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Drug Deaths by Year

2011	201
2012	163
2013	192
2014	332
2015	439
2016	485
2017	488

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Summary Of 2017 NH Drug Overdose Deaths

In 2017, 1,817 deaths fell under the jurisdiction of OCME. Autopsies were performed on 548 (30%) of the decedents and the remaining 1,269 decedents received external exams along with toxicology testing for most of them.

488 (27%) of all the 2017 deaths investigated by OCME were due to drug overdoses and are the subject of this review. Autopsies were performed on 214 (44%) of them.

Of the 488 drug overdose deaths in NH, 442 of these deaths were determined to be accidental, 38 were due to suicide and there were 8 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.



2017 Drug Summary

Drug Deaths By Manner & Drug Category

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)	200	2	0	202
Fentanyl and Other Drugs (excluding heroin)	148	2	3	153
Heroin (no other drugs)	1	0	0	1
Heroin and Other Drugs (excluding fentanyl)	5	0	0	5
Heroin and Fentanyl	17	0	0	17
Unknown Opioids	4	0	0	4
Other Opiates/Opioids	38	10	3	51
Total Deaths Caused By Opiates/Opioids	413	14	6	433
Other drugs	28	22	2	52
Unknown Drugs	1	2	0	3
Total Drug Deaths	442	38	8	488

All these 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. Drug deaths by manner 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.
- Unknown Opioids**: An opiate/opioid 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 quantify 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 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.
- Other drugs**: Non opiate/opioid 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.



2017 Drug Summary

Cocaine and Methamphetamine

Illicit stimulant drugs (e.g. cocaine, methamphetamine) are also included in the overdose statistics but deaths due to stimulants alone are rare. Tables 2 and 3 show the number of drug deaths for the years 2012 through 2017 for cocaine and methamphetamine, respectively. Though the number of deaths has increased each year for both drugs, most deaths also include an opioid. Note that cocaine and/or methamphetamine may be present in other drug deaths but not included in the statistics below if the death was determined to be due to other drug(s).

Year	Total # of Deaths Involving Cocaine	Solely Cocaine	Cocaine and Opioid(s)	Cocaine and other drug(s) (non-opioids)
2017	50	8	40	2
2016	63	13	49	1
2015	49	5	44	0
2014	36	5	29	2
2013	30	5	23	2
2012	19	4	14	1

Table 2. Cocaine related deaths 2012-2017

Year	Total # of Deaths Involving Methamphetamine	Solely Methamphetamine	Methamphetamine and Opioid(s)	Methamphetamine and other drug(s) (non-opioids)
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

Table 3. Methamphetamine related deaths 2012-2017

Fentanyl Analogues

Fentanyl analogues are synthetic drugs with a chemical structure similar to fentanyl. They can be more or less potent than fentanyl. The following fentanyl analogues and other novel synthetic opioids were detected in drug overdose deaths in 2017.

- 4-ANPP
- Acetyl fentanyl
- Carfentanil
- Fluoro-fentanyl
- Furanyl Fentanyl
- U-47700
- Para-fluorobutyl fentanyl/FIBF

Alcohol

Alcohol is a drug and is included in the overdose statistics. In 2017, acute intoxication by alcohol alone caused 3 deaths and alcohol contributed to 48 other overdose deaths.



2017 Drug Summary

Drug Deaths By Manner of Death and Sex

Figure 1 shows the number of drug deaths by manner of death for all drug overdose deaths in New Hampshire in 2017. The vast majority of drug overdose deaths are unintentional.

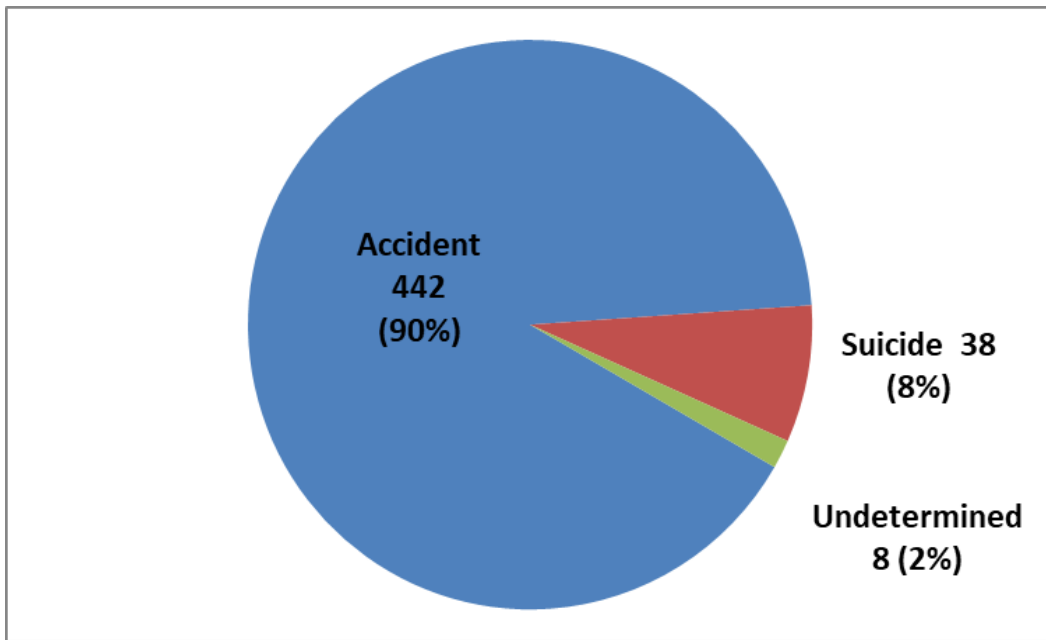


Figure 1. Deaths by Manner

Figure 2 shows the number of drug deaths by manner of death and sex of the decedent. For accidental overdose deaths, males far outnumber females whereas there were slightly more female suicidal overdose deaths.

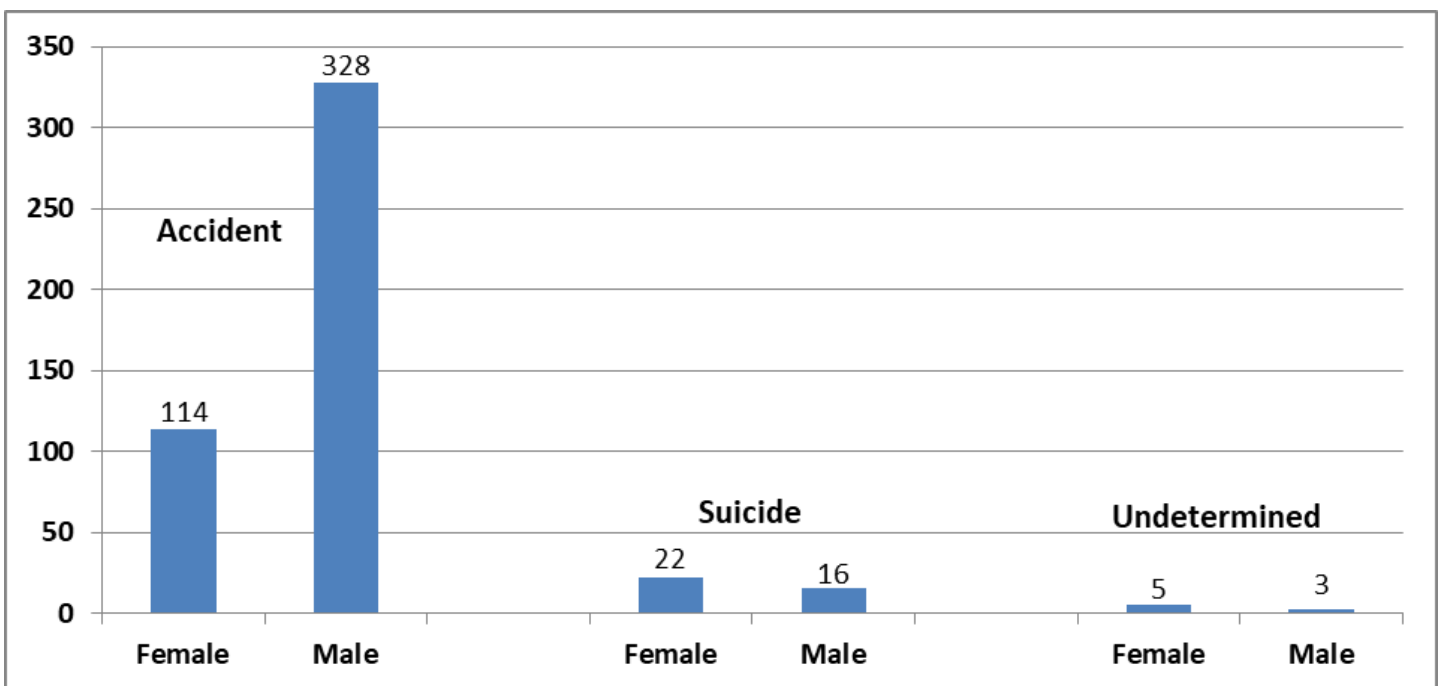


Figure 2. Deaths by Manner & Sex



2017 Drug Summary

Drug Deaths By Age and Manner

Figure 3 shows the number of drug deaths by age of the decedent for accidents, suicides, and undetermined deaths. The highest number of accidental overdose deaths occurred in 20 to 39 year olds whereas most suicidal overdoses and overdoses of undetermined manner occurred in 40 to 59 year olds.

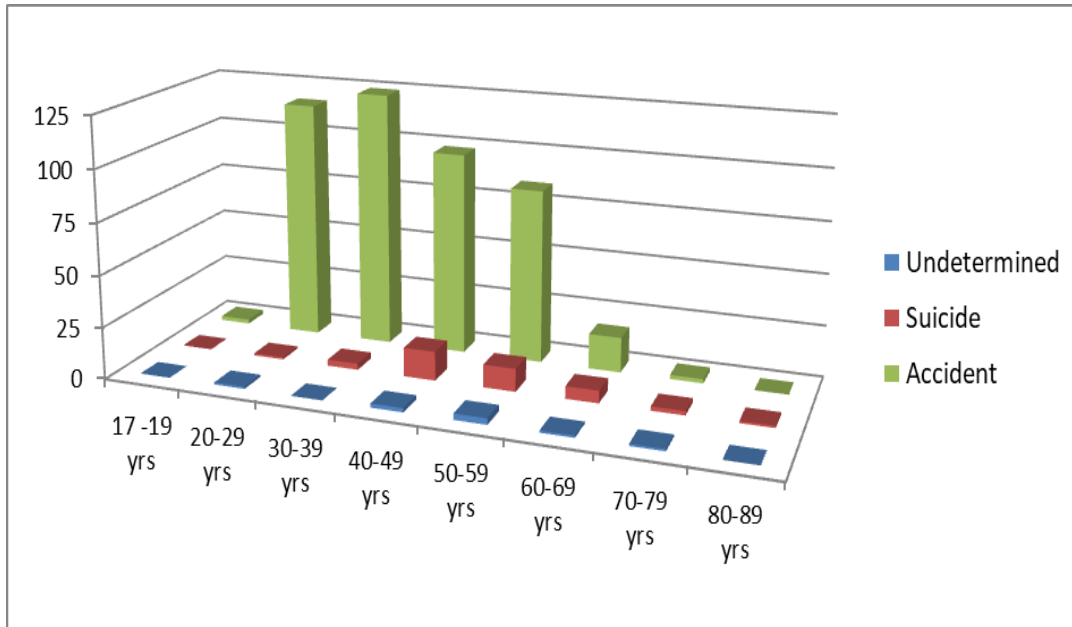


Figure 3. Number of drug deaths by age and manner of death

Drug Deaths By Month

Figure 4 shows the number of drug deaths occurring in each month of the year. The greatest number of drug deaths occurred in April and the lowest in November.

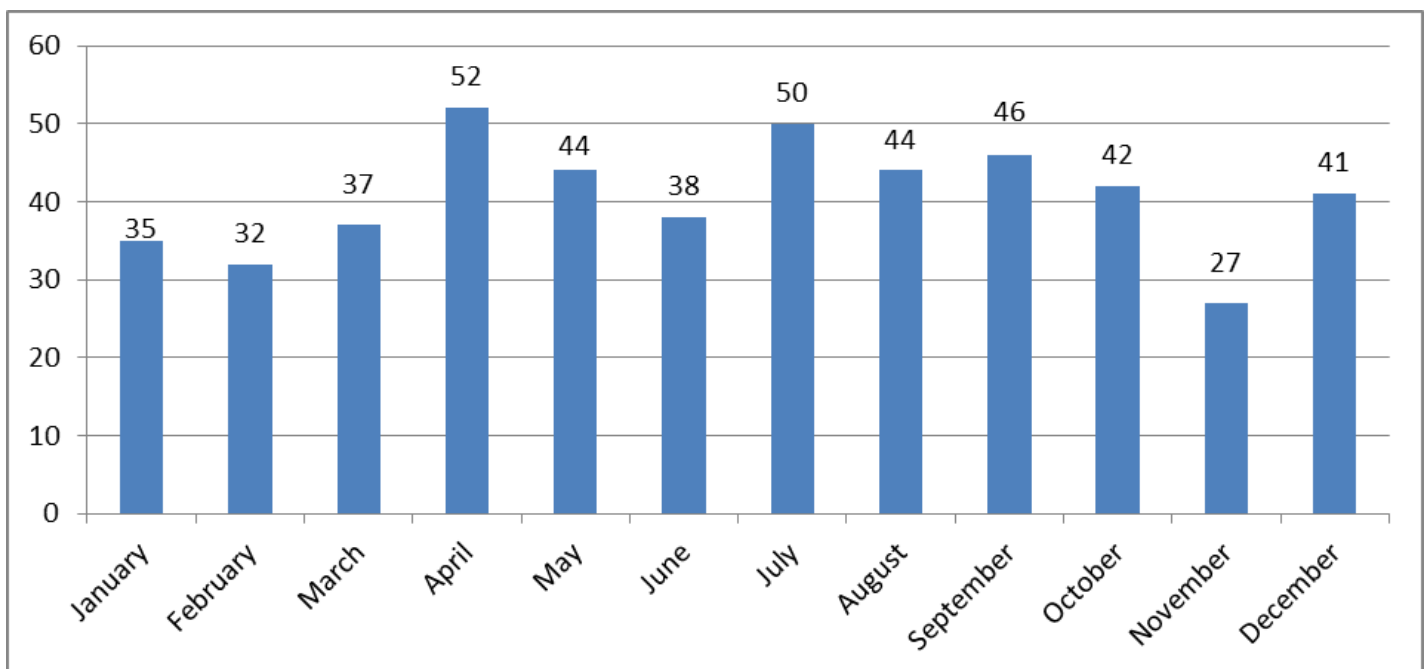


Figure 4. Drug Deaths by Month



2017 Drug Summary

Drug Deaths By County

Figure 5 shows the number of drug deaths by location (county) of where the overdose occurred, which is based on information obtained from the death investigation. The total number of drug deaths by county of overdose does not match the total number of drug deaths because in one case, the overdose occurred out of state but the death occurred in a New Hampshire hospital. Most drug overdoses occurred in the more populated counties of Hillsborough and Rockingham.

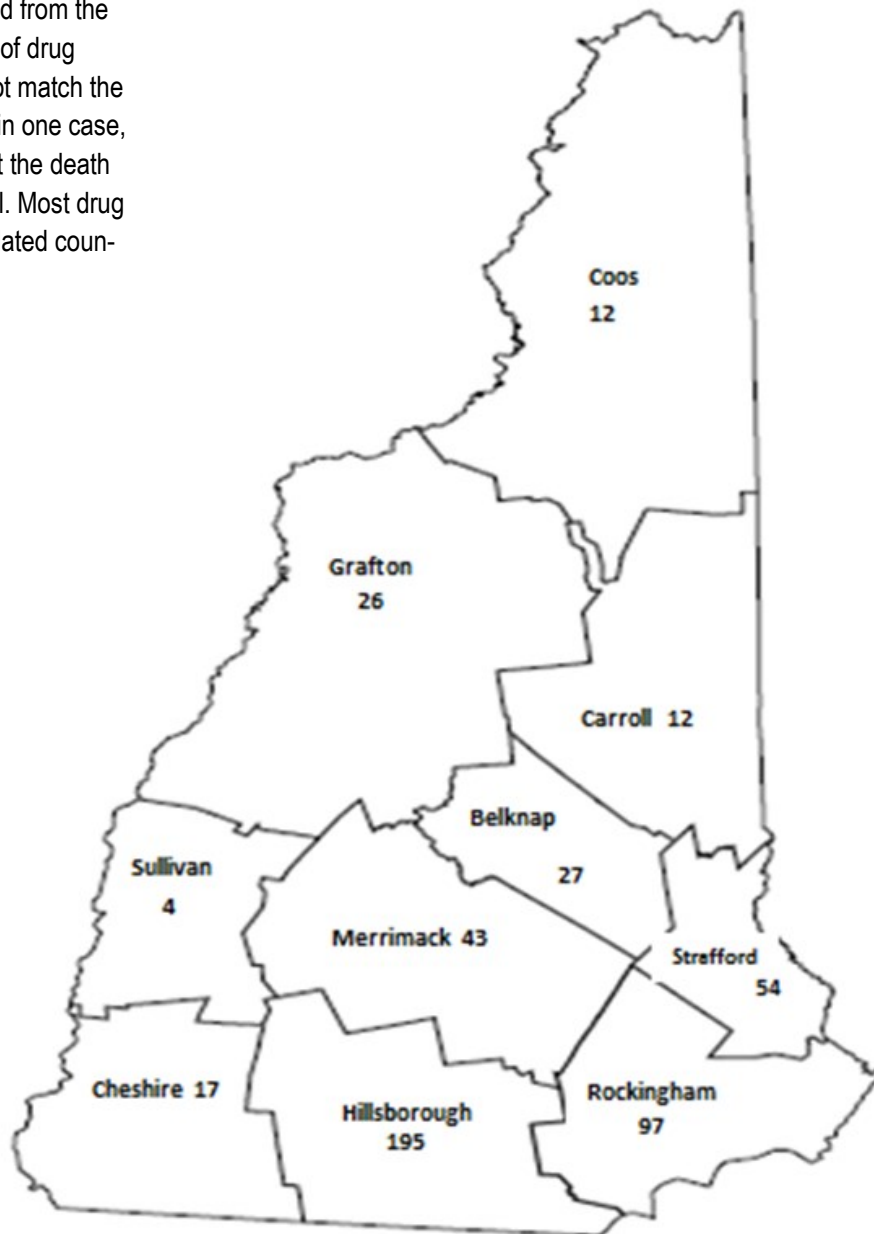


Figure 5. Drug Deaths by County



2017 Drug Summary

Drug Deaths Over the Past 10 Years

Figure 6 shows the number of drug deaths in each of the last 10 years. Drug deaths rose dramatically after 2013.

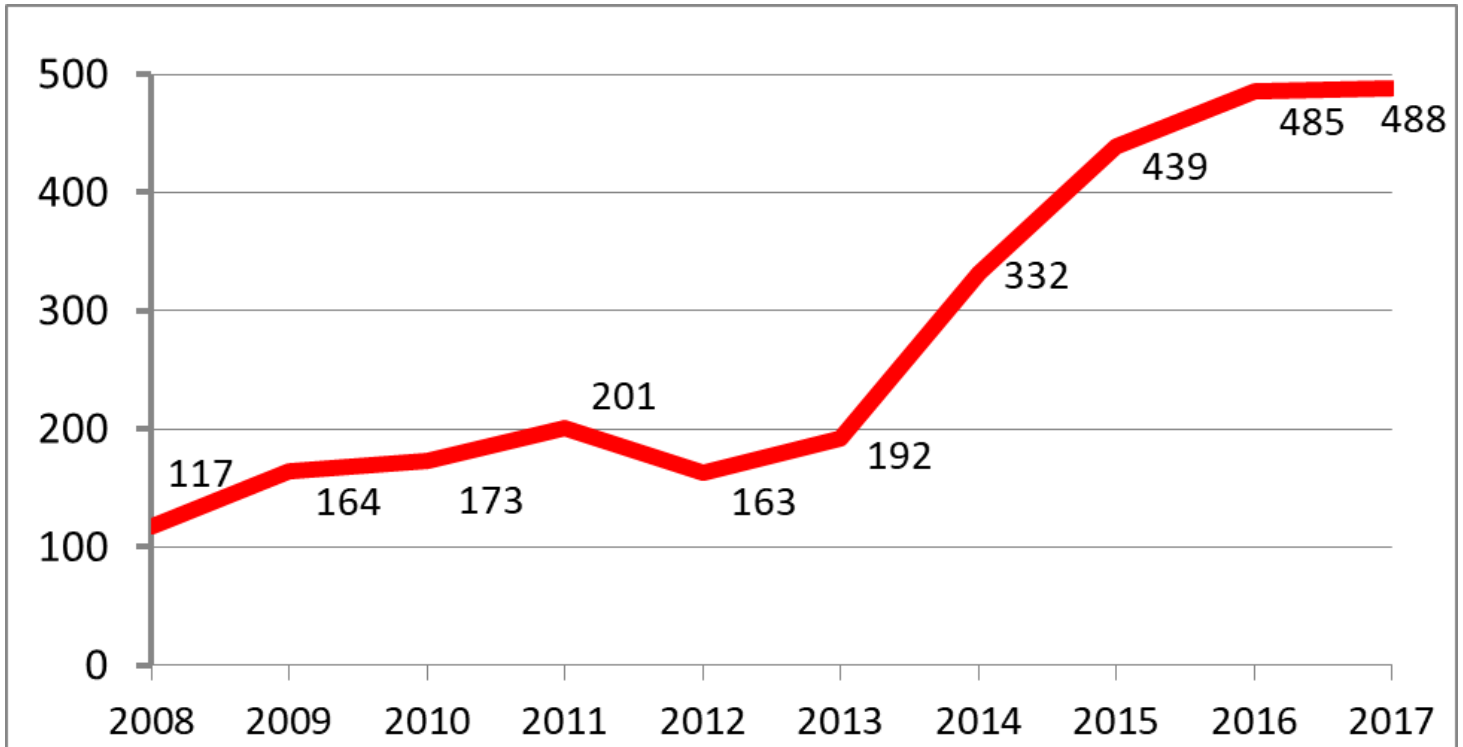


Figure 6. Number of drug deaths (2008 – 2017)

In 2014, there was a 73% increase in drug deaths from the previous year, followed by a 32% increase in 2015 and a 10% increase in 2016. In 2017, the increase was less than 1%. Thus, although the number of deaths has risen in each of the last five years, the data is encouraging in that the rate of increase has fallen dramatically and appears to have plateaued. Not included in these statistics, however, are deaths from other (non-drug) causes while intoxicated by drugs.