

SEOW Webinar Series Part 2: Consequences/Impact of Substance Use in Maine



By Tim Diomedes, MPPM

October 2016



Paul R. LePage, Governor

Ricker Hamilton, Acting Commissioner

Agenda

- Purpose of the SEOW
- Presentation of Key Findings
- New and Updated Resources
- Questions/Discussion

SEOW What?

(Purpose of the State Epidemiological Outcomes Workgroup)

- Promote systematic, data-driven decision-making
- Guide effective and efficient use of *prevention* resources
- Identify, track, and detect emerging substances/trends
- Serve as a clearing house and facilitator
- Help secure funds and measure progress
- Opportunity for networking and collaboration

Costs of substance abuse Nationally

- Addiction is a serious driver of healthcare costs, with estimates for all substances at \$216B annually in 2006. (DHHS/SAMHSA)
- Prescription opioid overdose, abuse, and dependence is estimated to cost \$78.5 billion annually. (National Center for Statistics and Analysis).
- Health care costs for employees who have addiction problems are twice as high as compared to their colleagues who are not afflicted. ([PEW Charitable Trust](#))
- An estimated 500 million workdays are lost annually due to addiction problems. (DHHS, SAMHSA)
- Substance use problems by employees have been linked to:
 - Higher healthcare expenses for injuries and illnesses
 - Higher rates of absenteeism
 - Reductions in job productivity and performance
 - More workers' compensation and disability claims (DHHS, SAMHSA)
- Almost half of all emergency room visits for trauma and/or injury are alcohol related. ([National Center for Statistics and Analysis](#))

Costs of substance abuse in Maine

- In 2010, the total annual estimated cost of substance abuse in Maine was \$1.4 billion (\$1,057 for every resident of Maine).
- The cost of providing hospital inpatient care for patients in Maine in 2010, due to co-occurring substance dependency, was estimated at \$145.1 million, 83.4% of which was related to alcohol use.
- Morbidity cost in Maine in 2010 due to alcohol or drug abuse was \$188.6 million.
- The cost of alcohol-related motor vehicle crashes in Maine in 2010 is estimated at \$53.1 million
- An estimated \$45.9 million in child welfare costs related to substance abuse was spent in Maine during 2010.
- Drug- and alcohol-related crime costs in Maine in 2010 were \$343.4 million.

Source: "[The Cost of Alcohol and Drug Use in Maine](#)," 2010 (Maine DHHS)

Prevention Cost Savings

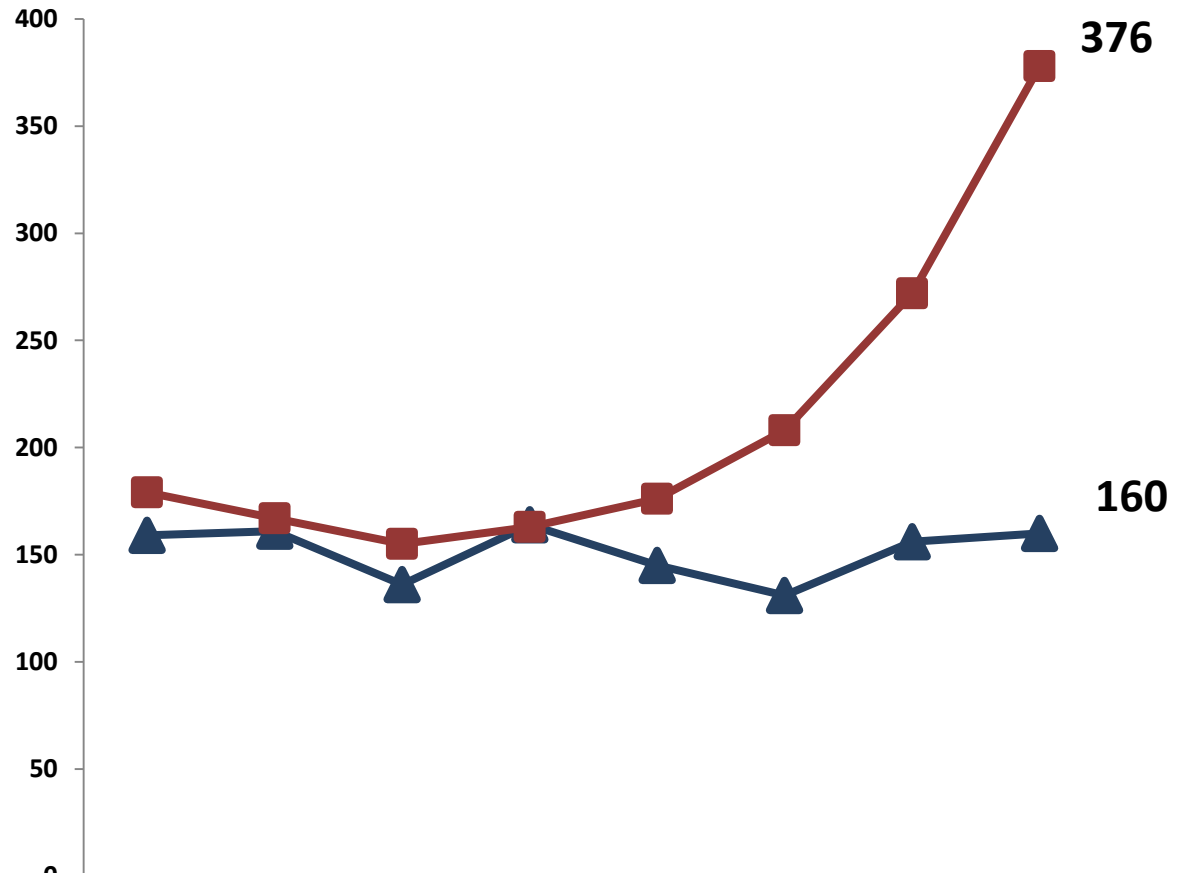
- Cost-benefit ratios for early treatment and prevention programs for addictions and mental illness programs range from 1:2 to 1:10 ratio.
- This means a \$1 investment yields \$2 to \$10 savings in health costs, criminal and juvenile justice costs, educational costs, and lost productivity.
- Bottom line: Prevention of substance abuse helps avert hardships and saves money.

Source: The Institute of Medicine and National Research Council's [Preventing Mental, Emotional, and Behavioral Disorders Among Young People report – 2009](#)

Consequence/Impact Data

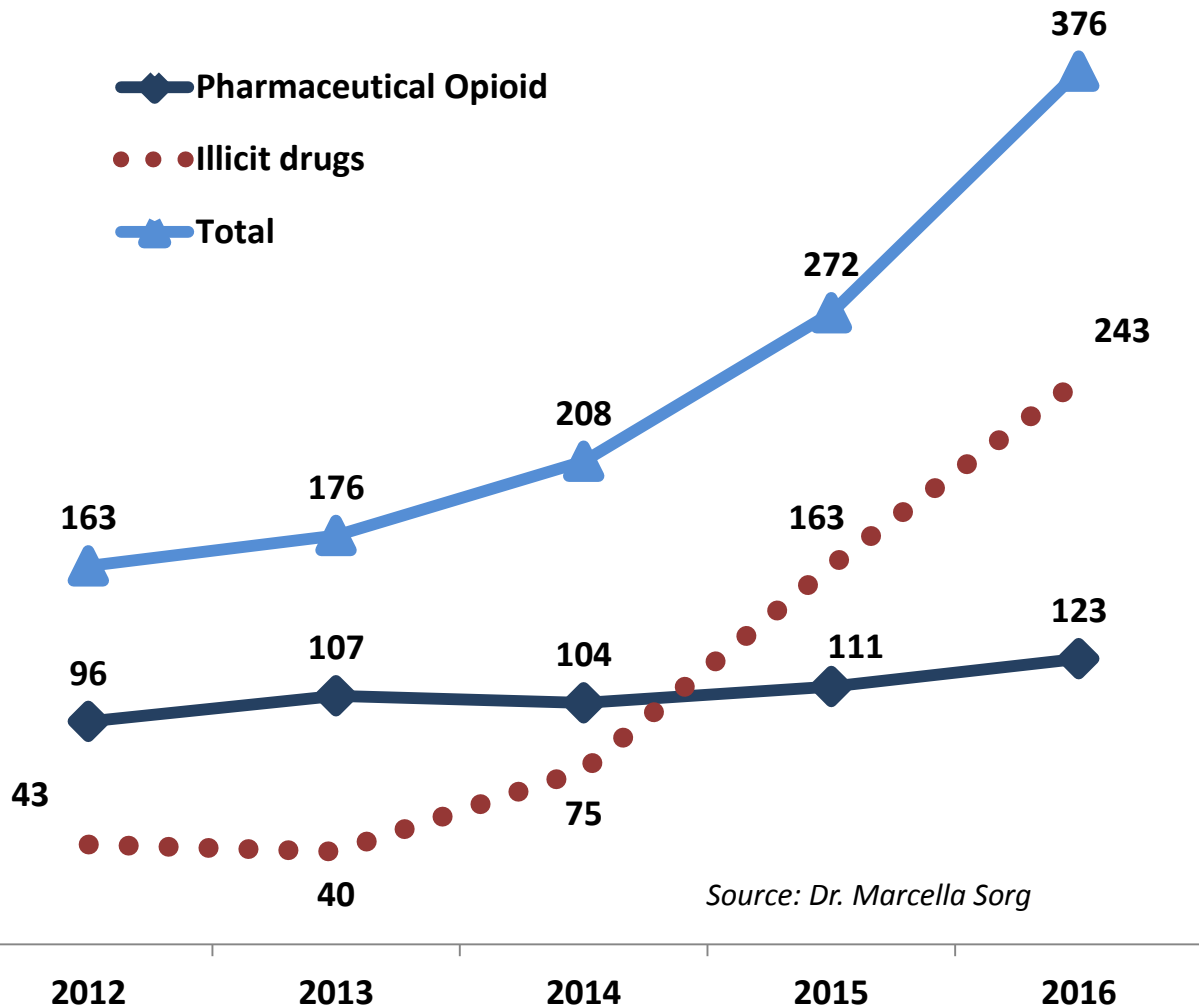
Unintentional Injury Deaths in Maine, by type: 2009-2016

In 2016, there were **376** **drug** related overdose deaths compared to **160** **motor vehicle** related deaths.



	2009	2010	2011	2012	2013	2014	2015	2016
Motor vehicle-related injury deaths	159	161	136	164	145	131	156	160
Drug-related overdose deaths	179	167	155	163	176	208	272	378

Number of deaths* caused by pharmaceuticals and/or illicit drugs: 2012–2016



Source: Dr. Marcella Sorg

From 2015 to 2016, **total drug overdose deaths increased by 38%**; **illicit drug overdoses increase by 50%**; **pharmaceutical overdoses increased by 11%**.

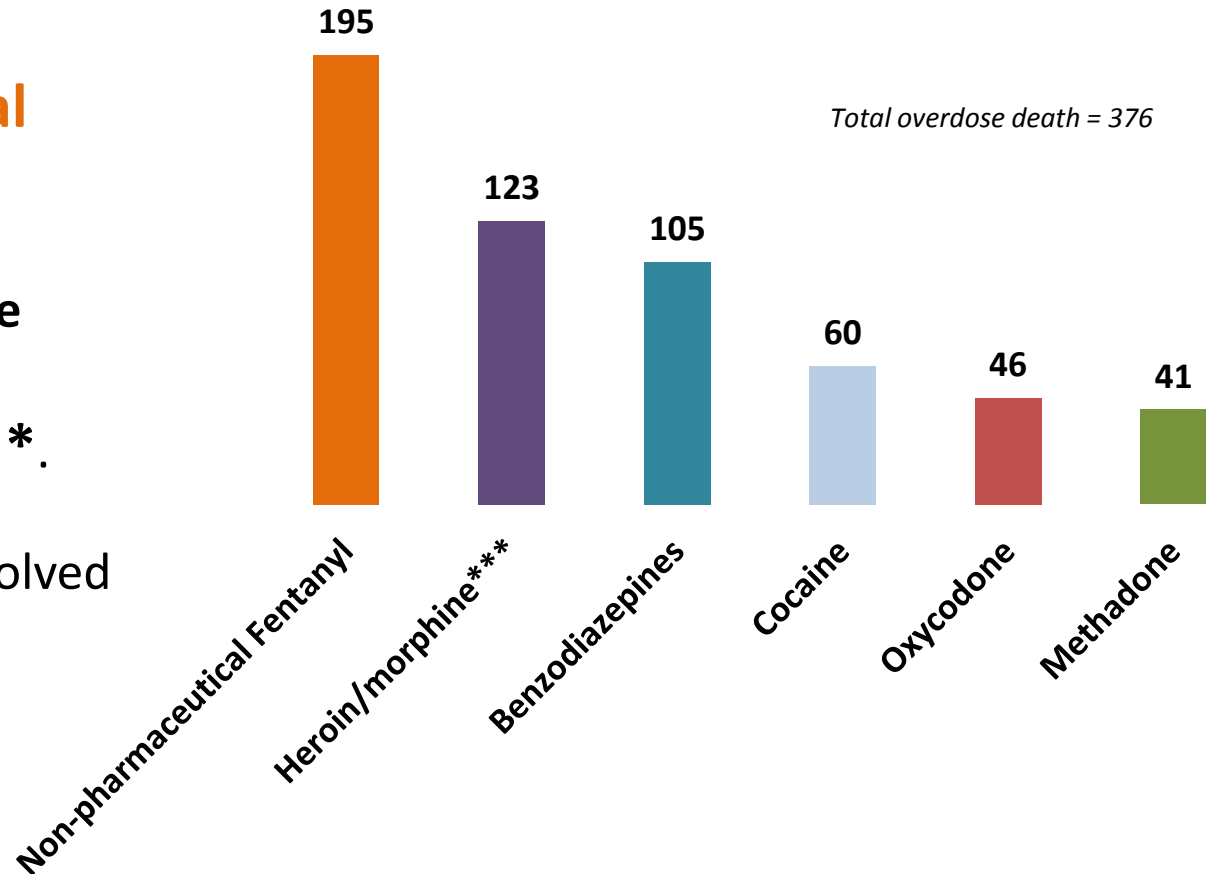
**Deaths involving pharmaceuticals and illicit drugs are not mutually exclusive.*

Number of drug deaths involving specific drug types*: 2016**

■ Half (52%) of **overdose deaths** involved **Non-pharmaceutical Fentanyl**.

■ **one in three overdose deaths** involved **heroin/morphine*****.

■ Nearly a **third (28%)** involved **benzodiazepines**.

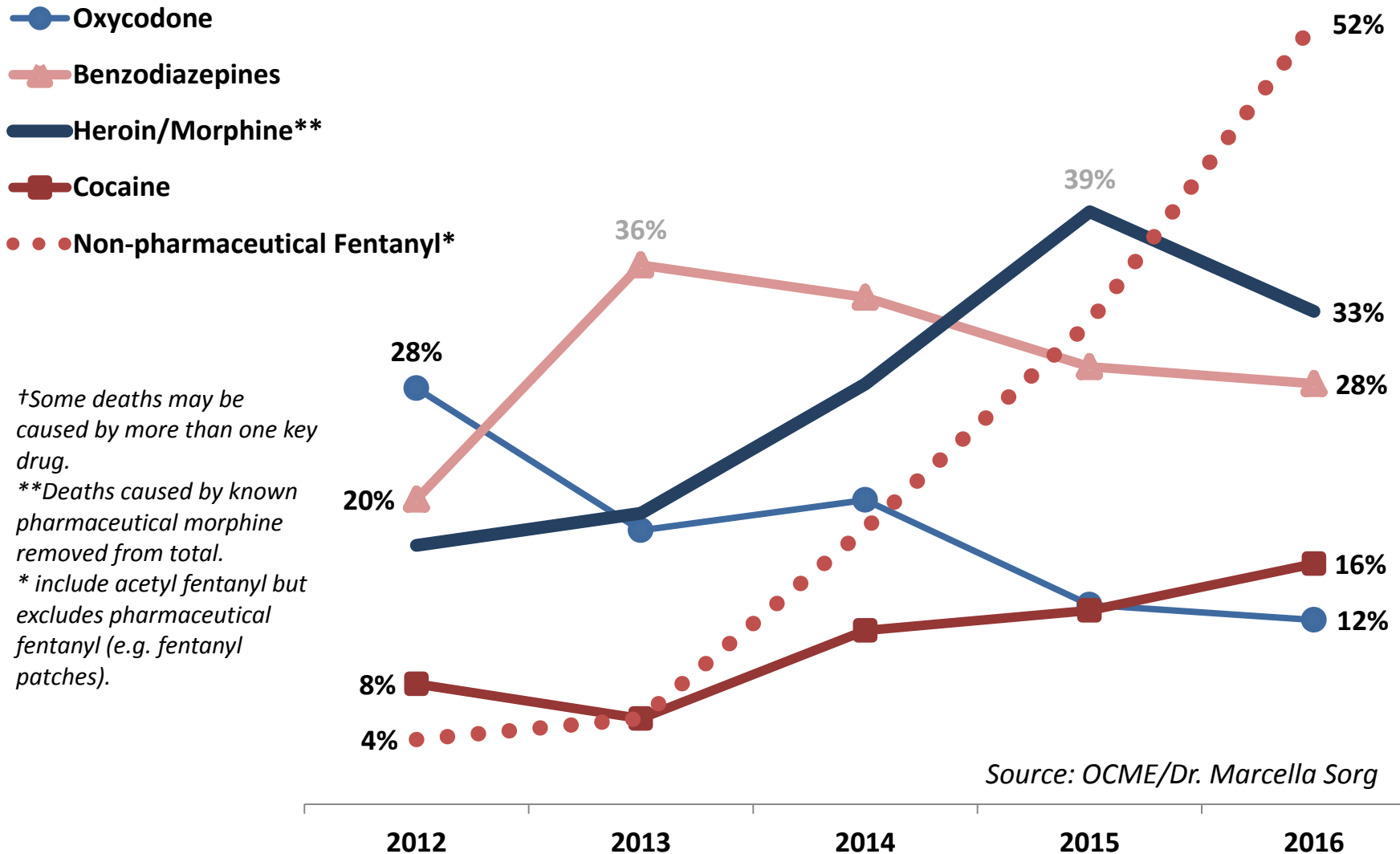


**Some deaths may be caused by more than one key drug.*

***2016 results are preliminary*

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

Percent of drug deaths involving specific drug types†: 2012–2016

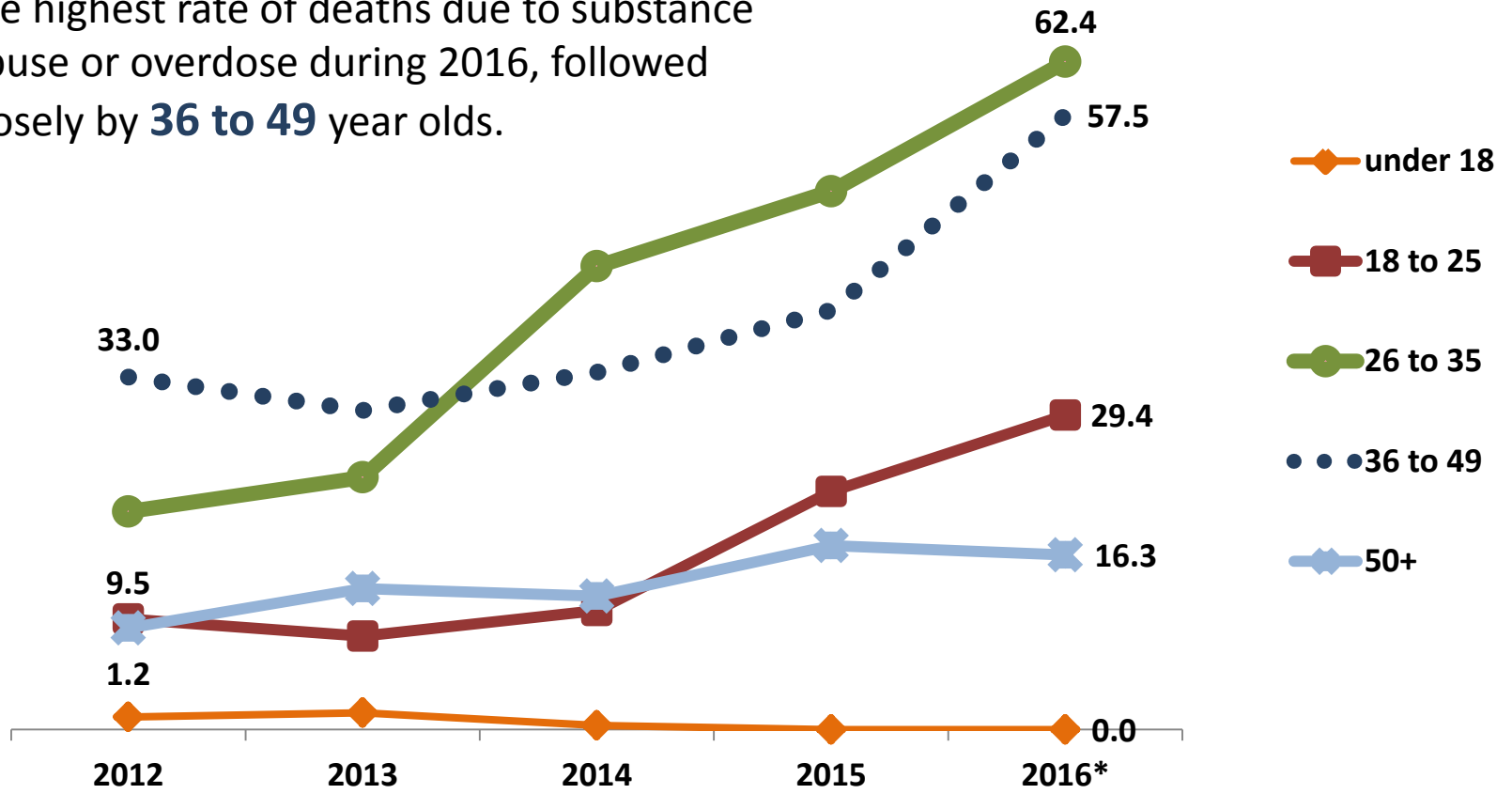


†Some deaths may be caused by more than one key drug.
 **Deaths caused by known pharmaceutical morphine removed from total.
 * include acetyl fentanyl but excludes pharmaceutical fentanyl (e.g. fentanyl patches).

Source: OCME/Dr. Marcella Sorg

Substance abuse and overdose deaths, per 100,000, by age group: 2012–2016*

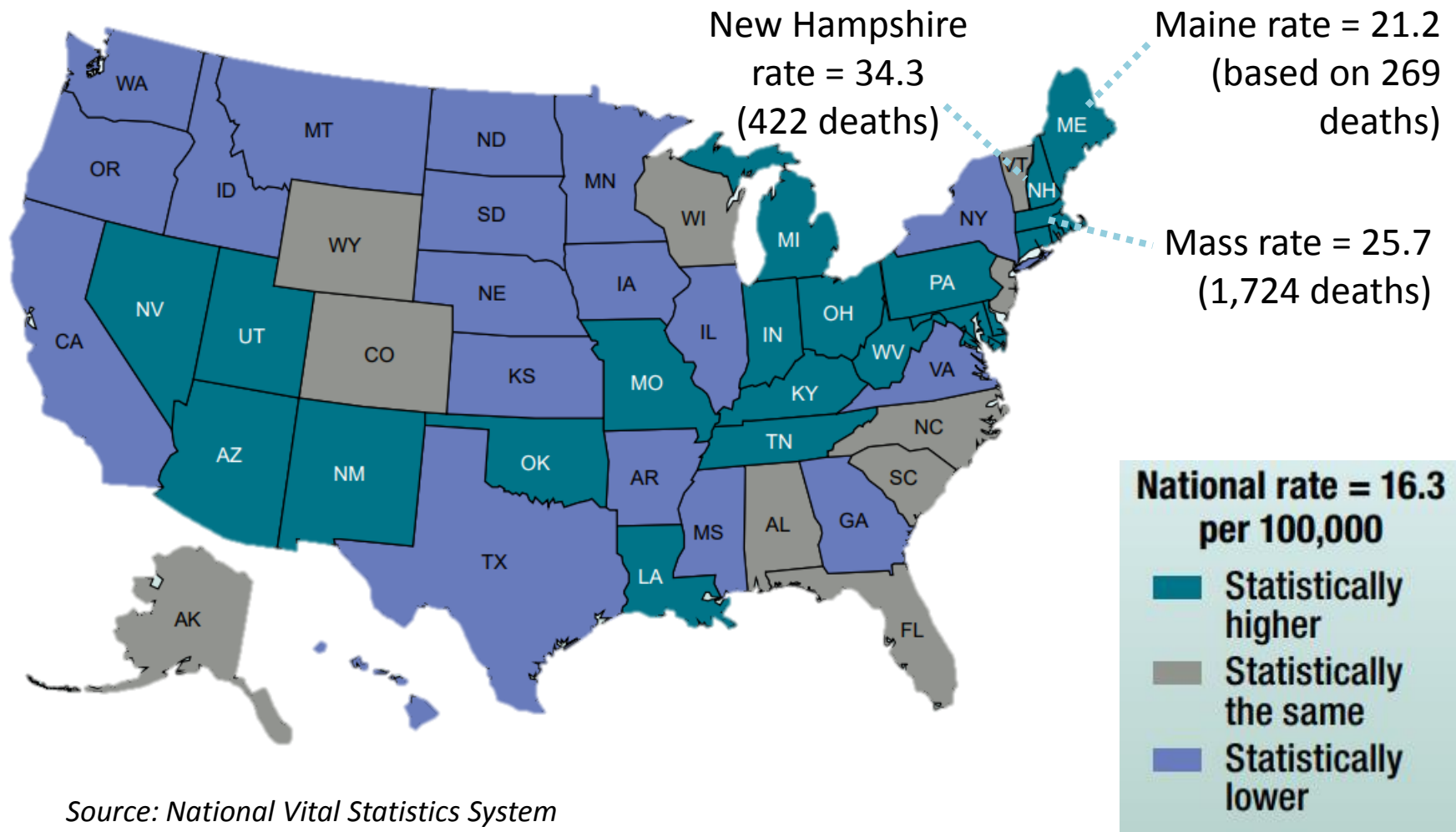
Adults between the ages of **26 and 35** had the highest rate of deaths due to substance abuse or overdose during 2016, followed closely by **36 to 49** year olds.



*2016 results are preliminary

Source: DRVS

Age adjusted drug poisoning death rates, by state: 2015

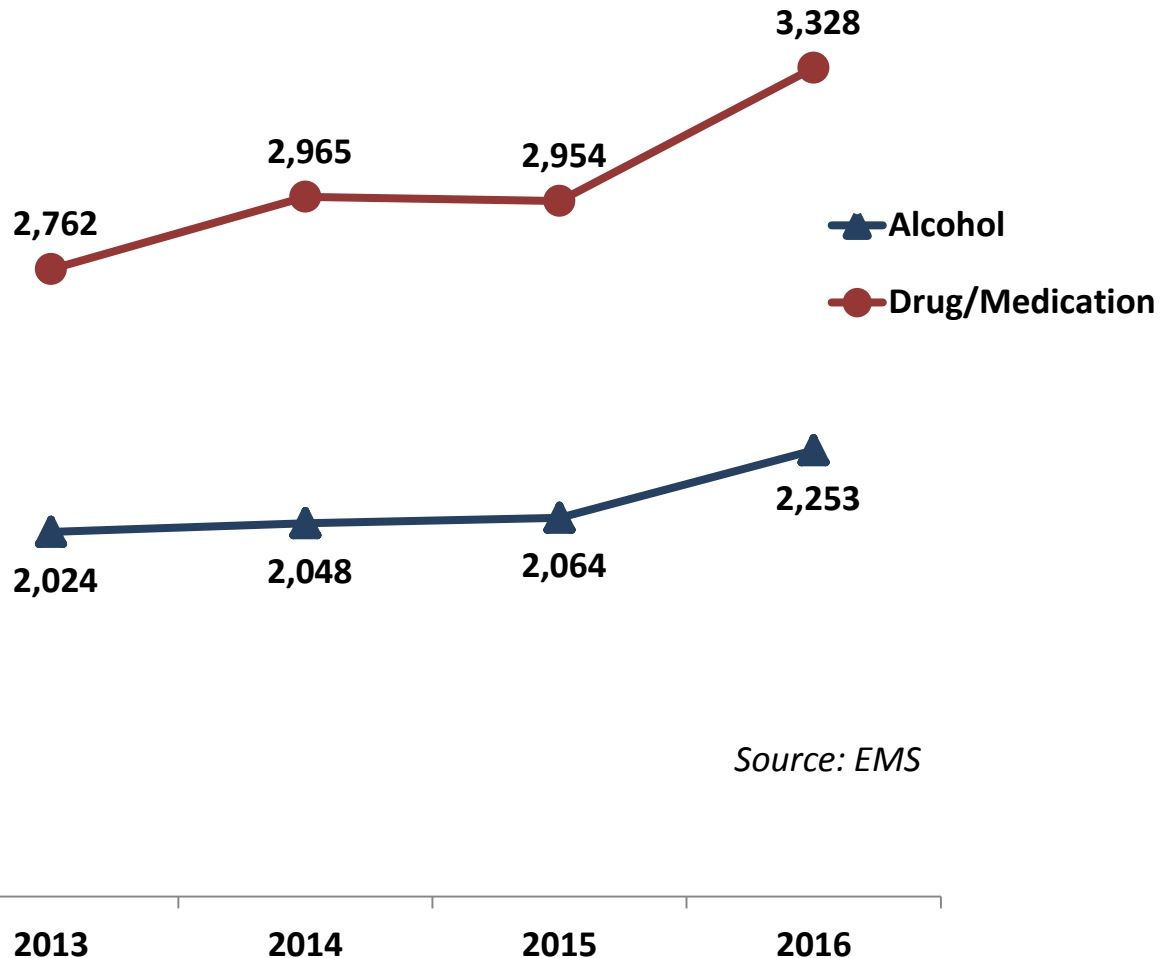


Source: National Vital Statistics System

Number of overdose EMS responses, by type: 2013 - 2016

● EMS Responses related to **drugs and/or medication** have increased by 20% from 2013 to 2016.

▲ From 2013 to 2016, EMS overdose responses involving **alcohol overdoses** increased by 11%.

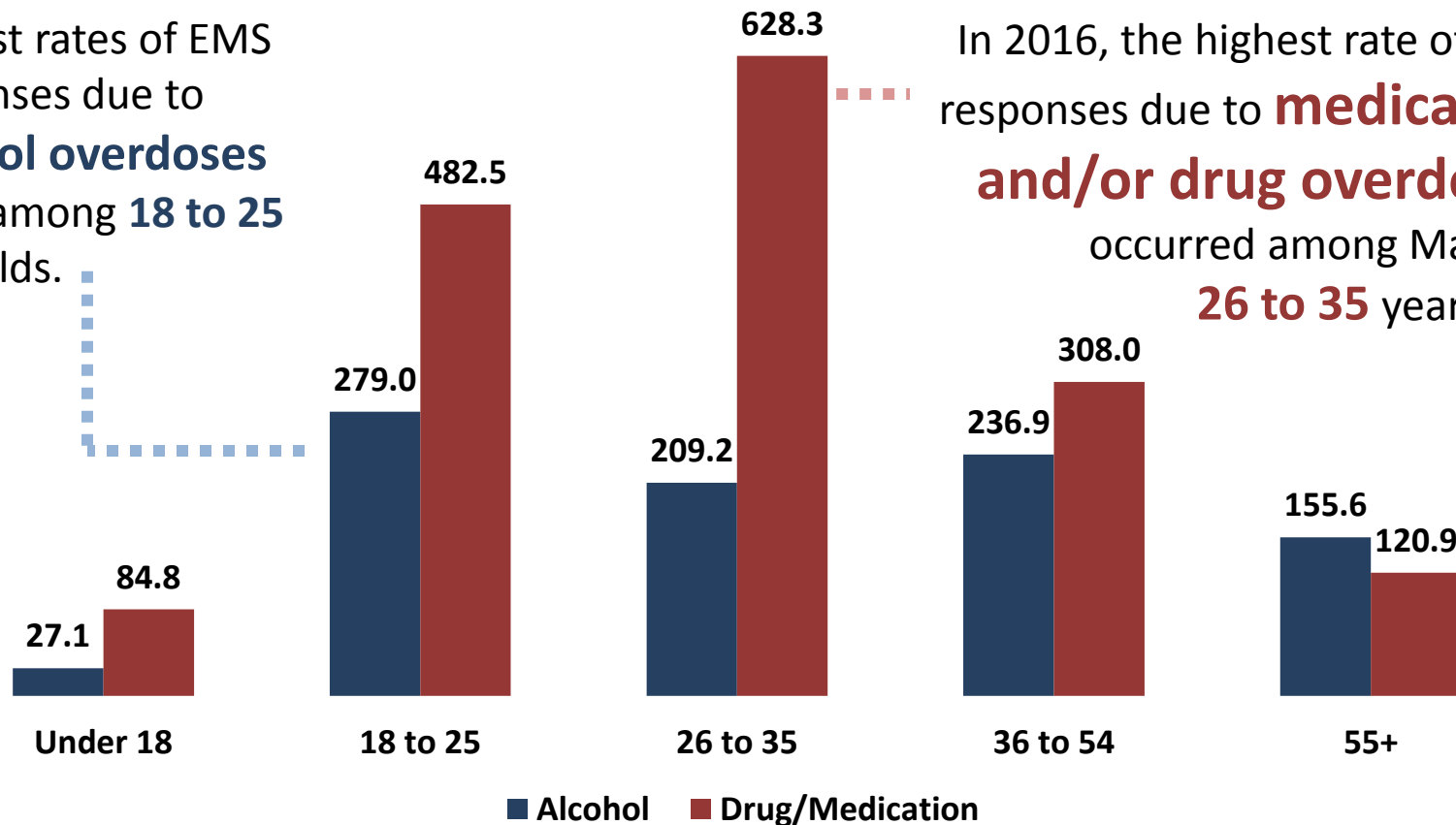


Source: EMS

**Drugs/medication include illicit drugs and prescription drugs. Data are not broken down further than this category.*

EMS overdose response rate (per 100,000 residents), by age and overdose type: 2016

Highest rates of EMS responses due to **alcohol overdoses** were among **18 to 25** year olds.



In 2016, the highest rate of EMS responses due to **medication and/or drug overdoses** occurred among Mainers **26 to 35** years old.

Source: EMS

**Drugs/medication include illicit drugs and prescription drugs. Data are not broken down further than this category.*

EMS overdose response rate by age and overdose type: 2016



26 to 35 year olds observed a **32% increase** in **drug/med EMS overdose responses** from 2015 (671) to 2016 (889).



Mainers **under 18** experienced a **20% decrease** in **drug/med overdose responses** from 2013 (270) to 2016 (216).

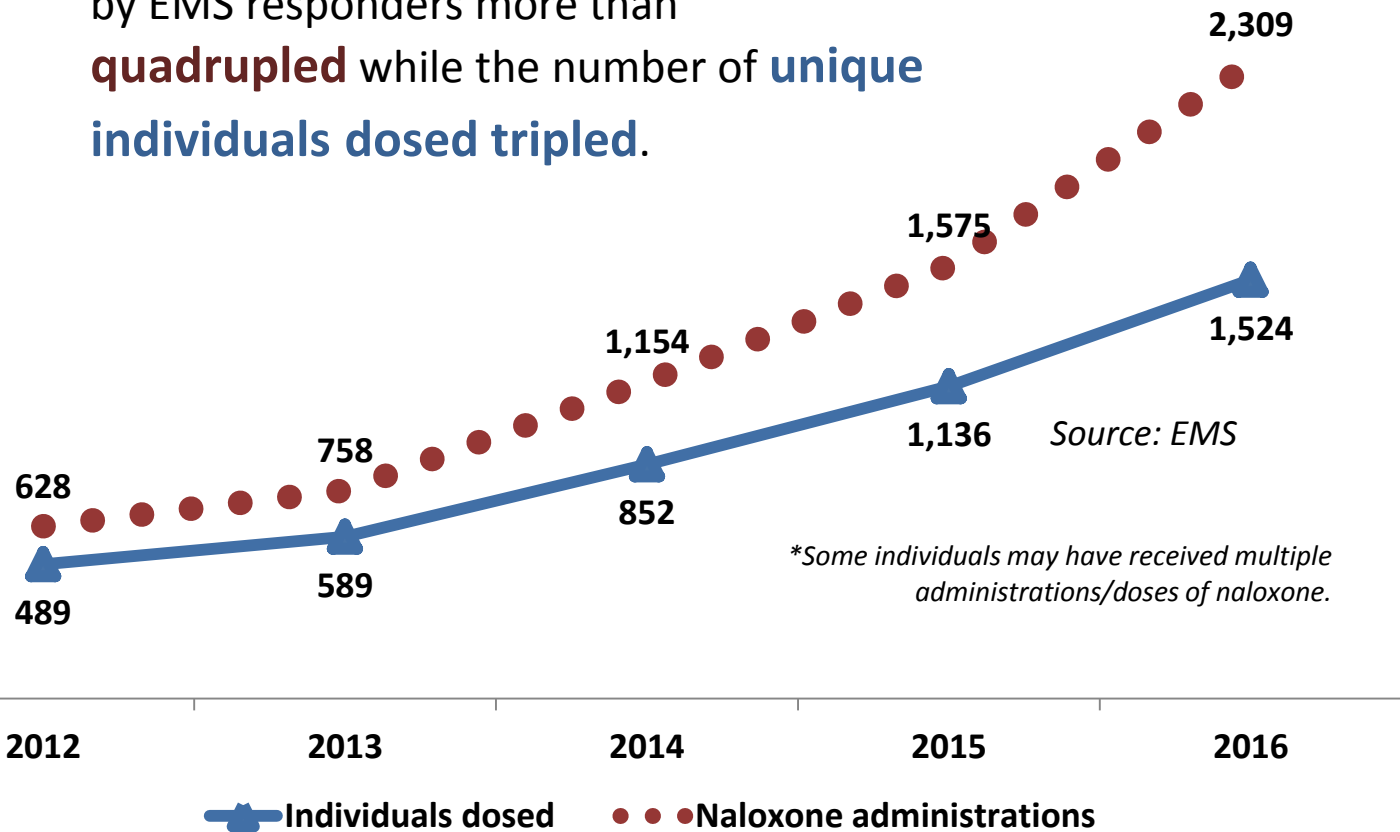


Alcohol related overdose responses among Mainers **55 and older** increased by **52 percent** from 2014 (479) to 2016 (728).

Number of EMS naloxone administrations and individuals dosed*: 2012 - 2016



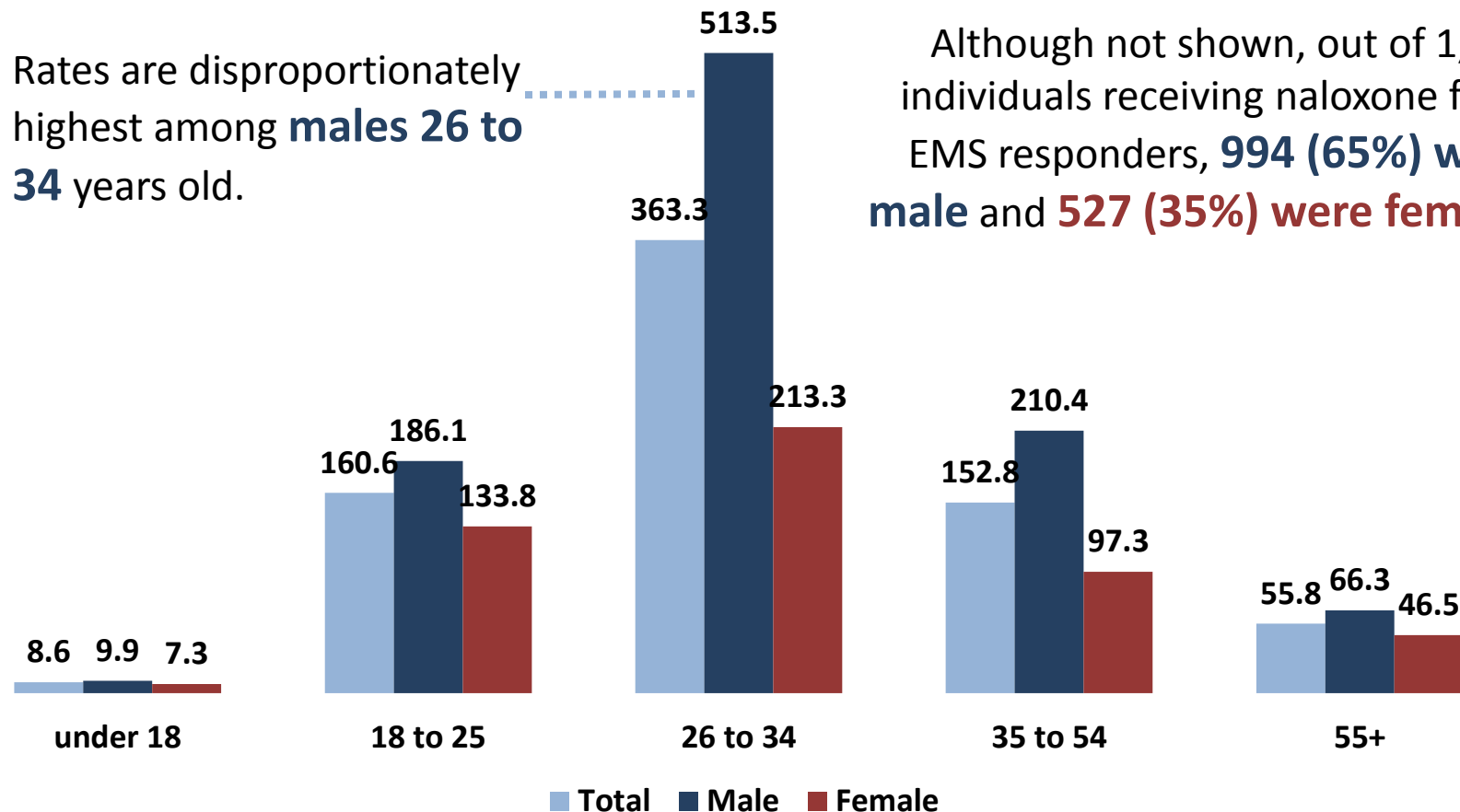
From 2012 to 2016, the **total number of naloxone administrations** given by EMS responders more than **quadrupled** while the number of **unique individuals dosed** tripled.



EMS Naloxone* administrations rate (per 100,000 residents), by gender and age: 2016

Rates are disproportionately highest among **males 26 to 34** years old.

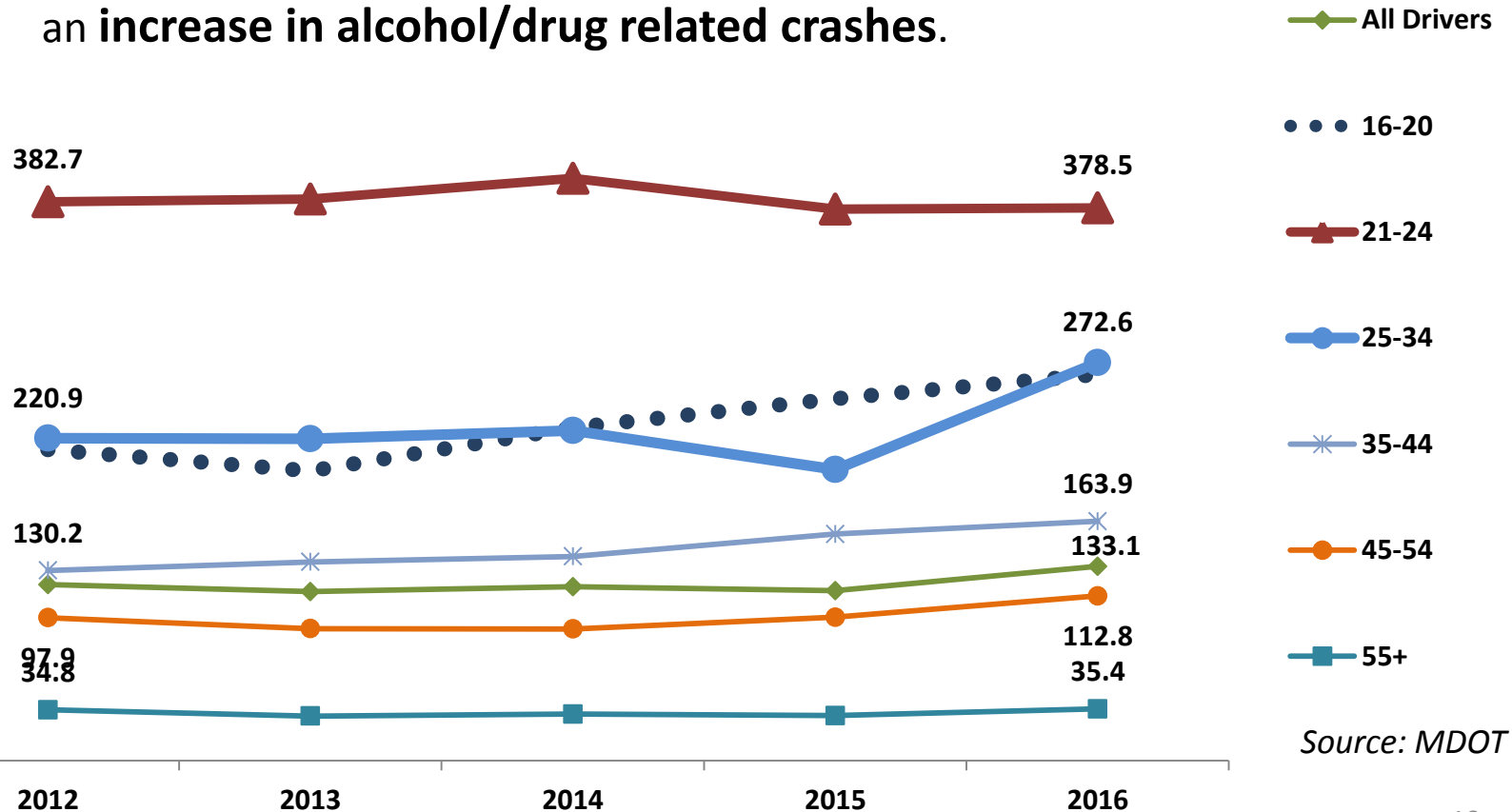
Although not shown, out of 1,521 individuals receiving naloxone from EMS responders, **994 (65%) were male** and **527 (35%) were female**.



Source: EMS

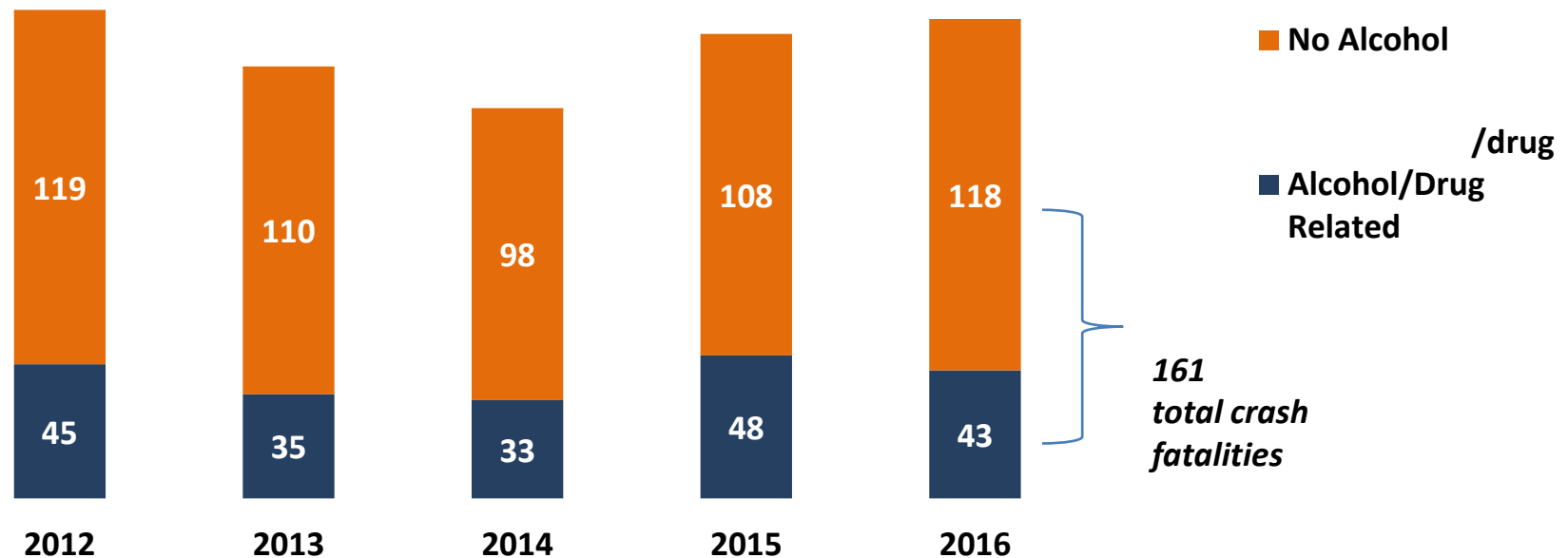
Alcohol/drug-related motor vehicle crash rate per 100,000 licensees, by age group: 2012–2016

21 to 24 year olds had the highest rate of **Alcohol/drug related crashes** for the past several years. In recent years, drivers **16 to 20** as well as drivers **25 to 34** have observed an **increase in alcohol/drug related crashes**.



Source: MDOT

Number of fatal motor vehicle crashes, by whether they involved alcohol and/or drugs: 2012–2016



Source: MDOT, BHS

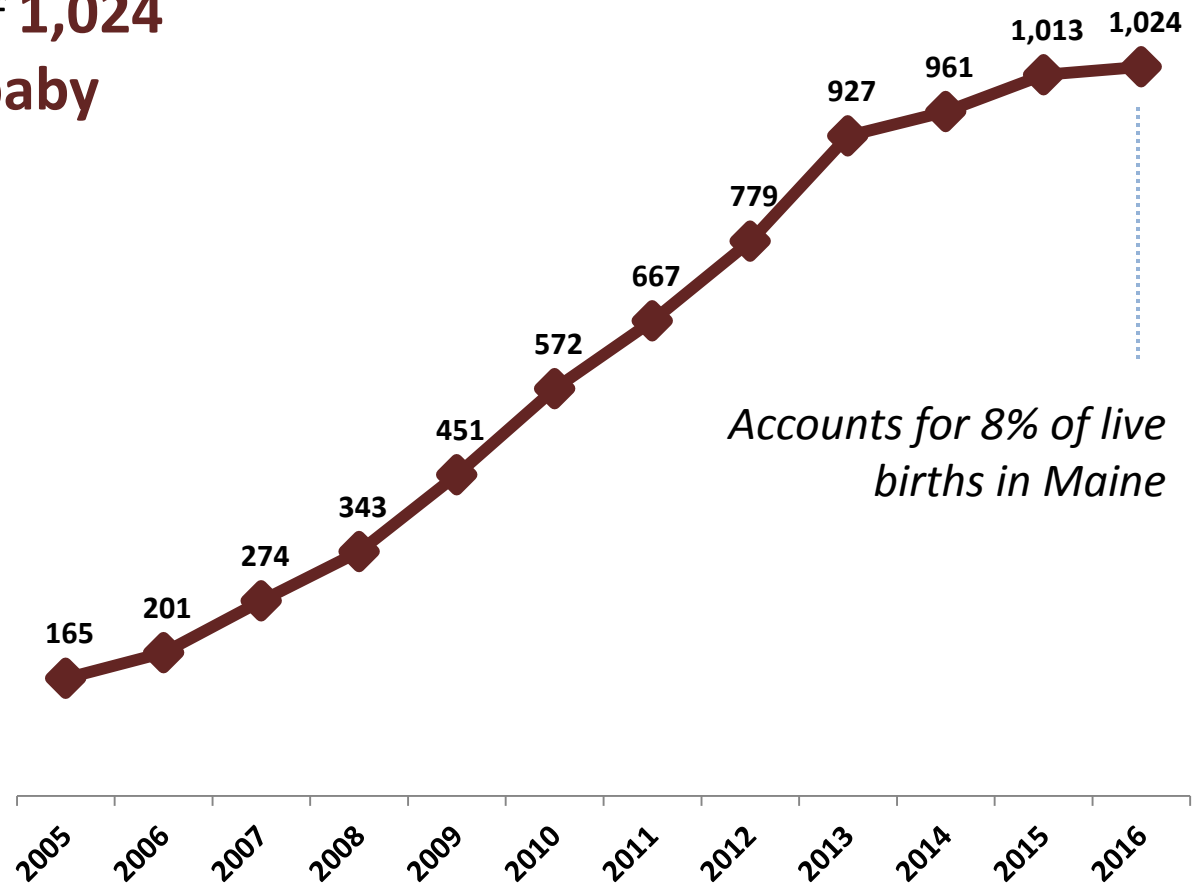
In 2016, more than **one in four** (27%) fatal motor vehicle crashes involved **alcohol and/or drugs**.

Number of drug affected baby (substance exposed infants) reports*: 2005-2016

In 2016, there were a total of **1,024** reports of **drug affected baby notifications**.

From 2005 to 2016, the number of drug affected baby notifications increased by **520%**. In recent years numbers have **stabilized**.

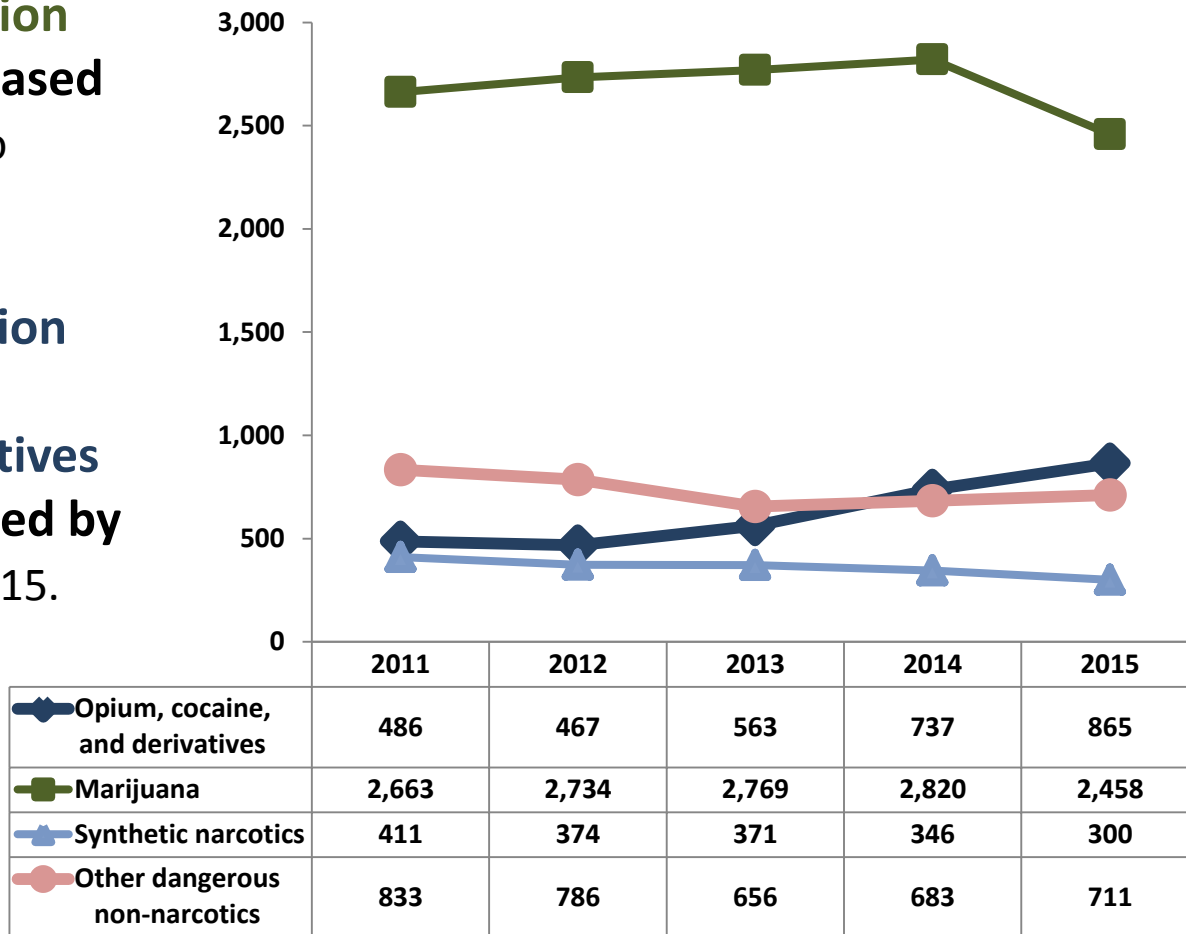
**This measure reflects the number of infants born in Maine where a healthcare provider reported to OCFS that there was reasonable cause to suspect the baby may be affected by illegal substance abuse or demonstrating withdrawal symptoms resulting from prenatal drug exposure (illicit or prescribed appropriately under a physician's care for the mother's substance abuse treatment) or who have fetal alcohol spectrum disorders.*



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

Drug offense arrests (all ages) for possession, by drug type: 2011–2015

- Arrests for possession of marijuana decreased by 13% from 2014 to 2015.
- ◆ Arrests for possession related to opium, cocaine and derivatives (e.g., heroin) increased by 85% from 2012 to 2015.

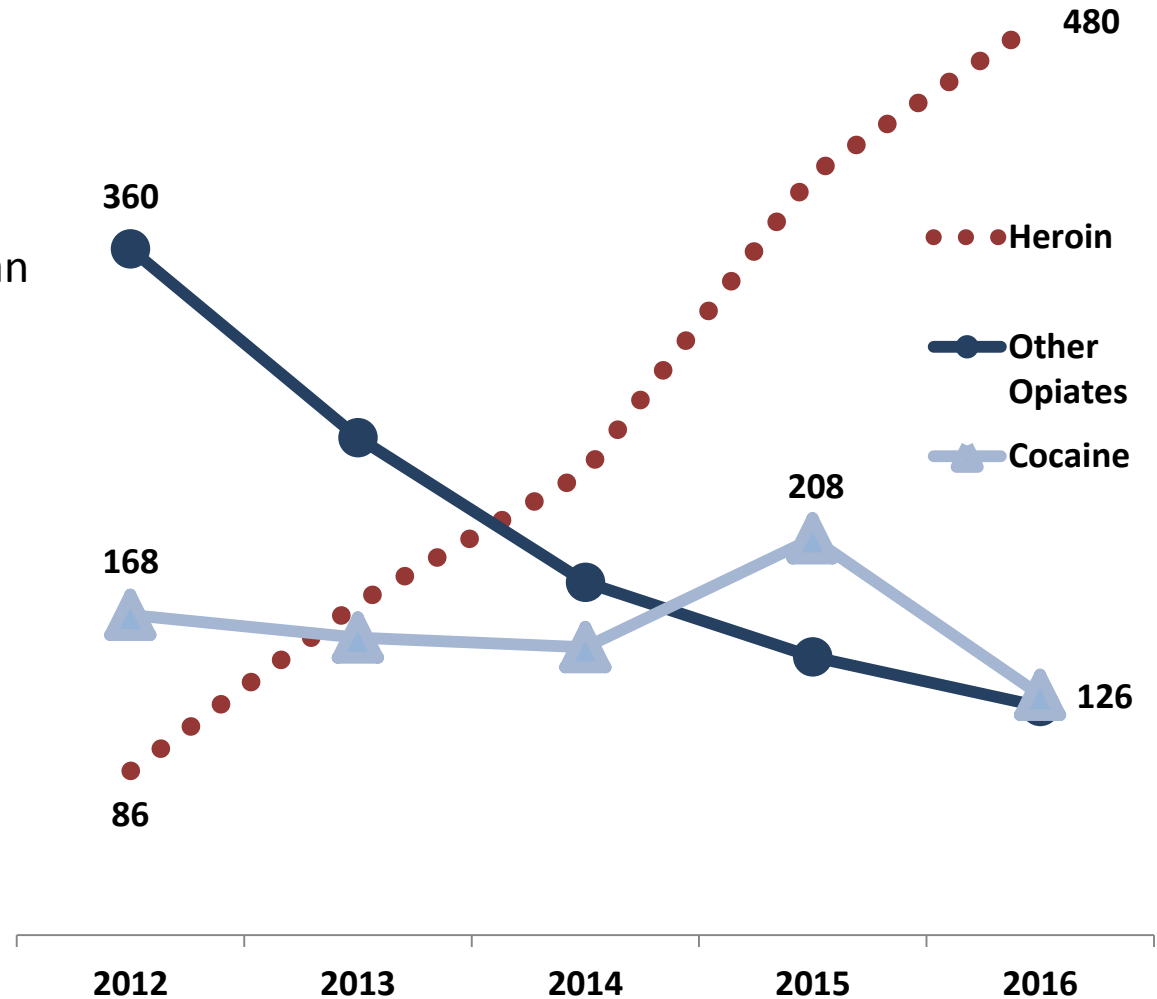


Source: DPS/Uniform Crime Report

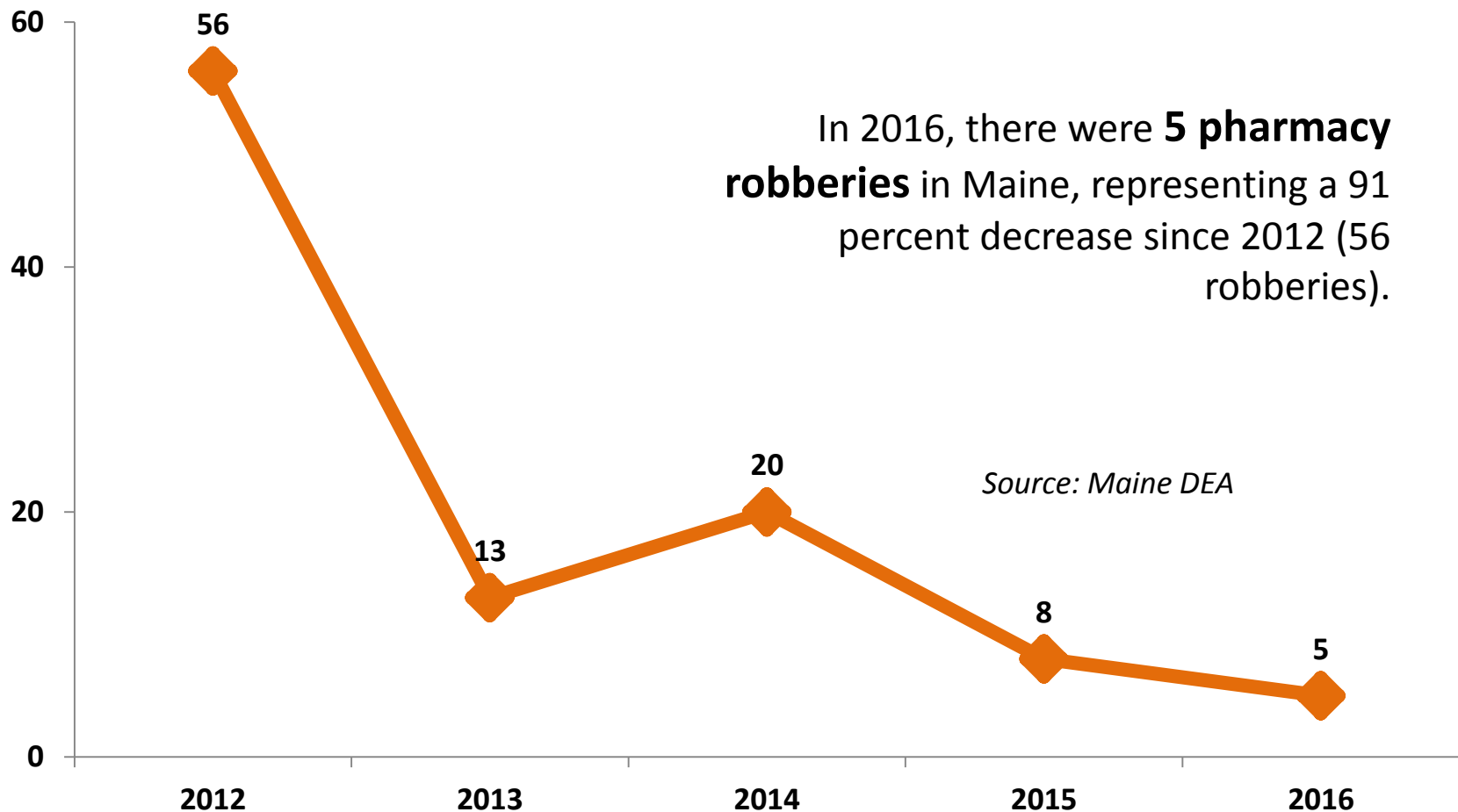
MDEA drug trafficking investigations, by drug type: 2012–2016

● In 2016, the majority of **MDEA trafficking investigations** involved **heroin** and have more than **quintupled** since 2012.

● Investigations related to **other opiates** (e.g., prescription opiates) **decreased by 65%** from 2012 to 2016

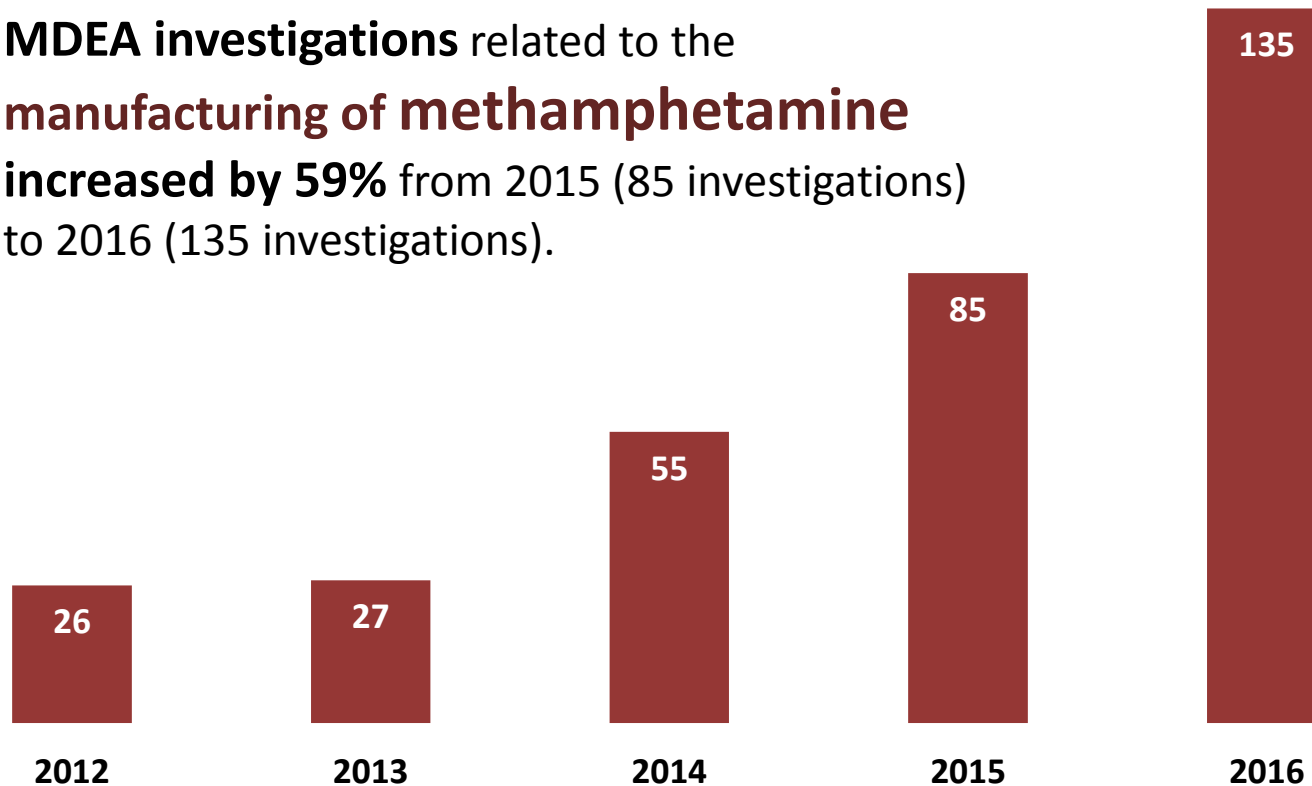


Number of pharmacy robberies in Maine: 2012–2016



MDEA methamphetamine manufacturing investigations: 2012–2016

MDEA investigations related to the **manufacturing of methamphetamine** increased by **59%** from 2015 (85 investigations) to 2016 (135 investigations).

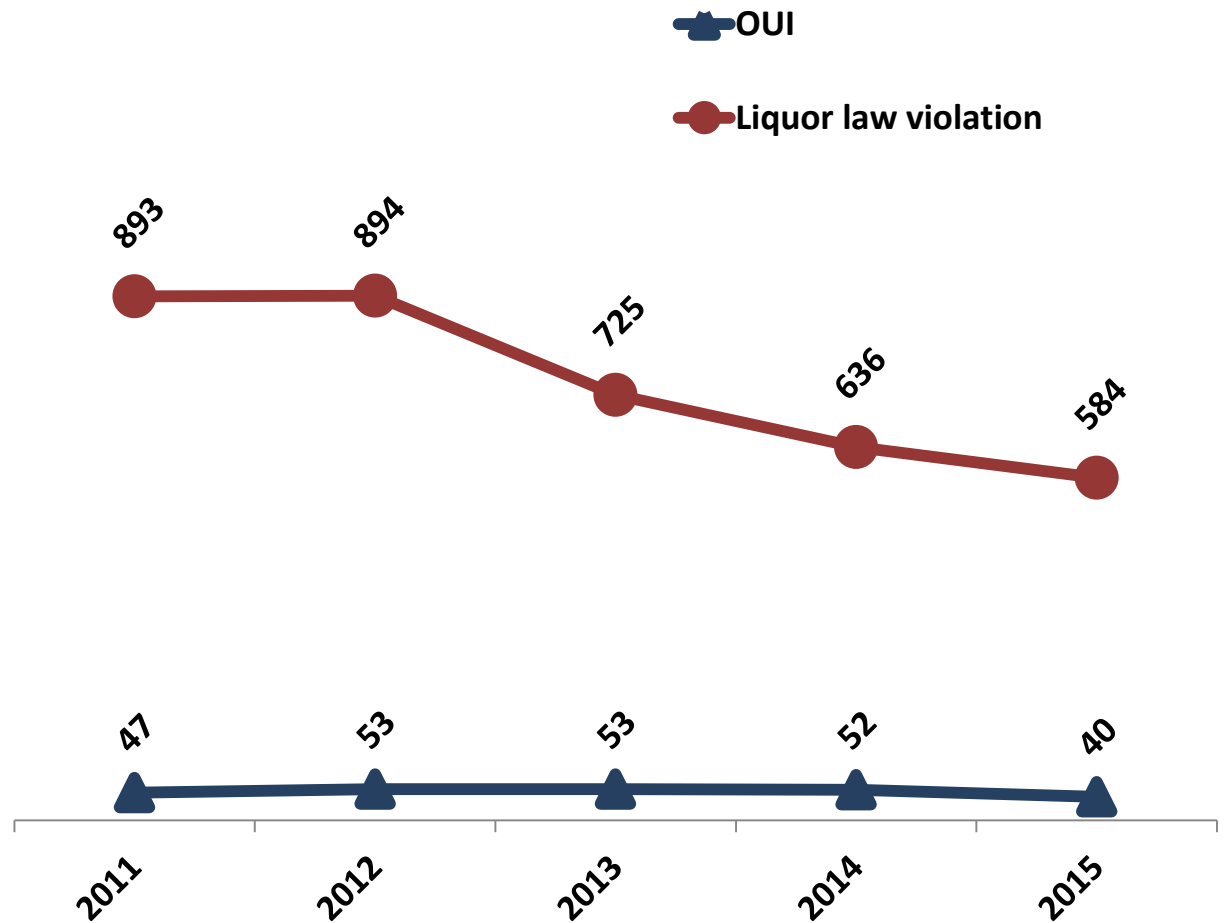


Source: MDEA

Juvenile arrests (<18 years old) related to alcohol, by arrest type: 2011–2015

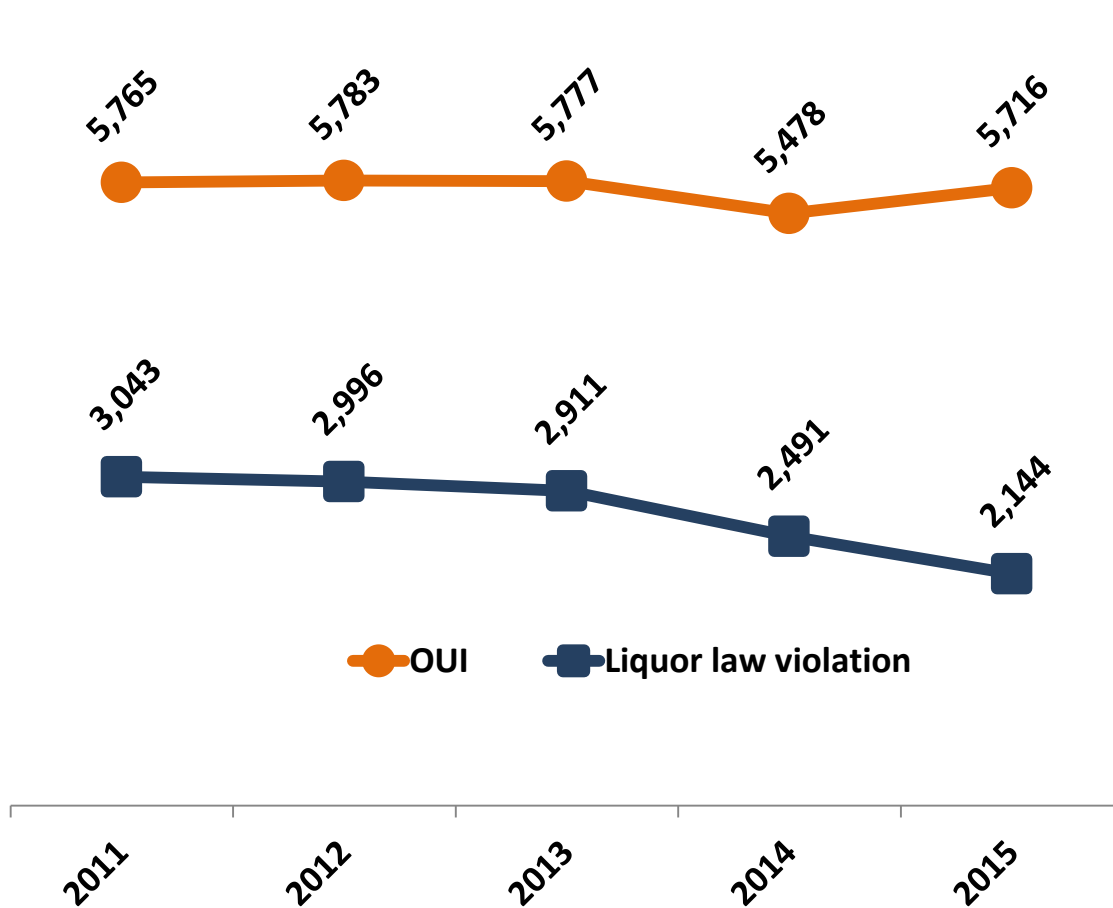
● **Juvenile (under 18) liquor law violations** have **decreased by more than a third** from 2012 to 2015.

▲ **Juvenile OUI arrests** have **remained relatively stable** over the past several years.



Source: DPS/Uniform Crime Report

Adult arrests (18+ years old) related to alcohol, by arrest type: 2011–2015



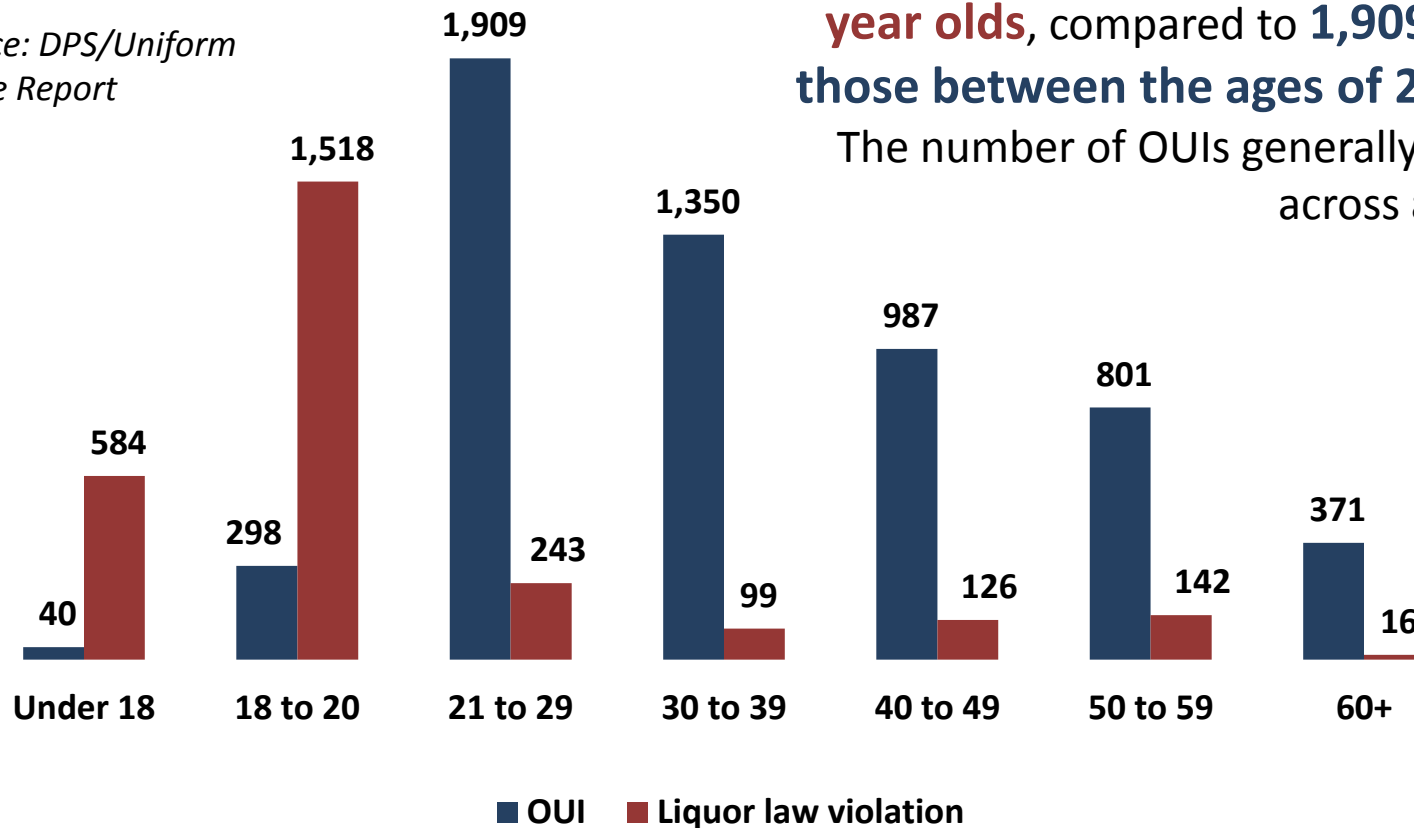
● In 2016, there were **5,716 adult OUIs**. Numbers have **remained stable** over the past several years

■ **Adult liquor law violations** (e.g., providing to minors, public intoxication) have **decreased by 30%** from 2011 to 2015.

Source: DPS/Uniform Crime Report

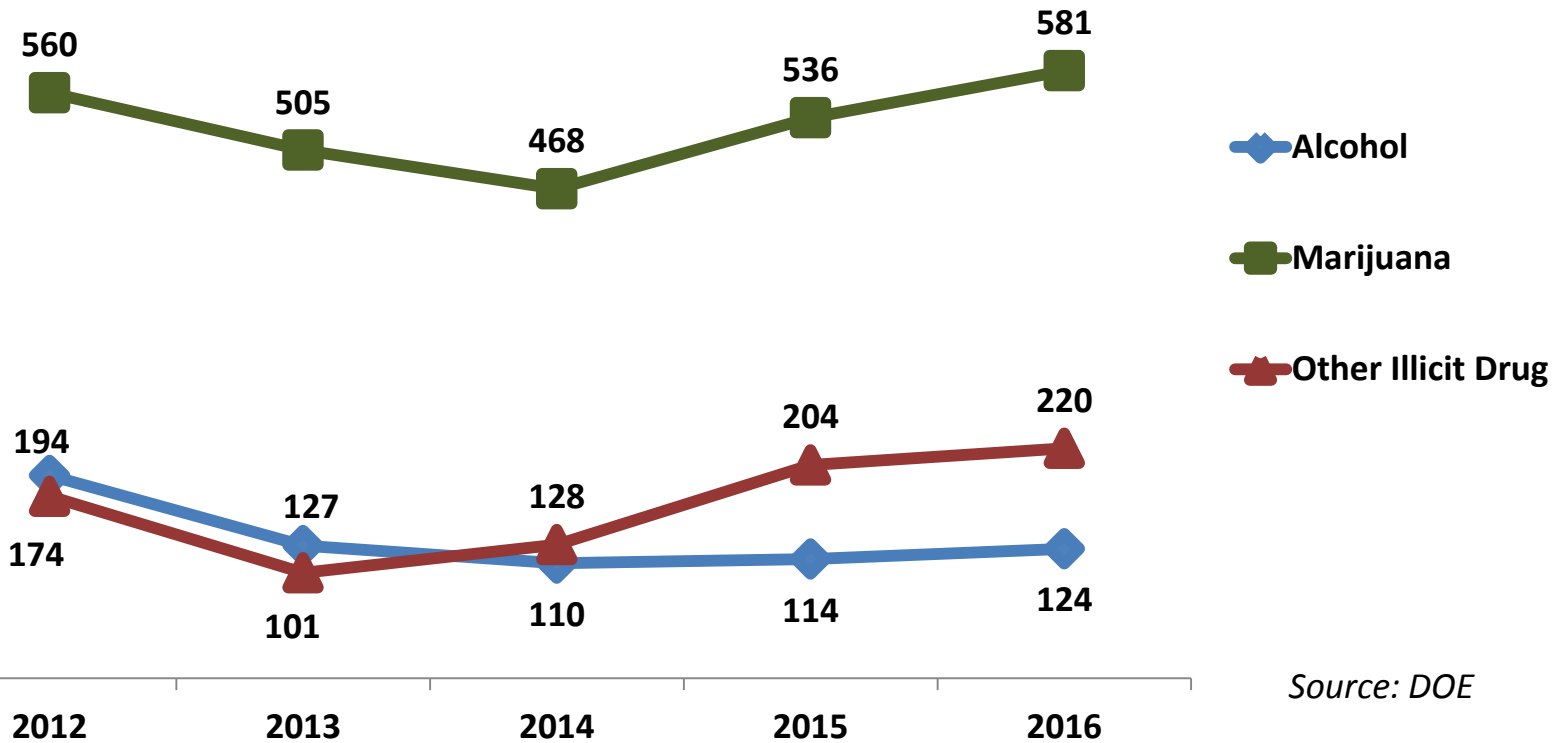
Arrests related to alcohol, by age group: 2015

Source: DPS/Uniform Crime Report



In 2015, there were **1,518 arrests for liquor law violations among 18 to 20 year olds**, compared to **1,909 OUIs for those between the ages of 21 and 29**. The number of OUIs generally decreases across adulthood.

Drug and alcohol related school suspensions, by substance type: 2012-2016*



From 2014 to 2016, **Marijuana related school suspensions increased from 468 to 581**, **illicit drug related suspensions increased from 128 to 220** and **alcohol school suspensions remained stable**.

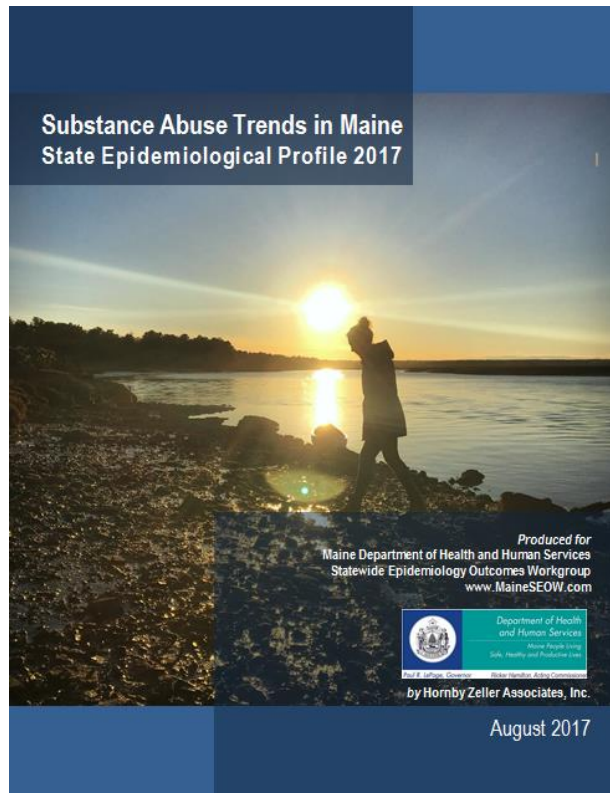
Summary

- In recent years, consequences arising from synthetic opiates have declined as those related heroin and other non-pharmaceutical opioids have risen steadily.
- The shift to more potent and volatile opioids has had a major impact on overdoses, crime, health, and families in Maine.
- Drugs such as methamphetamine, cocaine, and other potentially addictive and dangerous prescription drugs have had a progressively negative impact in Maine.
- Progress has been made in reducing liquor law violations among youth and adults.
- Younger adults 18 to 35 are disproportionately affected by substance use.
- As Maine and the Northeast confront the opiate/opioid epidemic, it's critical to monitor other emerging trends as well.

Additional Resources

2017 State and Community Profiles

State Profile



Community Profiles



Factsheets and reports can be found www.maine-seow.com within "additional resources"

Additional Resources: 2017 Factsheets

Consequences

Consumption/Prevalence

SUBSTANCE ABUSE IN MAINE – CONSEQUENCES SEPTEMBER 2017

BY THE NUMBERS

MDEA drug trafficking investigations involving heroin nearly doubled from 2014 to 2016, while those related to synthetic opiates decreased by a third. Investigations related to cocaine remained fairly stable.¹



MDEA methamphetamine manufacturing investigations more than doubled from 2014 to 2016. In 2016, 126 methamphetamine labs/dump-sites were found by the MDEA; representing a 125 percent increase since 2015 (56 labs/dump-sites).²

In 2016, there were 1,024 reports to Child Protective Services regarding drug-affected babies (substance-exposed infants); this accounts for 8% of live births in Maine.³ Fortunately, in recent years, the rate of drug-affected baby reports has begun to stabilize.²



From 2014 to 2016, the number of naloxone (narcan) administrations given by EMS responders more than doubled.³ Rates are highest among males 26 to 34 years old.³

Drug/medication overdoses EMS responses are most common among those between the ages of 26 and 35, as well as among those 18 to 25.³

In 2016, drivers between the ages of 21 and 24 had the highest alcohol/drug-related crash rates.⁴ In 2016, about 1 in 4 of all fatal motor vehicle crashes involved alcohol/drugs.⁴



Marijuana-related school suspensions increased by 25% from 2014 (468) to 2016 (581). Suspensions involving all other illicit drugs observed a 72% increase from 2014 (128) to 2016 (220), while alcohol suspensions remained stable at 124 in 2016.⁵

¹Maine Drug Enforcement Agency
²Office of Child and Family Services
³Emergency Medical Services
⁴Bureau of Highway Safety
⁵Maine Department of Education
⁶Dr. Song, Office of Chief Medical Examiner
⁷Office of Data, Research, and Vital Statistics

⁸National Institute on Drug Abuse
⁹Web Infrastructure Treatment System
 Department of Health and Human Services
 Maine People Living Safe, Healthy and Productive Lives
 Paul R. Luffago, Governor
 Alder Henderson, Acting Commissioner

SPOTLIGHT ON: Non-pharmaceutical Fentanyl

The high number of fatal drug overdoses in Maine continues to be driven by non-pharmaceutical (illicitly manufactured) fentanyl; a synthetic opioid similar to heroin or morphine, but 50 to 100 times more potent.⁶ It is often sold as a powder; mixed with or substituted for heroin; or in tablet form.⁷

In 2016, there were 376 overdose deaths due to drug use in Maine; a 38 percent increase since 2015. The majority of overdose deaths were related to illicit drugs; almost 2 in 5 involved heroin/morphine, and nearly a third involved non-pharmaceutical fentanyl.⁸



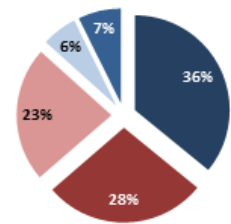
Adults aged 26–35 had the highest rate of deaths due to substance abuse or overdose during 2016, followed closely by those aged 36–49. Substance abuse and overdose death rates for adults between the ages of 18 and 35 have seen a steady increase for the past several years.⁹



As Maine and the Northeast confront the opiate/opioid epidemic, it's critical to monitor other emerging trends as well.

In 2016, over half of primary treatment admissions were related to opioids or opiates. More than one third were related to alcohol.⁶

- Alcohol
- Heroin/Morphine
- Other Opiates and Synthetics
- Marijuana/Hashish/THC
- Other



This fact sheet is a product of the Maine State Epidemiological Outcomes Workgroup (SEOW)
 For more info, visit www.maine-seow.com

SUBSTANCE USE IN MAINE – CONSUMPTION SEPTEMBER 2017

BY THE NUMBERS

The rate of binge drinking among Maine high school students has been decreasing in recent years. From 10% in 2009 to 12% in 2015.¹



About 1 in 3 18–25 year olds report binge drinking alcohol in the past month. Males 26–35 reported a similar rate of binge drinking.²

About 1 in 10 high school students report smoking cigarettes in the past month compared to 1 in 5.18 to 25 year olds.³



Tobacco use remains high among adults ages 26–35, with nearly 9 in 10 being current smokers.⁴ Tobacco use rates have decreased steadily among youth and young adults but remain stagnant among older Mainers.⁴



Nearly 1 in 3 of young adults in Maine reports using marijuana in the past month.⁵



In 2015, 1 in 5 high school students used marijuana in the past month.⁶ While use by high school students is stable, adult use has been increasing over the past few years.⁷



Prescription drug misuse has steadily decreased among high school students since 2009. In 2016, about 2 in 10 high school students reported missing a prescription drug in their lifetime.⁸ Males between the ages of 18 and 35 continue to have the highest rates of prescription drug and pain reliever misuse.⁸



Overall, it is estimated that about 7,000 (62%) Males 12 and older reported using heroin in the past year. The highest rate of use was observed among 18 to 25 year olds (21%).⁹



SPOTLIGHT ON: Initiation of Use

Youth who begin using substances at an early age are more likely to develop substance abuse and dependence later in life.¹⁰

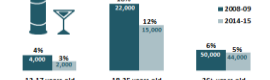


Out of high school students who ever drank alcohol, one in four had their first drink before age 13.¹¹

Marijuana use rates among young adult Mainers as well as those 26 and older have been steadily increasing over the past several years.¹² While there doesn't seem to be an overall increase in the number of initiators, users of marijuana appear to be starting earlier. In 2016, an average of 6,000 Males aged 12–17 tried marijuana for the first time.¹³

Substance use is disproportionately higher among Males 18 to 35.

It's estimated that 61,000 Males have an alcohol use disorder (according to the DSM-IV criteria). Fortunately, young adults 18–25 who qualify as binge drinkers have decreased by a third since 2007.¹⁴



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SUBSTANCE ABUSE IN MAINE – CONTRIBUTING FACTORS SEPTEMBER 2017

BY THE NUMBERS

In 2015, high school students who did not perceive risk of harm from binge drinking once or less a week were 3.5 times more likely to drink in the past month as high school students who do perceive risk of harm.¹



High school students who do not believe there is risk in smoking marijuana regularly are almost 8x as likely to smoke marijuana as their peers who do perceive risk of harm. Perception of harm related to marijuana use by youth and adults has decreased steadily.²



Easy access to alcohol at home is a major contributing factor to underage drinking. Half of the parents of middle and high school age youth felt their children could access alcohol without their knowledge. This perception has increased since 2011.³



In 2017, Maine had a total of 3,839 active alcohol retail outlets; 39% were off-premise (e.g., convenience stores and 61% were on-premise (e.g., restaurant, bar).⁴



More than half of high school students believed that alcohol and marijuana were easy to obtain.⁵ More than a third of parents felt their teen could access prescription medications at home without permission.⁶



The potential for diversion of prescription drugs remains a concern. In 2016, 975,525 opiate agonist prescriptions were filled in Maine, nearly one for each resident. In 2014–16, the majority of medication verification calls to the Poison Center involved opiates (4,073/year), benzodiazepines (2,523/year), and stimulants or street drugs (1,003/year).⁷



While some may believe that active opioid receptors within the body and accurate state algorithms, medications that are used to prevent the body from responding to opiates.



SPOTLIGHT ON: Prescribing Trends

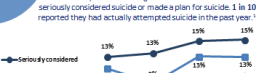
There have been efforts in Maine and nationally to reduce the availability of prescription opiates through policy, prescribing practices, and education.

From 2015 to 2016, the number of prescriptions filled for opiate agonists⁸ decreased by eight percent while the number of prescriptions for sedative dropped six percent and prescriptions for stimulants increased by two percent while the number of prescriptions filled for stimulants have increased by 26 percent since 2012.⁹

Among all opiate prescriptions filled in 2016, the primary active ingredient oxycodone was in 26 percent of opiate prescriptions, followed by hydrocodone (24%), buprenorphine (14%), and tramadol (15%). From 2012 to 2016, the number of prescriptions containing hydrocodone decreased by a third, buprenorphine increased by 77%, and oxycodone remained stable.¹⁰

Addressing these factors can have a positive impact on substance consumption and consequences in Maine.

In 2015, about 1 in 7 high school students in Maine had seriously considered suicide or made a plan for suicide. 1 in 10 reported they had actually attempted suicide in the past year.¹¹



This fact sheet is a product of the Maine State Epidemiological Outcomes Workgroup (SEOW)
 For more info, visit www.maine-seow.com

Additional Resources: Data Dashboard

The screenshot shows the top navigation bar of the Maine SEOW Dashboard with links for Indicators, Data Sources, Additional Resources, How To, About, and Contact. The main banner features the text 'SEOW Dashboard User Guide' and a 'Start Here' button with a hand cursor icon. Below the banner are three sections: Indicators (with a bar chart icon), Data Sources (with a globe icon), and Additional Resources (with a lightbulb icon). Each section includes a brief description and a 'View' button.

Maine SEOW Dashboard Indicators Data Sources Additional Resources How To ▾ About Contact

SEOW Dashboard

User Guide

Start Here

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Indicators

Sorted into a real-time search, find indicators by Source, Type, Substance, and Population.

[View indicators »](#)

Data Sources

Read through our sources to find in depth information about where our data comes from.

[View data sources »](#)

Additional Resources

Navigate through our collection of reports, infographs, and more.

[View additional resources »](#)

Tomorrow's Webinar

Part 3: Contributing Factors of Substance Use (Friday, October 20th @ 10am)

Steps to join webinar(s):

1. Click the following link:
<http://stateofmaine.adobeconnect.com/seowseries2017/>
2. For Audio: After clicking the link above you will be prompted with audio options. Please select the dial out option (receive a call from the meeting) and enter your phone number. You will then receive a call to join the audio portion of the meeting.

Contact

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