

Wisconsin Death Report: Drug Overdose Deaths

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INTRODUCTION

This report presents information about deaths that occurred in 2017 among Wisconsin residents. Information from previous years (2008 onward) is also presented to show changes over time. This report includes information on the number and rate of deaths, demographic characteristics of the decedents, such as age and race/ethnicity, characteristics of deaths by geographic location, and disposition of bodies.

Mortality data presented in this report are primarily based on the underlying cause of death, which the World Health Organization defines as “the disease or injury that initiated the train of morbid events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury.”¹

County and state rates in the report are age-adjusted rates per 100,000 or 10,000 population using the 2000 U.S. standard population.

Beginning September 1, 2013, Wisconsin began collecting data using a new web-based data entry system for funeral directors, medical examiners, coroners, and certifying physicians. The new system adopted the 2003 U.S. Standard Certificate of Death. Many changes have been made to the data collection process; some information is no longer collected, new information has been added, and some data definitions have been altered. Please refer to the technical notes for a more complete description of these changes.

All data refer to Wisconsin residents unless otherwise noted. Also, the information presented is based on the place of residence, which means that events have been assigned to the area where the person lived (usually legal residence) regardless of where the events occurred.

The cancer mortality data in this report are classified differently from what appears in publications from the Wisconsin Cancer Reporting System (WCRS) (<https://www.dhs.wisconsin.gov/wcrs/data-pubs.htm>) and its public use interactive query systems: WISH Query on Cancer Mortality (<https://wish.wisconsin.gov/cancer/mortality.htm>) and Cancer-Rates.Info (<https://www.cancer-rates.info/wi/>). WCRS follows the National Cancer Institute’s definition of mortality cancer site groupings which are defined consistently over time to facilitate reporting of long-term cancer mortality trends (https://seer.cancer.gov/codrecode/1969_d03012018/index.html). Due to this different site group classification used by WCRS, the numbers in this report may not match the numbers found in the WCRS cancer-specific query modules or publications.

Note: Due to differences in cutoff dates and out-of-state reporting, U.S. rates for 2017 were from provisional data available from the National Center for Health Statistics. Provisional rate estimates were not available separated by sex.

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1 <http://www.who.int/topics/mortality/en/>

DRUG OVERDOSE DEATHS

Drug overdose deaths continue to increase in Wisconsin and disproportionately affect working-age adults, males, and Non-Hispanic African Americans.

A drug overdose is a poisoning by drugs or medicine, legally or illegally, taken in a higher amount than normally used or prescribed. These drugs are byproducts of or chemically similar to naturally occurring substances. For example, morphine is a byproduct of opium (opiate), harvested from naturally occurring poppy plants, while oxycodone is semi-synthetic (opioid) in which the chemical structure resembles and acts like morphine. The drug overdose death epidemic continues in the U.S. and Wisconsin. Overall in Wisconsin, the age-adjusted rates of drug overdose deaths is 21.2, having doubled (107 percent increase) from 2008 to 2017 (Figure 14). Drug overdose deaths increased by over 10 percent in the past year, from 1,031 deaths in 2016 to 1,171 deaths in 2017, with a 14 percent increase in the age-adjusted mortality.

Figure 14. Age-adjusted rate of drug overdose deaths for the United States and Wisconsin

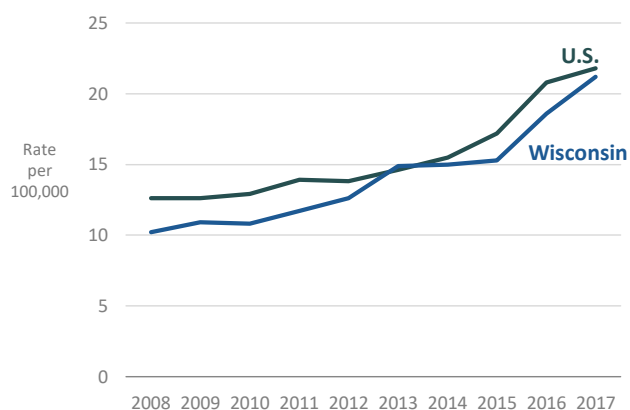


Table 11. Number of drug overdose deaths and age adjusted rates by demographics, 2017

Demographics	Total deaths	Percent of deaths	Crude rate per 100,000 population	Age-adjusted rate per 100,000 population
Age				
Less than 5	<5	-	-	N/A
5 to 17	<5	-	-	N/A
18 to 25	119	11.8%	21.6	N/A
26 to 64	993	82.1%	33.2	N/A
65 and older	52	5.0%	5.5	N/A
Sex				
Female	431	36.8%	14.8	15.4
Male	740	63.2%	25.7	26.7
Race/Ethnicity				
Non-Hispanic White	928	79.2%	19.5	20.7
Non-Hispanic African American	137	11.7%	34.3	38.6
Non-Hispanic Native American	33	2.8%	57.7	59.6
Non-Hispanic Asian/Pacific Islander	8	0.7%	4.6	3.8
Hispanic	63	5.4%	15.8	16.5
DHS Region				
Northeastern	176	15.1%	14.1	15.0
Northern	58	5.0%	11.9	13.2
Southeastern	607	51.9%	28.6	29.4
Southern	227	19.4%	20.0	20.6
Western	101	8.6%	12.8	13.4

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The demographic distribution for drug overdose deaths shows that working-age adults experienced a higher burden of drug overdose deaths. The drug overdose mortality rate was six times higher among people ages 26-64 compared to the 65 and older age group, and a third higher compared to those in the 18- to 25-year-old age group. The death rate for those aged 26-64 increased 18 percent since 2016. Males experienced 73 percent higher age-adjusted mortality rates for drug overdose than females, and the male rate increased 14 percent since 2016. African Americans had a higher age-adjusted mortality rate for drug overdose compared to Whites, and Native Americans have the highest mortality rate. The Southeastern region continues to have the highest age-adjusted mortality rate in the state.

Illicit drugs (heroin and cocaine) were the leading cause of drug overdose deaths followed by other drugs, including fentanyl. Before 2012, illicit drugs were the third leading cause of drug overdose deaths in Wisconsin, but they have been steadily increasing each year since then. After 2013, illicit drug deaths surpassed other types of drug deaths and became the leading cause of drug overdose deaths. Illicit drug deaths increased 27 percent in the last year. Other drug deaths have been increasing since 2014, and increased 17 percent from 2016 to 2017.

Figure 15. Number of drug overdose deaths and age-adjusted rates by demographics, 2017

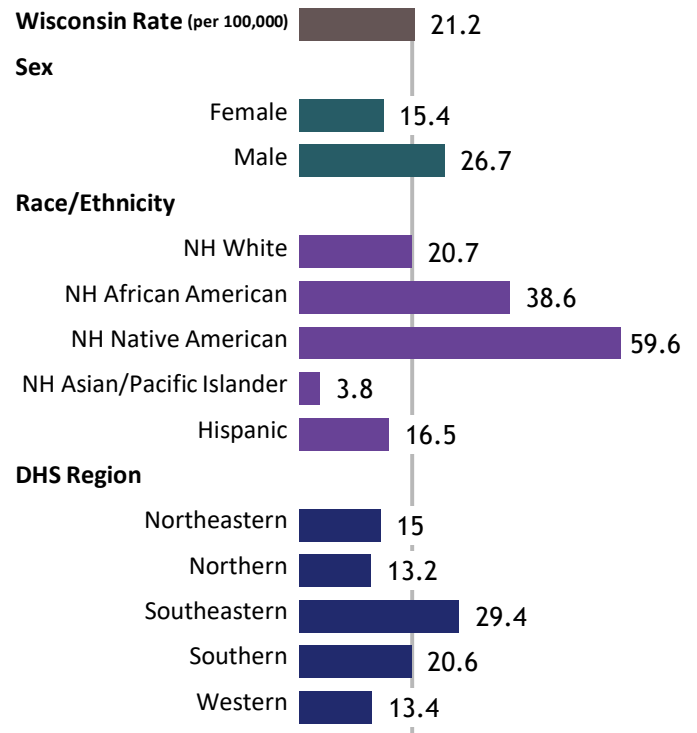
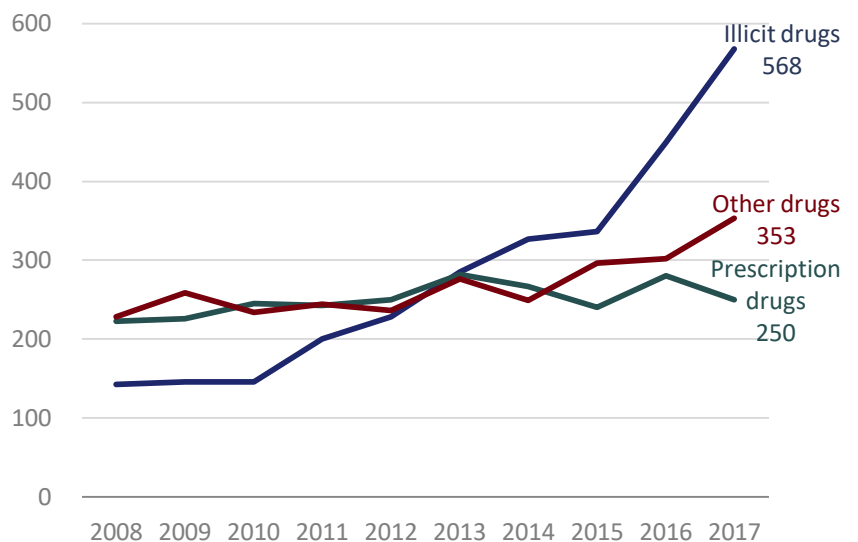


Figure 16. Number of drug overdose deaths by type of drug

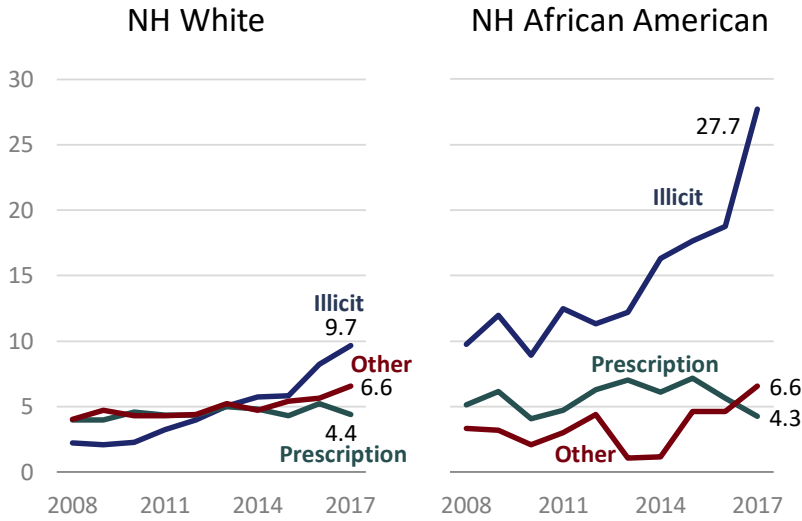


Illicit Drugs	Opium, heroin, and cocaine
Prescription Drugs*	Natural and semi-synthetic opioids e.g. codeine, methadone
Other Drugs*	Fentanyl and synthetic opioids, stimulants, benzodiazepines, and unspecified drugs

* All data in this table have been updated to reflect the new classification of synthetic opioids as "Other Drugs" not "Prescription Drugs."

DRUG OVERDOSE DEATHS

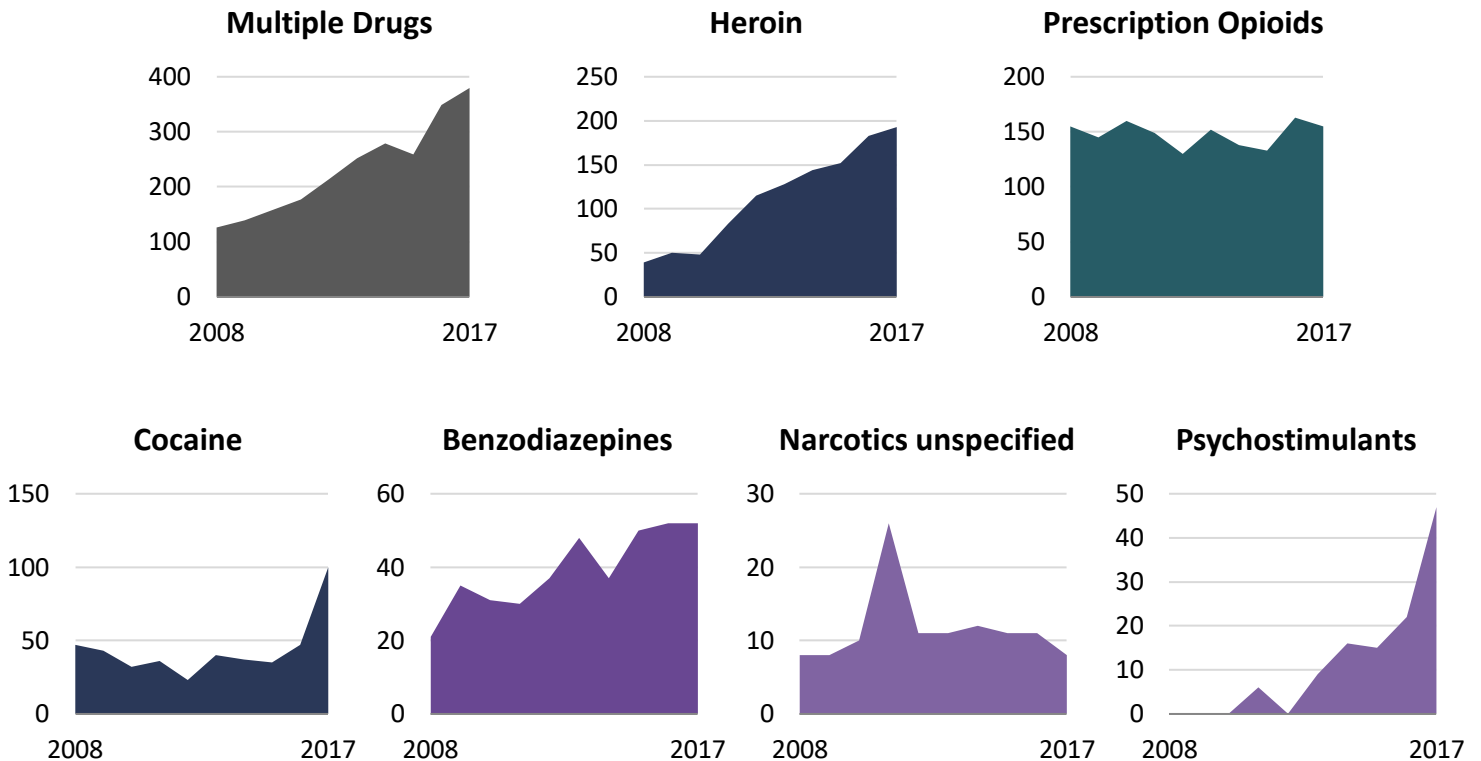
Figure 17. Age-adjusted drug overdose deaths, by drug type and race/ethnicity



In 2017, there were 137 drug overdose deaths to African Americans, with a death rate of 38.6, almost twice as high as that for Whites. For illicit drugs, the drug overdose mortality rate for Whites increased 18 percent. However, among African Americans, the increase was 48 percent, almost doubling. From 2008 to 2017, other drug mortality rates increased by 63 percent among Whites. During this same time, the rate of drug overdose deaths for other drugs increased by 97 percent for African Americans, nearly doubling.

There continued to be a sharp increase in drug overdose deaths from multiple drugs, up 9 percent in the last year and over 200 percent in the past 10 years. There was a slight increase in heroin deaths in the past year; over the past 10 years, heroin deaths have tripled. Deaths due to prescription drugs (not including fentanyl) have been relatively stable, though they remain in the top three drug-related deaths. Finally, deaths due to cocaine and other psychostimulants have increased; cocaine deaths have more than doubled from 40 in 2013 to 100 in 2017, and other psychostimulant deaths have quadrupled from under 10 in 2013 to 47 in 2017 (Figure 18).

Figure 18. Number of drug overdose deaths by drug type



DRUG OVERDOSE DEATHS

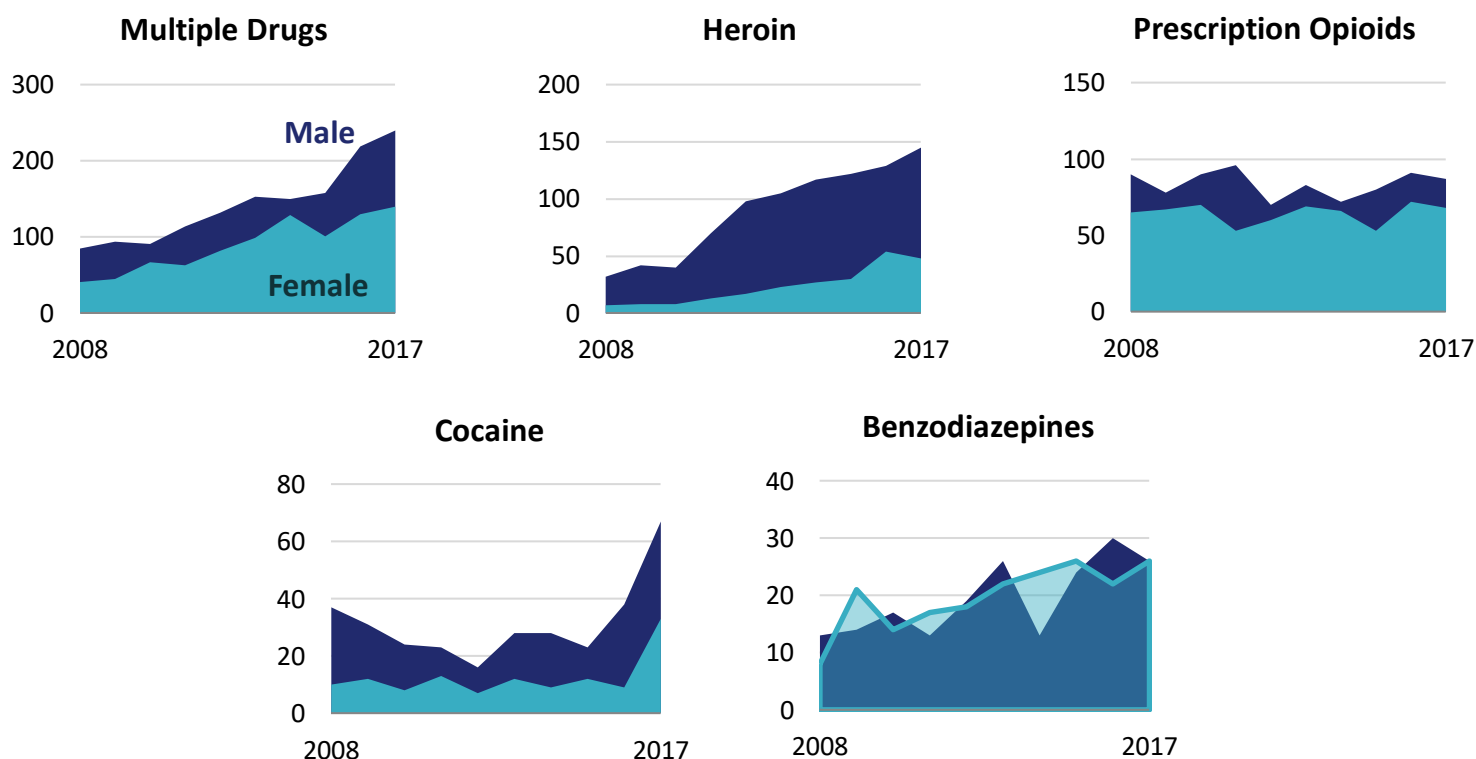
Table 12. Number of drug overdose deaths by drug type and sex, 2017

Drug Type	Male		Female		Total	
	N	%	N	%	N	%
Multiple Drugs	240	32%	140	32%	380	Multiple Drugs (32%)
Heroin	145	20%	48	11%	193	Heroin (16%)
Prescription Opioids	87	12%	68	16%	155	Prescription Opioids (13%)
Cocaine	67	9%	33	8%	100	Cocaine (9%)
Benzodiazepines	26	4%	26	6%	52	Benzodiazepines (4%)
Psychostimulants	29	4%	18	4%	47	Psychostimulants (4%)
Narcotics Unspecified	<5	-	<5	-	8	Narcotics Unspecified (1%)
Unknown	142	19%	94	22%	236	Unknown (20%)
Total	740	100.0%	431	100.0%	1,171	100.0

For both males and females, death from multiple drugs was the leading cause of drug death. Heroin alone was the second leading cause of drug death for males and the third leading cause for females (20 percent vs. 11 percent). However, prescription opioid-only deaths made up a greater proportion of the overdose deaths for females than males (16 percent vs. 12 percent) (Table 12). Nearly two-thirds of all drug overdose deaths in 2017 were male.

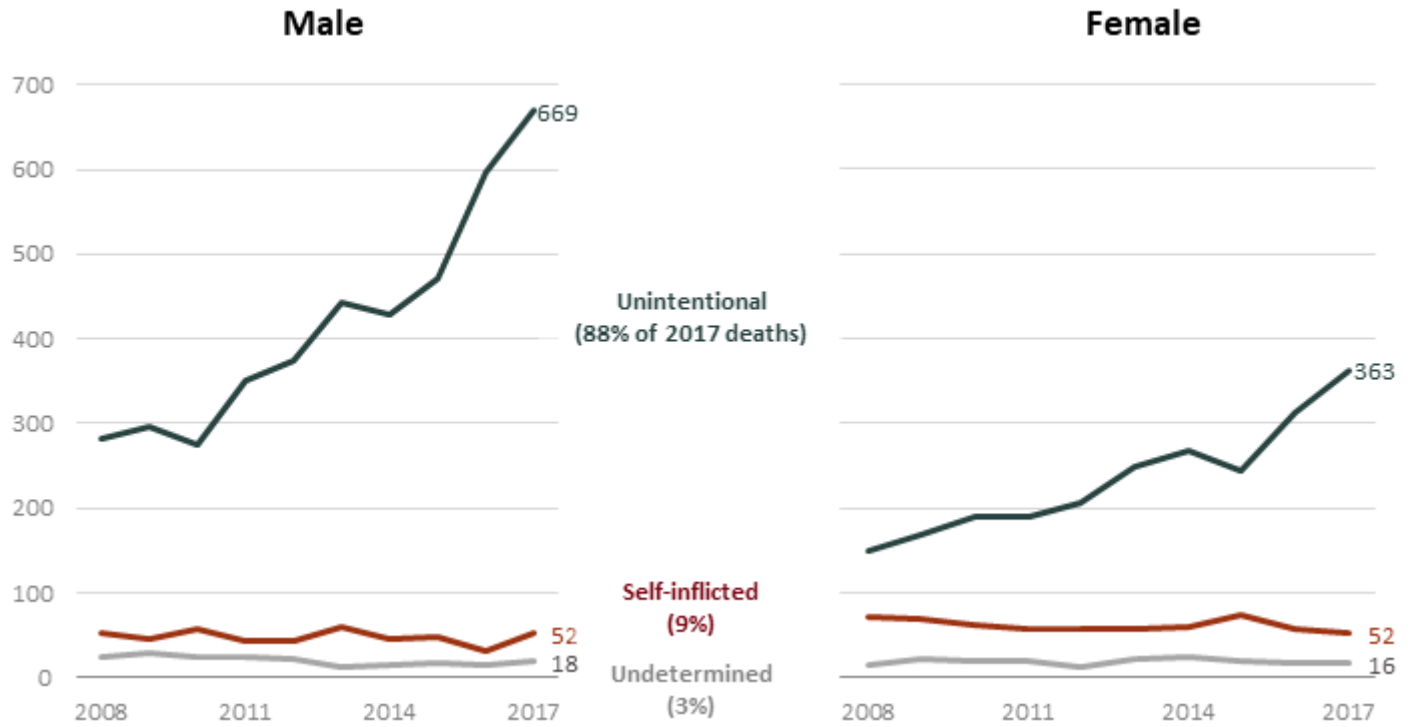
Looking at the trend over time, the total number of drug overdose deaths, particularly from multiple drugs, heroin alone, and cocaine alone, have been on the rise for both males and females. These deaths are rising faster for males than females. The number of deaths due to prescription opioids alone were relatively stable in Wisconsin in both males and females (Figure 19).

Figure 19. Number of drug overdose deaths, by type and sex



DRUG OVERDOSE DEATHS

Figure 20. Number of drug overdose deaths, by intent and sex



The vast majority (88 percent) of drug overdose deaths are unintentional, with only one in 11 deemed purposeful and self-inflicted. Over the past 10 years, the number of unintentional drug overdose deaths have significantly increased for both males and females. There were 281 unintentional drug overdose deaths for males in 2008 and 669 in 2017, a 138 percent increase. For females, there were 149 deaths in 2008 and 363 in 2017, a 144 percent increase. In just the past year, Wisconsin had 12 percent more unintentional drug deaths for males and 16 percent more for females. Among males, there was no change in the number of self-inflicted drug overdose deaths (suicide) over the last decade, though female suicides by drug overdose decreased by about one quarter (Figure 20).

DRUG OVERDOSE DEATHS

In 2017, the highest drug overdose mortality rates were in St. Croix, Lincoln, and Shawano counties. The lowest mortality rates were seen in Ozaukee, Manitowoc, and Fond du Lac counties (Map 5).

In 2016, there were 30 counties with under five drug overdose deaths. By 2017, there were only seven counties with fewer than five drug overdose deaths including Buffalo, Iowa, Iron, Menominee, Pepin, Richland, and Rusk. All counties in Wisconsin are effected by this drug overdose epidemic.

Map 5. Age-adjusted mortality rate (per 10,000) for drug overdose cause of death by county, 2017

