Trends in Drug Overdose Deaths: Southwest Region

2011-2019

This series of data briefs describe trends in drug overdose deaths by Minnesota's State Community Health Services Advisory Committee (SCHSAC) (https://www.health.state.mn.us/communities/practice/schsac/index.html regions. By having access to data, communities can better understand trends in drug overdose in their region and make data-driven decisions that influence public health policy, guidelines, and practices.

Note on the data: The data briefs cover drug overdose deaths from 2011-2019 with years grouped in three-year time periods (e.g., 2011-2013) to account for relatively small annual numbers in some regions and the necessity to make meaningful comparisons across the eight SCHSAC regions.

Southwest Region Overview

The Southwest region is home to 216,607 Minnesotans (Minnesota State Demographic Center, 2019) and includes 16 counties – Big Stone, Chippewa, Cottonwood, Jackson, Kandiyohi, Lac qui Parle, Lincoln, Lyon, Murray, Nobles, Pipestone, Redwood, Renville, Rock, Swift, and Yellow Medicine counties (Figure 1). Among the eight SCHSAC regions, Southwest ranked seventh for the drug overdose mortality rate from 2017-2019 (7.1 per 100,000 residents) (Chart 1). Since 2011, drug overdose deaths in the Southwest region have remained relatively stable. The average annual number of overdose deaths was 14, ranging from 8 in 2012 to 23 in 2015 (Chart 2). From 2017-2019, the Southwest region saw an increase in drug overdose deaths involving psychostimulants. Over this time period, the greatest burden of drug overdose deaths was among 45-54-year-old, male, and American Indian residents.

Figure 1. The Southwest region includes 16 Minnesota counties.

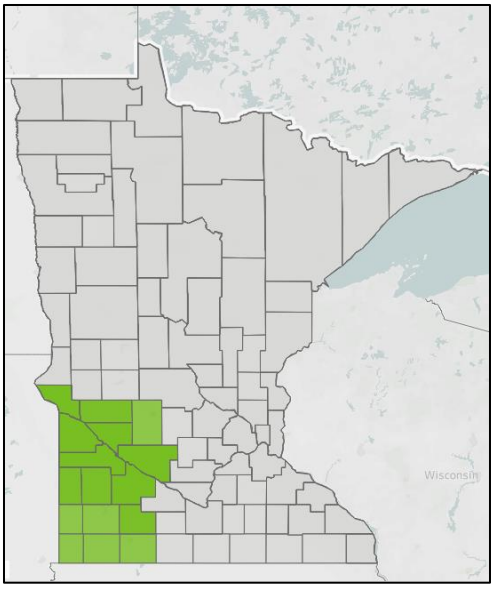
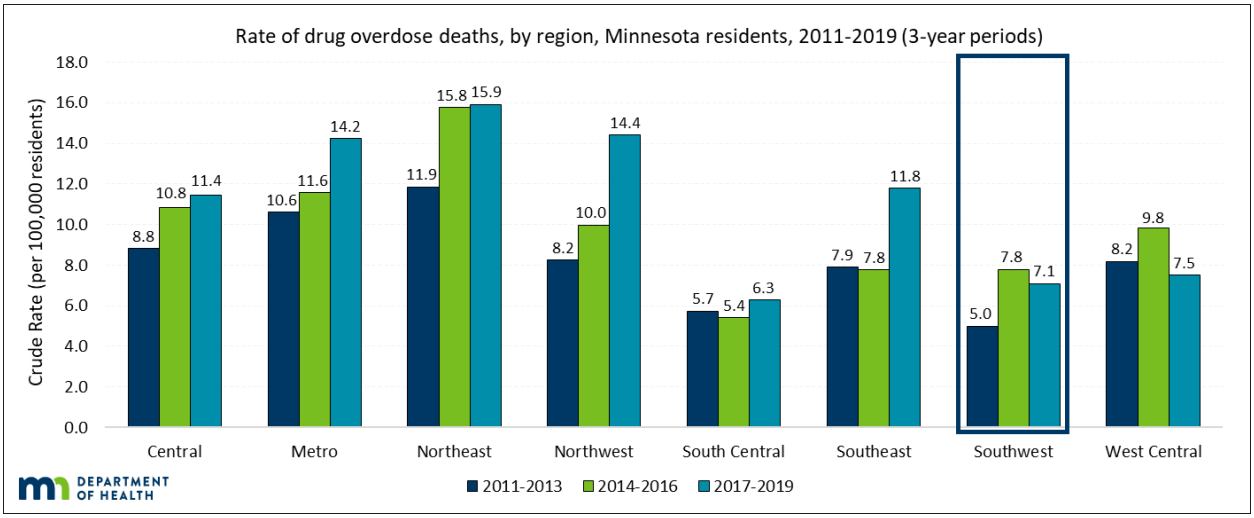
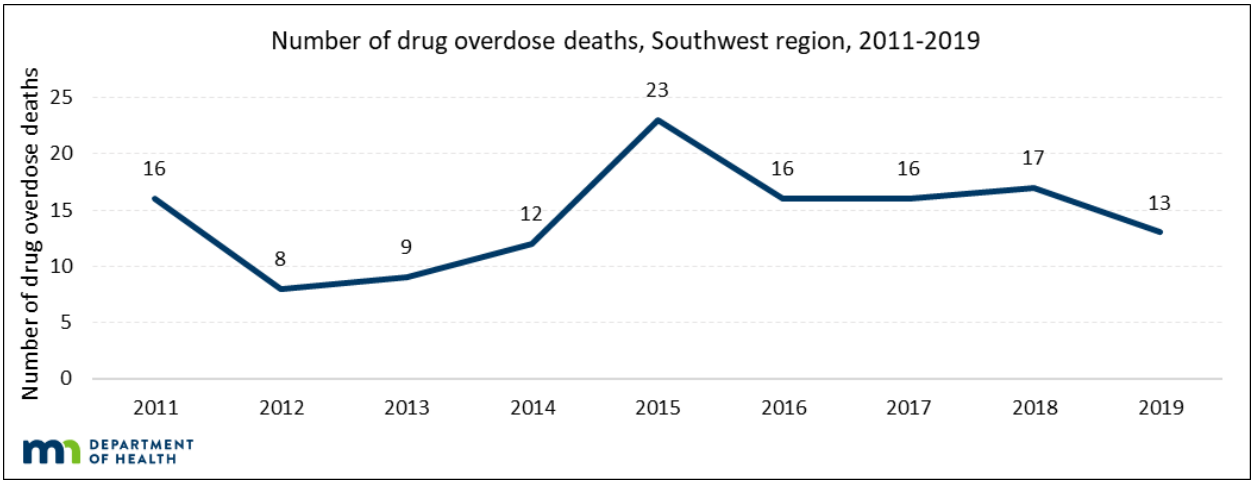


Chart 1. From 2017 to 2019, the Southwest region ranked seventh in the state for the drug overdose death rate.



SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2011-2019

Chart 2. Drug overdose deaths have remained relatively stable since 2011, with a peak in 2015.



SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2011-2019

Drug overdose deaths by drug category

Opioid-involved drug overdose deaths

All opioid-involved deaths decreased 13% from 2011-2013 to 2011-2019 (15 to 13 deaths) (Chart 3). Since 2011-2013, other opioids and methadone (i.e., commonly prescribed opioids) have accounted for the largest number of opioid-involved overdose deaths. Synthetic opioids-involved overdose deaths have increased overall since 2011-2013. Heroin-involved deaths have remained relatively stable. From 2014-2016 to 2017-2019:

- All opioid-involved overdose deaths decreased 52% (27 to 13 deaths)

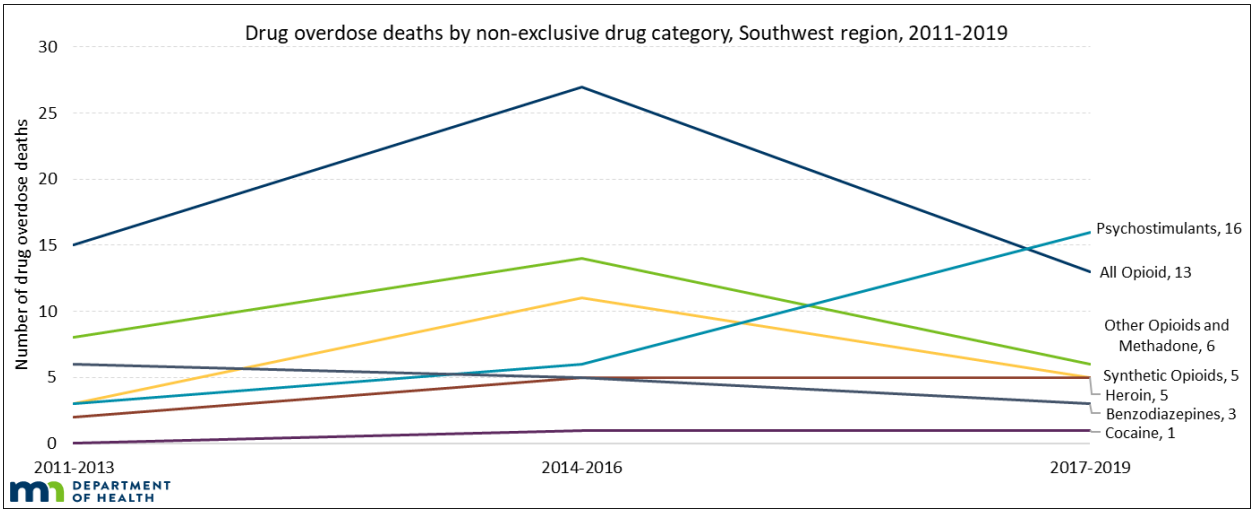
- Synthetic opioid-involved overdose deaths decreased 55% (11 to 5 deaths)
- Commonly prescribed opioid-involved overdose deaths decreased 57% (14 to 6 deaths)
- Heroin-involved overdose deaths remained stable (5 to 5 deaths)

Non-opioid involved drug overdose deaths

Of particular concern in the Southwest region are psychostimulant-involved drug overdose deaths, accounting for more drug overdose deaths than all opioid-involved deaths (Chart 3). Benzodiazepine and cocaine-involved deaths have both remained relatively stable. From 2014-2016 to 2017-2019:

- Psychostimulant-involved deaths sharply increased, increasing 167% (6 to 16 deaths)
- Benzodiazepine-involved remained relatively stable (5 to 3 deaths)
- Cocaine-involved deaths remained stable (1 to 1 deaths)

Chart 3. From 2014-2016 to 2017-2019, there was a large increase in psychostimulant-involved deaths, surpassing all opioid-involved deaths for the first time.



SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2011-2019

Co-involvement of multiple substances

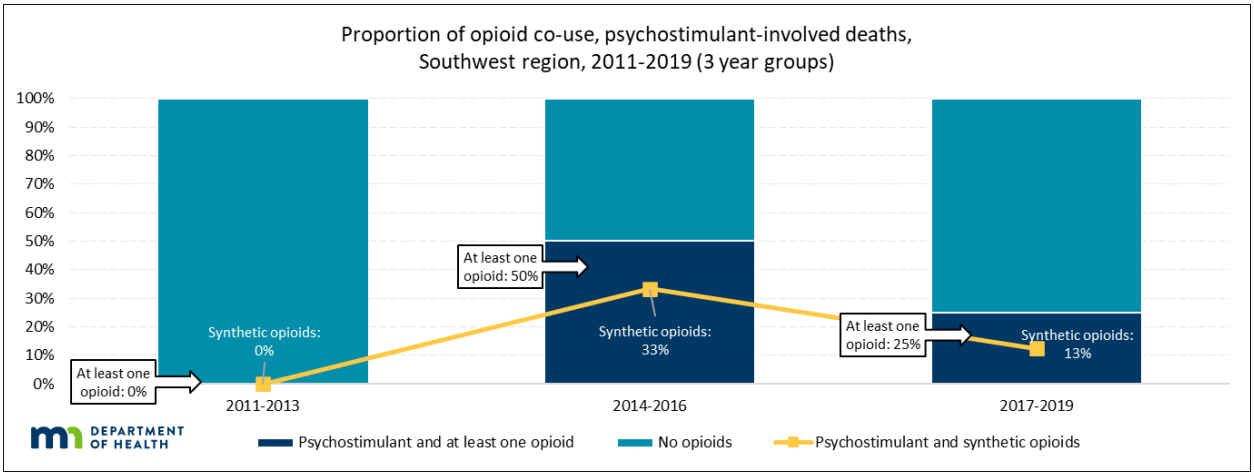
The presence of multiple drugs involved in a death has several implications. One of the major concerns is the challenge of responding to an overdose when multiple substances are present, especially when there are opioids and non-opioids together. There are no medications to reverse a non-opioid (e.g., psychostimulant, benzodiazepine, cocaine) overdose, whereas opioid overdoses can be reversed with the life-saving medication naloxone. Understanding trends in the co-use of non-opioids and opioids can help us to better interpret trends in drug overdose deaths and inform prevention and response efforts.

Due to relatively low numbers of drug overdose deaths involving cocaine (2 deaths) and benzodiazepines (14 deaths) in the Southwest region from 2011 to 2019, there is not sufficient data to make meaningful conclusions on the co-involvement of opioids and these drugs.

Psychostimulant- and Opioid-involved Deaths

Psychostimulant-involved deaths have continued to increase statewide and in the Southwest region. Unlike trends seen in most other regions in the state, the co-involvement of opioids in psychostimulant-involved deaths has varied over the years and most recently declined (Chart 4). In 2017-2019, psychostimulant-involved deaths involving at least one opioid occurred in 4 out of 16 psychostimulant-involved deaths and synthetic opioids were involved in 13% of all psychostimulant-involved deaths (2 out of 16 deaths) and 50% of opioid co-involvement (2 out of 4 deaths; not shown in chart).

Chart 4. The proportion of synthetic opioid co-involvement in psychostimulant-involved deaths opioids remains small.



SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2011-2019

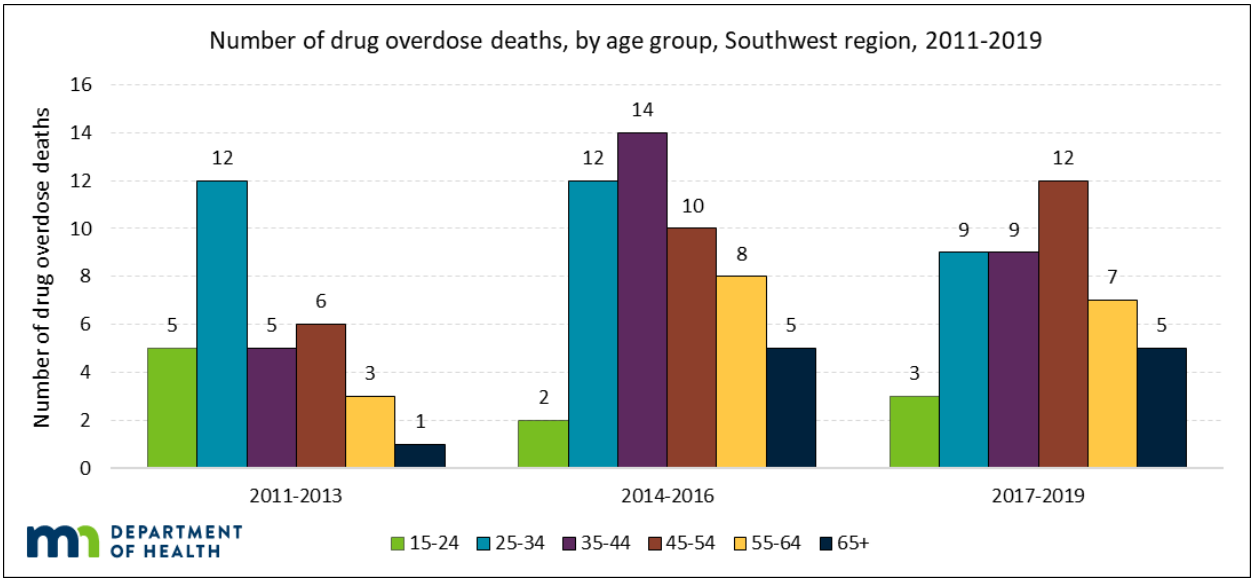
Age of drug overdose deaths

In the Southwest region, drug overdose deaths have trended older since 2011-2013. From 2011-2013, 25–34-year-old Minnesotans from the Southwest region experienced the largest number of drug overdose deaths (Chart 5). Beginning in 2014-2016, 25-34 and 35-44-year-old Minnesotans from the Southwest region experienced the largest number of drug overdose deaths. Beginning in 2017-2019, 45-54-year-old Minnesotans from the Southwest region experienced the largest number of drug overdose deaths. Among age groups who experienced a change in drug overdose deaths, from 2014-2016 to 2017-2019:

- the 25-to-34-year age group experienced a 25% decrease in drug overdose deaths (12 to 9 deaths)
- the 35-to-44-year age group experienced a 36% decrease in drug overdose deaths (14 to 9 deaths)

- the 45-to-54-year age group experienced a 20% increase in drug overdose deaths (10 to 12 deaths)

Chart 5. In 2017-2019, 45–54-year-old Minnesotans from the Southwest region experienced the largest number of drug overdose deaths.

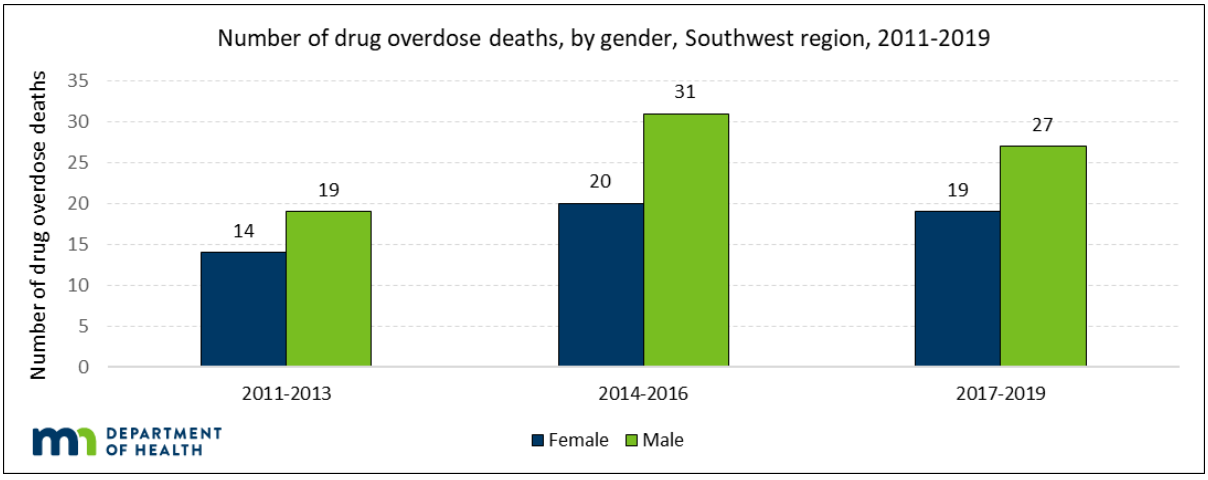


SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2011-2019

Drug overdose deaths by gender

Since 2011-2013, males have experienced a larger number of drug overdose deaths than females in the Southwest region (Chart 6). From 2017-2019, males accounted for 59% of drug overdose deaths (27 deaths) and females accounted for 41% of drug overdose deaths (19 deaths).

Chart 6. Males experienced more drug overdose deaths than females since 2011.



SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2011-2019

Drug overdose deaths by race

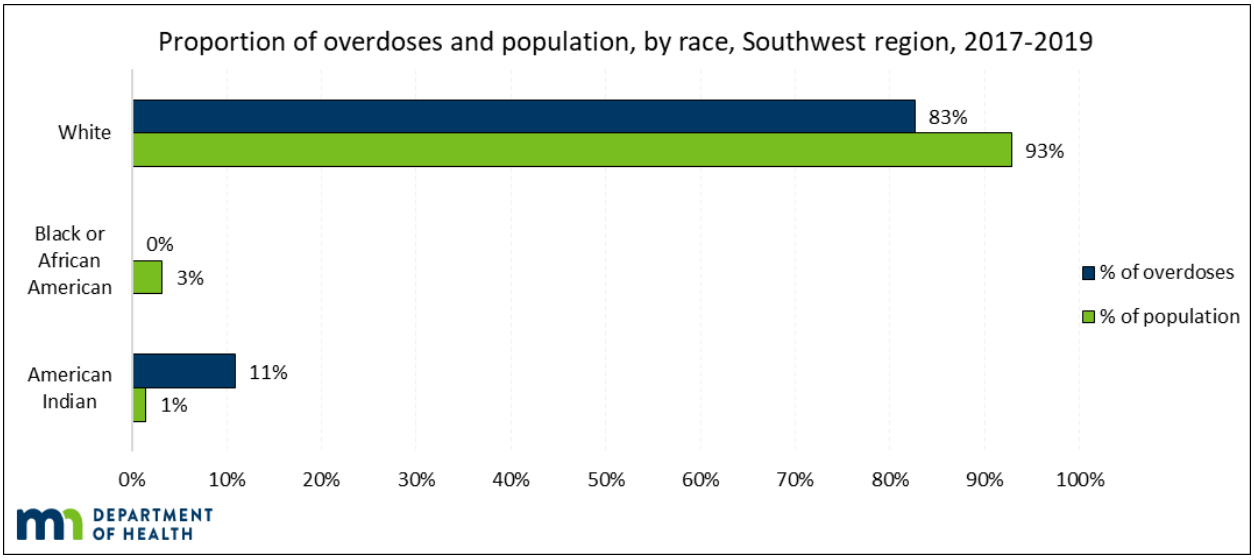
Since 2011, white residents experienced the largest number of drug overdose deaths in the Southwest region (Table 1). However, American Indian residents, who represent 1% of the population, experienced 11% of drug overdose deaths in the region (Chart 7). White residents represented 93% of the Southwest region population but accounted for only 83% of drug overdose deaths from 2017-2019. Black residents, who represented 3% of the population, did not experience any drug overdose deaths in the region from 2017-2019.

Table 1. Number of drug overdose deaths by race, Southwest region, 2011-2019

Race of Decedent	2011-2013	2014-2016	2017-2019
American Indian	4	5	5
Black	0	1	0
White	26	40	38

SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2011-2019

Chart 7. American Indian residents experience a disproportionate number of overdose deaths in the Southwest region.



SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2011-2019

References

Minnesota State Demographic Center. (2021, April). PopFinder For Minnesota, Counties, & Regions. PopFinder For Minnesota, Counties, & Regions. Retrieved February 14, 2022, from https://mn.gov/admin/demography/data-by-topic/population-data/our-estimates/pop-finder1.jsp

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