

# Nevada State Unintentional Drug Overdose Reporting System

Jan - Dec 2021 – Jurisdiction of the Clark County Office of Coroner/Medical Examiner

**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 Clark County Office of the Coroner/Medical Examiner in Nevada 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.

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1. Demographics, Toxicology, Circumstances of 2021 Cases
2. Comparisons: 2021 vs 2020
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<https://www.nvopioidresponse.org/od2a/>

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## **Key Findings:**

There were **514 drug overdose deaths** ( **crude rate: 22.0 drug overdose deaths per 100,000 population**) of **unintentional or undetermined intent in the jurisdiction of the Clark County Office of the Coroner/Medical Examiner among Nevada residents from January to December 2021:**

- The highest rate of overdose deaths occurred among *Black, non-Hispanic persons* (**30 deaths per 100,000**).
- Nearly **two-thirds of deaths involved an opioid** (62%), **over half involved a stimulant** (62%), and **29% involved both substances**.
- **Illicitly manufactured fentanyl and fentanyl analogs were involved in over 1 in 3 deaths** (38%).
- **Opioid and stimulant deaths:** highest prevalence of overdose occurring among those with current/past substance use/misuse, having a bystander present at time of overdose, had their fatal drug use witnessed, ever treated for substance use disorder, and had a recent period of abstinence followed by return to opioid use.
- **75% 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](mailto:shawnt@unr.edu).

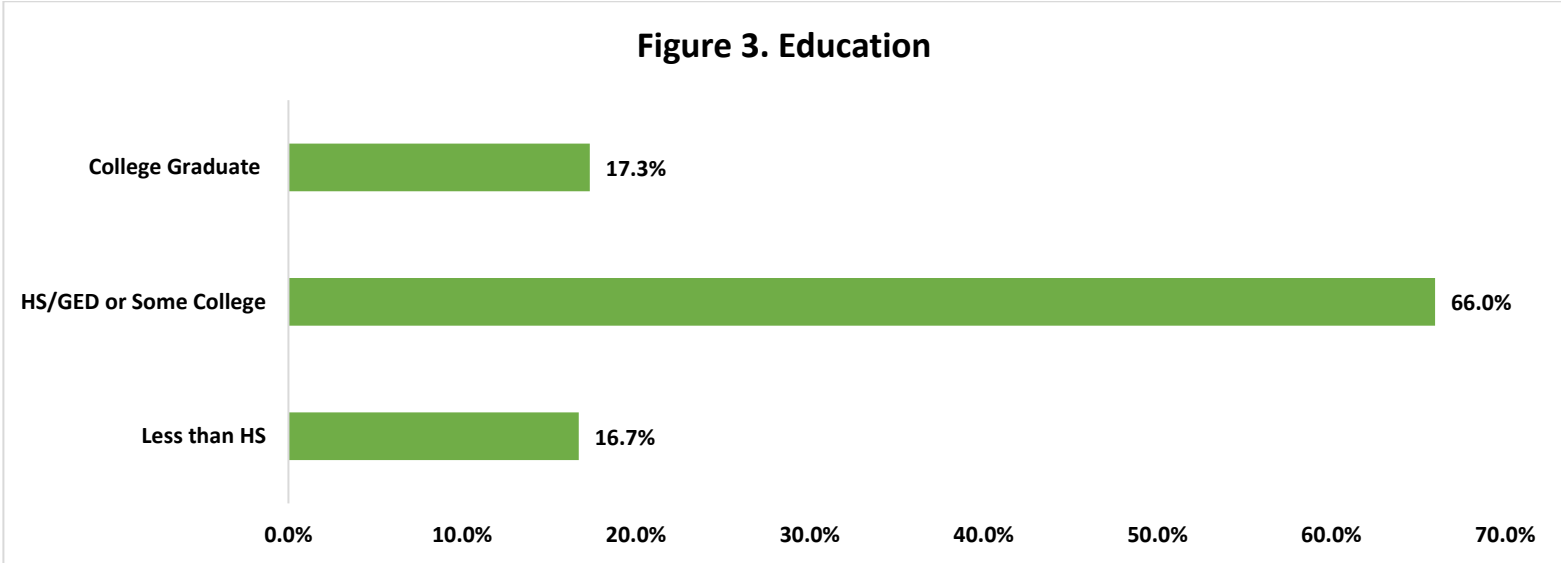
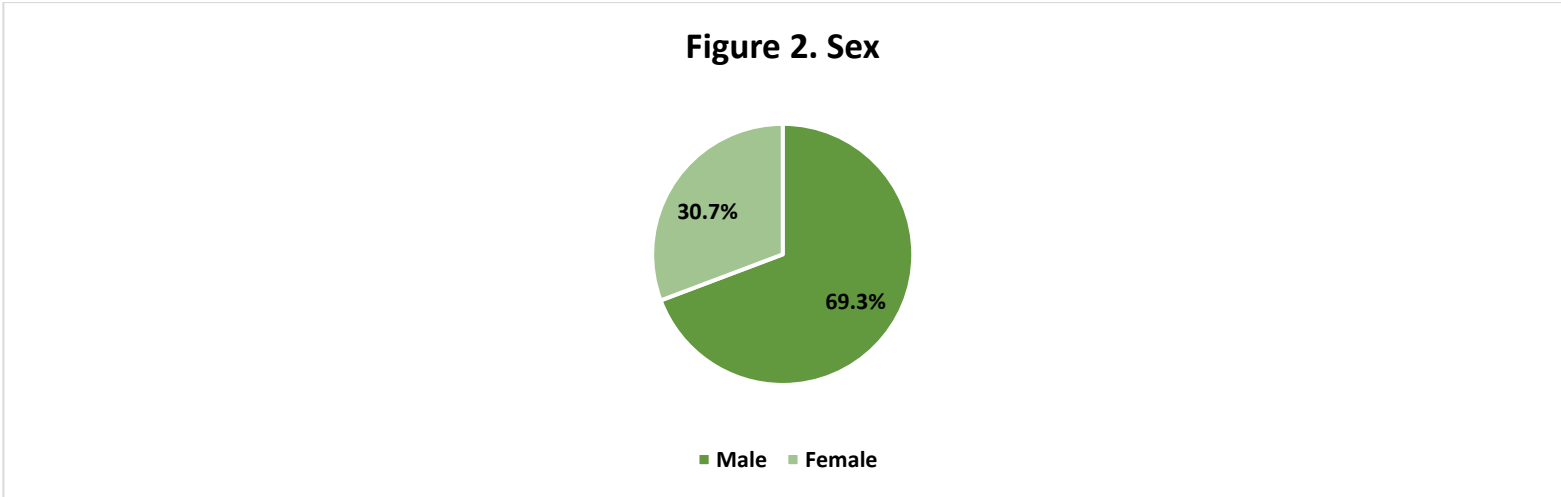
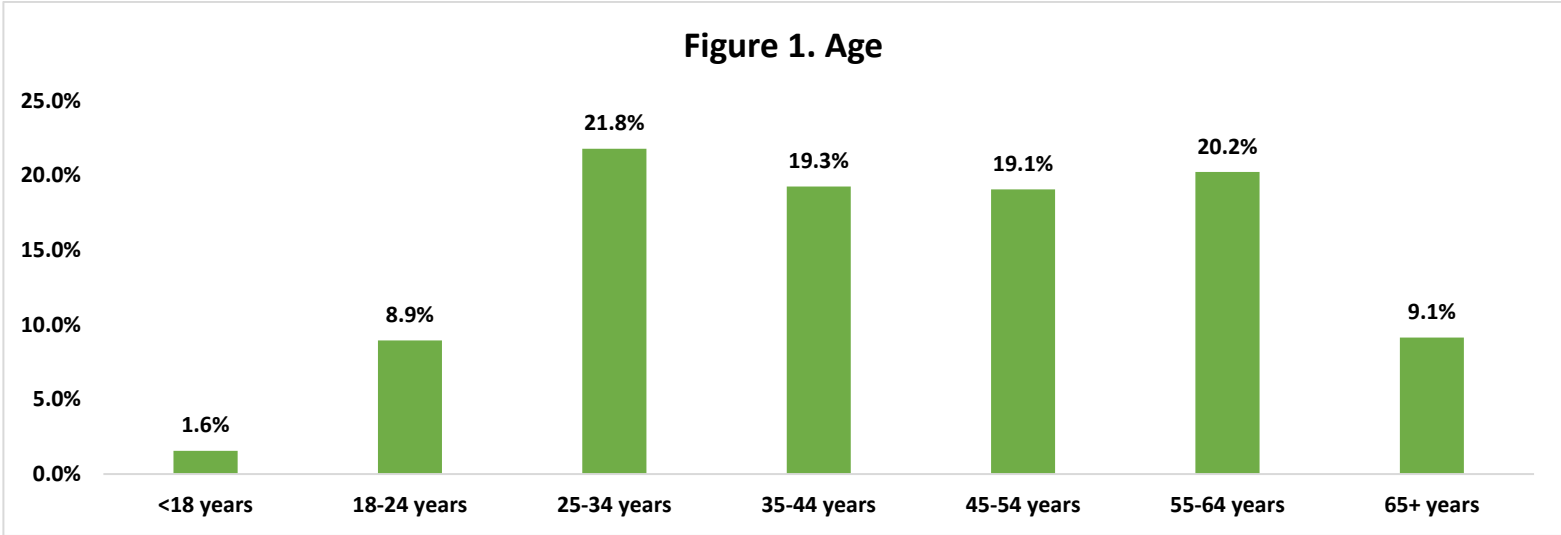


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OVERDOSE DATA TO ACTION

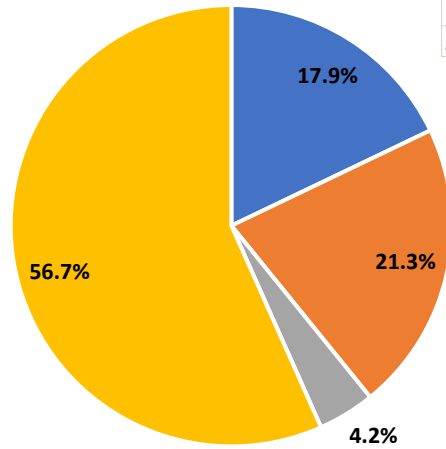
# Section 1: Characteristics, toxicology, and circumstances of all cases



Note: Missing data is excluded in percentage calculations.

**Figure 4. Race/Ethnicity**

Race/Ethnicity	Rate per 100,000
Black, NH	30
American Indian/Alaskan Native, NH	22
White, NH	14
Hispanic	5
Asian and Other Pacific Islander, NH	5

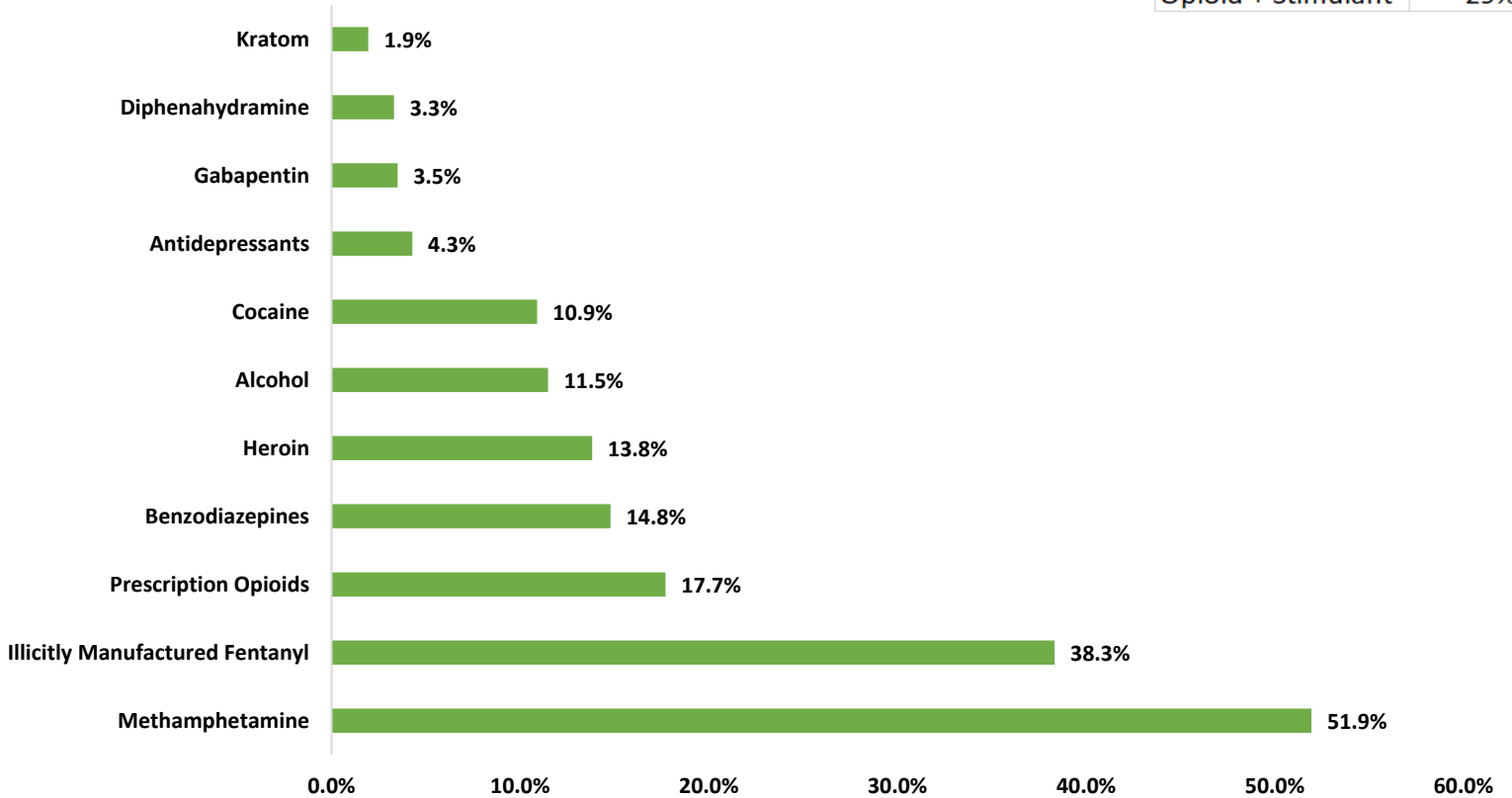


■ Black, NH ■ Hispanic ■ Other, NH ■ White, NH

**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

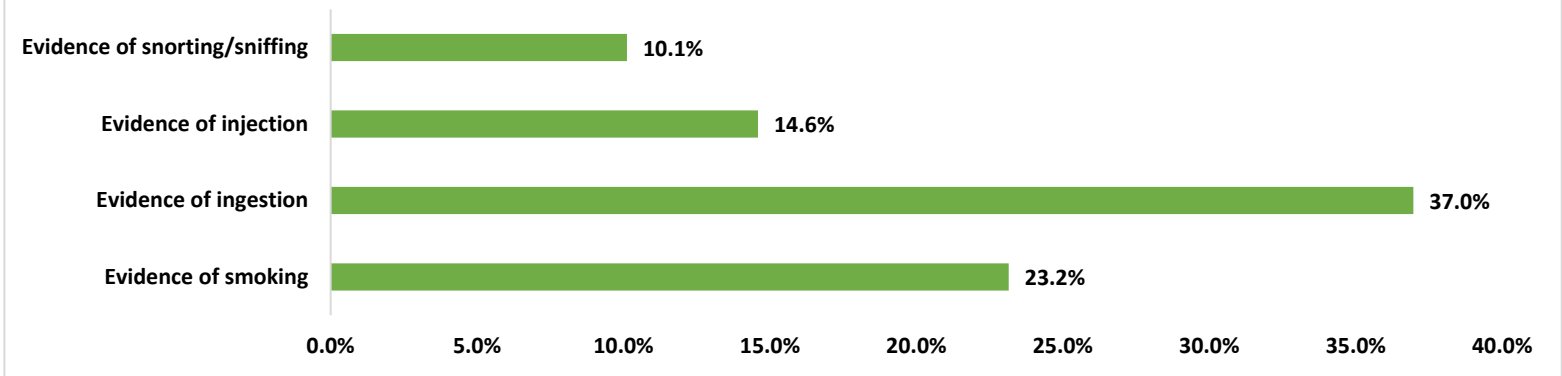
**Figure 5. Most Common Substances Causing Death**

Any Opioid	62%
Any Stimulant	62%
Opioid + Stimulant	29%



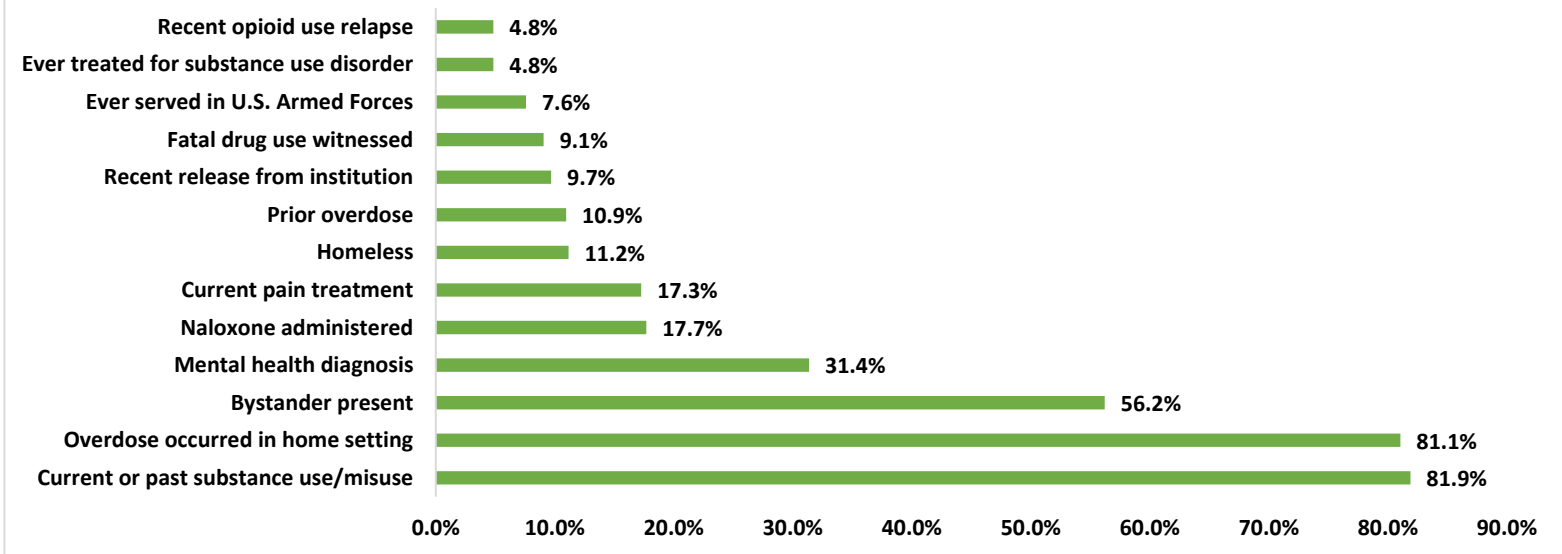
**Note:** Based on toxicology results for substances ruled by the Coroner/Medical Examiner as causing death. Substances are not mutually exclusive.

**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 514 drug overdose deaths of unintentional/undetermined intent from January to December 2021 in Nevada among residents within the jurisdiction of the Clark County Office of the Coroner/Medical Examiner. Decedents were mostly between the ages of 25-34 (21.8%), mostly male (69.3%), possessed a high school degree or equivalent (66.0%), and were White, non-Hispanic (56.7%) (**Figures 1-4**).

Over 60% of deaths involved an opioid, over 60% of deaths involved a stimulant, and 29% of deaths involved both an opioid and stimulant. Illicitly manufactured fentanyl and fentanyl analogs contributed to over 1 in 3 deaths (38.3%). Methamphetamine contributed to half of deaths (51.9%). The suspected route of administration for substances were as follows: evidence of smoking (23.7%), evidence of oral ingestion (40.1%), evidence of injection (14.9%), and evidence of snorting/sniffing (11.8%) (**Figures 5-6**).

The top five circumstances documented among decedents were having a current or past substance use/misuse history (81.9%), overdose occurring in a home setting (81.1%), having a bystander present at the time of overdose (56.2%), having a mental health diagnosis (31.4%), and having naloxone administered (17.7%) (**Figure 7**).

## Section 2: Comparison: 2021 vs 2020

**Table 1. Demographic characteristics of overdose decedents in the jurisdiction of the Clark County Office of the Coroner/Medical Examiner in Nevada among residents, 2020 vs 2021**

	2020	2021		
Characteristic	N=569	N=514	Percent Change	Trend
<b>Age</b>				
<18 years	1.8%	1.6%	-11.4	No Significant Change
18-24 years	12.1%	8.9%	-26.2	No Significant Change
25-34 years	20.0%	21.8%	8.8	No Significant Change
35-44 years	18.8%	19.3%	2.4	No Significant Change
45-54 years	20.6%	19.1%	-7.3	No Significant Change
55-64 years	19.0%	20.2%	6.6	No Significant Change
65+ years	7.7%	9.1%	18.2	No Significant Change
<b>Sex</b>				
Male	71.0%	69.3%	-2.5	No Significant Change
Female	29.0%	30.7%	6.0	No Significant Change
<b>Education</b>				
Less than HS	16.0%	16.7%	4.5	No Significant Change
HS/GED or Some College	68.6%	66.0%	-3.9	No Significant Change
College Graduate	15.4%	17.3%	12.6	No Significant Change
<b>Race/Ethnicity</b>				
Black, NH	17.2%	17.9%	4.0	No Significant Change
Hispanic	20.1%	21.3%	6.0	No Significant Change
Other, NH	5.9%	4.2%	-29.4	No Significant Change
White, NH	56.8%	56.7%	-0.3	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 Clark County Office of the Coroner/Medical Examiner in Nevada among residents, 2020 vs 2021**

	2020	2021		
Substance	N=569	N=514	Percent Change	Trend
<b>Any Opioids</b>	67.0%	61.7%	-7.9	No Significant Change
Illicitly Manufactured Fentanyl	33.2%	38.3%	15.4	No Significant Change
Prescription Opioids	22.0%	17.7%	-19.4	No Significant Change
Heroin	16.7%	13.8%	-17.3	No Significant Change
<b>Any Stimulants</b>	60.3%	61.7%	2.3	No Significant Change
Methamphetamine	46.7%	51.9%	11.1	No Significant Change
Cocaine	13.5%	10.9%	-19.5	No Significant Change
<b>Other Substances</b>				
Benzodiazepines	20.7%	14.8%	-28.7	Significant Decrease
Alcohol	12.0%	11.5%	-4.0	No Significant Change

Antidepressants	6.5%	4.3%	-34.2	No Significant Change
Diphenhydramine	3.5%	3.3%	-5.9	No Significant Change
Gabapentin	4.6%	3.5%	-23.4	No Significant Change
Kratom	1.4%	1.9%	38.4	No Significant Change
<b>Route of administration</b>				
Evidence of smoking	17.4%	23.2%	33.1	Significant Increase
Evidence of ingestion	41.1%	37.0%	-10.1	No Significant Change
Evidence of injection	15.6%	14.6%	-6.7	No Significant Change
Evidence of snorting/sniffing	10.9%	10.1%	-7.2	No Significant Change
<b>Note:</b> 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.				

<b>Table 3. Circumstances associated with overdose among decedents in the jurisdiction of the Clark County Office of the Coroner/Medical Examiner in Nevada among residents, 2020 vs 2021</b>				
	<b>2020</b>	<b>2021</b>		
<b>Circumstance</b>	<b>N=492</b>	<b>N=475</b>	<b>Percent Change</b>	<b>Trend</b>
Overdose occurred in home setting	86.6%	81.1%	-6.3	No Significant Change
Current or past substance use/misuse	75.6%	81.9%	8.3	No Significant Change
Bystander present	67.7%	56.2%	-17.0	Significant Decrease
Mental health diagnosis	31.5%	31.4%	-0.3	No Significant Change
Naloxone administered	25.2%	17.7%	-29.8	Significant Decrease
Current pain treatment	20.9%	17.3%	-17.4	No Significant Change
Prior overdose	11.4%	10.9%	-4.2	No Significant Change
Homeless	10.6%	11.2%	6.0	No Significant Change
Fatal drug use witnessed	12.6%	9.1%	-27.8	No Significant Change
Recent release from institution	13.0%	9.7%	-25.4	No Significant Change
Ever treated for substance use disorder	8.5%	4.8%	-43.8	Significant Decrease
Ever served in U.S. Armed Forces	7.9%	7.6%	-4.1	No Significant Change
Recent opioid use relapse	6.9%	4.8%	-30.5	No Significant Change
<b>Note:</b> 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). Blue indicates if the trend was significant but harmfulness is difficult to quantify. No significant change indicates there was no statistically significant change between 2020 and 2021 for a particular characteristic.				

**Summary:** There was a significant decrease in the proportion of deaths where benzodiazepines contributed to death from 2020 to 2021 (29% decrease). There was a significant increase in the proportion of deaths where there was evidence of smoking (33% increase) (**Table 2**). There were significant decreases in the proportion of deaths among those with a bystander present (17% decrease), where Naloxone was administered (30% decrease), and decedents who were ever treated for substance use disorder (44% decrease) (**Table 3**).

## Section 3: Breakdown of Characteristics and Circumstances by Opioids and Stimulants, 2020-2021

**Table 4. Demographic characteristics by opioids, stimulants, and both substances among decedents in the jurisdiction of the Clark County Office of the Coroner/Medical Examiner in Nevada among residents, 2020-2021**

	Opioid and Stimulant		Opioid, no Stimulant		Stimulant, no Opioid	
	N=314	%	N=384	%	N=346	%
<b>Age</b>						
<18 years	5	1.6%	11	2.9%	2	0.6%
18-24 years	40	12.7%	59	15.4%	12	3.5%
25-34 years	89	28.3%	93	24.2%	41	11.8%
35-44 years	59	18.8%	72	18.8%	69	19.9%
45-54 years	58	18.5%	54	14.1%	93	26.9%
55-64 years	45	14.3%	62	16.1%	91	26.3%
65+ years	18	5.7%	33	8.6%	38	11.0%
<b>Sex</b>						
Male	209	66.6%	261	68.0%	264	76.3%
Female	105	33.4%	123	32.0%	82	23.7%
<b>Education</b>						
Less than HS	40	13.6%	57	15.8%	57	19.5%
HS/GED, Some College	215	72.9%	228	63.3%	200	68.3%
College Graduate	40	13.6%	75	20.8%	36	12.3%
<b>Race/Ethnicity</b>						
Black, NH	43	9.9%	57	10.3%	78	15.7%
Hispanic	68	15.6%	79	14.3%	67	13.5%
Other, NH	20	4.6%	13	2.3%	21	4.2%
White, NH	176	40.4%	229	41.3%	172	34.6%
<b>Route of administration</b>						
Evidence of smoking	83	26.4%	54	14.1%	79	22.8%
Evidence of ingestion	116	36.9%	222	57.8%	64	18.5%
Evidence of injection	86	27.4%	44	11.5%	33	9.5%
Evidence of snorting/sniffing	50	15.9%	44	11.5%	20	5.8%

**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 of decedents in the jurisdiction of the Clark County Office of the Coroner/Medical Examiner in Nevada among residents, 2020-2021**

Circumstance	Opioid and Stimulant		Opioid, no Stimulant		Stimulant, no opioid	
	N=288	%	N=357	%	N=285	%
Overdose occurred in home setting	254	88.2%	317	88.8%	172	60.4%
Current or past substance use/misuse	244	84.7%	260	72.8%	220	77.2%
Bystander present*	190	66.0%	207	58.0%	133	46.7%

Mental health diagnosis*	82	28.5%	143	40.1%	65	22.8%
Naloxone administered	71	24.7%	79	22.1%	29	10.2%
Current pain treatment	38	13.2%	114	31.9%	24	8.4%
Prior overdose*	37	12.8%	57	16.0%	9	3.2%
Homeless	22	7.6%	6	1.7%	45	15.8%
Fatal drug use witnessed*	49	17.0%	29	8.1%	11	3.9%
Recent release from institution*	30	10.4%	36	10.1%	33	11.6%
Ever treated for substance use disorder*	28	9.7%	24	6.7%	12	4.2%
Ever served in U.S. Armed Forces	11	3.8%	28	7.8%	26	9.1%
Recent opioid use relapse*	27	9.4%	27	7.6%	2	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 384 deaths where opioids contributed, 346 deaths where stimulants contributed, and 314 deaths where opioids and stimulants contributed to drug overdose deaths of unintentional/undetermined intent from January to December 2021 in Nevada among residents within the jurisdiction of the Clark County Office of the Coroner/Medical Examiner (**Table 4**).

**Opioid + Stimulants:** Decedents in this group had the highest prevalence of being between the ages of 25-34 (28%) and being female (33%). Decedents had the highest prevalence of having a HS/GED, some college education (73%) and highest prevalence of being Hispanic (16%). Decedents had the greatest prevalence of current or past substance use/misuse (85%), having a bystander present at time of overdose (66%), have Naloxone administered (25%), had their fatal drug use witnessed (17%), ever treated for substance use disorder (10%) and had recent opioid use after a period of abstinence (9%).

**Opioids:** Decedents in this group had the highest prevalence of being under the age of 18 (3%) and being between the ages of 18-24 (15%). Decedents had the highest prevalence of being a college graduate (21%) and White, non-Hispanic (41%). Decedents had the greatest prevalence of overdose occurring in a home setting (89%), having a mental health diagnosis (40%), having current treatment for pain (32%), and history of a previous overdose (16%).

**Stimulants:** Decedents in this group had the highest prevalence of being between the ages of 35-44 (20%), 45-54 (27%), 55-64 (26%), and 65+ (11%). Decedents had the highest prevalence of being male (76%), having less than high school education (20%), Black, non-Hispanic (16%), Other, non-Hispanic (6%). Decedents had the greatest prevalence of experiencing homelessness or housing insecurity prior to death (16%), being recently released from an institutional setting such as a hospital, jail, or treatment facility (12%), and ever serving in the U.S. Armed Forces (9%).