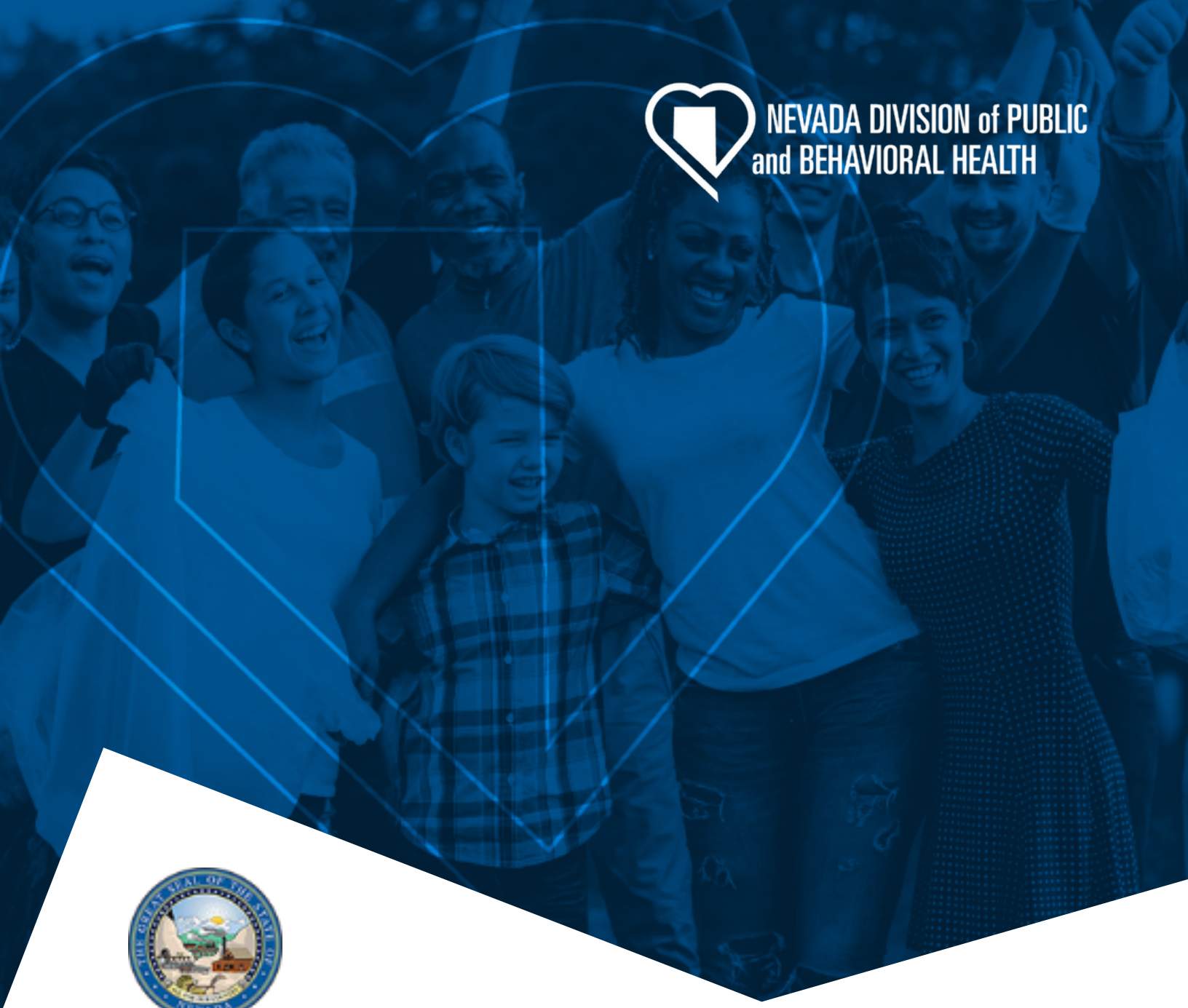


Nevada State Unintentional Drug Overdose Reporting System (SUDORS): A Comparison of Characteristics of Overdose Fatalities Based on Prior Overdose History

Division of Public and Behavioral Health
State of Nevada Department of Human Services

Reported developed by:
Larson Institute for Health Impact and Equity
School of Public Health, University of Nevada, Reno

Published Apr. 2026

TABLE OF CONTENTS

ABOUT THE DIVISION OF PUBLIC AND BEHAVIORAL HEALTH

The Division of Public and Behavioral Health (DPBH) is one of five divisions within the Department of Health and Human Services, which falls within the Executive Branch of the State of Nevada. It is the primary provider of public health services in many rural areas of the state and provides certain public health services statewide, though the majority of public health services in urban areas are provided by local health authorities. The Division also provides a wide range of behavioral health services through civil and forensic inpatient psychiatric hospitals in northern and southern Nevada, rural outpatient clinics and programs, and other critical facilities.

ABOUT THE LARSON INSTITUTE

This publication was prepared by the Larson Institute for Health Impact. The Larson Institute, housed within the University of Nevada, Reno School of Public Health, translates academic research into actionable community practices that improve public health outcomes. Through community engagement and workforce development, we build public health capacity, support state systems and mobilize community partners to advance community health and well-being. Learn more by visiting us at larsoninstitute.org. For questions about this report, please contact the Larson Institute's Data Analytics Manager, Taylor Lensch, at tlensch@unr.edu.

FUNDING ACKNOWLEDGEMENT

This publication was made possible by the Overdose Data to Action Grant #NU17CE010224 awarded by the State of Nevada DHHS DPBH Bureau of Behavioral Health, Wellness and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the State of Nevada or the Centers for Disease Control and Prevention.

INTRODUCTION

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.

Purpose

The information contained in this special report highlights overdose mortality within the State of Nevada utilizing the State Unintentional Drug Overdose Reporting System (SUDORS) for the period January 1, 2019 to December 31, 2023. Analyses specifically compare fatalities based on prior overdose history was present and not present to assess differences in overdose characteristics and outcomes. By examining potential differences in overdose patterns, substances involved, and contextual factors between these two groups, this report aims to better understand cross-jurisdictional overdose dynamics and identify implications for prevention, surveillance, and response efforts within Nevada.

Data Characteristics

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–X44 (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. 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.

Acknowledgements

We would like to acknowledge the abstraction team at the Clark County Office of the Coroner/Medical Examiner and the Washoe County Regional Medical Examiner's Office for compiling the data used in this report.

Suggested Citation

Lensch T., Chavez, L. Muoneke, N., Kirk M. (2026). Nevada State Unintentional Drug Overdose Reporting System (SUDORS): A Comparison of Characteristics of Overdose Fatalities Based on Prior Overdose History. Larson Institute, School of Public Health, University of Nevada, Reno.

Funding & Disclaimer

This publication was supported by the Nevada State Department of Health and Human Services through 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.

Questions or comments? Please contact Nevada OD2A's Epidemiologist, Taylor Lensch, PhD, MPH, at tlensch@unr.edu.

COMPARISON OF CHARACTERISTICS OF OVERDOSE DEATHS, BY PRIOR OVERODSE HISTORY

Summary

There were 4,631 drug overdose deaths of unintentional or undetermined intent from January 2019 to December 2023 in the state of Nevada. Figures 1 through 4 highlight several demographic differences in overdose deaths in Nevada based on prior overdose history. Compared to deaths without a previous nonfatal overdose, deaths with a previous nonfatal overdose involved younger age groups, including individuals aged 18–24 years (12.2% vs. 5.9%) and 25–34 years (27.9% vs. 19.2%) (Figure 1), as well as a higher proportion of females (41.5% vs. 27.7%) (Figure 2). Educational attainment was generally similar between groups, although deaths with a prior nonfatal overdose had a slightly higher proportion of college graduates (20.2% vs. 17.0%) (Figure 3). Racial and ethnic distributions were also similar overall, though non-Hispanic White individuals represented a larger proportion of deaths with a previous nonfatal overdose (70.1% vs. 62.6%) (Figure 4).

Figure 5 demonstrates differences in substance involvement between groups. Methamphetamine was more common among deaths without a prior nonfatal overdose (58.4% vs. 38.1%), while opioid involvement was substantially higher in prior overdose deaths, including illicit opioids (66.4% vs. 47.8%), fentanyl (53.4% vs. 37.2%), prescription opioids (25.5% vs. 15.7%), and heroin (15.1% vs. 11.4%). Benzodiazepines (26.0% vs. 12.6%) and antidepressants (13.5% vs. 5.2%) were also more common among prior overdose deaths. Figure 6 shows that oral ingestion was more common when there was a prior nonfatal overdose (40.1% vs. 26.1%), while smoking was slightly more common among deaths without a prior nonfatal overdose (26.2% vs. 24.3%).

Figure 7 highlights differences in overdose circumstances by prior nonfatal overdose history. Prior overdose deaths were more likely to occur in a household setting (77.1% vs. 63.4%) and involve mental health problems (43.6% vs. 22.6%), naloxone administration (33.4% vs. 20.3%), chronic pain treatment (21.8% vs. 13.9%), recent incarceration (18.3% vs. 9.1%), and prior substance use disorder treatment history (26.7% vs. 6.2%). In contrast, homelessness was more common among deaths without a prior overdose (16.4% vs. 10.2%). Overall, these findings suggest that overdose deaths without a prior nonfatal overdose may occur in more isolated or unstable settings, while prior overdose deaths may provide more opportunities for intervention and overdose response.

Figure 1. Age distribution of overdose deaths in Nevada by prior nonfatal overdose history, 2019-2023, Nevada State Unintentional Drug Overdose Reporting System (SUDORS)

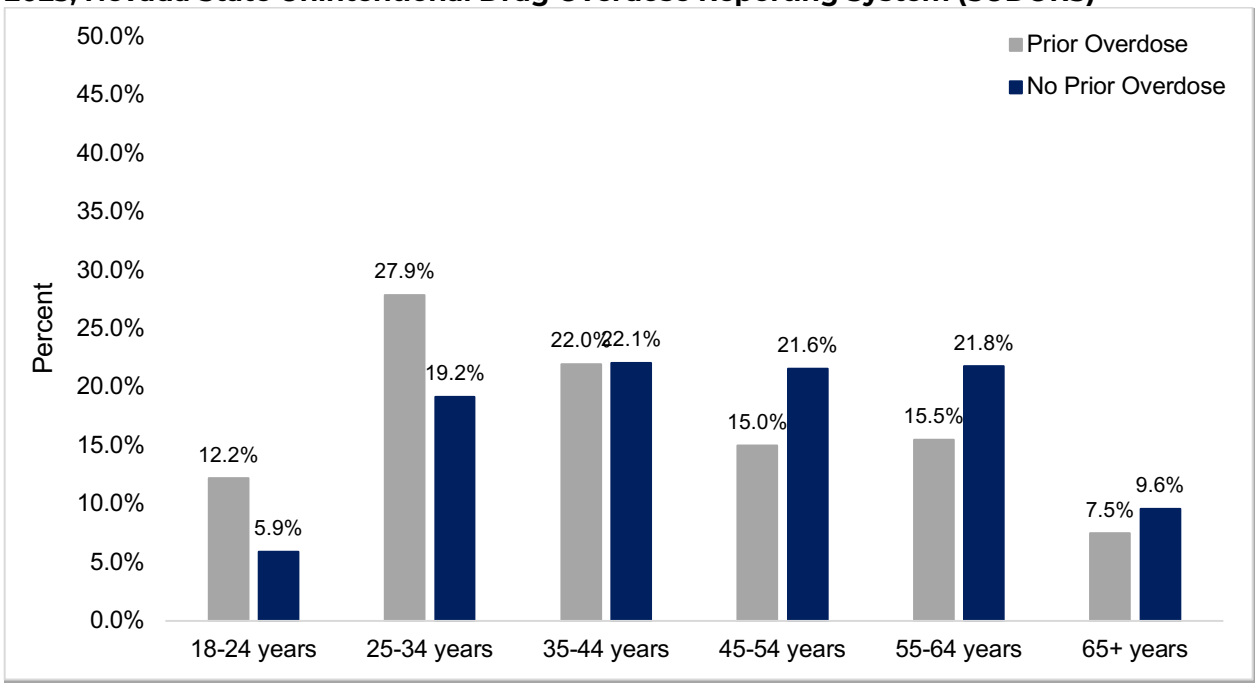


Figure 2. Sex distribution of overdose deaths in Nevada by prior nonfatal overdose history, 2019-2023, Nevada State Unintentional Drug Overdose Reporting System (SUDORS)

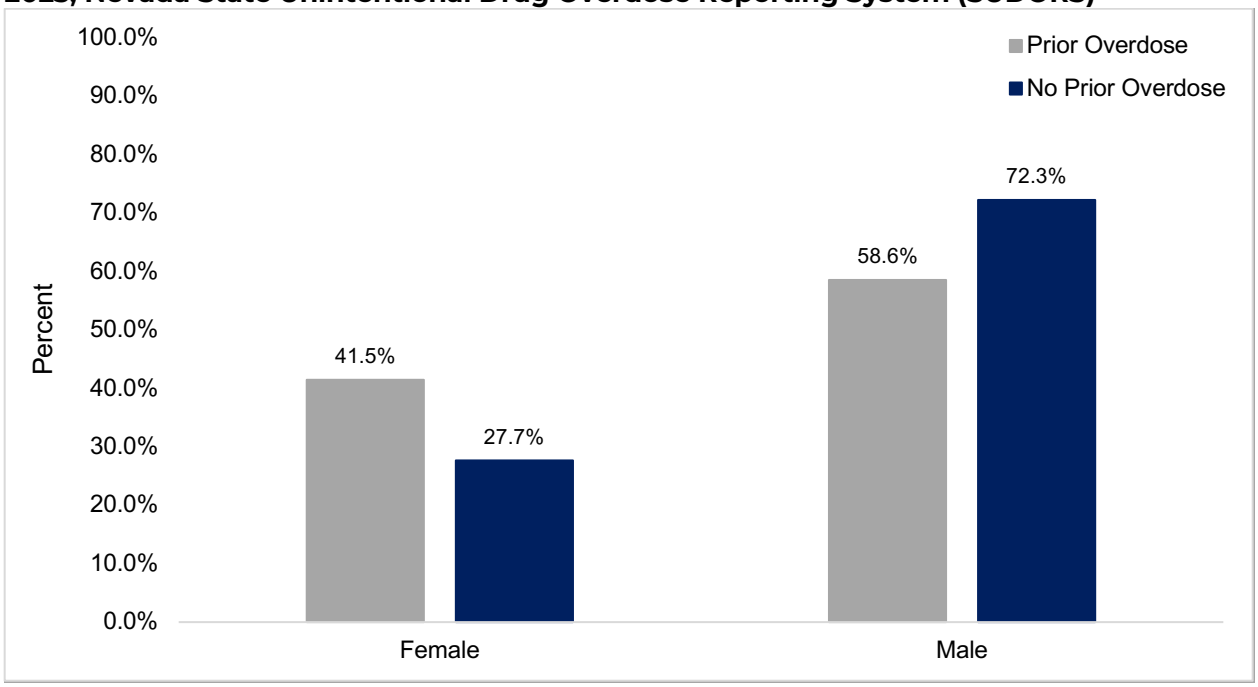


Figure 3. Education distribution of overdose deaths in Nevada by prior nonfatal overdose history, 2019-2023, Nevada State Unintentional Drug Overdose Reporting System (SUDORS)

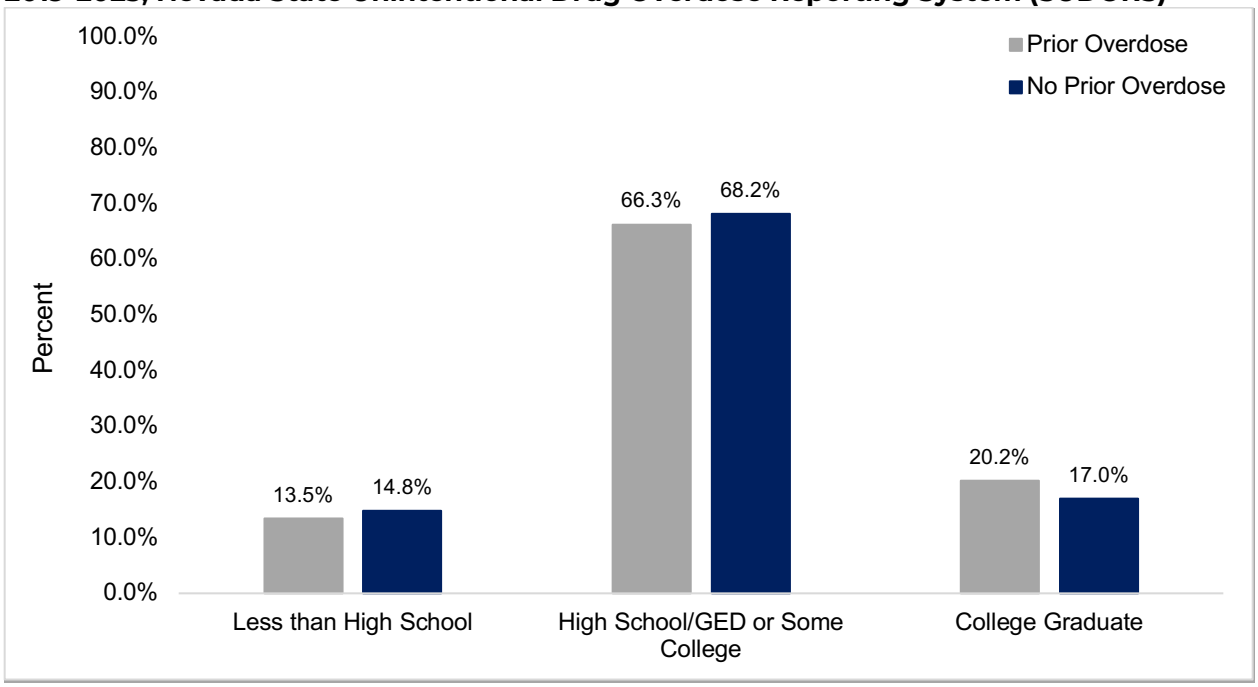


Figure 4. Race/ethnicity distribution of overdose deaths in Nevada by prior nonfatal overdose history, 2019-2023, Nevada State Unintentional Drug Overdose Reporting System (SUDORS)

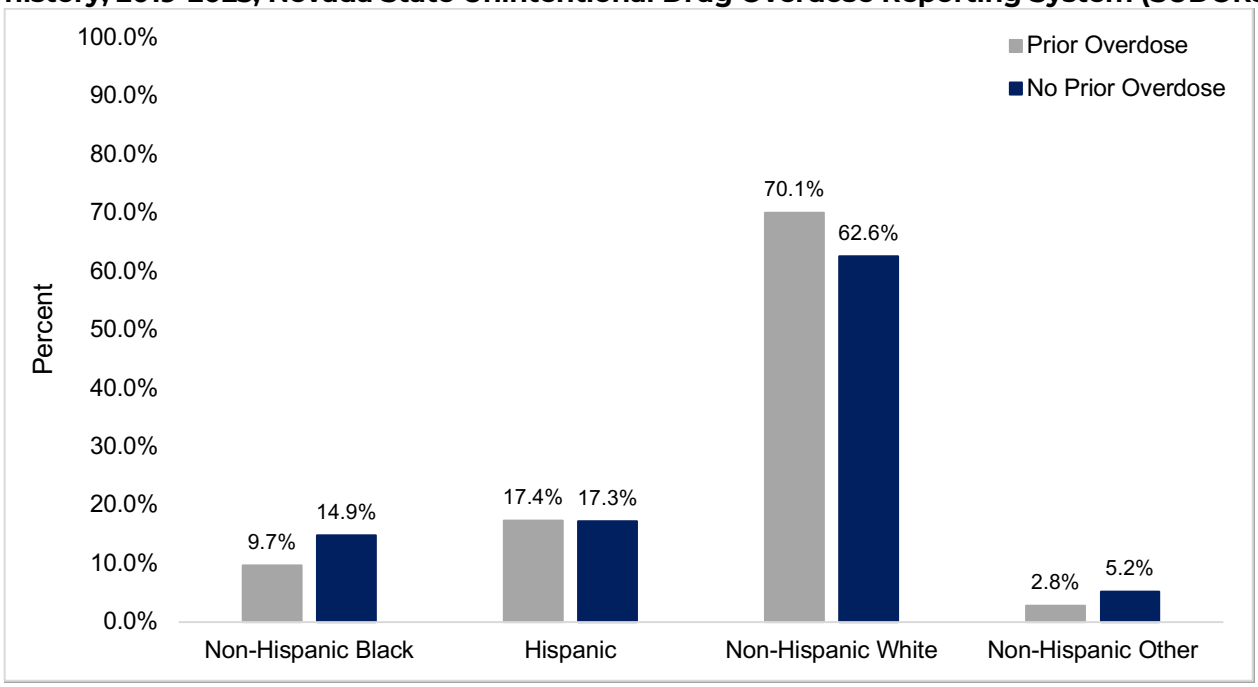
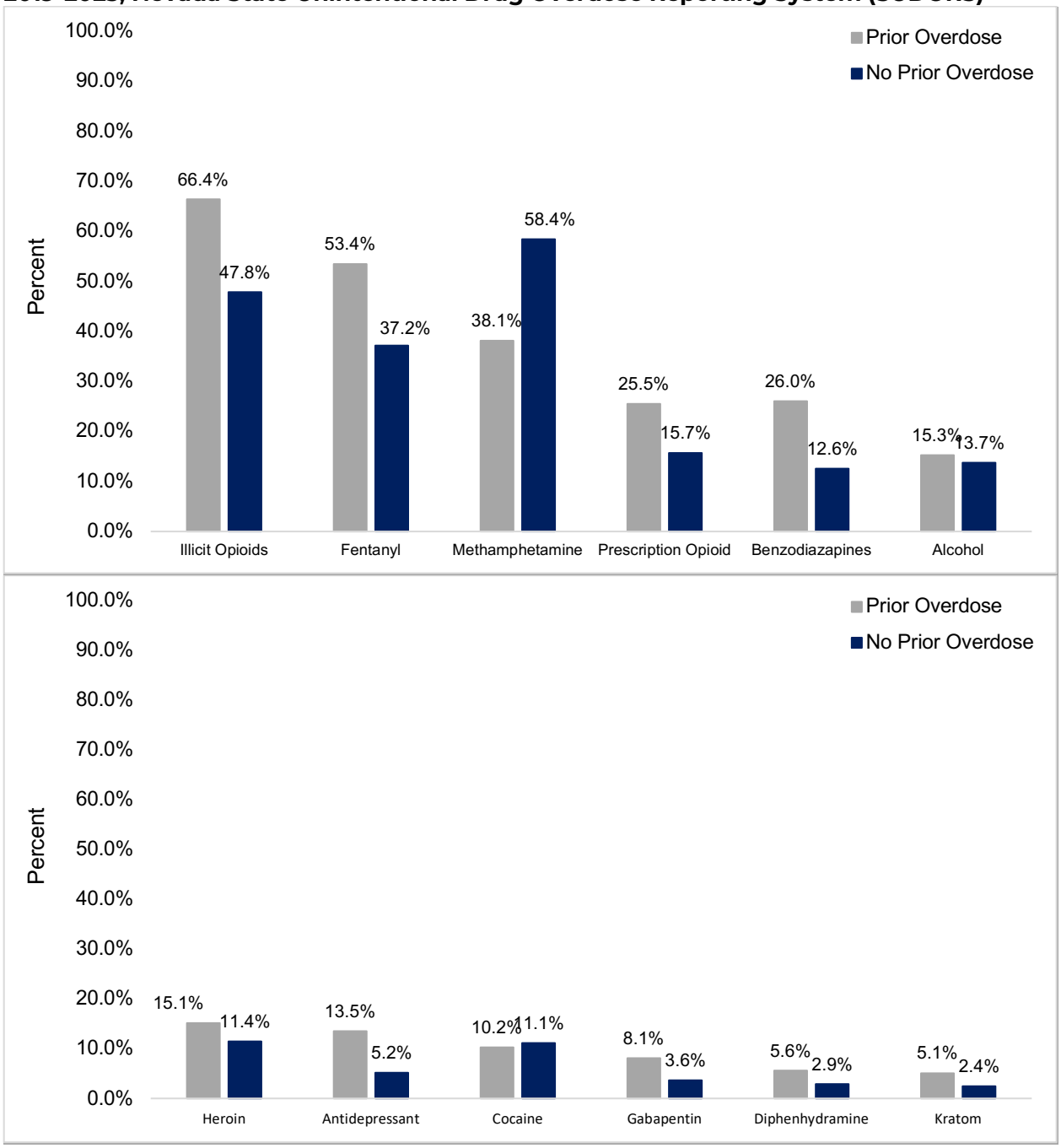
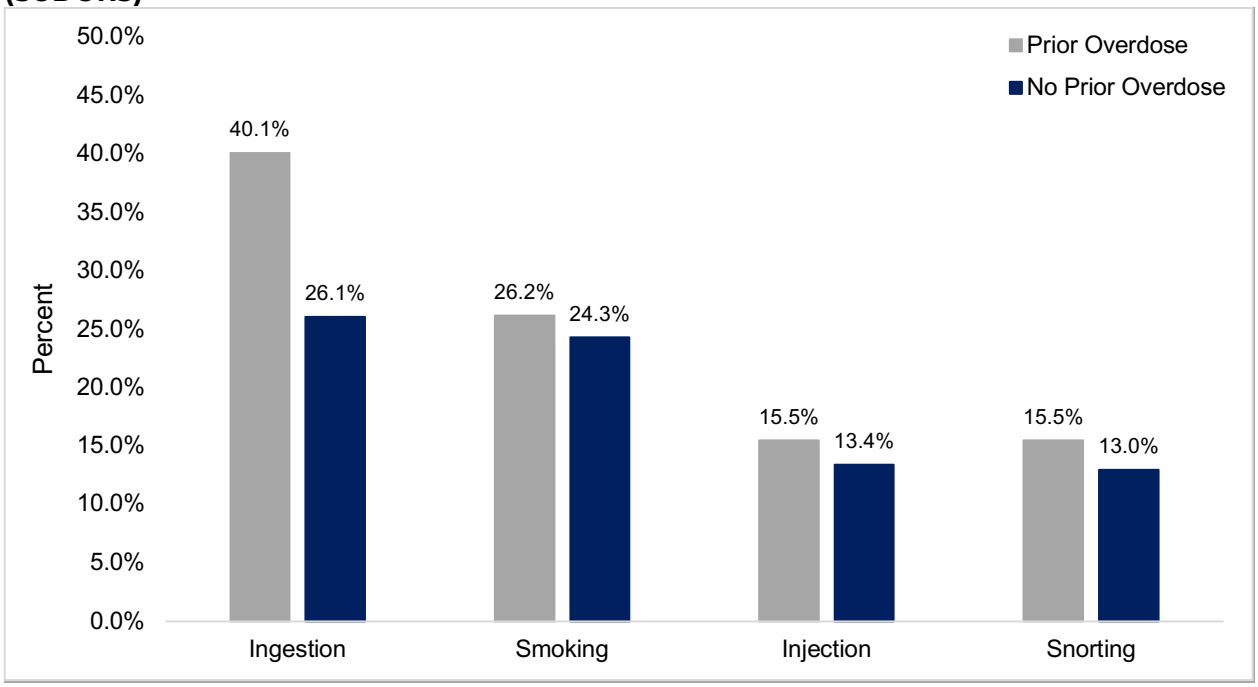


Figure 5. Substances involved in overdose deaths in Nevada by prior nonfatal overdose history, 2019-2023, Nevada State Unintentional Drug Overdose Reporting System (SUDORS)



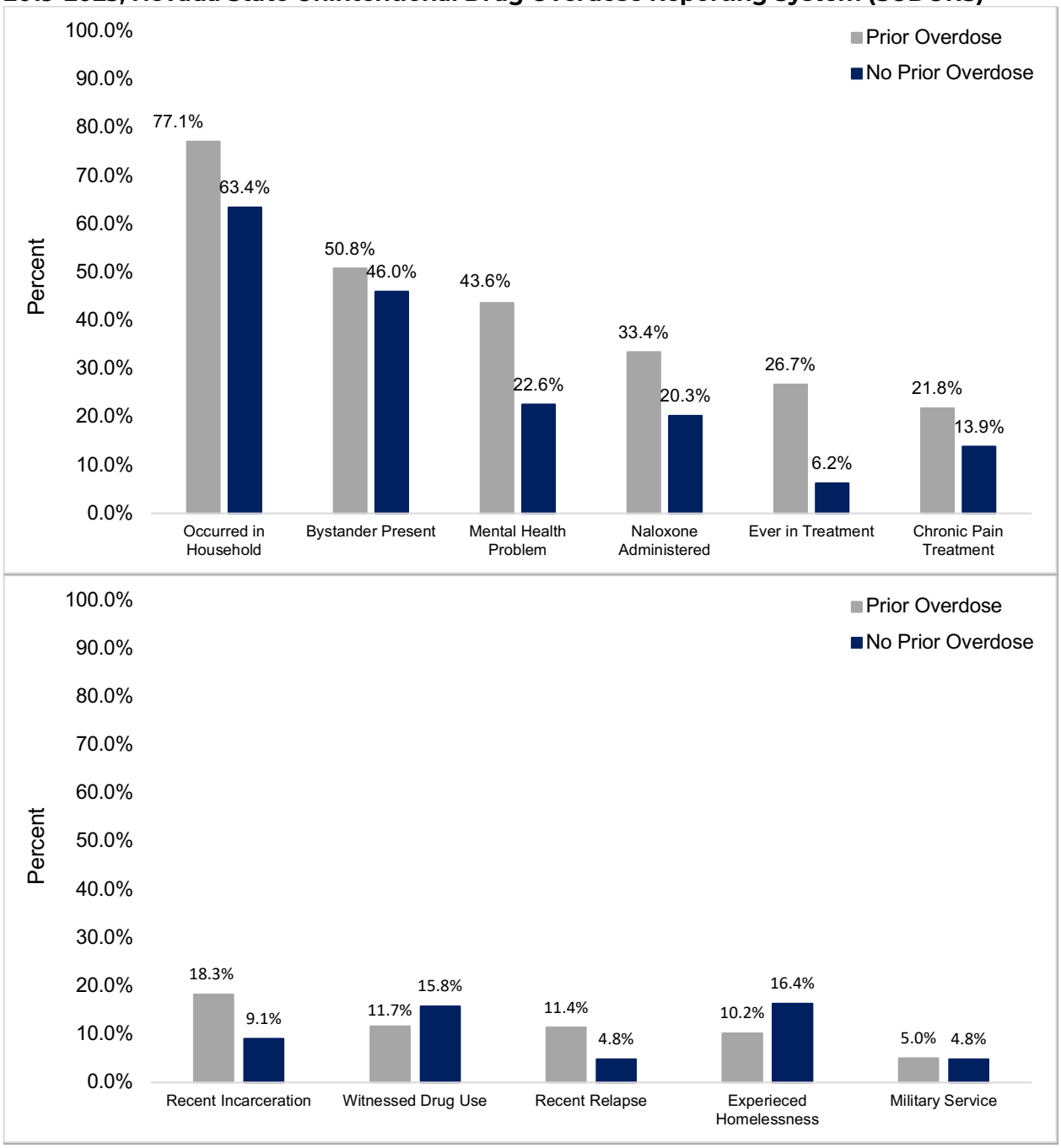
Note: Based on toxicology results for substances ruled by the Coroner/Medical Examiner as causing death. Substances are not mutually exclusive. Illicit opioid is defined as any opioid that is not medically used or prescribed.

Figure 6. Route of substance administration of overdose deaths in Nevada by prior nonfatal overdose history, 2019-2023, Nevada State Unintentional Drug Overdose Reporting System (SUDORS)



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

Figure 7. Circumstances involved in overdose deaths in Nevada by prior nonfatal overdose history, 2019-2023, Nevada State Unintentional Drug Overdose Reporting System (SUDORS)



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

IMPLICATIONS

Substance use patterns differed substantially between prior nonfatal overdose and no prior overdose deaths. Deaths without a prior nonfatal overdose more frequently involved methamphetamine (58.4% vs. 38.1%). In contrast, prior overdose deaths were more likely to involve opioids, including illicit opioids (66.4% vs. 47.8%), fentanyl (53.4% vs. 37.2%), prescription opioids (25.5% vs. 15.7%), and heroin (15.1% vs. 11.4%). Prior overdose deaths also involved higher proportions of benzodiazepines and antidepressants. Demographically, prior overdose deaths included larger proportions of younger adults and female decedents.

The overdose setting and response also differed between groups. Deaths with a prior nonfatal overdose more commonly occurred in household settings (77.1% vs. 63.4%), and naloxone was administered more frequently (33.4% vs. 20.3%). Mental health problems (43.6% vs. 22.6%), chronic pain treatment (21.8% vs. 13.9%), recent incarceration (18.3% vs. 9.1%), and prior substance use disorder treatment history (26.7% vs. 6.2%) were also more commonly documented among prior overdose deaths. In contrast, homelessness was more common among deaths without a prior nonfatal overdose (16.4% vs. 10.2%). Together, these findings suggest that overdose deaths without a prior nonfatal overdose history may occur in more socially isolated or unstable environments, while prior overdose deaths may provide greater opportunities for intervention and overdose response.

Overall Implication

When prior nonfatal overdose history is considered, two distinct overdose profiles emerge. Deaths with a prior overdose history more often involved opioids, occurred in household settings, and were associated with higher rates of naloxone administration and documented behavioral health concerns. In contrast, deaths without a prior overdose history were more strongly associated with methamphetamine involvement and homelessness, suggesting greater social instability and fewer opportunities for intervention. These findings reinforce the critical role of consideration over prior overdose history in overdose response and highlight the need to expand naloxone access, overdose recognition training, and outreach efforts, particularly among individuals experiencing housing instability or using stimulants in more isolated settings.

APPENDIX 1: DATA TABLES

Table 1. Demographic characteristics by prior nonfatal overdose history, 2019–2023, Nevada State Unintentional Drug Overdose Reporting System (SUDORS)

Characteristic	Prior Overdose N	Prior Overdose %	No Prior Overdose N	No Prior Overdose %
Age				
----------	------	------	------	------
18-24 Years	52	12.2%	244	5.9%
25-34 Years	119	27.9%	798	19.2%
35-44 Years	94	22.0%	921	22.1%
45-54 Years	64	15.0%	898	21.6%
55-64 Years	66	15.5%	908	21.8%
65+ Years	32	7.5%	398	9.6%
Sex				
----------	------	------	------	------
Female	729	33.9%	613	24.7%
Male	1420	66.1%	1869	75.3%
Education				
----------	------	------	------	------
College Graduate	301	14.9%	323	18.7%
HS/GED or Some College	1338	66.3%	1550	66.1%
Less than HS	380	18.8%	353	15.2%
Race				
----------	------	------	------	------
Black_NH	295	13.7%	371	14.9%
Hispanic	413	19.2%	388	15.6%
Other*_NH	114	5.3%	118	4.8%
White_NH	1327	61.7%	1605	64.7%

Note: Missing data excluded from percentage calculations.

* Other race includes Asian, Pacific Islander, Native American, Alaskan Native, those identifying as other race, or unknown race. NH=Non-Hispanic

Table 2. Substances involved and suspected routes of administration among overdose decedents by prior nonfatal overdose history, 2019–2023, Nevada State Unintentional Drug Overdose Reporting System (SUDORS)

Characteristic	Prior Overdose N	Prior Overdose %	No Prior Overdose N	No Prior Overdose %
Opioids Involved (Cause of Death)				
---	---	---	---	---
Any opioids	368	85.4%	2493	59.3%
Fentanyl	230	53.4%	1564	37.2%
Rx opioids	110	25.5%	661	15.7%
Heroin	65	15.1%	481	11.4%
Illicit opioids	286	66.4%	2010	47.8%
Stimulants Involved (Cause of Death)				
---	---	---	---	---
Methamphetamine	164	38.1%	2455	58.4%
Cocaine	44	10.2%	468	11.1%
Other Substances Involved (Cause of Death)				
---	---	---	---	---
Benzodiazepines	112	26.0%	531	12.6%
Alcohol	66	15.3%	574	13.7%
Antidepressants	58	13.5%	218	5.2%
Diphenhydramine	24	5.6%	122	2.9%
Gabapentin	35	8.1%	153	3.6%
Kratom	22	5.1%	102	2.4%
Suspected Routes of Administration				
---	---	---	---	---
Smoking	113	26.2%	1020	24.3%
Ingestion	173	40.1%	1097	26.1%
Injection	67	15.5%	565	13.4%
Snorting	67	15.5%	546	13.0%

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%. Route of administration based on death investigation reports.

Table 3. Circumstances documented among overdose decedents by prior nonfatal overdose history, 2019–2023, Nevada State Unintentional Drug Overdose Reporting System (SUDORS)

Characteristic	Prior Overdose N	Prior Overdose %	No Prior Overdose N	No Prior Overdose %
Circumstances				
---	---	---	---	---
Occurred in Household	330	77.1%	2644	63.4%
Bystander Present	219	50.8%	1930	46.0%
Mental Health Problem	188	43.6%	950	22.6%
Naloxone Administered	144	33.4%	852	20.3%
Chronic Pain Treatment	94	21.8%	585	13.9%
Experiencing Homelessness	42	10.2%	622	16.4%
Witnessed Drug Use	32	11.7%	388	15.8%
Recent Incarceration	78	18.3%	378	9.1%
Ever in Treatment	115	26.7%	261	6.2%
Military Service	21	5.0%	292	7.4%
Recent Relapse	49	11.4%	202	4.8%

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.