

Nevada State Unintentional Drug Overdose Reporting System

Polysubstance Report, 2019-2020 - 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 **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, 2019 to December 31, 2020**.

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); or a death classified as a drug overdose death of unintentional or undetermined intent by the Medical Examiner/Coroner. *Opioids* are pain relievers that induce euphoric effects and include prescription (i.e. hydrocodone, oxycodone), illicit (i.e. heroin), and synthetic (i.e. fentanyl) opioids. *Stimulants* speed up the body's systems and include methamphetamine, cocaine, and prescription stimulants (i.e. Adderall, Ritalin). *Benzodiazepines* are psychoactive drugs that are depressants that produce sedation, induce sleep, and prevent seizures (i.e. 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: Polysubstance Overdose Data](#)

[Section 2: Opioids and Stimulants Data](#)

[Section 3: Opioids and Benzodiazepines Data](#)

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Key Findings:

- From 2019 to 2020, there were increases in overdose deaths involving:
 - one or more substances (**16% increase**)
 - opioids and one or more substances (**4% increase**)
 - stimulants and one or more substances (**17% increase**)
- Opioids and Stimulants:
 - **Highest rate in Washoe County** (8.1 per 100,000 in 2020) and **among Black, non-Hispanic** (10.4 per 100,000 in 2020).
 - **Greatest rate increases in Rural Region** (**99% increase**) and **among Hispanic population** (**167% increase**)
- Opioids and Benzodiazepines:
 - **Highest rate in Washoe County** (8.1 per 100,000 in 2020) and **among White, non-Hispanic** (6.0 per 100,000 in 2020)
 - **Greatest rate increases in Clark Region** (**155% increase**) and **among Hispanic population** (**343% increase**)
- **1 in 10** overdose deaths involved heroin and a psychostimulant
- **1 in 11** overdose deaths involved prescription opioids and benzodiazepines
- **1 in 12** overdose deaths involved benzodiazepines and fentanyl

Questions or comments?

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



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OVERDOSE DATA TO ACTION

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Section 1: Overdose Data

Figure 1. Unintentional/undetermined drug overdose deaths among residents involving opioids, stimulants, and benzodiazepines in Nevada from SUDORS, 2019-2020

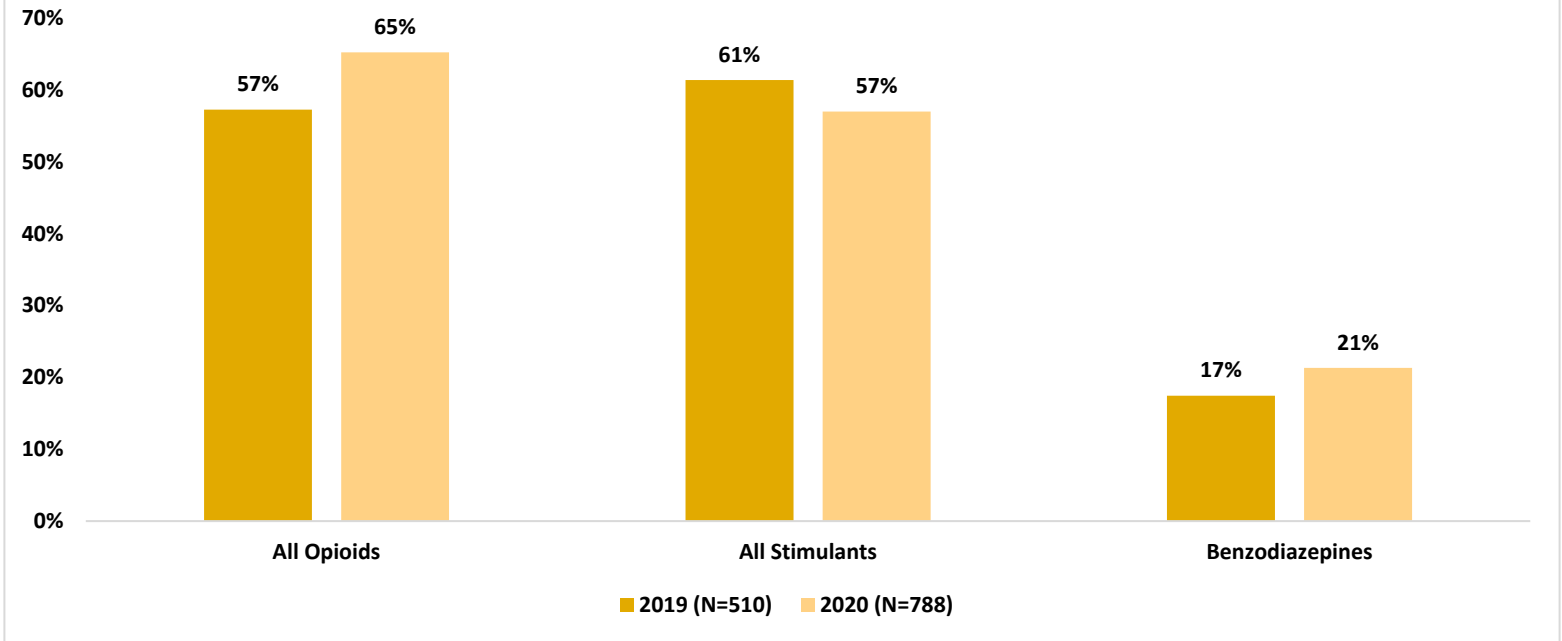


Figure 1 displays the proportion of all drug overdose deaths that involved opioids, benzodiazepines, and stimulants as a contributory cause of death. Figure 1 shows an increase in the proportion of deaths involving opioids (**14% increase**) and benzodiazepines (**24% increase**), and a decrease in the proportion of deaths involving stimulants (**7% decrease**) from 2019 to 2020 in Nevada. Note: Categories are not mutually exclusive. All opioids include prescription and illicit (heroin, fentanyl) opioids. All stimulants include psychostimulants (methamphetamine and amphetamines) and cocaine.

Table 1: Polysubstance overdose counts and percentages of total deaths among residents by drug types in Nevada from SUDORS, 2019-2020

Substance	2019		2020		Percent Change
	N	% ^a	N	% ^a	
Opioids	228	78.1%	419	81.5%	4%
Stimulants	147	47.0%	248	55.2%	17%
Benzodiazepines	89	100.0%	167	99.4%	-0.6%
All Drugs	263	51.6%	473	60.0%	16%

Table 1 displays the counts and percentages of total deaths among polysubstance overdose deaths by drug type. ^a Percent denotes proportion of decedents where the substance in the first column and one or more additional substances contributed to death (polysubstance death). For example, 78.1% deaths involving opioids involved additional substances (more than one). There was an increase from 2019 to 2020 for overdose deaths involving any drug and one or more substances (**16% increase**), any opioid and one or more substances (**4% increase**), and any stimulant and one or more substances (**17% increase**).

Table 2: Polysubstance overdose counts among residents by common drug types in Nevada from SUDORS, 2019-2020

Substance	Prescription Opioid (N=308)	Heroin (N=227)	Fentanyl (N=333)	Benzodiazepines (N=257)	Psychostimulant (N=660)	Cocaine (N=138)
Prescription Opioid	-	15	78	119	51	20
Heroin	15	-	13	29	140	24
Fentanyl	78	13	-	103	73	63
Benzodiazepines	119	29	103	-	61	36
Psychostimulant	51	140	73	61	-	36
Cocaine	20	24	63	36	36	-

Table 2 displays polysubstance overdose counts shared by two common drug types. For example, prescription opioids and benzodiazepines contributed to death in 119 decedents (119/1298 total deaths = 9.2% of total deaths). The counts in Table 2 are not mutually exclusive, therefore column-specific percentages cannot be calculated and interpreted appropriately.

Table 3: Polysubstance overdose percentages of total deaths among residents by common drug types in Nevada from SUDORS, 2019-2020

Substance	Prescription Opioid	Heroin	Fentanyl	Benzodiazepines	Psychostimulant	Cocaine
Prescription Opioid	-	1.2%	6.0%	9.2%	3.9%	1.5%
Heroin	1.2%	-	1.0%	2.2%	10.8%	1.8%
Fentanyl	6.0%	1.0%	-	7.9%	5.6%	4.9%
Benzodiazepines	9.2%	2.2%	7.9%	-	4.7%	2.8%
Psychostimulant	3.9%	10.8%	5.6%	4.7%	-	2.8%
Cocaine	1.5%	1.8%	4.9%	2.8%	2.8%	-

Table 3 denotes the percentages of total deaths for the counts displayed in Table 2, using the combined drug overdose deaths as the denominator (N=1298). Cells shaded in red denote combinations of greatest concern (>10% of total deaths); cells shaded in orange denote high concern (6-9% of total deaths); cells shaded in yellow denote concern (3-5% of total deaths). Deaths involving heroin and a psychostimulant made up 10.8% of total overdose deaths (**1 in 10 drug overdose deaths**). Deaths involving prescription opioids and benzodiazepines made up 9.2% of total deaths (**1 in 11 drug overdose deaths**). Deaths involving benzodiazepines and fentanyl made up 7.9% of total deaths (**1 in 12 drug overdose deaths**).

Table 4: Rates of polysubstance overdose by region in Nevada from SUDORS, 2019-2020 (per 100,000 population)						
Behavioral Health Region Residence	Opioids + Stimulants			Opioids + Benzodiazepines		
	2019 Rate	2020 Rate	Percent Change	2019 Rate	2020 Rate	Percent Change
Clark	3.8	6.8	80%	1.7	4.4	154.8%
Northern	2.1	2.6	24%	2.6	2.1	-20.3%
Rural	1.0	2.1	99%	0.0	1.0	-
Southern	0.0	7.0	-	3.5	7.0	99.9%
Washoe	6.7	8.1	21%	6.3	8.1	29.5%

Table 4 denotes the rate of deaths among Nevada residents where opioids and stimulants or opioids and benzodiazepines were involved by behavioral health region (per 100,000). For opioids and stimulants, the highest death rates in 2020 were seen in Washoe County (8.1 deaths per 100,000), while the greatest percent increase was observed in the Clark region, which saw a **155% increase in the rate of deaths**. For opioids and benzodiazepines, the highest death rates in 2020 was seen in Washoe County (8.1 deaths per 100,000), while the greatest percent increase was observed in the Southern region, which saw a **100% increase in the rate of deaths**. **Note:** Behavioral health regions were categorized as follows: Northern (Carson City, Storey, Douglas, Lyon, Churchill Counties), Rural(Humboldt, Pershing, Lander, Eureka, Elko, White Pine Counties), Southern (Mineral, Esmeralda, Nye, Lincoln Counties), Clark (Clark County), and Washoe (Washoe County).

Table 5: Rates of polysubstance overdose by race/ethnicity in Nevada from SUDORS, 2019-2020 (per 100,000 population)						
Race/Ethnicity	Opioids + Stimulants			Opioids + Benzodiazepines		
	2019 Rate	2020 Rate	Percent Change	2019 Rate	2020 Rate	Percent Change
Black, non-Hispanic	4.5	10.4	133.3%	3.0	4.8	62.5%
Hispanic	1.7	4.4	166.7%	0.8	3.4	342.9%
White, non-Hispanic	5.9	8.1	38.5%	3.8	6.0	59.3%

Table 5 denotes the rate of deaths among Nevada residents where opioids and stimulants or opioids and benzodiazepines were involved by race/ethnicity (per 100,000). For opioids and stimulants, the highest death rates in 2020 were seen among Black, non-Hispanic (10.4 deaths per 100,000), while the greatest percent increase was observed among those who were Hispanic, (**167% increase in the rate of deaths**). For opioids and benzodiazepines, the highest death rates in 2020 was seen among White, non-Hispanic (6.0 deaths per 100,000), while the greatest percent increase was observed among Hispanics, which saw a **343% increase in the rate of deaths**.

Section 2: Opioid and Stimulants

Table 6. Demographic characteristics of unintentional drug overdose deaths attributed to *opioids and stimulants* in Nevada among residents by year of death, 2019-2020

Characteristic	2019		2020		Percent Change	Trend
	N=125	%	N=210	%		
Age						
0-24 years	16	12.8%	33	15.7%	22.8%	No significant change
25-34 years	31	24.8%	55	26.2%	5.6%	No significant change
35-44 years	27	21.6%	44	21.0%	-3.0%	No significant change
45-54 years	28	22.4%	30	14.3%	-36.2%	No significant change
55-64 years	19	15.2%	35	16.7%	9.6%	No significant change
65+ years	4	3.2%	13	6.2%	93.5%	No significant change
Sex						
Male	84	67.2%	150	71.4%	6.3%	No significant change
Female	41	32.8%	60	28.6%	-12.9%	No significant change
Education Level						
Less than High School	16	12.8%	25	11.9%	-7.0%	No significant change
High School/GED	70	56.0%	120	57.1%	2.0%	No significant change
Some College	14	11.2%	25	11.9%	6.3%	No significant change
Associates	7	5.6%	16	7.6%	36.1%	No significant change
Bachelors	6	4.8%	8	3.8%	-20.6%	No significant change
Race/Ethnicity						
Black, non-Hispanic	12	9.6%	28	13.3%	38.9%	No significant change
Hispanic	15	12.0%	40	19.0%	58.7%	Significant increase
Other, non-Hispanic	7	5.6%	9	4.3%	-23.5%	No significant change
White, non-Hispanic	91	72.8%	126	60.0%	-17.6%	Significant decrease
Was Homeless						
Yes	17	13.6%	18	8.6%	-37.0%	No significant change
Ever Served in Armed Forces						
Yes	8	6.4%	11	5.2%	-18.2%	No significant change
Behavioral Health Region Residence						
Clark	86	68.8%	157	74.8%	8.7%	No significant change
Northern	4	3.2%	5	2.4%	-25.6%	No significant change
Rural	1	0.8%	2	1.0%	19.0%	No significant change
Southern	0	0.0%	4	1.9%	-	-
Washoe	31	24.8%	38	18.1%	-27.0%	No significant change
Naloxone Administered						
Yes	35	28.0%	66	31.4%	12.2%	No significant change
Overdose occurred in home setting						
Yes	98	78.4%	160	76.2%	-2.8%	No significant change
Bystander present at time of overdose						
Yes	68	54.4%	128	61.0%	12.0%	No significant change
Route of Administration						
Smoking	28	22.4%	46	21.9%	-2.2%	No significant change
Ingestion	37	29.6%	76	36.2%	22.3%	No significant change

Injection	60	48.0%	70	33.3%	-30.6%	No significant change
Snorting	14	11.2%	31	14.8%	31.8%	No significant change

Note: Missing data excluded in percentage calculations above. Race/Ethnicity category of other includes Asian/Pacific Islander, Native American/Alaskan Native, and other race. Behavioral health regions were categorized as follows: **Northern (Carson City, Storey, Douglas, Lyon, Churchill Counties), Rural(Humboldt, Pershing, Lander, Eureka, Elko, White Pine Counties), Southern (Mineral, Esmeralda, Nye, Lincoln Counties), Clark (Clark County), and Washoe (Washoe County).** Chi-square pairwise comparisons were used to assess differences in statistical significance between years for indicators, with trend indicating whether this difference was statistically significant (green going in a positive direction, red going in a negative direction).

Table 7. Substances contributing to death for unintentional drug overdose deaths attributed to *opioids and stimulants* in Nevada among residents by year of death, 2019-2020

Substance	2019		2020		Percent Change	Trend
	N=118	%	N=186	%		
Alcohol	16	12.8%	27	12.9%	0.4%	No significant change
Amphetamine	6	4.8%	17	8.1%	68.7%	No significant change
Antidepressants	10	8.0%	9	4.3%	-46.4%	No significant change
Benzodiazepines	23	18.4%	54	25.7%	39.8%	No significant change
Cocaine	34	27.2%	63	30.0%	10.3%	No significant change
Fentanyl	36	28.8%	85	40.5%	40.5%	Significance increase
Heroin	63	50.4%	88	41.9%	-16.9%	No significant change
Kratom	6	4.8%	6	2.9%	-40.5%	No significant change
Methamphetamine	93	74.4%	155	73.8%	-0.8%	No significant change
Prescription Opioids	28	22.4%	40	19.0%	-15.0%	No significant change

Note: Substances are not mutually exclusive. Chi-square pairwise comparisons were used to assess differences in statistical significance between years for indicators, with trend indicating whether this difference was statistically significant (green going in a positive direction, red going in a negative direction).

Table 8. Circumstances preceding death among unintentional drug overdose deaths attributed to *opioids and stimulants* in Nevada among residents by year of death, 2019-2020

Characteristic	2019		2020		Percent Change	Trend
	N=118	%	N=186	%		
Substance Abuse History						
Recent period of opioid use abstinence followed by relapse	11	9.3%	21	11.3%	21.1%	No significant change
History of previous overdose	13	11.0%	24	12.9%	17.1%	No significant change
Ever treated for substance abuse	13	11.0%	25	13.4%	22.0%	No significant change
Institutionalization History						
Recent release from jail/prison within a month before death	5	4.2%	7	3.8%	-11.2%	No significant change
Recent release from hospital within a month before death	8	6.8%	9	4.8%	-28.6%	No significant change
Mental Health History						
Decedent had been identified as currently having a mental health problem	39	33.1%	55	29.6%	-10.5%	No significant change
Decedent had a history of attempting suicide before the overdose	10	8.5%	10	5.4%	-36.6%	No significant change

Decedent had a history of suicidal thoughts, plans, or attempts before the overdose	13	11.0%	18	9.7%	-12.2%	No significant change
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Note: Circumstances prior to death were not available for all cases and missing data was excluded. These findings likely underestimate the true proportion of case characteristics. The total number of decedents reflects investigations where circumstances were known prior to death. Chi-square pairwise comparisons were used to assess differences in statistical significance between years for indicators, with trend indicating whether this difference was statistically significant (blue denotes a change in direction that is ambiguous).

Summary: There was an **68% increase in the number of deaths attributed to opioids and stimulants** (N=125 in 2019 to N=210 in 2020) (Table 6). There was a statistically significant **increase in the proportion of deaths among Hispanics (59% increase)** and a **decline in the proportion of deaths among White, non-Hispanic (18% decrease)** among deaths attributed to opioids and stimulants. There was an **41% increase in opioid and stimulant deaths involving fentanyl** (Table 7).

Section 3: Opioids + Benzodiazepines

Table 9. Demographic characteristics of unintentional drug overdose deaths attributed to *opioids and benzodiazepines* in Nevada among residents by year of death, 2019-2020

Characteristic	2019		2020		Percent Change	Trend
	N=76	%	N=149	%		
Age						
0-24 years	10	13.2%	39	26.2%	98.9%	Significant increase
25-34 years	17	22.4%	39	26.2%	17.0%	No significant change
35-44 years	15	19.7%	21	14.1%	-28.6%	No significant change
45-54 years	16	21.1%	22	14.8%	-29.9%	No significant change
55-64 years	13	17.1%	14	9.4%	-45.1%	No significant change
65+ years	5	6.6%	9	6.0%	-8.2%	No significant change
Sex						
Male	43	56.6%	92	61.7%	9.1%	No significant change
Female	33	43.4%	57	38.3%	-11.9%	No significant change
Education Level						
Less than High School	5	6.6%	25	16.8%	155.0%	Significant increase
High School/GED	32	42.1%	71	47.7%	13.2%	No significant change
Some College	17	22.4%	21	14.1%	-37.0%	No significant change
Associates	8	10.5%	14	9.4%	-10.7%	No significant change
Bachelors	6	7.9%	14	9.4%	19.0%	No significant change
Masters/Doctorate	2	2.6%	3	2.0%	-23.5%	No significant change
Race/Ethnicity						
Black, non-Hispanic	8	10.5%	13	8.7%	-17.1%	No significant change
Hispanic	7	9.2%	31	20.8%	125.9%	Significant increase
Other, non-Hispanic	1	1.3%	1	0.7%	-49.0%	No significant change
White, non-Hispanic	59	77.6%	94	63.1%	-18.7%	Significant decrease
Was Homeless						
Yes	2	2.6%	2	1.3%	-49.0%	No significant change
Ever Served in Armed Forces						
Yes	1	1.3%	5	3.4%	155.0%	No significant change

Behavioral Health Region Residence						
Clark	39	51.3%	101	67.8%	32.1%	Significant increase
Northern	5	6.6%	4	2.7%	-59.2%	No significant change
Rural	0	0.0%	1	0.7%	-	-
Southern	2	2.6%	4	2.7%	2.0%	No significant change
Washoe	29	38.2%	38	25.5%	-33.2%	Significant decrease
Naloxone Administered						
Yes	22	28.9%	43	28.9%	-0.3%	No significant change
Overdose occurred in home setting						
Yes	64	84.2%	129	86.6%	2.8%	No significant change
Bystander present at time of overdose						
Yes	45	59.2%	97	65.1%	9.9%	No significant change
Route of Administration						
Smoking	8	10.5%	28	18.8%	78.5%	No significant change
Ingestion	49	64.5%	91	61.1%	-5.3%	No significant change
Injection	12	15.8%	14	9.4%	-40.5%	No significant change
Snorting	3	3.9%	21	14.1%	257.0%	No significant change

Note: Missing data excluded in percentage calculations above. Race/Ethnicity category of other includes Asian/Pacific Islander, Native American/Alaskan Native, and other race. Behavioral health regions were categorized as follows: **Northern (Carson City, Storey, Douglas, Lyon, Churchill Counties)**, **Rural(Humboldt, Pershing, Lander, Eureka, Elko, White Pine Counties)**, **Southern (Mineral, Esmeralda, Nye, Lincoln Counties)**, **Clark (Clark County)**, and **Washoe (Washoe County)**. Chi-square pairwise comparisons were used to assess differences in statistical significance between years for indicators, with trend indicating whether this difference was statistically significant (green going in a positive direction, red going in a negative direction).

Table 10. Substances contributing to death for unintentional drug overdose deaths attributed to *opioids and benzodiazepines* in Nevada among residents by year of death, 2019-2020

Substance	2019		2020		Percent Change	Trend
	N=76	%	N=149	%		
Alcohol	18	23.7%	17	11.4%	-51.8%	Significant decrease
Antidepressants	26	34.2%	22	14.8%	-56.8%	No significant change
Cocaine	8	10.5%	24	16.1%	53.0%	No significant change
Diphenhydramine	10	13.2%	19	12.8%	-3.1%	No significant change
Fentanyl	20	26.3%	83	55.7%	111.7%	Significance increase
Gabapentin	11	14.5%	18	12.1%	-16.5%	No significant change
Heroin	14	18.4%	15	10.1%	-45.3%	No significant change
Kratom	5	6.6%	7	4.7%	-28.6%	No significant change
Methamphetamine	15	19.7%	30	20.1%	2.0%	No significant change
Prescription Opioids	47	61.8%	72	48.3%	-21.9%	Significant decrease

Note: Substances are not mutually exclusive. Chi-square pairwise comparisons were used to assess differences in statistical significance between years for indicators, with trend indicating whether this difference was statistically significant (green going in a positive direction, red going in a negative direction).

Table 11. Circumstances preceding death among unintentional drug overdose deaths attributed to *opioids and benzodiazepines* in Nevada among residents by year of death, 2019-2020

	2019	2020
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Characteristic	N=74	%	N=134	%	Percent Change	Trend
Substance Abuse						
Recent period of opioid use abstinence followed by relapse	5	6.8%	14	10.4%	54.6%	No significant change
History of previous overdose	8	10.8%	27	20.1%	86.4%	No significant change
Ever treated for substance abuse	8	10.8%	24	17.9%	65.7%	No significant change
Institutionalization						
Recent release from jail/prison within a month before death	0	0.0%	3	2.2%	-	-
Recent release from hospital within a month before death	6	8.1%	8	6.0%	-26.4%	No significant change
Mental Health						
Decedent had been identified as currently having a mental health problem	29	39.2%	66	49.3%	25.7%	Significant increase
Decedent had a history of attempting suicide before the overdose	3	4.1%	14	10.4%	157.7%	Significant increase
Decedent had a history of suicidal thoughts, plans, or attempts before the overdose	9	12.2%	22	16.4%	35.0%	Significant increase
Note: Circumstances prior to death were not available for all cases and missing data was excluded. These findings likely underestimate the true proportion of case characteristics. The total number of decedents reflects investigations where circumstances were known prior to death. Chi-square pairwise comparisons were used to assess differences in statistical significance between years for indicators, with trend indicating whether this difference was statistically significant (blue denotes a change in direction that is ambiguous).						

Summary: There was an **96% increase in the number of deaths attributed to opioids and benzodiazepines** (N=76 in 2019 to N=149 in 2020) (Table 9). There was a statistically significant **increase in the proportion of deaths among those 0-24 years of age (99% increase)** and an **increase in the proportion of deaths among those with less than a high school education (155% increase)** among deaths attributed to opioids and benzodiazepines. There was a statistically significant **increase in the proportion of deaths among Hispanics (126% increase)** and a **decline in the proportion of deaths among White, non-Hispanic (19% decrease)** among deaths attributed to opioids and benzodiazepines. There was an **112% increase in opioid and stimulant deaths involving fentanyl** (Table 10).