



**OFFICE OF  
CHIEF  
MEDICAL  
EXAMINER**

**JENNIE V. DUVAL, M.D.**  
Chief Medical Examiner

**MITCHELL WEINBERG, M.D.**  
Deputy Chief Medical Examiner

NH Office of Chief  
Medical Examiner  
246 Pleasant St., Ste. 218  
Concord, NH 03301  
603-271-1235  
603-271-6308 Fax

**Drug Deaths by Year**

2011	201
2012	163
2013	198
2014	342
2015	444
2016	486
2017	490
2018	471
2019	415

# Summary Of 2019 NH Drug Overdose Deaths

In 2019, 1728 deaths fell under the jurisdiction of OCME. Autopsies were performed on 585 (34%) of the decedents and the remaining 1143 decedents received external exams along with toxicology testing for most of them.

415 (24%) of all the 2019 deaths investigated by OCME were due to drug overdoses and are the subject of this review. Autopsies were performed on 197 (47%) of them.

Of the 415 drug overdose deaths in NH, 383 of these deaths were determined to be accidental, 25 were due to suicide and there were 7 deaths due to drugs where the manner of death could not be determined. The manners of death are:

- Natural
- Accident
- Suicide
- Homicide
- Undetermined
- Pending

“Undetermined” is a term used when there is insufficient information to determine the manner of death. For drug deaths, this term is typically used when it is unclear if the death resulted from an intentional or an unintentional overdose. “Pending” is a temporary term that is amended to another manner of death after the toxicology report is received and reviewed by the pathologist.



# 2019 Drug Summary

Table 1 shows the number of drug deaths by manner of death for each drug category. Drug categories, defined below, are derived from the specific drug(s) determined to be the cause of death and listed on the death certificate. They do not represent all drugs detected by toxicology testing. The vast majority of drug deaths result from unintentional overdose of opiate/opioid drugs. Opiates are drugs derived naturally from the opium poppy plant (e.g. morphine, codeine) whereas opioids are drugs synthesized from opiates (e.g. heroin, hydrocodone, oxycodone, buprenorphine) or synthesized de novo (e.g. methadone, fentanyl).

OPIATES/OPIOIDS DEATHS	Accident	Suicide	Undetermined	Total
Fentanyl (no other drugs)	116	2	1	119
Fentanyl and Other Drugs (excluding heroin)	216	1	3	220
Heroin (no other drugs)	0	0	0	0
Heroin and Other Drugs (excluding fentanyl)	0	0	0	0
Heroin and Fentanyl	5	0	0	5
Unknown Opioids	0	0	0	0
Other Opiates/Opioids	21	6	1	28
<b>Total Deaths Caused By Opiates/Opioids</b>	<b>358</b>	<b>9</b>	<b>5</b>	<b>372</b>
Other drugs	25	16	2	43
Unknown Drugs	0	0	0	0
<b>Total Drug Deaths</b>	<b>383</b>	<b>25</b>	<b>7</b>	<b>415</b>

*All opioid drugs exert their effects by binding to opioid receptors in the body. Fentanyl is available both as a prescription pain medication and as an illicit drug. Based on information obtained from death investigations, the vast majority of fentanyl deaths are caused by non-pharmaceutical fentanyl.*

Table 1. Number of drug deaths by manner of death and drug category

## Drug Category Definitions

- **Fentanyl (no other drugs):** Fentanyl alone caused the death.
- **Fentanyl and Other Drugs (excluding heroin):** Fentanyl in combination with any other drugs, except heroin, caused the death.
- **Heroin (no other drugs):** Heroin alone caused the death.
- **Heroin and Other Drugs (excluding fentanyl):** Heroin in combination with any other drugs, except fentanyl, caused the death.
- **Heroin and Fentanyl:** Heroin and fentanyl, together or in combination with any other drugs, caused the death.
- **Other Opiates/Opioids:** An opiate/opioid other than heroin or fentanyl (e.g. methadone, oxycodone, buprenorphine), alone or in combination with any other drugs, caused the death.
- **Unknown Opioids:** An opioid/opioids not further classified caused the death. This category may be used when a person overdoses and survives in the hospital for a period of time prior to death. Routine hospital toxicology tests are qualitative screening tests that can detect the possible presence of opioids but cannot confirm nor quantitate the presence of a specific opioid. If the hospital admission specimens are discarded prior to the death then confirmatory toxicology testing cannot be performed.
- **Other drugs:** Non opioid/opiate drugs caused the death.
- **Unknown Drugs:** An unknown drug or drugs caused the death. This category may be used when a person overdoses and survives in the hospital for a period of time prior to death. Hospital toxicology testing may not be performed or may not detect the drug(s) used. If the hospital admission specimens are discarded prior to the death then more comprehensive toxicology testing cannot be performed.



# 2019 Drug Summary

Illicit stimulant drugs (e.g. cocaine, methamphetamine) are also included in the overdose statistics but deaths due to stimulants alone are rare and usually involve extremely high levels or coexisting heart disease or other significant natural disease.

Table 2 and Figure 1 show the number of drug deaths due to cocaine with or without other drugs for the years 2012 through 2019. Table 3 and Figure 2 show the number of drug deaths due to methamphetamine with or without other drugs for the years 2012 through 2019. Though the number of deaths has increased each year for both cocaine and methamphetamine, most deaths also include an opioid.

Year	Total # of Deaths Involving Cocaine	Solely Cocaine	Cocaine and Opioid(s)	Cocaine and other drug(s) (non-opioids)
2019	79	5	73	1
2018	65	5	57	3
2017	51	5	44	2
2016	66	14	50	2
2015	48	5	43	0
2014	42	5	35	2
2013	34	1	24	9
2012	20	4	14	2

Table 2. Cocaine related deaths 2012-2019

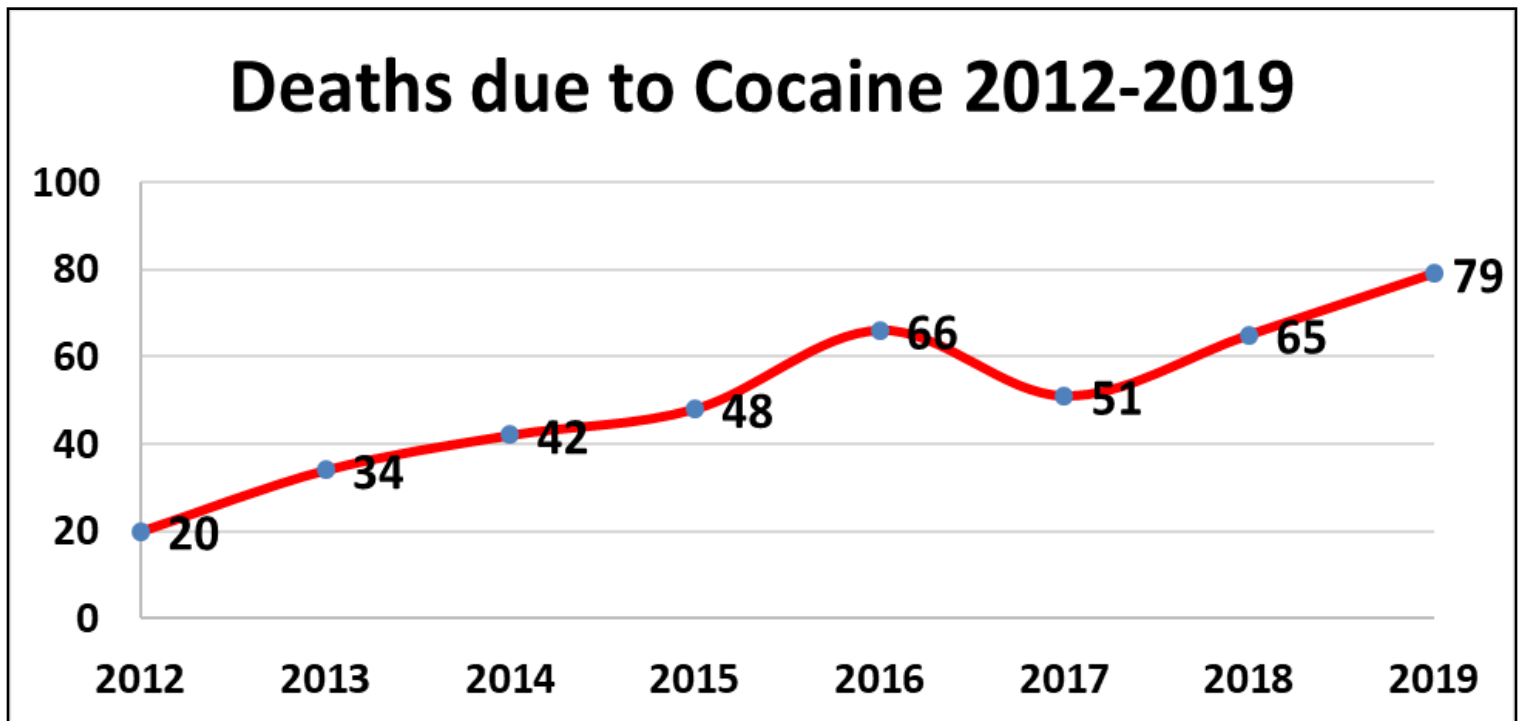


Figure 1. Cocaine related deaths 2012-2019



# 2019 Drug Summary

Table 3. Methamphetamine related deaths 2012-2019

Year	Total # of Deaths Involving Methamphetamine	Solely Methamphetamine	Methamphetamine and Opioid(s)	Methamphetamine and other drug(s) (non-opioids)
2019	52	6	46	0
2018	22	4	17	1
2017	14	2	11	1
2016	13	4	8	1
2015	2	1	1	0
2014	3	0	3	0
2013	2	1	1	0
2012	1	0	1	0

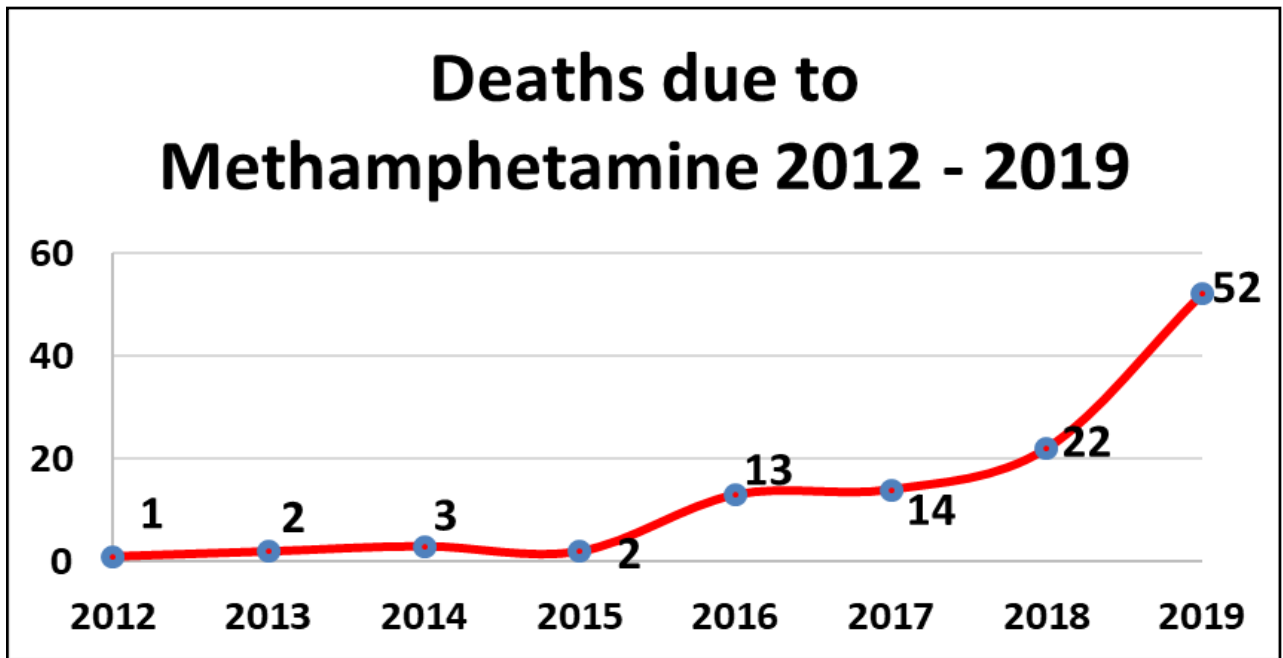


Figure 2. Methamphetamine related deaths 2012-2019

## Fentanyl Analogues

Fentanyl analogues are synthetic opioid drugs with a chemical structure similar to fentanyl that may be more or less potent than fentanyl. The following fentanyl analogues were detected in drug overdose deaths in 2019.

Acetyl fentanyl (93)    4-ANPP (8)    Valeryl fentanyl (2)    Carfentanil (2)

## Alcohol

Alcohol is a drug and is included in the overdose statistics. In 2019, acute intoxication by alcohol alone caused 3 deaths and alcohol contributed to 65 other overdose deaths.



# 2019 Drug Summary

Figure 3 shows the number of drug deaths by manner of death for all drug overdose deaths in New Hampshire in 2019. The vast majority of drug overdose deaths are unintentional.

Figure 3.  
Number of  
drug deaths  
by manner.

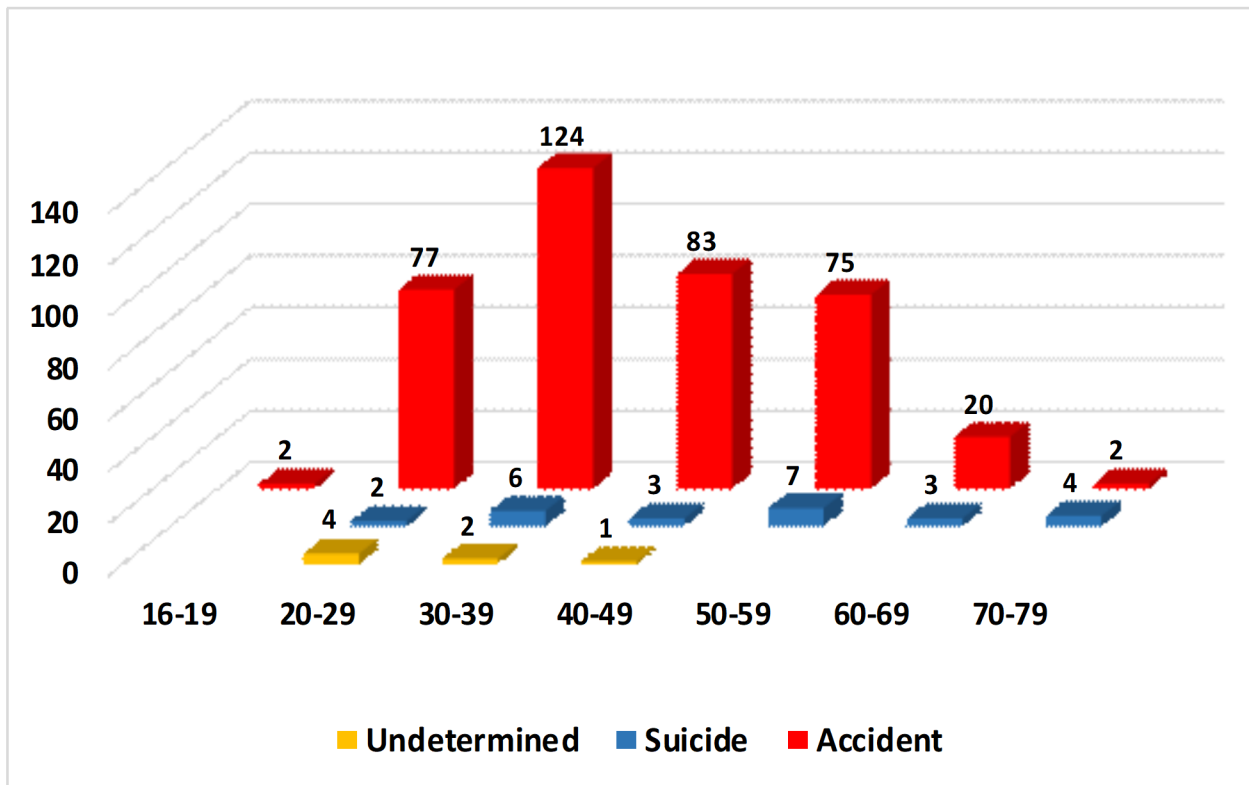
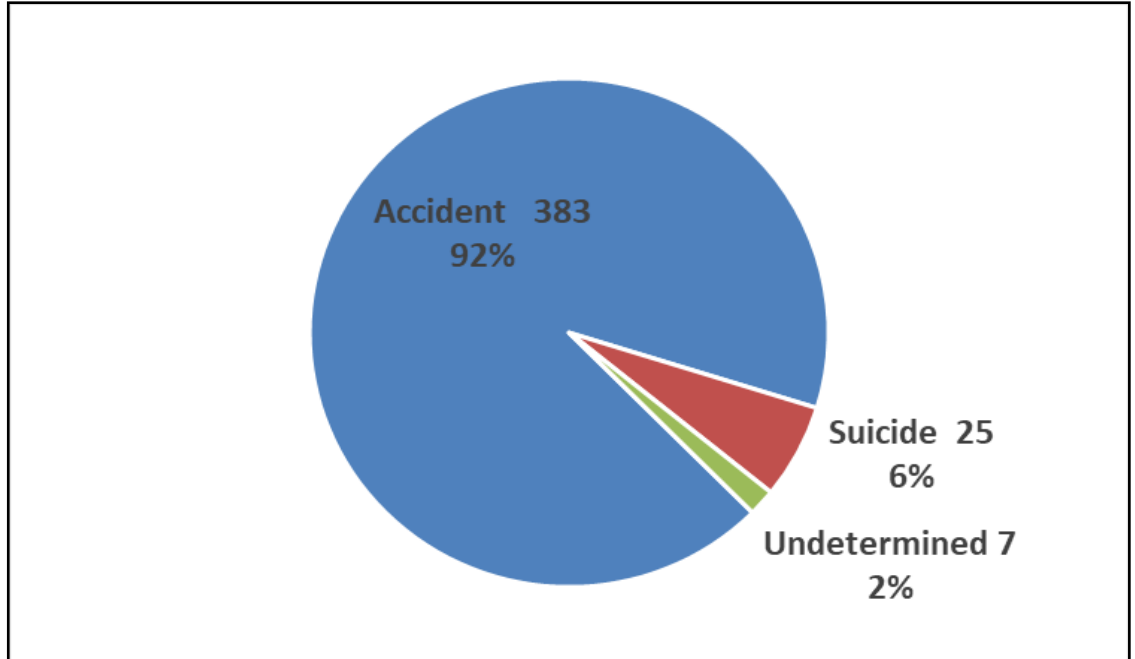


Figure 4. Number  
of drug deaths by  
age group and  
manner of death.

Figure 4 shows the number of drug deaths by age group for accidents, suicides and undetermined deaths. The highest number of accidental overdose deaths occurred in 30 to 39 year olds whereas suicidal overdoses were highest in 50 to 59 year olds followed closely by 30 to 39 year olds. Only seven undetermined overdose deaths occurred in 2019.



# 2019 Drug Summary

Figure 5 shows the number of drug deaths occurring in each month of the year in 2019 compared to 2018. In 2019, the highest number of drug deaths occurred in December and the lowest in July whereas drug deaths peaked during the month of July in 2018.

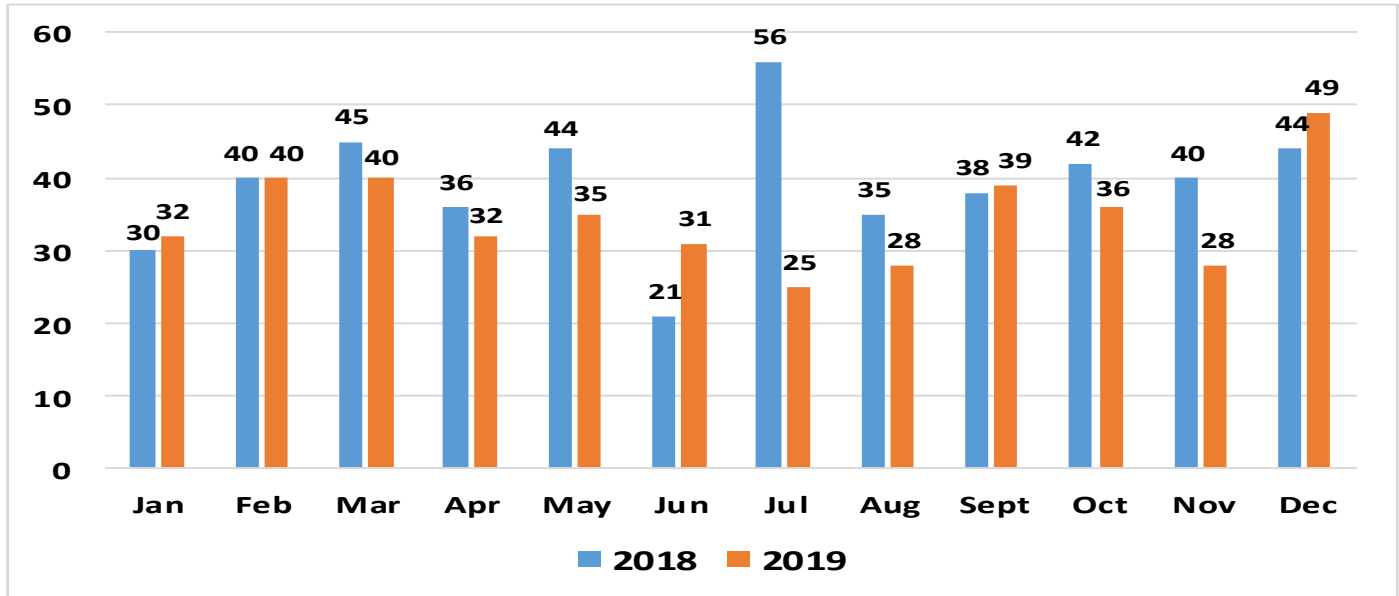


Figure 5. Number of drug deaths by month

Figure 6 shows the number of drug deaths by manner of death and sex. For accidental overdose deaths, males far outnumber females whereas for suicidal overdose deaths there is essentially no difference between males and females.

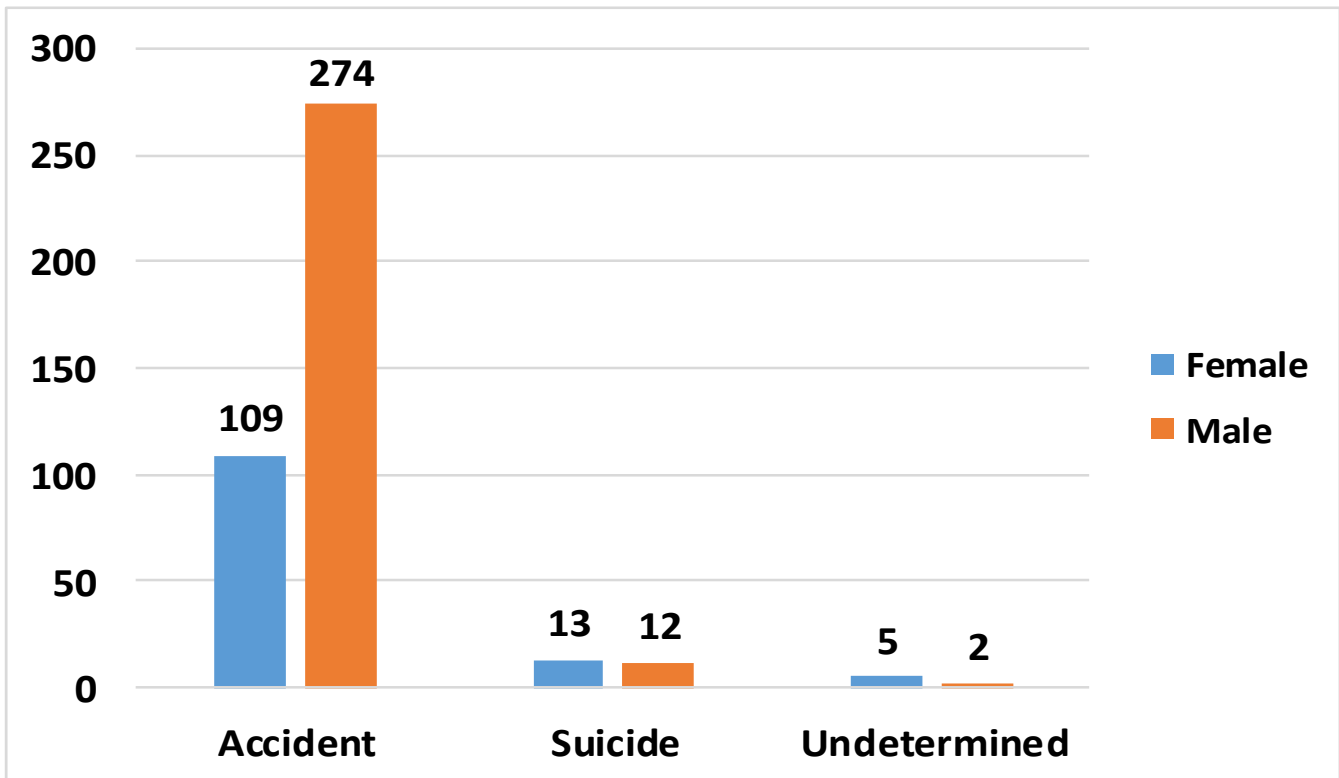


Figure 6. Number of drug deaths by manner and sex



# 2019 Drug Summary

## 2019 Fatal Overdoses by County

Figure 7 shows the number of deaths by location (county) of where the drug use occurred, based on information obtained from the death investigation. The total number of overdoses by county does not match the total number of drug deaths for 2019 because the town and county of drug use was unknown in 14 deaths and there was one death where the drug use occurred in Vermont and the death occurred in a New Hampshire hospital. Most drug overdoses occurred in the more populated counties of Hillsborough and Rockingham.

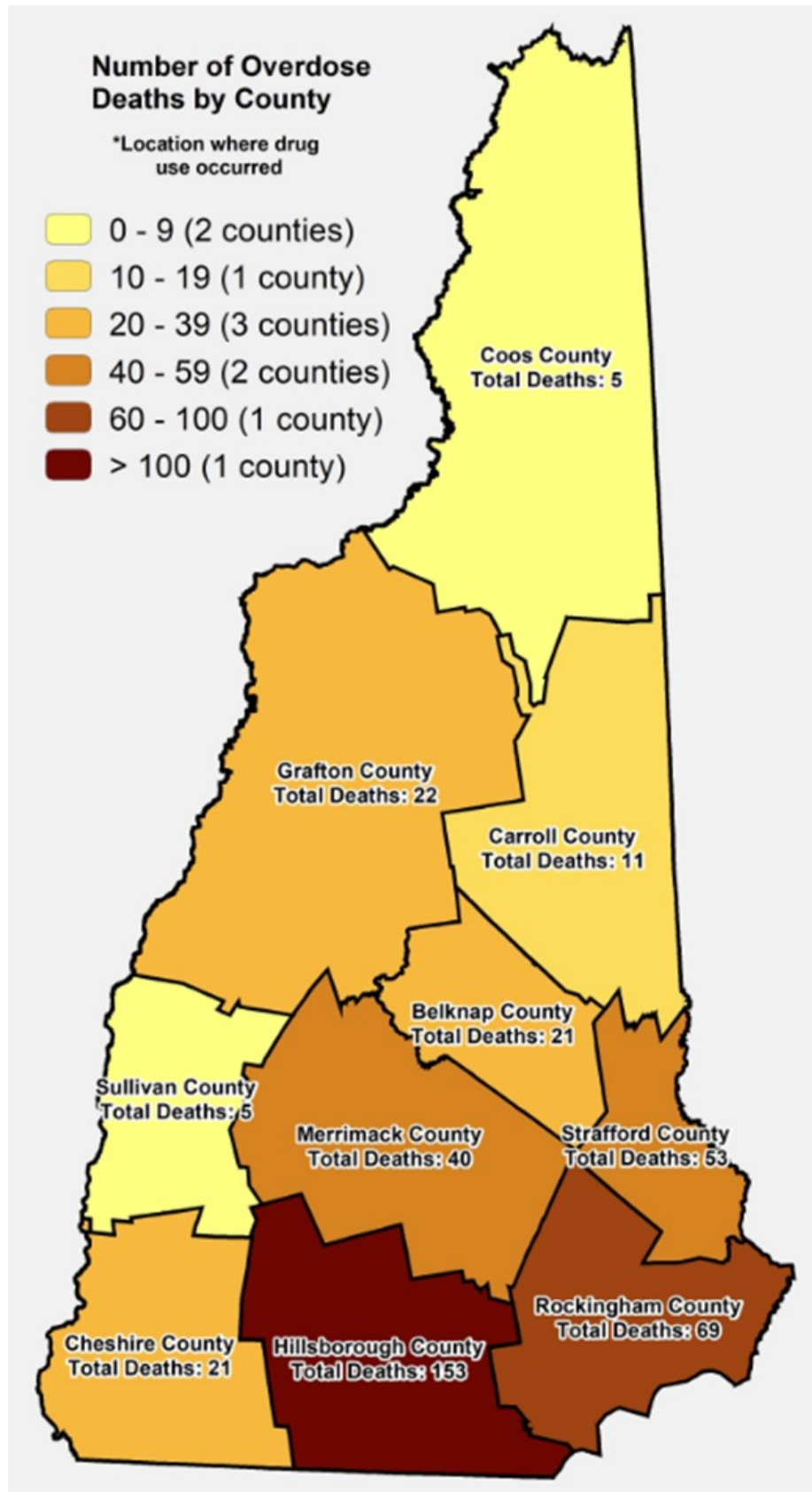


Figure 7. Drug deaths by county



# 2019 Drug Summary

## Top 10 Fatal Overdoses by City/Town

Figure 8 shows the 10 cities/towns in New Hampshire with the highest number of fatal overdoses in 2019 compared to 2018. These numbers refer to the city/town where drug use occurred, not necessarily the city/town where death occurred. While several cities/towns showed fewer overdoses in 2019, Manchester, Rochester, Seabrook and Merrimack all showed more drug overdose deaths in 2019 compared to 2018.

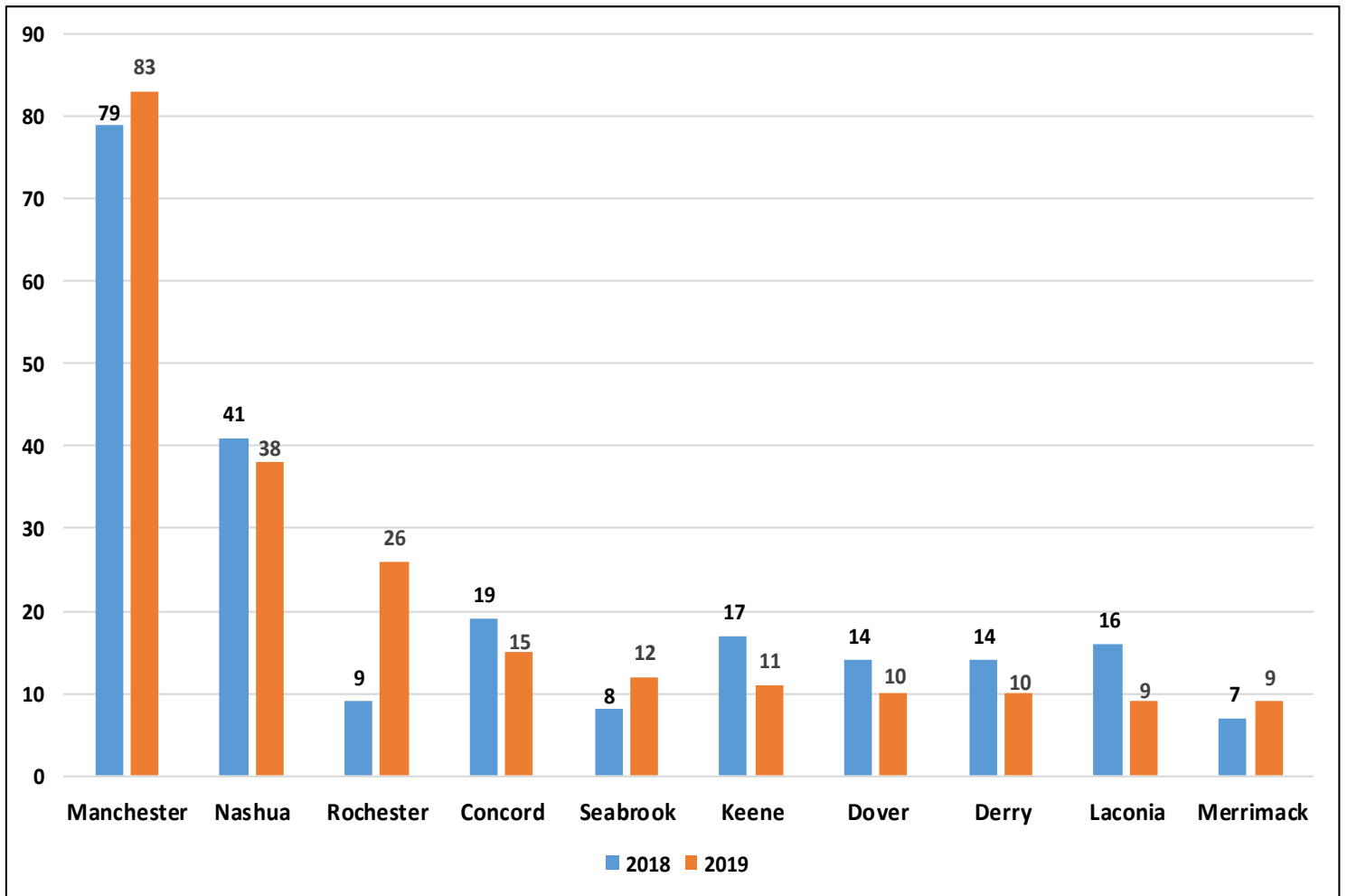


Figure 8. Top 10 fatal overdoses by city/town





# 2019 Drug Summary

## New Hampshire Drug Deaths (2008–2019)

Figure 9 shows the number of drug deaths in each of the last 12 years. Drug deaths rose dramatically after 2013. In 2014, there was a 73% increase in drug deaths from the previous year. The number of deaths continued to increase each year reaching a peak of 490 deaths in 2017. Over the last two years, the number of drug deaths has fallen to 471 in 2018 and to 415 in 2019, a 12% decrease from 2018 and a 15% decrease from 2017.

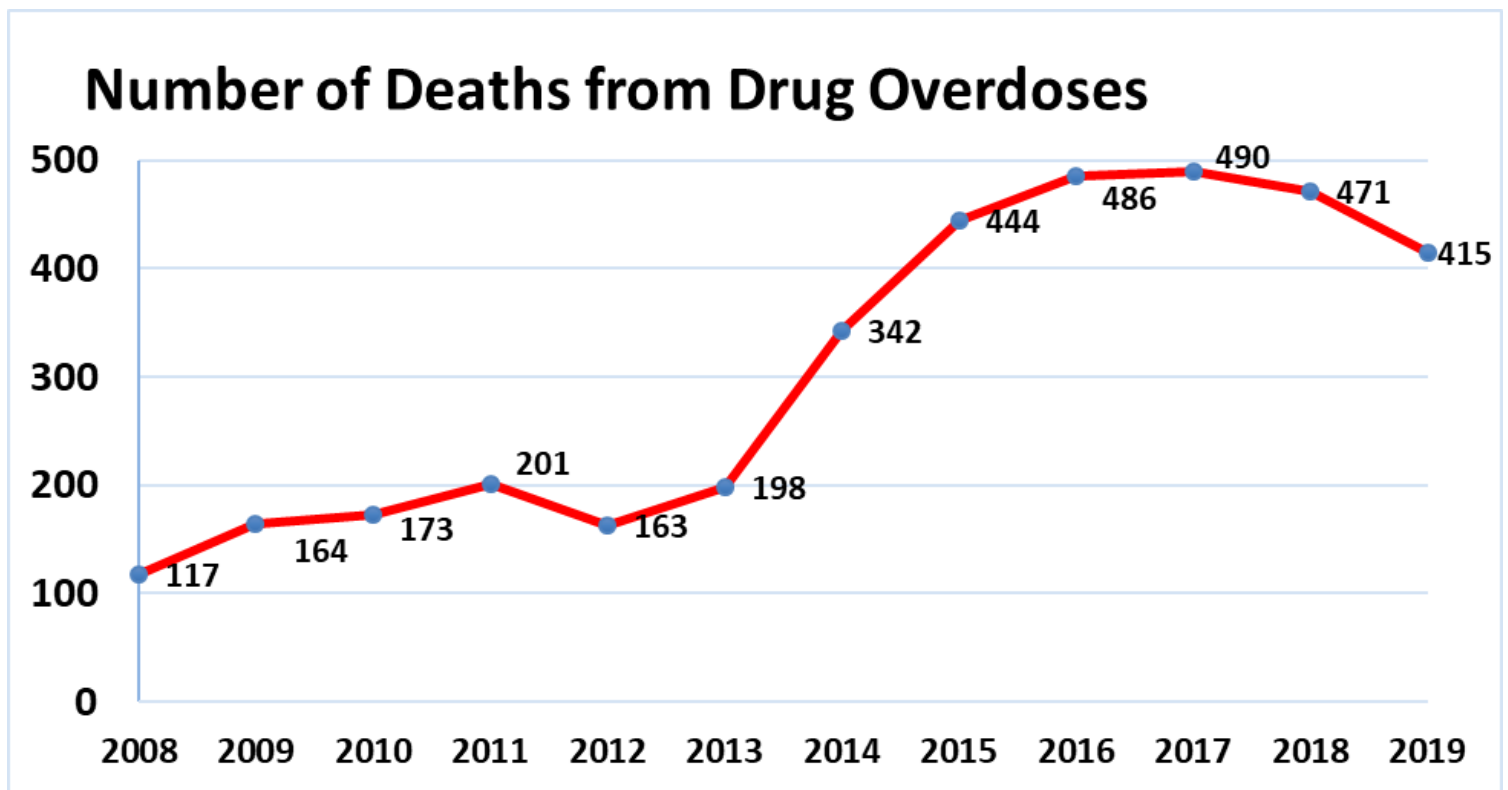


Figure 9. Number of drug deaths for the past 12 years

Although the substantial decrease in the number of drug overdose deaths in 2019 is encouraging, it remains to be seen if this downward trend will continue in 2020. There are several media reports across the country of increases in drug overdoses and drug overdose deaths coinciding with the COVID-19 pandemic. Preliminary data from New Hampshire suggests a slight uptick in the number of drug overdose deaths in 2020 compared to 2019.

*The OCME makes every effort to ensure the accuracy of published data. However, case management software requires manual data entry and transcription errors may occur.*