

Nevada State Unintentional Drug Overdose Reporting System

Jan – Dec 2021 – Jurisdiction of the Washoe County Regional Medical Examiner's Office

Overview: The Centers for Disease Control and Prevention (CDC) Overdose Data to Action (OD2A) is a program that 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 biannual report highlights **overdose mortality** within the counties that are overseen by the Washoe County Regional Medical Examiner Office in Nevada (Carson City, Churchill, Douglas, Elko, Esmeralda, Eureka, Humboldt, Lander, Lyon, Mineral, Northern Nye, Pershing, Storey, and Washoe Counties) utilizing the State Unintentional Drug Overdose Reporting System (SUDORS) for the period beginning **January 1, 2021 to December 31, 2021**, and the preceding year.

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 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). *Potential opportunity for linkage to care or implementation of a life-saving action includes recent release from an institution within past month (prison/jail, treatment, hospital), previous nonfatal overdose, mental health diagnosis, ever treated for substance use disorder, bystander present when fatal overdose occurred, and fatal drug use witnessed.

Limitations: Data is 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.

Table of Contents:

1. Demographics, Toxicology, Circumstances of 2021 Cases
2. Comparisons: 2021 vs 2020
3. Breakdown of Characteristics and Circumstances by Opioids and Stimulants

Acknowledgements: We would like to acknowledge the abstraction team at the Washoe County Regional Medical Examiner Office for compiling the data used in this report.

Suggested citation: Thomas, S. (2022). Nevada State Unintentional Drug Overdose Reporting System, January to December, 2021 – Jurisdiction of the Washoe County Regional Medical Examiner Office. School of Public Health, University of Nevada, Reno. <https://www.nvopioidresponse.org/od2a/>

This publication was supported by the Nevada State Department of Health and Human Services through Grant Number NU17CE925001 from the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Department nor the Centers for Disease Control and Prevention.

Key Findings:

There were **272 drug overdose deaths** (crude rate: **33.1 drug overdose deaths per 100,000 population**) of **unintentional or undetermined intent in the jurisdiction of the Washoe County Regional Medical Examiner's Office among Nevada residents from January to December 2021:**

- Rate of overdose deaths **increased by 22%** compared to the same time last year.
- The highest rate of overdose deaths occurred among *Black, non-Hispanic persons* (**89 deaths per 100,000**).
- Nearly **two-thirds of deaths involved an opioid** (63%), **over half involved a stimulant** (59%), and **26% involved both substances**.
- **Illicitly manufactured fentanyl and fentanyl analogs were involved in over 1 in 3 deaths** (33%).
- **Opioid and stimulant deaths:** highest prevalence of current/past substance use/misuse and had a recent period of abstinence followed by return to opioid use.
- **83% of decedents had at least one potential opportunity for linkage to care prior to death or implementation of a life-saving action at the time of overdose.***

Questions or comments?

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

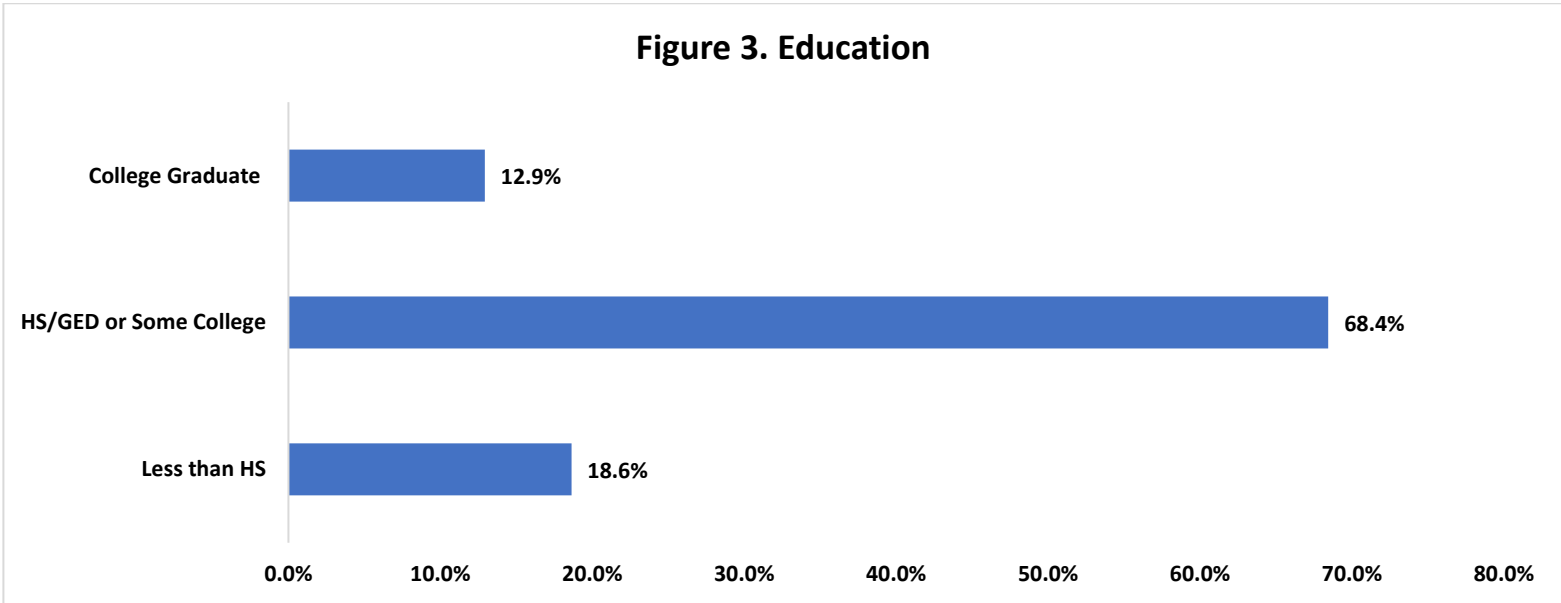
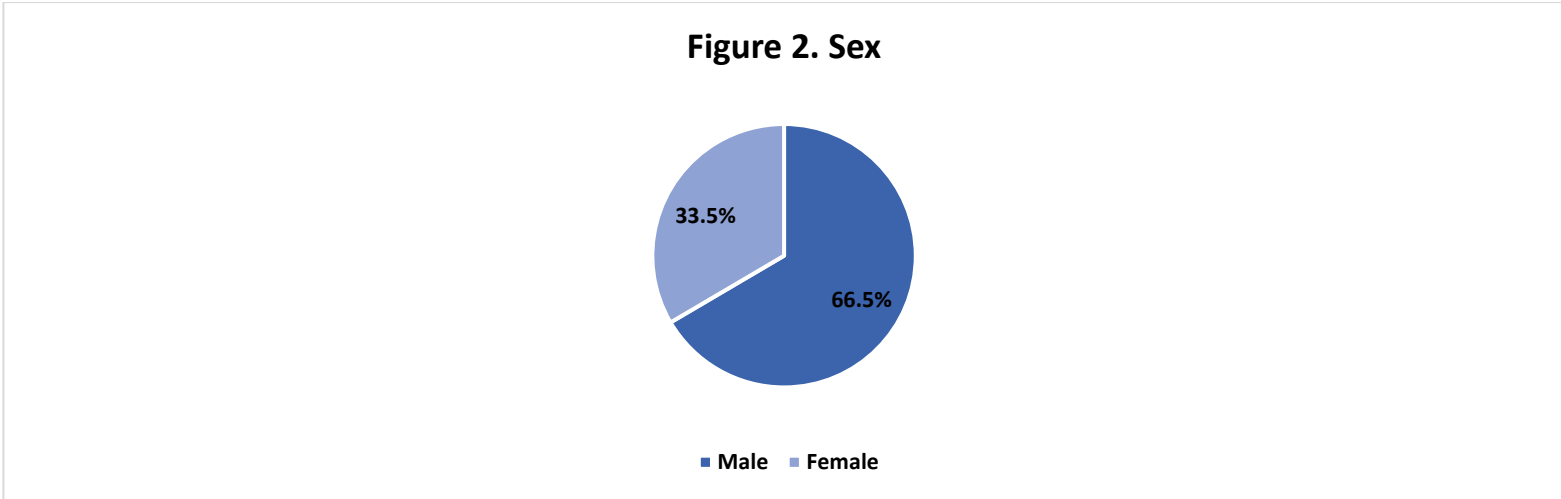
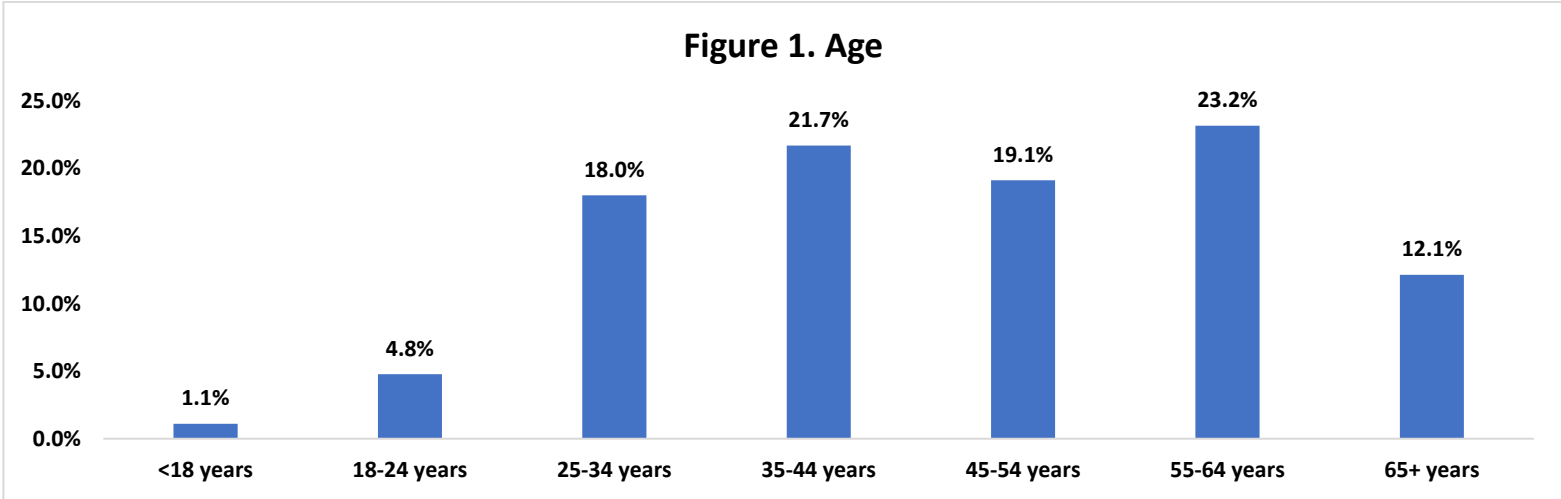


Nevada Department of
Health and Human Services
Helping People
It's who we are and what we do.



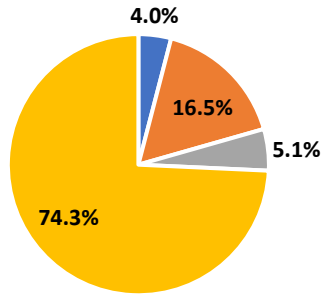
NV-OD2A
OVERDOSE DATA TO ACTION

Section 1: Demographics, Toxicology, Circumstances of 2021 Cases



Note: Missing data is excluded in percentage calculations.

Figure 4. Race/Ethnicity

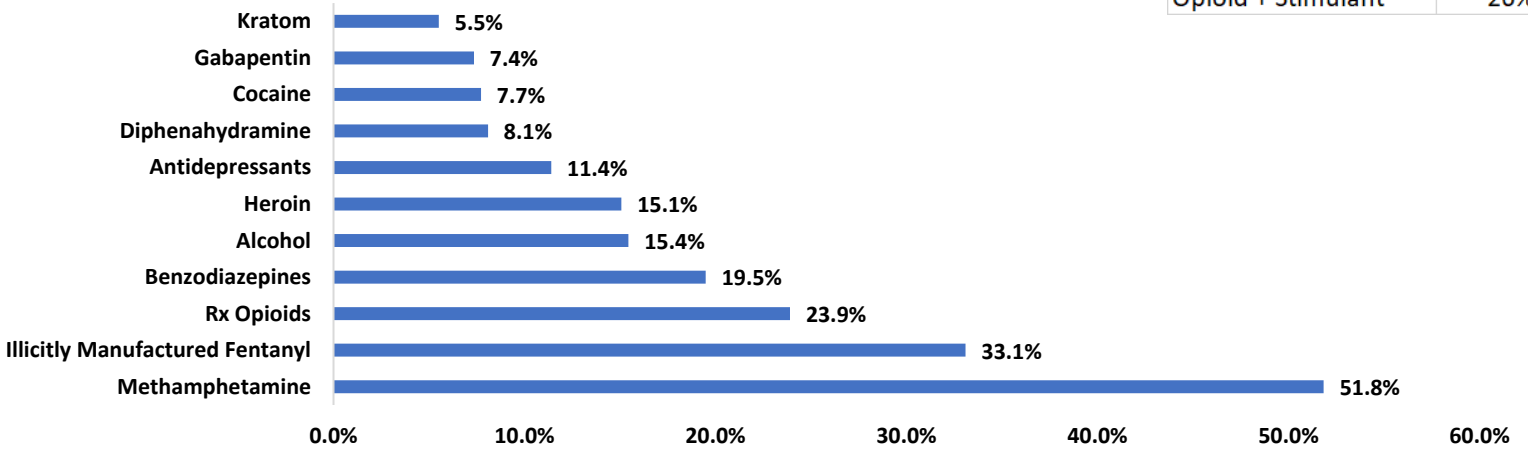


Race/Ethnicity	Rate per 100,000
Black, NH	89
American Indian/Alaskan Native, NH	73
White, NH	57
Hispanic	36
Asian and Other Pacific Islander, NH	20

■ Black, NH ■ Hispanic ■ Other, NH ■ White, NH

Note: Missing data is excluded in percentage calculations. Other race includes Asian, Pacific Islander, Native American, Alaskan Native, and those identifying as other race. NH=Non-Hispanic

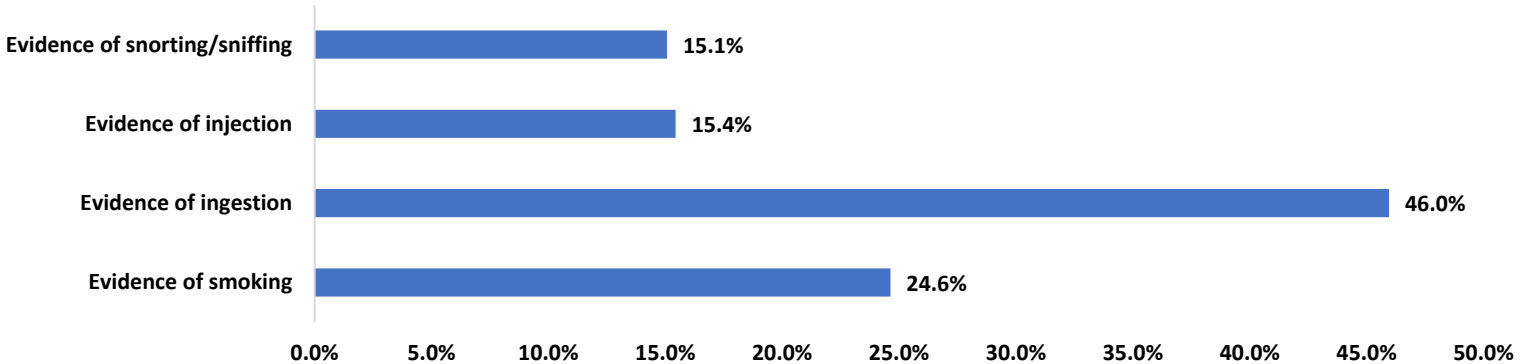
Figure 5. Most Common Substances Causing Death



Any Opioid	63%
Any Stimulant	59%
Opioid + Stimulant	26%

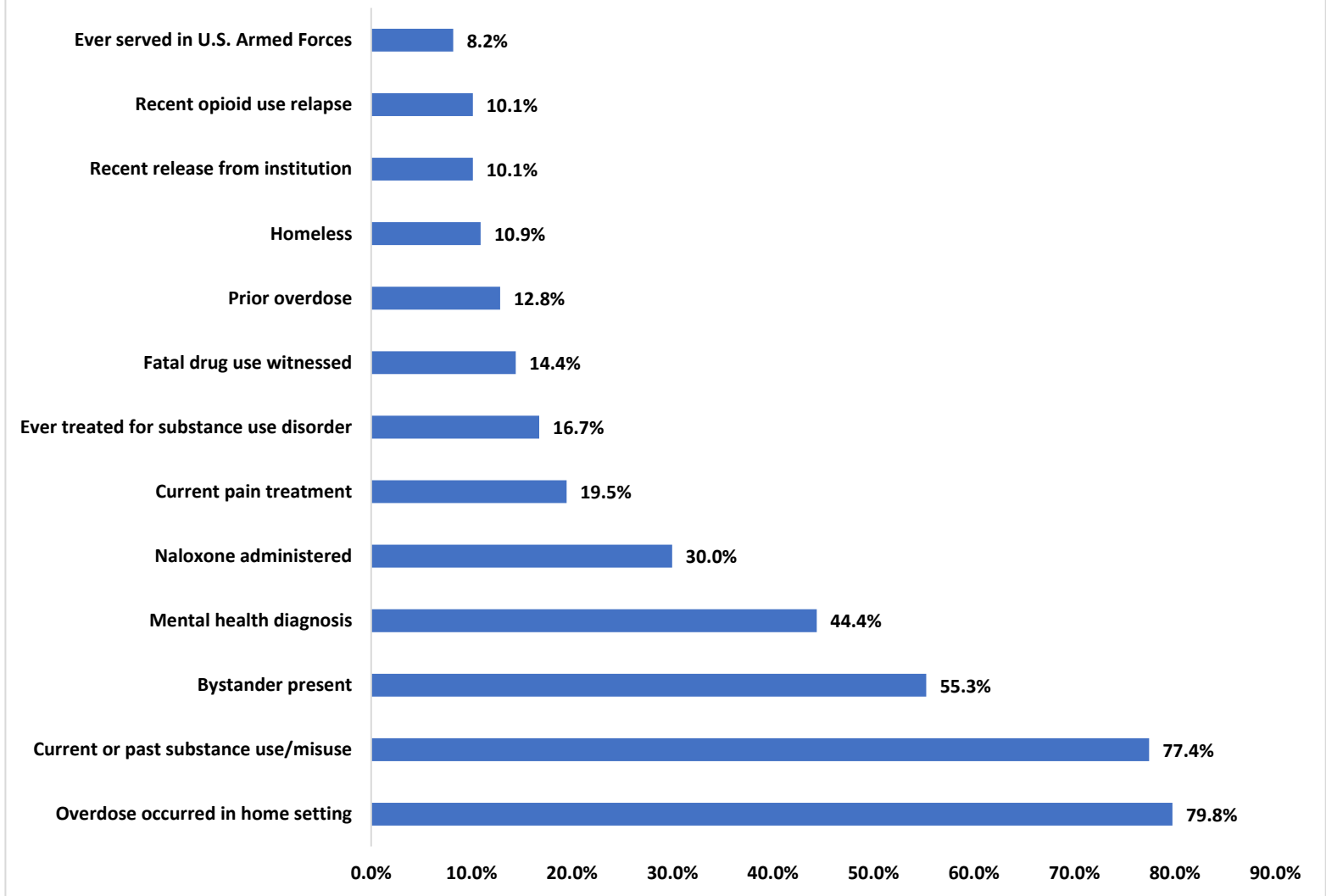
Note: Based on toxicology results for substances ruled by the Coroner/Medical Examiner as causing death. Substances are not mutually exclusive.

Figure 6. Suspected Route of Administration



Note: Suspected route of administration information is based on information documented during the death scene investigation, and due to limited information on scene in some investigations, may underestimate their occurrence.

Figure 7. Circumstances Documented



Note: Based on information documented during the death scene investigation, and due to limited information on scene in some investigations, may underestimate their occurrence. Percentages use the denominator of those who had known circumstances.

Summary: There were 272 drug overdose deaths of unintentional/undetermined intent from January to December, 2021 in the jurisdiction of the Washoe County Regional Medical Examiner Office in Nevada among residents. Decedents were mostly between the ages of 35-64 (64%), mostly male (67%), possessed a high school degree or equivalent (68%), and were White, non-Hispanic (74%) (Figures 1-4).

Nearly 2 in 3 deaths involved an opioid (63%), over half of deaths involved a stimulant (60%), and 26% of deaths involved both an opioid and stimulant. Illicitly manufactured fentanyl and fentanyl analogs contributed to over 1 in 3 deaths (33%) (Figure 5). Methamphetamine contributed to over half of deaths (52%). The suspected route of administration for substances were as follows: evidence of oral ingestion (46%), evidence of smoking (25%), evidence of injection (15%), and evidence of snorting/sniffing (15%) (Figure 6).

The top five circumstances documented among decedents were overdose occurring in the a home setting (80%), having a current or past substance use/misuse history (77%), having a bystander present at the time of overdose (55%), having a mental health diagnosis (44%), and having naloxone administered (30%) (Figure 7).

Section 2: Comparisons: 2021 vs 2020

Table 1. Demographic characteristics of overdose decedents in the jurisdiction of the Washoe County Regional Medical Examiner Office in Nevada among residents, 2020 vs 2021

	2020	2021		
Characteristic	N=220	N=272	Percent Change	Trend
Age				
<18 years	1.4%	1.1%	-19.1	No Significant Change
18-24 years	11.4%	4.8%	-57.9	Significant Decrease
25-34 years	15.9%	18.0%	13.2	No Significant Change
35-44 years	16.8%	21.7%	29.0	No Significant Change
45-54 years	18.6%	19.1%	2.6	No Significant Change
55-64 years	24.5%	23.2%	-5.6	No Significant Change
65+ years	11.4%	12.1%	6.8	No Significant Change
Sex				
Male	61.4%	66.5%	8.4	No Significant Change
Female	38.6%	33.5%	-13.4	No Significant Change
Education				
Less than HS	16.6%	18.6%	12.3	No Significant Change
HS/GED or Some College	65.4%	68.4%	4.6	No Significant Change
College Graduate	18.0%	12.9%	-28.1	No Significant Change
Race/Ethnicity				
Black, NH	4.5%	4.0%	-11.0	No Significant Change
Hispanic	15.5%	16.5%	7.1	No Significant Change
Other, NH	3.6%	5.1%	41.5	No Significant Change
White, NH	76.4%	74.3%	-2.7	No Significant Change

Note: Missing data excluded from percentage calculations. Trend indicates whether a percent change was statistically significant. 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 2020 and 2021 for a particular characteristic. Race/Ethnicity category of other includes Native American/Alaskan Native, Native Hawaiian or Other Pacific Islander, or Asian.

Table 2. Top substances causing death and suspected route of administration among decedents in the jurisdiction of the Washoe County Regional Medical Examiner Office in Nevada among residents, 2020 vs 2021

	2020	2021		
Substance	N=220	N=272	Percent Change	Trend
Any Opioids	60.9%	62.9%	3.2	No Significant Change
Illicitly Manufactured Fentanyl	30.5%	33.1%	8.6	No Significant Change
Prescription Opioids	25.0%	23.9%	-4.4	No Significant Change
Heroin	13.2%	15.1%	14.4	No Significant Change
Any Stimulants	57.7%	59.2%	2.5	No Significant Change
Methamphetamine	50.0%	51.8%	3.7	No Significant Change
Cocaine	5.5%	7.7%	41.5	No Significant Change
Other Substances				
Benzodiazepines	23.2%	19.5%	-15.9	No Significant Change
Alcohol	15.0%	15.4%	2.9	No Significant Change
Antidepressants	11.4%	11.4%	0.3	No Significant Change

Diphenhydramine	6.4%	8.1%	27.1	No Significant Change
Gabapentin	8.6%	7.4%	-14.9	No Significant Change
Kratom	8.2%	5.5%	-32.6	No Significant Change
Route of administration				
Evidence of smoking	21.8%	24.6%	12.9	No Significant Change
Evidence of ingestion	39.5%	46.0%	16.2	No Significant Change
Evidence of injection	16.8%	15.4%	-8.2	No Significant Change
Evidence of snorting/sniffing	9.5%	15.1%	57.9	No Significant Change

Note: Substances are not mutually exclusive, and decedents may have had multiple substances listed as the cause of death, so individual counts may have exceeded the total and percentages may exceed 100%. 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 2020 and 2021 for a particular characteristic. Route of administration based on death investigation reports.

Table 3. Circumstances associated with overdose among decedents in the jurisdiction of the Washoe County Regional Medical Examiner Office in Nevada among residents, 2020 vs 2021

	2020	2021		
Circumstance	N=179	N=199	Percent Change	Trend
Overdose occurred in home setting	89.9%	79.8%	-11.3	No Significant Change
Current or past substance use/misuse	68.3%	77.4%	13.3	No Significant Change
Bystander present	55.8%	55.3%	-0.9	No Significant Change
Mental health diagnosis	42.2%	44.4%	5.2	No Significant Change
Naloxone administered	28.1%	30.0%	6.6	No Significant Change
Current pain treatment	24.1%	19.5%	-19.2	No Significant Change
Prior overdose	13.1%	12.8%	-2.0	No Significant Change
Homeless	9.0%	10.9%	20.5	No Significant Change
Fatal drug use witnessed	10.1%	14.4%	43.3	No Significant Change
Recent release from institution	15.1%	10.1%	-33.0	No Significant Change
Ever treated for substance use disorder	19.6%	16.7%	-14.8	No Significant Change
Ever served in U.S. Armed Forces	7.0%	8.2%	16.6	No Significant Change
Recent opioid use relapse	7.5%	10.1%	34.0	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. 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 2020 and 2021 for a particular characteristic.

Summary: There was a significant increase in the proportion of deaths that occurred among those aged 18-24 from 2020 to 2021 (58% decrease) (Table 1).

Section 3: Breakdown of Characteristics and Circumstances by Opioids and Stimulants

Table 4. Demographic characteristics by opioids, stimulants, and both substances among decedents in the jurisdiction of the Washoe County Regional Medical Examiner Office in Nevada among residents, 2020 vs 2021

Characteristic	Opioid and Stimulant		Opioid, no Stimulant		Stimulant, no opioid	
	N=129	%	N=176	%	N=159	%
Age						
<18 years	1	0.8%	4	2.3%	0	0.0%
18-24 years	13	10.1%	25	14.2%	0	0.0%
25-34 years	31	24.0%	36	20.5%	13	8.2%
35-44 years	37	28.7%	35	19.9%	17	10.7%
45-54 years	22	17.1%	28	15.9%	39	24.5%
55-64 years	15	11.6%	31	17.6%	64	40.3%
65+ years	10	7.8%	17	9.7%	26	16.4%
Sex						
Male	93	72.1%	103	58.5%	107	67.3%
Female	36	27.9%	73	41.5%	52	32.7%
Education						
Less than HS	19	15.1%	29	16.6%	33	21.9%
HS/GED, Some College	93	73.8%	111	63.4%	103	68.2%
College Graduate	14	11.1%	35	20.0%	15	9.9%
Race/Ethnicity						
Black, NH	5	3.9%	7	4.0%	9	5.7%
Hispanic	20	15.5%	34	19.3%	19	11.9%
Other, NH	3	2.3%	8	4.5%	11	6.9%
White, NH	101	78.3%	127	72.2%	120	75.5%
Route of administration						
Evidence of smoking	39	30.2%	36	20.5%	38	23.9%
Evidence of ingestion	46	35.7%	102	58.0%	49	30.8%
Evidence of injection	45	34.9%	20	11.4%	13	8.2%
Evidence of snorting/sniffing	29	22.5%	25	14.2%	8	5.0%

Note: Yellow highlighted cells indicate the characteristic in each row with the highest percentage for each column. Understanding which characteristics are highest by substance can help inform specific activities to prevent overdose death. Opioid and stimulant includes deaths where an opioid and stimulant contributed to death. Opioid, no stimulant includes deaths where an opioid but not a stimulant contributed to death. Stimulant, no opioid includes deaths where a stimulant but not an opioid contributed to death. Calculations exclude overdose deaths where opioids or stimulants were not involved. Calculations exclude missing data. Suspected route of administration information is based on information documented during the death scene investigation, and due to limited information on scene in some investigations, may underestimate their occurrence.

Table 5. Circumstances and other characteristics by opioids, stimulants, and both substances among decedents in the jurisdiction of the Washoe County Regional Medical Examiner Office in Nevada among residents, 2020 vs 2021

Circumstance	Opioid and Stimulant		Opioid, no Stimulant		Stimulant, no opioid	
	N=115	%	N=167	%	N=147	%
Overdose occurred in home setting	93	80.9%	146	87.4%	98	66.7%
Current or past substance use/misuse	103	89.6%	114	68.3%	106	72.1%

Bystander present*	61	53.0%	100	59.9%	64	43.5%
Mental health diagnosis*	44	38.3%	88	52.7%	48	32.7%
Naloxone administered	38	33.0%	68	40.7%	18	12.2%
Current pain treatment	16	13.9%	67	40.1%	9	6.1%
Prior overdose*	9	7.8%	39	23.4%	9	6.1%
Homeless	9	7.8%	6	3.6%	28	19.0%
Fatal drug use witnessed*	22	19.1%	18	10.8%	14	9.5%
Recent release from institution*	13	11.3%	19	11.4%	19	12.9%
Ever treated for substance use disorder*	21	18.3%	47	28.1%	9	6.1%
Ever served in U.S. Armed Forces	8	7.0%	10	6.0%	13	8.8%
Recent opioid use relapse*	23	20.0%	16	9.6%	1	0.7%

Note: Yellow highlighted cells indicate the characteristic in each row with the highest percentage for each column. Understanding which characteristics are highest by substance can help inform specific activities to prevent overdose death. Based on information documented during the death scene investigation, and due to limited information on scene in some investigations, may underestimate their occurrence. Percentages use the denominator of those who had known circumstances for each substance breakdown. *Potential opportunity for life-saving action includes recent release from an institution within past month (prison/jail, treatment, hospital), previous nonfatal overdose, mental health diagnosis, ever treated for substance use disorder, bystander present when fatal overdose occurred, and fatal drug use witnessed.

Summary: There were 129 deaths where opioids and stimulants contributed, 176 deaths where opioids contributed, and 159 deaths where stimulants contributed to drug overdose deaths of unintentional/undetermined intent from 2020-2021 in Nevada among residents (**Table 4**).

Opioid + Stimulants: Decedents in this group had the highest prevalence of being between the ages of 25-34 (24%) and being between the ages of 35-44 (29%). Decedents had the highest prevalence of being male (72%), having a HS/GED, some college education (74%), and being White, non-Hispanic (78%). Decedents had the greatest prevalence of current or past substance use/misuse (90%), had their fatal drug use witnessed (19%), and had recent opioid use after a period of abstinence (20%).

Opioids: Decedents in this group had the highest prevalence of being under the age of 18 (2%) and being between the ages of 18-24 (14%). Decedents had the highest prevalence of being female (42%), a college graduate (20%), and Hispanic (19%). Decedents had the greatest prevalence of overdose occurring in a home setting (87%), having a bystander present at time of overdose (60%), having a mental health diagnosis (53%), having Naloxone administered (41%), having current treatment for pain (40%), history of a previous overdose (23%), and ever being treated for substance use disorder (28%).

Stimulants: Decedents in this group had the highest prevalence of being between the ages of 45-54 (25%), 55-64 (40%), and 65+ (16%). Decedents had the highest prevalence of having less than high school education (22%), and being Black, non-Hispanic (6%). Decedents had the greatest prevalence of experiencing homelessness or housing insecurity prior to death (19%), being recently released from an institutional setting such as a hospital, jail, or treatment facility (13%), and ever serving in the U.S. Armed Forces (9%).