Trends in Drug Overdose Deaths: Central 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.

Central Region Overview

The Central region is home to 773,204 Minnesotans (Minnesota State Demographic Center, 2019) and includes 14 counties – Benton, Cass, Chisago, Crow Wing, Isanti, Kanabec, Mille Lacs, Morrison, Pine, Sherburne, Stearns, Todd, Wadena, and Wright counties (Figure 1). Among the eight SCHSAC regions, Central ranked fifth for drug overdose mortality rate in 2017-2019 (11.4 per 100,000 residents) (Chart 1). Since 2011, drug overdose deaths in the Central region have slightly increased. The average annual number of overdose deaths was 78, ranging from 60 in 2012 to 92 in 2016 (Chart 2). From 2017-2019, the Central region has seen an increase in overdose deaths involving psychostimulants and synthetic opioids. Over this time period, the greatest burden of drug overdose deaths was among 25-34-year-old, male, and American Indian residents.

Figure 1. The Central region includes 14 Minnesota counties.

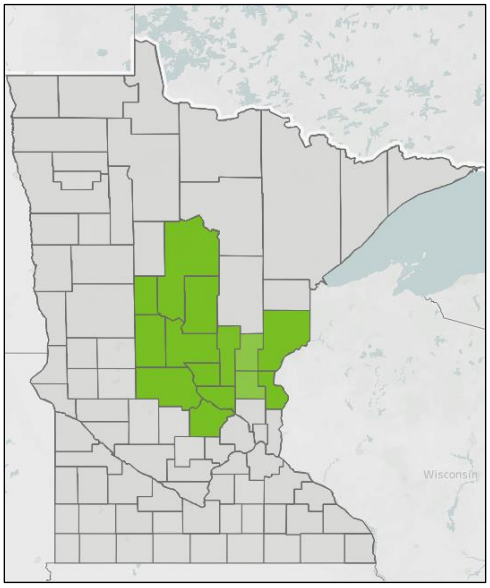
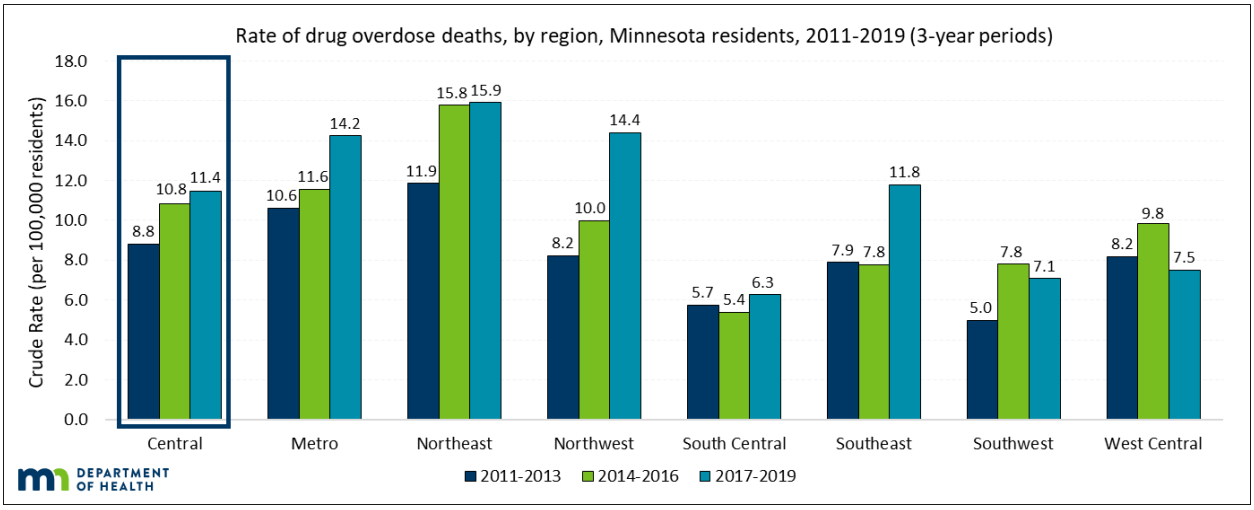
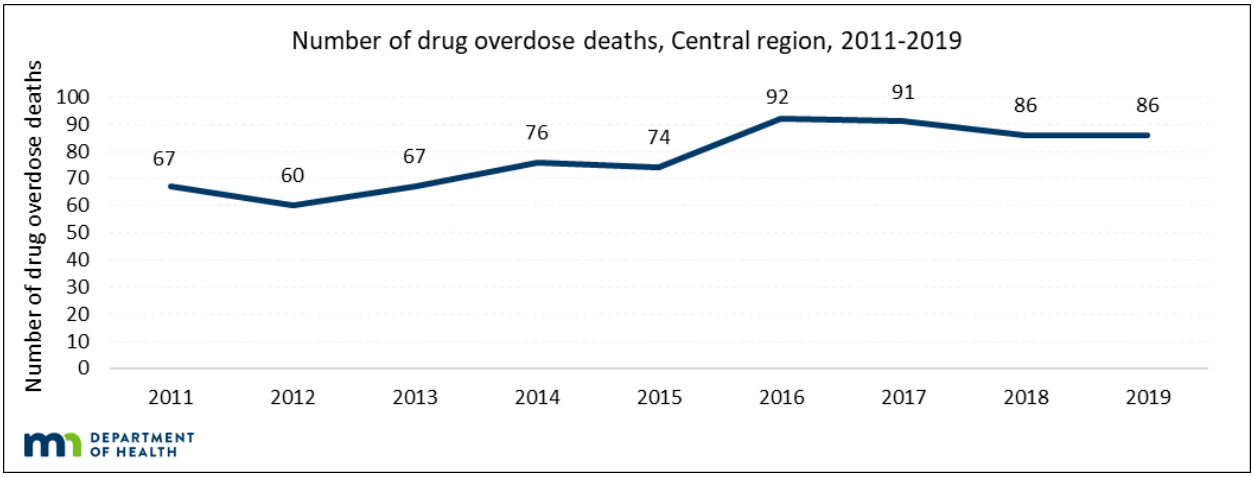


Chart 1. From 2017 to 2019, Central region ranked fifth in the state for the drug overdose death rate.



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

Chart 2. Drug overdose deaths have slightly increased overall since 2011.



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 have increased 25% since 2011-2013 (110 to 138 deaths) (Chart 3). However, trends in types of opioids involved have changed. From 2011-2016, other opioids and methadone (i.e., commonly prescribed opioids) accounted for the largest number of opioid-involved overdose deaths. Beginning in 2017-2019, synthetic opioid-involved deaths largely increased and surpassed the number of commonly prescribed opioid-involved overdose deaths. Heroin-involved deaths have remained relatively stable. From 2014-2016 to 2017-2019:

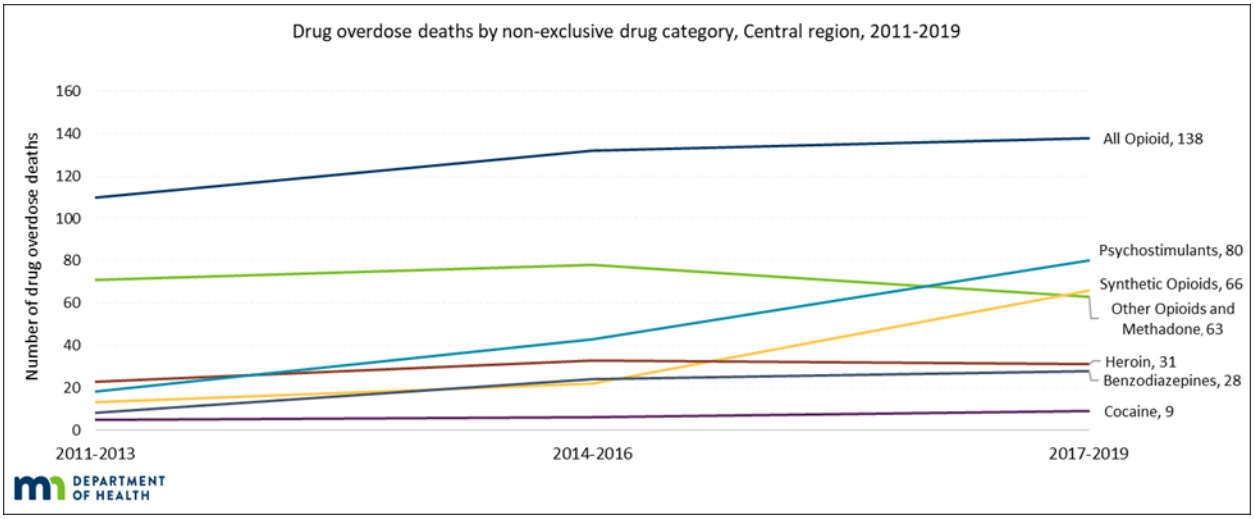
- All opioid-involved overdose deaths remained relatively stable, increasing 5% (131 to 138 deaths)
- Synthetic opioid-involved overdose deaths sharply increased, increasing 200% (22 to 66 deaths)
- Commonly prescribed opioid-involved overdose deaths decreased 19% (78 to 63 deaths)
- Heroin-involved overdose deaths remained relatively stable, decreasing 6% (33 to 31 deaths)

Non-opioid involved drug overdose deaths

Of particular concern in the Central region are psychostimulant-involved drug overdose deaths (Chart 3). Additionally, benzodiazepine-involved deaths have increased since 2011. Cocaine-involved deaths have remained relatively stable. From 2014-2016 to 2017-2019:

- Psychostimulant-involved deaths sharply increased, increasing 86% (43 to 80 deaths)
- Benzodiazepine-involved deaths increased 17% (24 to 28 deaths)
- Cocaine-involved deaths remained relatively stable (6 to 9 deaths)

Chart 3. From 2014-2016 to 2017-2019, there were large increases in psychostimulant and synthetic opioid-involved deaths.



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.

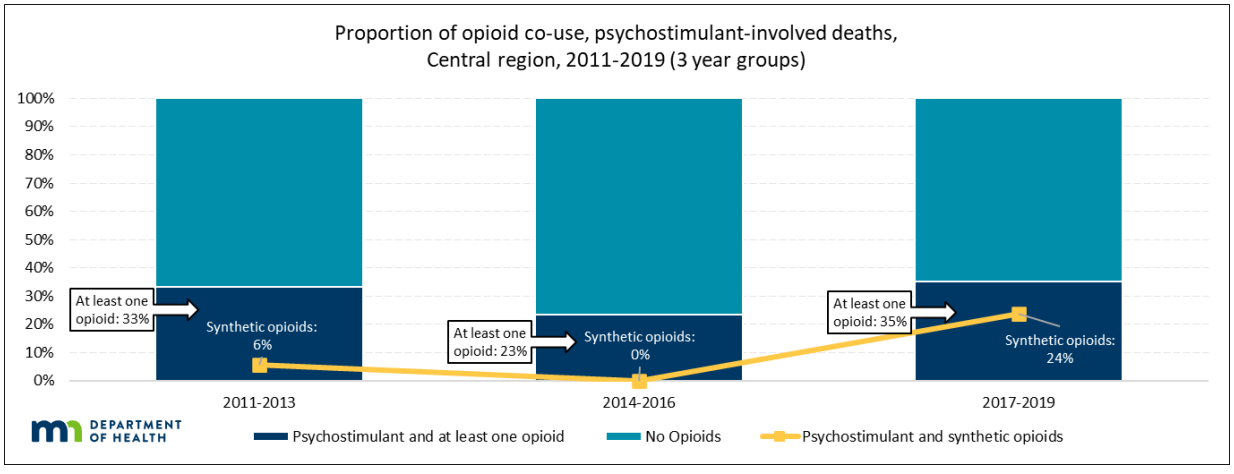
Due to relatively low numbers of cocaine-involved deaths (20 deaths) in the Central region from 2011 to 2019, there is not sufficient data to make meaningful conclusions on the co-involvement of cocaine and opioids.

Psychostimulant- and Opioid-involved Deaths

Psychostimulant-involved deaths have continued to increase statewide and in the Central region. The co-involvement of opioids in psychostimulant-involved deaths has also increased from 2011-2013 to 2017-2019 (Chart 4). In 2011-2013, opioids were involved in 33% of psychostimulant-involved deaths (16 out of 18 deaths). In 2014-2016, the proportion of psychostimulant-involved deaths with at least one opioid present decreased. However, in 2017-2019, the proportion of psychostimulant-involved deaths involving at least one opioid increased to 35% (28 out of 80 deaths).

A concerning trend in the Central region is the co-involvement of synthetic opioids in psychostimulant-involved deaths. From 2011-2016 there was only one psychostimulant-involved death that also involved a synthetic opioid. By 2017-2019, synthetic opioids were involved in 24% of psychostimulant-involved deaths in the Central region (19 of 80 deaths) and accounted for 68% of overall opioid co-involvement in psychostimulant-involved deaths (19 of 28 deaths; not shown in chart).

Chart 4. The proportion of synthetic opioid co-involvement in psychostimulant-involved deaths has increased.

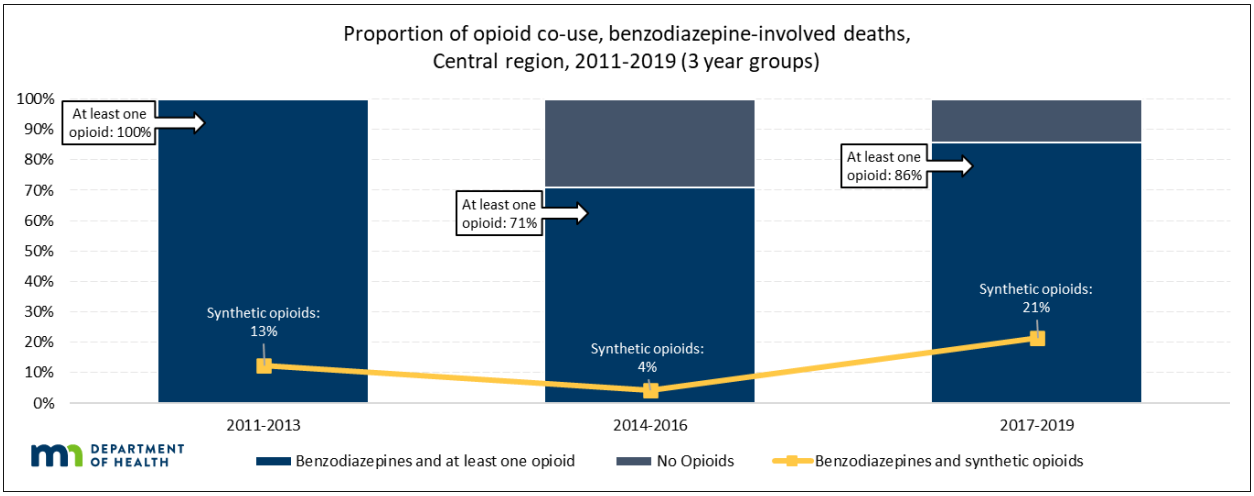


SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2011-2019

Benzodiazepine- and Opioid-involved Deaths

The co-involvement of opioids in benzodiazepine-involved deaths has been high since 2011-2013 (Chart 5). However, the trend in the type of opioid present has started to shift. In 2011-2016, synthetic opioids were involved in two psychostimulant-involved deaths. By 2017-2019, synthetic opioids were involved in 21% of all benzodiazepine deaths (6 out of 28 deaths) and accounted for 25% of overall opioid co-involvement (6 out of 24 deaths; not shown in chart).

Chart 5. The proportion of synthetic opioid co-involvement in benzodiazepine-involved deaths has increased in the Central region.



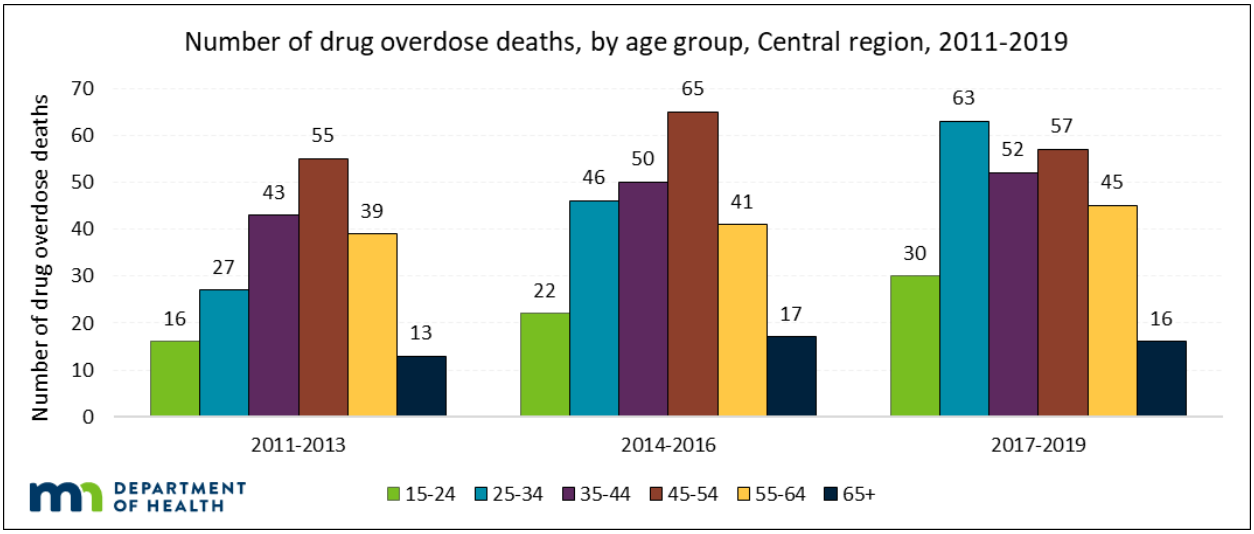
SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2011-2019

Age of drug overdose deaths

Over the examined time period, the age distribution of drug overdose deaths has shifted younger in the Central region. From 2011-2016, 45–54-year-old Minnesotans from the Central region experienced the largest number of drug overdose deaths (Chart 6). Beginning in 2017-2019, 25–34-year-old Minnesotans from the Central region experienced the largest number of drug overdose deaths, marking a shift from previous time periods. Among age groups who experienced a change in drug overdose deaths, from 2014-2016 to 2017-2019:

- the 15-to-24-year age group experienced a 36% increase in drug overdose deaths (22 to 30 deaths)
- the 25-to-34-year age group experienced a 37% increase in drug overdose deaths (46 to 63 deaths)
- the 45-to-54-year age group experienced a 12% decrease in drug overdose deaths (65 to 57 deaths)

Chart 6. In 2017-2019, 25–34-year-old Minnesotans from the Central region experienced the largest number of drug overdose deaths.

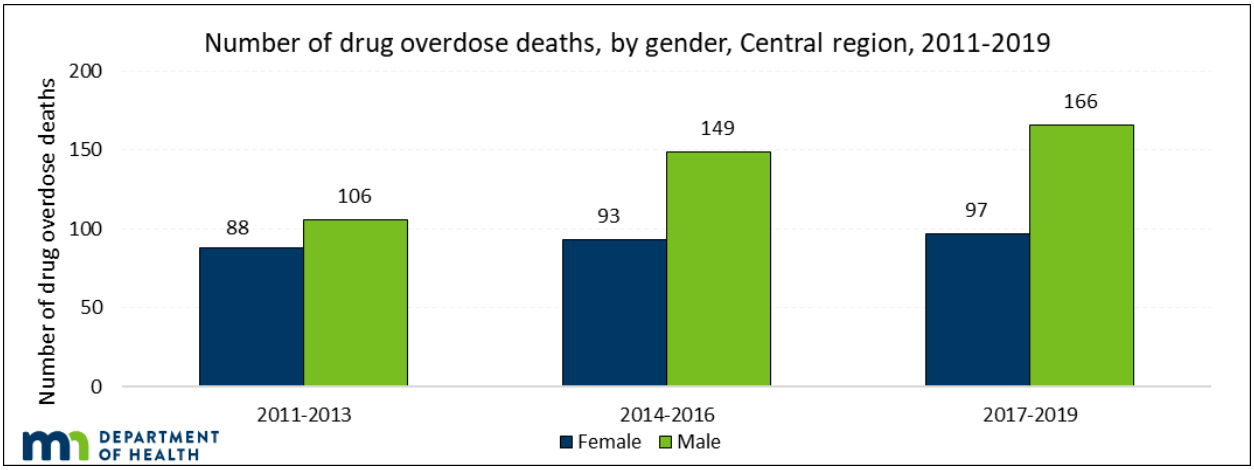


SOURCE: Minnesota death certificates, Injury and Violence Prevention Section, Minnesota Department of Health, 2011-2019

Drug overdose deaths by gender

Since 2011-2013, males have experienced a larger number of drug overdose deaths than females in the Central region (Chart 7). The gap between male and females has continued to increase. From 2017-2019, males accounted for 63% of drug overdose deaths (166 deaths) and females accounted for 37% of overdose deaths (97 deaths).

Chart 7. 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

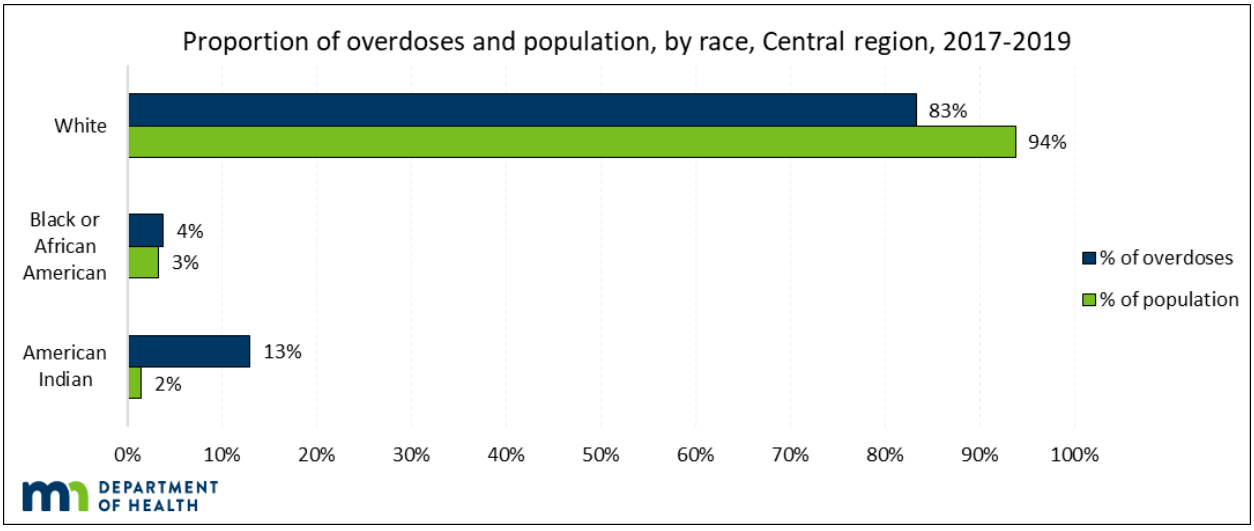
Since 2011, white residents experienced the largest number of drug overdose deaths in the Central region (Table 1). However, American Indian residents experienced a disproportionate number of overdose deaths when compared to the proportion of the population in the Central region – in 2017-2019, American Indian residents represented 2% of the Central region population; however, they accounted for 13% of all overdose deaths over that time period (Chart 8). Conversely, white residents represented 94% of the Central region population, but accounted for only 83% of drug overdose deaths from 2017-2019. Black residents, who represented 3% of the population, experienced 4% of drug overdose deaths from 2017-2019.

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

Race of Decedent	2011-2013	2014-2016	2017-2019
American Indian	14	21	34
Black	5	6	10
White	174	214	219

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

Chart 8. American Indian residents experience a disproportionate number of overdose deaths in the Central 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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