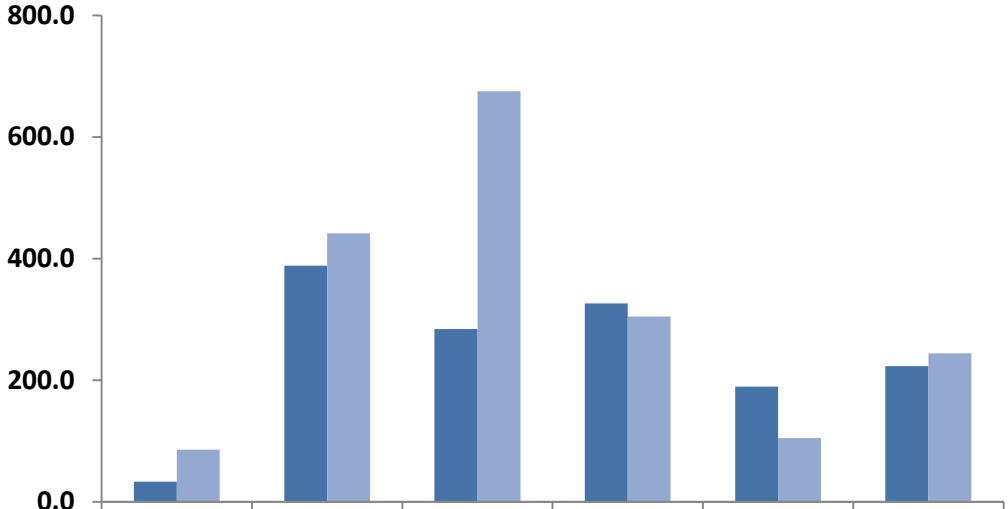


	2013	2014	2015	2016	2017
Under 18	94	88	76	64	84
18 to 25	517	457	458	487	487
26 to 35	252	249	290	310	406
36 to 54	740	856	768	795	1101
55+	477	431	551	701	906

Source: EMS, 2013–2017

- In 2017, the majority of EMS responses related to an overdose involving alcohol were among Mainers 36 to 54 years old (1,101), followed by those 55 and older (906), 18 to 25 year olds (487), 26 to 35 year olds (406), and those under age of 18 (84).
- Alcohol related overdose responses among residents 36 to 54 increased by 38 percent from 2016 to 2017 while responses involving Mainers 55 and older more than doubled from 2014 to 2017. In addition, younger residents between the ages of 26 and 35 observed an increase of 38 percent from 2014 to 2017.

Figure 47. EMS overdose response rate (per 100,000 residents), by age and overdose type: 2017



	Under 18	18 to 25	26 to 35	36 to 54	55+	All Ages
Alcohol	33.2	388.4	284.5	326.2	189.7	223.4
Drug/Medication	85.9	441.8	674.9	304.8	104.9	244.3

Source: EMS, 2017

- In 2017, the highest rate of EMS responses due to medication and/or drug overdoses occurred among Mainers 26 to 35 years old (674.9 per 100,000) followed by 18 to 25 year olds (441.8 per 100,000).
- As for EMS overdose responses related to alcohol, although 36 to 54 year olds made up the greatest proportion, rates based on population were actually highest among 18 to 25 year olds (388.4 per 100,000), followed by 36 to 54 year olds (326.2 per 100,000).

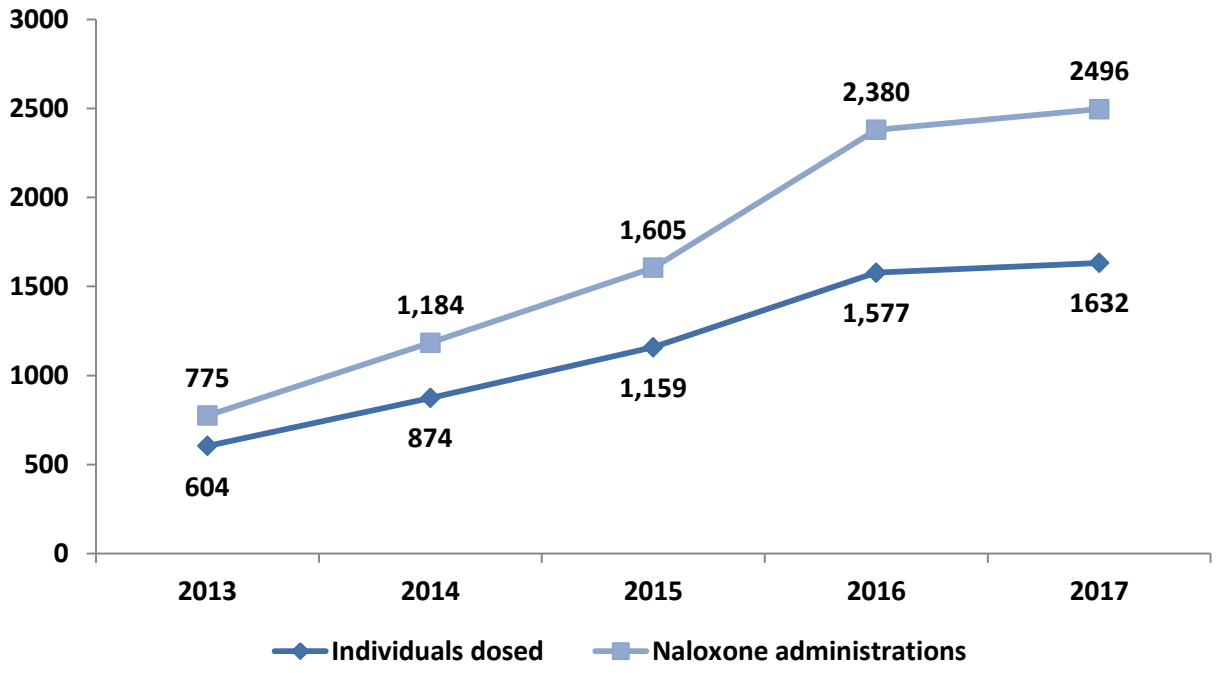
Indicator Description: NALOXONE ADMINISTRATIONS. This indicator shows the number of naloxone administrations and the number of individuals receiving doses from Emergency Medical Services (EMS) related to an opioid overdose. Naloxone is a medication administered to patients who have experienced an overdose related to an opioid (*e.g.*, prescription painkillers, heroin, or morphine). Some individuals may have received multiple administrations/doses of naloxone.

Why Indicator is Important: Overdosing on a substance can cause serious physical harm resulting in hospitalization and even death. Responding to overdoses also uses valuable EMS resources. Furthermore, this indicator provides a sense of the prevalence of all opioid overdoses including those that did not result in death.

Data Source(s): Emergency Medical Services, 2013–2017

Summary: After more than doubling from 2013 to 2016, the number of EMS administered naloxone administrations have begun to level off. In 2017, nearly seven out of ten individuals receiving naloxone by the EMS were male. Rates are disproportionately highest among males 26 to 34 years old.

Figure 48. Number of EMS naloxone* administrations and individuals dosed: 2013–2017**



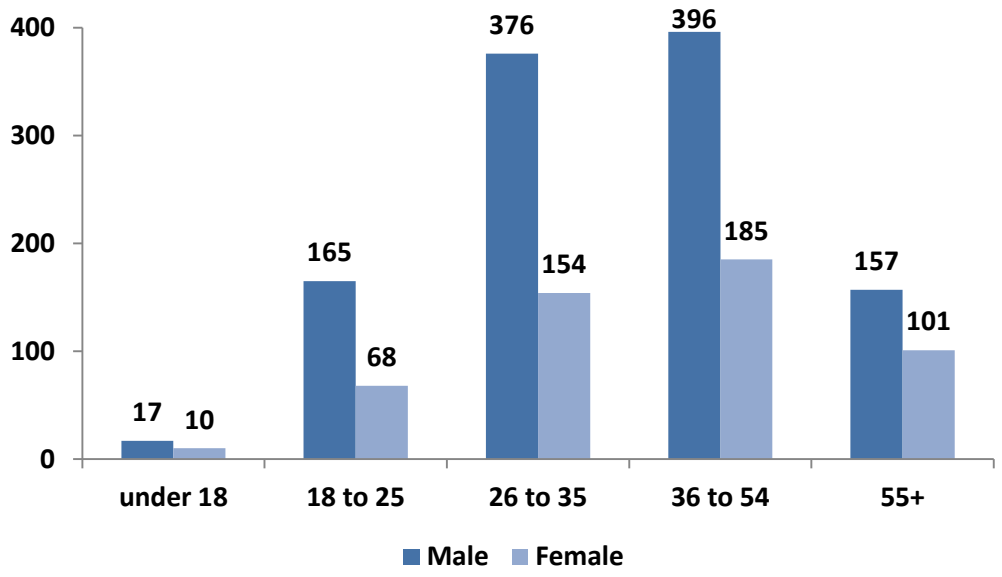
Source: EMS, 2013–2017

**Naloxone, also known as Narcan, is a medication administered to counter the effects of an overdose due to opioids.*

***Some individuals may have received multiple administrations/doses of naloxone.*

- In 2017, there were a total of 2,496 naloxone administrations given by emergency medical responders to 1,632 individuals. Both the number of naloxone doses administered by EMS responders as well as the number of individuals receiving administrations increased steadily from 2013 to 2016. From 2016 to 2017, this rise began to slow; the number of naloxone administrations increased by five percent, while the number of individuals receiving naloxone from EMS responders increased by three percent.

Figure 49. Individuals receiving EMS naloxone administrations, by gender and age: 2017

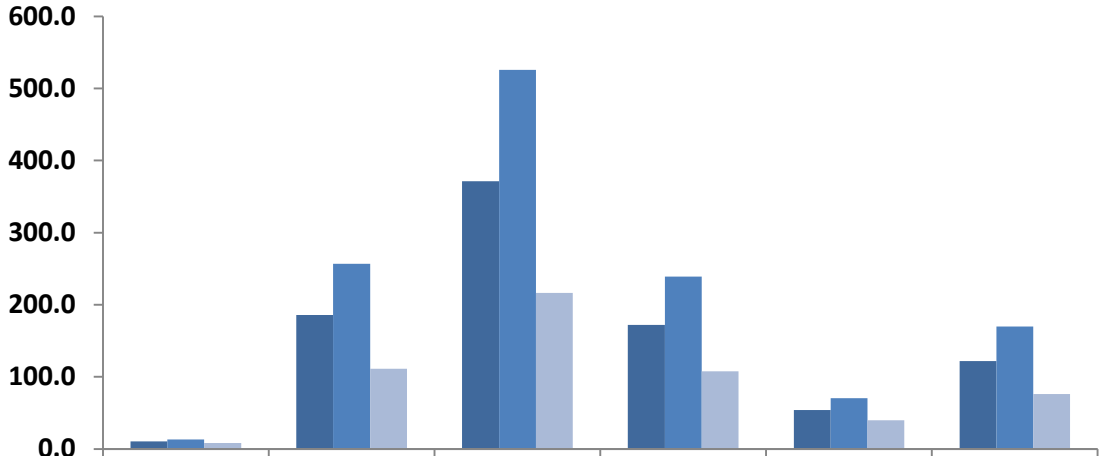


Source: EMS, 2017

**Naloxone is a medication administered to counter the effects of an overdose due to opioids.*

- In 2017, out of 1,629 individuals (with known ages) receiving naloxone administrations from EMS responders, 1,111 (68%) were male and 518 (32%) were female. In 2017, most EMS responder naloxone administrations were given to males 26 to 35 years of age (376) and males ages 36 to 54 (396). Among females, doses were most commonly administered to those between the ages of 36 and 54 (185) and individuals 26 to 35 (154). These patterns are consistent with years past.

Figure 50. EMS Naloxone* administrations rate (per 100,000 residents), by gender and age: 2017



	under 18	18 to 25	26 to 35	36 to 54	55+	All ages
Both Genders	10.7	185.8	371.5	172.1	54.0	121.9
Male	13.1	256.8	525.5	239.1	70.3	169.7
Female	8.1	111.2	216.5	107.6	39.7	76.0

Source: EMS, 2017

**Naloxone, also known as Narcan, is a medication administered to counter the effects of an overdose due to opioids.*

- In 2017, the highest rates of individuals receiving naloxone administrations given by EMS responders were observed among the 25 to 35 year old population. In total, the 25 to 35 year old population had a rate of 371.5 naloxone administrations per 100,000, of which males observed disproportionately high rates compared to females (525.5 per 100,000 compared to 216.5 per 100,000).

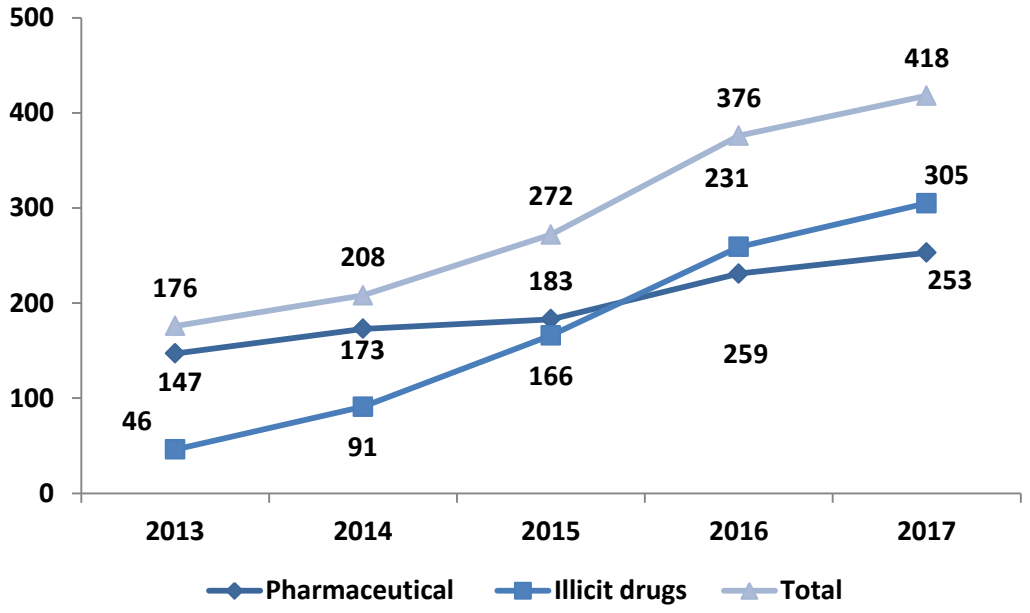
Indicator Description: DEATHS DUE TO OVERDOSE. This measure reflects the number of deaths where the cause of death was directly related to the consumption of one or more substances. This excludes deaths where a substance may have been ingested prior to engaging in a behavior that resulted in death (*e.g.*, drunk driving) or where lifetime substance use may have impacted health (*e.g.*, alcoholic cirrhosis). Pharmaceutical opioids are drugs used in medical treatment; illicit drugs are those illegally produced and sold outside of medical channels. This analysis includes Maine decedents as well as non-residents that died from an overdose while in Maine.

Why Indicator is Important: The most extreme consequences of alcohol and drug use is overdose death, where the substance(s) play a direct role in an individual's death. These are seen as potentially preventable deaths.

Data Source(s): Office of Chief Medical Examiner/Marcella Sorg[9], 2013–2017

Summary: In 2017, there were a total of 418 overdose deaths due to substance use in Maine. After more than doubling from 2013 to 2016, the rate of change has slowed. From 2016 to 2017, overall overdose deaths increased by eleven percent. This is compared to a 38 percent rate of change from 2015 to 2016. In 2017, seven out of ten overdose deaths were related to illicit drugs while six out of ten involved a pharmaceutical drug. It is important to note that deaths involving pharmaceuticals and illicit drugs are not mutually exclusive.

Figure 51. Number of deaths* caused by pharmaceuticals and/or illicit drugs, alone or in combination: 2013–2017



Source: Marcella Sorg/Office of the Chief Medical Examiner, 2013–2017

[9] Sorg, Marcella H. Margaret Chase Smith Policy Center, University of Maine.

**Deaths involving pharmaceuticals and illicit drugs are not mutually exclusive.*

- Overdose deaths continued to increase in 2017; however the rate of increase has slowed after years of climbing. Illicit drug overdose deaths have also continued to outnumber overdoses related to pharmaceutical (253 pharmaceutical-related compared to 305 illicit-related).

Indicator Description: OVERDOSE DEATHS ASSOCIATED WITH SPECIFIC SUBSTANCES. When a death is investigated, the Medical Examiner determines what substances contributed to the individual's death. This measure examines the percent of drug overdose deaths associated with certain types of substances. Note that more than one substance can be determined as contributing to death.

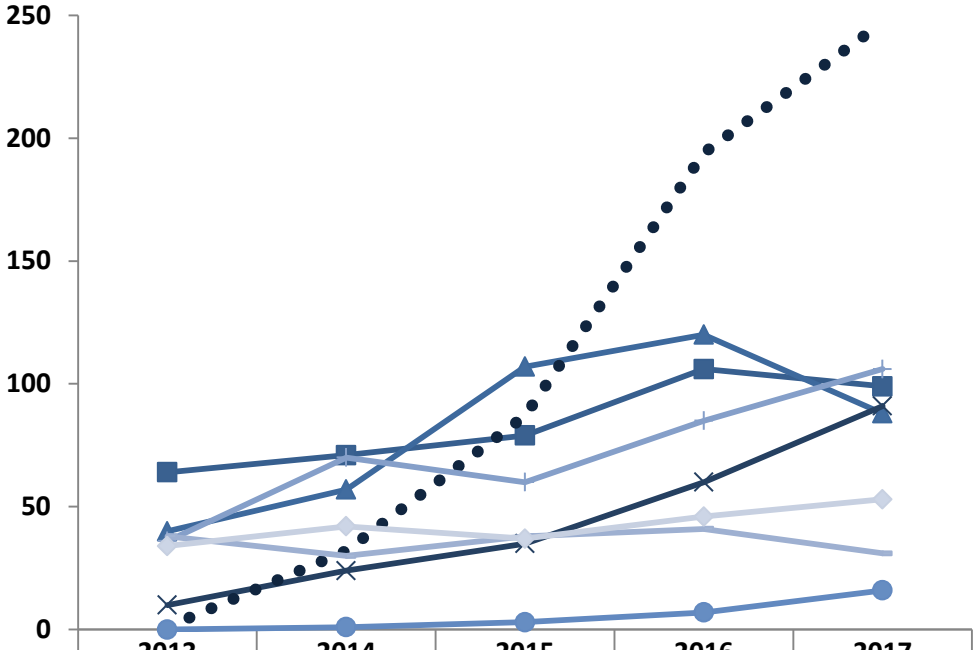
Why Indicator is Important: One of the most extreme consequences of alcohol and drug use is overdose death, where the substance(s) play a direct role in an individual's death. These are seen as potentially preventable deaths. In addition, some substances are more lethal than others.

Data Source(s): Office of Chief Medical Examiner/Marcella Sorg,[10] 2013–2017

Summary: Non-pharmaceutical fentanyl continues to play a major role in drug-related deaths comprising about a third of total deaths, whereas the influence of heroin, benzodiazepine, and methadone began to decline in 2017. However, alcohol, benzodiazepines, cocaine and heroin still made up a large proportion of drug-related deaths in 2017.

[10] Sorg, Marcella H. Margaret Chase Smith Policy Center, University of Maine.

Figure 52. Number of drug deaths involving specific drug types†: 2013–2017



	2013	2014	2015	2016	2017
Benzodiazepines	64	71	79	106	99
Heroin/ Morphine	40	57	107	120	88
Cocaine	10	24	35	60	91
Non-Pharm Fentanyl*	1	32	87	194	247
Methamphetamine	0	1	3	7	16
Ethanol/Alcohol	36	70	60	85	106
Methadone	38	30	38	41	31
Oxycodone	34	42	37	46	53

Source: Marcella Sorg/OCME, 2013–2017

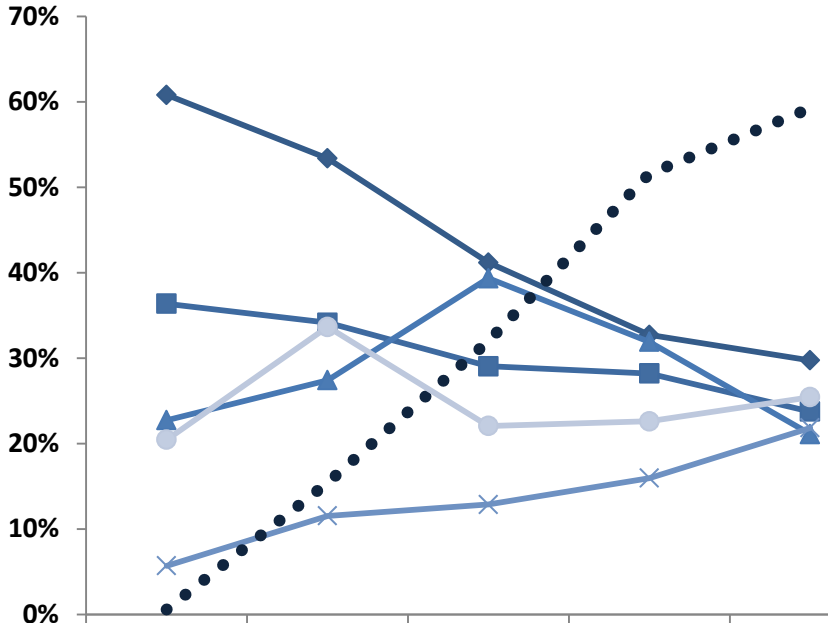
†Some deaths may be caused by more than one key drug.

***Deaths caused by known pharmaceutical morphine removed from total.*

**Non-pharmaceutical fentanyl includes illicitly manufactured fentanyl and fentanyl analogs but excludes pharmaceutical fentanyl (e.g., fentanyl patches).*

- Although not explicitly shown, opiates/opioids were involved in 85 percent of the drug related deaths in 2017. Most drugs demonstrated increases from 2016 with the exception of methadone, benzodiazepine, and heroin/morphine, which decreased in number of drug deaths.
- The number of non-pharmaceutical fentanyl deaths nearly tripled from 2016 to 2018.
- Ethanol/alcohol and cocaine overdose deaths also continued to quickly rise since 2013. The number of overdose deaths related to alcohol has nearly tripled from 36 to 106 and deaths related to cocaine have increased by a factor of eight since 2013.

Figure 53. Percent of drug deaths involving specific drug types†: 2013–2017



	2013	2014	2015	2016	2017
Pharmaceutical Opioid	61%	53%	41%	33%	30%
Benzodiazepines	36%	34%	29%	28%	24%
Heroin/ Morphine	23%	27%	39%	32%	21%
Cocaine	6%	12%	13%	16%	22%
Non-Pharm Fentanyl*	1%	15%	32%	52%	59%
Ethanol/Alcohol	20%	34%	22%	23%	25%

Source: OCME/Dr. Marcella Sorg, 2013-2017

†Some deaths may be caused by more than one key drug.

***Deaths caused by known pharmaceutical morphine removed from total.*

** include acetyl fentanyl but excludes pharmaceutical fentanyl (e.g., fentanyl patches).*

- In 2017, most (59%) drug related overdose deaths involved non-pharmaceutical fentanyl; this was followed by pharmaceutical opioids (30%), ethanol/alcohol (25%), benzodiazepines (24%), cocaine (22%), and heroin/morphine (21%). In recent years, the proportions of prescription drug related overdose deaths (e.g., oxycodone, benzodiazepines, etc.) have decreased, conversely increasing non-pharmaceutical sources.

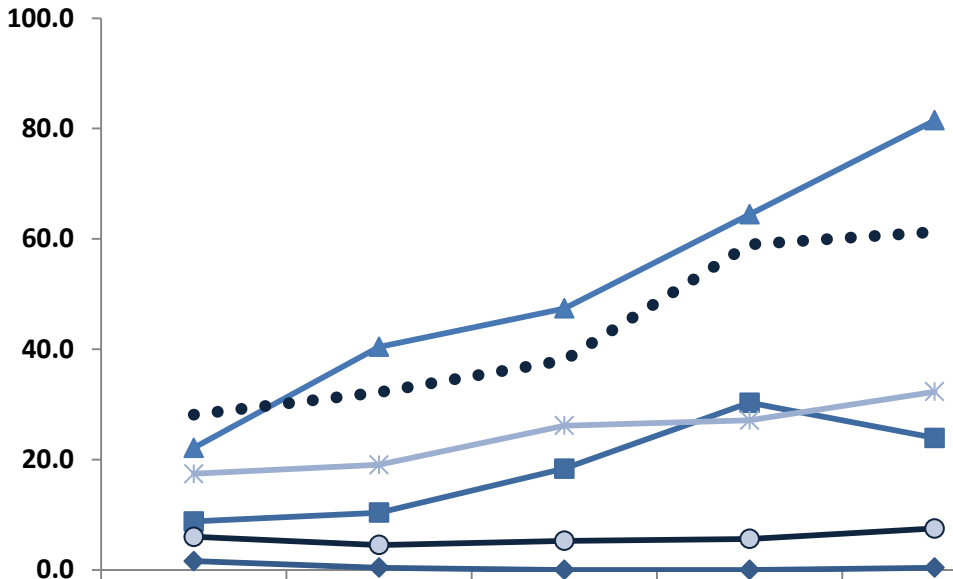
Indicator Description: **RATE OF DEATHS DUE TO SUBSTANCE USE.** This measure estimates the rate of deaths due to substance use or overdose per 100,000 people. This data reflects deaths physically occurring within the state of Maine; this includes non-Maine residents dying in Maine, but does not include Maine residents that died outside of Maine. The rate per 100,000 allows us to see the frequency of an occurrence within a population over time.

Why Indicator is Important: Drug-induced deaths are influenced by programs to prevent substance use, accidental poisoning, suicide and fatal interaction among medications.

Data Source(s): DRVS, 2013–2017*

Summary: All age groups, with the exception of 18 to 25 year olds, observed an increase in drug-related deaths per 100,000 people in 2017. Adults 26 to 35 years of age continue to report the highest rates. Substance use and overdose-related deaths per 100,000 for 26 to 35 year olds have nearly quadrupled since 2013.

Figure 54. Substance use and overdose deaths, per 100,000, by age group: 2013–2017*



	2013	2014	2015	2016	2017
under 18	1.6	0.4	0.0	0.0	0.4
18 to 25	8.8	10.4	18.3	30.3	23.9
26 to 35	22.1	40.4	47.4	64.4	81.5
36 to 49	28.2	32.2	38.0	59.0	61.3
50 to 64	17.4	19.1	26.2	27.1	32.3
65+	6.0	4.5	5.3	5.6	7.5

*Source: DRVS, 2013–2017**

**2017 results are preliminary*

- Mainers between the ages of 26 and 35 had the highest rate of substance-related deaths (81.5 per 100,000). The second highest rate was among Mainers between the ages of 36 to 49 years old at 61.3 per 100,000. This was followed by 50 to 64 year olds (32.3), 18 to 25 year olds (23.9), 65+ year olds (7.5), and people under 18 (0.4). Rates among 26 to 35 year olds as well as 36 to 49 year olds have been increasing steadily for the past several years.

Morbidity and Mortality

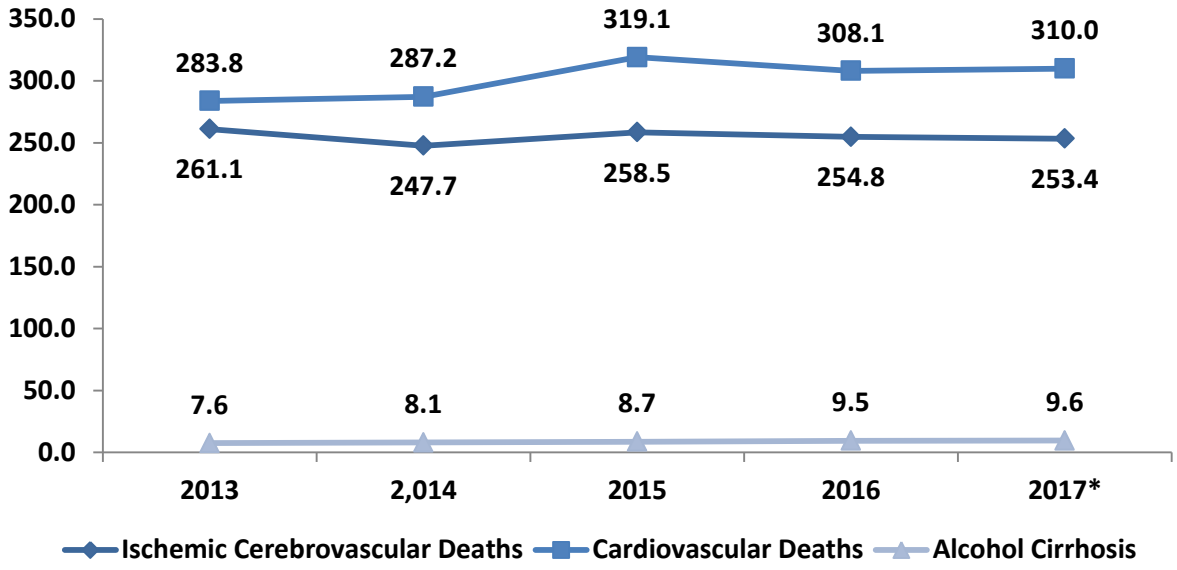
Indicator Description: RATES OF DEATH FROM CHRONIC CONDITIONS ASSOCIATED WITH SUBSTANCE USE. Every death in Maine has a recorded cause. This indicator examines the rate of chronic diseases commonly associated with substance use, including primary and contributing factors that lead to ischemic cerebrovascular diseases (commonly known as stroke), cardiovascular diseases, and alcohol-related liver diseases. The rates show all cases where the disease/condition was identified as a factor in the death (either in primary cause or contributing cause). In this case, a rate per 100,000 of the state population is used to compare the prevalence across certain populations.

Why Indicator is Important: Prolonged and lifelong use of substances, including tobacco and alcohol, can often result in chronic health problems later in life. As a consequence of substance use, these health-related deaths are considered potentially preventable.

Data Source(s): DRVS, 2013–2017*

Summary: In 2017, cardiovascular diseases and Ischemic cerebrovascular (stroke) diseases were more prevalent among Mainers than alcoholic cirrhosis diseases. Deaths related to alcoholic cirrhosis were nearly twice as likely among men than women. Rates have remained relatively stable over the past several years.

Figure 55. Deaths from chronic diseases related to substance use, per 100,000 of the population: 2013–2017*

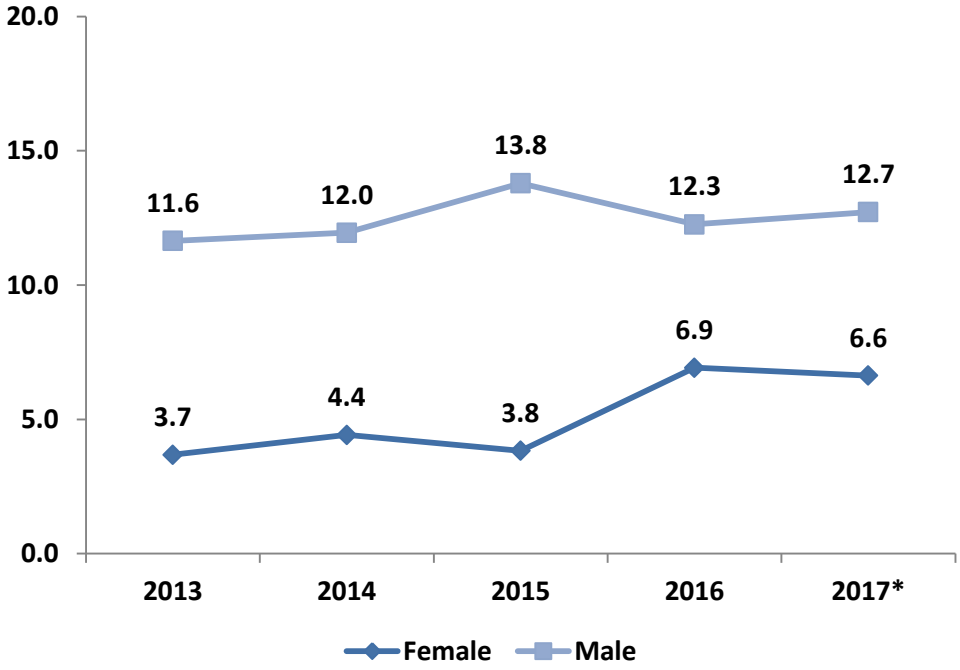


Source: DRVS, 2013–2017
**2017 results are preliminary*

- At 310.0 deaths per 100,000, cardiovascular diseases were more prevalent among Mainers in 2017 than ischemic cerebrovascular diseases (253.4 per 100,000) and

alcoholic cirrhosis (9.6 per 100,000). Rates of death from ischemic cerebrovascular disease, cardiovascular disease, and alcoholic cirrhosis have remained relatively stable for the past several years.

Figure 56. Deaths from alcoholic cirrhosis and liver disease per 100,000 of the population, by gender: 2013–2017*



*Source: DRVS, 2013–2017**
**2013 results are preliminary*

- In 2017, deaths related to alcoholic cirrhosis and liver diseases were nearly twice as likely among men (12.7 deaths per 100,000) than women (6.6 deaths per 100,000).

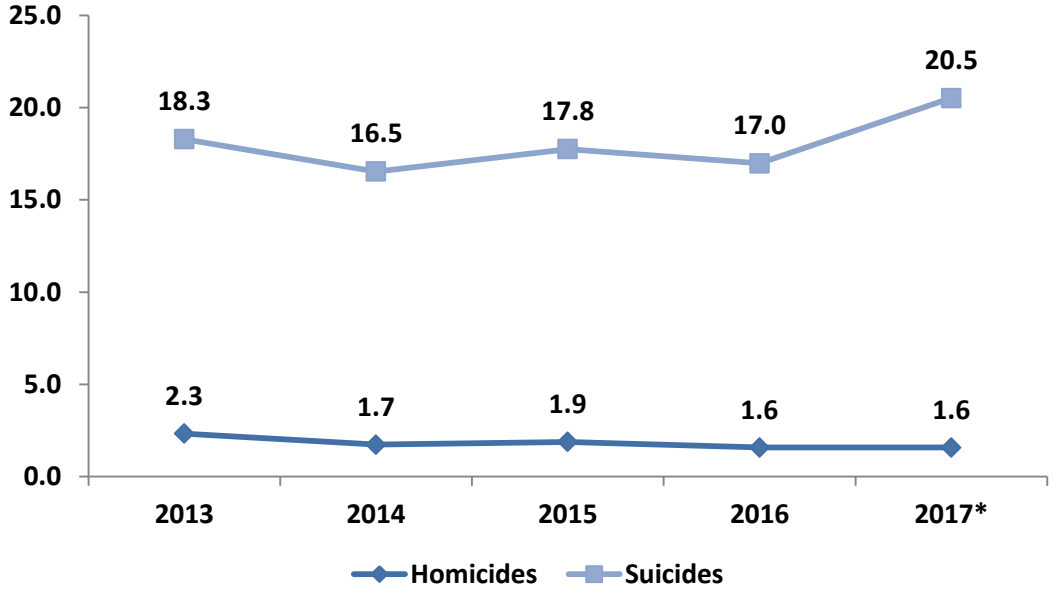
Indicator Description: RATE OF VIOLENT DEATHS. Every death in Maine has a recorded cause. This indicator examines deaths that were the result of violence, *i.e.*, those classified as a suicide or homicide. In this case, a rate per 100,000 of the state population is used to compare the prevalence across certain populations.

Why Indicator is Important: Although not the leading cause of death, substance use and misuse is often a factor in homicides and suicides. For example, the federal Substance Abuse and Mental Health Services Administration (SAMHSA) has estimated that about 47 percent of homicides and 23 percent of suicides are attributable to alcohol nationally.

Data Source(s): DRVS, 2012–2017*

Summary: In Maine, suicide rates are nearly 13 times higher than homicide rates; The rate of suicides has increased by 20 percent from 2016 to 2017. Suicides are nearly four times as likely among men compared to women, and most prevalent among adults 50 to 64. In addition, deaths due to homicide are more than twice as likely among men; rates are highest among younger adults between the ages of 26 to 35.

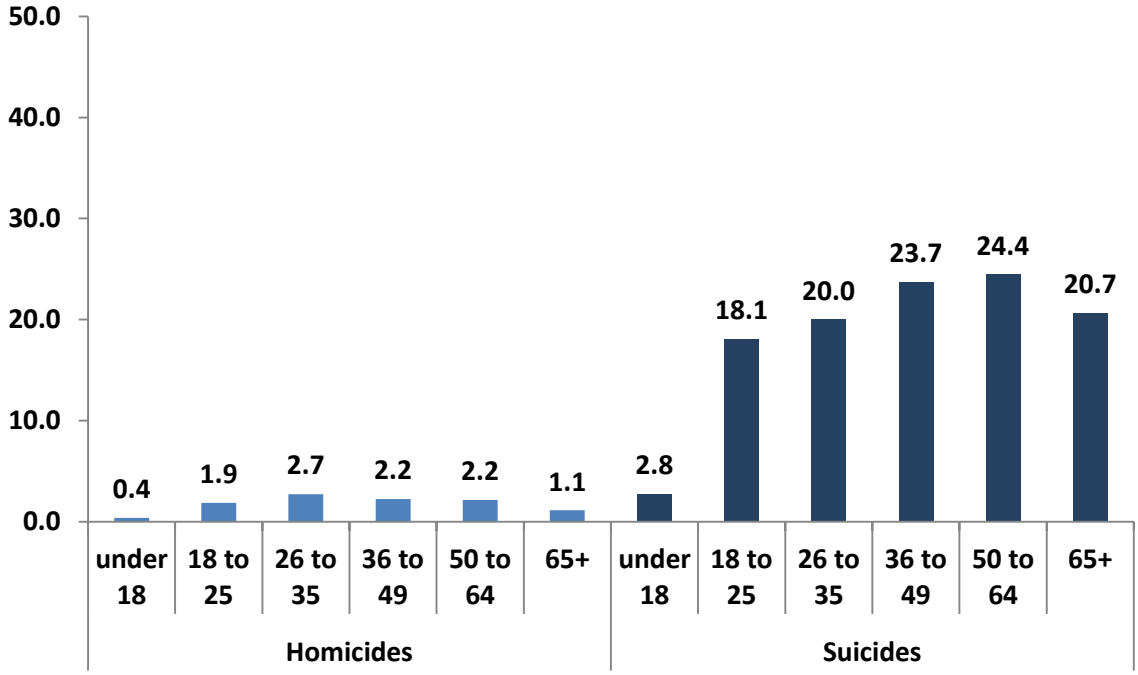
Figure 57. Deaths from suicide or homicide per 100,000 of the population: 2013–2017*



*Source: DRVS, 2013–2017**
**2017 results are preliminary*

- In 2017, there were 20.5 suicides per 100,000 Mainers compared to 1.6 homicides per 100,000 residents. Rates for homicides have remained relatively stable for the past several years. In comparison, rates for suicides have increased markedly from 2016 to 2017.

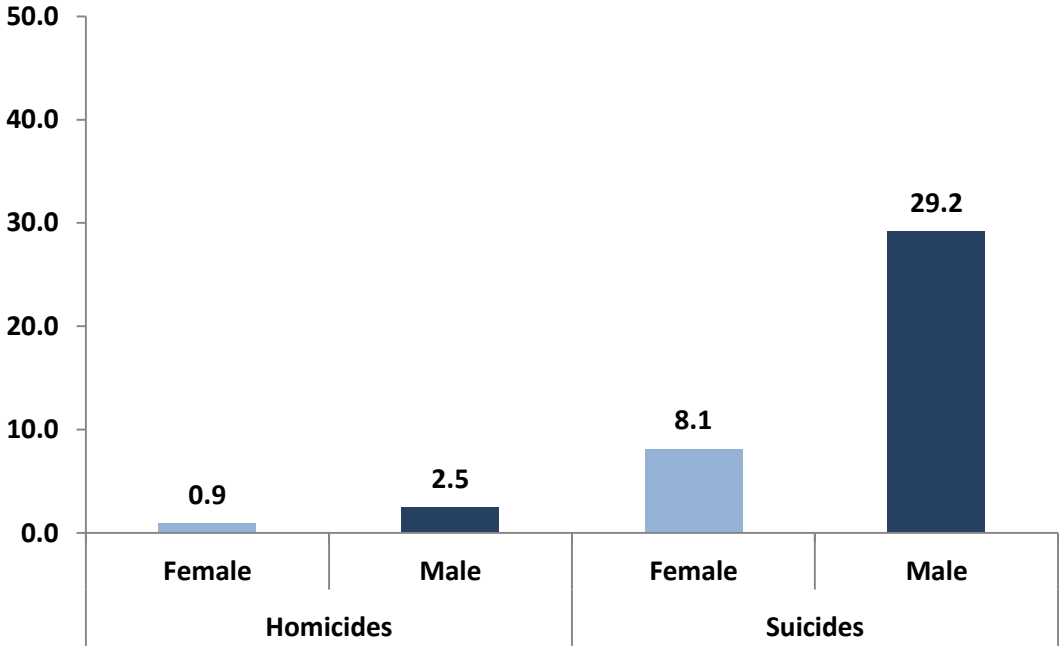
Figure 58. Deaths from suicide or homicide per 100,000 of the population, by age groups: 2015–17



Source: DRVS, 2015–17

- In 2015-17, deaths from suicide were most prevalent among the 50 to 64 year old population at a rate of 24.4 per 100,000, followed by Mainers 36 to 49 (23.7 per 100,000), 65 and older (20.7 per 100,000), and 26 to 35 year olds (20.0 per 100,000).
- As for homicides, 26 to 35 year olds held the highest rate at 2.7 per 100,000, followed by 36 to 64 year olds (2.2 per 100,000), 18 to 25 year olds (1.9 per 100,000), and Mainers under 18 (0.4 per 100,000).

Figure 59. Deaths from suicide or homicide per 100,000 of the population, by gender: 2015–17



Source: DRVS, 2015–17

- Suicide deaths were more prevalent among men in 2014–16 (28.7 per 100,000), compared to women (7.7 per 100,000).
- Although the homicide rate is much lower than suicide, the rate for men was more than double the homicide rate for women in 2014-16 at 2.5 per 100,000 and 0.9 per 100,000 respectively.

Factors Contributing to Substance Use and Misuse

A body of substance use prevention research has identified certain groups of factors that "cause" or have an impact on substance use and the consequences related to use. That is, they appear to influence the occurrence and magnitude of substance use and its' related consequences. Generically, these causal factors (also known as contributing factors) are categorized into groups which include:

- Social Access (*e.g.*, getting drugs and alcohol from friends or family);
- Retail Availability (*e.g.,* retailer not carding properly, over-prescribing/dispensing, outlet density);
- Pricing and Promotion (*e.g.,* two-for-one specials, industry sponsorships or signage);
- Social/Community Norms (*e.g.*, parental/community attitudes and beliefs);
- Enforcement (*e.g.,* lack of compliance checks, lack of enforcing policies, laws);
- Perceptions of Harm (*e.g.*, individuals' belief that using a substance is harmful); and
- Perceived Risk of Being Caught (*e.g.,* individuals' belief that s/he will be caught by parents or police).[11, 12]

In this report, data are presented on many of these factors particularly as they are related to youth and young adults, parents, and prescribing habits among medical professionals. These measures can help prevention professionals make decisions about what types of behaviors, attitudes, and norms should be targeted to prevent substance use and misuse.

Overall the rates of youth and parents' perceptions of the accessibility of substances have been trending down. For example, 61 percent of youth reported it would be easy to get alcohol in 2017, compared to 69 percent in 2009. A similar trend was observed regarding obtaining marijuana. In addition, there was an increase in parents who reported there was no alcohol in their home (from 5% in 2015 to 15% in 2017) and a decrease in parents who said that alcohol was accessible to their teens. Half of parents reported that their teen could access alcohol in their home in 2015, compared to 37 percent in 2017. In contrast to alcohol, it is less common for parents to report that teens have access to prescription drugs at home (18% reporting so in 2017).

There was a steady decline in the total number of opiate agonist prescriptions dispensed from 2015 to 2017. In 2017, opiate agonists remain the most common type of prescription with over 865,000 prescriptions dispensed in Maine. Looking at trends among all opiate doses dispensed, the most common primary active ingredient is Oxycodone, which made up 32 percent of the doses dispensed. Furthermore, prescriptions for sedatives have observed a decrease in recent years, while prescriptions dispensed for stimulants have observed a slight increase.

[11] *A General Causal Model to Guide Alcohol, Tobacco and Illicit Drug Prevention: Assessing the Research Evidence.* Multi-State Technical Assistance Workshop. Washington, DC. March 16, 2006.
[12] Bonnie, R. J. (Ed.). (2004). *Reducing underage drinking: A collective responsibility*. National Academies Press.

Over the last several years, high school students' perceptions of risk associated with alcohol has steadily increased while the perceived risk of marijuana has decreased. Eight out of ten (82%) high school students reported that people risk harming themselves if they consume five or more alcoholic drinks in a row once or twice a week, compared to 35 percent of students who thought that there was moderate-to-great risk to smoking marijuana once or twice a week. Perception of harm from marijuana has also steadily decreased among parents as well. In 2013, 81 percent of parents felt that marijuana use by their child or teenager was "never ok." In 2017, this figure dropped to 62 percent. This change appears to be driven by increases in the numbers of parents who believe it is okay if a doctor provides a written certificate or if when their "child is grown." Among adults, 18 to 25 year olds are the least likely to perceive risks of harm from using alcohol, marijuana, or heroin.

While most high school students (91%) still believe that their family has clear rules about alcohol and drug use, about three-quarters reported that they didn't think they would be caught by police for smoking marijuana or drinking. However, parents report that they believe their children have less access to alcohol and prescription drugs in the home, largely because these items are just not being kept in the home.

Availability and Accessibility

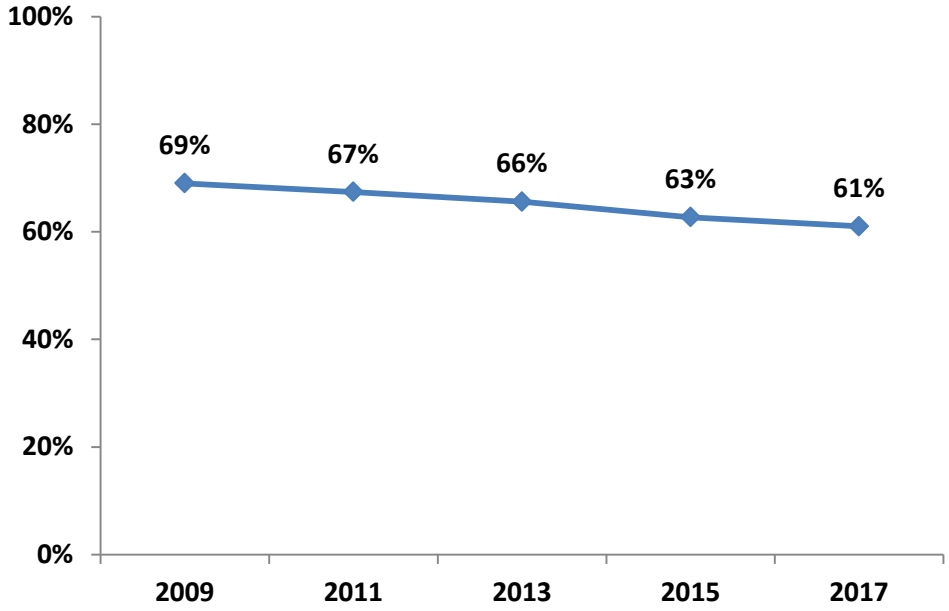
Indicator Description: **EASE OF OBTAINING ALCOHOL BY UNDERAGE YOUTH.** This indicator reflects the percentage of high school students (grades 9 to 12) who reported that it would be easy or very easy for them to get alcohol if they wanted some.

Why Indicator is Important: In 2017, students who reported that they thought alcohol was easy to obtain were nearly four times as likely to report consuming alcohol within the past month compared to students who did not think it was easy to obtain.

Data Source(s): MIYHS, 2009–2017

Summary: Nearly two out of three high school students continue to think it would be easy to obtain alcohol; this rate has steadily declined from 2009 (69%) to 2017 (61%).

Figure 60. High school students who reported it would be easy to get alcohol: 2009–2017



Source: MIYHS, 2009–2017

- In 2017, 61 percent of students felt it would be easy for them to obtain alcohol. This rate has decreased by eight percentage points since 2009 (69%).

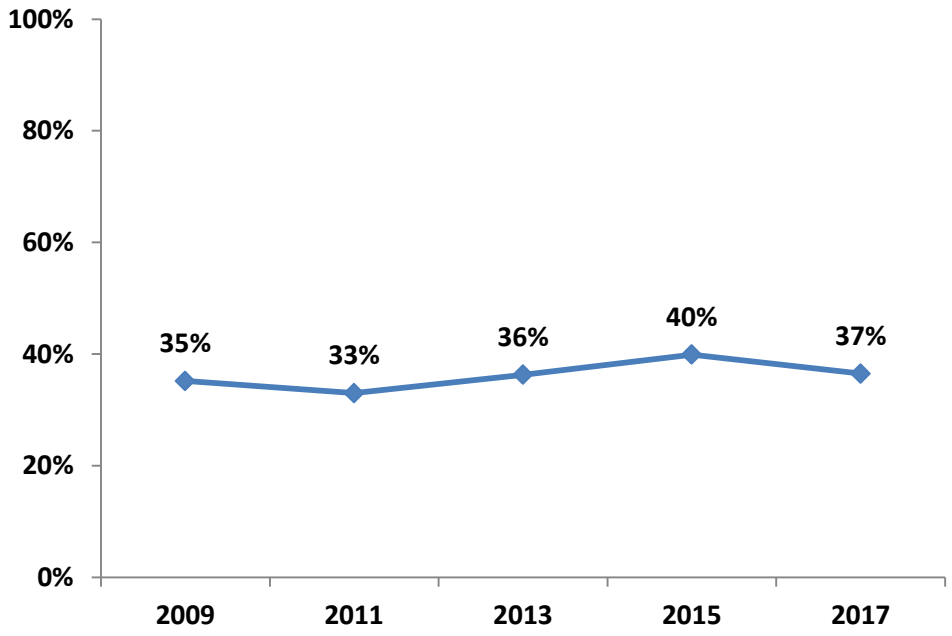
Indicator Description: UNDERAGE YOUTH RECEIVING ALCOHOL FROM OTHERS. Among high school students who drank within the past 30 days, this measure reflects the percentage reporting that they usually obtain the alcohol they drink from someone giving it to them.

Why Indicator is Important: Easy social access to alcohol is a major contributing factor to underage drinking. Students who report that alcohol is easy to get are nearly four times as likely to drink as their peers who report it is not easy.

Data Source(s): MIYHS 2009–2017

Summary: Social access continues to be a primary way that underage youth obtain alcohol. Of those students who obtained alcohol, nearly two out of five reported that someone had given it to them and the proportion of those who were given alcohol has been growing steadily.

Figure 61. High school students who obtained alcohol by someone giving it to them, among those who drank in past month: 2009–2017



Source: MIYHS 2009–2017

- In 2017, almost two out of five (37%) high school students who obtained alcohol in the past month reported that someone gave them the alcohol they consumed; this represents a decrease of three percentage points since 2015 (40%).

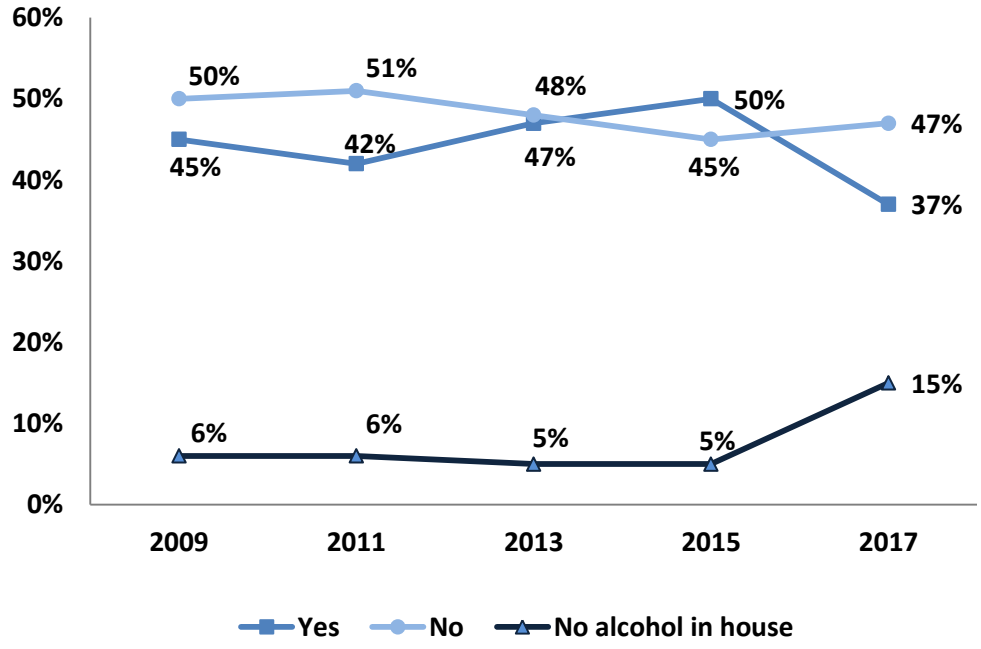
Indicator Description: PARENT PERCEPTION OF ACCESSIBILITY OF ALCOHOL AT HOME. This indicator measures the percentage of parents reporting that their teen would be able to access alcohol they had purchased without their knowledge. This data comes from the Maine Parent Survey administered by Pan Atlantic for the Maine Center for Disease Control and Prevention.

Why Indicator is Important: Easy access to alcohol at home is a major contributing factor to underage drinking.

Data Source(s): Parent Survey 2009–2017

Summary: Among parents of middle and high school students, more than a third (37%) felt it was possible for their teen to access alcohol they had purchased without their knowledge. This is a decrease of thirteen points from 2015. This decrease also coincides with a ten percentage point increase in parents who report not keeping alcohol in the house.

Figure 62. Parent perceptions of accessibility of parent-purchased alcohol without parental knowledge: 2008–2015



Source: Parent Survey 2009–2017

- The percentage of parents reporting that their child would be able to access alcohol purchased by the parent without their parents' knowledge decreased from 2015 (50%) to 2017 (37%). About one in seven (15%) parents reported they did not have alcohol in their home.

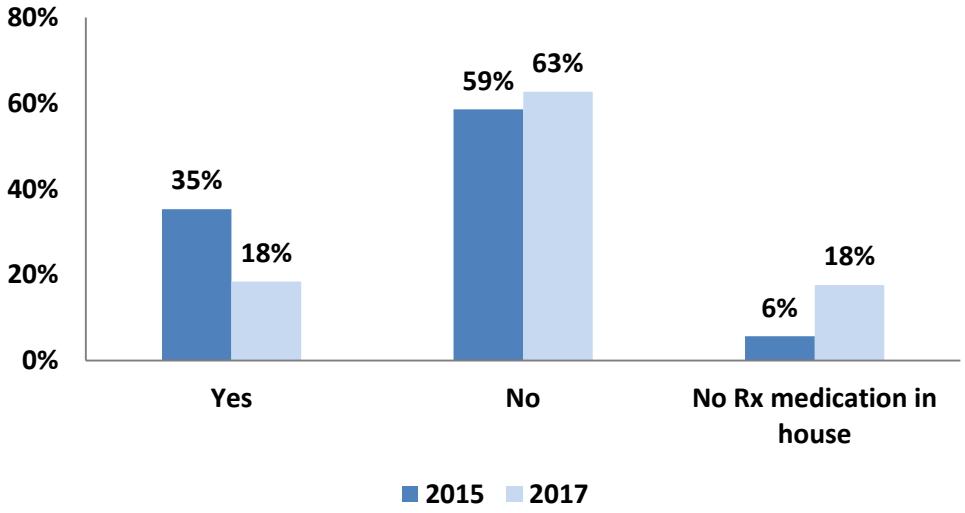
Indicator Description: PARENT PERCEPTION OF ACCESSIBILITY OF PRESCRIPTION DRUGS AT HOME. This indicator measures the percentage of parents reporting that their teen would be able to access prescription medication (not prescribed to their child) without their knowledge. This data comes from the Maine Parent Survey administered by Pan Atlantic for the Maine Center for Disease Control and Prevention.

Why Indicator is Important: Easy access to prescription drugs at home is a major contributing factor to prescription drug misuse. According to the Maine Integrated Youth Health Survey in 2017, students who perceived prescription medication as easy to obtain were about five times as likely to have misused prescription medication in the past month compared to those who thought that prescription drugs were not easy to obtain.

Data Source(s): Parent Survey 2015–2017

Summary: In 2017, about one in five parents felt that, at home, their child would be able to access prescription medications that were not prescribed to their teen, without permission. This is a decrease from 2015 when nearly a third of parents felt their child could access prescriptions. This decline in the perception of accessibility coincides with a twelve point increase of parents reporting that they do not keep prescriptions in the home.

Figure 63. Parent perception of teen accessibility of prescription drugs at home without parental knowledge: 2015



Source: Parent Survey 2015-2017

- The percent of parents who reported that, at home, their teen would be able to access prescription medications without their knowledge decreased by seventeen percentage points from 2015(35%) to 2017(18%).

- Although not shown, parents with a four-year degree were more likely to report that their teen could access medication (23%), followed by single parents (20%) and parents 45 and older (19%).

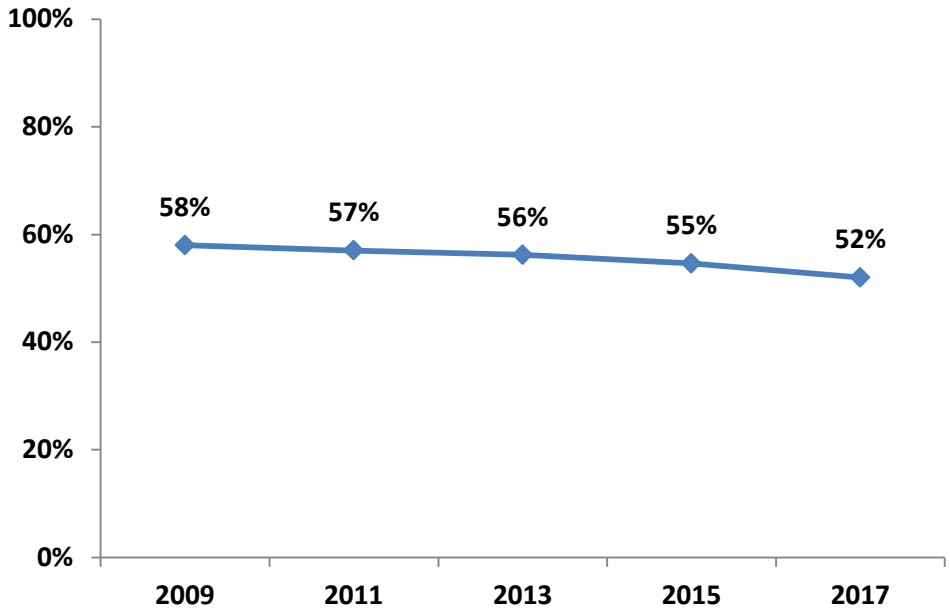
Indicator Description: **EASE OF OBTAINING MARIJUANA BY YOUTH.** This indicator shows the percentage of high school students reporting it would be easy or very easy to obtain marijuana if they wanted it.

Why Indicator is Important: In 2017, students who reported that they thought marijuana was easy to obtain were more than nine times as likely to use marijuana in the past 30 days compared to their peers who thought it was difficult to obtain.

Data Source(s): MIYHS, 2009–2017

Summary: More than half of high school students believed that marijuana is easy to obtain. This rate has steadily declined from 2009 to 2017.

Figure 64. High school students who reported it would be easy to get marijuana: 2009–2017



Source: MIYHS, 2009–2017

- In 2017, 52% of high school students felt it would be easy to get marijuana; this was a decrease of six percentage points since 2009 (58%).

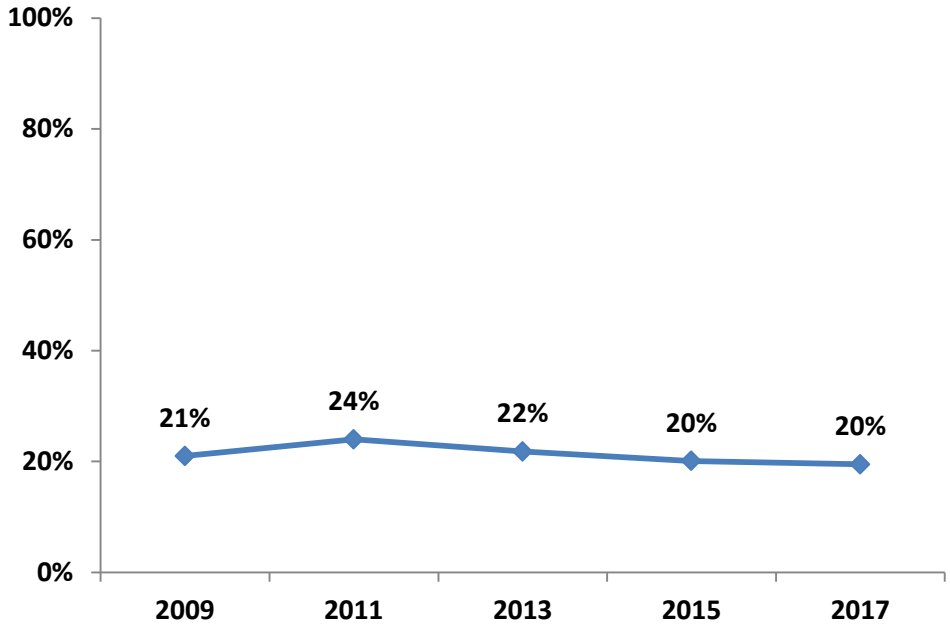
Indicator Description: ILLEGAL DRUGS ON SCHOOL PROPERTY. This measures the percentage of high school students reporting they were sold, offered or given an illegal drug on school property during the past year.

Why Indicator is Important: In 2017, students who reported they were offered drugs at school were twice as likely to use marijuana as their peers who were not offered drugs at school.

Data Source(s): MIYHS, 2009–2017

Summary: The proportion of high school students who were sold, offered or given an illegal drug on school property has remained the same from 2015 to 2017 (20%).

Figure 65. High school students who were sold, offered, or given an illegal drug on school property in past year: 2009–2017



Source: MIYHS, 2009–2013

- One in five (20%) high school students were sold, offered or given an illegal drug on school property in 2017. This was a four percentage point decrease from 2011 (24%).

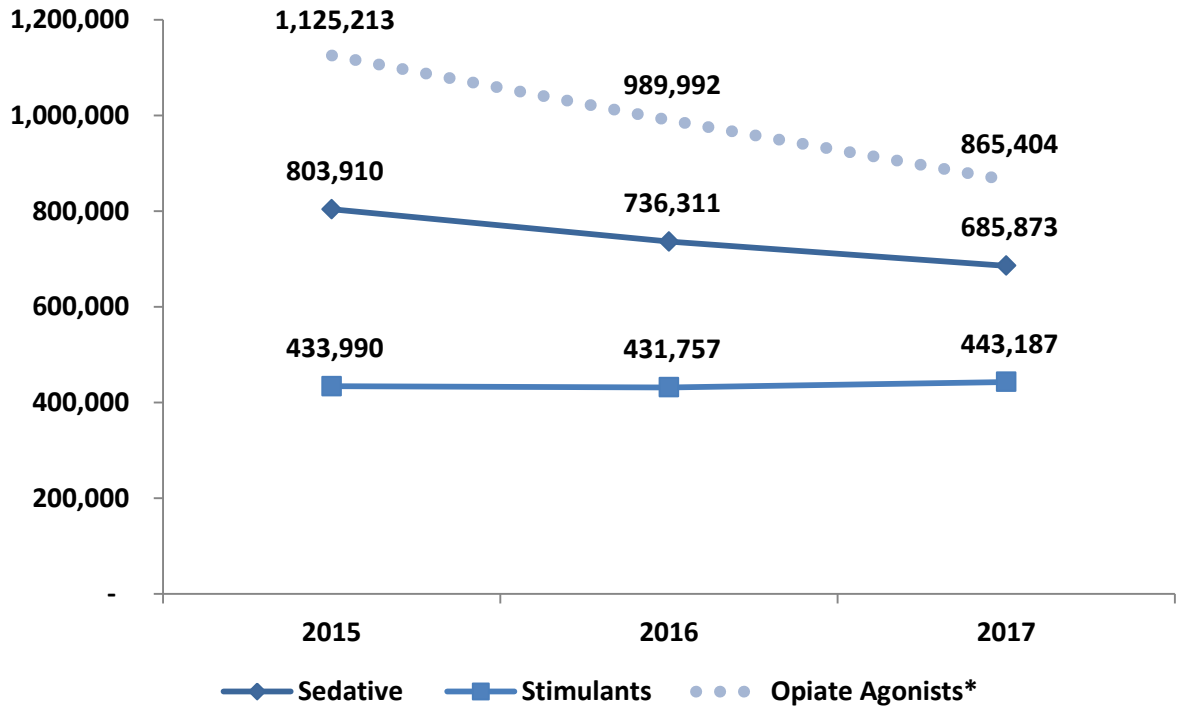
Indicator Description: **PRESCRIPTIONS DISPENSED.** These indicators reflect the number of opiate, sedative, and stimulant prescriptions as well as doses dispensed in Maine as collected by the Maine Prescription Monitoring Program.

Why Indicator is Important: The number of prescriptions prescribed indicate the volume of prescription drugs potentially available in the community for diversion (*e.g.,* gift, sale, or theft). A higher level of availability contributes to misuse by individuals without a prescription.

Data Source(s): PMP, 2015–2017

Summary: From 2015 to 2017, the number of prescriptions prescribed for opiate agonists (excluding partial agonists such as buprenorphine) decreased by twenty three percent while the number of prescriptions for sedatives decreased by fifteen percent, and prescriptions dispensed for stimulants increased by two percent. In 2017, just over half of the all narcotic doses (agonists as well as partial agonists) dispensed contained the primary active ingredients of either oxycodone or hydrocodone.

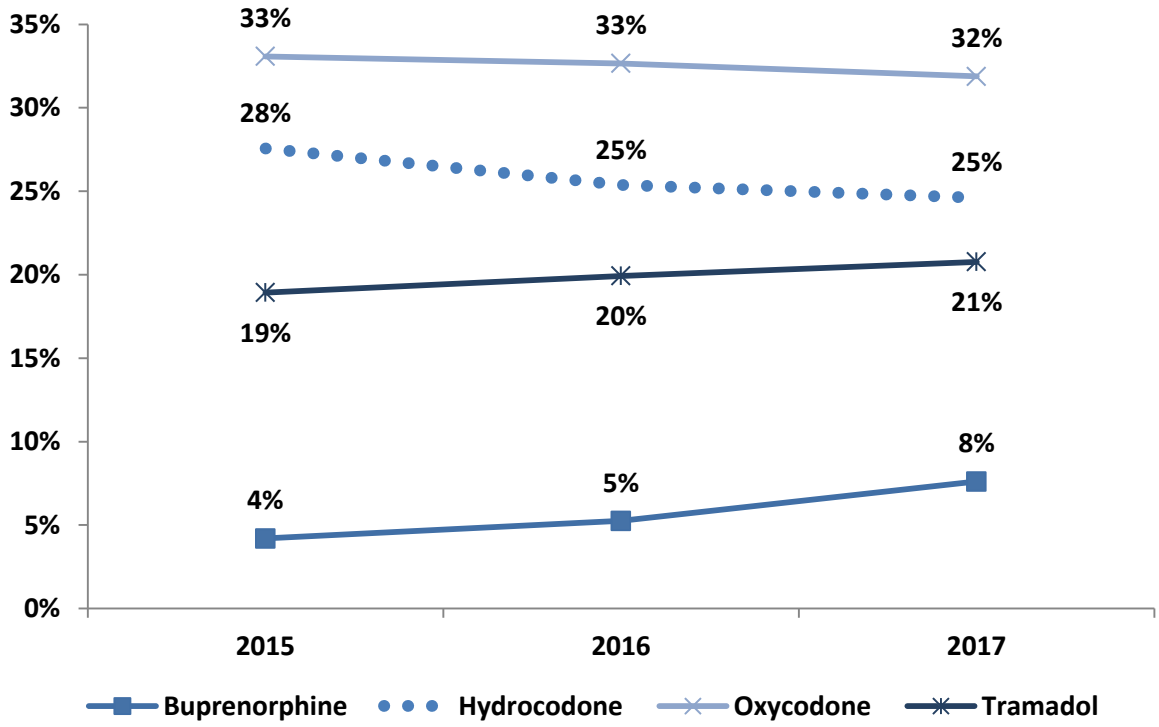
Figure 66. Number of prescriptions dispensed in Maine, by type: 2015-2017



Source: PMP, 2015–2017

**Opiate analgesics include pain relievers and exclude medicated assisted prescriptions such as buprenorphine. In addition, opiate analgesic in the form of powder were excluded from this analyses.*

Figure 67. Percentage of narcotic doses dispensed, by primary active ingredient: 2015–2017*



Source: PMP, 2015–2017

- The most common active ingredient in narcotic doses dispensed has been Oxycodone since 2015, making up 32 percent of doses dispensed in 2017. The proportion of buprenorphine doses has increased from five percent of doses in 2015 to eight percent in 2017.

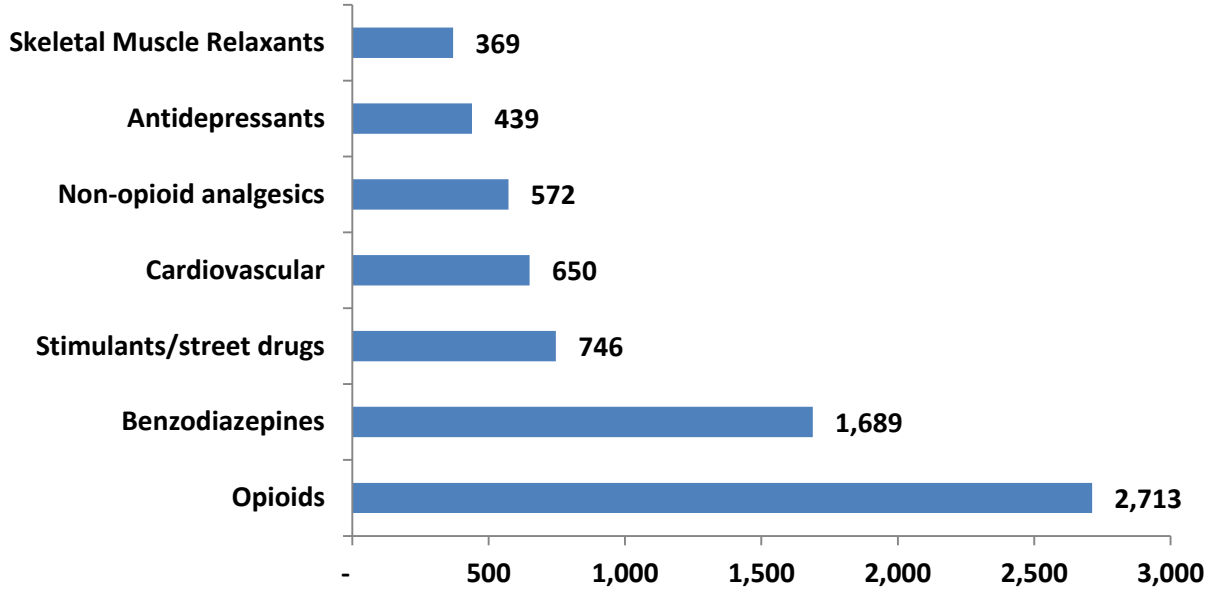
Indicator Description: SUBSTANCES REQUESTED FOR VERIFICATION. This indicator shows the number of requests by non-law enforcement for medication verification through the Northern New England Poison Center (NNEPC). A person may call the NNEPC for many reasons, one being to help identify a medication or substance which another person has consumed or that has been found. The calls reflected in this indicator have been characterized by NNEPC as likely related to substance use, although NNEPC staff do not make a formal or clinical assessment.

Why Indicator is Important: The volume of medication verification calls suggests the degree of availability of those drugs in the community. This measure also suggests that there is a higher awareness among the community and parents for potential misuse of prescription pills which is prompting calls.

Data Source(s): NNEPC, 2015–17

Summary: Most calls to Northern New England Poison Center requesting medication verification in 2015-17 involved opioids, followed by benzodiazepines, and stimulants.

Figure 68. Substances most frequently requested for medication verification by non-law enforcement, by type: 2015–17



Source: NNEPC, 2015–17

- During the three year period 2015-17, the Poison Center received an average of 2,713 calls per year requesting verification for substances that were identified as opioids, followed by benzodiazepines (1,689), and stimulant/street drugs (746). Although not shown, the volume of calls for these substances has decreased steadily since 2010; according to the Northern New England Poison Center, this can partly be attributed to callers transitioning to online research which has not been tracked.

Perceived Harm

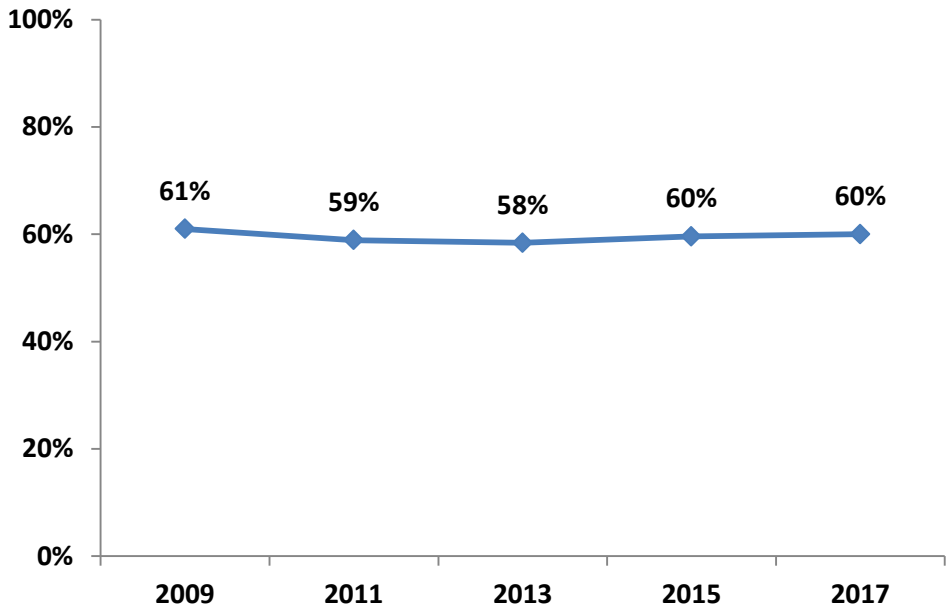
Indicator Description: **PERCEIVED RISK FROM REGULAR ALCOHOL USE.** This indicator reflects the percentage of high school students who report that there is moderate to great risk of harm from drinking one or two alcoholic beverages every day.

Why Indicator is Important: In 2017, high school students who do not perceive regular alcohol use (one to two drinks per day) as risky were almost twice as likely to drink in the past month than students who did perceive harm.

Data Source(s): MIYHS, 2009–2017

Summary: Six out of ten high school students think there is moderate-to-great risk of harm from drinking alcohol regularly (one to two drinks every day). This perception of harm has remained relatively stable from 2009 to 2017.

Figure 69. High school students perceiving moderate to great risk from drinking 1–2 drinks every day: 2009–2017



Source: MIYHS, 2009–2017

- The proportion of high school students who reported that people risk harming themselves if they drink one or two drinks every day remained the same from 2015 to 2017 (60%).

Indicator Description: PERCEIVED RISK FROM BINGE DRINKING. This indicator reflects the percentage of individuals (high school students and adults) who perceive that there is moderate-to-great risk from drinking five or more drinks in a row once or twice per week.

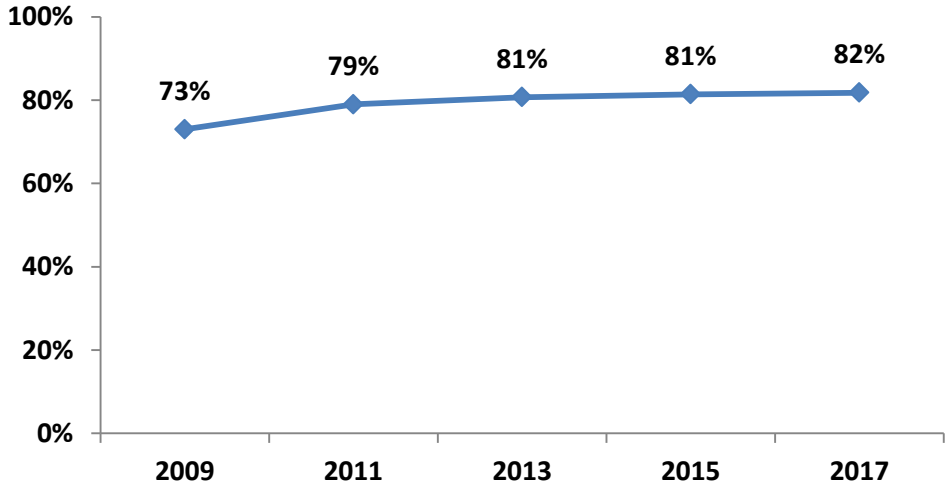
The National Survey on Drug Use and Health (NSDUH) made changes to the survey design in 2015-16. Part of those changes involved changing the order in which the question about perceived risk of binge drinking appeared in the survey. It is still unknown if this has caused some question order bias in terms of results. Thus, it is advised that 2015-16 data for this question not be trended with previous years.

Why Indicator is Important: In 2017, high school students who did not perceive a moderate to great risk of harm from binge drinking once or twice a week were twice as likely to drink in the past month as high school students who did perceive risk of harm. Perceptions around the risks of binge drinking are related to high-risk alcohol use among adults as well.

Data Source(s): MIYHS, 2009–2017; *NSDUH 2015-16*

Summary: Four out of five high school students think binge drinking once or twice a week is harmful. Perception of harm from binge drinking remains much lower among adults. More than seven out of ten young adults (18 to 25) thought that binge drinking a few times a week was NOT risky.

Figure 70. High school students perceiving moderate to great risk from drinking five or more drinks once or twice per week: 2009–2017

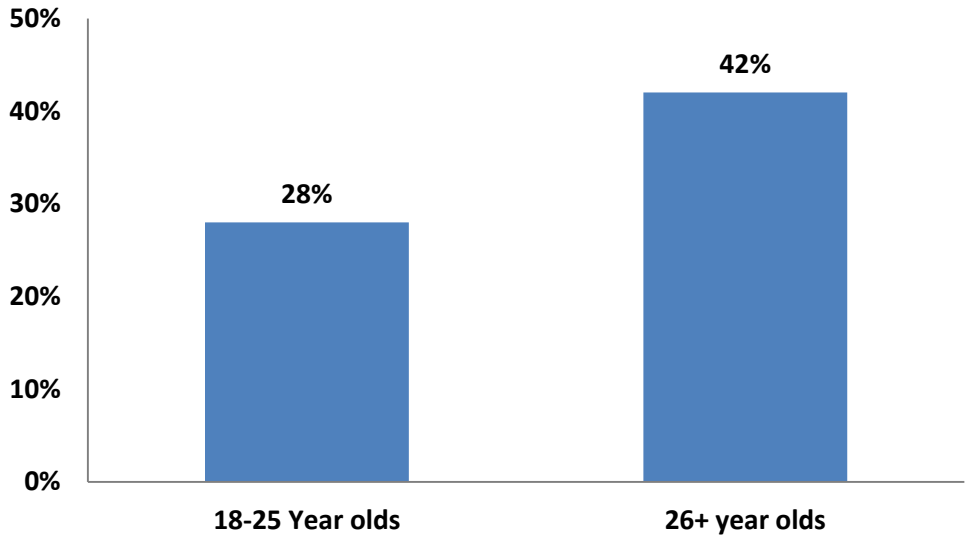


Source: MIYHS, 2009–2017

- In 2017, approximately four out of five (82%) high school students reported that people risk harming themselves if they consume five or more alcoholic drinks in a row once or

twice a week. This perception of risk has increased by nine percentage points from 2009 to 2017.

Figure 71. Adults (18 and over) perceiving great risk from drinking five or more drinks once or twice per week, by age group: 2015-16



Source: NSDUH 2015-16

- In 2015-16, 42 percent of Mainers ages 26 and older reported that drinking five or more drinks once or twice per week posed some risk of harm. Perception of harm from binge drinking was substantially lower among 18 to 25 year olds at 28 percent. Trending data is not available at this time.

Indicator Description: PERCEIVED RISK OF REGULAR MARIJUANA USE. This measure demonstrates the percentage of individuals (high school students and adults) who perceive a moderate to great risk of harm from smoking marijuana regularly.

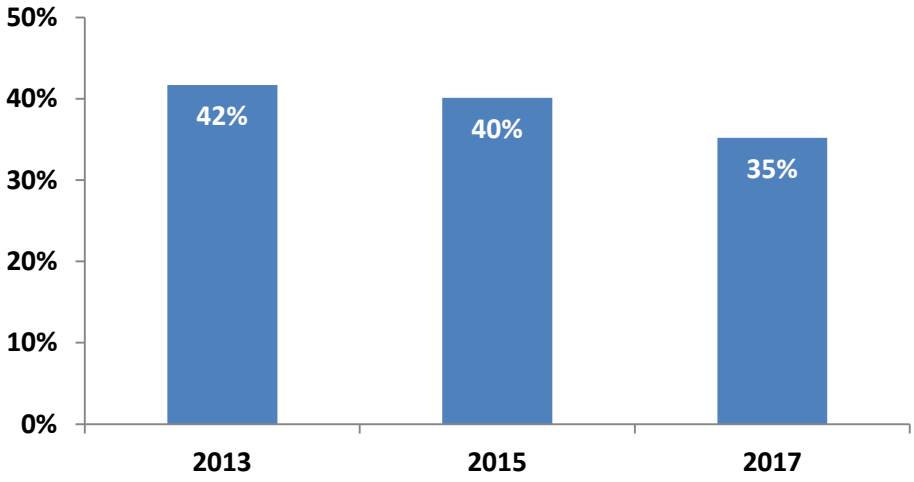
The National Survey on Drug Use and Health (NSDUH) made changes to the survey design in 2014-15, and the question about perception of risk for smoking marijuana once per month was not asked. However, the question returned to the survey in 2015-16. Thus, there is a gap in trend analysis.

Why Indicator is Important: In 2017, high school students who do not believe there is moderate to great risk in smoking marijuana regularly are almost seven times as likely to smoke marijuana as their peers who do perceive risk of harm.

Data Source(s): MIYHS, 2013-2017; NSDUH, 2010–11 to 2015-16

Summary: In 2017, about one-third of high school students felt smoking marijuana once or twice a week was risky. In 2015-16, less than one in ten 18 to 25 year olds perceived smoking marijuana at least once per month as risky. Perceptions of harm regarding marijuana use have decreased among both youth and adults over the past several years.

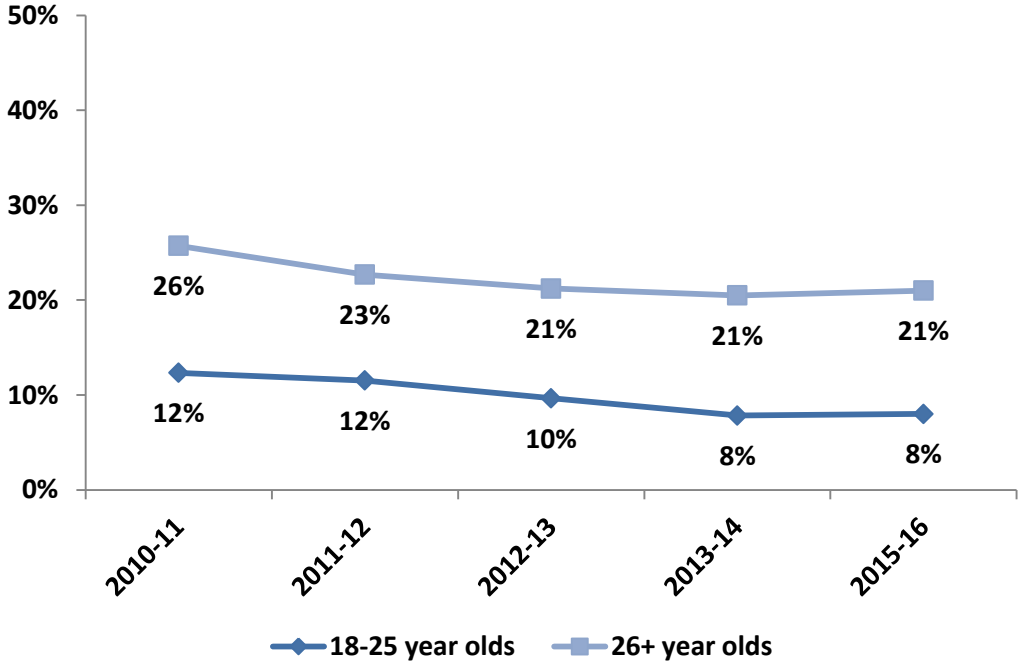
Figure 72. High school students perceiving moderate to great risk from smoking marijuana once or twice a week: 2013 and 2017



Source: MIYHS, 2013 and 2017

- The proportion of high school students who perceived a moderate to great risk of harm from smoking marijuana once or twice a week has declined by seven percentage points from 2013 (42%) to 2017 (35%). In 2017, only 35 percent of high school students thought that smoking marijuana once or twice per week was risky. Inversely, 65 percent of students thought that it was not risky to do so.

Figure 73. Adults (age 18 and older) perceiving great risk from smoking marijuana once per month, by age group: 2010–11 to 2015-16



Source: NSDUH, 2010–11 to 2015-16

- In 2015-16, young adults 18 to 25 were unlikely to perceive a great risk from smoking marijuana at least once per month (8%), whereas Mainers who were 26 years old or older, had a slightly higher perception of risk (21%). This is consistent with averages in the 2013-14 survey. Rates of perception of harm have been decreasing gradually over the past several years among both age groups.

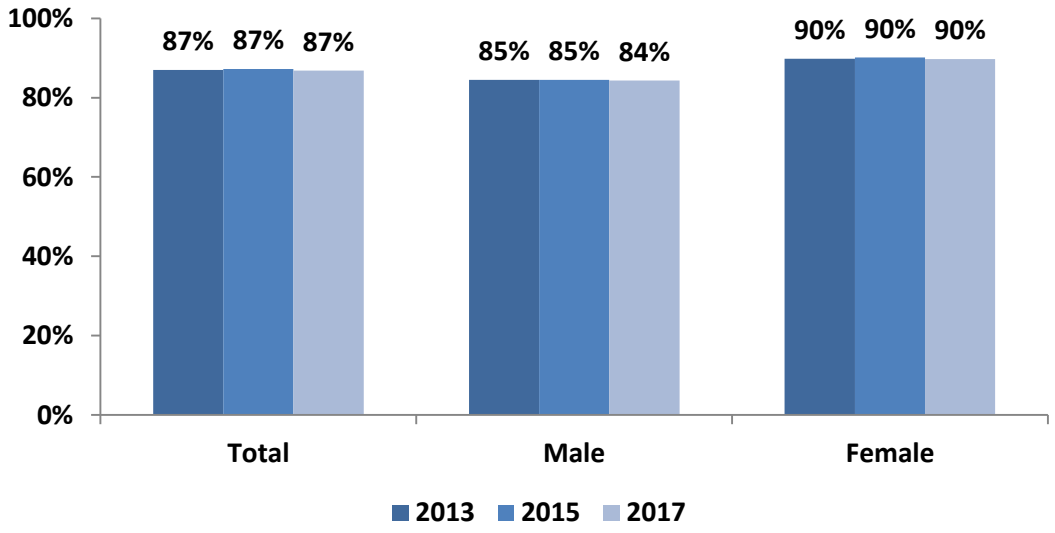
Indicator Description: PERCEIVED RISK OF PRESCRIPTION DRUG MISUSE. This measure demonstrates the percentage of high school students who perceive a moderate to great risk of harm from taking a prescription drug that was not prescribed to them.

Why Indicator is Important: Factors such as perception of harm from using a substance can have a significant impact in determining whether an individual will initiate use. It is important that youth are taught early of the harms and risks (e.g., addiction) associated with misuse of prescription drugs.

Data Source(s): MIYHS, 2015-2017

Summary: In 2017, the vast majority of 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. Rates have been stable for the past several years.

Figure 74. High school students who felt using a prescription drug not prescribed to them was harmful, by age group: 2015-2017



Source: MIYHS, 2015-2017

- In 2017, 87 percent of high school students felt it would be harmful if they took a prescription drug that was not prescribed to them. When broken out by gender, females were more likely to perceive a risk than males; 90 percent compared to 84 percent respectively. Rates of perception have remained relatively unchanged for the past several years.

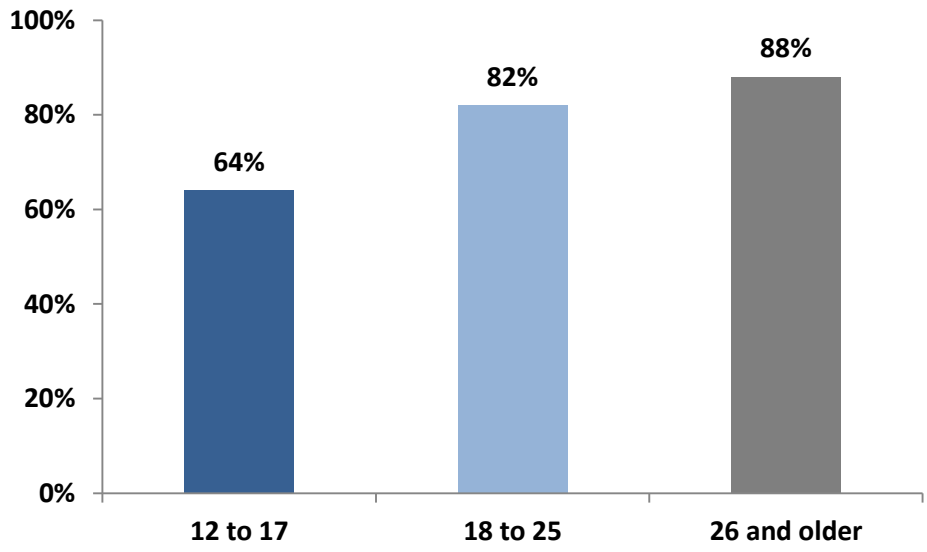
Indicator Description: PERCEIVED RISK OF HEROIN USE. This measure demonstrates the percentage of individuals (youth and adults) who perceive a moderate to great risk of harm from trying heroin once or twice.

Why Indicator is Important: Factors such as perception of harm from using a substance can have a significant impact in determining whether an individual will initiate use. It is important that youth are taught early of the harms and risks (e.g., addiction) associated with opioid use.

Data Source(s): NSDUH, 2015-16

Summary: In 2015-16, more than eight out of ten adults reported that trying heroin once or twice was of moderate to great risk. Youth 12 to 17 were much less likely to perceive a risk. Only about six out of ten 12 to 17 year olds thought there was great risk from trying heroin once or twice.

Figure 75. Mainers perceiving great risk from trying heroin once or twice, by age group: 2015-16



Source: NSDUH, 2015-16

- In 2015-16, 64 percent of 12 to 17 year olds, 82 percent of 18 to 25 year olds, and 88 percent of Mainers 26 and older reported that trying heroin once or twice was of moderate to great risk.

Perceived Enforcement

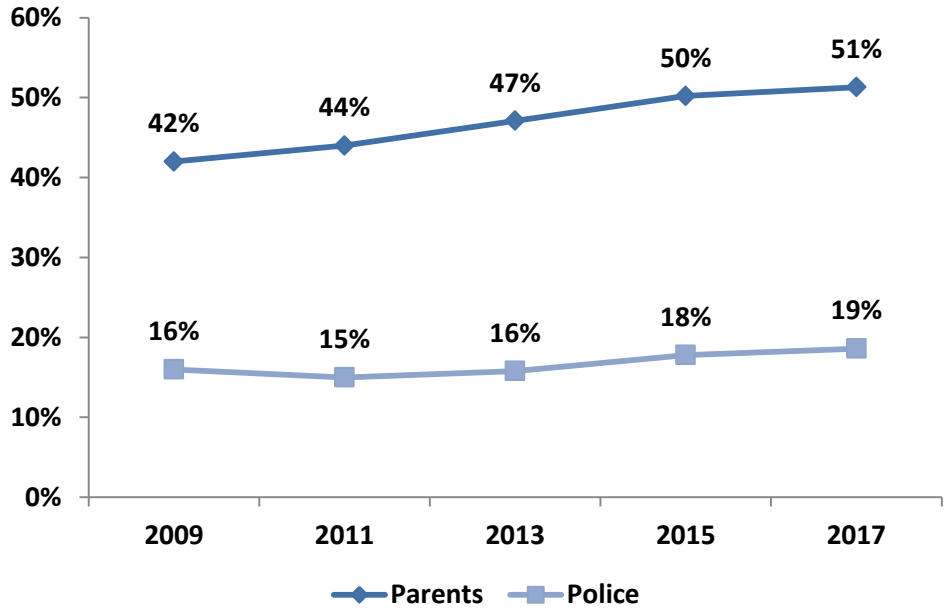
Indicator Description: YOUTH PERCEIVED RISK OF BEING CAUGHT FOR DRINKING ALCOHOL. This indicator shows the percentage of high school students perceiving they would be caught by their parents and by police if they drank alcohol.

Why Indicator is Important: In 2017, high school students who believed they would not be caught by their parents were more than five times as likely to drink in the past month, compared to students who did think they would be caught. In addition, students who believe that they would not be caught by the police were three times as likely to drink alcohol in the past month as those who did think they would be caught.

Data Source(s): MIYHS, 2009–2017

Summary: In 2017, half of high school students thought they would be caught by their parents for drinking alcohol while only about one in five felt they would be caught by the police. Perceptions of getting caught by parents or policy have increased over the past several years.

Figure 76. High school students reporting they would be caught by parents or the police if they drank: 2009–2017



Source: MIYHS, 2009–2017

- The percentage of high school students who thought they would be caught by their parents for drinking alcohol has steadily increased from 2009 (42%) to 2017 (51%). Perception of harm for getting caught by the police for drinking observed a gradual increase from 2011 (15%) to 2017 (19%).

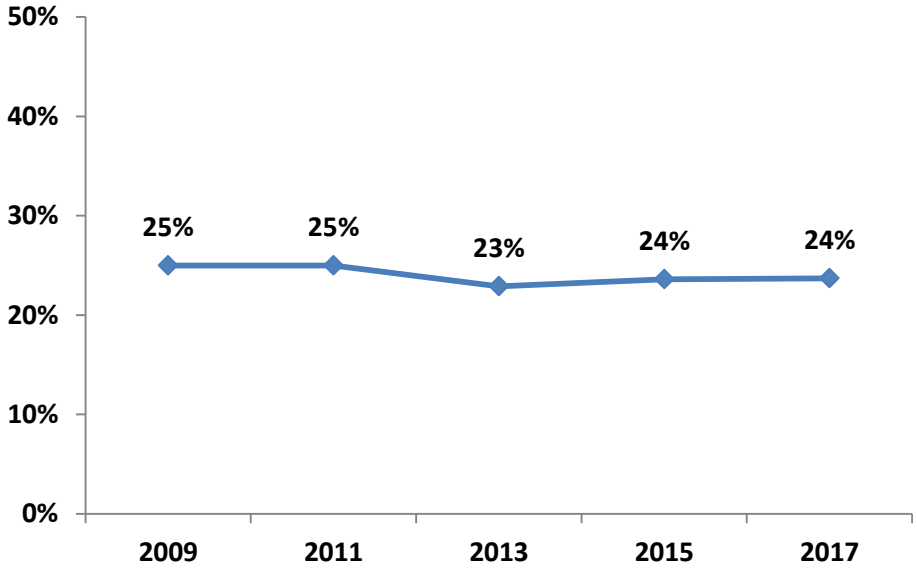
Indicator Description: YOUTH PERCEIVED RISK OF BEING CAUGHT FOR SMOKING MARIJUANA. This indicator presents the percentage of high school students perceiving they would be caught by police if they smoked marijuana.

Why Indicator is Important: In 2017, high school students who believed they would NOT be caught by the police (for smoking marijuana in their neighborhood) were almost five times as likely to smoke marijuana as their peers.

Data Source(s): MIYHS, 2009–2017

Summary: In 2017, about one quarter of high school students thought they would be caught by police for smoking marijuana. Therefore, the majority of high school students were not worried about being caught by the police for smoking marijuana. Rates have remained relatively stable over the past several years.

Figure 77. High school students reporting they would get caught by the police if they smoked marijuana in their neighborhood: 2009–2017



Source: MIYHS, 2009–2017

- The percentage of high school students who think they will be caught by police for smoking marijuana in their neighborhood has remained consistent at a rate of one in four from 2009 (25%) to 2017 (24%). Conversely, this means that three out of four students felt they would not be caught by the police for smoking marijuana in their neighborhood.

Community and Cultural Norms

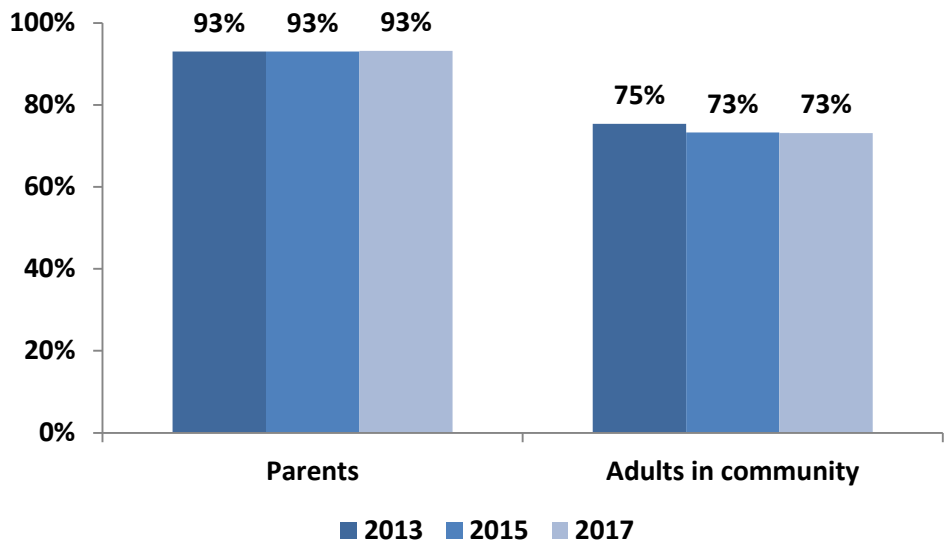
Indicator Description: YOUTH PERCEPTION OF ADULT ATTITUDES TOWARD ALCOHOL USE. This indicator depicts the percentage of high school students who thought that their parents feel it would be wrong for them to drink regularly. It also examines the proportion who reported that adults in their community think it would be wrong for kids their age to consume alcohol.

Why Indicator is Important: In 2017, high school students who did not believe their parents would feel it would be wrong for them to drink were more than twice as likely to drink alcohol in the past month as their peers who did think their parents would perceive it as wrong.

Data Source(s): MIYHS, 2009–2017

Summary: High school students largely believe that their parents and adults in their community think it would be wrong for them to drink alcohol. In 2017, more than nine out of ten students perceived that their parents would think it was wrong for them to use alcohol regularly. This was compared to three out of four students who felt that adults in their community would think it was wrong. The perception of disapproval remained stable in both parents and adults in the community from 2013 to 2017.

Figure 78. High school students who reported perceiving that their parents and adults in their community think student alcohol use is wrong: 2009–2017*



Source: MIYHS, 2013–2017

- The proportion of high school students who thought their parents felt it would be wrong for them to drink one to two drinks per day remained unchanged from 2013 to 2017 at 93 percent.
- In 2017, 73 percent of students reported that adults in their community think it is wrong for youth to use alcohol. This was a slight decrease since 2011 (75%).

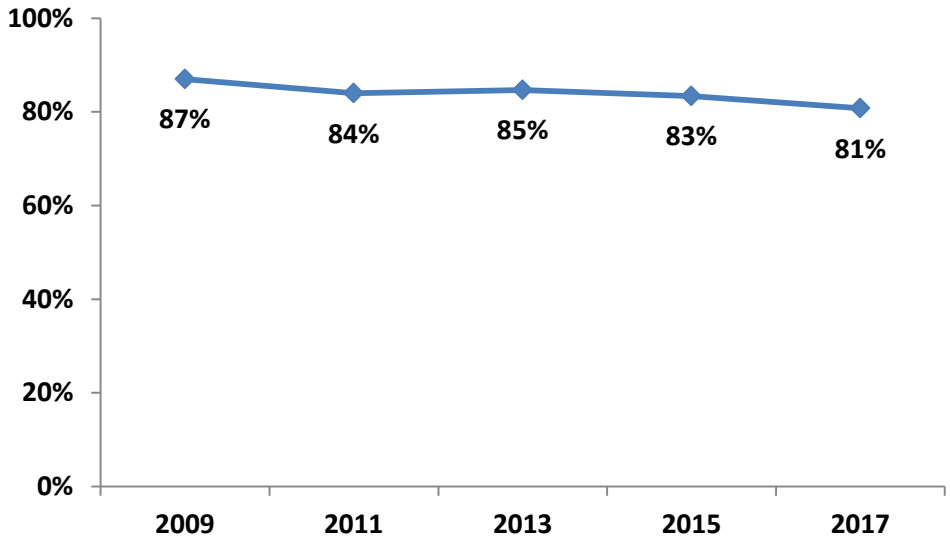
Indicator Description: YOUTH PERCEPTION OF PARENTAL ATTITUDES TOWARD MARIJUANA USE. This indicator shows the percentage of high school students who reported that their parents feel it would be wrong for them to smoke marijuana.

Why Indicator is Important: In 2017, high school students who don't believe their parents feel it is wrong for them to smoke marijuana are four times as likely to use marijuana as students who do believe their parents would think it is wrong.

Data Source(s): MIYHS, 2009–2017

Summary: Although high school students generally believe that their parents think it would be wrong for them to smoke marijuana; perceptions of disapproval have slowly decreased from 2009 (87%) to 2017 (81%). About one in five high school students felt their parents would NOT disapprove.

Figure 79. High school students who reported that parents would think it was wrong to use marijuana: 2009–2017



Source: MIYHS, 2009–2017

- While the majority of high school students still think their parents would feel it was wrong for them to smoke marijuana, approximately one in five students believed their parents would not feel that it is wrong for their child to smoke marijuana. The percentage of students who felt their parents would disapprove of them using marijuana has decreased by six percentage points from 2009 (87%) to 2017 (81%).

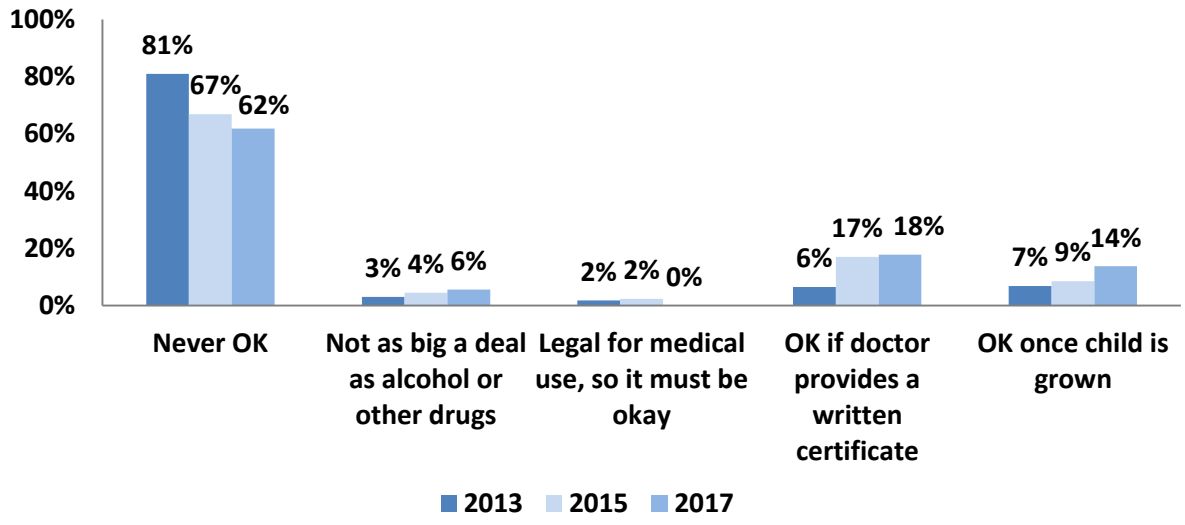
Indicator Description: PARENTAL ATTITUDES REGARDING MARIJUANA USE. This indicator reflects how parents felt about their teen using marijuana. Maine parents of teenagers (7th to 12th graders) were asked to select the response that best described their attitude about marijuana use by their child. Response options were mutually exclusive. This data comes from the Maine Parent Survey administered by Pan Atlantic for the Maine Center for Disease Control and Prevention.

Why Indicator is Important: Parental perceptions and permissive attitudes towards substance use can have a major effect in their child's decision to use. As Maine observes changes in regulations and policies regarding marijuana use; changes to cultural norms and beliefs around use are occurring as well.

Data Source(s): Parent Survey, 2013–2017

Summary: The percentage of parents who felt it was never okay for their teen to use marijuana has substantially decreased from 2013 (81%) to 2017 (62%). In 2017, about one in six parents felt it would be okay if their teen used marijuana as long as they had a written certificate from a doctor or when their child is grown.

Figure 80. Parental attitudes regarding their teen using marijuana: 2013 – 2017



Source: Parent Survey, 2013–2017

- In 2017, less than two-thirds of parents (62%) felt that marijuana use by their child or teenager was "never ok." This represents a decline of 19 percentage points since 2013.
- The percentage of parents who felt marijuana use was okay if a doctor provided a written certificate increased from 2013 (6%) to 2017 (18%). In addition, parents who responded that it would be okay for their child to use marijuana when they are grown also increased from 2009 (7%) to 2017 (14%).

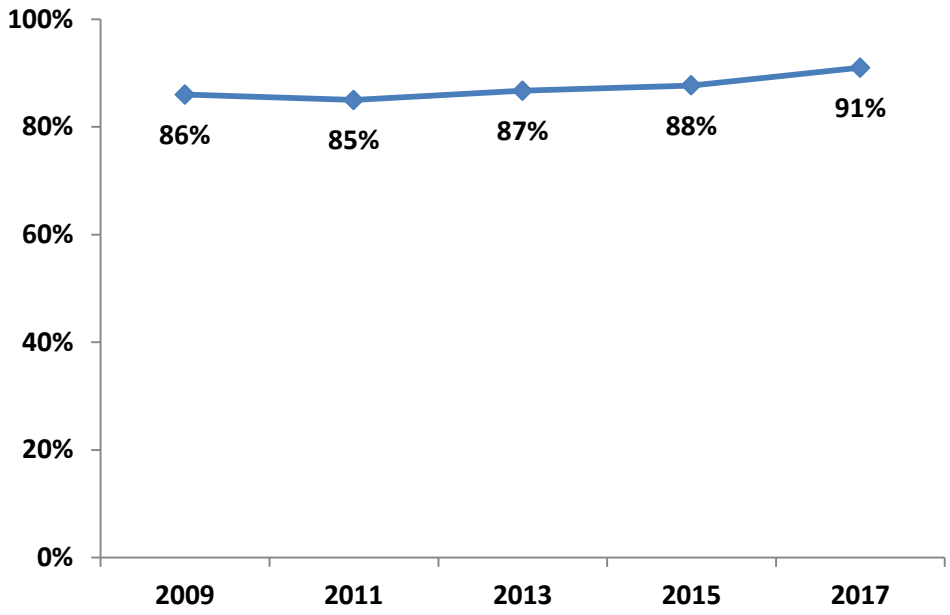
Indicator Description: YOUTH PERCEPTION OF FAMILY RULES TOWARD SUBSTANCE USE. This indicator reflects the percentage of high school students who reported that their family has clear rules about substance use.

Why Indicator is Important: In 2017, high school students who believe their parents have clear rules about substance use are half as likely as their peers to drink alcohol.

Data Source(s): MIYHS, 2009–2017

Summary: In 2017, nine in ten high school students reported that their family has clear rules around alcohol and drug use. However, one in ten students still did not think their family had clear rules about drugs and alcohol use and were therefore at higher risk for underage alcohol use than their peers. Rates of perception of clear rules around drug use have been steadily increasing since 2011.

Figure 81. High school students who reported their family has clear rules about alcohol and drug use: 2009–2017



Source: MIYHS, 2009–2017

- High school students who agreed their family has clear rules about alcohol and drug use increased by five percentage points from 2009 (86%) to 2017 (91%).

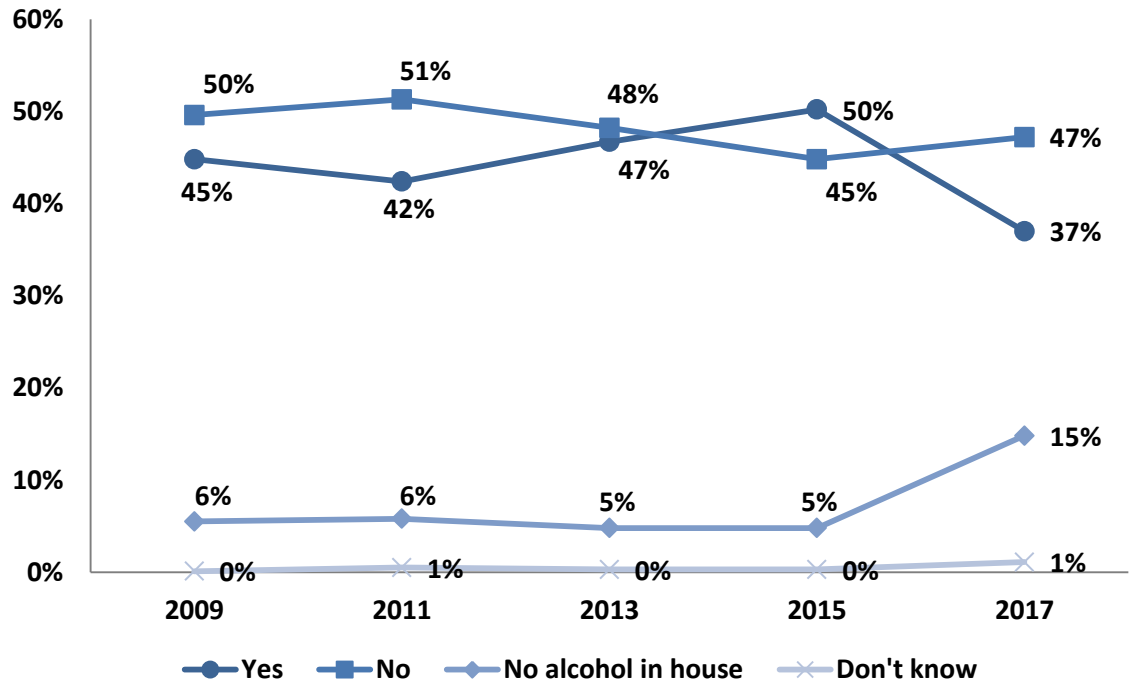
Indicator Description: PARENT PERCEPTION OF YOUTH ALCOHOL USE. This indicator reflects the percentage of parents of 7th through 12th graders who perceived that their child would be able to access alcohol in their house without their knowledge.

Why Indicator is Important: Parental perceptions of child behaviors compared to the actual behaviors reported by youth often differ from one another. This disconnect can be challenging to reconcile, especially when confronting youth substance use and parental monitoring.

Data Source(s): Parent Survey, 2009–2017

Summary: More than a third (37%) of parents believe that their child would be able to access alcohol they had purchased without their knowledge. This is a substantial decline from 2017 (50%). In addition, one in seven parents of 7th to 9th graders reported that they do not keep alcohol in the house.

Figure 82. Parent's (of high school students) perception of youth access to alcohol: 2009-2017



Source: Parent Survey, 2009–2017

- In 2017, nearly half of parents (47%) believe that their child could not access alcohol they had purchased without their knowledge.

Impact of Protective Factors on Substance Use and Mental Health

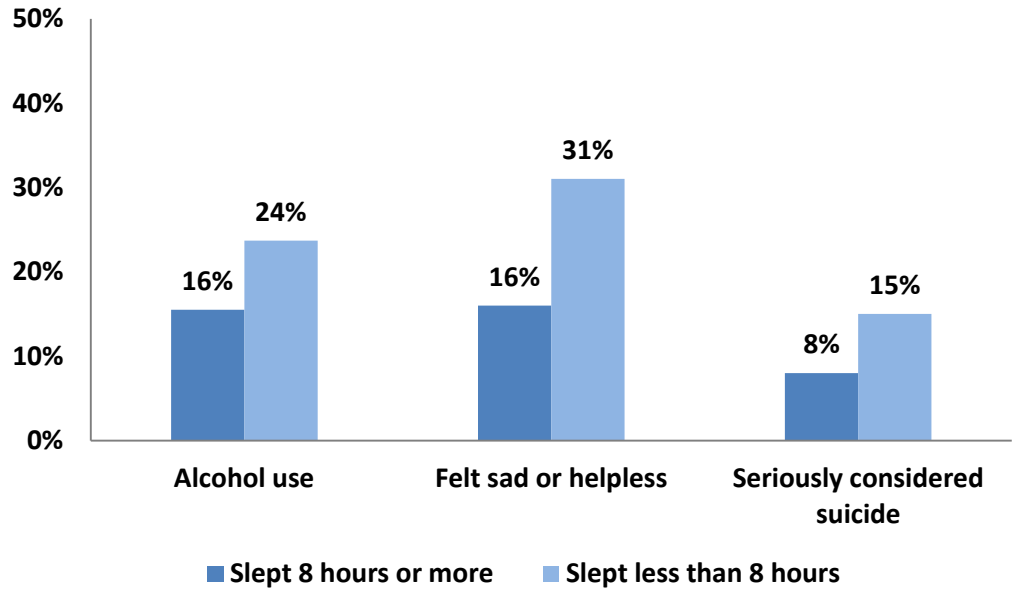
Indicator Description: **PROTECTIVE FACTORS AMONG YOUTH.** This indicator explores the extent to which substance use and mental health occur among youth when other protective relationships or behaviors take place.

Why Indicator is Important: There are some protective factors, like sleep, social support, and familial support, that taken together may mitigate the risk of substance use behaviors and mental health issues among youth.

Data Source(s): MIYHS, 2017

Summary: The prevalence of substance use, suicide ideation and feelings of sadness and helplessness are higher among high school students who report certain risk factors. Children are much more likely to report feelings of sadness and helplessness if they have not had eight hours or more of sleep, report three or more adverse childhood experiences or feel that they matter.

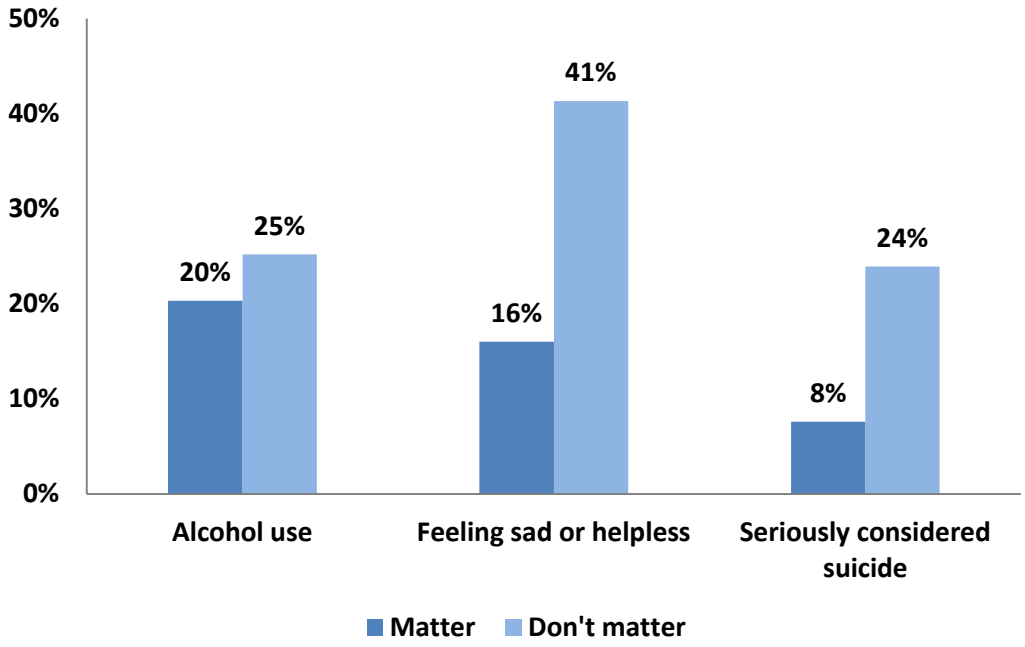
Figure 83. Alcohol use, feelings of sadness and suicide ideation among youth who sleep eight hours or more and those who do not: 2017



Source: MIYHS, 2017

- High school students reporting sleeping more than eight hours on average during school nights were less likely to drink alcohol (16% versus 24% of those who did not get a full night's rest), feel sad or helpless (16% versus 31%), or seriously consider suicide (8% compared to 15%) compared to those who sleep less than eight hours.

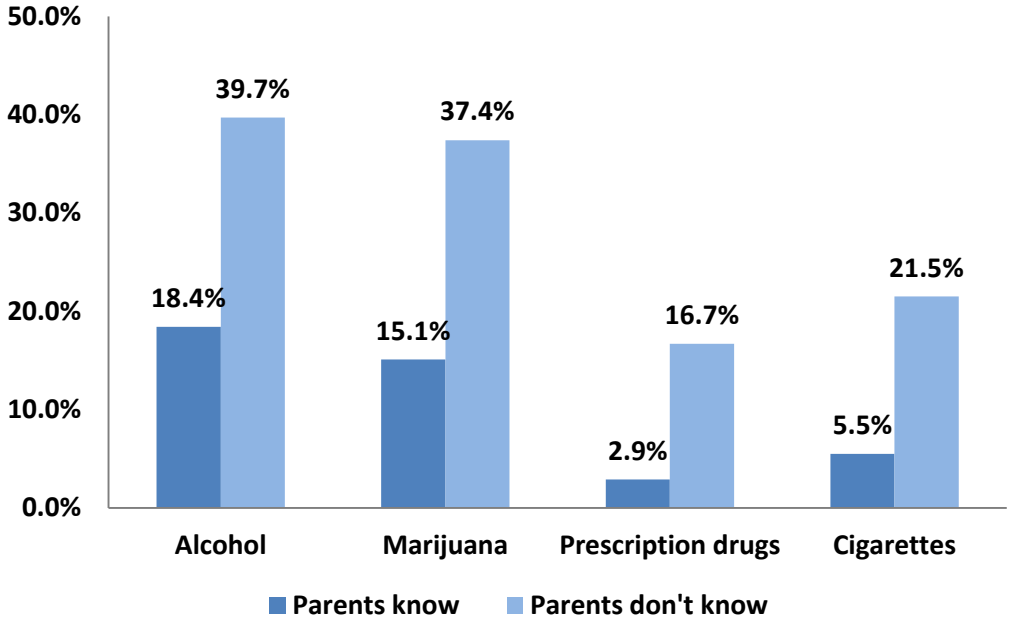
Figure 84. Alcohol use, feelings of sadness and suicide ideation among youth who feel like they matter to people in the community and those who do not: 2017



Source: MIYHS, 2017

- Fewer high school students who felt like they mattered to their community reported alcohol use, feelings of depression, and suicidal consideration. While the difference in alcohol use was small, many more youth who said they felt like they do not matter reported thoughts and feelings associated with depression as well.

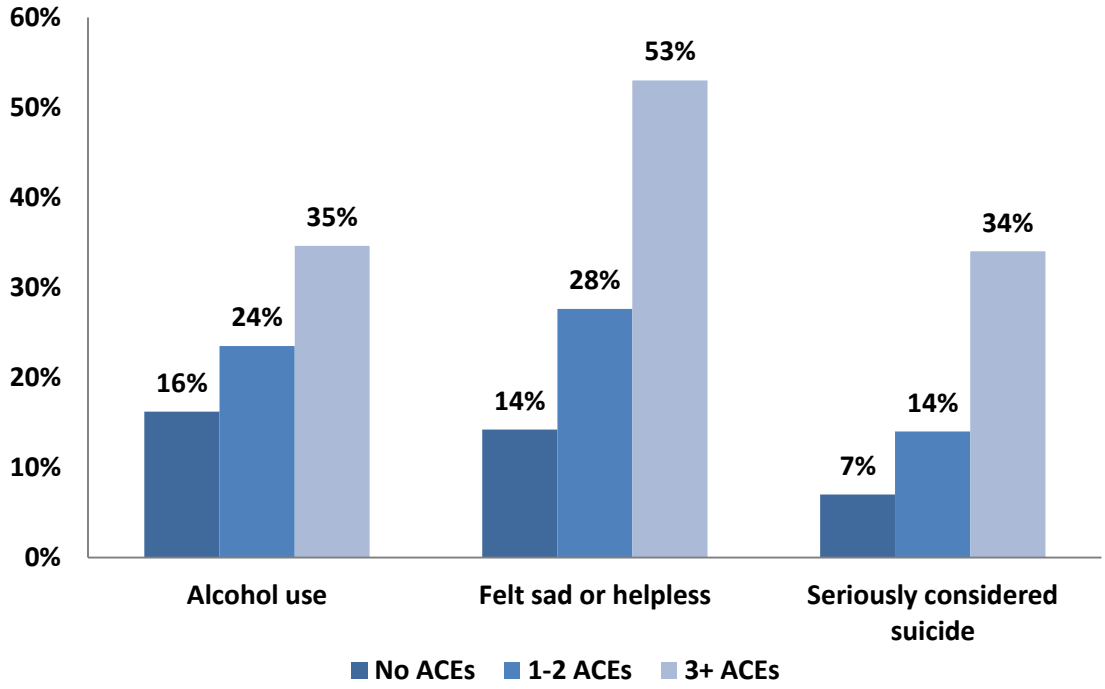
Figure 85. Past month high school substance use by whether or not their parents know where they are: 2017



Source: MIYHS, 2017

- High school students who stated that their parents or guardians did not know where they are (and who they are with most or all of the time when they are not at home) were more likely to use substances. Youth who think their parents do not know where they are were four times as likely to have misused prescription drugs in the past month, four times as likely to use cigarettes in the past month, twice as likely to use alcohol in the past month, and twice as likely to use marijuana in the past month.
- Although not pictured, high school students who felt that they had a parent or guardian that tries to help them succeed were also two to three times less likely to have used alcohol, marijuana, prescription drugs, and cigarettes within the past 30 days. Additionally, this is true of students who believe their family loves and supports them.

Figure 86. Alcohol use, feelings of sadness and suicide ideation among youth based on the number of adverse childhood experiences reported: 2017



Source: MIYHS, 2017

- Higher proportions of high school students who reported three or more adverse childhood experiences (ACEs) reported alcohol use, feeling sad or helpless, and serious suicidal consideration when compared to those reported fewer ACEs.

Mental Health, Suicide and Co-occurring Disorders

The relationship between substance use and mental health has been well documented. There are efforts underway throughout Maine to better integrate mental health promotion and substance use prevention. At the individual level, it is important to know if one exists because the symptoms of each can affect the other; that is, a person who is depressed may use alcohol in an effort to feel better. At the community level, it is important to understand how the prevalence of one interacts with the other so that prevention and intervention efforts can better address the needs of both. The data indicators included below represent multiple mental health indicators that can be routinely monitored in relation to substance use in hopes that this will lead to better prevention and intervention.

Based on most recent estimates, about one in five adults in Maine reported having ever been diagnosed with anxiety, while one in four reported having been diagnosed with depression. Rates of anxiety and depression tend to be higher among adults ages 26 to 35; however, data shows an increase in the proportion of 18 to 25 year olds reporting they have been told they have a depressive disorder. It appears that young adults (18 to 25) are more likely to report experiencing at least one major depressive disorder within the past year (about one in eight) compared to those over age 25. Rates of depression among young Mainers in high school have been increasing in recent years, with more than a quarter of high school students reporting feeling so sad or helpless for at least two weeks in the past year that they stopped doing their usual activities. About one in seven high school students in Maine had made a plan for suicide and one in ten reported they had actually attempted suicide in the past year. As discussed in the contributing factors section, certain protective factors are more common among teens who do not report suicidal thoughts. In 2017, 2-1-1 Maine referral calls related to mental health services and housing/shelter calls have decreased in recent years, while calls related to gambling have remained relatively stable. Calls related to substance use, which are the third most common, declined by over twenty percent compared to 2016.

Comorbidity of substance use and mental illness is a common phenomenon in Maine. In 2017, as in previous years, more students who reported they had consumed alcohol within the past 30 days reported they had considered suicide seriously in the past year compared to those who did not drink. Nearly one in four high school students who had consumed alcohol in the past month also had serious thoughts of suicide within the past year. Mental illness is also prevalent among Mainers who needed treatment for substance use. In 2016, over half (51%) of all substance use treatment admissions also involved a mental health disorder.

Mental Illness, Depression and Anxiety

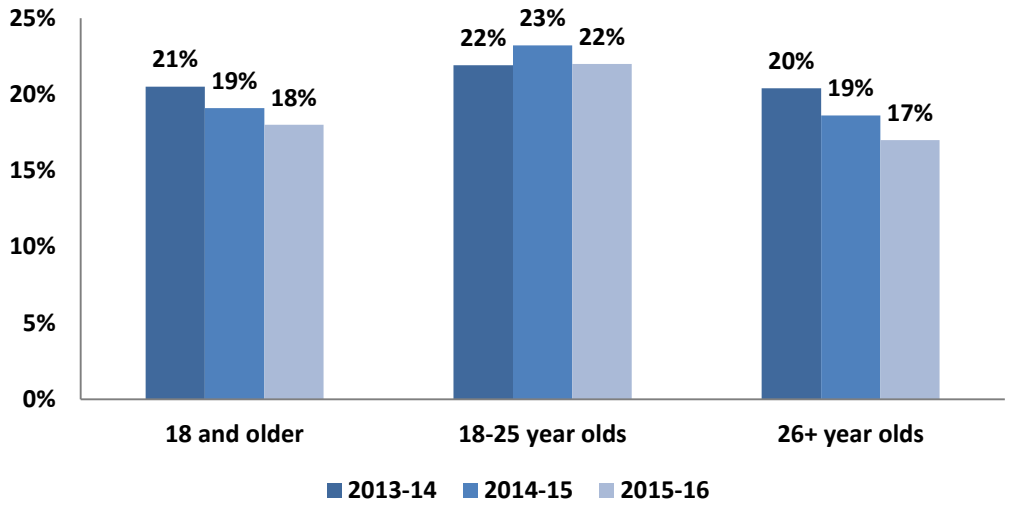
Indicator Description: MENTAL ILLNESS AND DEPRESSIVE EPISODES AMONG ADULTS. This indicator reflects the percentage of Maine residents age 18 and older reporting experiencing any mental illness, serious mental illness or having experienced at least one major depressive episode.[13]

Why Indicator is Important: Experiencing psychological distress in the past year is associated with higher rates of substance use.

Data Source(s): NSDUH, 2011–12 to 2015-16

Summary: Nearly one in five adults in Maine reported experiencing any mental illness in the past year. Eighteen to twenty five year olds reported the highest rates of past year major depressive episodes at 12 percent; rates have remained relatively stable.

Figure 87. Adults (age 18 and older) experiencing any mental illness in past year, by age group: 2013-14 to 2015–16

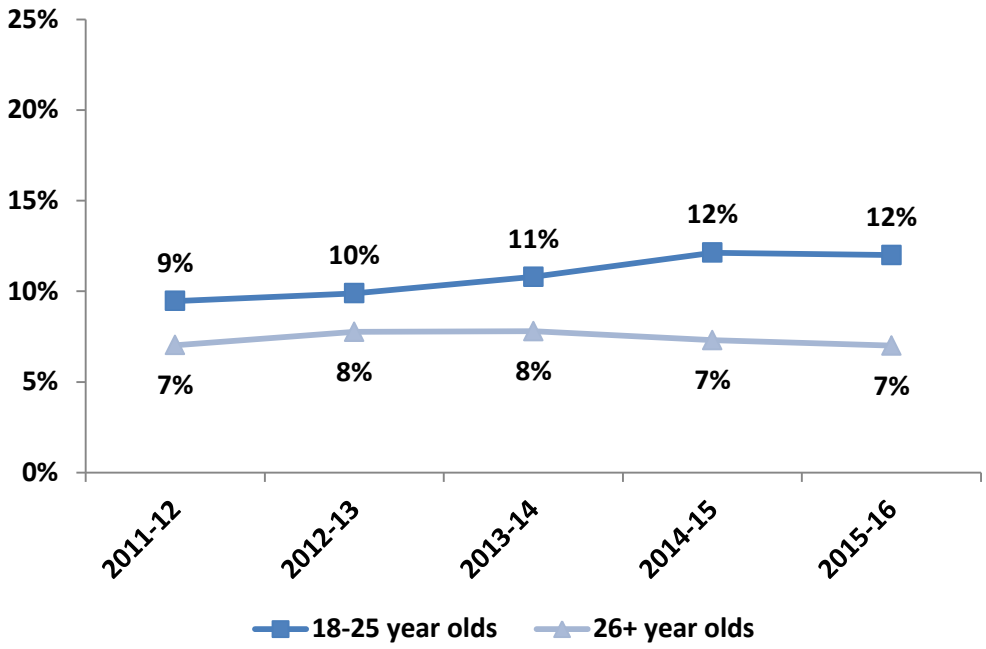


Source: NSDUH, 2013–14 to 2015-16

[13] Any mental illness is a diagnosable mental, behavioral, or emotional disorder, other than a substance use disorder, that met the criteria found in the 5th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-V). Serious mental illness is a diagnosable mental, behavioral, or emotional disorder, other than a developmental or substance use disorder, that met the DSM-IV criteria and resulted in serious functional impairment. Major depressive episode is defined as 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.

- In 2015-16, 18 percent of adults ages 18 and over, 22 percent of adults 18 to 25, and 17 percent of adults 26 and older report that they have experienced any mental illness in the past year.

Figure 88. Adults experiencing at least one major depressive[14] episode in the past year, by age group: 2011–12 to 2015–16



Source: NSDUH, 2011–12 to 2015–16

- In 2015–16, major depressive episodes continue to be more prevalent among young adults ages 18 to 25 (12%) compared to adults 26 and older (7%). Major depressive episode rates among 18 to 25 year olds have remained the same since 2014-15.

[14] Major depressive episode (MDE) is defined as in the 5th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-V), 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.

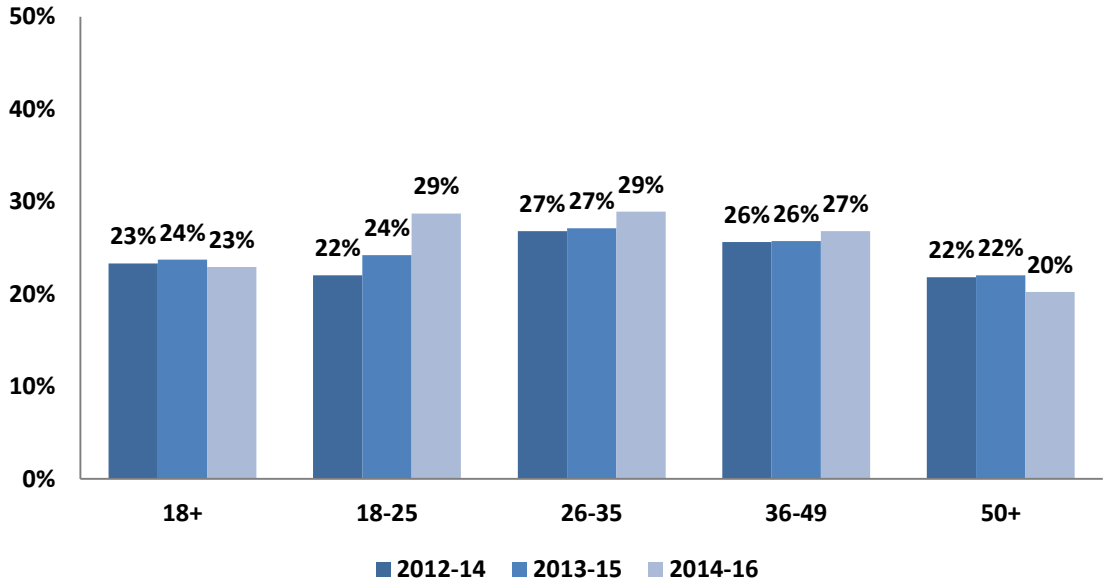
Indicator Description: DIAGNOSIS OF ANXIETY AND DEPRESSION AMONG ADULTS. This indicator examines the percentage of Maine residents age 18 and older who have been told they have a depression or anxiety disorder.

Why Indicator is Important: The link between mental health and substance use is well documented. Experiencing anxiety or depression in the past year is associated with higher rates of substance use.

Data Source(s): BRFSS, 2012-14 to 2014-16

Summary: In 2014-16, nearly one in four adults in Maine reported having ever been diagnosed with depression compared to one in five reporting to have been diagnosed with anxiety. Rates of depression among 18 to 25 year olds have been steadily increasing. Adults ages 26 to 35 reported the highest rates of anxiety. However, nearly a third of 18 to 25 year olds and 26 to 35 year olds report having been told they have a depressive disorder.

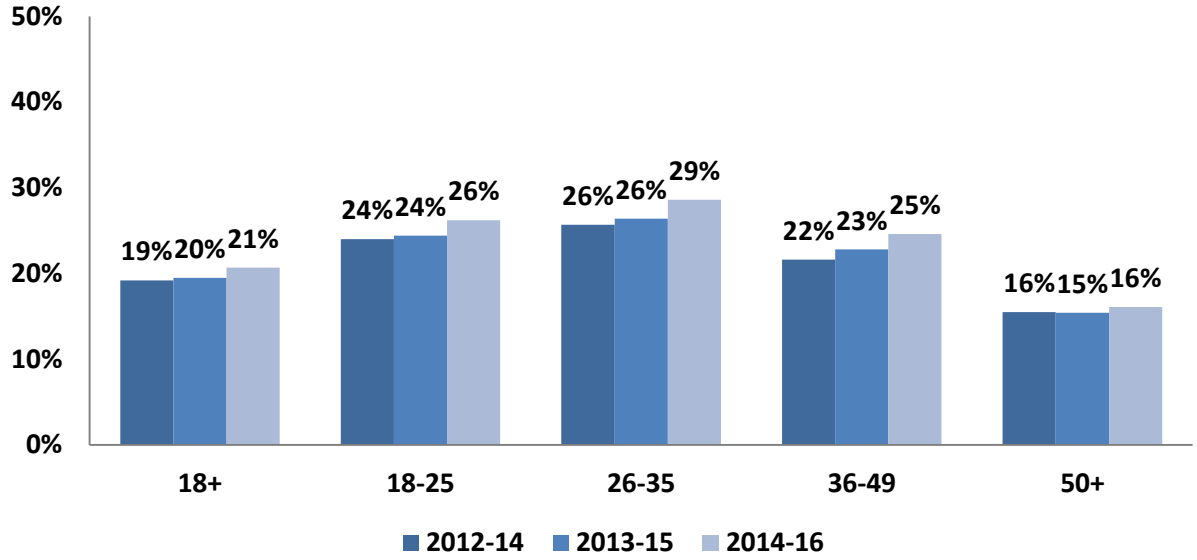
Figure 89. Adults who have been told they have a depressive disorder by age group: 2012-14 to 2014-16



Source: BRFSS 2012–14 to 2014-16

- In 2014-16, nearly a quarter(23%) of adults in Maine reported having ever been diagnosed with a depressive disorder. Rates of depression among 18 to 25 year olds have increased from 2012-14 (22%) to 2014-16 (29%).

Figure 90. Adults who have been told they have an anxiety disorder by age group: 2012-14 to 2014-16



Source: BRFSS 2012–14 to 2014-16

- In 2014–16, approximately one in five (21%) adults in Maine reported having ever been diagnosed with an anxiety disorder. Rate were highest among 26 to 35 year olds at 29 percent. Anxiety diagnoses have increased slightly in all age groups.

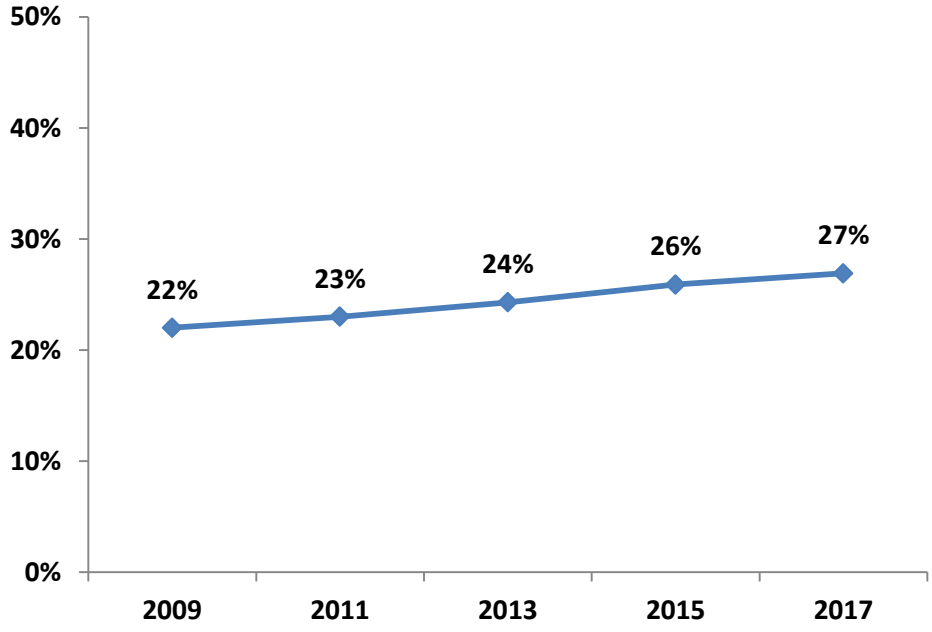
Indicator Description: DEPRESSION AMONG YOUTH. This indicator measures the percentage of high school students reporting they felt sad or hopeless almost every day for two weeks in a row during the past year.

Why Indicator is Important: Experiencing depression in the past year is associated with higher rates of substance use. In 2017, students who reported feeling hopeless or sad for at least two weeks within the past twelve months were almost twice as likely to have used marijuana or to have engaged in alcohol use in the past 30 days, and three times as likely to have misused prescription drugs during the past 30 days. Among youth, depression is also associated with problems with relationships and academic achievement.

Data Source(s): MIYHS 2009–2017

Summary: The percentage of Maine high school students who reported feeling sad or helpless for at least two weeks in the past year steadily increased from 22 percent in 2009 to 27 percent in 2017.

Figure 91. High school students who reported feeling sad or hopeless in past year: 2009–2017



Source: MIYHS 2009–2017

- In 2017, about one in four students felt so sad or helpless for at least two weeks in the past year that they stopped doing their usual activities. This rate increased by five percentage points from 2009 (22%) to 2017 (27%).

Suicidal Ideation

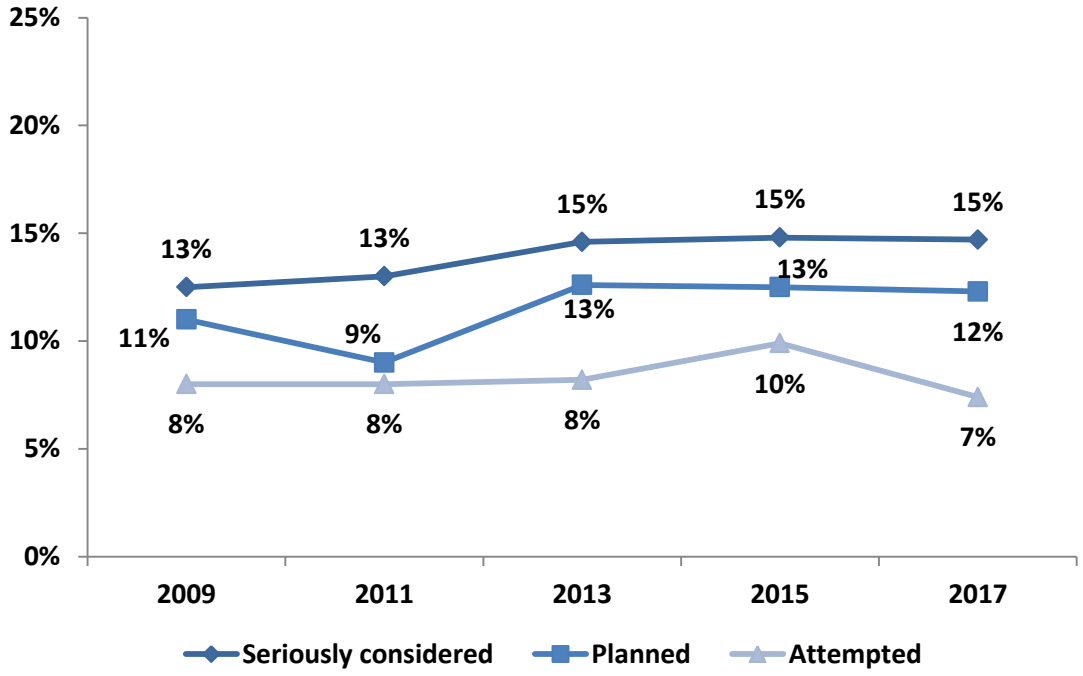
Indicator Description: SUICIDAL IDEATION AMONG YOUTH. This measure examines the percentage of high school students who reported that they seriously considered attempting suicide, made a plan about how they would attempt suicide, or attempted to commit suicide during the past year.

Why Indicator is Important: Suicide is the most extreme consequence of major depressive disorders. Use of alcohol or other drugs may increase emotional problems leading to suicidal ideation and suicidal behavior.

Data Source(s): MIYHS 2009–2017

Summary: 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; rates have remained relatively stable. Students who had reported they had attempted suicide decreased from 2015 (10%) to 2017 (7%).

Figure 92. High school students who considered, planned, or attempted suicide in past year: 2009–2017



Source: MIYHS 2009–2017

- In 2017, the rate of high school students who seriously considered suicide has remained unchanged since 2013 (15%). Rates for students who planned a suicide or attempted suicide have also remained largely unchanged since 2009.

Mental Health and Substance Use Co-Occurrence

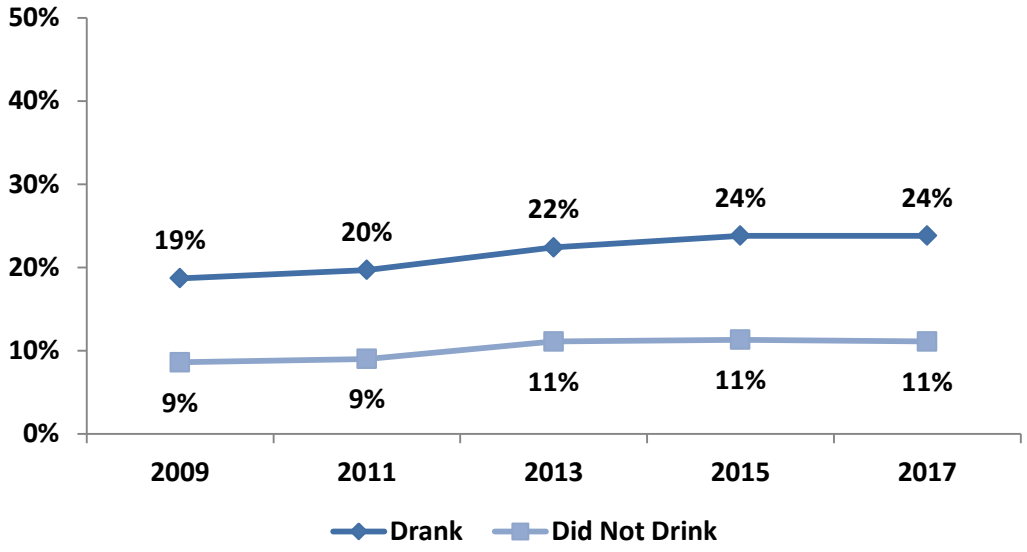
Indicator Description: CO-OCCURRING SUBSTANCE USE AND SUICIDAL BEHAVIOR AMONG YOUTH. This indicator explores the relationship between alcohol use within the past 30 days and suicidal behavior. It reflects the likelihood of high school students to report that they planned or attempted suicide during the past year by whether they reported consuming alcohol in the past month.

Why Indicator is Important: The link between mental health and substance use is well documented. Alcohol is a depressant and its use by depressed individuals may increase suicidal behavior.

Data Source(s): MIYHS, 2009–2017

Summary: In 2017, the percentage of high school students who had consumed alcohol in the past month and also had serious thoughts of suicide within the past year continues to be nearly one in four (24%); this is more than double the rate compared to students who did not drink.

Figure 93. High school students reporting seriously considering suicide in the past year, by alcohol use in the past month: 2009–2017



Source: MIYHS 2009–2017

- In 2017, among students who drank alcohol within the past 30 days, 24 percent reported they had seriously considered suicide within the past year; among students who did not drink alcohol in the previous 30 days, 11 percent had seriously considered suicide.

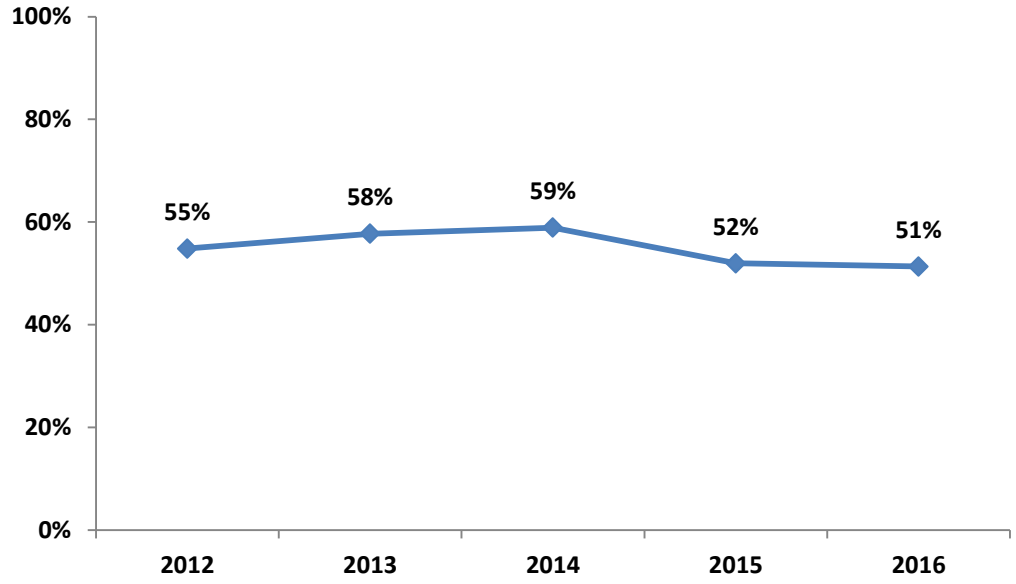
Indicator Description: CO-OCCURRING MENTAL HEALTH AND SUBSTANCE USE TREATMENT. This indicator reflects the proportion of treatment admissions for substance use where the individual has a mental health diagnosis or has previously received mental health services. The following analysis excludes admissions for shelter/detoxification services as well as those who were identified as co-affected or codependents (e.g., spouse, child, sibling) of the client who was receiving treatment. In addition, the following data analysis includes duplicate admissions, meaning that a unique individual/client could have been counted multiple times if they were admitted during the year on more than one occasion.

Why Indicator is Important: The link between mental health and substance use is well documented. In terms of treatment, it is important to know if one exists since the symptoms of each can affect the other.

Data Source(s): WITS, 2012–2016

Summary: In 2016, over half (51%) of all substance use treatment admissions also involved a mental health disorder.

Figure 94. Percent of total treatment admissions with reported mental health disorders: 2012–2016



Source: WITS, 2012–2016

**WITS system is not static; therefore 2016 rates may be different than true values. Data were retrieved 6/8/2017*

- In 2016, 51 percent of all substance use treatment admissions also had a diagnosed mental health disorder, representing a decrease of eight percentage points from 2014.

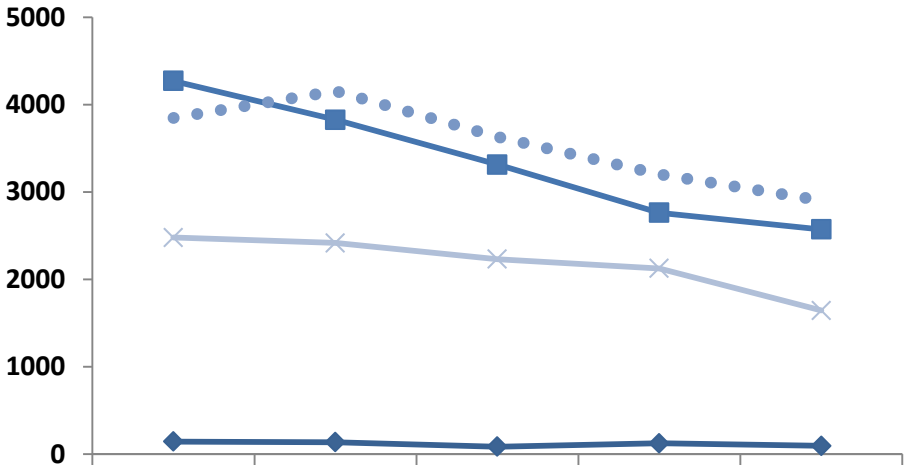
Indicator Description: INFORMATION CALLS FOR MENTAL HEALTH AND HUMAN SERVICES. 2-1-1 Maine is a telephone and internet service that provides information and referrals to health and human services. This indicator reflects the number of calls received by 2-1-1 Maine by the type of service requested.

Why Indicator is Important: The data collected from each call provides valuable information serving as a barometer of health and human service needs in the state.

Data Source(s): 2-1-1 Maine, 2013–2017

Summary: 2-1-1 Maine referral calls related to mental health services have outnumbered calls related to shelter/housing as well as substance use for the past several years. Referral calls for mental health, housing/shelter, and substance use have observed steady declines in recent years while calls related to gambling have remained relatively stable.

Figure 95. Number of 2-1-1 Maine referral calls, by service type: 2013–2017



	2013	2014	2015	2016	2017
Gambling	145	138	86	125	95
Housing/Shelter	4,271	3,827	3,313	2,762	2,573
Mental Health	3,846	4,154	3,630	3,204	2,902
Substance Abuse	2,479	2,416	2,232	2,125	1,644

Source: 2-1-1 Maine, 2013–2017

- In 2017, there were 2,902 calls to 2-1-1 Maine relating to mental health services, followed by calls for housing/shelter (2,573), substance abuse (1,644), and problem gambling (95). From 2013 to 2017, 2-1-1 Maine referral calls for mental health services decreased by 25 percent, housing/shelter decreased by 40 percent, calls for substance abuse services decreased by 34 percent, and calls related to problem gambling decreased by 34 percent.

Treatment for Substance Use

Primary Treatment Admissions

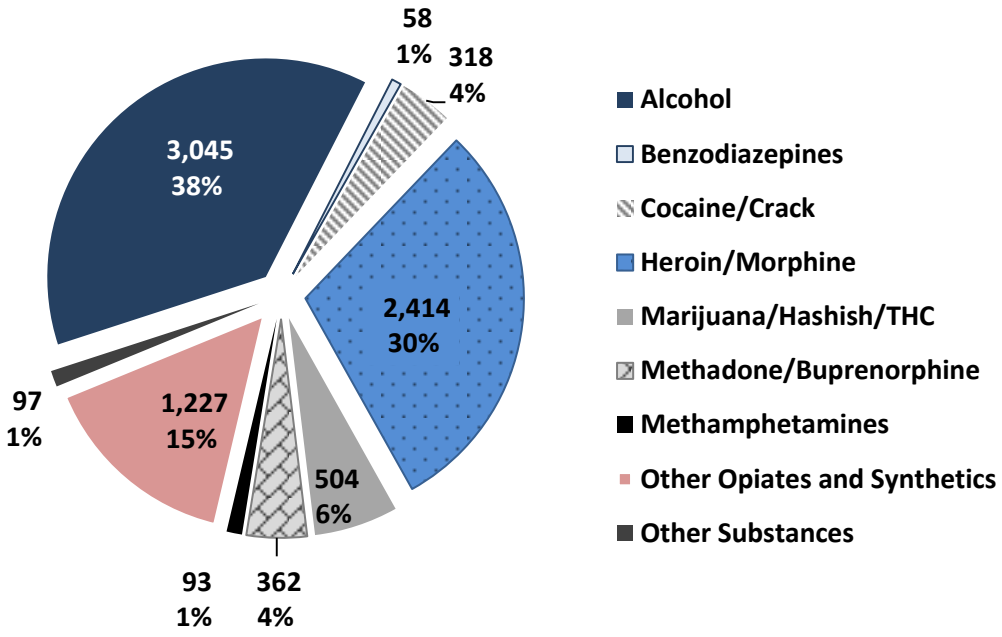
Indicator Description: **PRIMARY TREATMENT ADMISSIONS BY SUBSTANCE.** This indicator reflects substance use treatment admissions in which a substance was listed as the primary reason for admission. The following analysis excludes admissions for shelter/detoxification services as well as those who were identified as co-affected or codependents (e.g., spouse, child, sibling) of the client receiving treatment. The following data include duplicate admissions, meaning that a unique individual/client could be counted multiple times if they were admitted more than once during the year.

Why Indicator is Important: The number of substance use treatment admissions is bound by both the need and the capacity for treatment. Therefore, treatment admissions data do not provide a complete indication of substance use, misuse or dependence. They do, however, provide an indication of service usage and impact of substance use on the behavioral healthcare system.

Data Source(s): WITS, 2013–2017

Summary: More than one in three substance use treatment admissions listed alcohol as the primary reason for treatment in 2017, followed by heroin/morphine, and other opiates/synthetics. In 2017, nearly half (49%) of primary admissions were related to either opioids or opiates which is consistent with previous years. The proportion of primary admissions related to synthetic opiates continues to decrease as primary admissions involving heroin/morphine continue to increase.

Figure 96. Number and percentage of primary treatment admissions, by substance type: 2017*

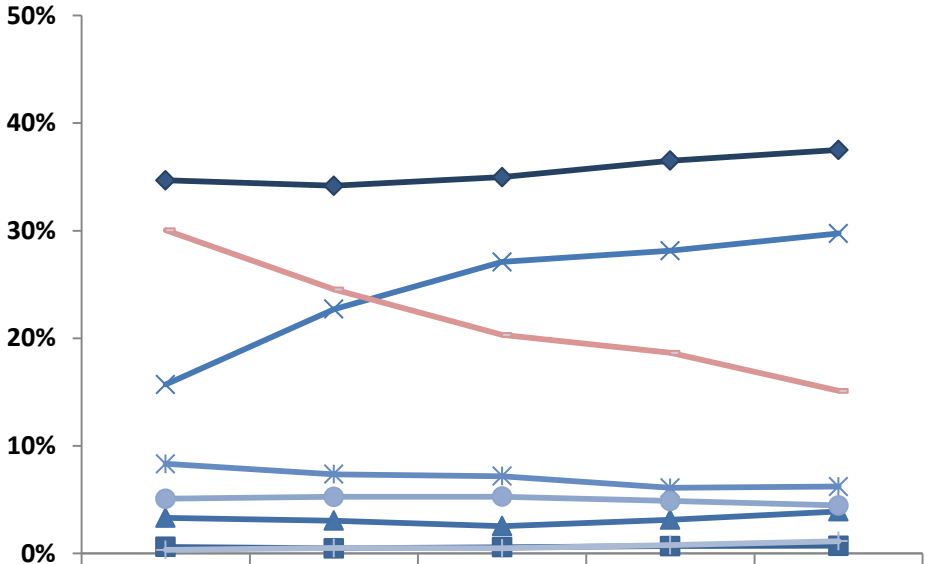


Source: WITS, 2017

**WITS system is not static; therefore, 2017 numbers may be lower than true counts. Data were retrieved 7/8/2018*

- In 2017, there were a total of 8,118 primary admissions. Of those admissions, 3,045 (38%) were related to alcohol, followed by heroin/morphine (2,414, 30%), other opiates and synthetics (1,227, 15%), marijuana/hashish/THC (504, 6%), non-prescription methadone (362, 4%) and cocaine/crack (318, 4%).

Figure 97. Percent of primary treatment admissions, by substance type: 2013–2017



	2013	2014	2015	2016	2017
Alcohol	35%	34%	35%	37%	38%
Benzodiazepines	1%	0%	1%	1%	1%
Cocaine/Crack	3%	3%	3%	3%	4%
Heroin/Morphine	16%	23%	27%	28%	30%
Marijuana/Hashish/THC	8%	7%	7%	6%	6%
Methadone/Buprenorphine	5%	5%	5%	5%	4%
Methamphetamines	0%	1%	0%	1%	1%
Other Opiates and Synthetics	30%	25%	20%	19%	15%

Source: WITS, 2013–2017

- The proportion of primary admissions related to heroin/morphine has increased by 14 percentage points from 2013 (16%) to 2017 (30%). During the same time frame, primary admissions related to synthetic opiates decreased by 15 percentage points, from 30 percent in 2013 to 15 percent in 2017.
- Primary admission rates involving alcohol, marijuana, cocaine/crack, and benzodiazepines have remained consistent over the past 5 years.

Secondary Treatment Admissions

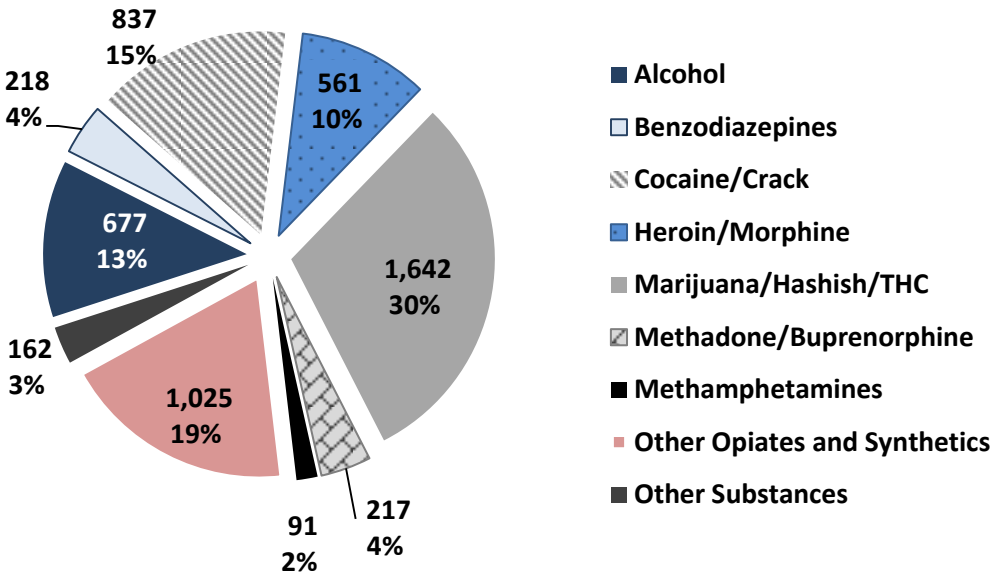
Indicator Description: **SECONDARY TREATMENT ADMISSIONS BY SUBSTANCE.** This indicator reflects substance use treatment admissions in which a substance was listed as the secondary reason for admission. Not every admission includes a secondary reason or substance. The following analysis excludes admissions for shelter/detoxification services as well as those who were identified as co-affected or codependents (e.g., spouse, child, sibling) of the client who was receiving treatment. The following data include duplicate admissions, meaning that a unique individual/client could be counted multiple times if they were admitted more than once during the year.

Why Indicator is Important: The number of substance use treatment admissions is bound by both the need and the capacity for treatment. Therefore, treatment admissions data do not provide a complete indication of substance use, misuse or dependence. They do, however, provide an indication of service usage and impact of substance use on the behavioral healthcare system.

Data Source(s): WITS, 2013–2017

Summary: Out of the admissions that listed a secondary substance, nearly one in three was related to marijuana and about one in five was related to synthetic opiates. Rates related to synthetic opiates have steadily decreased while rates involving cocaine/crack have gradually increased.

Figure 98. Number and percentage of secondary treatment admissions, by substance type: 2017*

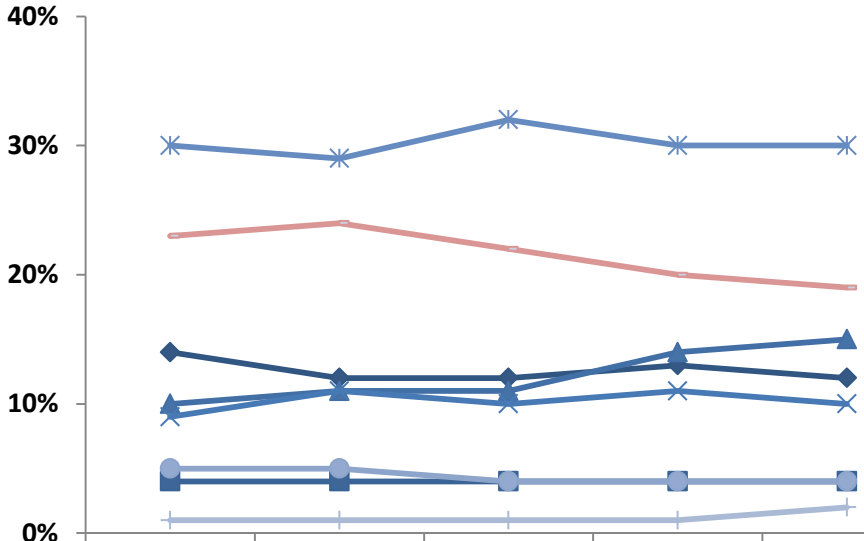


Source: WITS, 2017

**WITS system is not static; therefore, 2017 numbers may be lower than true counts. Data was retrieved 7/8/2018*

- In 2017, there were a total of 5,430 admissions that listed a secondary substance or reason for treatment. Of those admissions, 1,642 (30%) were related to marijuana, followed by other opiates and synthetics (1,025, 19%), and cocaine/crack (837, 15%).

Figure 99. Percent of secondary treatment admissions, by substance: 2013–2017



	2013	2014	2015	2016	2017
Alcohol	14%	12%	12%	13%	12%
Benzodiazepines	4%	4%	4%	4%	4%
Cocaine/Crack	10%	11%	11%	14%	15%
Heroin/Morphine	9%	11%	10%	11%	10%
Marijuana/Hashish/THC	30%	29%	32%	30%	30%
Methadone/Buprenorphine	5%	5%	4%	4%	4%
Methamphetamines	1%	1%	1%	1%	2%
Other Opiates and Synthetics	23%	24%	22%	20%	19%

Source: WITS, 2013–2017

- Marijuana/hashish/THC still has the highest proportion of admissions where a secondary substance was listed. The proportion of admissions related synthetic opiates continue to decline while the proportion of admissions related to cocaine/crack has gradually increased.

Treatment Admissions Among Pregnant Women

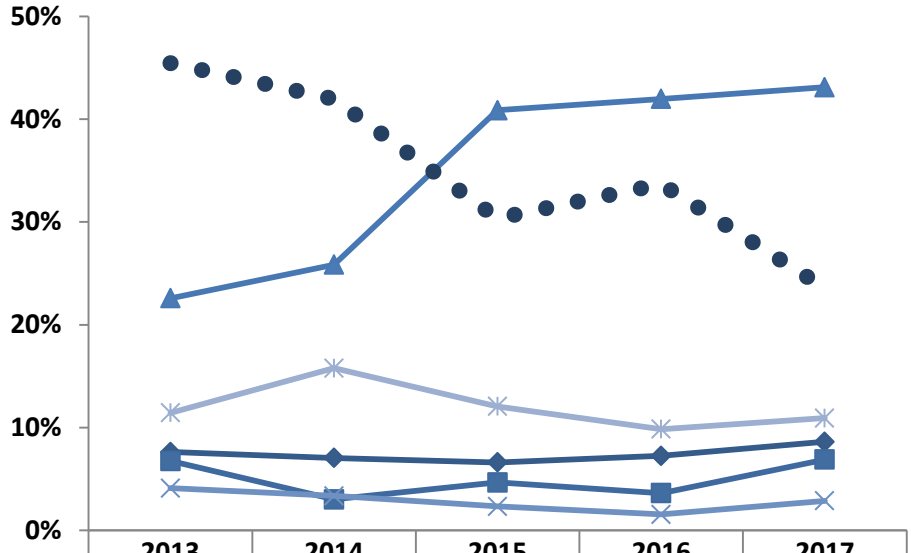
Indicator Description: SUBSTANCE USE TREATMENT ADMISSIONS WHILE PREGNANT. This indicator explores the primary substances for which pregnant women sought treatment. The following analysis excludes admissions for shelter/detoxification services as well as those who were identified as co-affected or codependents (*e.g.,* spouse, child, sibling) of the client receiving treatment. In addition, the following data analysis includes duplicate admissions, meaning that a unique individual/client could have been counted multiple times if they were admitted during the year on more than one occasion.

Why Indicator is Important: Exposure to alcohol and drugs damage a fetus during all stages of pregnancy. Babies born to mothers who used drugs during pregnancy are at greater risk of experiencing long-term behavioral difficulties and developmental delays. The American Academy of Pediatrics recommends complete abstinence from alcohol drugs for pregnant women. However, medical professionals advise pregnant women suffering from addiction to seek treatment rather than attempt to quit without medical supervision.

Data Source(s): WITS, 2013–2017

Summary: In 2017, nearly 80 percent of pregnant substance use treatment admissions were related to opioids/opiates. In recent years, the percentage of pregnant treatment admissions primarily due to other synthetic opioids has steadily declined while the proportion related to heroin has increased.

Figure 100. Pregnant treatment admissions, by primary substance: 2013–2017



	2013	2014	2015	2016	2017
Alcohol	8%	7%	7%	7%	9%
Cocaine/Crack	7%	3%	5%	4%	7%
Heroin/Morphine	23%	26%	41%	42%	43%
Marijuana/Hashish/THC	4%	3%	2%	2%	3%
Methadone/Buprenorphine	11%	16%	12%	10%	11%
Other Opiates and Synthetics	45%	42%	30%	34%	24%

Source: WITS, 2013–2017

**WITS system is not static and is continually updated; therefore, 2017 rates may be different than actual values. Data were retrieved 7/8/2018*

- In 2017, 43 percent of pregnant women were seeking treatment for heroin/morphine, followed by other opiates and synthetics (24%), methadone/buprenorphine (11%), alcohol (9%), cocaine/crack (7%), and marijuana (3%) as the primary reason.
- The proportion of pregnant women who were admitted for treatment primarily due to other synthetic opiates has been declining since 2013, from 57 percent to 39 percent. Over the same period, the proportion of pregnant women admitted for heroin increased from 22 percent in 2013 to 43 percent in 2017.

Conclusion

Alcohol remains the substance most often used by Mainers across the lifespan and the substance for which most seek treatment. A great deal of progress has been made toward reducing the rate of alcohol use among Maine's youth, as evidenced by the most recent data trends that show an overall decline in rates of alcohol use over the past several years. While consumption rates are down, most teens and parents still feel it is easy to access alcohol. Moreover, there continues to be a large discrepancy between parental perceptions of their child's behaviors compared to the actual behaviors reported by youth. This disconnect is an ongoing challenge, especially concerning confronting youth's substance use and parental monitoring. Prevention efforts targeting access to substances should continue to be a priority.

Among adults, 18 to 25 year olds as well as those 26 to 35 are the most likely to binge drink, with nearly one third reporting such behavior in the past month. In addition, younger adults between 18 and 34 have the highest rates of marijuana use. These age groups also have the highest rates of alcohol/drug-related motor vehicle crashes and crash fatalities. In 2016, there were nearly 2,000 Mainers arrested between the ages of 21 and 29 related to operating under ther influence of drugs and alcohol. Perceptions of harm regarding alcohol/drug use among this demographic continues to be a challenge. This is further evidence that prevention professionals must continue to monitor this population and adapt strategies that intentionally target young adults.

Opioid misuse continues to have a large impact on treatment, hospitalizations, and crime in Maine and our Nation. In recent years, Maine has observed a steady increase in the number of overdose ambulance responses related to drugs and/or medication. From 2013 to 2017, drug/medication overdoses increased by 62 percent. Rates of drug/medication overdose responses were disproportionately highest among Mainers 26 to 35. In conjunction with the influx in overdose responses, Emergency Medical Services have experienced an increase both in the number of overall naloxone/Narcan doses administered, as well as the number of unique individuals receiving administrations. Overdose deaths related to non-pharmaceutical fentanyl increased by a third since 2016. The rate of change in drug related overdose deaths has begun to slow. Favorably, the number of reports to Child Protective Services regarding infants born affected by substance use or infants affected by prenatal exposure to substances have began to decline. Maine should continue to promote and enhance evidence-based treatment and prevention strategies and interventions.

It's worth noting that rates for past month misuse of any type of prescription drugs among high school students have decreased overall from 2009 to 2017. In 2017, about one in ten high school students reported misusing prescription pain relievers in their lifetime. Among adults, Mainers between the ages of 18 and 25 continue to have the highest rates of pain reliver misuse and heroin use. Fortunately, illicit drug rates (*e.g.,* heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used non-medically) have been generally declining among Maine's youth and young adults for the past several years.

It is essesntial for Maine to continue to monitor emerging trends regarding the consumption, consequences, and contributing factors of substance use. Drugs such as methamphetamine, cocaine, and other potentially addictive and dangerous prescription drugs have had a progressively negative effect in Maine and the Nation. Maine Drug Enforcement Agency (MDEA) investigations related to the trafficking of cocaine increased by nearly 40 percent from 2016 to 2017 while drug related overdose deaths involving cocaine increased by 52 percent during the same time frame. Accoding the MDEA, local lab investigations related to Methamphetamine have decreased recently partly due to imported mass produced crystal methamphetamine. In addition, sedatives (*e.g.,* benzodiazepines, anxiety medications) are the second most commonly prescribed schedule II-IV medication in Maine, the second most commonly verified medication in calls to the poison center, and were present in nearly one third of drug related overdose deaths. Furthermore, prescriptions dispensed for stimulants have increased by 26 percent since 2012. It is imperative that we track the dispensation of prescription drugs that have a greater potential for diversion and misuse.

The majority of Mainers feel that misusing opioids poses real risk, yet there is still concern over availability and ease of access. Even as policies and prescribing practices have begun to limit the supply of opiate agonists, there was still nearly one million opiate agonist prescriptions dispensed in Maine in 2017. According to Northern New England Poison Center, the majority of calls related to medication verification are related to opioids, followed by benzodiazepines, and stimulants; this aligns with the Prescription Monitoring Program statistics. While reducing the supply of opiate prescriptions is integral to the prevention work in Maine, this approach is best coupled with education efforts aimed at increasing the awareness of the dangers of misuse as well as safe storage and disposal of unused medications. Additionally, efforts targeting prescriber practices will continue to be necessary in further reducing Maine's per capita opioid utilization.

Over the last several years, high school students' perception of risk associated with alcohol has increased while the perceived risk of marijuana has decreased. The vast majority of high school students reported that people risk harming themselves if they binge drink on a regular basis. However, only a third of high school students thought that there was moderate to great risk from smoking marijuana regularly. Perception of harm from marijuana has also steadily decreased among parents as well. In 2013, eight out ten parents felt that marijuana use by their child or teenager was "never ok." In 2017, this statistic dropped to six out of ten. This change appears to be driven by increases in the numbers of parents who believe it is okay if a doctor provides a written certificate for use or okay when the child is grown. Among adults, 18 to 25 year olds are the least likely to perceive risks of harm from using alcohol, marijuana, or heroin. Factors such as perception of harm from using a substance can have a significant impact in determining whether an individual will initiate or continue use. It is important that youth are taught early of the harms and risks associates with short and long term substance use.

Finally, Maine continues to be aware of the close relationship between mental health and substance use. Aligning with national trends, over half of all substance use treatment admissions also involved a mental health disorder. Unfortunately, rates of depression among

young Mainers in high school have been steadily increasing for the past several years. There is evidence that depression and higher rates of substance use are strongly associated. According to the 2017 Maine Integrated Youth Health Survey, students who reported feeling hopeless or sad for at least two weeks within the past twelve months were almost twice as likely to have used marijuana or to have engaged in binge drinking in the past 30 days, and three times as likely to have misused prescription drugs during the past 30 days. In addition, in 2017, nearly one in four high school students who had consumed alcohol in the past month also had serious thoughts of suicide within the past year compared to one in ten students who had not drank in the past month. Data suggests that the prevalence of substance use, suicide ideation, and feelings of sadness and helplessness are lower among high school students who report certain protective factors. There are some protective factors, such as sleep, social support, and stable families, which taken together may mitigate the risk of substance use behaviors and mental health issues among youth.

Finally, Maine's prevention and treatment professionals must increase their understanding of economic conditions within the context of this report on a region by region basis. This will inform policy and decision makers alike with critical information in order to more efficiently and effectively target responses to public health needs – from tobacco cessation to the opioid crisis.

Public Health District Indicators

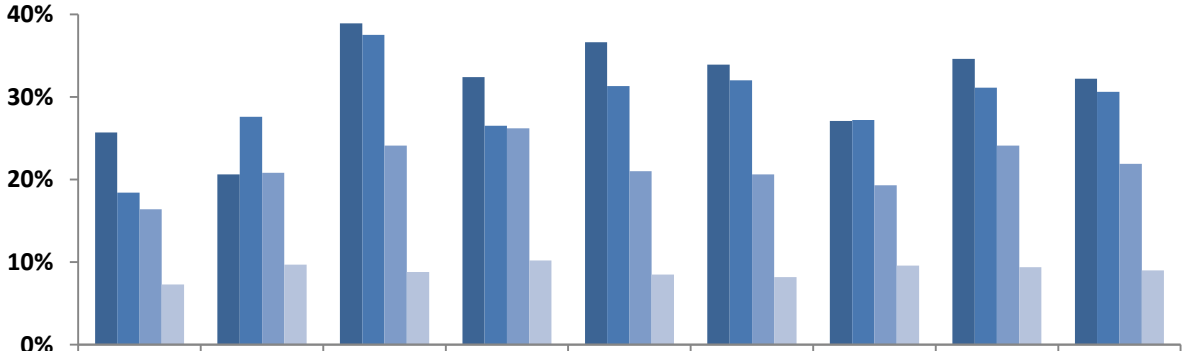
Indicator Description: **CURRENT HIGH-RISK ALCOHOL USE AMONG ADULTS.** This indicator reflects the percentage of adults who reported consuming several alcoholic beverages in a row for at least one day within the past month.[15]

Why Indicator is Important: Binge drinking is considered a type of high-risk drinking, meaning it increases the risk for many health and social related consequences. High-risk alcohol use has been linked to injury (such as falls, fights, and suicides), violence, crime rates, motor vehicle crashes stroke, chronic liver disease, addiction, and some types of cancer.

Data Source(s): BRFSS, 2013–16

Summary: The highest binge drinking rates continue to be observed among 18 to 25 year olds and 26 to 35 year olds with about one in three reporting binge drinking within the past month. Rates of binge drinking among 18 to 25 year olds ranged from the highest observed in Cumberland (38%) to the lowest rate reported in Aroostook (26%).

Figure 101. Percent of adults by Public Health District who reported binge drinking in past 30 days by age group: 2013–16



	Aroostook	Central	Cumber.	Downeast	Midcoast	Penquis	Western	York	Maine
18-25	26%	21%	39%	32%	37%	34%	27%	35%	32%
26-35	18%	28%	38%	27%	31%	32%	27%	31%	31%
36-49	16%	21%	24%	26%	21%	21%	19%	24%	22%
50+	7%	10%	9%	10%	9%	8%	10%	9%	9%

Source: BRFSS 2013–16

[15] BRFSS defines binge drinking as five or more drinks in one sitting for a male and four or more drinks in one sitting for a female.

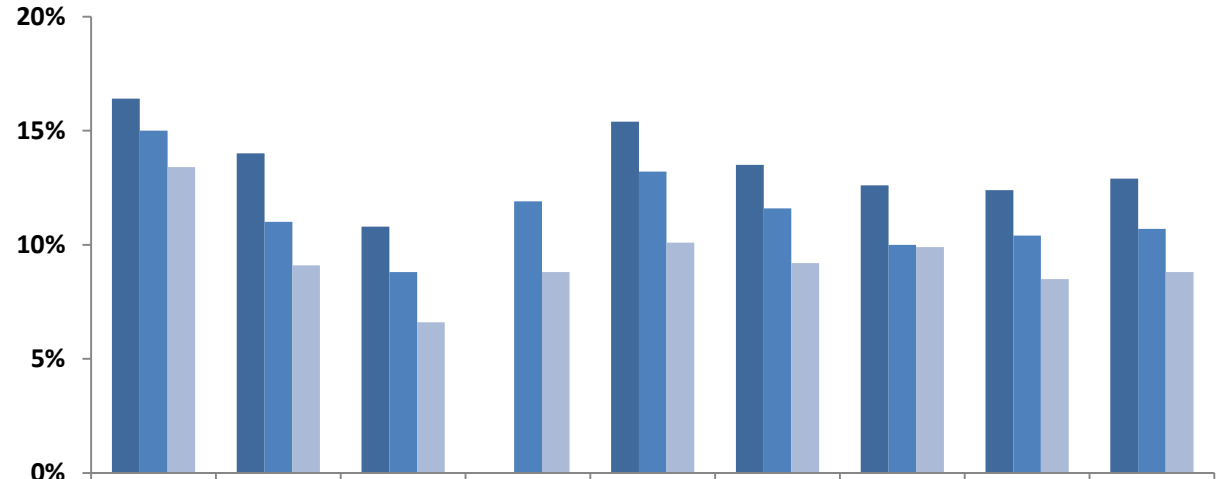
Indicator Description: SMOKING AMONG YOUTH. This indicator illustrates the percentage of Maine high school students who reported smoking a cigarette on at least one occasion within 30 days prior to the survey.

Why Indicator is Important: Use of tobacco is associated with a greater risk of negative health outcomes, including cancer, cardiovascular, chronic respiratory diseases, and can lead to death.

Data Source(s): MIYHS, 2013–2017

Summary: The use of tobacco products among high school students continues to steadily decline. In 2017, less than one in ten students in Maine reported having smoked a cigarette within the past month. Rates ranged from the highest observed in Aroostook (13%) to the lowest reported in Cumberland (7%). Almost all public health districts observed decreases from 2015 to 2017.

Figure 102. Percent of high school students by Public Health District who reported smoking one or more cigarettes during past 30 days: 2013–2017



	Aroostook	Central	Cumber.	Downeast	Midcoast	Penquis	Western	York	Maine
2013	16%	14%	11%		15%	14%	13%	12%	13%
2015	15%	11%	9%	12%	13%	12%	10%	10%	11%
2017	13%	9%	7%	9%	10%	9%	10%	9%	9%

Note: Due to small sample size, Downeast public health district did not have an estimate for 2013.
Source: MIYHS, 2013-2017

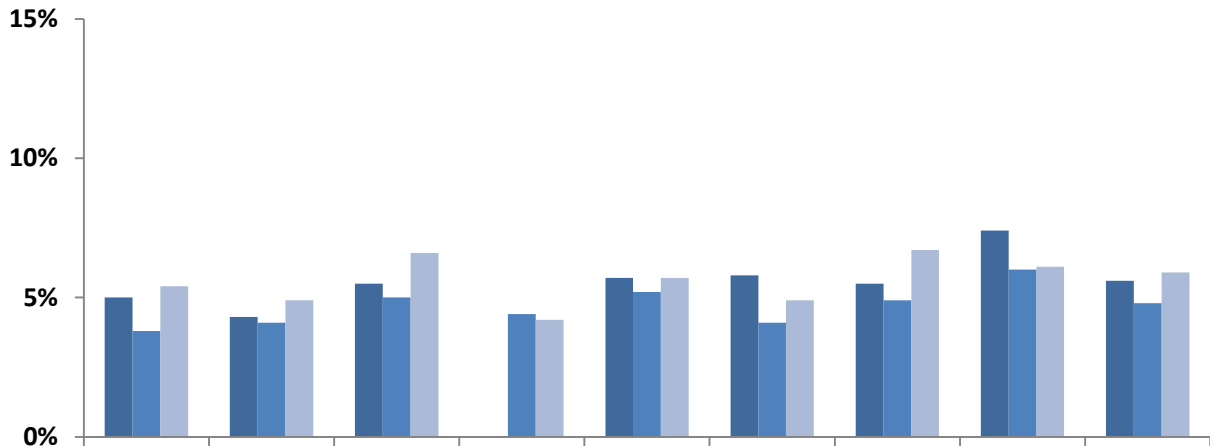
Indicator Description: MISUSE OF PRESCRIPTION DRUGS AMONG YOUTH. This indicator shows the percentage of youth who reported using prescription medications (any type) that were not prescribed to them by a doctor.

Why Indicator is Important: Misuse of prescription drugs may lead to consequences such as unintentional poisonings or overdose, which could lead to death, automobile crashes, addiction, and increased crime.

Data Source(s): MIYHS, 2009–2017.

Summary: On a state level, the percentage of high school students reporting that they had misused a prescription medication in the past month increased slightly from 2015 (5%) to 2017 (6%). In 2017, rates were relatively consistentacross public health districts; ranging from four percent in Downeast to seven percent in the Cumberland and Western districts. Both the Cumberland and Western districts observed a two point increase from 2015 to 2017.

Figure 103. Percent of high school students by Public Health District who have taken prescription drugs not prescribed to them by a doctor (past 30 days): 2013–2017



	Aroostook	Central	Cumber.	Downeast	Midcoast	Penquis	Western	York	Maine
2013	5%	4%	6%		6%	6%	6%	7%	6%
2015	4%	4%	5%	4%	5%	4%	5%	6%	5%
2017	5%	5%	7%	4%	6%	5%	7%	6%	6%

Note: Due to small sample size, Downeast public health district did not have an estimate for 2013.
Source: MIYHS

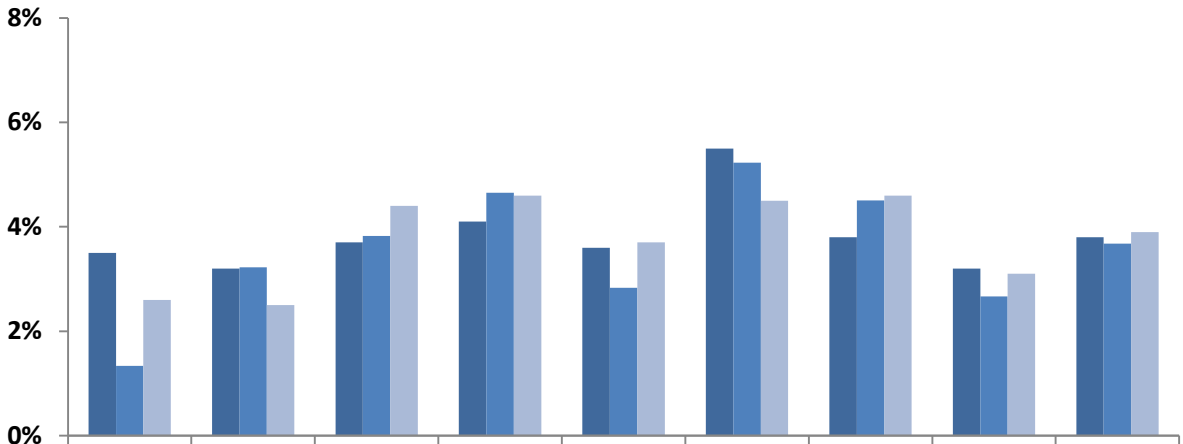
Indicator Description: MISUSE OF PRESCRIPTION DRUGS AMONG ADULTS. This measure reflects the percentage of adults in Maine who reported using prescription drugs (any type) not prescribed to them by a doctor, or using them in a way other than the way in which they were prescribed, at least once in their lifetime.

Why Indicator is Important: Misuse of prescription drugs may lead to consequences such as unintentional poisonings, overdose, which may lead to death, dependence and increased crime.

Data Source(s): BRFSS, 2012–2016

Summary: During 2014-16, 3.9 percent of Maine adults reported they had ever misused prescription drugs. Lifetime adult prescription drug misuse rates did not vary much across districts; the lowest rate was observed in Aroostook (2.6%) and the highest rate was seen in Western (4.6%).

Figure 104. Misuse of prescription drugs among Maine residents (18 and older) in their lifetime, by Public Health District: 2012–14 to 2014–16

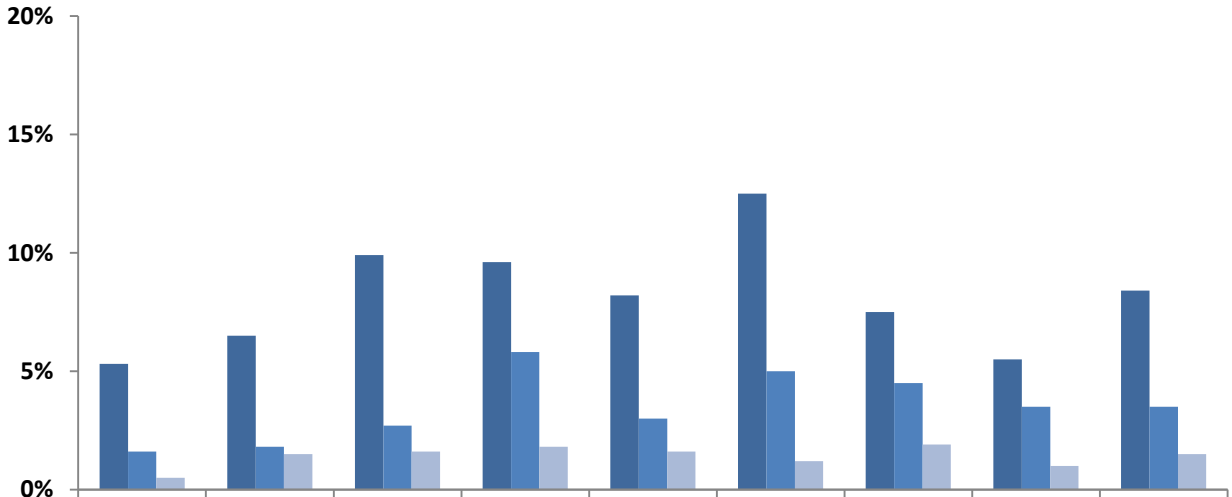


	Aroostook	Central	Cumber.	Downeast	Midcoast	Penquis	Western	York	Maine
2012-14	3.5%	3.2%	3.7%	4.1%	3.6%	5.5%	3.8%	3.2%	3.8%
2013-15	1.3%	3.2%	3.8%	4.7%	2.8%	5.2%	4.5%	2.7%	3.7%
2014-16	2.6%	2.5%	4.4%	4.6%	3.7%	4.5%	4.6%	3.1%	3.9%

Source: BRFSS 2012–2016

Summary: The highest rates of lifetime prescription drug misuse were observed among adults between the ages of 18 and 34. Statewide, nearly one in ten (9%) adults reported misusing prescription drugs within their lifetime. Rates among 18 to 34 year olds ranged from the lowest in Aroostook (5.3%) to the highest in Cumberland (9.9%).

Figure 105. Lifetime misuse of prescription drugs among Maine adults, by age and Public Health District: 2013–16



	Aroostook	Central	Cumber.	Downeast	Midcoast	Penquis	Western	York	Maine
18-34	5.3%	6.5%	9.9%	9.6%	8.2%	12.5%	7.5%	5.5%	8.4%
35-54	1.6%	1.8%	2.7%	5.8%	3.0%	5.0%	4.5%	3.5%	3.5%
55+	0.5%	1.5%	1.6%	1.8%	1.6%	1.2%	1.9%	1.0%	1.5%

Source: BRFSS 2013–16

Indicator Description: BABIES BORN EXPOSED/AFFECTED TO SUBSTANCES. This indicator reflects the number of infants born in Maine where a healthcare provider reported to the Office of Child and Family Services (OCFS) that there was reasonable cause to suspect the baby may be either affected by illegal substance use, demonstrating withdrawal symptoms resulting from prenatal drug exposure (illicit or prescribed), or have fetal alcohol spectrum disorders. This measure potentially excludes instances where the infant was exposed to substances and did not show withdrawal symptoms after birth, instances where the birth of an infant affected by substances was not reported to OCFS, and any other instances in which there were discrepancies between reporters when interpreting the law.[16]

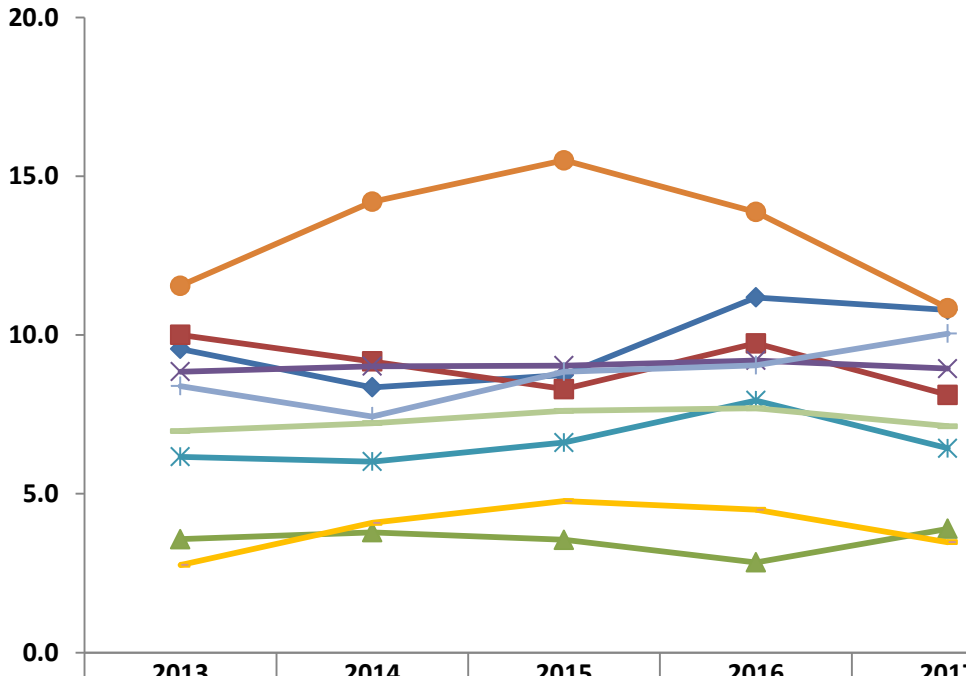
Why Indicator is Important: Prenatal exposure to alcohol, tobacco, and illicit drugs has the potential to cause a wide spectrum of physical, emotional, and developmental problems for these infants. The harm caused to the child can be significant and long-lasting, especially if the exposure is not detected and the effects are not treated as soon as possible.

Data Source(s): OCFS/MACWIS, 2013–2017

Summary: In 2017, there were 952 reports submitted to Child Protective Services regarding infants born exposed to substances (drug affected babies); this represents a rate of 7.1 reports per 10,000 residents. Among public health districts, the highest rates were observed in Penquis (10.8) and Aroostook (10.8) while the lowest rates were observed among York (3.5) and Cumberland (3.9). While the Penquis district has consistently observed some the highest rates of drug affected babies, the region has observed a steady decline since 2015.

[16] Title 22, §4011-A; notification of prenatal exposure to drugs or having fetal alcohol spectrum disorders.

Figure 106. Number of drug-affected baby (substance-exposed infant) reports per 10,000 residents, by Public Health District: 2013–2017



	2013	2014	2015	2016	2017
Aroostook	9.6	8.4	8.7	11.2	10.8
Central	10.0	9.2	8.3	9.7	8.1
Cumberland	3.6	3.8	3.6	2.8	3.9
Downeast	8.8	9.0	9.0	9.2	8.9
Midcoast	6.2	6.0	6.6	7.9	6.4
Penquis	11.6	14.2	15.5	13.9	10.8
Western	8.4	7.4	8.8	9.0	10.0
York	2.8	4.1	4.8	4.5	3.5
Maine	7.0	7.2	7.6	7.7	7.1

Source: OCFS/MACWIS

Indicator Description: ANNUAL DRUG-RELATED ARREST RATE. This indicator reflects the number of arrests (made by all local and state law enforcement) that were related to drugs per 10,000 people. Drug-related arrests include manufacturing, sales, and possession. The rate per 10,000 allows us to see frequency with which an occurrence shows up within a population over time as well as make relative comparisons between small and large population areas.

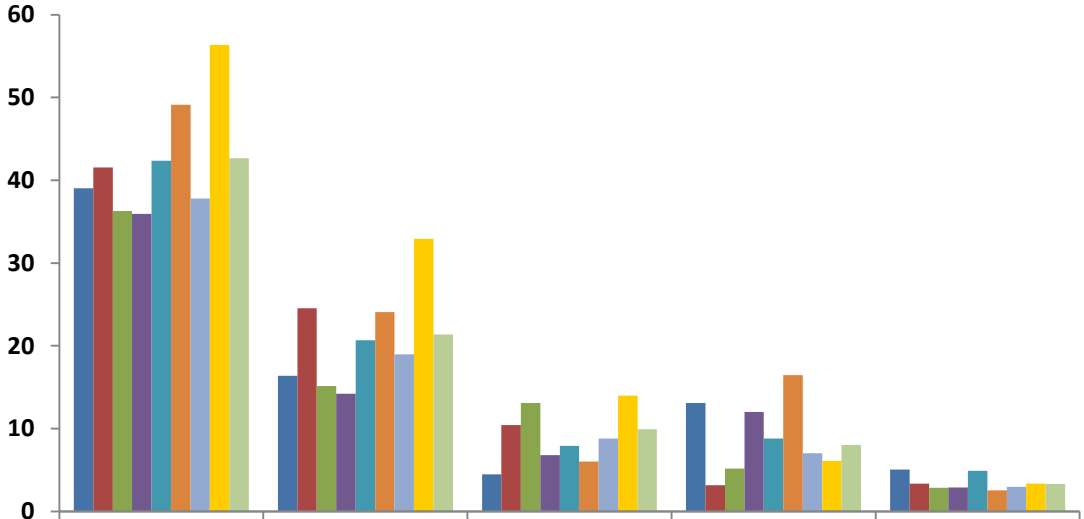
Operationalized as: $\left(\frac{\#\ of\ drug\ arrests}{population}\right) \times 10{,}000$

Why Indicator is Important: Arrest rates for drug sales, manufacturing and drug possession can be an indication of the rate of criminal behavior, but it is important to note that they are also an *indication of the level of law enforcement*. Arrests rates are expected to increase with increased enforcement regardless of whether a decline in criminal behavior is observed.

Data Source(s): DPS-UCR, 2015–16, 2011–12 to 2015–16

Summary: In 2015–16, there was an annual average of 42.7 drug-related arrests per 10,000 residents in Maine. During this time, rates among public health districts ranged from 36.0 in Downeast to 56.4 in York. When broken down by substance type, the highest rates for arrests related to Marijuana were observed among the York, Penquis, and Central districts. The highest rates for arrests related to opium, cocaine, and derivatives (e.g., cocaine/crack, heroin) were observed in York and Cumberland. The highest rates regarding arrests for other dangerous narcotics (e.g., methamphetamine, benzodiazepines) were observed in the Penquis, Downeast, and Aroostook districts. Lastly, the highest rates for drug arrests related to synthetic narcotics were observed in Midcoast and Aroostook.

Figure 107. Drug-related arrest rate per 10,000 residents, by drug type and Public Health District: 2015–16



	All drugs	Marijuana	Opium, cocaine, and derivatives*	Other dangerous non-narcotics**	Synthetic narcotics
Aroostook	39.0	16.4	4.5	13.1	5.1
Central	41.5	24.5	10.5	3.2	3.4
Cumber.	36.3	15.2	13.1	5.2	2.9
Downeast	36.0	14.2	6.8	12.0	2.9
Midcoast	42.4	20.7	7.9	8.8	4.9
Penquis	49.1	24.1	6.0	16.5	2.5
Western	37.8	19.0	8.8	7.0	3.0
York	56.4	32.9	14.0	6.1	3.3
Maine	42.7	21.4	9.9	8.0	3.3

Source: DPS; UCR

**Derivatives include cocaine/crack, codeine, heroin, and morphine.*
***Other dangerous non-narcotics include but are not limited to benzodiazepines, steroids, stimulants, synthetic cannabis, bath salts, methamphetamine, hallucinogens, and barbiturates.*

Indicator Description: OVERDOSES. This indicator shows the rate of persons receiving help from Emergency Medical Services (EMS) related to an overdose. Overdose is based on the primary impression given by the emergency responder. The rate per 10,000 allows us to see the frequency with which an occurrence happens within a population over time, as well as make relative comparisons between small and large population areas. In this case, the base of 10,000 people was used due to small numbers.

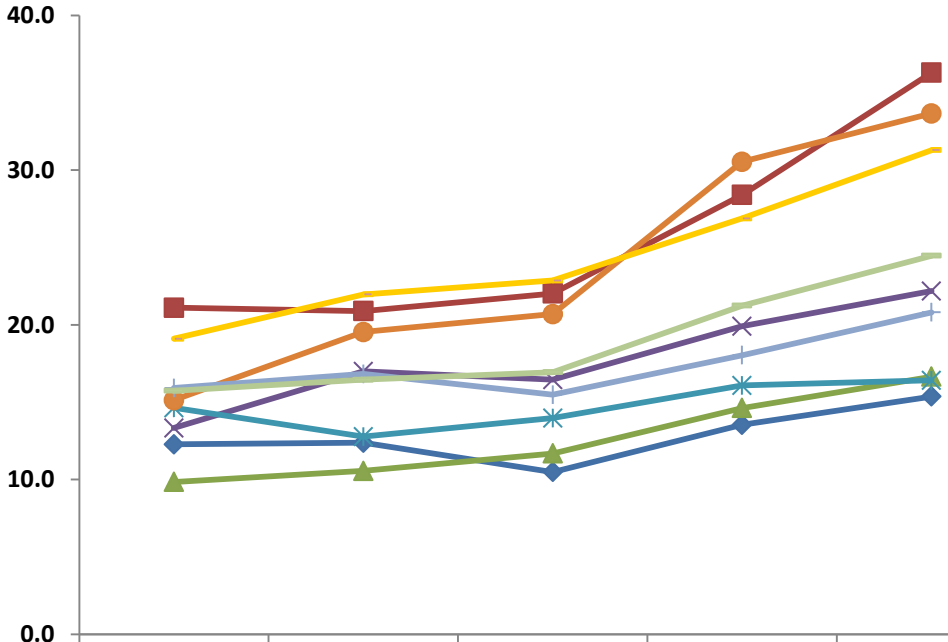
Operationalized as: $\left(\frac{\#\ of\ overdose\ responses}{population}\right) \times 10{,}000$

Why Indicator is Important: Overdosing on a substance can cause serious physical harm resulting in hospitalization and even death. Responding to overdoses also uses valuable EMS resources.

Data Source(s): EMS, 2017, 2013–2017

Summary: In 2017, Maine observed 24.5 Emergency Medical Service (EMS) responses per 10,000 residents due to an overdose related to drugs and/or medication; highest rates were observed among the Central, Penquis, and York public health districts. Since 2015, all public health districts have experienced steady increases in rates of EMS drug/medication overdose responses.

Figure 108. Number of overdose EMS responses due to drug and/or medication per 10,000 residents, by Public Health District: 2013–2017



	2013	2014	2015	2016	2017
Aroostook	12.3	12.4	10.5	13.5	15.4
Central	21.1	20.9	22.0	28.4	36.3
Cumberland	9.8	10.6	11.7	14.6	16.6
Downeast	13.3	17.0	16.5	19.9	22.2
Midcoast	14.6	12.8	14.0	16.1	16.4
Penquis	15.1	19.5	20.7	30.5	33.7
Western	15.9	16.8	15.5	18.0	20.8
York	19.1	22.0	22.9	26.9	31.3
Maine	15.7	16.5	16.9	21.2	24.5

Source: Emergency Medical Services

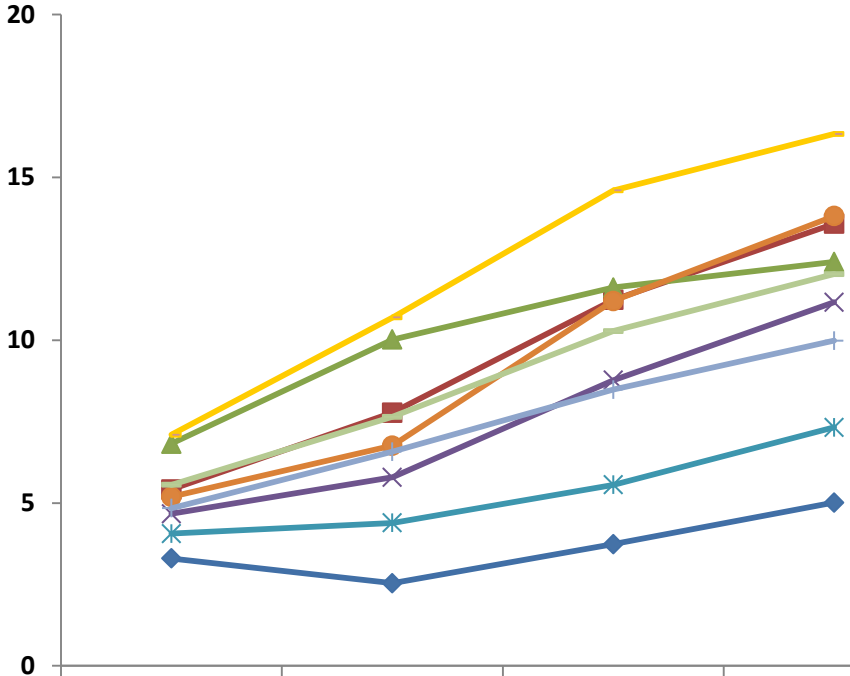
Indicator Description: NALOXONE ADMINISTRATIONS. This indicator shows the number of unique persons receiving naloxone administration(s) from Emergency Medical Services (EMS) related to an opioid overdose. Naloxone, also known as Narcan, is a medication administered to patients who have experienced an overdose related to an opioid (*e.g.*, prescription painkillers, heroin, or morphine). This indicator includes instances where the opioid overdose is accidental (that is, not a result of intentional or recreational misuse).

Why Indicator is Important: Overdosing on a substance can cause serious physical harm resulting in hospitalization and even death. Responding to overdoses also uses valuable EMS resources. It is worth stating that this indicator gives us a better sense of the overall prevalence of opioid overdoses, since it includes those that did not result in death.

Data Source(s): Emergency Medical Services, 2016-17, 2013–14 to 2016–17

Summary: In 2016–17, Maine observed a rate of 12 individuals per 10,000 receiving EMS administered naloxone; rates ranged from the highest observed in York (16.3) to the lowest reported in Aroostook (5.0). All public health districts shown have experienced steady increases in the rate of EMS administered naloxone over the past several periods. York has consistently observed the highest rates since 2013-14.

Figure 109. Individuals receiving EMS administered naloxone* administrations per 10,000 residents, by Public Health District: 2013–14 to 2016–17



	2013-14	2014-15	2015-16	2016-17
Aroostook	3.3	2.5	3.7	5.0
Central	5.4	7.8	11.2	13.6
Cumber.	6.8	10.0	11.6	12.4
Downeast	4.7	5.8	8.8	11.2
Mid Coast	4.1	4.4	5.6	7.3
Penquis	5.2	6.8	11.2	13.8
Western	4.8	6.6	8.5	10.0
York	7.1	10.7	14.6	16.3
Maine	5.6	7.6	10.3	12.0

Source: Emergency Medical Services

**Naloxone, also known as Narcan, is a medication administered to counter the effects of an overdose due to opioids.*

Indicator Description: DEATHS DUE TO OVERDOSE. This measure reflects the number of deaths where the cause of death was directly related to the consumption of one or more substances. The measure excludes deaths where a substance may have been ingested prior to engaging in a behavior that resulted in death (*e.g.,* drunk driving) or where lifetime substance use and abuse may have impacted health (*e.g.,* alcohol-related cirrhosis). To preserve anonymity and strengthen validity, rates were calculated based on the sum of deaths per three-year interval. The rate per 10,000 allows us to see the frequency with which an occurrence happens within a population over time, as well as make relative comparisons between small- and large-population areas. In this case, the base of 10,000 people was used due to small numbers.

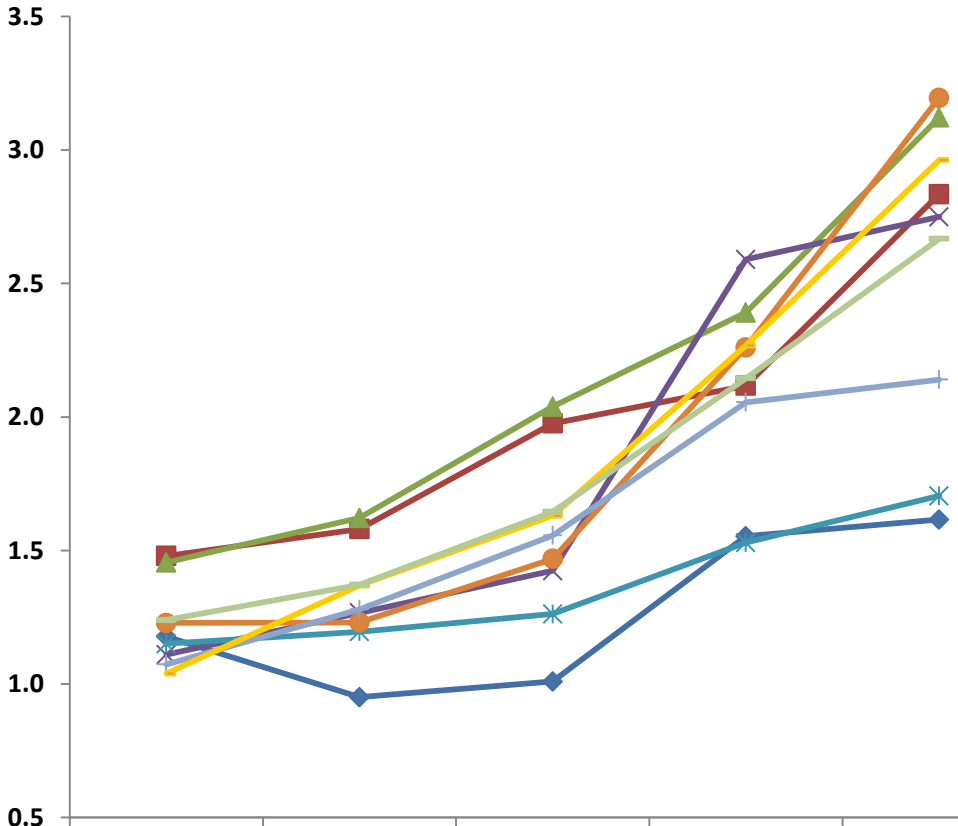
Operationalized as: $\left(\frac{\#\ of\ overdose\ deaths}{population}\right) \times 10{,}000$

Why Indicator is Important: One of the most extreme consequences of alcohol and drug abuse is overdose death; that is, the substance(s) consumed played a direct role in an individual's death. These are seen as potentially preventable deaths.

Data Source(s): Dr. Marcella Sorg, Margaret Chase Smith Policy Center at University of Maine, Office of the Chief Medical Examiner, 2015–17, 2011–13 to 2015–17

Summary: During 2015–17 (combined years), Maine observed an average of 2.7 drug related overdose deaths per 10,000 residents per year; rates were highest among the Penquis (3.2) and Cumberland (3.1) public health districts and lowest among the Aroostook (1.6) and Midcoast (1.7) districts. All public health districts depicted have observed steady increases in drug related overdose deaths since 2012-14.

Figure 110. Drug-related death rate per 10,000 residents, by Public Health District: 2011–13 to 2015–17



	2011-13	2012-14	2013-15	2014-16	2015-17
Aroostook	1.2	1.0	1.0	1.6	1.6
Central	1.5	1.6	2.0	2.1	2.8
Cumberland	1.5	1.6	2.0	2.4	3.1
Downeast	1.1	1.3	1.4	2.6	2.7
Midcoast	1.2	1.2	1.3	1.5	1.7
Penquis	1.2	1.2	1.5	2.3	3.2
Western	1.1	1.3	1.6	2.1	2.1
York	1.0	1.4	1.6	2.3	3.0
Maine	1.2	1.4	1.6	2.1	2.7

Source: Dr. Marcella Sorg, Margaret Chase Smith Policy Center at University of Maine, Office of the Chief Medical Examiner

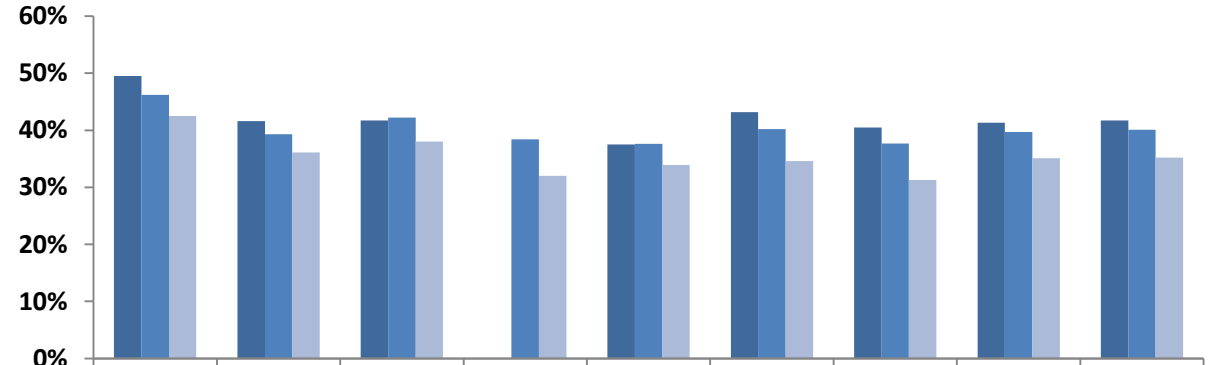
Indicator Description: PERCEIVED RISK OF REGULAR MARIJUANA USE AMONG YOUTH. This measure demonstrates the percentage of individuals who perceive a moderate-to-great risk of harm from smoking marijuana regularly.

Why Indicator is Important: High school students who do not believe there is moderate to great risk in smoking marijuana regularly are almost seven times as likely to smoke marijuana as their peers who do perceive risk of harm. A similar relationship exists between adult perceptions and consumption.

Data Source(s): MIYHS, 2013–2017

Summary: In 2017, 35 percent of Maine high school students reported that they felt smoking marijuana once or twice a week would pose a risk of harm; rates were highest in Aroostook (43%) and lowest in Downeast (32%). All public health districts have observed decreases in the perception of harm from 2013. The Western public health district experienced a ten point decline in perception of harm from smoking marijuana from 2013 to 2015.

Figure 111. Percent of high school students by Public Health District who reported a risk of harm from smoking marijuana once or twice per week: 2013–2017



	Aroostook	Central	Cumber.	Downeast	Midcoast	Penquis	Western	York	Maine
2013	50%	42%	42%		38%	43%	41%	41%	42%
2015	46%	39%	42%	38%	38%	40%	38%	40%	40%
2017	43%	36%	38%	32%	34%	35%	31%	35%	35%

Source: MIYHS

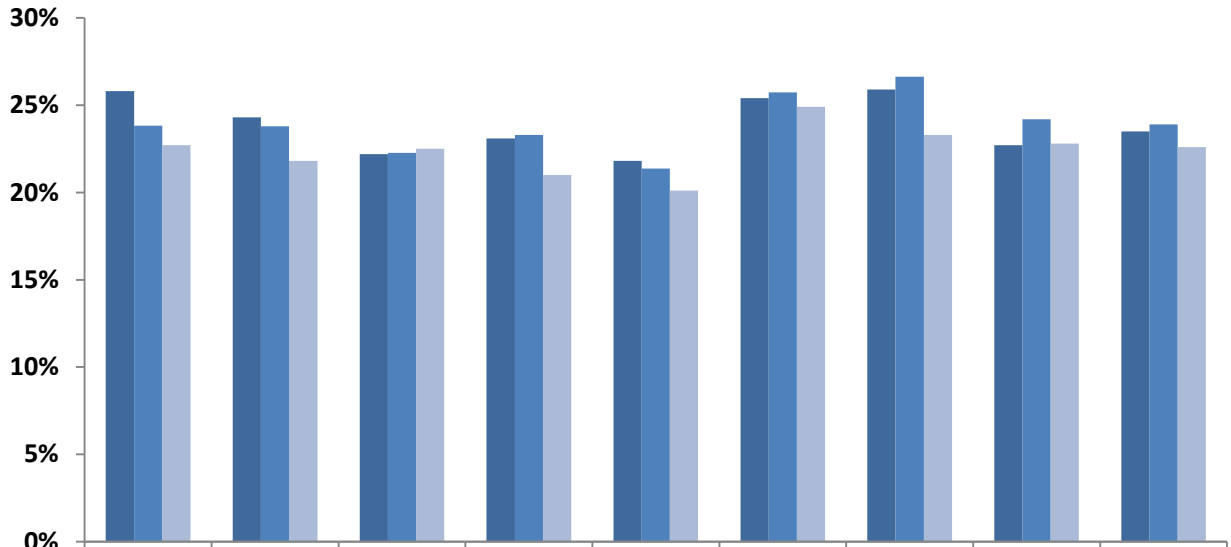
Indicator Description: DIAGNOSIS OF ANXIETY AND DEPRESSION AMONG ADULTS. This indicator examines the percentage of Maine residents age 18 and older who have ever been told by a doctor that they have a depressive disorder.

Why Indicator is Important: The link between mental health and substance abuse is well documented. Experiencing mental health disorders (*e.g.*, anxiety or depression) is associated with higher rates of substance abuse.[17]

Data Source(s): BRFSS, 2012–14 to 2014–16

Summary: In 2015-16, 23 percent of adults in Maine reported they had ever been diagnosed with depression. Rates of depression did not vary much across districts; ranging from 20 percent in Midcoast to 25 percent in Penquis. Overall, rates of depression among adults in Maine have been relatively stable since 2013-14.

Figure 112. Percent of adults who have ever been told they have a depression disorder, by Public Health District: 2013–14 to 2015–16



	Aroostook	Central	Cumber.	Downeast	Midcoast	Penquis	Western	York	Maine
2013-14	26%	24%	22%	23%	22%	25%	26%	23%	24%
2014-15	24%	24%	22%	23%	21%	26%	27%	24%	24%
2015-16	23%	22%	23%	21%	20%	25%	23%	23%	23%

Source: BRFSS 2013–16

[17] Kessler, R. C. (2004). The epidemiology of dual diagnosis. *Biological psychiatry*. *56*(10), 730–737.

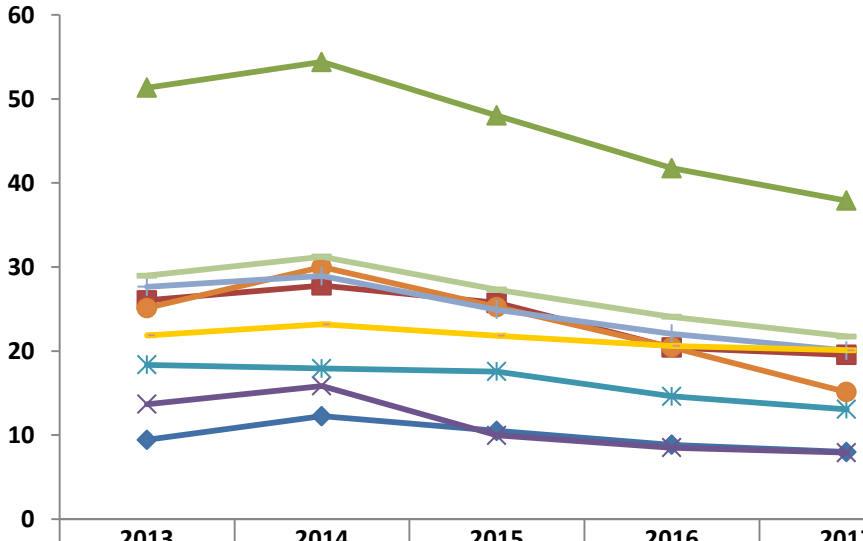
Indicator Description: INFORMATION CALLS FOR MENTAL HEALTH AND HUMAN SERVICES. 2-1-1 Maine is a telephone and internet service that provides information and referrals to health and human services. This indicator reflects the number of calls received by 2-1-1 Maine by the type of service requested.

Why Indicator is Important: The data collected from each call provides valuable information serving as a barometer of health and human service needs in the state.

Data Source(s): 2-1-1 Maine, 2017, 2013–2017

Summary: In 2017, there was an average of 21.7 calls per 10,000 residents made to 2-1-1 Maine seeking services related to mental health services; rates ranged from the highest observed in Cumberland (37.9) to the lowest in Downeast (7.9) and Aroostook (8.0). All public health districts observed steady declines in calls related to mental health services since 2014. Cumberland has consistently observed the highest rate over the past several years.

Figure 113. Number of 2-1-1 Maine referral calls related to mental health services per 10,000 residents, by public health districts: 2013–2017



	2013	2014	2015	2016	2017
Aroostook	9.4	12.2	10.5	8.8	8.0
Central	26.0	27.8	25.7	20.4	19.5
Cumber.	51.3	54.4	48.0	41.7	37.9
Downeast	13.7	15.8	10.0	8.5	7.9
Midcoast	18.4	17.9	17.6	14.6	13.1
Penquis	25.1	30.0	25.2	20.5	15.1
Western	27.6	28.9	24.9	22.1	20.0
York	21.9	23.2	21.8	20.6	20.1
Maine	29.0	31.2	27.3	24.1	21.7

Source: 2-1-1 Maine

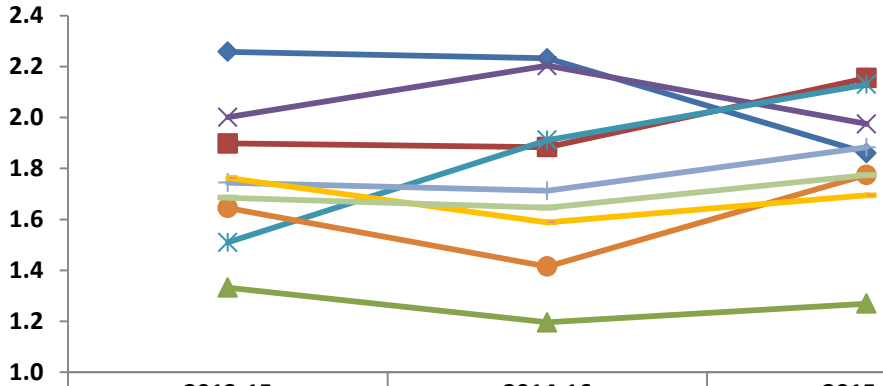
Indicator Description: RATE OF SUICIDE DEATHS. Every death in Maine has a recorded cause. This indicator examines deaths that were classified as a suicide. In this case, a rate per 10,000 residents is used to compare the prevalence across the public health districts.

Why Indicator is Important: Although not the leading cause of death, substance use and abuse is often a factor in suicides. For example, the CDC's National Violent Death Reporting System has estimated that nationally, 14 percent of suicides are attributable to alcohol.[18]

Data Source(s): ODRVS, 2015–17, 2013–15 to 2015–17

Summary: During the 2015-17 period, Maine experienced an average of 1.8 suicides per 10,000 residents per year; rates were highest among the Central (2.2) and Midcoast (2.1) public health districts and lowest in Cumberland (1.3). Most public health districts, with the exception of Aroostook and Downeast, observed increases from 2014-16 to 2015-17.

Figure 114. Number of suicide deaths per 10,000 residents, by Public Health District: 2013–15 to 2015–17



	2013-15	2014-16	2015-17
Aroostook	2.3	2.2	1.9
Central	1.9	1.9	2.2
Cumberland	1.3	1.2	1.3
Downeast	2.0	2.2	2.0
Midcoast	1.5	1.9	2.1
Penquis	1.6	1.4	1.8
Western	1.7	1.7	1.9
York	1.8	1.6	1.7
Maine	1.7	1.6	1.8

Source: ODRVS

[18] Centers for Disease Control and Prevention. (2011). Suicides due to alcohol and/or drug overdose: a data brief from the National Violent Death Reporting System. *Atlanta (GA): The Centers*.

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