

Nevada State Unintentional Drug Overdose Reporting System

Polysubstance Trend Report, 2018-2019 - Statewide

Overview: The Centers for Disease Control and Prevention (CDC) Overdose Data to Action (OD2A) program supports state, territorial, county, and city health departments in obtaining more comprehensive and timelier data on overdose morbidity and mortality. The program is meant to enhance opioid overdose surveillance, reporting, and dissemination efforts to better inform prevention and early intervention strategies.

The information contained in this report highlights **opioid overdose mortality** of unintentional/undetermined intent within the state of Nevada utilizing the State Unintentional Drug Overdose Reporting System (SUDORS) for the period beginning **January 1, 2018 to December 31, 2019**.

Data Source: SUDORS uses death certificates and coroner/medical examiner reports (including post-mortem toxicology testing results) to capture detailed information on toxicology, death scene investigations, route of drug administration, and other risk factors that may be associated with a fatal overdose.

Case Definitions: A death that occurred in Nevada where the decedent's place of residence was Nevada and was assigned any of the following ICD-10 underlying cause-of-death codes on the death certificate: X40-44 (unintentional drug poisoning) or Y10-Y14 (drug poisoning of undetermined intent), with opioids listed as a contributing cause of death (T40.0-T40.4, T40.6); or a death classified as an opioid overdose death of unintentional or undetermined intent by the Medical Examiner/Coroner. *Stimulants* speed up the body's systems and include methamphetamine, cocaine, and prescription stimulants (Adderall, Ritalin). *Benzodiazepines* are psychoactive drugs that are depressants that produce sedation, include sleep, and prevent seizures (brand names include Valium and Xanax) (DEA).

Limitations: Data are delayed due to the time required to abstract data from multiple sources. Data completeness is dependent on information documented at time of death and therefore leads to large amounts of missing data.

The report includes details on: Demographic characteristics of cases, mental health, substance use, and institutionalization prior to death.

Section 1: Opioids and Stimulants

Section 2: Opioids and Benzodiazepines

Section 3: Opioids and Alcohol

Section 4: Appendix with tables for Sections 1-3

Key Findings:

- There was a **statistically significant increase** in deaths attributed to **opioids and stimulants** from 2018 to 2019 (Figure 1).
- There was a **statistically significant increase** in deaths attributed to **opioids and benzodiazepines** in **Washoe County** from 2018 (23.7%) to 2019 (38.2%) (Figure 14).
- Cases where **opioids and stimulants** attributed to death were more likely to be **25-34 years of age, male, White** (non-Hispanic), and **possess a high school degree or GED** (Figures 2-5).
- Cases where opioids and alcohol attributed to death were more likely to be **45-54 years of age, male, White** (non-Hispanic), and **possess a high school degree or GED** (Figures 18-21).
- **Potential at-risk groups for opioids + benzodiazepines:** Those who are 0-24 years of age, and those who are Black, non-Hispanic (Figures 10, 13).

Questions or comments?

Please contact Nevada OD2A's opioid epidemiologist, Shawn Thomas, MPH, at shawnt@unr.edu.

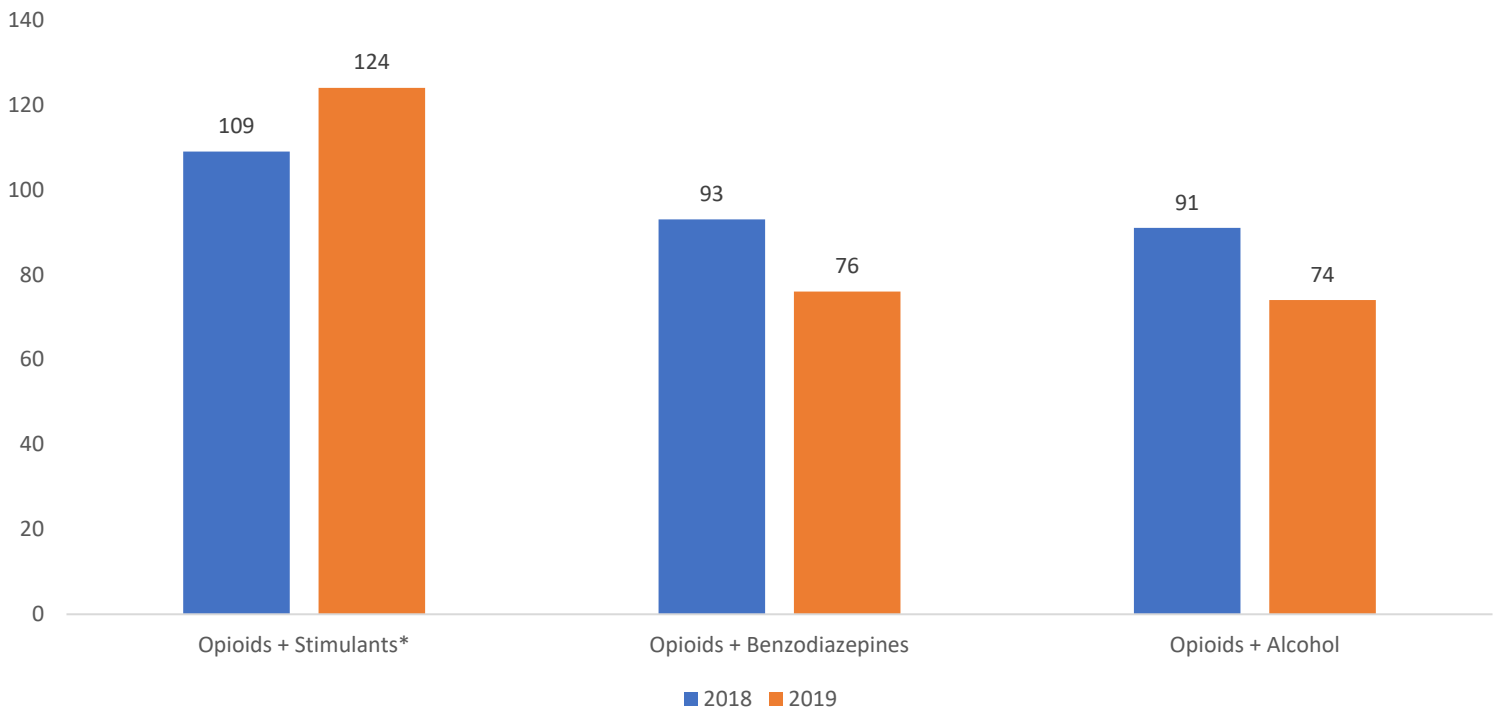


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Figure 1. Change in drug overdose deaths of unintentional/undetermined intent involving opioids and other substances in NV, 2018-2019



Section 1: Opioid and Stimulants

Figure 2. Age (Opioids + Stimulants)

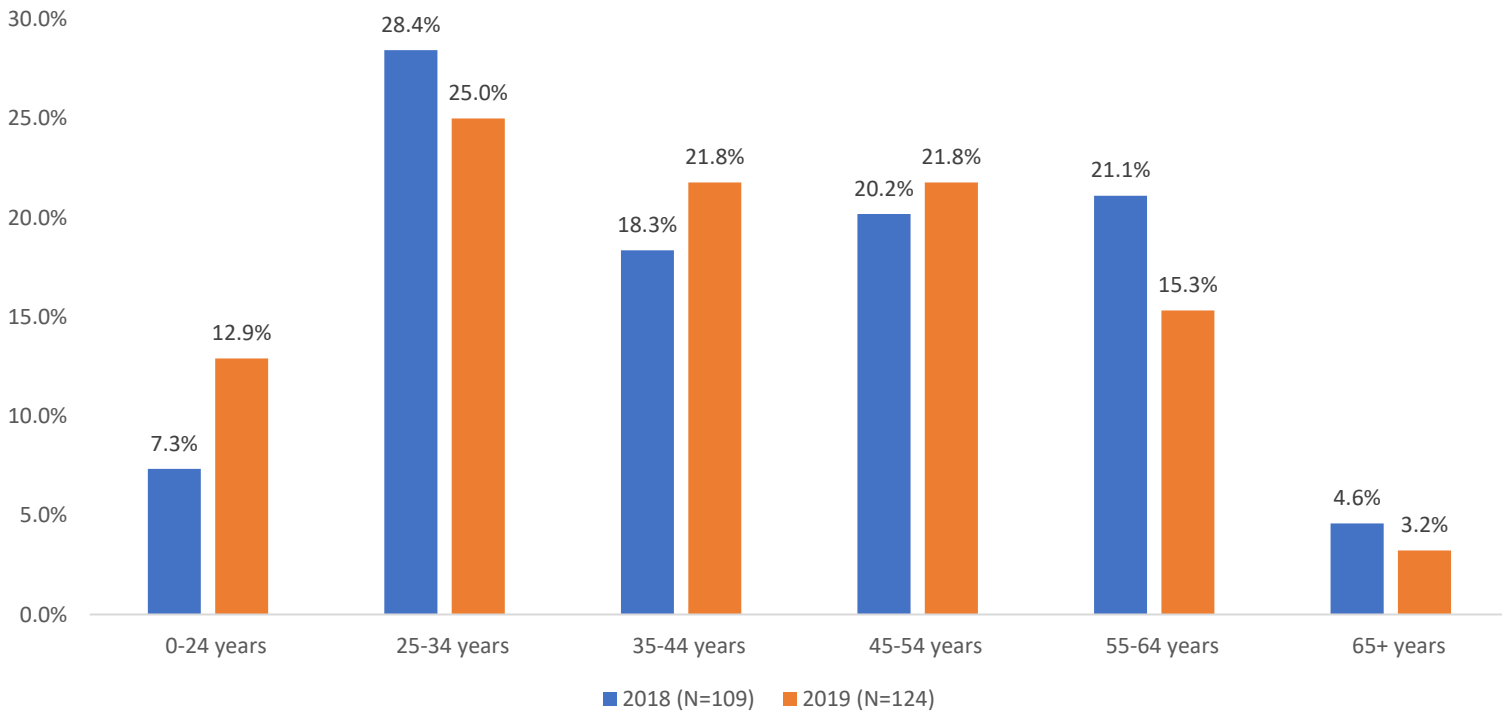


Figure 3. Sex (Opioids + Stimulants)

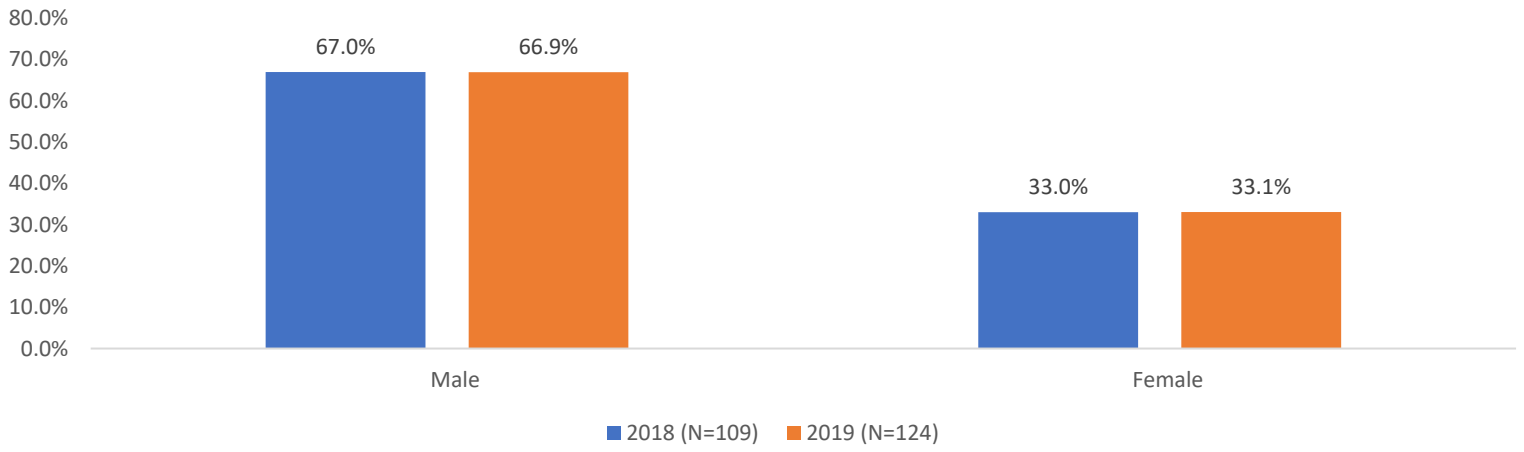


Figure 4. Education Level (Opioids + Stimulants)

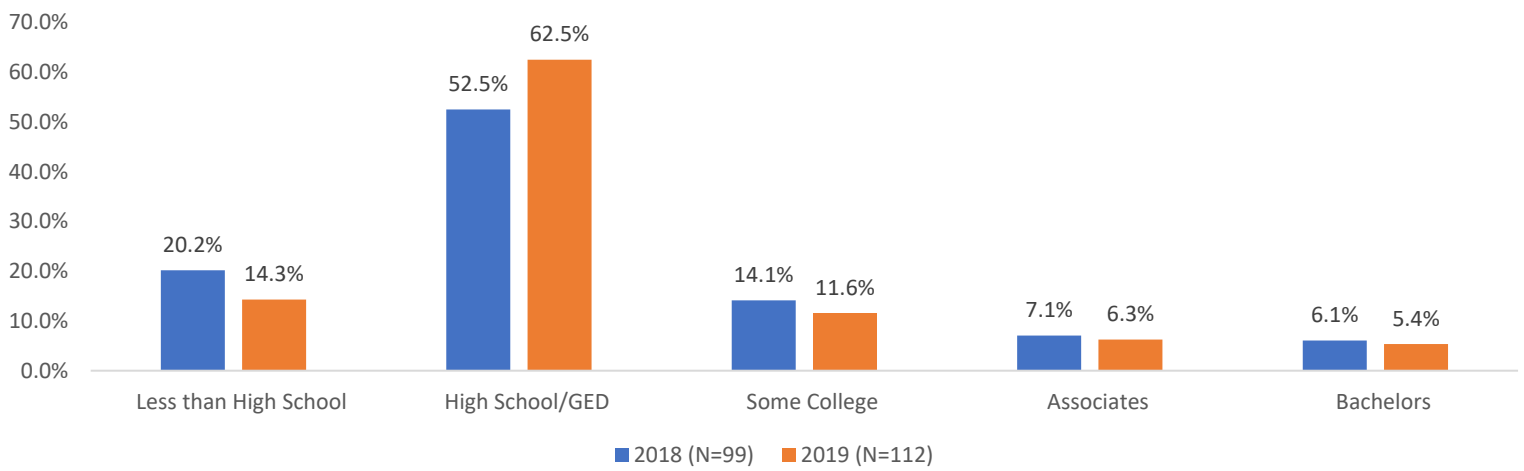


Figure 5. Race/Ethnicity (Opioids + Stimulants)

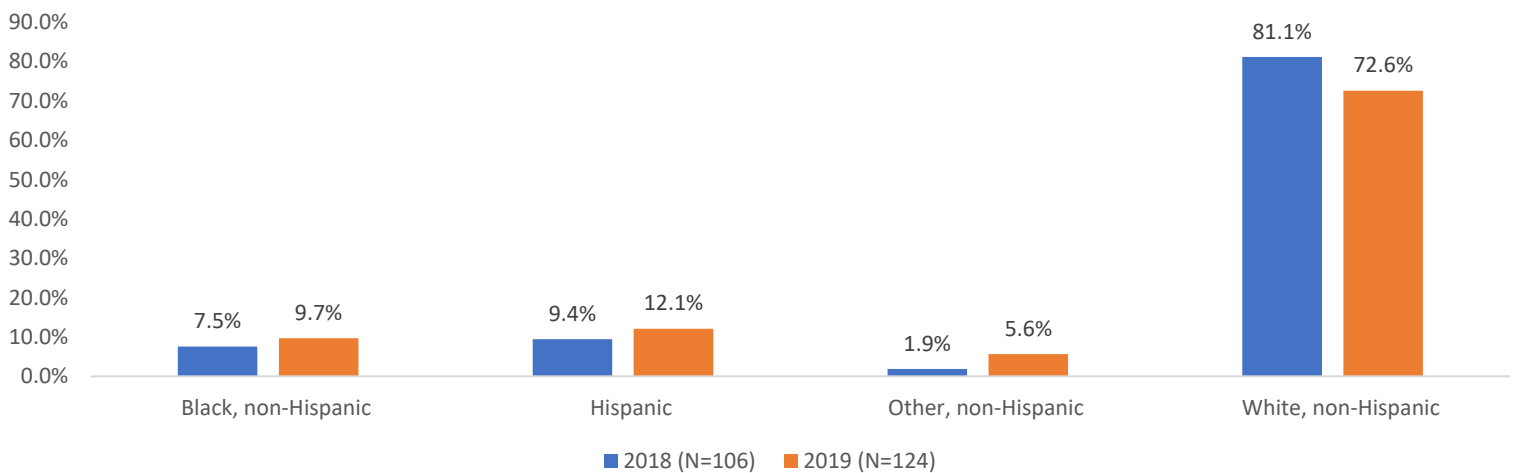


Figure 6. Residence by Behavioral Health Region (Opioids + Stimulants)

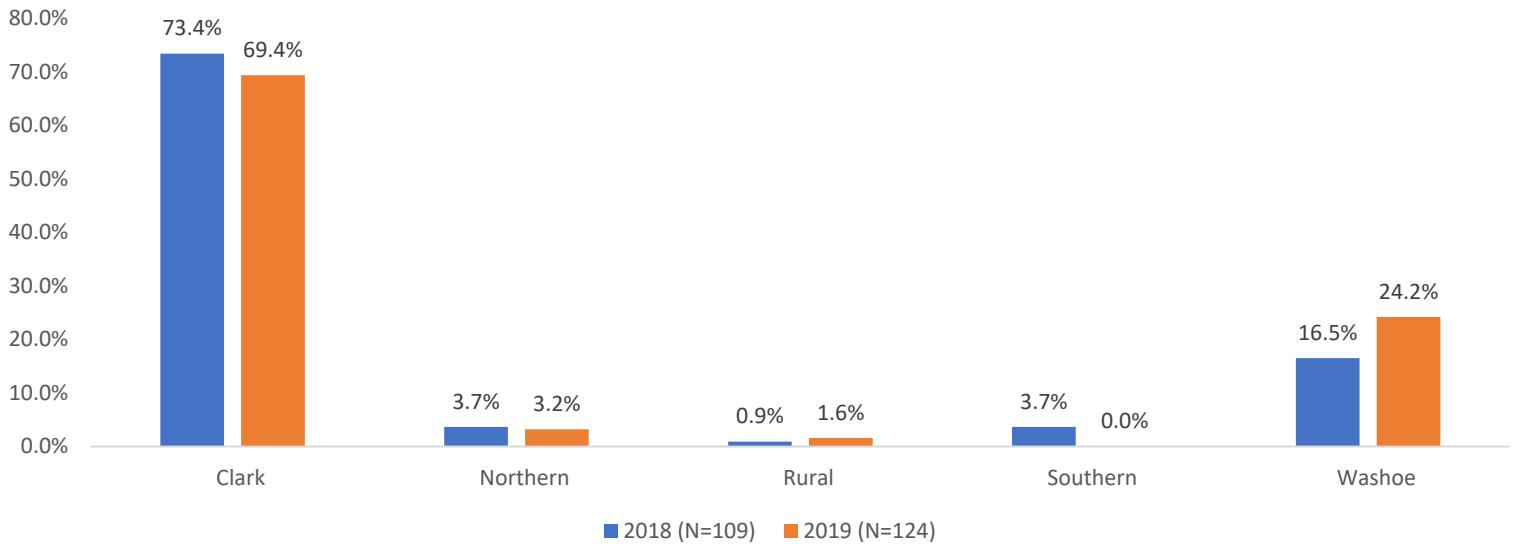


Figure 7. Substance Abuse History (Opioids + Stimulants)

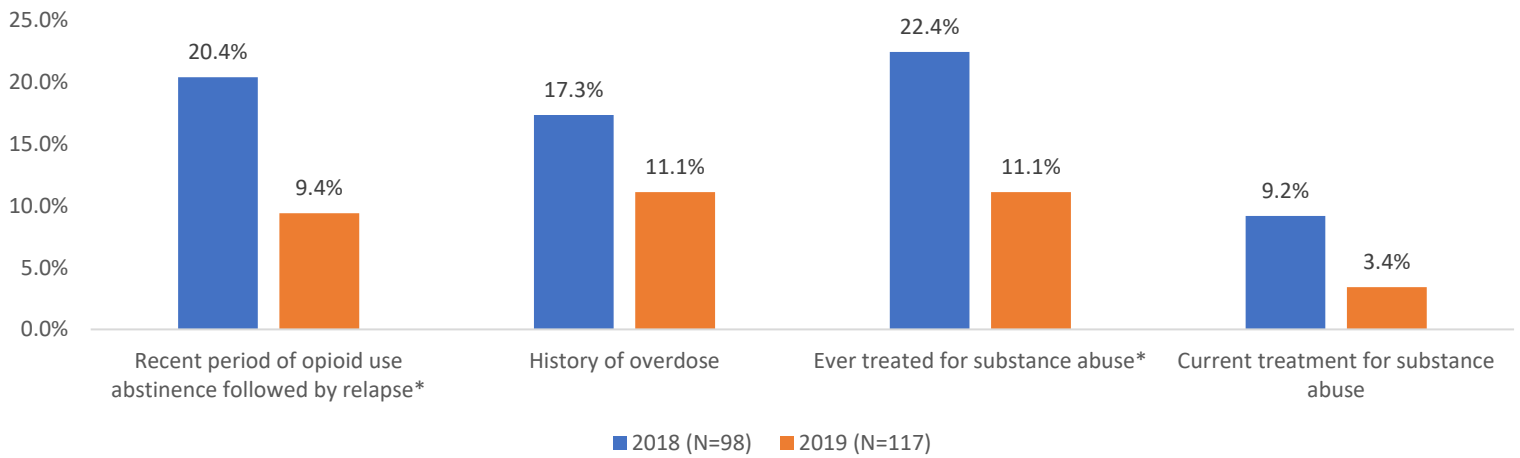


Figure 8. Institutionalization History (Opioids + Stimulants)

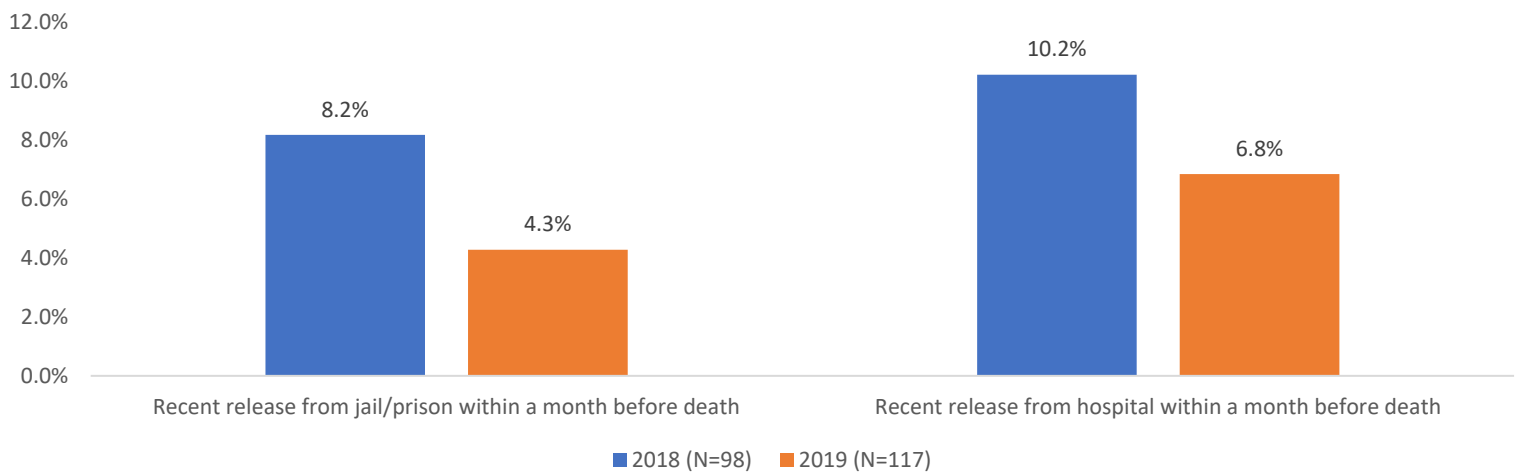
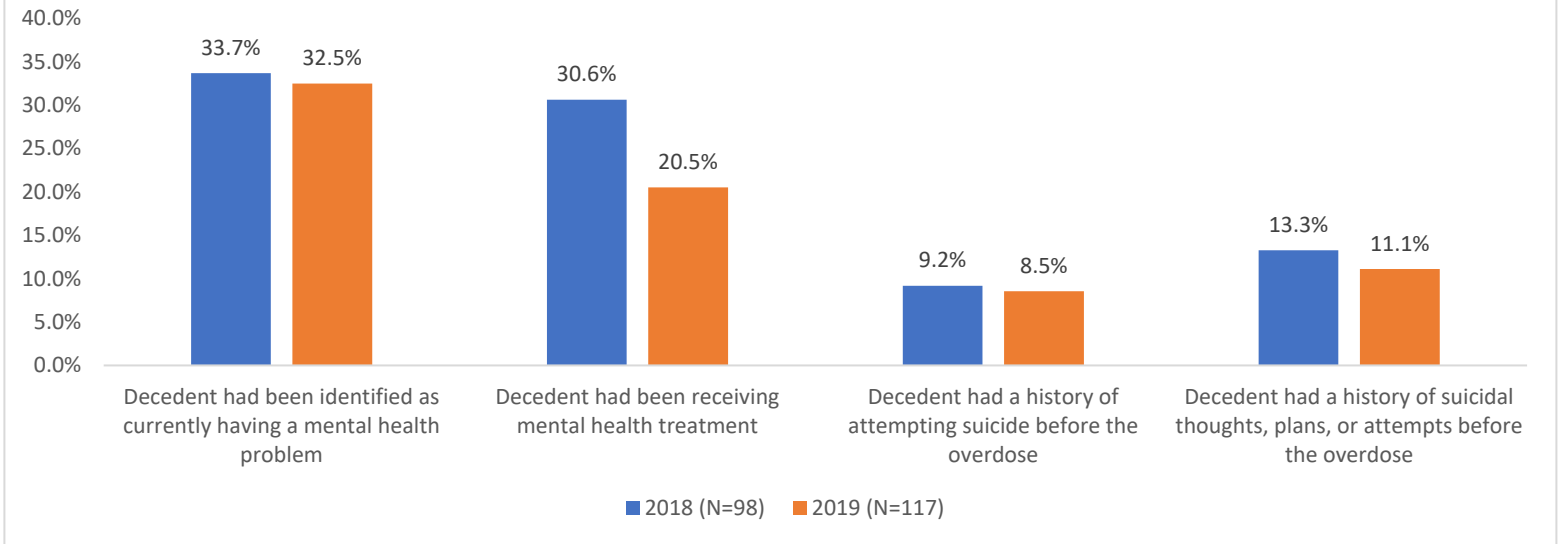


Figure 9. Mental Health History (Opioids + Stimulants)



*Indicates statistically significant difference in a specific characteristic between years (p-value<0.05).

NOTE: Data not available for all cases in Figures 2-5. Circumstances prior to death were not available for all cases in Figure 7-9. Percentages exclude missing data and likely underestimate the true proportion of case characteristics.

Summary: There was an increase in the number of deaths attributed to opioids and stimulants (N=109 in 2018 to N=124 in 2019) (Figure 1). There was a statistically significant decrease in cases who relapsed following a period of abstaining from opioid use from 2018 (20.4%) to 2019 (9.4%) (Figure 7). There was a statistically significant decrease in cases who were ever treated for substance abuse 2018 (22.2%) to 2019 (11.1%) (Figure 7).

Section 2: Opioids + Benzodiazepines

Figure 10. Age (Opioids + Benzos)

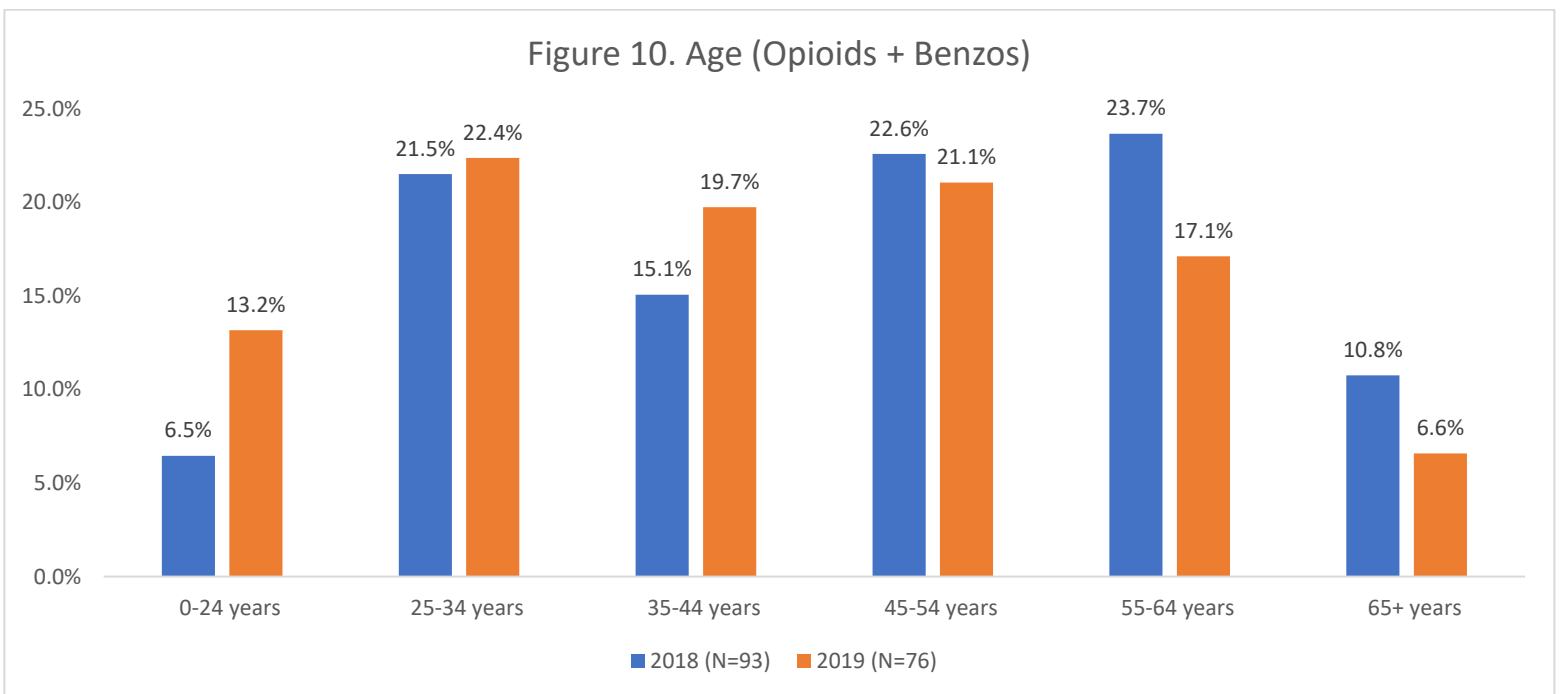


Figure 11. Sex (Opioids + Benzos)

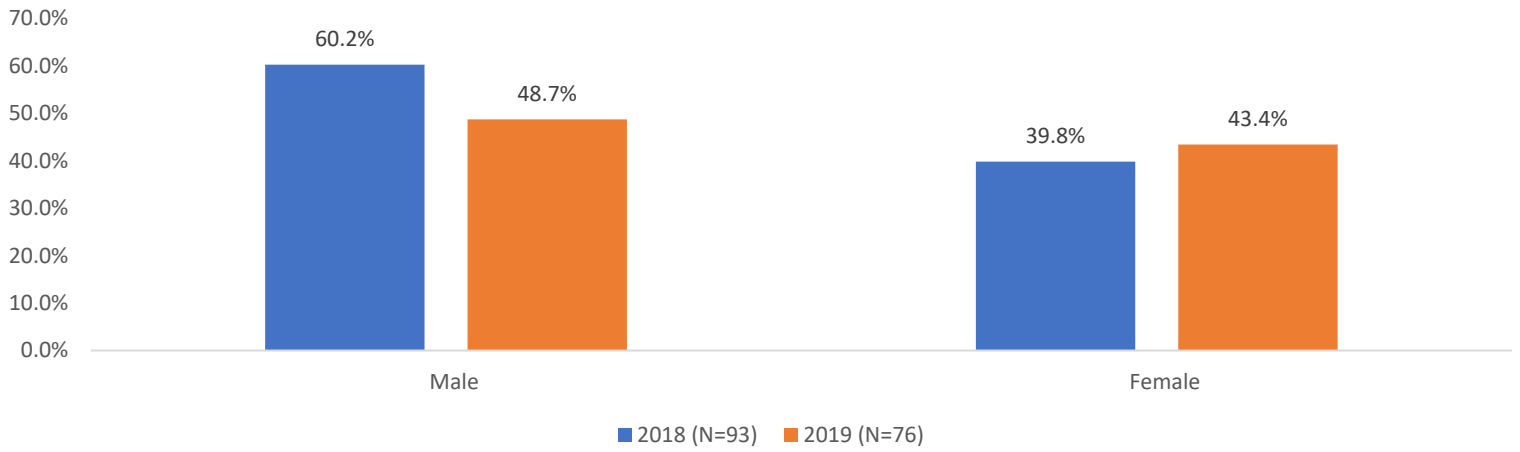


Figure 12. Education Level (Opioids + Benzos)

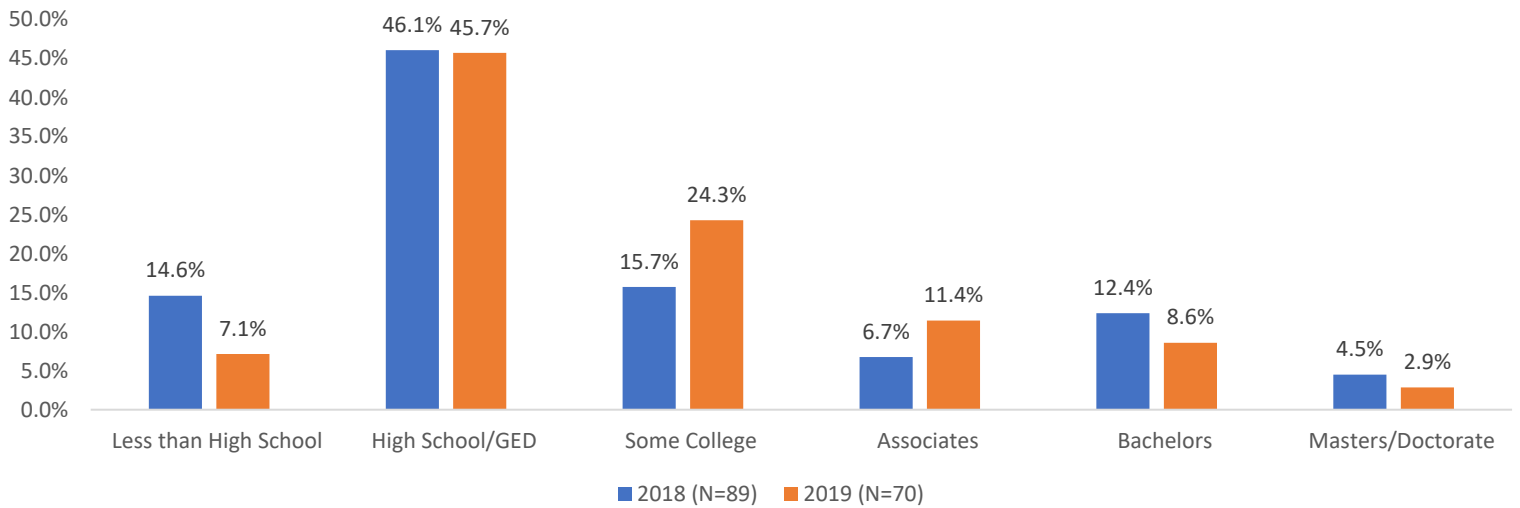


Figure 13. Race/Ethnicity (Opioids + Benzos)

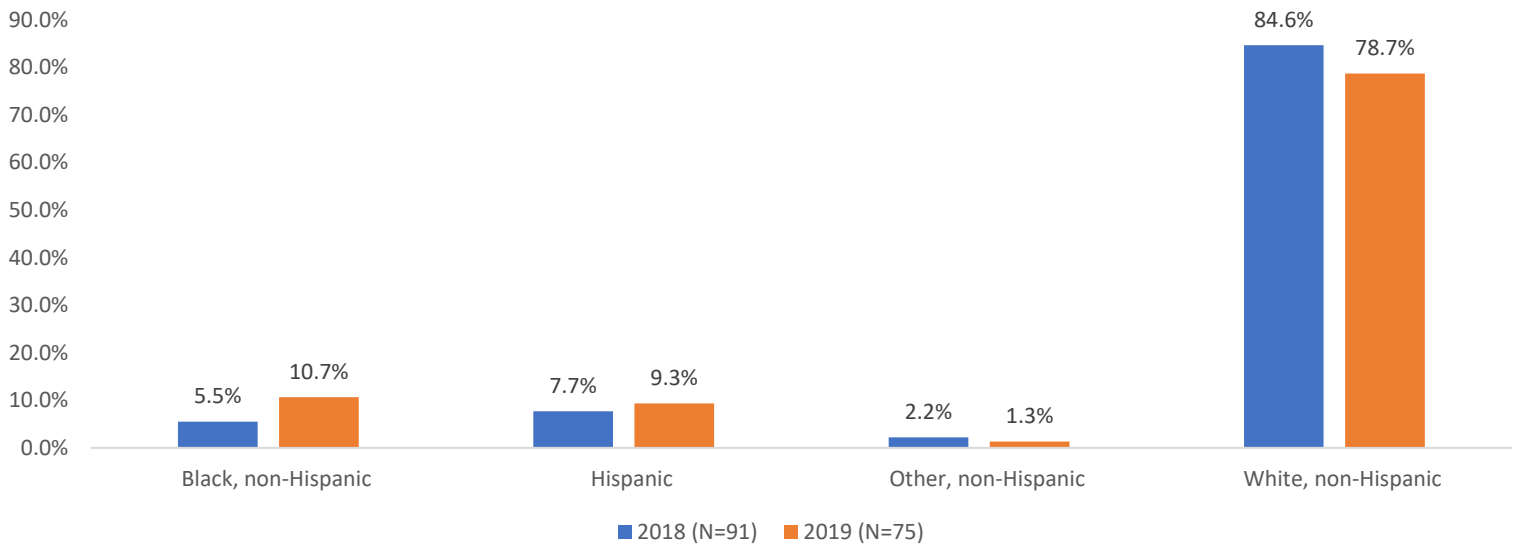


Figure 14. Residence by Behavioral Health Region (Opioids + Benzos)

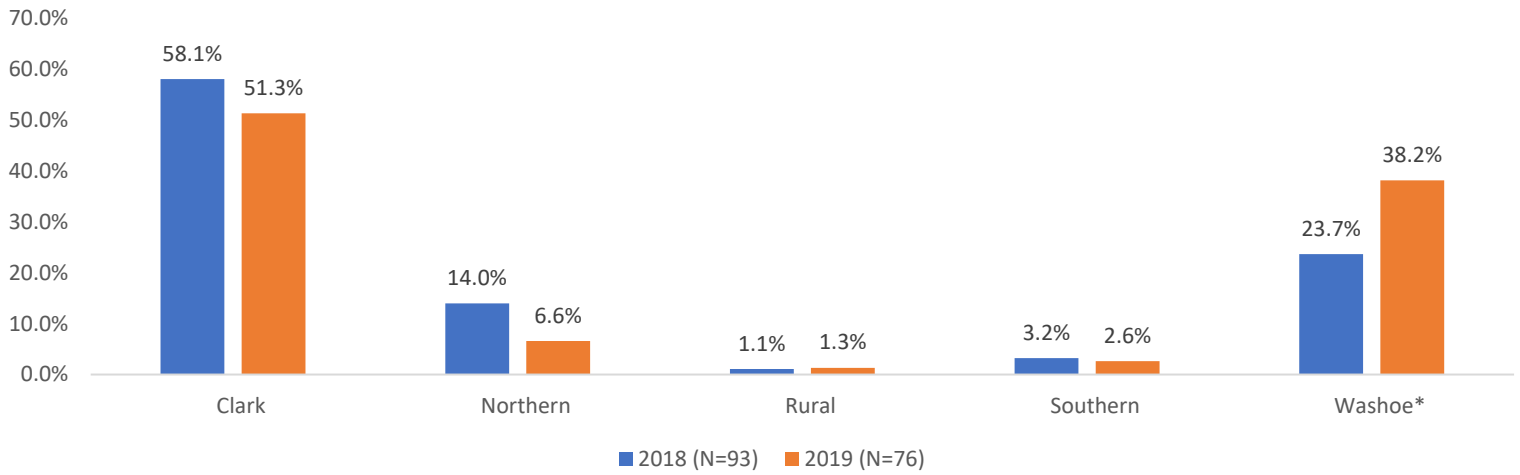


Figure 15. Substance Abuse History (Opioids + Benzos)

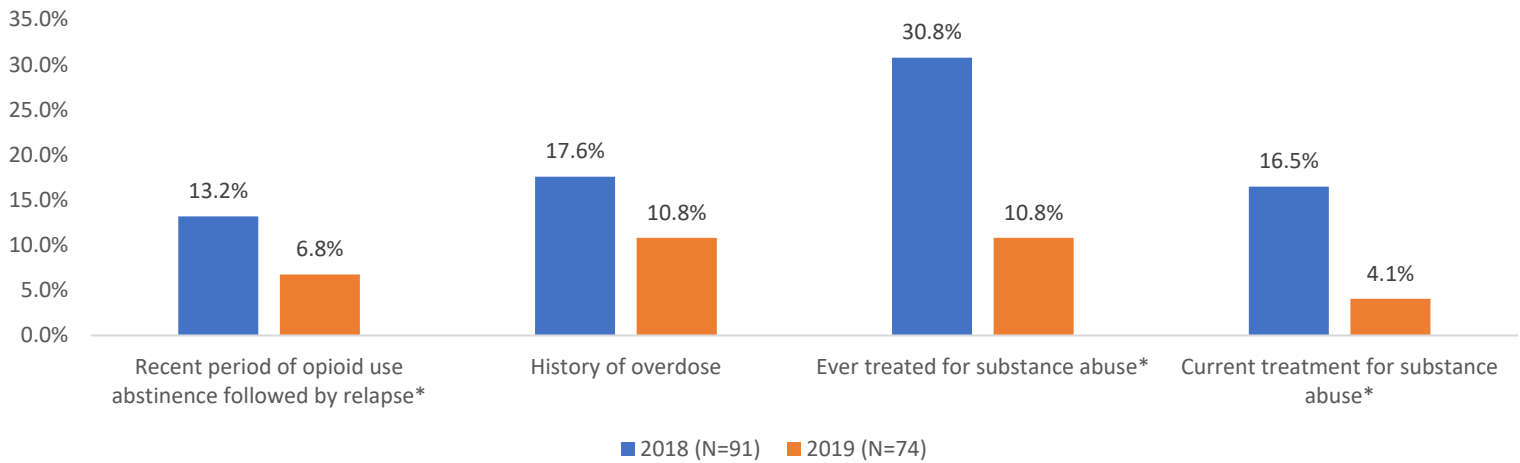


Figure 16. Institutionalization History (Opioids + Benzos)

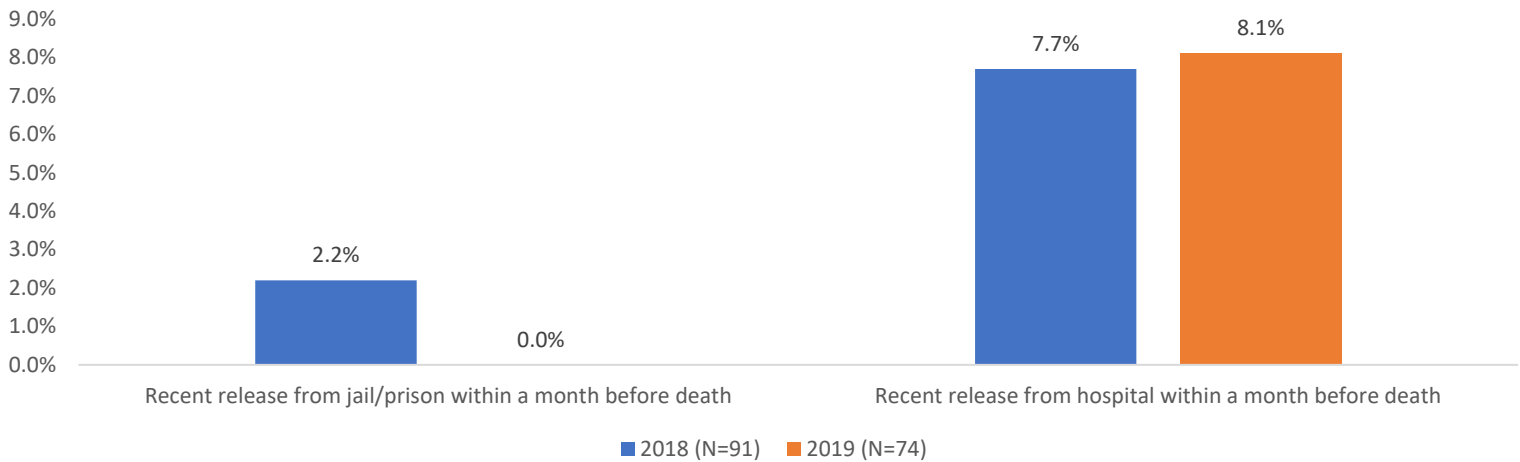
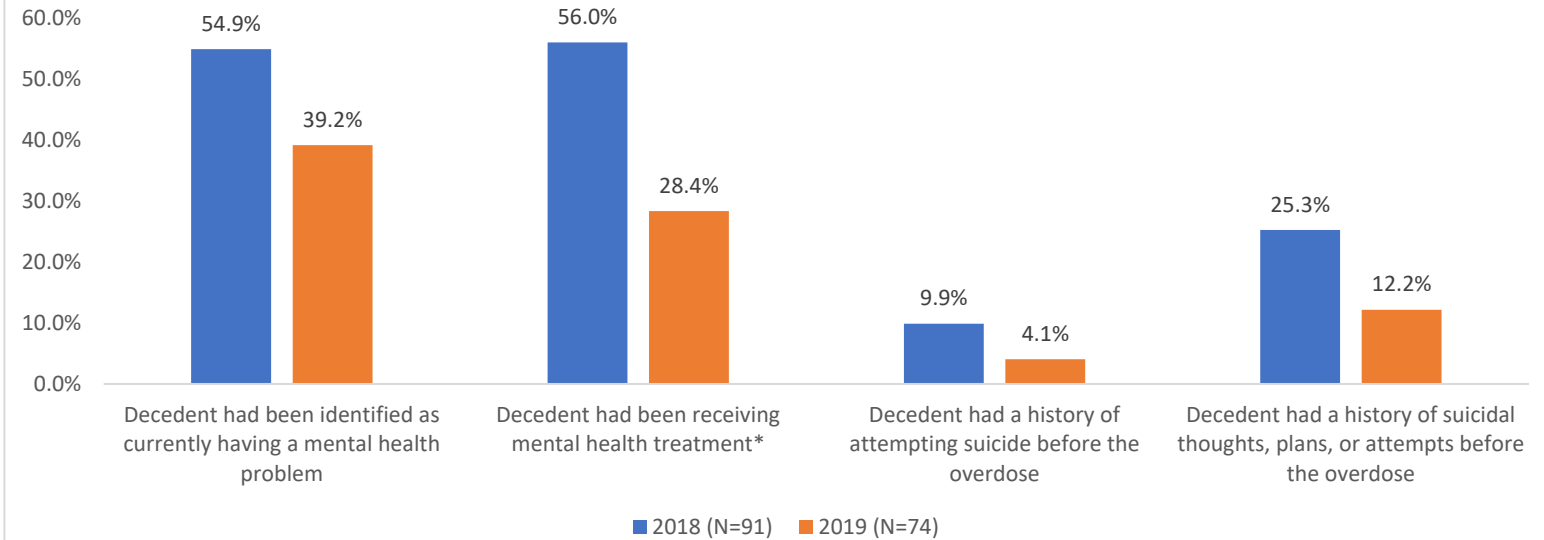


Figure 17. Mental Health History (Opioids + Benzos)



*Indicates statistically significant difference in a specific characteristic between years (p-value<0.05).

NOTE: Data not available for all cases in Figures 10-13. Circumstances prior to death were not available for all cases in Figure 15-17. Percentages exclude missing data and likely underestimate the true proportion of case characteristics.

Summary: There was a decrease in the number of deaths attributed to opioids and benzodiazepines (N=93 in 2018 to N=76 in 2019) (Figure 1). There was a statistically significant increase in deaths in Washoe County from 2018 (23.7%) to 2019 (38.2%) (Figure 14). There was a statistically significant decrease in cases who relapsed following a period of abstaining from opioid use from 2018 (13.2%) to 2019 (6.8%) (Figure 15). There was a statistically significant decrease in cases who were ever treated for substance abuse from 2018 (30.8%) to 2019 (10.8%) (Figure 15). There was a statistically significant decrease in cases who were currently treated for substance abuse prior to death from 2018 (16.5%) to 2019 (4.1%) (Figure 15). There was a statistically significant decrease in cases who were receiving mental health treatment prior to death from 2018 (56.0%) to 2019 (28.4%) (Figure 17).

Section 3: Opioids + Alcohol

Figure 18. Age (Opioids + Alcohol)

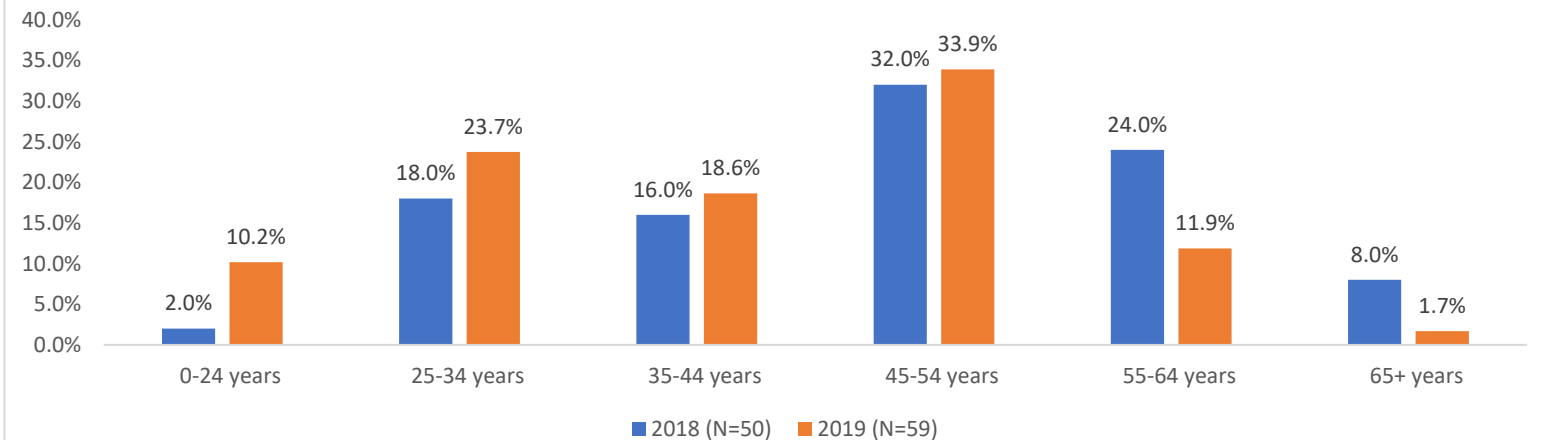


Figure 19. Sex (Opioids + Alcohol)

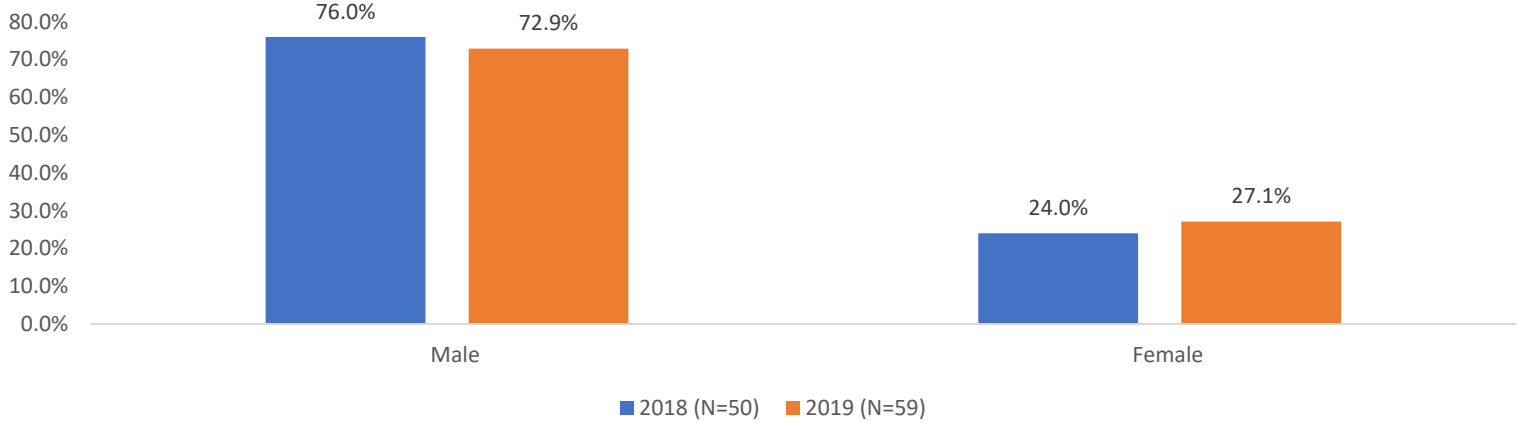


Figure 20. Education (Opioids + Alcohol)

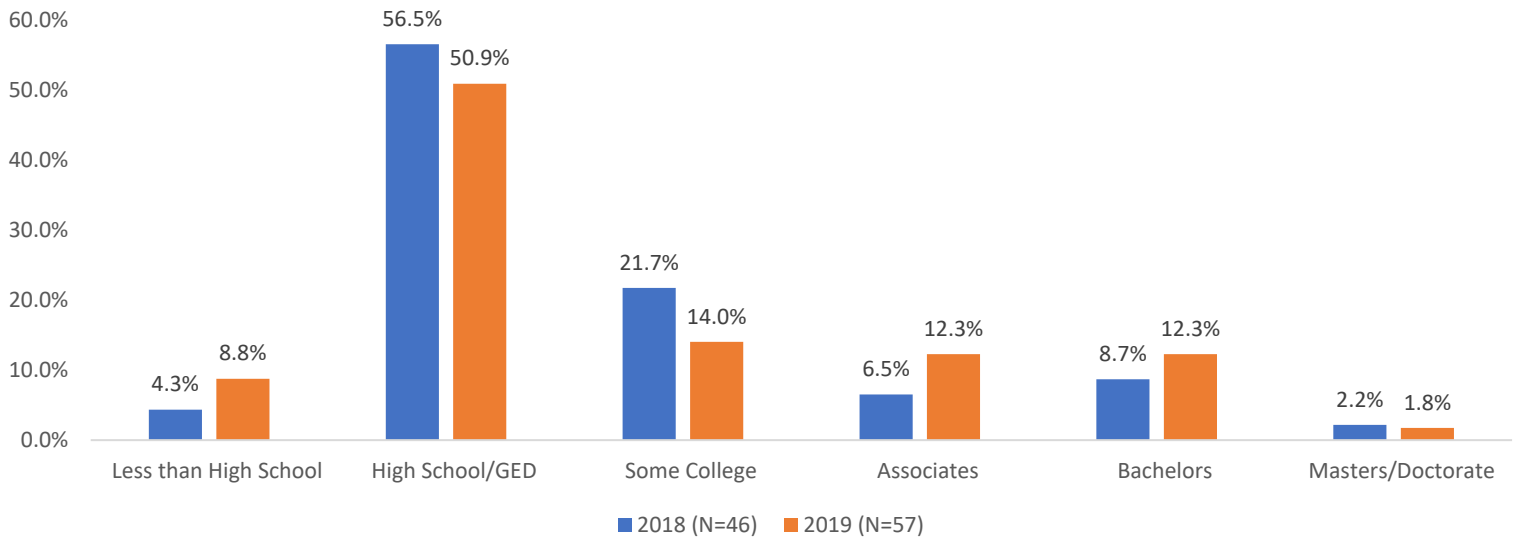


Figure 21. Race/Ethnicity (Opioids + Alcohol)

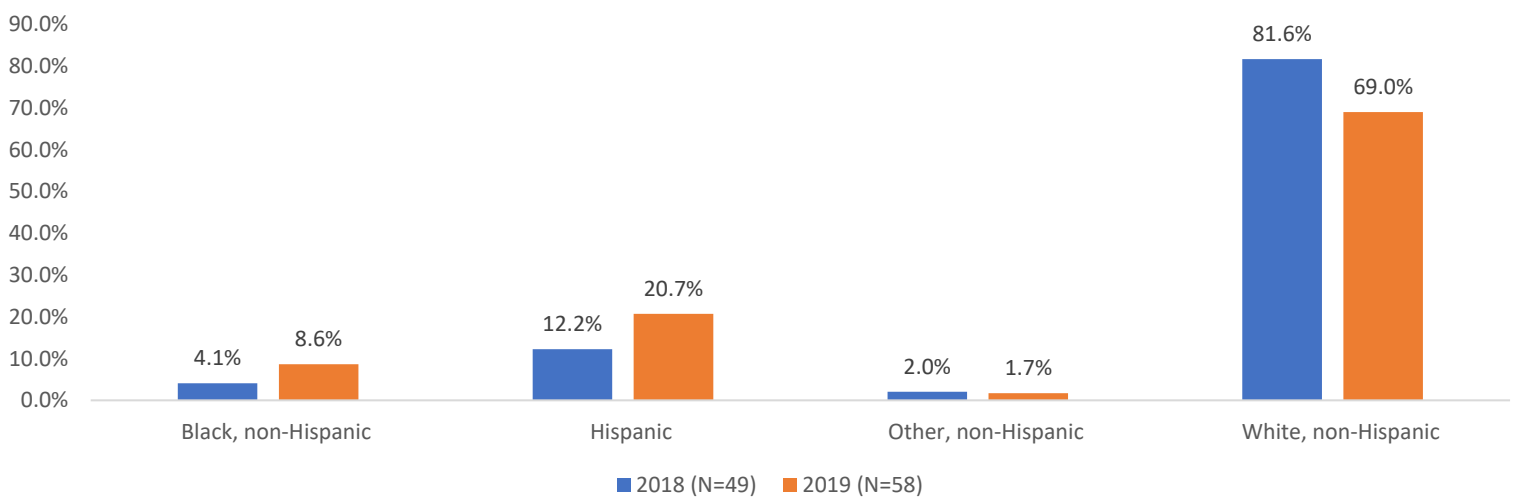


Figure 22. Residence by Behavioral Health Region (Opioids + Alcohol)

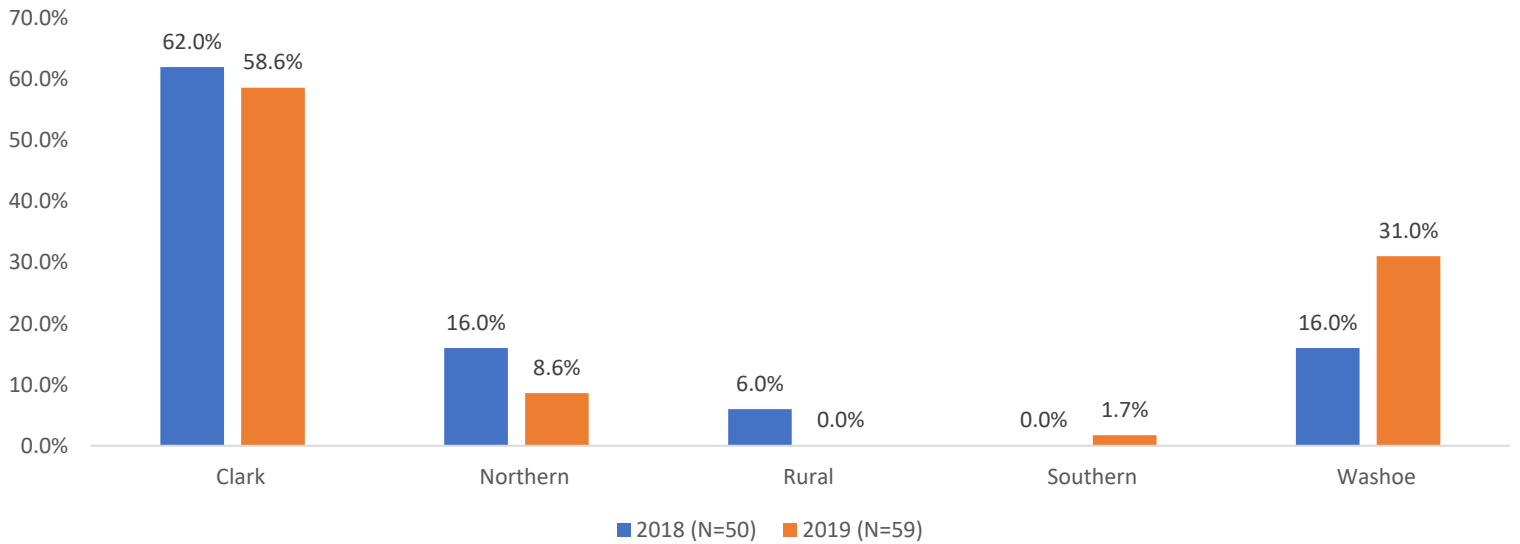


Figure 23. Substance Abuse History (Opioids + Alcohol)

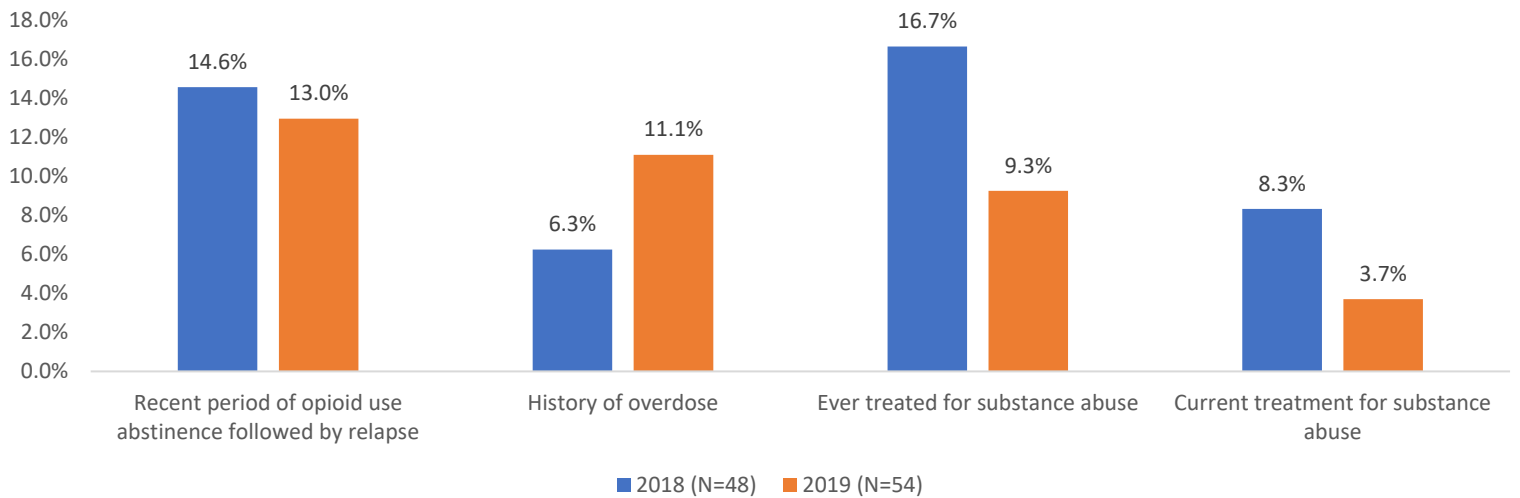


Figure 24. Institutionalization History (Opioids + Alcohol)

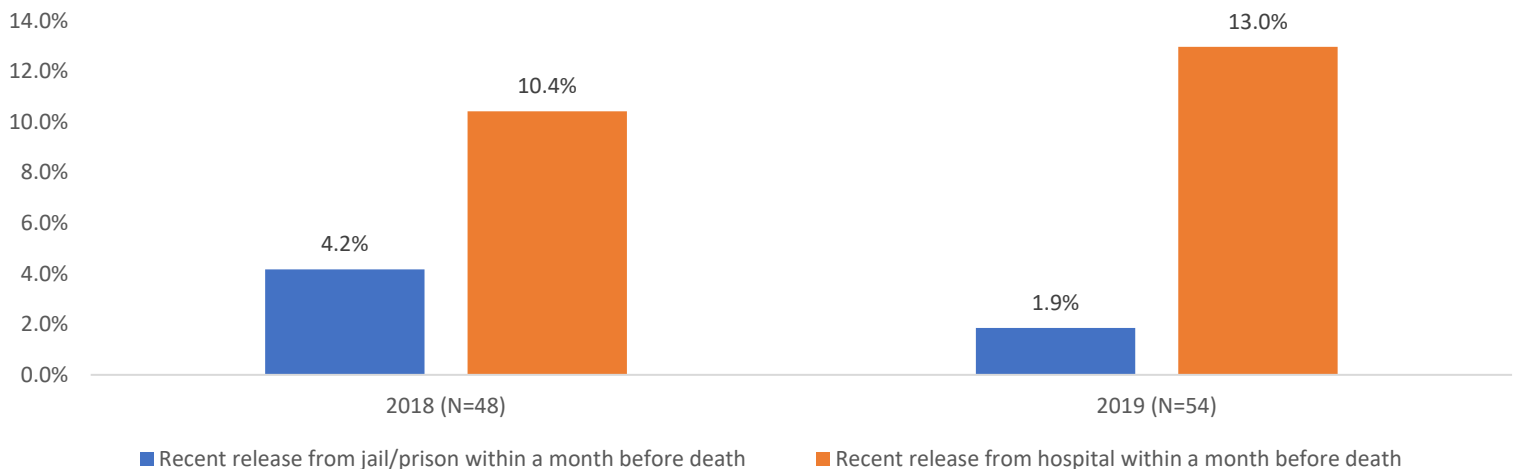
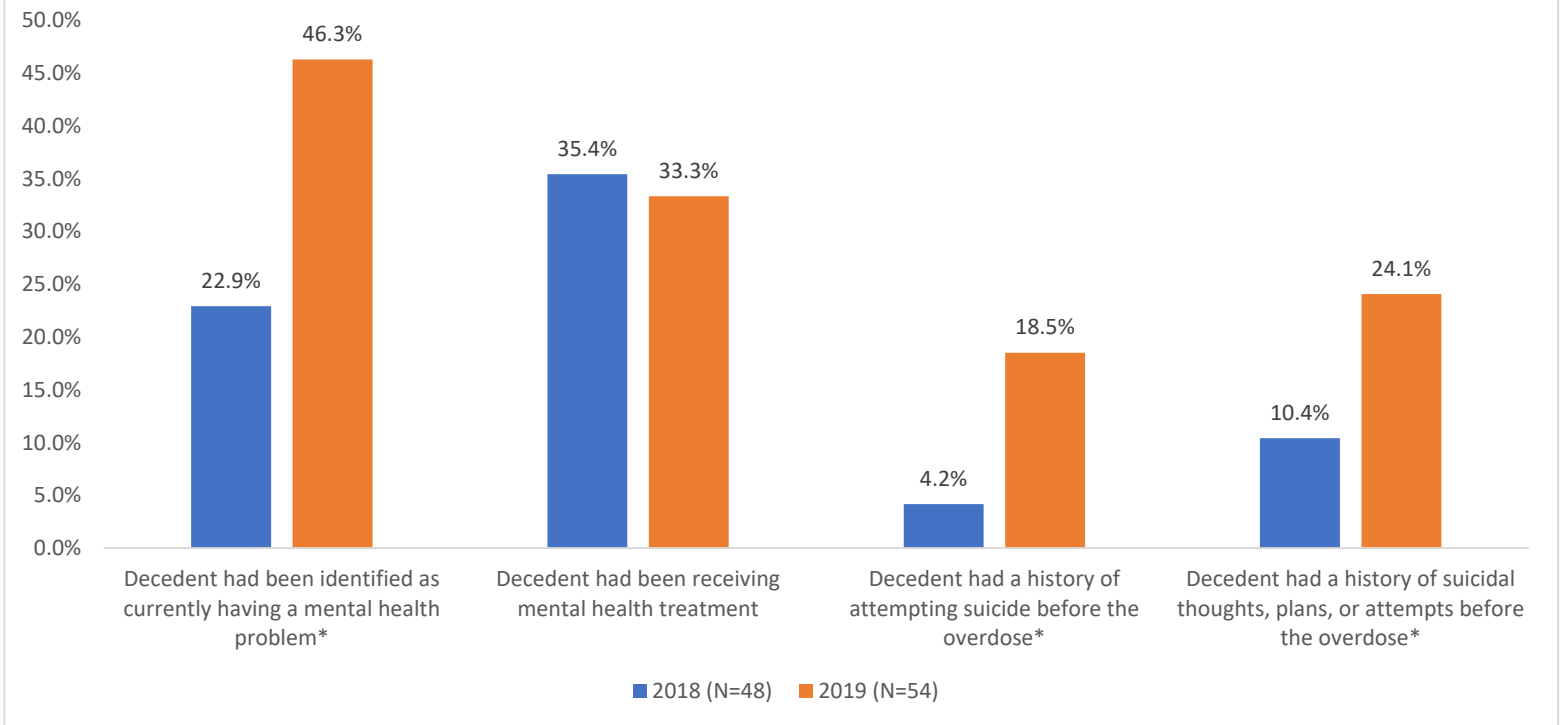


Figure 25. Mental Health History (Opioids + Alcohol)



*Indicates statistically significant difference in a specific characteristic between years (p-value<0.05).

NOTE: Data not available for all cases in Figures 18-21. Circumstances prior to death were not available for all cases in Figure 23-25. Percentages exclude missing data and likely underestimate the true proportion of case characteristics.

Summary: There was a slight increase in the number of deaths attributed to opioids and alcohol (N=48 in 2018 to N=54 in 2019) (Figure 1). There was a statistically significant increase in cases who were identified as currently having a mental health problem prior to death 2018 (22.9%) to 2019 (46.3%) (Figure 25). There was a statistically significant increase in cases who were identified as having a history of attempting suicide before overdose in 2018 (4.2%) to 2019 (18.5%) (Figure 25). There was a statistically significant increase in cases who were identified as having a history of suicidal thoughts, plans, or attempts before overdose in 2018 (10.4%) to 2019 (24.1%) (Figure 25).

Section 4: Appendix 1A

Table 1. Demographic characteristics of unintentional or undetermined overdose-related deaths attributed to opioids and stimulants in Nevada by year of death, 2018-2019

Characteristic	2018 N ^a =109 (%)	2019 N ^a =124 (%)	Absolute % Change ^b	Trend ^c
Age				
0-24 years	8 (7.3%)	16 (12.9%)	5.6%	No significant change
25-34 years	31 (28.4%)	31 (25.0%)	-3.4%	No significant change
35-44 years	20 (18.3%)	27 (21.8%)	3.4%	No significant change
45-54 years	22 (20.2%)	27 (21.8%)	1.6%	No significant change
55-64 years	23 (21.1%)	19 (15.3%)	-5.8%	No significant change
65+ years	5 (4.6%)	4 (3.2%)	-1.4%	No significant change
Sex				
Male	73 (67.0%)	83 (66.9%)	0.0%	No significant change
Female	36 (33.0%)	41 (33.1%)	0.0%	No significant change
Education Level				
Less than HS	20 (20.2%)	16 (14.3%)	-5.9%	No significant change
HS/GED	52 (52.5%)	70 (62.5%)	10.0%	No significant change
Some College	14 (14.1%)	13 (11.6%)	-2.5%	No significant change
Associates	7 (7.1%)	7 (6.3%)	-0.8%	No significant change
Bachelors	6 (6.1%)	6 (5.4%)	-0.7%	No significant change
Race/Ethnicity				
Black, non-Hispanic	8 (7.5%)	12 (9.7%)	2.1%	No significant change
Hispanic	10 (9.4%)	15 (12.1%)	2.7%	No significant change
Other, non-Hispanic ^d	2 (1.9%)	7 (5.6%)	3.8%	No significant change
White, non-Hispanic	86 (81.1%)	90 (72.6%)	-8.6%	No significant change
Was Homeless				
Yes	11 (10.5%)	17 (13.7%)	3.2%	No significant change
Previously Served in Armed Forces				
Yes	9 (8.3%)	8 (6.5%)	-1.8%	No significant change
Residence (By Behavioral Health Region)^e				
Clark	80 (73.4%)	86 (69.4%)	-4.0%	No significant change
Northern	4 (3.7%)	4 (3.2%)	-0.4%	No significant change
Rural	1 (0.9%)	2 (1.6%)	0.7%	No significant change
Southern	4 (3.7%)	0 (0.0%)	-3.7%	No significant change
Washoe	18 (16.5%)	30 (24.2%)	7.7%	No significant change

^aMissing data excluded from percentage calculations.

^bAbsolute percent change is the difference between 2018 and 2019 percentages.

^cTrend indicates whether a percent change was statistically significant, p-value<0.05. Red indicates if the trend was significant and going in a harmful direction (e.g. increase in substance as a contributing cause of death). Green indicates if the trend was significant and going in a less harmful direction (e.g. decrease in substance as a contributing cause of death). No significant change indicates there was no statistically significant change between 2018 and 2019 for a particular characteristic (p-value>0.05).

^dRace/Ethnicity category of other includes Asian/Pacific Islander, Native American/Alaskan Native, and other race.

^eBehavioral health regions were categorized as follows: Northern (Carson City, Storey, Douglas, Lyon, Churchill), Rural (Humboldt, Pershing, Lander, Eureka, Elko, White Pine), and Southern (Mineral, Esmeralda, Nye, Lincoln).

Table 2. Circumstances preceding death among unintentional or undetermined opioid overdose related deaths attributed to **opioids and stimulants among Nevada residents by year, 2018-2019**

	2018	2019		
Characteristic	N^a=98 (%)	N^a=117 (%)	Absolute % Change^b	Trend^c
Substance Abuse History				
Recent period of opioid use abstinence followed by relapse	20 (20.4%)	11 (9.4%)	-11.0%	Significant Decrease
History of overdose	17 (17.3%)	13 (11.1%)	-6.2%	No significant change
Ever treated for substance abuse	22 (22.2%)	13 (11.1%)	-11.3%	Significant Decrease
Current treatment for substance abuse	9 (9.2%)	4 (3.4%)	-5.8%	No significant change
Institutionalization History				
Recent release from jail/prison within a month before death	8 (8.2%)	5 (4.3%)	-3.9%	No significant change
Recent release from hospital within a month before death	10 (10.2%)	8 (6.8%)	-3.4%	No significant change
Mental Health History				
Decedent had been identified as currently having a mental health problem	33 (33.7%)	38 (32.5%)	-1.2%	No significant change
Decedent had been receiving mental health treatment	30 (30.6%)	24 (20.5%)	-10.1%	No significant change
Decedent had a history of attempting suicide before the overdose	9 (9.2%)	10 (8.5%)	-0.6%	No significant change
Decedent had a history of suicidal thoughts, plans, or attempts before the overdose	13 (13.3%)	13 (11.1%)	-2.2%	No significant change

Note: Circumstances prior to death were not available for all cases and missing data were excluded. These findings likely underestimate the true proportion of case characteristics.

^aThe total number of decedents reflects investigations where circumstances were known prior to death.

^bAbsolute percent change is the difference between 2018 and 2019 percentages.

^cTrend indicates whether a percent change was statistically significant, p-value<0.05. Blue indicates if the trend was significant. No significant change indicates there was no statistically significant change between 2018 and 2019 for a particular characteristic (p-value>0.05).

Section 4: Appendix 2A

Table 3. Demographic characteristics of unintentional or undetermined overdose-related deaths attributed to opioids and benzodiazepines in Nevada by year of death, 2018-2019

Characteristic	2018 N ^a =93 (%)	2019 N ^a =76 (%)	Absolute % Change ^b	Trend ^c
Age				
0-24 years	6 (6.5%)	10 (13.2%)	6.7%	No significant change
25-34 years	20 (21.5%)	17 (22.4%)	0.9%	No significant change
35-44 years	14 (15.1%)	15 (19.7%)	4.7%	No significant change
45-54 years	21 (22.6%)	16 (21.1%)	-1.5%	No significant change
55-64 years	22 (23.7%)	13 (17.7%)	-6.6%	No significant change
65+ years	10 (10.8%)	5 (6.6%)	-4.2%	No significant change
Sex				
Male	56 (60.2%)	37 (52.9%)	-7.4%	No significant change
Female	37 (39.8%)	33 (47.1%)	7.4%	No significant change
Education Level				
Less than HS	13 (14.6%)	5 (7.1%)	-7.5%	No significant change
HS/GED	41 (46.1%)	32 (45.7%)	-0.4%	No significant change
Some College	14 (15.7%)	17 (24.3%)	8.6%	No significant change
Associates	6 (6.7%)	8 (11.4%)	4.7%	No significant change
Bachelors	11 (12.4%)	6 (8.6%)	-3.8%	No significant change
Masters/Doctorate	4 (4.5%)	2 (2.9%)	-1.6%	No significant change
Race/Ethnicity				
Black, non-Hispanic	5 (5.5%)	8 (10.7%)	5.2%	No significant change
Hispanic	7 (7.7%)	7 (9.3%)	1.6%	No significant change
Other, non-Hispanic ^d	2 (2.2%)	1 (1.3%)	-0.9%	No significant change
White, non-Hispanic	77 (84.6%)	59 (78.7%)	-5.9%	No significant change
Was Homeless				
Yes	0 (0.0%)	2 (2.7%)	2.7%	No significant change
Previously Served in Armed Forces				
Yes	7 (7.5%)	1 (1.3%)	-6.2%	No significant change
Residence (By Behavioral Health Region)^e				
Clark	54 (58.1%)	39 (51.3%)	-6.7%	No significant change
Northern	13 (14.0%)	5 (6.6%)	-7.4%	No significant change
Rural	1 (1.1%)	1 (1.3%)	0.2%	No significant change
Southern	3 (3.2%)	2 (2.6%)	-0.6%	No significant change
Washoe	22 (23.7%)	29 (38.2%)	14.5%	Significant Increase

^aMissing data excluded from percentage calculations.

^bAbsolute percent change is the difference between 2018 and 2019 percentages.

^cTrend indicates whether a percent change was statistically significant, p-value<0.05. Red indicates if the trend was significant and going in a harmful direction (e.g. increase in substance as a contributing cause of death). Green indicates if the trend was significant and going in a less harmful direction (e.g. decrease in substance as a contributing cause of death). No significant change indicates there was no statistically significant change between 2018 and 2019 for a particular characteristic (p-value>0.05).

^dRace/Ethnicity category of other includes Asian/Pacific Islander, Native American/Alaskan Native, and other race.

^eBehavioral health regions were categorized as follows: Northern (Carson City, Storey, Douglas, Lyon, Churchill), Rural (Humboldt, Pershing, Lander, Eureka, Elko, White Pine), and Southern (Mineral, Esmeralda, Nye, Lincoln).

Table 4. Circumstances preceding death among unintentional or undetermined opioid overdose related deaths attributed to **opioids and benzodiazepines among Nevada residents by year, 2018-2019**

Characteristic	2018 N ^a =91 (%)	2019 N ^a =74 (%)	Absolute % Change ^b	Trend ^c
Substance Abuse History				
Recent period of opioid use abstinence followed by relapse	12 (13.2%)	5 (6.8%)	-6.4%	Significant Decrease
History of overdose	16 (17.6%)	8 (10.8%)	-6.8%	No significant change
Ever treated for substance abuse	28 (30.8%)	8 (10.8%)	-20.0%	Significant Decrease
Current treatment for substance abuse	15 (16.5%)	3 (4.1%)	-12.4%	Significant Decrease
Institutionalization History				
Recent release from jail/prison within a month before death	2 (2.2%)	0 (0.0%)	-2.2%	No significant change
Recent release from hospital within a month before death	7 (7.7%)	6 (8.1%)	0.4%	No significant change
Mental Health History				
Decedent had been identified as currently having a mental health problem	50 (54.9%)	29 (39.2%)	-15.8%	No significant change
Decedent had been receiving mental health treatment	51 (56.0%)	21 (28.4%)	-27.7%	No significant change
Decedent had a history of attempting suicide before the overdose	9 (9.9%)	3 (4.1%)	-5.8%	No significant change
Decedent had a history of suicidal thoughts, plans, or attempts before the overdose	23 (25.3%)	9 (12.2%)	-13.1%	No significant change

Note: Circumstances prior to death were not available for all cases and missing data were excluded. These findings likely underestimate the true proportion of case characteristics.

^aThe total number of decedents reflects investigations where circumstances were known prior to death.

^bAbsolute percent change is the difference between 2018 and 2019 percentages.

^cTrend indicates whether a percent change was statistically significant, p-value<0.05. Blue indicates if the trend was significant. No significant change indicates there was no statistically significant change between 2018 and 2019 for a particular characteristic (p-value>0.05).

Section 4: Appendix 3A

Table 5. Demographic characteristics of unintentional or undetermined overdose-related deaths attributed to opioids and alcohol in Nevada by year of death, 2018-2019

Characteristic	2018 N ^a =50 (%)	2019 N ^a =59 (%)	Absolute % Change ^b	Trend ^c
Age				
0-24 years	1 (2.0%)	6 (10.2%)	8.2%	No significant change
25-34 years	9 (18.0%)	14 (23.7%)	5.7%	No significant change
35-44 years	8 (16.0%)	11 (18.6%)	2.6%	No significant change
45-54 years	16 (32.0%)	20 (33.9%)	1.9%	No significant change
55-64 years	12 (24.0%)	7 (11.9%)	-12.1%	No significant change
65+ years	4 (8.0%)	1 (1.7%)	-6.3%	No significant change
Sex				
Male	38 (76.0%)	43 (72.9%)	-3.1%	No significant change
Female	12 (24.0%)	16 (27.1%)	3.1%	No significant change
Education Level				
Less than HS	2 (4.3%)	5 (8.8%)	4.4%	No significant change
HS/GED	26 (56.5%)	29 (50.9%)	-5.6%	No significant change
Some College	10 (21.7%)	8 (14.0%)	-7.7%	No significant change
Associates	3 (6.5%)	7 (12.3%)	5.8%	No significant change
Bachelors	4 (8.7%)	7 (12.3%)	3.6%	No significant change
Masters/Doctorate	1 (2.2%)	1 (1.8%)	-0.4%	No significant change
Race/Ethnicity				
Black, non-Hispanic	2 (4.1%)	5 (8.6%)	4.5%	No significant change
Hispanic	6 (12.3%)	12 (20.7%)	8.4%	No significant change
Other, non-Hispanic ^d	1 (2.0%)	1 (1.7%)	-0.3%	No significant change
White, non-Hispanic	40 (81.6%)	40 (69.0%)	-12.7%	No significant change
Was Homeless				
Yes	2 (4.1%)	5 (8.5%)	4.4%	No significant change
Previously Served in Armed Forces				
Yes	7 (14.0%)	5 (8.8%)	-5.2%	No significant change
Residence (By Behavioral Health Region)^e				
Clark	31 (62.0%)	34 (58.6%)	-3.4%	No significant change
Northern	8 (16.0%)	5 (8.6%)	-7.4%	No significant change
Rural	3 (6.0%)	0 (0.0%)	-6.0%	No significant change
Southern	0 (0.0%)	1 (1.7%)	N/A	No significant change
Washoe	8 (16.0%)	18 (31.0%)	15.0%	No significant change

^aMissing data excluded from percentage calculations.

^bAbsolute percent change is the difference between 2018 and 2019 percentages.

^cTrend indicates whether a percent change was statistically significant, p-value<0.05. Red indicates if the trend was significant and going in a harmful direction (e.g. increase in substance as a contributing cause of death). Green indicates if the trend was significant and going in a less harmful direction (e.g. decrease in substance as a contributing cause of death). No significant change indicates there was no statistically significant change between 2018 and 2019 for a particular characteristic (p-value>0.05).

^dRace/Ethnicity category of other includes Asian/Pacific Islander, Native American/Alaskan Native, and other race.

^eBehavioral health regions were categorized as follows: Northern (Carson City, Storey, Douglas, Lyon, Churchill), Rural (Humboldt, Pershing, Lander, Eureka, Elko, White Pine), and Southern (Mineral, Esmeralda, Nye, Lincoln).

Table 6. Circumstances preceding death among unintentional or undetermined opioid overdose related deaths attributed to **opioids and alcohol among Nevada residents by year, 2018-2019**

	2018	2019		
Characteristic	N^a=48 (%)	N^a=54 (%)	Absolute % Change^b	Trend^c
Substance Abuse History				
Recent period of opioid use abstinence followed by relapse	7 (14.6%)	7 (13.0%)	-1.6%	No significant change
History of overdose	3 (6.3%)	6 (11.1%)	4.9%	No significant change
Ever treated for substance abuse	8 (16.7%)	5 (9.3%)	-7.4%	No significant change
Current treatment for substance abuse	4 (8.3%)	2 (3.7%)	-4.6%	No significant change
Institutionalization History				
Recent release from jail/prison within a month before death	2 (4.2%)	1 (1.9%)	-2.3%	No significant change
Recent release from hospital within a month before death	5 (10.4%)	7 (13.0%)	2.5%	No significant change
Mental Health History				
Decedent had been identified as currently having a mental health problem	11 (22.9%)	25 (46.3%)	23.4%	Significant Increase
Decedent had been receiving mental health treatment	17 (35.4%)	18 (33.3%)	-2.1%	No significant change
Decedent had a history of attempting suicide before the overdose	2 (4.2%)	10 (18.5%)	14.4%	Significant Increase
Decedent had a history of suicidal thoughts, plans, or attempts before the overdose	5 (10.4%)	13 (24.1%)	13.7%	Significant Increase

Note: Circumstances prior to death were not available for all cases and missing data were excluded. These findings likely underestimate the true proportion of case characteristics.

^aThe total number of decedents reflects investigations where circumstances were known prior to death.

^bAbsolute percent change is the difference between 2018 and 2019 percentages.

^cTrend indicates whether a percent change was statistically significant, p-value<0.05. Blue indicates if the trend was significant. No significant change indicates there was no statistically significant change between 2018 and 2019 for a particular characteristic (p-value>0.05).