Drug Overdose Deaths among Minnesota Residents

2000-2018

Drug Overdose Deaths among Minnesota Residents, 2000 – 2018

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Rising drug overdose deaths

Key Findings

- Despite statewide data showing a decrease in drug overdose and opioid-involved overdose deaths from 2017 to 2018, they remain at historically high numbers.
- Synthetic opioids (e.g., fentanyl) are now involved in the greatest number of deaths, surpassing commonly prescribed opioids.
- From 2017 to 2018, psychostimulant-involved deaths (e.g., methamphetamine) deaths slightly increased, while benzodiazepine- and cocaine-involved deaths decreased.

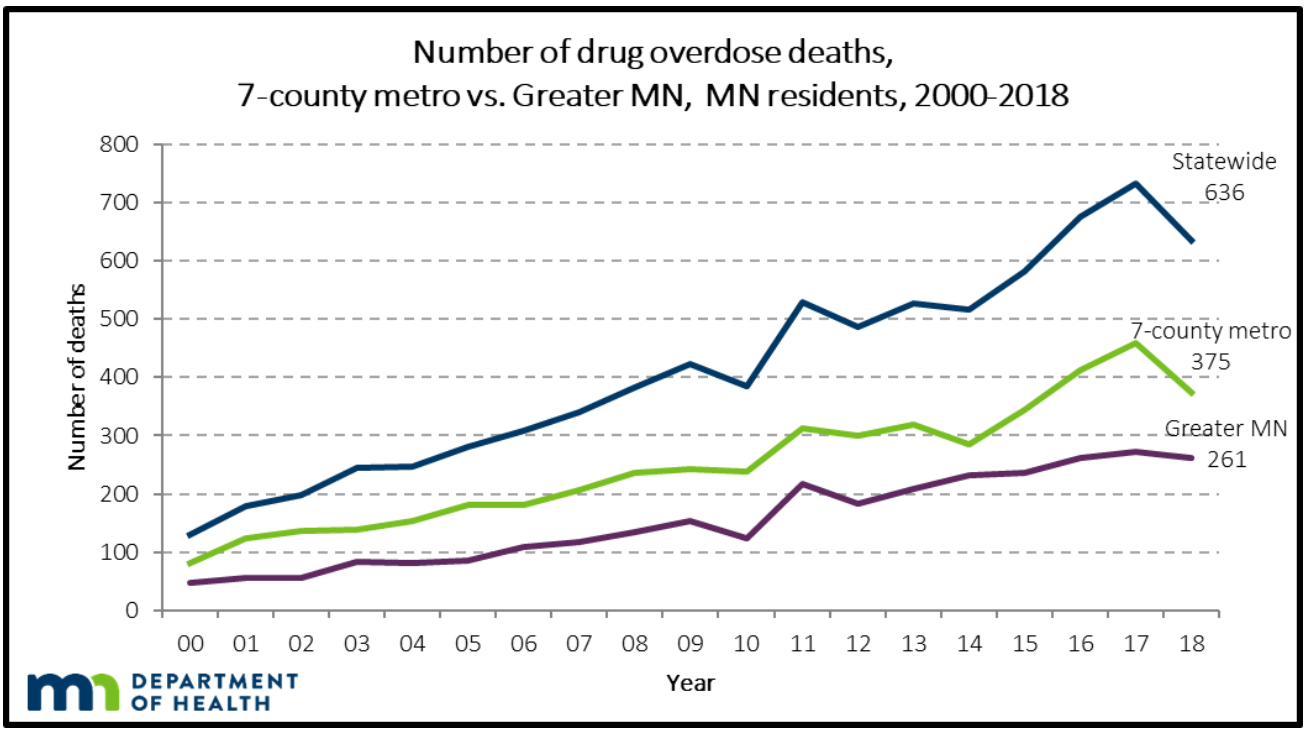
Seven-county Metro compared to Greater Minnesota

Drug overdose deaths among Minnesota residents decreased 13% from 2017 to 2018. Final data collected from Minnesota death certificates show 636 people died from a drug overdose in 2018 compared to 733 deaths in 2017 (chart 1).

Drug overdose deaths are not just a problem in the Seven-county Metro (the Metro). Mortality rates in both Greater Minnesota and the Metro have increased since 2000, when they were both less than 3.0 per 100,000 residents (chart 2). However, beginning in 2014, trends in the number and rate of drug overdose deaths have not followed the same pattern for the Metro and Greater Minnesota. Data from 2018 show the number of drug overdose deaths in the Metro decreased sharply, while the number of drug overdose deaths in Greater Minnesota decreased modestly. The 2018 the drug overdose mortality rate for the Metro of 12.1 per 100,000 residents is higher than the Greater Minnesota rate of 10.4 per 100,000 residents; however, the rate difference decreased between the two regions.

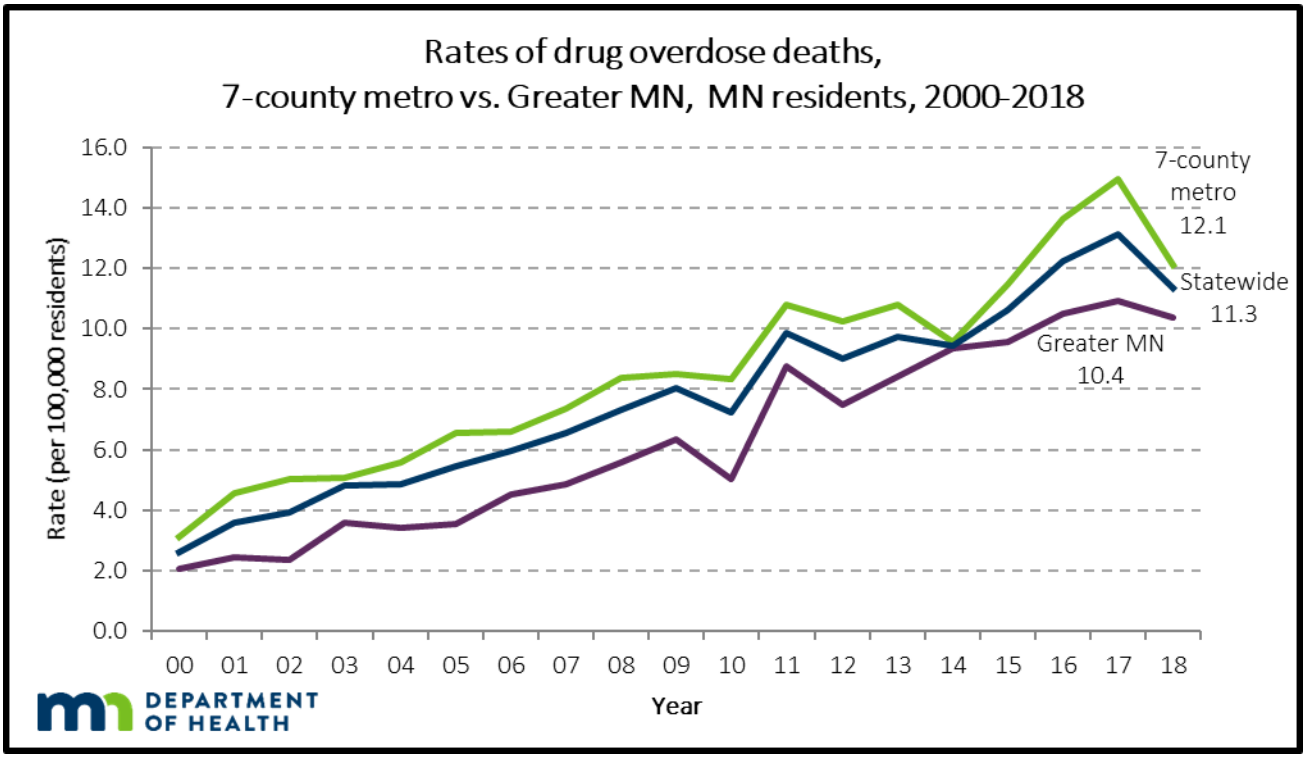
For county-specific data, refer to Appendix 1.

CHART 1: The number of drug overdose deaths decreased, marking a change in the long-term trend seen since 2000



SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2000-2018

Chart 2. Rate of drug overdose deaths among Minnesota Residents decreased in 2018, marking a change seen in the long-term trend since 2000



SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2000-2018

Shifts in drug overdose death trends

Data for 2018 shows that two of the seven drug categories below continued to show increasing trends in fatal overdoses – synthetic opioids and psychostimulants.

In 2018, there were 343 opioid-involved deaths (including prescription opioids, heroin, and synthetic opioids) (chart 3). This includes:

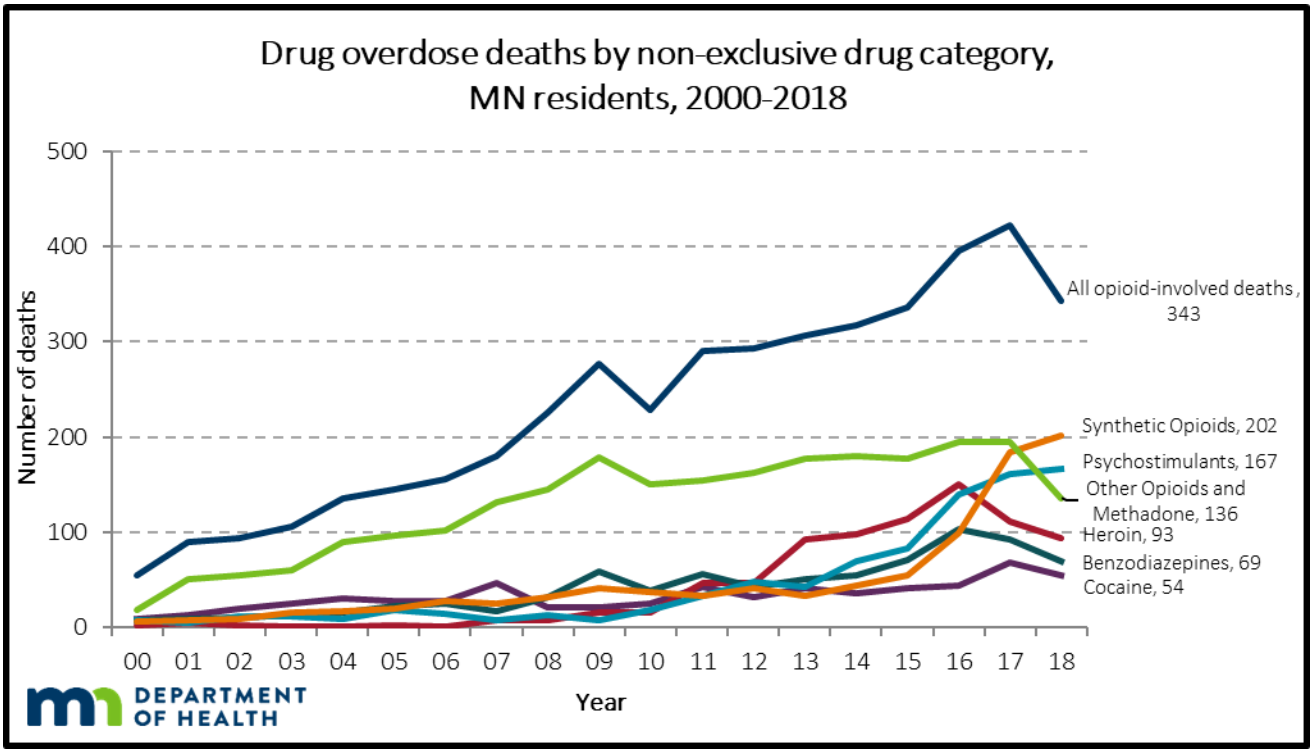
- 136 other opioids and methadone-involved deaths (i.e. commonly prescribed opioids)
- 202 synthetic opioid-involved deaths
- 93 heroin-involved deaths

In addition, there were:

- 167 psychostimulant-involved deaths (e.g., methamphetamine)
- 69 benzodiazepine-involved deaths (e.g., Valium)
- 54 cocaine-involved deaths.

For further information about definitions and methodology, refer to Appendix 3

CHART 3: Drug overdose deaths due to synthetic opioids and psychostimulants continue to rise



SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2000-2018
NOTE: Drug categories are non-exclusive
NOTE: Synthetic opioids include fentanyl; psychostimulants includes methamphetamine

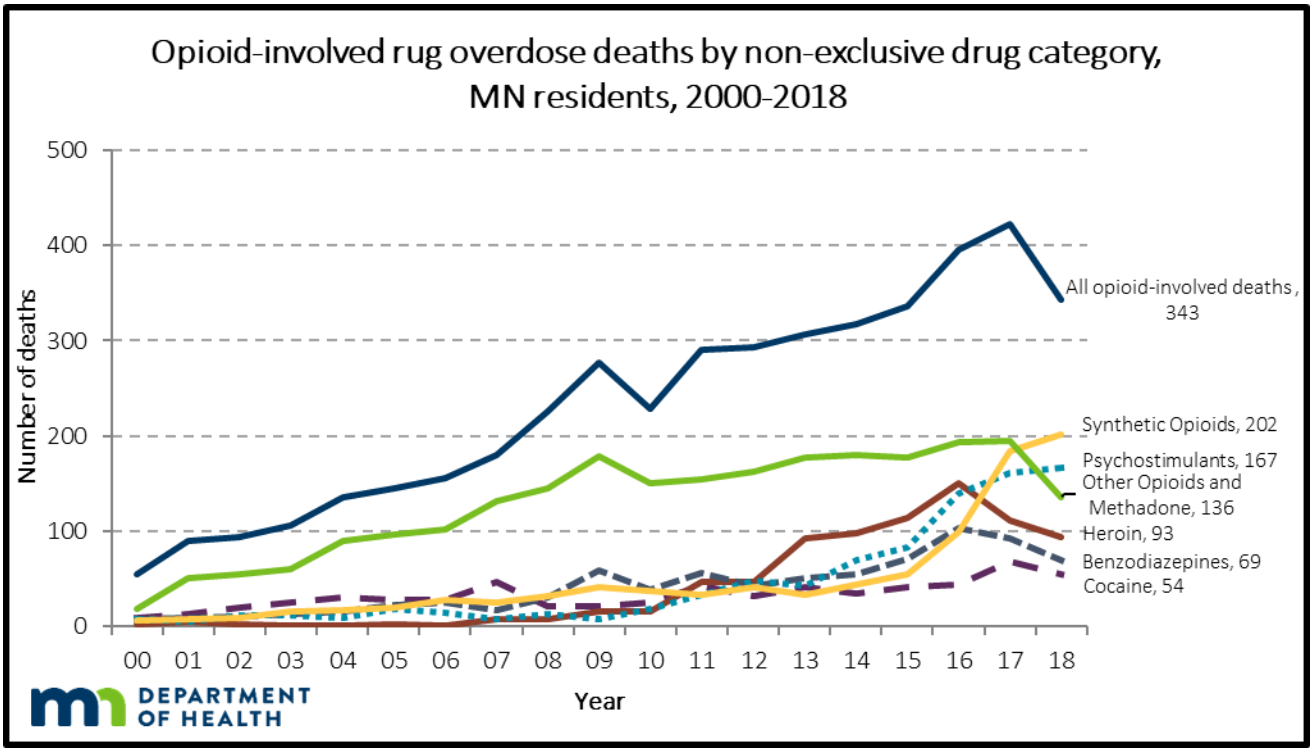
Opioid-involved drug overdose deaths

In recent years, the increase in opioid-involved overdose deaths has been mostly due to synthetic opioids (e.g., fentanyl, fentanyl analogues) and shifted away from other opioids and methadone (i.e. commonly prescribed opioids) (chart 4).

In 2018, opioid-involved deaths declined for the first time since 2010, totaling 343 deaths; a 19% decrease from 2017. The number of drug overdose deaths that involved other opioids and methadone (i.e. commonly prescribed opioids, such as codeine, oxycodone, or hydrocodone) declined for the first time in the past five years, down 30% from 2017. Heroin-involved overdose deaths continued to decrease, showing a 16% decline from 2017. Synthetic opioid-involved deaths continued to increase, going up 10% from 2017. Drug overdose deaths that involved fentanyl or fentanyl analogues are included within this broader category of synthetic opioids.

Unfortunately, due to limitations of reporting on death certificates, it is not possible to determine whether the opioids involved in a drug overdose death originated from a legal source like a prescription or an illegal source, apart from heroin. What could have started out as a legal prescription may have been diverted to eventually be sold or diverted illegally. Additionally, counterfeit pills are being produced with increased accuracy, and without lab testing, it can be difficult to tell these apart from legally produced and distributed opioids. Increasingly, more novel synthetic opioids are also being developed and distributed. These require sophisticated toxicology testing to detect, which is resource intensive in time and funding. Because of these factors, there is the potential for significant overlap between these drug categories, making it difficult to differentiate whether an overdose death was caused by a drug obtained from a legal prescription or an illegal source. Comprehensive toxicology testing for every drug overdose death is needed to determine which drugs are involved in the overdose death.

CHART 4: All opioid-involved overdose deaths decreased, with synthetic opioid-involved deaths now the leading drug category, marking a change in the long-term trend seen since 2000



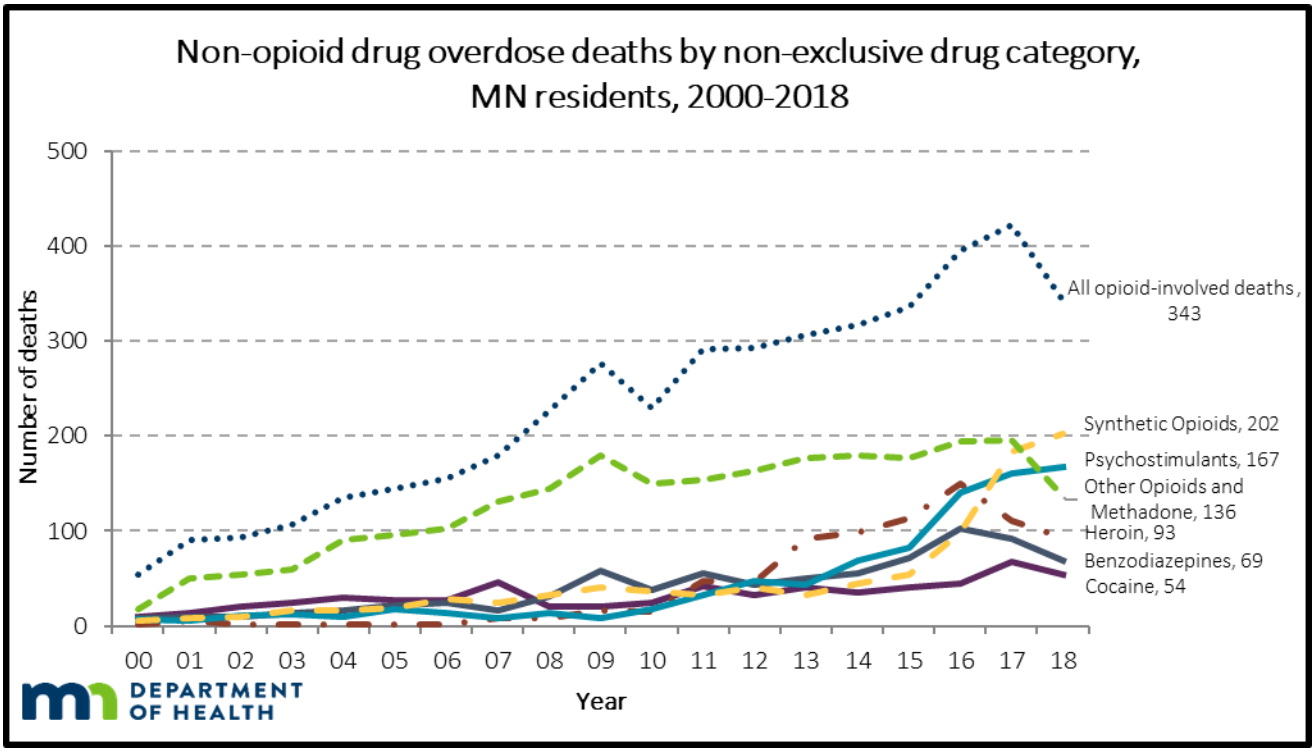
SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2000-2018
NOTE: Drug categories are non-exclusive
NOTE: Synthetic opioids include fentanyl

Beyond opioid-involved overdose deaths

As previously mentioned, deaths related to non-opioids have also been increasing. Trends in psychostimulant-involved overdose deaths, primarily driven by methamphetamine, have nearly paralleled synthetic opioid-involved overdose deaths and increased 4% from 2017 to 2018 (chart 5). Benzodiazepine-involved deaths started to decrease in 2016 and continued that trend in following years with a decrease of 25% from 2017 to 2018. Cocaine-involved deaths decreased 21% from 2017 to 2018.

As efforts to prevent opioid overdose continue and expand, trends in drug overdose deaths beyond opioids need examination in close detail. Most drug overdose deaths in Minnesota - 70% in 2018 - involved multiple substances, and the continued increase in psychostimulant-involved (e.g., methamphetamine) overdose deaths calls for overdose prevention strategies with a broader focus.

CHART 5: Psychostimulant-involved deaths slightly increased in 2018, while benzodiazepine- and cocaine-involved deaths decreased



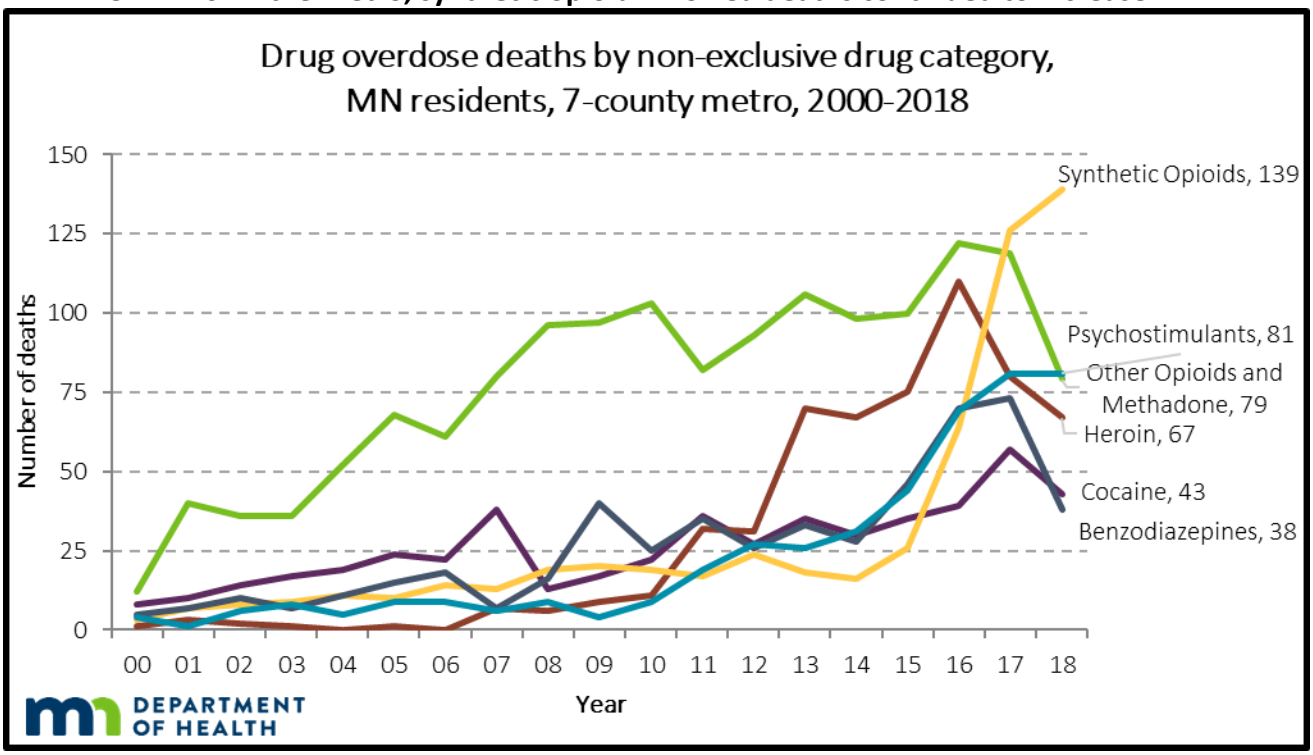
SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2000-2018
NOTE: Drug categories are non-exclusive
NOTE: Psychostimulants include methamphetamine

The Metro compared to Greater Minnesota

- Both the Metro and Greater Minnesota continued to see a rise in synthetic opioid-involved deaths, surpassing other opioids and methadone-involved deaths (i.e., commonly prescribed opioids).
- Psychostimulant-involved deaths are more of a problem in Greater Minnesota.
- Both areas continued to see a decrease in heroin-involved deaths.
- Different trends emerged for non-opioid involved deaths (i.e., psychostimulants, benzodiazepines, and cocaine).

In the Metro, synthetic opioid-involved deaths continued to rise, increasing 10% from 2017 to 2018. Psychostimulant-involved deaths remained stable. In the remaining drug categories, deaths declined from 2017 to 2018 – cocaine-involved deaths by 25%, other opioids and methadone-involved deaths by 37%, benzodiazepine-involved deaths by 48%, and heroin-involved deaths by 16% (chart 6).

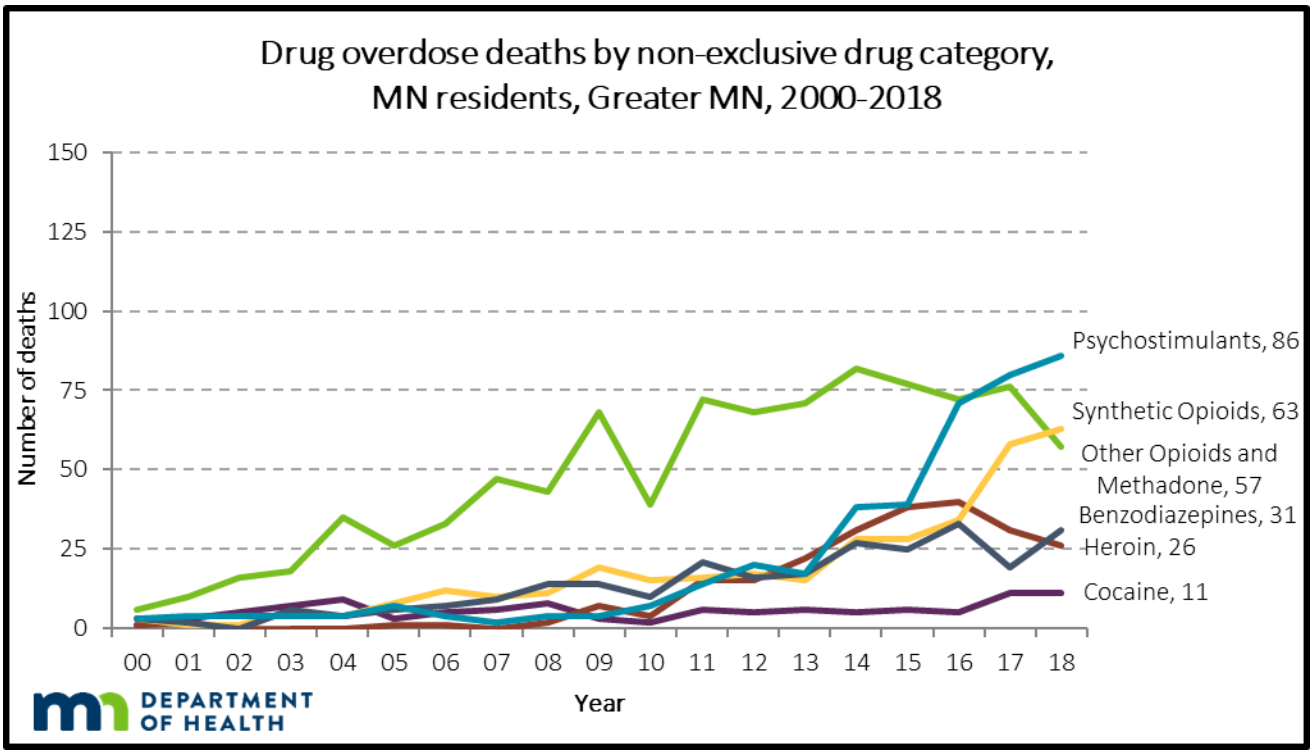
CHART 6: In the Metro, synthetic opioid-involved deaths continued to increase



SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2000-2018
NOTE: Synthetic opioids include fentanyl; psychostimulants includes methamphetamine
NOTE: Drug categories are non-exclusive

In Greater Minnesota, similar to the Metro, synthetic-opioid-involved deaths continued to rise, increasing 9% from 2017 to 2018. Similarly, other opioid and methadone-involved deaths and heroin-involved deaths decreased, 25% and 16% respectively. However, different trends emerge when examining the remaining drug categories. Psychostimulant-involved (e.g., methamphetamine) deaths continued to rise, increasing 8% from 2017 to 2018. Benzodiazepine-involved deaths increased 63%, sharply rising after the decrease in 2017. Cocaine-involved deaths remained stable (chart 7).

CHART 7: In Greater Minnesota, psychostimulant- and synthetic opioid-involved deaths continued to increase

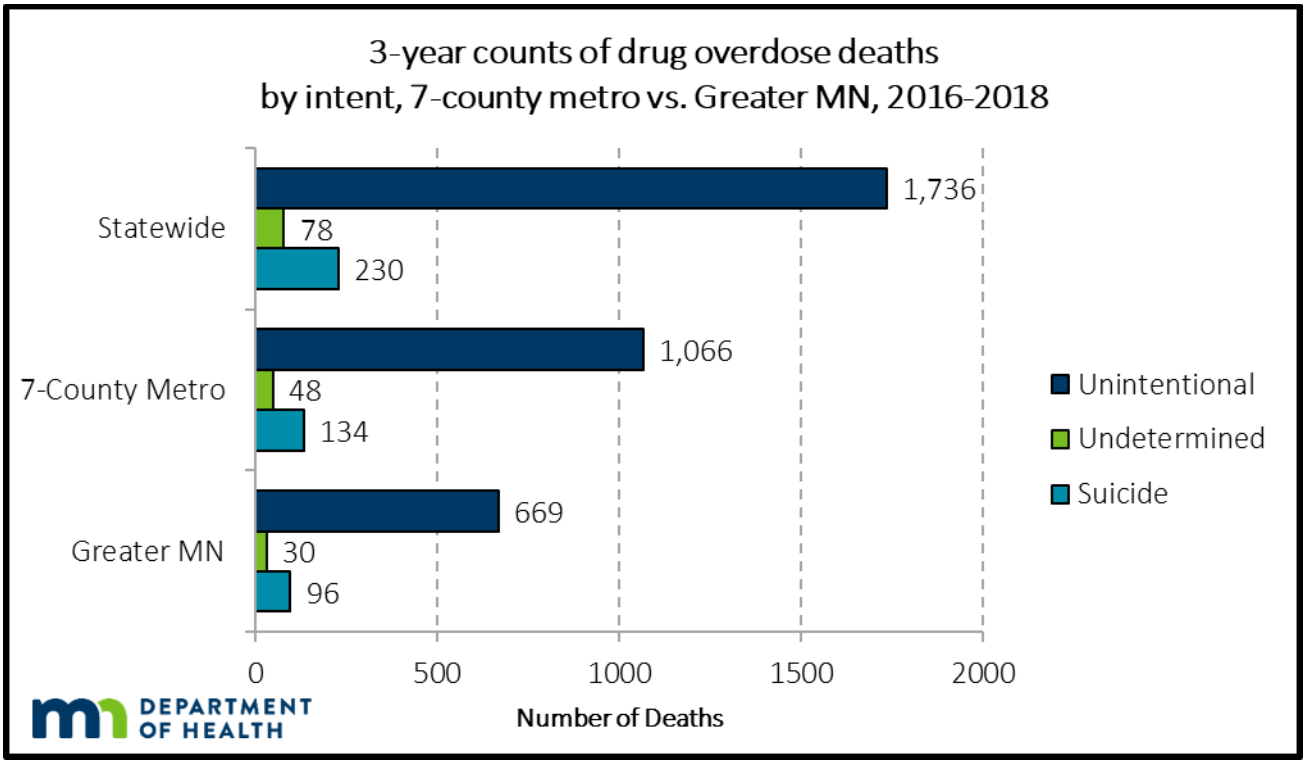


SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2000-2018
NOTE: Synthetic opioids include fentanyl; psychostimulants includes methamphetamine
NOTE: Drug categories are non-exclusive

Intent of drug overdose deaths

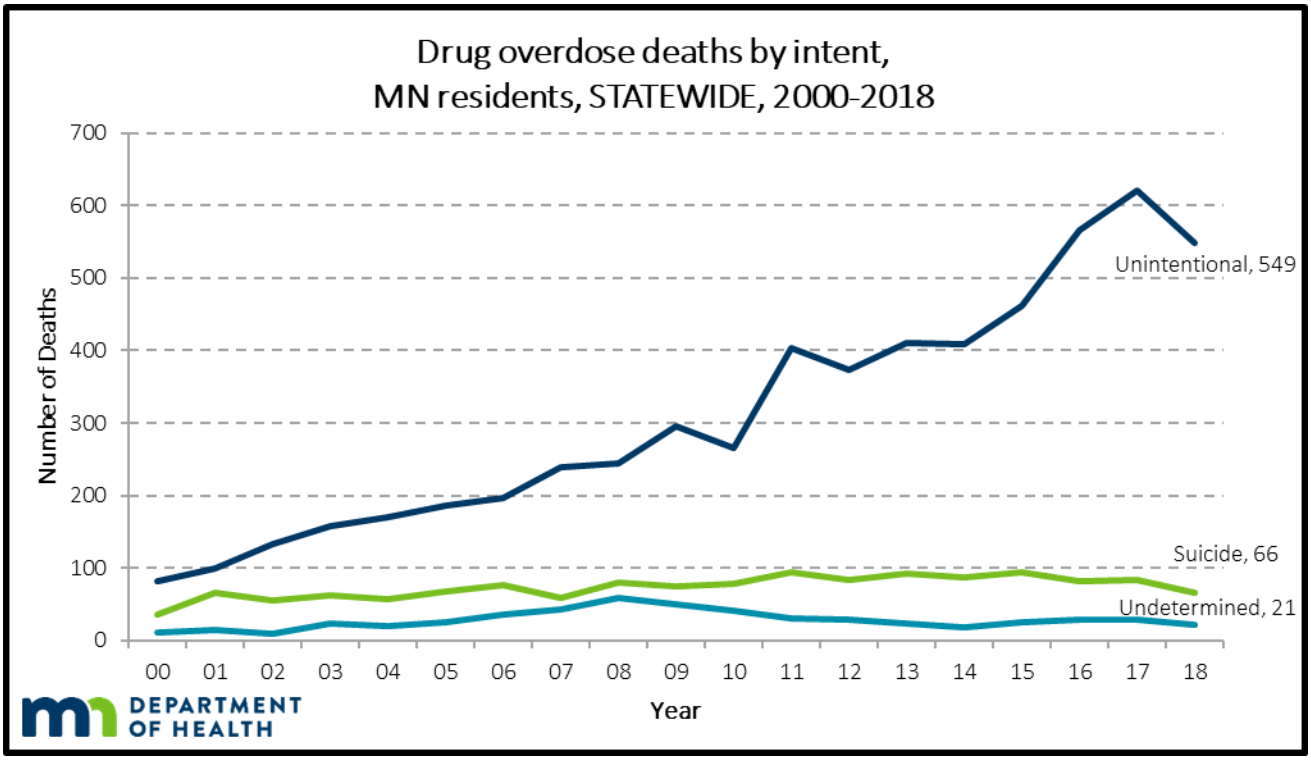
Over the last three years, unintentional, or accidental, drug overdose deaths accounted for a large majority of drug overdose deaths among Minnesota residents (chart 8). Drug overdose deaths classified as a suicide increased from 2000 to 2012, remained stable from 2013-2017, and declined 17% from 2017 to 2018 (chart 9). The number of drug overdose deaths classified as undetermined peaked in 2008, decreased from 2009 to 2014, and remained level since 2014 (chart 9). While multiple factors influence suicidal behavior, substance use, including drugs and alcohol, is a significant risk factor for suicide and suicidal attempts. Therefore, it is likely that there is overlap between unintentional, undetermined, and suicide drug overdose deaths.

CHART 8: Most drug overdose deaths are classified as unintentional



SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2016-2018

CHART 9: Despite a decrease in 2018, unintentional drug overdose deaths still account for a majority of deaths. Suicides slightly decreased and undetermined deaths have remained stable

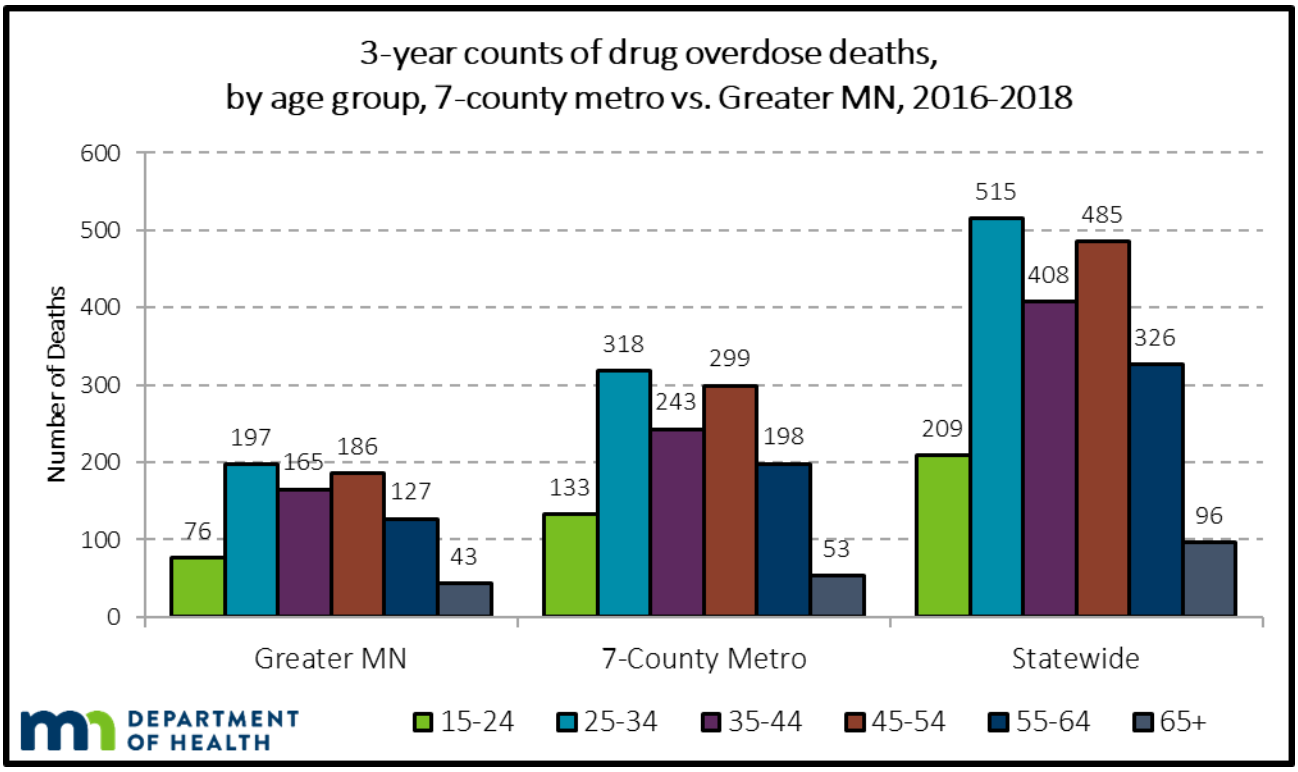


SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2000-2018

Age of drug overdose deaths

From 2016 to 2018, adults aged 25 to 34 years experienced the greatest number of drug overdose deaths (515). The leading age groups in both the Metro and Greater Minnesota were the 25 to 34 year age group, with 318 and 197 deaths respectively (chart 10).

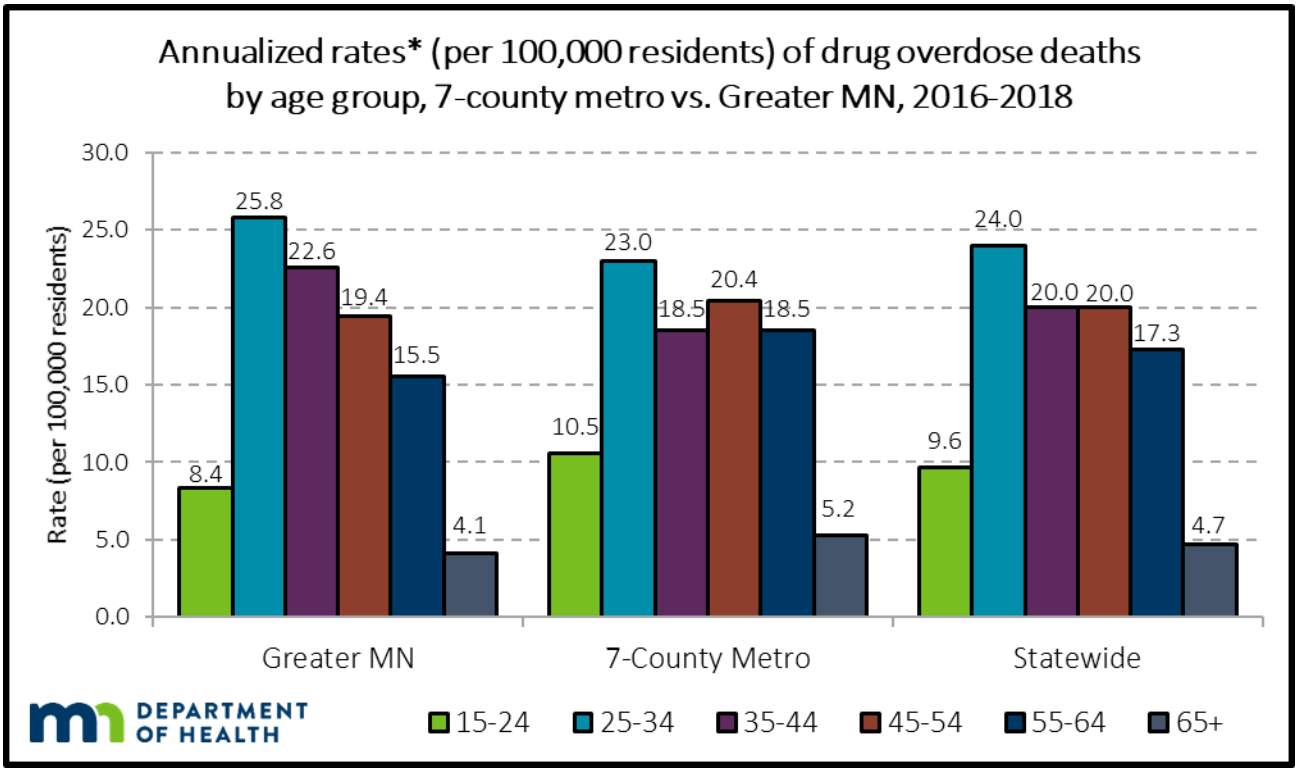
CHART 10: Statewide, adults aged 25 to 34 had the highest number of drug overdose deaths



SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2016-2018

The rates per 100,000 residents portray a consistent picture between the two regions. During the past three years, both Greater Minnesota and the Metro have almost the same pattern. Residents in the 25 to 34 year age group had the highest mortality rate in Greater Minnesota. Residents in the same (25 to 34 year) age group had the highest mortality rate in the Metro at 23.0 per 100,000 residents (chart 11).

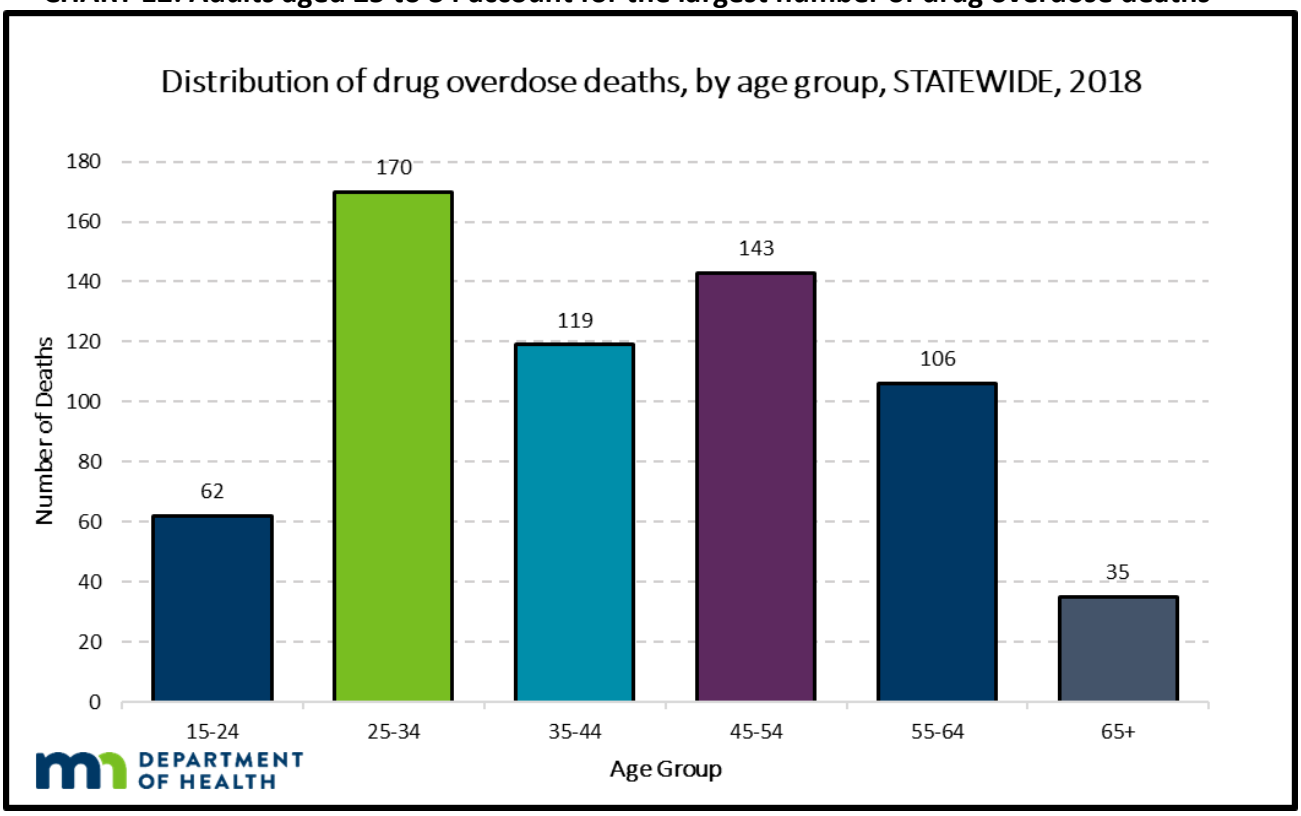
CHART 11: Drug overdose mortality rates by age group resemble each other in Greater Minnesota and the Metro



SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2016-2018
**Crude (unadjusted) rates. 3-year rates calculated using the Census 2010 population.*

The age distribution of drug overdose deaths has shifted between different age groups over the past five years. Adults aged 35 to 54 years used to account for the greatest number of drug overdose deaths, but by 2016, 25 to 34 year olds had the greatest number of drug overdose deaths (chart 12). In 2017, however, a distinct bimodal (i.e. two-peaked) distribution emerged as the result of a large increase in the number of drug overdose deaths among adults aged 45 to 54 years. Now, adults aged 25 to 34 are again the leading age group for drug overdose deaths (chart 12). This trend holds true for both Greater Minnesota and the Metro.

CHART 12: Adults aged 25 to 34 account for the largest number of drug overdose deaths

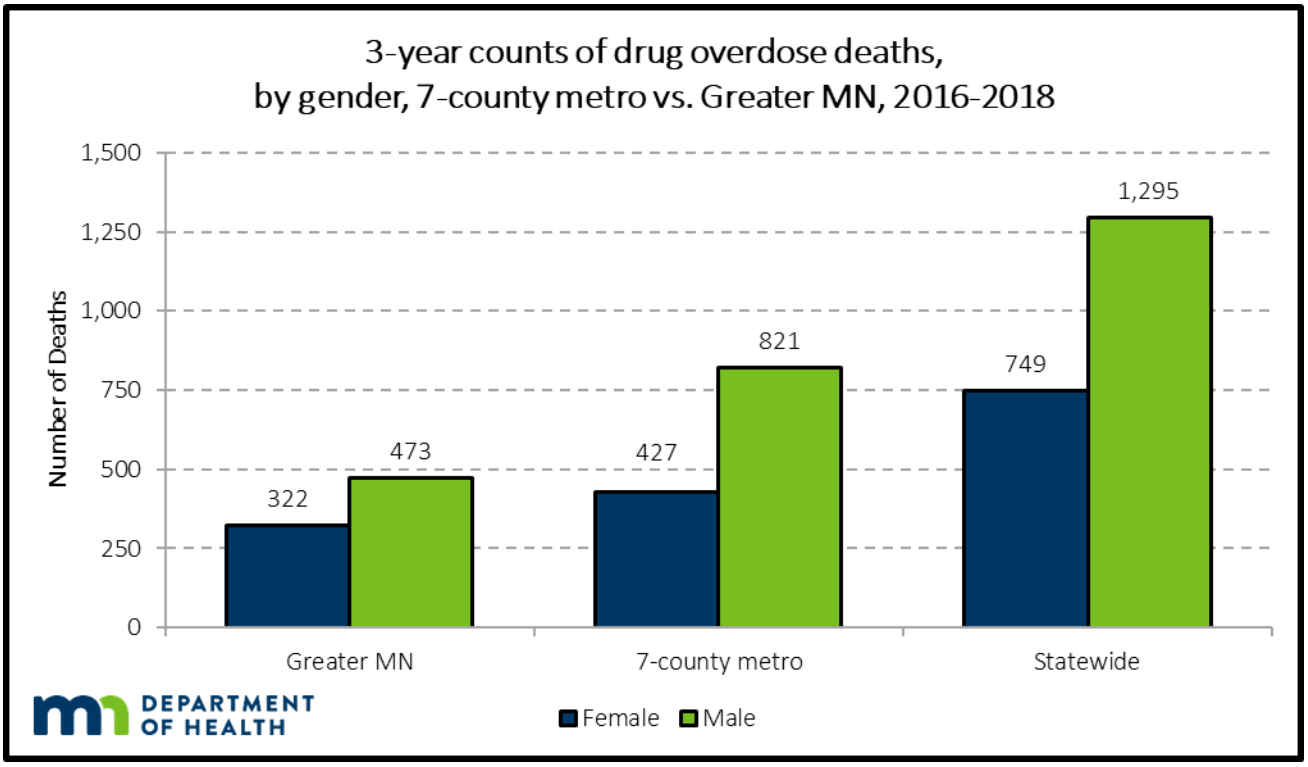


SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2014-2018

Gender of drug overdose deaths

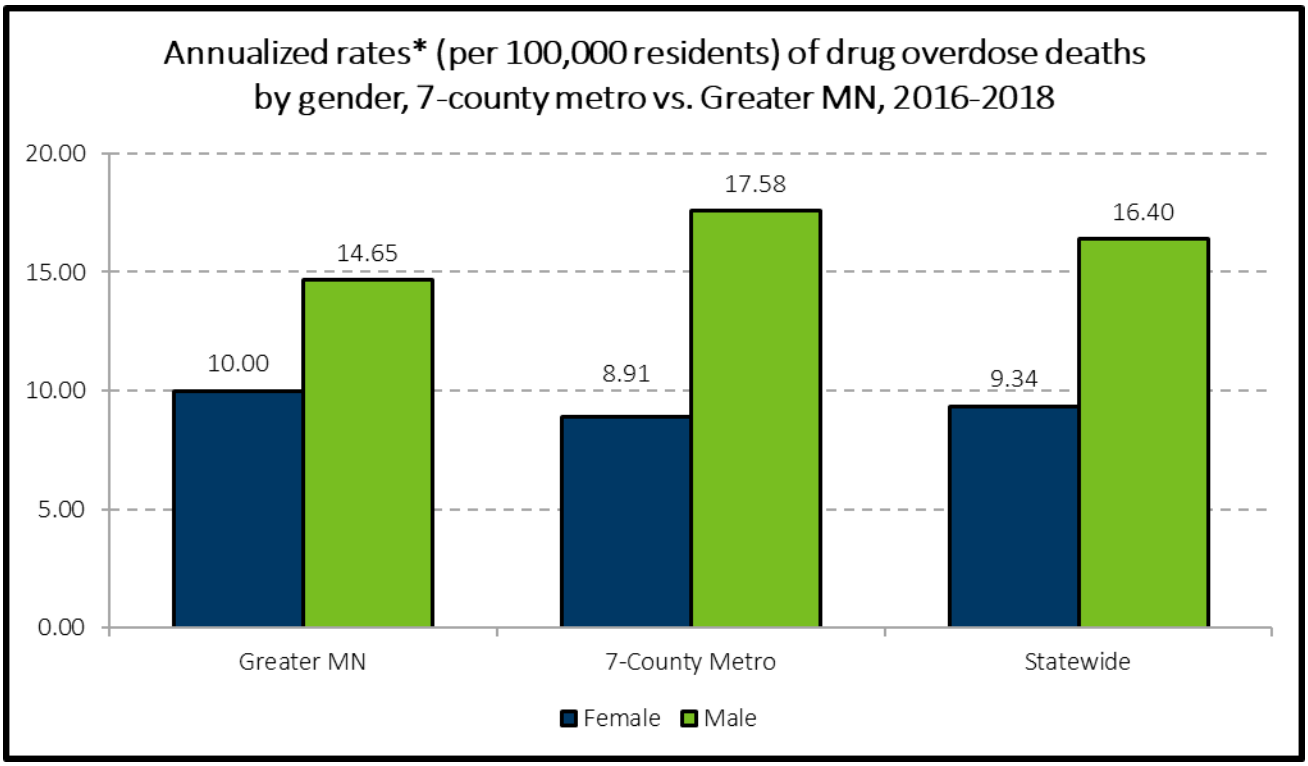
Across Minnesota, men have a higher number and mortality rate of drug overdose death compared with women (chart 13 and chart 14). In 2018, the number of drug overdose deaths for men decreased 16% from 2017. Similarly, the number of drug overdose deaths for women decreased 8% from 2017. Furthermore, men accounted for about 60% of the drug overdose deaths from 2012 to 2018 (chart 15).

CHART 13: Men have a higher number of drug overdose deaths compared with women



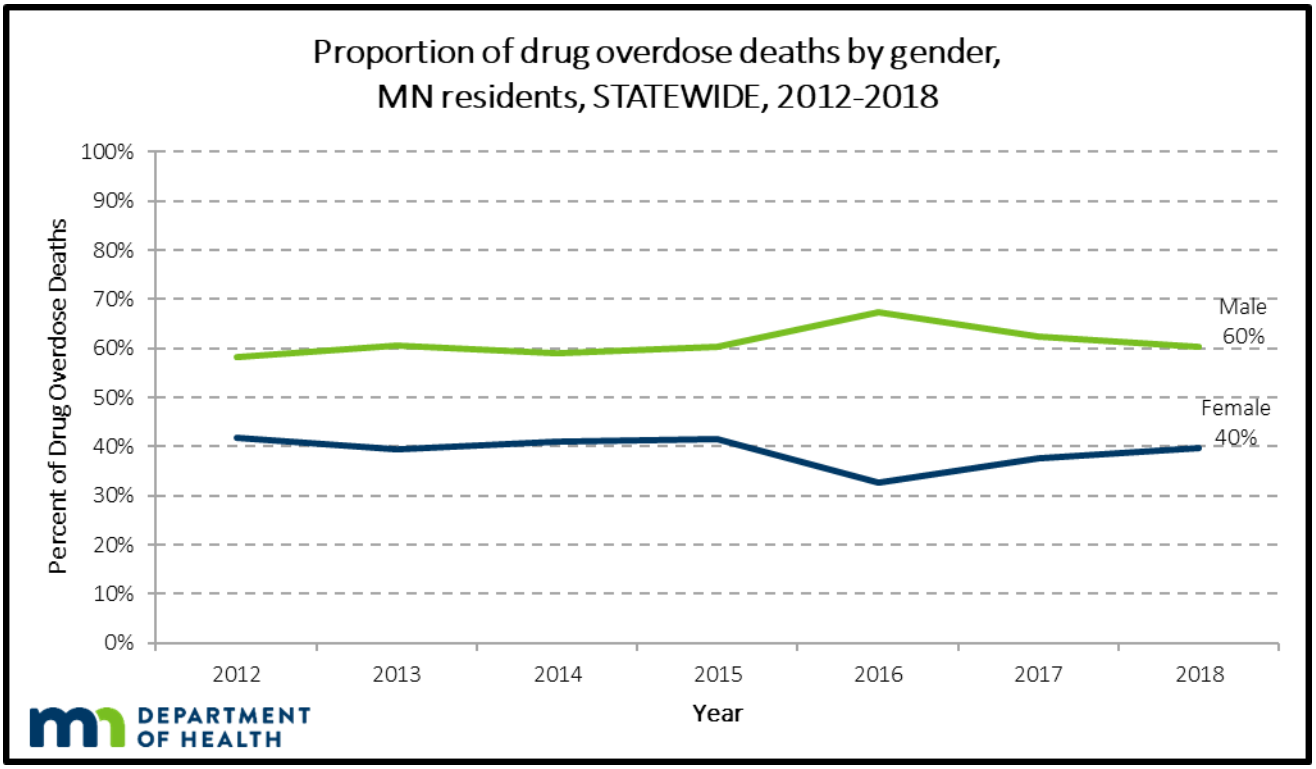
SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2016-2018

CHART 14: Men have a higher drug overdose mortality rate compared with women



SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2016-2018
**Crude (unadjusted) rates. 3-year rates calculated using the Census 2010 population.*

CHART 15: A greater percentage of drug overdose deaths occurred among men

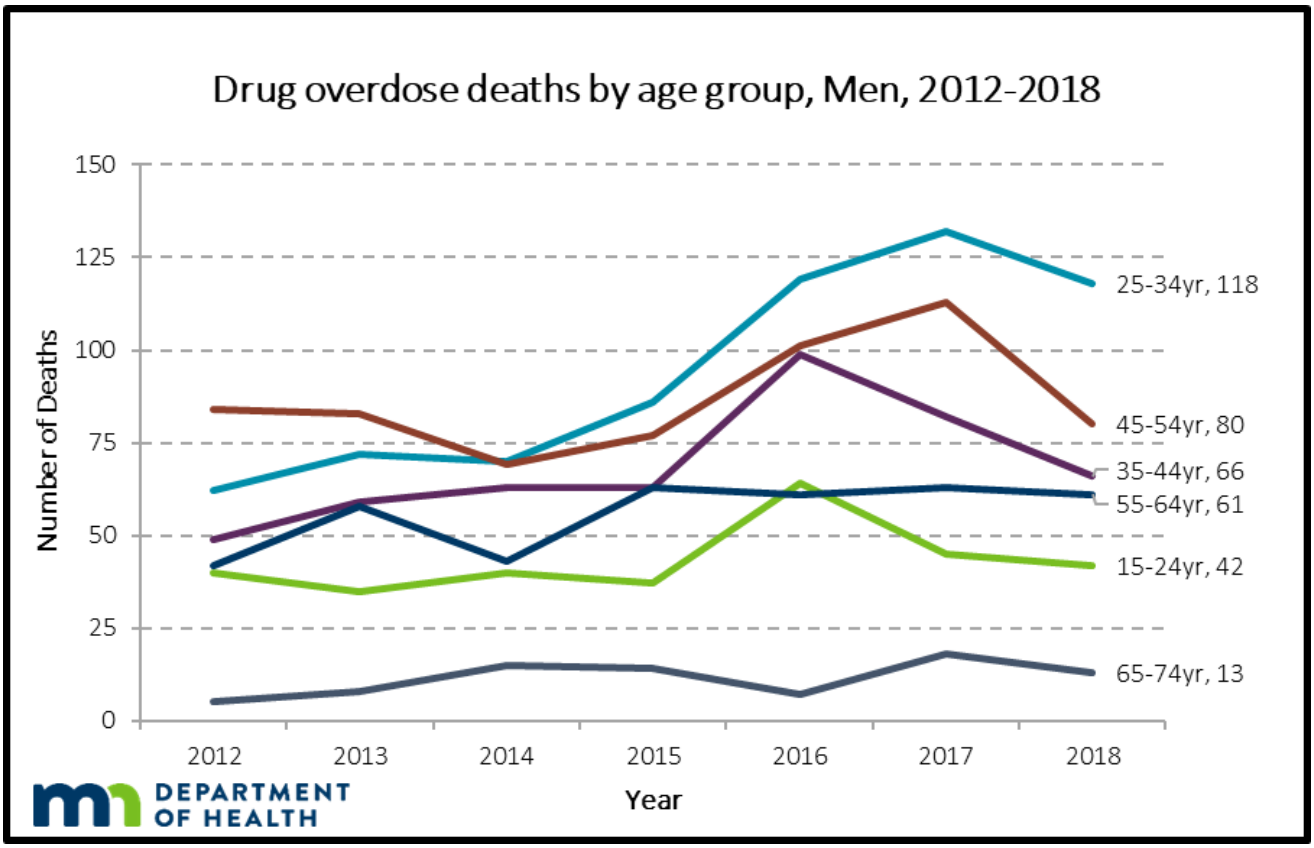


SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2012-2018

Age & gender of drug overdose deaths

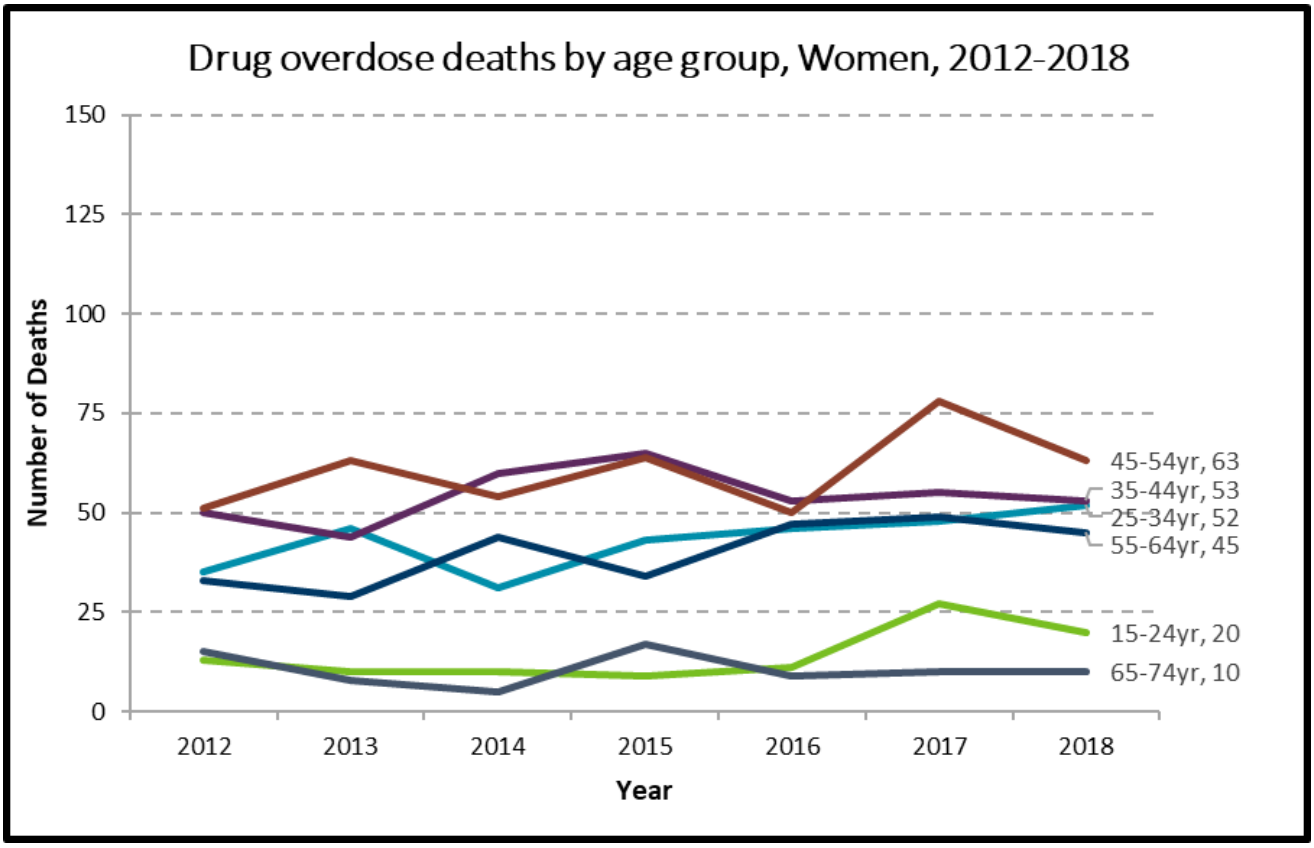
As highlighted on the previous page, a majority of drug overdose deaths occur among men, and this trend has been consistent over the past five years. In 2018, the number of drug overdose deaths for both men and women decreased. For men, the number of drug overdose deaths decreased across the 25 to 34, 35 to 44, and 45 to 54 year age groups (chart 16). The decrease in drug overdose deaths among women occurred in the 45 to 54 and 15 to 24 year age groups (chart 17).

CHART 16: Decreases in drug overdose deaths occurred across the 25 to 54 year age groups in men



SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2012-2018

CHART 17: Decreases in drug overdose deaths occurred in the 15 to 24 and 45 to 54 year age groups in women



SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2012-2018

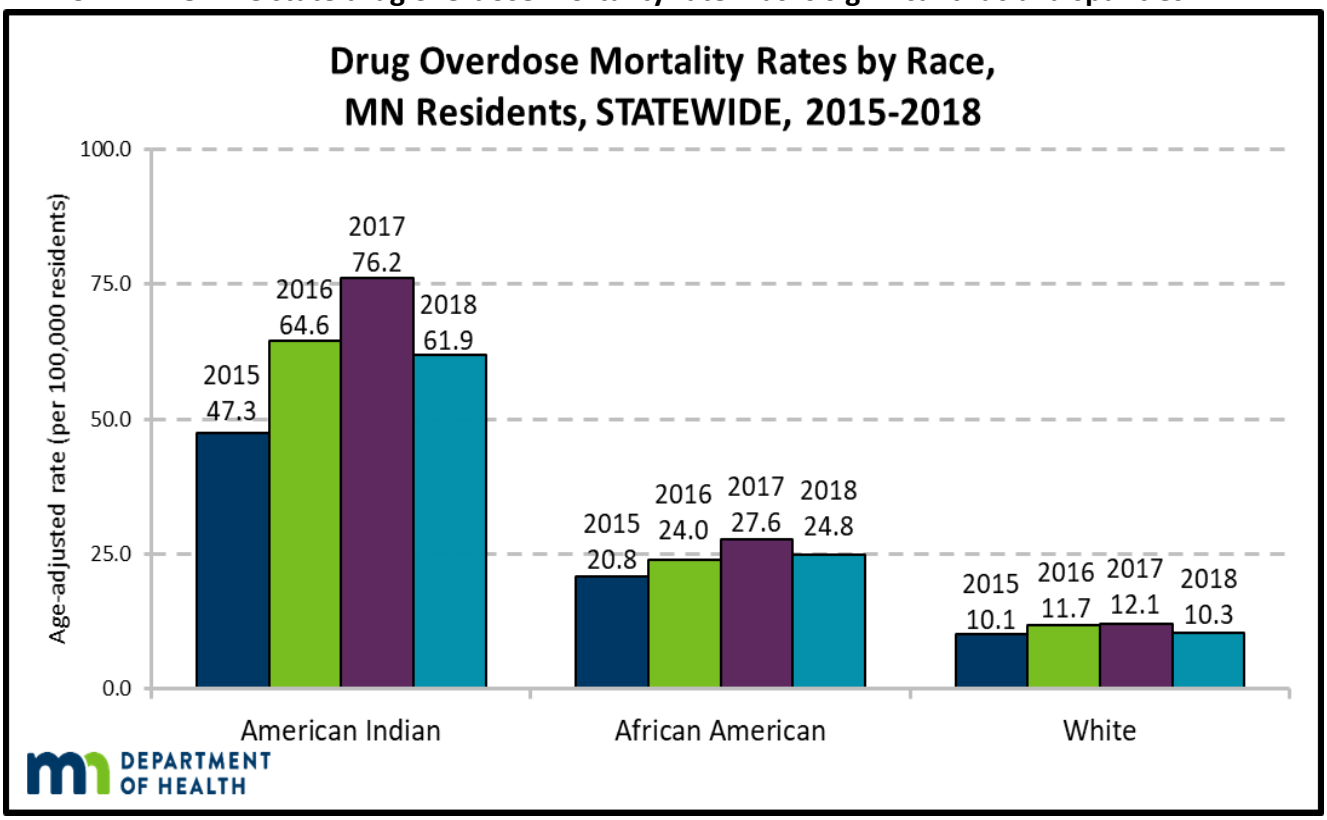
Race disparities in drug overdose deaths

Minnesota ranked eighth lowest among all states in overall drug overdose mortality rate in 2018 (11.5 per 100,000 residents). However, since 2015, Minnesota ranked first when measuring the disparity rate ratio of drug overdose deaths among American Indians relative to whites. American Indian Minnesotans were six times more likely to die from a drug overdose than white Minnesotans in 2018. The rate ratios were calculated and compared for ten states with sufficient numbers of deaths to calculate reliable mortality rates.

Similarly, Minnesota has ranked in the top three among all states since 2015 when measuring the disparity rate ratio of deaths due to drug overdose among African Americans relative to whites, ranking second in 2018. African American Minnesotans were more than twice as likely to die from drug overdose as white Minnesotans in 2018. Rate ratios were calculated for 37 states with sufficient numbers of deaths to calculate reliable mortality rates.

Both of these disparities – between American Indians and whites, and African Americans and whites – continue to be among the greatest drug overdose mortality rate disparities based on race in the United States. While the white drug overdose mortality rate decreased from 12.1 to 10.3 per 100,000 residents in 2018, the American Indian mortality rate decreased from 76.2 per 100,000 residents to 61.9 per 100,000 residents, and the African American mortality rate decreased from 27.6 per 100,000 residents to 24.8 per 100,000 residents (chart 18).

CHART 18: The state drug overdose mortality rate masks significant racial disparities



SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2015-2018

Appendix 1 – Drug Category Tables

Table 1: Number of opioid-involved overdose deaths (non-exclusive), by county of residence or metro area and year, 2000-2018

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Aitkin	0	0	1	1	2	0	0	1	0	1	2	1	1	4	1	2	2	*	*	19
Anoka	5	11	5	11	12	12	14	15	15	18	28	29	29	32	19	24	26	31	30	366
Becker	0	0	0	0	1	0	0	1	3	0	0	1	1	2	1	3	2	*	*	15
Beltrami	0	0	1	0	2	2	0	2	3	0	2	3	4	1	2	1	2	*	*	25
Benton	0	1	0	1	0	0	1	1	3	5	4	2	1	1	1	5	5	*	*	31
Big Stone	0	0	0	1	0	0	1	0	0	0	1	0	0	0	0	0	0	*	*	3
Blue Earth	0	0	0	0	0	2	0	1	0	1	2	0	0	0	2	0	5	*	*	13
Brown	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	*	*	3
Carlton	0	0	0	0	2	1	2	2	4	3	1	3	5	1	6	5	4	*	*	39
Carver	0	1	0	3	1	1	1	3	2	1	4	3	2	5	3	5	4	*	*	39
Cass	0	0	0	0	2	4	2	0	2	2	2	4	4	5	2	6	0	*	*	35
Chippewa	0	0	0	0	0	0	1	0	0	1	1	0	1	0	1	0	0	*	*	5
Chisago	0	0	0	1	1	0	1	2	5	1	2	5	6	2	5	5	2	*	*	38
Clay	0	0	0	1	0	3	0	6	1	4	2	4	1	3	3	8	4	*	*	40
Clearwater	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	*	*	3
Cook	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	*	*	3
Cottonwood	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	*	*	3
Crow Wing	1	2	0	1	2	2	4	3	0	7	0	2	2	5	3	1	3	*	*	38
Dakota	2	9	6	7	8	7	6	13	23	28	23	25	25	24	16	24	26	28	19	319

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Dodge	0	0	0	0	0	0	1	0	0	1	0	0	0	1	0	1	1	*	*	5
Douglas	0	0	0	0	1	0	1	2	0	0	0	6	0	0	2	0	0	*	*	12
Faribault	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	1	0	*	*	4
Fillmore	0	0	1	0	1	2	1	0	0	0	0	0	0	0	0	0	1	*	*	6
Freeborn	0	0	0	1	1	0	0	0	0	4	1	1	1	2	0	1	0	*	*	12
Goodhue	0	0	0	1	1	2	0	2	3	2	1	0	2	2	3	2	3	*	*	24
Grant	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	*	*	1
Hennepin	32	39	39	38	43	53	53	61	79	73	69	75	93	99	92	101	146	150	129	1464
Houston	0	0	0	1	1	0	1	2	1	1	1	1	1	1	0	2	1	*	*	14
Hubbard	0	0	1	1	0	0	0	2	1	0	0	1	0	0	0	0	1	*	*	7
Isanti	0	0	2	1	0	0	0	2	2	2	1	1	1	0	1	4	7	*	*	24
Itasca	0	1	1	0	1	1	2	1	3	4	1	6	0	2	3	3	3	*	*	32
Jackson	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	*	*	3
Kanabec	0	0	0	0	0	0	0	0	1	2	0	0	1	0	2	1	0	*	*	7
Kandiyohi	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	1	1	*	*	6
Kittson	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	*	*	2
Koochiching	0	0	0	0	1	1	0	0	0	0	0	2	0	0	1	0	1	*	*	6
Lac Qui Parle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	*	1
Lake	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	*	*	3
Lake of the Woods	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Le Sueur	0	0	0	0	1	0	1	0	0	1	0	0	0	2	0	0	0	*	*	5
Lincoln	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	*	*	2

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Lyon	0	1	0	0	0	0	0	1	0	0	0	0	1	0	1	1	1	*	*	6
Mahnomen	0	0	0	0	0	0	0	0	1	1	0	1	0	0	2	0	1	*	*	6
Marshall	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	*	*	2
Martin	0	0	0	0	1	2	1	0	0	0	1	0	0	0	1	0	0	*	*	6
McLeod	0	1	0	0	0	2	2	2	1	3	0	2	3	0	0	0	0	*	*	16
Meeker	0	0	0	0	2	0	0	0	2	0	3	0	2	2	2	0	0	*	*	13
Mille Lacs	0	0	0	1	0	2	1	1	2	5	1	3	2	3	3	2	4	*	*	30
Morrison	0	0	0	0	0	0	3	2	0	1	2	1	3	1	1	2	2	*	*	18
Mower	0	0	0	0	0	0	0	2	1	2	0	0	1	2	3	4	2	*	*	17
Murray	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	*	*	3
Nicollet	0	0	0	0	0	0	1	0	0	0	1	1	0	1	1	0	0	*	*	5
Nobles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Norman	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	*	*	1
Olmsted	3	1	0	2	4	0	2	1	1	3	2	5	8	9	11	7	8	*	*	67
Otter Tail	0	0	1	1	0	0	1	0	2	1	0	1	1	1	2	3	3	*	*	17
Pennington	0	0	1	1	1	1	0	0	0	2	0	1	0	0	1	0	0	*	*	8
Pine	0	0	0	1	1	0	1	0	0	1	2	4	3	1	2	3	1	*	*	20
Pipestone	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	*	*	1
Polk	0	0	1	2	0	0	2	3	1	1	3	1	3	4	3	3	3	*	*	30
Pope	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	*	*	2
Ramsey	3	9	21	10	14	27	14	16	24	25	25	28	31	27	28	35	34	45	24	440
Red Lake	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	*	*	1
Redwood	0	0	0	0	0	0	0	1	0	1	0	1	0	3	0	2	0	*	*	8

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Renville	0	0	0	0	0	0	0	0	0	0	1	2	0	0	1	2	0	*	*	6
Rice	1	1	0	0	0	0	0	2	4	2	1	3	1	1	3	0	4	*	*	23
Rock	0	0	0	0	0	1	1	0	1	0	0	0	0	2	0	0	3	*	*	8
Roseau	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	1	0	*	*	3
Scott	0	2	1	4	3	2	4	5	2	6	3	9	5	2	6	3	9	*	*	66
Sherburne	1	1	2	1	3	0	1	4	2	3	5	3	5	4	10	4	8	*	*	57
Sibley	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	3	1	*	*	7
St. Louis	2	3	0	0	0	0	0	0	0	0	0	15	19	17	26	23	23	23	18	169
Stearns	1	2	2	1	3	0	4	5	4	9	1	6	4	8	4	11	8	*	*	73
Steele	0	1	0	0	2	0	0	0	1	0	0	0	1	3	1	0	2	*	*	11
Stevens	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	1	*	*	4
Swift	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	*	*	2
Todd	0	0	0	0	0	0	1	0	0	3	1	1	0	1	1	1	0	*	*	9
Traverse	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	*	*	2
Wabasha	0	0	0	0	0	1	0	1	1	1	2	1	1	0	0	0	0	*	*	8
Wadena	0	0	0	0	1	0	0	0	0	2	0	0	0	0	1	0	1	*	*	5
Waseca	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	*	*	3
Washington	1	2	2	0	6	3	4	2	8	10	4	9	6	7	14	10	11	15	*	114
Watonwan	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	*	*	1
Wilkin	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	1
Winona	1	1	0	1	1	0	2	1	4	4	1	4	2	4	7	2	1	*	*	36
Wright	0	1	1	1	4	5	6	0	0	7	4	4	4	7	5	1	4	*	*	54

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Yellow Medicine	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	1	*	*	5
7-county metro	43	73	74	73	87	105	96	115	153	161	156	178	191	196	178	202	256	280	225	2842
Greater MN	11	17	17	25	44	36	49	58	63	99	60	113	100	110	139	133	138	142	118	1472
Unknown County	0	0	2	8	4	4	10	7	10	17	13	0	2	0	0	1	1	0	0	79
Total	**54**	**90**	**93**	**106**	**135**	**145**	**155**	**180**	**226**	**277**	**229**	**291**	**293**	**306**	**317**	**336**	**395**	**422**	**343**	**4393**

SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2000-2018
Underlying cause of death includes ICD-10 code indicating drug overdose (X40-X44, X60-X64, X85, or Y10-Y14); contributing cause of death includes ICD-10 code indicating opioid use (T40.0, T40.1, T40.2, T40.3, T40.4, T40.6). Opioid overdose deaths are not exclusive of other drug categories.
7-county metro: Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington counties; Greater Minnesota: Not part of the 7-county;
Unknown county: County FIPS code is invalid or missing
**See Appendix 3: Definitions and Methodology*

Table 2: Number of heroin-involved overdose deaths (non-exclusive), by county of residence/metro area and year, 2000 – 2018

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Aitkin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Anoka	0	2	0	1	0	1	0	3	1	5	4	11	7	15	6	7	6	17	*	86
Becker	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	1	*	*	4
Beltrami	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	*	*	3
Benton	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1	0	*	*	3
Big Stone	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Blue Earth	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	*	1
Brown	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Carlton	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	*	*	3
Carver	0	0	0	0	0	0	0	1	0	0	1	1	0	3	0	1	2	*	*	9
Cass	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	*	*	4
Chippewa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Chisago	0	0	0	0	0	0	0	0	0	0	1	1	1	0	2	1	1	*	*	7
Clay	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	3	*	*	6
Clearwater	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	*	1
Cook	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Cottonwood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Crow Wing	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	*	*	4
Dakota	0	0	0	0	0	0	0	2	2	2	4	6	8	5	5	6	8	*	*	48
Dodge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	*	1
Douglas	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	*	*	1

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Faribault	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	*	*	1
Fillmore	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	*	*	1
Freeborn	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	*	*	1
Goodhue	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	*	*	2
Grant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Hennepin	1	1	0	0	0	0	0	0	0	2	1	1	3	40	41	46	72	41	40	289
Houston	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	*	*	1
Hubbard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Isanti	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	1	3	*	*	7
Itasca	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	*	*	1
Jackson	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	*	1
Kanabec	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Kandiyohi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	*	1
Kittson	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Koochiching	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Lac Qui Parle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Lake Of The Woods	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Le Sueur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Lincoln	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Lyon	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	*	*	1
Mahnomen	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	*	*	2

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Marshall	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Martin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
McLeod	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	*	*	2
Meeker	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	*	*	2
Mille Lacs	0	0	0	0	0	0	0	0	0	0	0	1	1	1	3	0	0	*	*	6
Morrison	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	*	*	3
Mower	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	1	*	*	5
Murray	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	*	*	1
Nicollet	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Nobles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Norman	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	*	*	1
Olmsted	1	0	0	0	0	0	0	0	0	2	0	2	1	3	5	4	3	*	*	21
Otter Tail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	*	*	1
Pennington	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Pine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Pipestone	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Polk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	*	1
Pope	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	*	*	1
Ramsey	0	0	2	0	0	0	0	0	2	0	1	9	8	6	9	9	13	12	*	71
Red Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Redwood	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	*	*	2
Renville	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Rice	0	0	0	0	0	0	0	0	1	1	0	3	0	0	1	0	4	*	*	10

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Rock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Roseau	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Scott	0	0	0	0	0	0	0	1	1	0	0	2	3	0	1	2	6	*	*	16
Sherburne	0	0	0	0	0	0	1	0	0	1	0	1	2	0	3	1	3	*	*	12
Sibley	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	*	*	1
St. Louis	0	0	0	0	0	0	0	0	0	0	0	0	2	1	6	12	8	*	*	29
Stearns	0	0	0	0	0	0	0	0	0	1	0	1	0	3	1	1	1	*	*	8
Steele	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	*	*	1
Stevens	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Swift	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Todd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Traverse	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Wabasha	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Wadena	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Waseca	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	*	*	1
Washington	0	0	0	0	0	0	0	0	0	0	0	2	2	1	5	4	3	*	*	17
Watonwan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Wilkin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Winona	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	*	*	1
Wright	0	0	0	0	0	0	0	0	0	0	1	1	1	4	3	0	2	*	*	12
Yellow Medicine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	*	1

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
7-county metro	1	3	2	1	0	1	0	7	6	9	11	32	31	70	67	75	110	80	67	573
Greater MN	1	2	0	0	0	1	1	0	2	7	4	15	15	22	31	38	40	31	26	236
Unknown county	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	3
Total	**2**	**5**	**2**	**1**	**1**	**2**	**1**	**8**	**8**	**16**	**15**	**47**	**46**	**92**	**98**	**114**	**150**	**111**	**93**	**812**

SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2000-2018
Underlying cause of death includes ICD-10 code indicating drug overdose (X40-X44, X60-X64, X85, or Y10-Y14); contributing cause of death includes ICD-10 code indicating heroin use (T40.1).
Heroin overdose deaths are not exclusive of other drug categories.
7-county metro: Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington counties; Greater Minnesota: Not part of the 7-county;
Unknown county: County FIPS code is invalid or missing
**See Appendix 3: Definitions and Methodology*

Table 3: Number of cocaine-involved overdose deaths (non-exclusive), by county of residence/metro area and year, 2000 – 2018

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Aitkin	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	*	*	2
Anoka	0	1	1	1	3	3	1	1	2	1	0	4	6	7	0	4	1	*	*	36
Becker	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	*	*	1
Beltrami	0	0	0	0	1	1	0	1	0	0	0	0	0	0	1	0	0	*	*	4
Benton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	*	1
Big Stone	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Blue Earth	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	1
Brown	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Carlton	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	*	*	2
Carver	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	*	*	1
Cass	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	*	*	2
Chippewa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Chisago	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	*	*	1
Clay	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	*	*	3
Clearwater	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Cook	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Cottonwood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Crow Wing	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	*	*	3
Dakota	0	2	1	2	0	0	1	1	0	2	1	1	4	1	0	1	2	*	*	19
Dodge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Douglas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Faribault	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Fillmore	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	*	*	2
Freeborn	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Goodhue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Grant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Hennepin	7	3	3	10	13	15	11	24	8	9	13	23	11	19	15	21	23	37	29	294
Houston	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	*	*	1
Hubbard	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	*	*	2
Isanti	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	*	*	2
Itasca	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	*	*	1
Jackson	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Kanabec	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Kandiyohi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Kittson	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	*	1
Koochiching	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Lac Qui Parle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Lake Of The Woods	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Le Sueur	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	*	*	2
Lincoln	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Lyon	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	*	*	1

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Mahnomen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Marshall	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	1
Martin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
McLeod	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	*	*	1
Meeker	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	*	*	1
Mille Lacs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Morrison	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	*	*	2
Mower	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	1	0	*	*	4
Murray	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Nicollet	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Nobles	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	1
Norman	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Olmsted	0	0	0	2	1	0	0	0	2	1	0	1	2	1	1	2	1	*	*	14
Otter Tail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Pennington	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	*	*	1
Pine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	*	*	1
Pipestone	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Polk	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	*	*	1
Pope	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Ramsey	1	1	8	2	2	4	7	9	3	3	6	7	5	6	11	8	10	10	*	103
Red Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Redwood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Renville	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Rice	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	*	*	3
Rock	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	*	*	1
Roseau	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Scott	0	1	0	2	0	0	2	1	0	1	1	1	0	0	1	0	2	*	*	12
Sherburne	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	*	*	1
Sibley	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
St. Louis	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	*	*	4
Stearns	0	0	1	1	0	0	1	1	0	0	0	0	0	2	1	0	0	*	*	7
Steele	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	*	*	3
Stevens	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Swift	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Todd	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	*	*	1
Traverse	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Wabasha	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	*	*	2
Wadena	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	*	1
Waseca	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Washington	0	2	1	0	1	2	0	2	0	1	1	0	1	1	3	1	1	*	*	17
Watonwan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Wilkin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Winona	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	*	*	2
Wright	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	*	*	1

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Yellow Medicine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
7-county metro	8	10	14	17	19	24	22	38	13	17	22	36	27	35	30	35	39	57	43	506
Greater MN	1	3	5	7	9	3	5	6	8	3	2	6	5	6	5	6	5	11	11	107
Unknown county	0	0	1	1	2	0	0	2	0	1	1	0	0	0	0	0	0	0	0	8
Total	**9**	**13**	**20**	**25**	**30**	**27**	**27**	**46**	**21**	**21**	**25**	**42**	**32**	**41**	**35**	**41**	**44**	**68**	**54**	**621**

SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2000-2018
Underlying cause of death includes ICD-10 code indicating drug overdose (X40-X44, X60-X64, X85, or Y10-Y14); contributing cause of death includes ICD-10 code indicating cocaine use (T40.5). Cocaine overdose deaths are not exclusive of other drug categories.
7-county metro: Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington counties; Greater Minnesota: Not part of the 7-county;
Unknown county: County FIPS code is invalid or missing
**See Appendix 3: Definitions and Methodology*

Table 4: Number of benzodiazepine-involved overdose deaths (non-exclusive), by county of residence/metro area and year, 2000 – 2018

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Aitkin	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	*	*	1
Anoka	1	0	0	0	0	0	1	0	2	3	5	5	5	6	5	2	6	*	*	41
Becker	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Beltrami	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	*	*	3
Benton	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	*	*	3
Big Stone	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	1
Blue Earth	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	1	*	*	4
Brown	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Carlton	0	1	0	0	0	1	1	0	2	0	2	0	1	0	0	2	1	*	*	11
Carver	0	0	0	1	0	1	0	1	0	3	2	0	0	1	2	0	1	*	*	12
Cass	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	*	*	2
Chippewa	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	*	*	1
Chisago	0	0	0	0	0	0	0	2	1	0	2	1	2	0	2	0	1	*	*	11
Clay	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	*	*	2
Clearwater	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Cook	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Cottonwood	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	*	*	1
Crow Wing	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	1	*	*	4
Dakota	0	1	0	2	1	2	3	1	7	15	5	13	11	7	2	10	3	*	*	83
Dodge	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	*	*	2

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Douglas	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	*	*	1
Faribault	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	*	*	1
Fillmore	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	*	*	2
Freeborn	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	*	*	4
Goodhue	0	0	0	0	0	2	0	0	2	1	0	1	1	1	0	1	3	*	*	12
Grant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Hennepin	4	5	8	4	10	9	12	4	4	12	9	13	8	18	16	27	49	46	20	278
Houston	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	*	*	2
Hubbard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	*	*	1
Isanti	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	*	*	2
Itasca	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	*	*	2
Jackson	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Kanabec	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	*	*	1
Kandiyohi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Kittson	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Koochiching	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	*	*	1
Lac Qui Parle	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	*	*	1
Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Lake Of The Woods	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Le Sueur	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	*	*	2
Lincoln	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Lyon	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	*	*	2

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Mahnomen	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	*	*	2
Marshall	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Martin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
McLeod	0	0	0	0	0	0	1	0	0	1	0	2	1	0	0	0	0	*	*	5
Meeker	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0	*	*	3
Mille Lacs	0	0	0	0	0	0	0	0	0	2	1	0	1	0	1	0	1	*	*	6
Morrison	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	*	*	2
Mower	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Murray	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Nicollet	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Nobles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	*	1
Norman	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	*	*	1
Olmsted	1	1	0	1	0	0	0	0	1	1	0	0	2	3	7	3	6	*	*	26
Otter Tail	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	*	*	3
Pennington	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	*	*	1
Pine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	*	*	2
Pipestone	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	*	*	1
Polk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Pope	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Ramsey	0	0	2	0	0	3	0	0	2	3	3	0	0	1	2	6	7	*	*	29
Red Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Redwood	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	*	*	3

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Renville	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	*	*	3
Rice	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	*	*	2
Rock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Roseau	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	*	*	1
Scott	0	1	0	0	0	0	1	1	1	4	1	3	2	0	1	0	3	*	*	18
Sherburne	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	1	*	*	5
Sibley	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	*	*	3
St. Louis	1	0	0	0	0	0	0	0	0	0	0	5	4	5	6	3	6	*	*	30
Stearns	0	0	0	1	0	0	0	0	1	0	0	0	0	0	1	2	0	*	*	5
Steele	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	*	*	3
Stevens	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Swift	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	*	*	3
Todd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Traverse	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Wabasha	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	*	*	2
Wadena	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	*	*	1
Waseca	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	*	*	1
Washington	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	1	*	*	4
Watonwan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Wilkin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Winona	0	0	0	1	1	0	0	1	0	1	0	3	0	0	3	1	0	*	*	11
Wright	0	0	0	1	1	1	1	0	0	0	1	1	0	1	0	0	1	*	*	8

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Yellow Medicine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
7-county metro	5	7	10	7	11	15	18	7	16	40	25	35	26	33	28	46	70	73	38	510
Greater MN	3	2	0	6	4	6	7	9	14	14	10	21	16	17	27	25	33	19	31	264
Unknown county	0	0	0	0	1	1	0	1	1	4	3	0	1	0	0	0	0	0	0	12
Total	**8**	**9**	**10**	**13**	**16**	**22**	**25**	**17**	**31**	**58**	**38**	**56**	**43**	**50**	**55**	**71**	**103**	**92**	**69**	**786**

SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2000-2018
Underlying cause of death includes ICD-10 code indicating drug overdose (X40-X44, X60-X64, X85, or Y10-Y14); contributing cause of death includes ICD-10 code indicating benzodiazepine use (T42.4). Benzodiazepine overdose deaths are not exclusive of other drug categories.
7-county metro: Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington counties; Greater Minnesota: Not part of the 7-county;
Unknown county: County FIPS code is invalid or missing
**See Appendix 3: Definitions and Methodology*

Table 5: Number of psychostimulants with abuse potential-involved overdose deaths (non-exclusive), by county of residence/metro area and year, 2000-2018

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Aitkin	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	*	*	2
Anoka	1	0	0	3	1	4	1	2	0	1	0	3	4	4	5	6	5	13	15	68
Becker	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	*	*	1
Beltrami	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	3	*	*	6
Benton	0	0	0	0	0	1	0	0	0	0	0	3	0	0	0	0	1	*	*	5
Big Stone	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	*	1
Blue Earth	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	*	1
Brown	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	*	1
Carlton	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	2	*	*	7
Carver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Cass	0	0	0	0	0	1	0	0	0	0	1	0	1	1	1	3	2	*	*	10
Chippewa	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Chisago	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	*	*	2
Clay	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	2	*	*	6
Clearwater	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Cook	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Cottonwood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Crow Wing	0	1	1	1	0	0	0	0	0	0	0	0	3	0	0	1	7	*	*	14
Dakota	1	0	1	1	0	0	1	0	0	0	1	2	0	2	5	4	12	*	*	30
Dodge	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	1	*	*	3

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Douglas	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	*	*	3
Faribault	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	*	*	1
Fillmore	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	*	*	1
Freeborn	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	*	*	2
Goodhue	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	*	*	2
Grant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Hennepin	1	1	3	3	1	2	3	3	8	1	7	8	14	13	13	20	31	43	39	214
Houston	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	*	*	3
Hubbard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	*	*	1
Isanti	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	*	*	3
Itasca	0	0	0	0	0	1	2	0	0	0	0	0	1	1	3	1	0	*	*	9
Jackson	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	*	*	1
Kanabec	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	*	*	1
Kandiyohi	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	*	*	2
Kittson	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	*	1
Koochiching	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	*	1
Lac Qui Parle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Lake Of The Woods	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Le Sueur	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	*	*	1
Lincoln	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Lyon	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	*	*	2

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Mahnomen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	2	*	*	6
Marshall	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	*	*	1
Martin	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	2
McLeod	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	*	*	2
Meeker	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	*	*	2
Mille Lacs	0	0	0	1	0	0	0	0	0	0	0	1	0	2	0	0	1	*	*	5
Morrison	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	*	*	1
Mower	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	*	*	3
Murray	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Nicollet	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Nobles	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	*	*	2
Norman	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	*	*	2
Olmsted	0	0	0	0	0	0	1	0	0	1	0	1	3	4	6	3	11	*	*	30
Otter Tail	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	*	*	3
Pennington	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Pine	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	2	*	*	5
Pipestone	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Polk	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	1	*	*	5
Pope	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	*	*	1
Ramsey	0	0	0	1	3	1	2	1	0	2	1	5	7	4	7	12	13	13	15	87
Red Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Redwood	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	*	*	1

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Renville	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	*	*	1
Rice	0	0	1	0	0	0	0	0	1	0	1	0	0	0	1	1	2	*	*	7
Rock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Roseau	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Scott	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	6	*	*	7
Sherburne	0	0	0	0	1	0	0	0	2	0	0	1	1	0	4	1	2	*	*	12
Sibley	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	1
St. Louis	1	0	0	0	0	0	0	0	0	0	0	0	3	2	5	10	7	12	12	52
Stearns	0	0	0	1	0	1	0	0	0	0	0	0	1	1	1	2	3	*	*	10
Steele	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	*	2
Stevens	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	*	*	2
Swift	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Todd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Traverse	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Wabasha	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	*	*	2
Wadena	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Waseca	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Washington	1	0	1	0	0	2	2	0	1	0	0	1	2	3	1	2	2	*	*	18
Watonwan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Wilkin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Winona	0	0	0	0	0	0	0	0	0	1	0	0	1	0	3	0	1	*	*	6
Wright	0	1	1	0	0	1	0	0	0	0	0	0	0	1	3	2	0	*	*	9

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Yellow Medicine	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	*	*	2
7-county metro	4	1	6	8	5	9	9	6	9	4	9	19	27	26	31	44	69	81	81	448
Greater MN	3	4	4	4	4	7	4	2	4	4	7	14	20	17	38	39	71	80	86	412
Unknown county	0	0	1	0	0	2	1	0	0	0	2	0	1	0	0	0	0	0	0	7
Total	**7**	**5**	**11**	**12**	**9**	**18**	**14**	**8**	**13**	**8**	**18**	**33**	**48**	**43**	**69**	**83**	**140**	**161**	**167**	**867**

SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2000-2018
Underlying cause of death includes ICD-10 code indicating drug overdose (X40-X44, X60-X64, X85, or Y10-Y14); contributing cause of death includes ICD-10 code indicating psychostimulants with abuse potential use (T43.6). Psychostimulants with abuse potential drug overdose deaths are not exclusive of other drug categories.
7-county metro: Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington counties; Greater Minnesota: Not part of the 7-county;
Unknown county: County FIPS code is invalid or missing
**See Appendix 3: Definitions and Methodology*

Table 6: Number of other and unspecified narcotic drug deaths (non-exclusive), by county of residence/metro area and year, 2000 – 2018

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Aitkin	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	*	*	1
Anoka	2	2	2	0	0	2	0	2	6	1	3	3	3	0	0	3	0	*	*	29
Becker	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	1	*	*	5
Beltrami	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	*	*	2
Benton	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	1	0	*	*	4
Big Stone	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Blue Earth	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	*	1
Brown	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Carlton	0	0	0	0	0	0	0	0	0	2	0	0	1	0	2	0	0	*	*	5
Carver	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	*	*	1
Cass	0	0	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	*	*	4
Chippewa	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	*	*	1
Chisago	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	*	*	3
Clay	0	0	0	0	0	0	0	0	0	3	1	0	0	0	1	1	1	*	*	7
Clearwater	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Cook	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Cottonwood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Crow Wing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	*	1
Dakota	1	1	2	0	0	0	1	1	2	3	2	0	0	1	1	2	1	*	*	18
Dodge	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	*	*	1

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Douglas	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	*	*	3
Faribault	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Fillmore	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	*	*	1
Freeborn	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	1
Goodhue	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	*	*	2
Grant	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	*	*	1
Hennepin	23	23	24	25	21	22	22	16	34	36	26	45	53	11	3	9	4	*	*	397
Houston	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	*	*	1
Hubbard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Isanti	0	0	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	*	*	3
Itasca	0	0	0	0	1	0	1	0	2	1	0	0	0	1	1	0	0	*	*	7
Jackson	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Kanabec	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Kandiyohi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	*	*	1
Kittson	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Koochiching	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Lac Qui Parle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Lake Of The Woods	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Le Sueur	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	*	*	1
Lincoln	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Lyon	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	*	*	1

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Mahnomen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Marshall	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	*	*	1
Martin	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	*	*	1
McLeod	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0	*	*	3
Meeker	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	*	*	1
Mille Lacs	0	0	0	0	0	0	1	0	1	1	0	0	1	0	0	0	0	*	*	4
Morrison	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	*	*	2
Mower	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Murray	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	*	*	1
Nicollet	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Nobles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Norman	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Olmsted	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	*	*	2
Otter Tail	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	*	*	2
Pennington	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	*	*	3
Pine	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	*	*	1
Pipestone	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Polk	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	1	*	*	4
Pope	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Ramsey	2	0	3	4	7	8	1	5	1	4	2	6	3	1	3	4	1	*	*	55
Red Lake	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Redwood	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	*	*	2

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Renville	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Rice	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	*	*	2
Rock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Roseau	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Scott	0	1	0	2	0	1	1	2	0	2	1	0	0	0	2	0	1	*	*	13
Sherburne	1	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	*	*	4
Sibley	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	*	*	1
St. Louis	0	1	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	*	*	5
Stearns	0	0	0	0	0	0	0	0	2	1	0	1	1	0	0	2	0	*	*	7
Steele	0	1	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	*	*	4
Stevens	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	*	*	1
Swift	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Todd	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	*	*	1
Traverse	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Wabasha	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	*	*	1
Wadena	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Waseca	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Washington	0	1	2	0	2	0	1	0	0	2	0	1	1	1	1	0	0	*	*	12
Watonwan	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Wilkin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	0
Winona	0	1	0	0	1	0	0	0	1	0	0	0	0	1	0	0	1	*	*	5
Wright	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	*	*	1

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Yellow Medicine	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	*	*	1
7-county metro	28	28	33	31	30	33	26	27	43	48	34	55	60	14	10	18	7	14	11	550
Greater MN	3	3	1	2	7	4	5	3	12	13	7	13	9	9	12	6	9	6	6	130
Unknown county	0	0	0	0	0	1	0	1	2	2	2	0	0	0	0	0	1	0	0	9
Total	**31**	**31**	**34**	**33**	**37**	**38**	**31**	**31**	**57**	**63**	**43**	**68**	**69**	**23**	**22**	**24**	**17**	**20**	**17**	**689**

SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2000-2018
Underlying cause of death includes ICD-10 code indicating drug overdose (X40-X44, X60-X64, X85, or Y10-Y14); contributing cause of death includes ICD-10 code indicating other and unspecified narcotics (T40.6). Other and unspecified narcotics drug overdose deaths are not exclusive of other drug categories.
7-county metro: Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington counties; Greater Minnesota: Not part of the 7-county;
Unknown county: County FIPS code is invalid or missing
**See Appendix 3: Definitions and Methodology*

Appendix 2 – 7-county metro vs. Greater Minnesota

Number of drug overdose deaths, 7-county metro vs. Greater MN, MN Residents, 2000-2018

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Aitkin	1	0	3	1	3	2	1	2	0	1	2	2	4	5	2	3	4	*	*	36
Anoka	10	14	10	15	15	20	17	19	20	31	35	41	44	45	27	36	36	46	50	531
Becker	1	0	1	0	3	0	0	2	4	3	1	3	1	3	1	5	3	*	*	31
Beltrami	0	1	2	0	3	5	2	5	5	2	4	6	7	4	3	3	4	*	*	56
Benton	0	1	1	3	0	2	2	3	4	5	4	5	1	2	3	7	7	*	*	50
Big Stone	0	0	0	1	0	0	1	0	0	0	1	0	1	0	0	1	1	*	*	6
Blue Earth	0	0	0	1	0	4	0	3	0	2	3	5	5	1	3	3	7	*	*	37
Brown	0	0	0	2	1	0	0	1	1	0	2	2	0	0	2	1	2	*	*	14
Carlton	1	1	0	2	2	4	2	3	5	5	2	6	6	3	7	7	6	*	*	62
Carver	1	1	1	3	1	1	1	4	3	4	4	5	3	5	5	8	6	*	*	56
Cass	2	0	2	0	3	5	5	1	4	3	4	9	6	5	6	7	7	10	*	79
Chippewa	0	0	0	1	0	0	1	0	0	1	1	0	1	1	1	0	0	*	*	7
Chisago	1	0	1	3	1	0	2	2	7	1	2	8	8	5	8	6	4	*	*	59
Clay	0	4	2	4	1	3	3	10	6	6	4	10	3	9	9	14	9	*	*	97
Clearwater	2	1	0	0	0	1	0	0	1	0	0	0	1	1	1	1	3	*	*	12
Cook	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	1	0	*	*	4
Cottonwood	0	0	1	0	0	1	0	0	0	1	0	3	0	0	0	0	0	*	*	6
Crow Wing	1	3	1	4	4	2	6	4	2	9	3	5	6	9	7	8	12	*	*	86

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Dakota	3	17	10	16	10	13	11	19	30	37	32	38	32	34	30	42	42	39	29	484
Dodge	0	1	0	0	0	0	2	0	0	2	0	0	2	1	0	2	1	*	*	11
Douglas	0	0	0	1	1	1	1	2	0	0	2	7	2	0	2	1	1	*	*	21
Faribault	0	0	0	1	1	1	0	0	0	0	0	1	0	2	0	3	0	*	*	9
Fillmore	0	0	1	0	1	2	1	0	1	0	0	1	1	0	1	0	2	*	*	11
Freeborn	1	1	0	3	1	0	0	1	2	4	1	3	1	3	0	1	3	*	*	25
Goodhue	0	1	1	2	2	3	1	2	3	3	2	2	2	4	3	3	3	*	*	37
Grant	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	*	*	2
Hennepin	52	61	66	63	72	80	89	97	103	96	103	128	128	149	131	156	202	220	177	2173
Houston	0	0	0	1	1	0	1	3	1	1	2	2	1	1	0	2	1	*	*	17
Hubbard	0	1	2	1	1	0	1	2	3	1	2	3	1	0	2	1	2	*	*	23
Isanti	0	0	4	2	1	0	1	2	2	4	2	1	1	0	3	4	8	*	*	35
Itasca	0	1	3	1	2	2	3	5	5	5	4	7	4	5	7	5	5	*	*	64
Jackson	1	0	0	0	1	0	0	0	0	1	1	0	1	0	0	0	2	*	*	7
Kanabec	2	0	0	0	0	0	0	0	1	2	1	1	2	0	2	1	0	*	*	12
Kandiyohi	0	0	0	2	1	1	2	1	1	0	1	4	1	0	2	8	1	*	*	25
Kittson	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	*	*	2
Koochiching	0	0	2	2	1	2	0	0	0	0	0	2	0	0	2	0	2	*	*	13
Lac Qui Parle	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2	*	*	4
Lake	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	*	*	4
Lake Of The Woods	0	0	0	1	0	0	0	0	0	0	2	0	1	0	1	0	0	*	*	5
Le Sueur	0	1	0	1	2	1	3	0	1	1	0	1	0	2	2	1	2	*	*	18

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Lincoln	0	0	0	0	1	0	0	1	0	1	1	0	1	0	1	0	0	*	*	6
Lyon	1	1	0	1	0	1	0	2	0	0	0	1	1	1	2	4	1	*	*	16
Mahnomen	0	0	0	0	1	0	0	0	1	2	0	1	0	1	5	0	3	*	*	14
Marshall	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	1	*	*	6
Martin	1	0	0	1	1	2	1	0	0	0	1	0	0	2	1	1	0	*	*	11
McLeod	1	2	2	0	0	2	2	2	1	4	0	2	3	1	1	0	0	*	*	23
Meeker	0	0	0	1	3	0	0	0	3	0	4	1	2	4	2	0	2	*	*	22
Mille Lacs	0	0	0	2	1	2	1	2	4	7	1	3	3	6	4	3	6	10	*	55
Morrison	0	0	1	0	4	0	4	3	1	1	4	1	4	1	2	6	6	*	*	38
Mower	0	2	3	1	0	1	1	4	5	4	1	1	4	6	3	8	2	*	*	46
Murray	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	2	0	*	*	5
Nicollet	0	0	0	0	0	0	3	1	0	3	1	4	2	2	3	2	0	*	*	21
Nobles	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0	0	2	*	*	5
Norman	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	*	*	4
Olmsted	3	3	0	6	5	4	11	5	5	10	9	12	15	17	17	11	18	15	17	183
Otter Tail	2	0	2	2	0	0	2	2	2	2	0	4	7	3	3	5	5	*	*	41
Pennington	1	0	1	2	1	1	2	0	1	2	1	1	0	2	2	0	0	*	*	17
Pine	0	1	0	1	1	0	2	0	0	1	3	5	3	4	4	3	3	*	*	31
Pipestone	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	*	*	1
Polk	0	1	1	4	1	2	4	3	2	3	4	3	4	6	5	5	3	*	*	51
Pope	0	0	0	1	0	0	1	0	1	0	0	1	0	1	1	1	1	*	*	8
Ramsey	14	22	38	29	39	50	45	51	61	50	47	68	68	64	59	82	89	108	78	1062
Red Lake	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	*	*	2

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Redwood	0	0	0	0	0	1	1	1	3	1	0	1	0	4	0	3	2	*	*	17
Renville	0	0	0	1	0	1	1	0	2	0	2	3	0	0	1	3	0	*	*	14
Rice	1	2	2	1	0	1	1	3	9	3	3	4	4	2	5	2	5	*	*	48
Rock	0	0	0	0	0	1	1	0	1	0	0	0	0	3	1	0	3	*	*	10
Roseau	0	0	0	0	2	2	0	1	1	1	0	0	0	0	0	1	0	*	*	8
Scott	0	3	2	6	5	4	6	5	4	8	3	9	9	3	9	3	13	15	11	118
Sherburne	1	4	3	4	4	5	2	4	12	3	9	6	12	8	13	7	11	*	10	118
Sibley	0	2	0	0	0	0	0	2	0	0	2	1	3	0	0	3	1	*	*	14
St. Louis	14	12	0	0	0	0	0	0	0	0	0	22	22	24	33	31	38	37	27	260
Stearns	3	3	6	7	5	4	8	9	7	16	5	14	9	17	13	17	20	19	14	196
Steele	0	1	1	1	2	0	0	1	2	0	0	4	1	5	2	2	2	*	*	24
Stevens	0	0	0	1	0	0	0	2	0	2	0	0	0	0	0	0	2	*	*	7
Swift	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	1	*	*	4
Todd	1	0	0	0	0	1	3	0	0	3	1	1	0	1	1	1	0	*	*	13
Traverse	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	*	*	3
Wabasha	0	0	0	0	0	3	2	3	2	2	4	1	1	1	0	0	1	*	*	20
Wadena	1	0	0	1	1	0	0	1	0	2	2	0	0	0	2	0	2	*	*	12
Waseca	1	0	0	2	0	1	1	1	1	0	1	0	1	1	0	1	3	*	*	14
Washington	2	5	9	6	11	12	13	11	15	16	14	23	15	19	24	18	25	28	24	290
Watonwan	0	1	1	0	0	0	0	0	0	0	0	0	1	1	0	1	0	*	*	5
Wilkin	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	*	*	3
Winona	2	1	0	2	3	0	4	3	4	6	3	6	4	7	10	4	3	*	*	62
Wright	0	2	3	2	6	7	8	4	2	9	7	8	5	9	8	4	6	*	11	101

County of residence	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	Total
Yellow Medicine	0	0	0	0	1	0	0	1	0	0	0	1	1	0	2	1	1	*	*	8
7-county metro	82	123	136	138	153	180	182	206	236	242	238	216	299	319	285	345	413	460	375	4628
Greater MN	47	56	55	84	81	85	109	117	134	154	123	312	184	208	231	237	261	273	261	3012
Unknown county	0	0	7	22	13	15	17	17	12	27	23	0	3	0	0	1	1	0	0	158
Total	**129**	**179**	**198**	**244**	**247**	**280**	**308**	**340**	**382**	**423**	**384**	**528**	**486**	**527**	**516**	**583**	**675**	**733**	**636**	**7798**

SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2000-2018
Underlying cause of death includes ICD-10 code indicating drug overdose (X40-X44, X60-X64, X85, or Y10-Y14)
7-county metro: Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington counties; Greater Minnesota: Not part of the 7-county;
Unknown county: County FIPS code is invalid or missing
**See Appendix 3: Definitions and Methodology*

Appendix 3: Definitions and methodology

Data for this report come from Minnesota death certificates, with cause and manner of death information provided by a medical examiner or coroner. A drug overdose death is defined as having an underlying cause of death within the following range of ICD-codes:

- Accidental poisoning by drugs: X40-X44
- Intentional self-poisoning by drugs: X60-X64
- Assault by drug poisoning: X85
- Drug poisoning of undetermined intent: Y10-Y14

This report provides the number of drug overdose deaths within ten non-exclusive categories of drugs that contributed to the cause of death, by county, metro area, and year. Note, for example, that an opioid-involved death may also be counted as a cocaine-involved death, if both drugs were listed on the death certificate as contributory causes. The ten non-exclusive categories of drug overdose deaths are defined as having a contributory cause of death within the following ranges of ICD-10 codes:

- All opioid-involved deaths: T40.0-T40.4, T40.6
- Other opioids and methadone (i.e. commonly prescribed opioids): T40.2-T40.3
- Synthetic opioids (includes fentanyl): T40.4
- Heroin: T40.1
- Cocaine: T40.5
- Benzodiazepines: T42.4
- Psychostimulants with abuse potential (includes methamphetamine): T43.6
- Other and unspecified narcotic(s): T40.6
- Other and unspecified drug(s): T50.9 and deaths without a T-code in the T36-T50.8 range

The methodology for defining drug overdose deaths and non-exclusive drug categories is based on the following sources:

Gabella BA, Proescholdbell SK, Johnson RL, Thomas KE. State Special Emphasis Report: Instructions Drug Overdose Death Data. Atlanta, GA: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2014.

Injury Surveillance Workgroup 7. Consensus recommendations for national and state poisoning surveillance. Atlanta, GA: The Safe States Alliance; 2012. Available online at: http://c.ymcdn.com/sites/www.safestates.org/resource/resmgr/imported/ISW7%20Full%20Report_3.pdf.

Centers for Disease Control and Prevention. Opioid data analysis. Atlanta, GA; 2017. Available online at: https://www.cdc.gov/drugoverdose/data/analysis.html

Note (*): Data for 2017 and 2018 are final and obtained from CDC WONDER (https://wonder.cdc.gov/) multiple cause of death (detailed mortality). Due to interjurisdictional death certificate data sharing issues, final 2017 and 2018 data could not be obtained and analyzed within the Injury and Violence Prevention Section of the Minnesota Department of Health. Updated analyses are presented from functionalities of CDC WONDER. Due to data privacy and suppression rules of CDC WONDER, complete 2017 and 2018 county-level data could not be shared as was done from 2000-2016. County-level data are only presented where the number of deaths in any year is equal to or exceeds 10.

Note: Alcohol overdose deaths are excluded from these analyses.

Suggested Citation:

DeLaquil, M., Giesel, S., and Wright, N., Drug Overdose Deaths among Minnesota Residents, 2000-2018. Saint Paul: Minnesota Department of Health. Report – May 2020.