

# Circumstances of Opioid-Related Overdose Deaths in Maryland

## 2020 State Unintentional Drug Overdose Reporting System (SUDORS)

Please note: The Maryland Vital Statistics Administration provides official death counts and rates for the State of Maryland. They can be viewed online at <https://health.maryland.gov/vsa/Pages/reports.aspx>. The State Unintentional Drug Overdose Reporting System (SUDORS) is designed to supplement vital statistics data by providing information about the circumstances of overdose death. Please refer to the Vital Statistics Administration for case counts and rates.

Prepared on February 27, 2023

**What is SUDORS?**

The State Unintentional Drug Overdose Reporting System (SUDORS) is an enhanced surveillance system collecting over 600 variables about the circumstances of fatal overdose in Maryland. The Maryland SUDORS program works closely with the Office of the Chief Medical Examiner, the Vital Statistics Administration, and multiple law enforcement agencies in Maryland to access, review, and systematically document information about overdose death in Maryland. There is an 8-13 month lag in availability of data due to federal requirements for SUDORS data abstraction.

**What will you find here?**

This data packet includes a select set of variables from the 2020 Maryland SUDORS data set. These include: substances contributing to the cause of death, mental health, substance use, place of overdose death, recent release from an institution, presence of potential bystanders, previous overdose, treatment for pain, prescribed buprenorphine or methadone, naloxone administration, route of administration, usual industry, and usual occupation.

**How can SUDORS data be used?**

The information in this data packet can be used to inform local prevention and response activities around partner engagement, identification of priority populations, provision of services, and evaluation of existing programs. Please refer to the OD2A Toolkit for additional information.

**What if you need more information?**

If you need information not provided in this report, please send an email with your contact information, a description of needed data and/or a request for a variable list, and the subject line "SUDORS data needed" to [mdh.mvdrs@maryland.gov](mailto:mdh.mvdrs@maryland.gov).

**KEY FINDINGS:****MARYLAND**

- 94% (2,522) of fatal overdoses were opioid-related; for consistency with previous reports, those opioid-related deaths are the focus of this report.
- 1 in 5 decedents (20%) were in treatment for mental health or substance use at the time of overdose death.
- More than half (57%) of decedents died in their own home.
- 1 in 11 decedents (9%) had recently been released from an institution, such as a hospital, jail or prison, detention facility, or supervised residential facility.
- 7 in 10 decedents (69%) were in the vicinity of a potential bystander during or shortly before the fatal overdose.
- 1 in 20 decedents (5%) were treated for pain at the time of the fatal overdose.
- 1 in 6 decedents (18%) were administered naloxone.
- 1 in 5 decedents (20%) had evidence of injection drug use.
- 1 in 5 decedents (22%) worked in the construction industry.

***See pages 3-16 for additional information!***

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**Important Note on Data Sources:** Circumstance data is limited to information documented in the law enforcement and/or medical examiner files; these are likely underestimated as death investigators might have limited information. Information on mental health and substance use history comes solely from these sources and not medical records or other treatment records.

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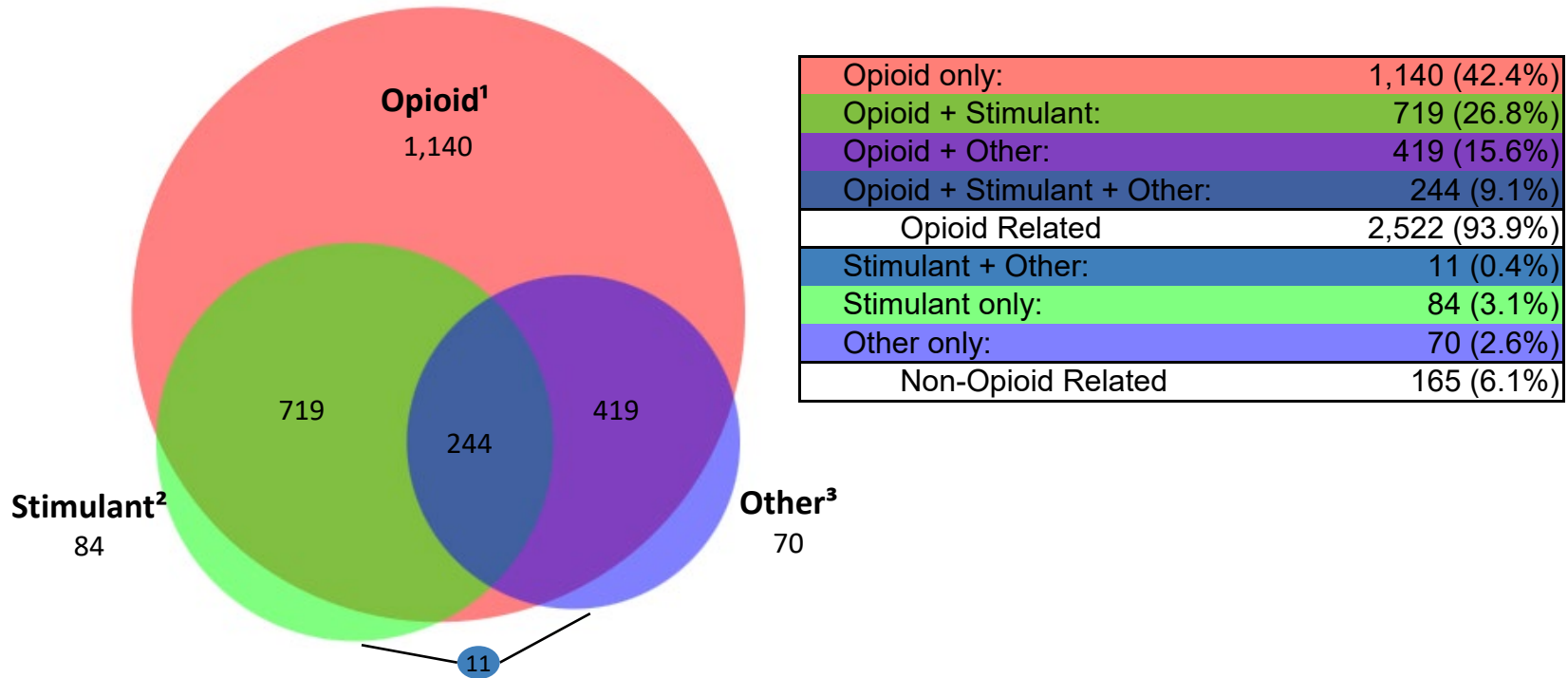
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Figure 1: Substance(s) Contributing to Cause of Death, 2020



<sup>1</sup>Opioid includes: illicitly manufactured fentanyl, heroin, prescription opioids, and any other opioids.

<sup>2</sup>Stimulant includes: cocaine, eutylone, methamphetamine, and any other stimulants.

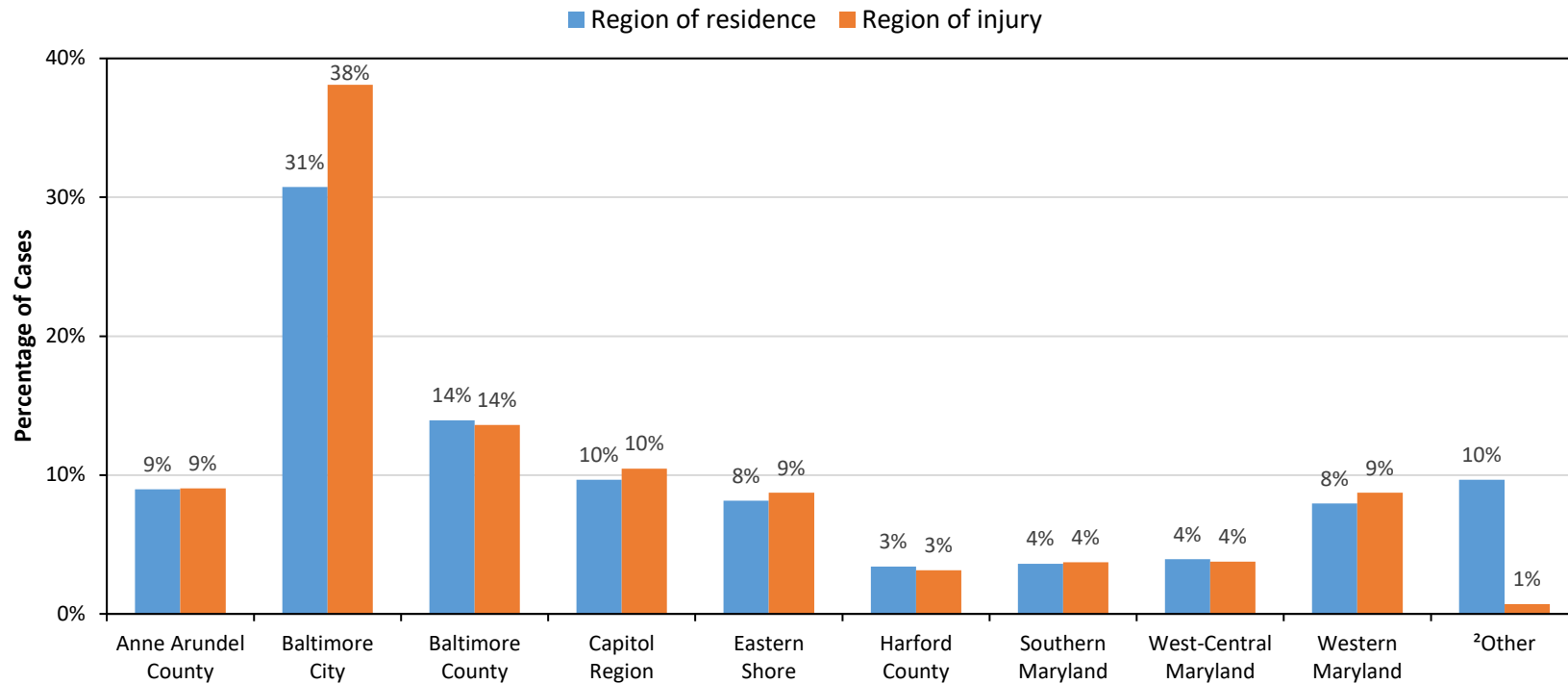
<sup>3</sup>Other includes substances such as: antidepressants, antipsychotics, benzodiazepines, muscle relaxants, PCP, and others.

In 2020, 94% of overdose deaths were opioid related.

The remaining analysis is limited to opioid-related fatal overdose, and consequently excludes:

- Stimulant only deaths (n=84)
- Other only deaths (n=70)
- Stimulant + other deaths (n=11)

Figure 2: Region<sup>1</sup> of Residence vs. Region<sup>1</sup> of Injury, 2020



<sup>1</sup>Regions with multiple counties:

- Capitol Region: Montgomery and Prince George's Counties
- Eastern Shore: Caroline, Cecil, Dorchester, Kent, Queen Anne's, Somerset, Talbot, Wicomico, and Worcester Counties
- Southern Maryland: Calvert, Charles, and St. Mary's Counties
- West-Central Maryland: Carroll and Howard Counties
- Western Maryland: Allegany, Frederick, Garrett, and Washington Counties

<sup>2</sup>Other includes:

- Homeless decedents that fatally overdosed in Maryland
- Decedents with an unknown county of residence and/or county of injury that fatally overdosed in Maryland
- Out-of-state residents that fatally overdosed in Maryland (only included in region of injury)
- Maryland residents that overdosed out-of-state and died in Maryland (only included in region of residence)

Other DOES NOT include:

- Out-of-state residents that overdosed out-of-state and died in Maryland (excluded from analysis)

Figure 3: Prevalence of Mental Health, Substance Abuse, and Other Addiction<sup>1</sup>, 2020

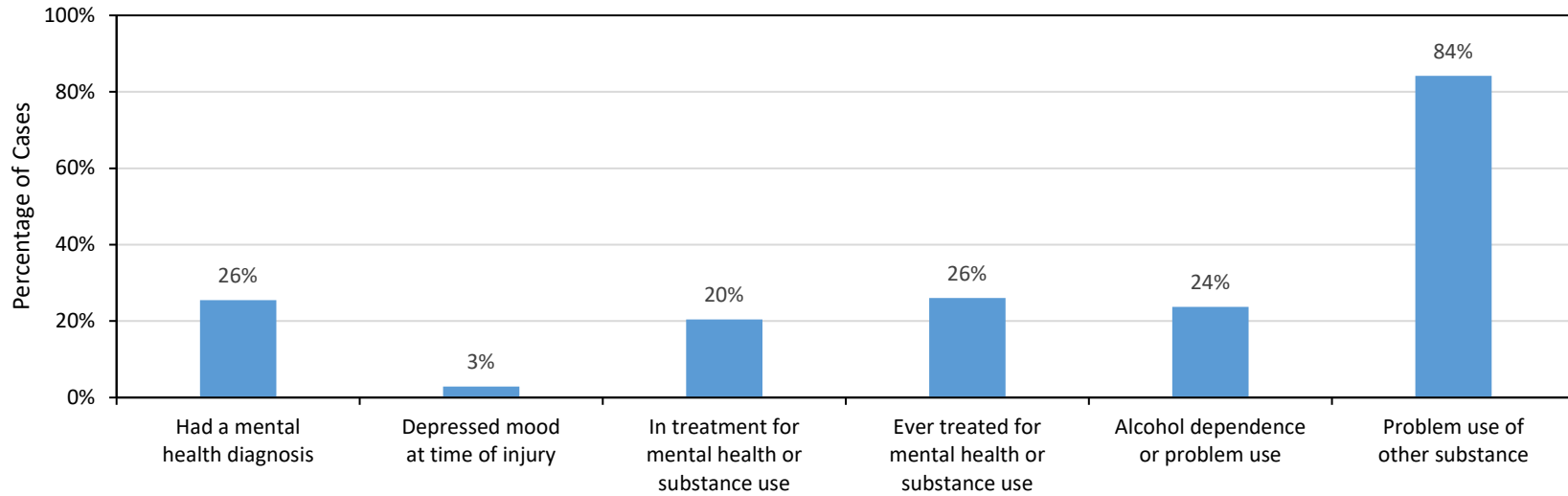
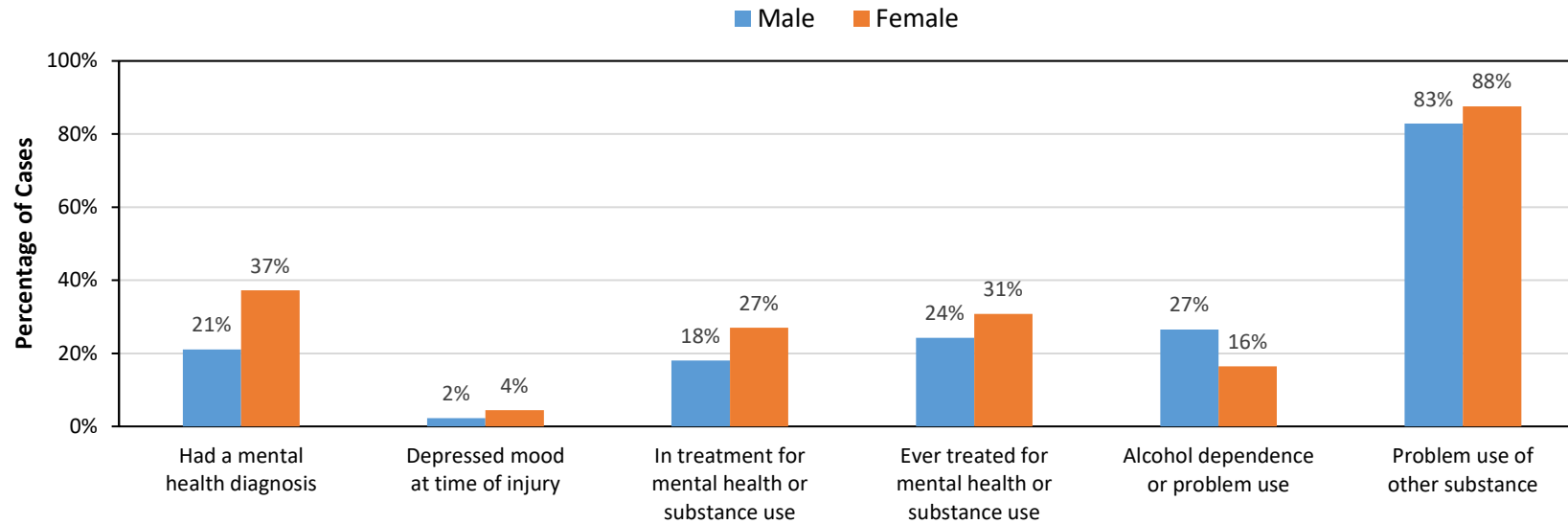


Figure 4: Prevalence of Mental Health, Substance Abuse, and Other Addiction<sup>1</sup> by Sex, 2020



<sup>1</sup>Health history data may be incomplete. See note on Table of Contents (page 3).

Figure 5: Prevalence of Mental Health, Substance Abuse, and Other Addiction<sup>1</sup> by Age (Years), 2020

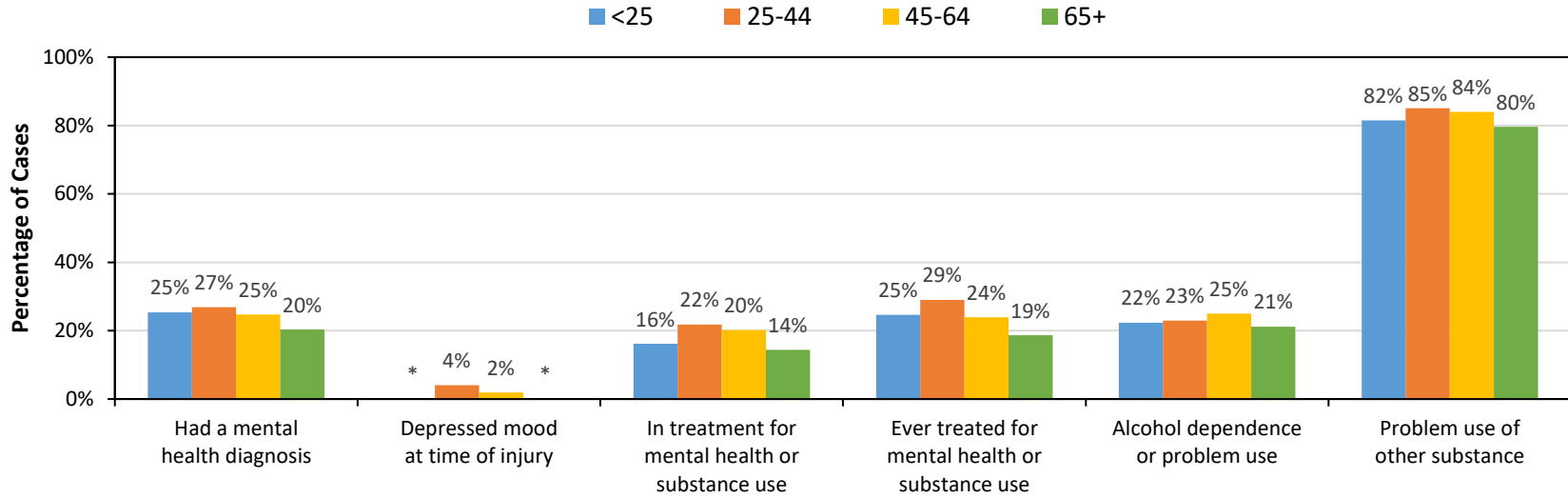
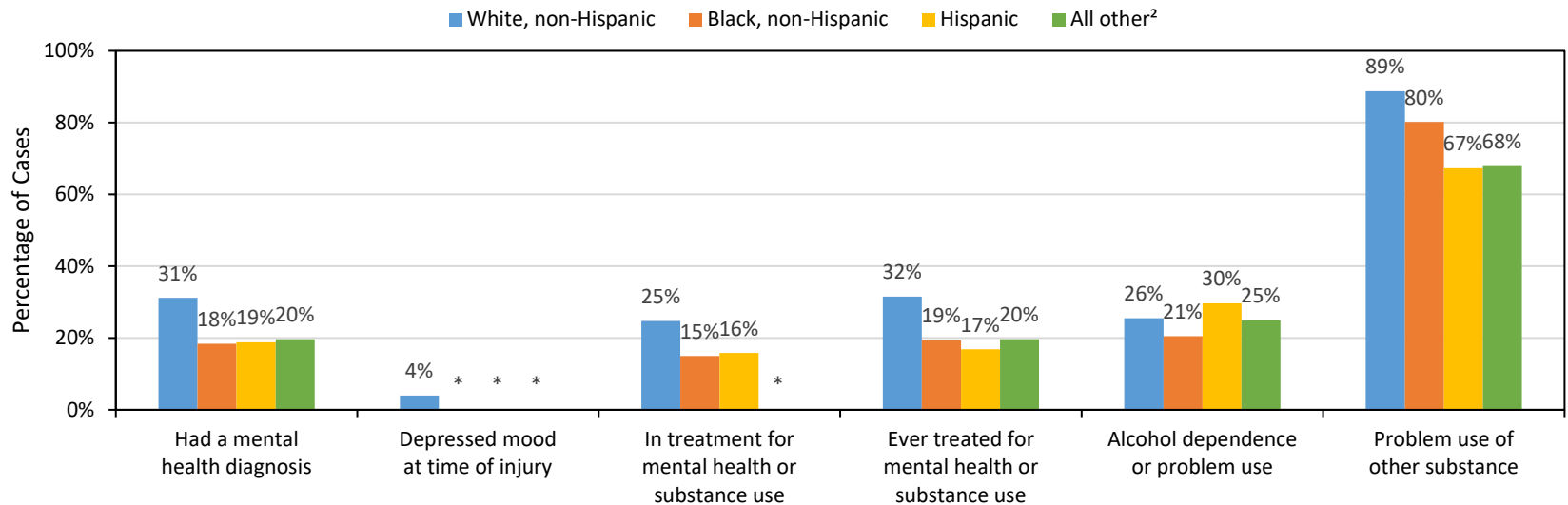


Figure 6: Prevalence of Mental Health, Substance Abuse, and Other Addiction<sup>1</sup> by Race/Ethnicity, 2020



<sup>1</sup>Health history data may be incomplete. See note on Table of Contents (page 3).

<sup>2</sup>All other includes: Asian/Pacific Islander, American Indian/Alaska Native, unknown/unspecified, and two or more races.

\*Per Centers for Disease Control and Prevention (CDC) requirement: data suppressed due to fewer than 11 cases.

Figure 7: Prevalence of Mental Health, Substance Abuse, and Other Addiction<sup>1</sup> by Education Level, 2020

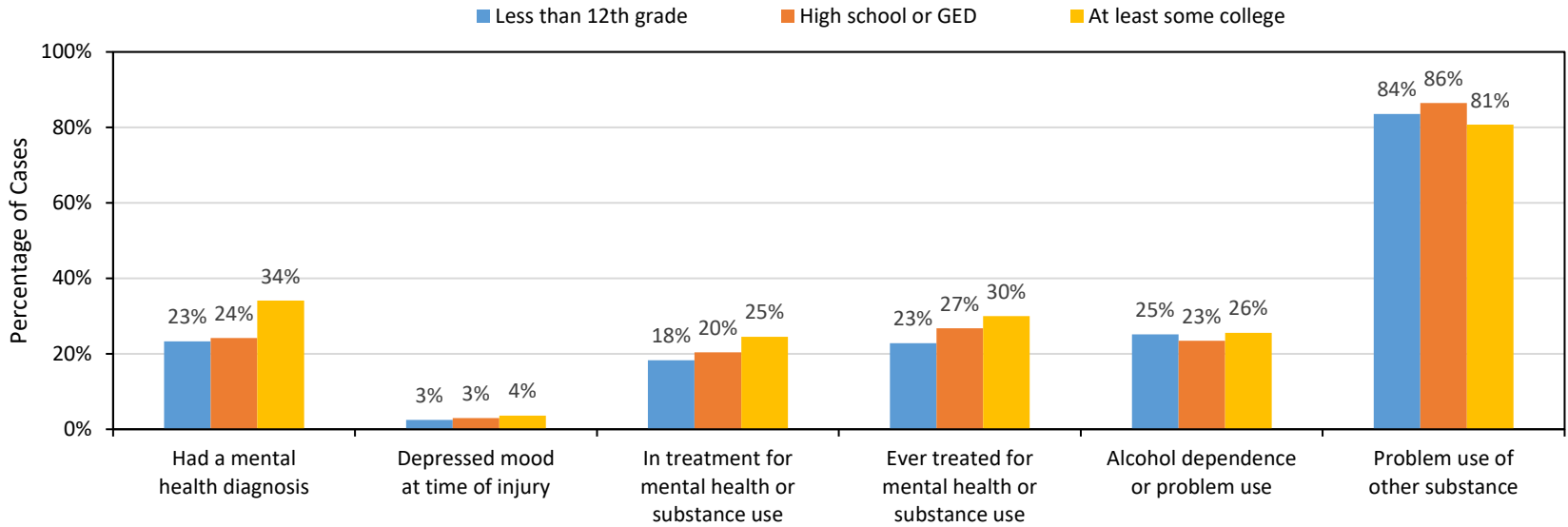
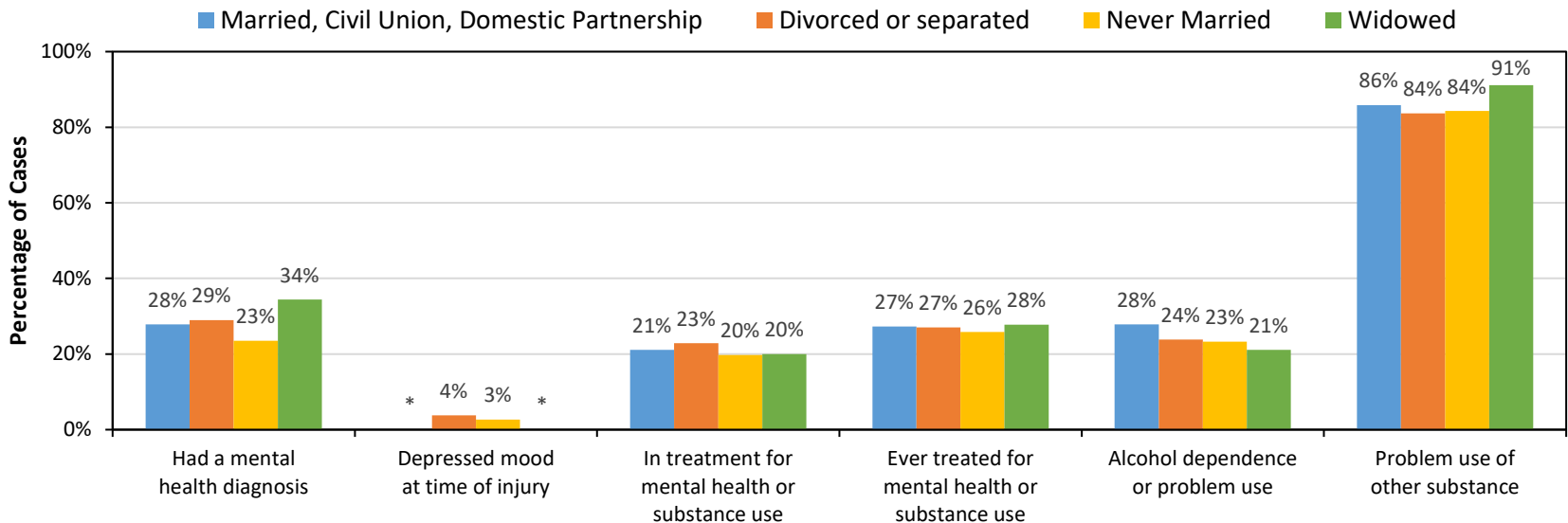


Figure 8: Prevalence of Mental Health, Substance Abuse, and Other Addiction<sup>1</sup> by Marital Status, 2020

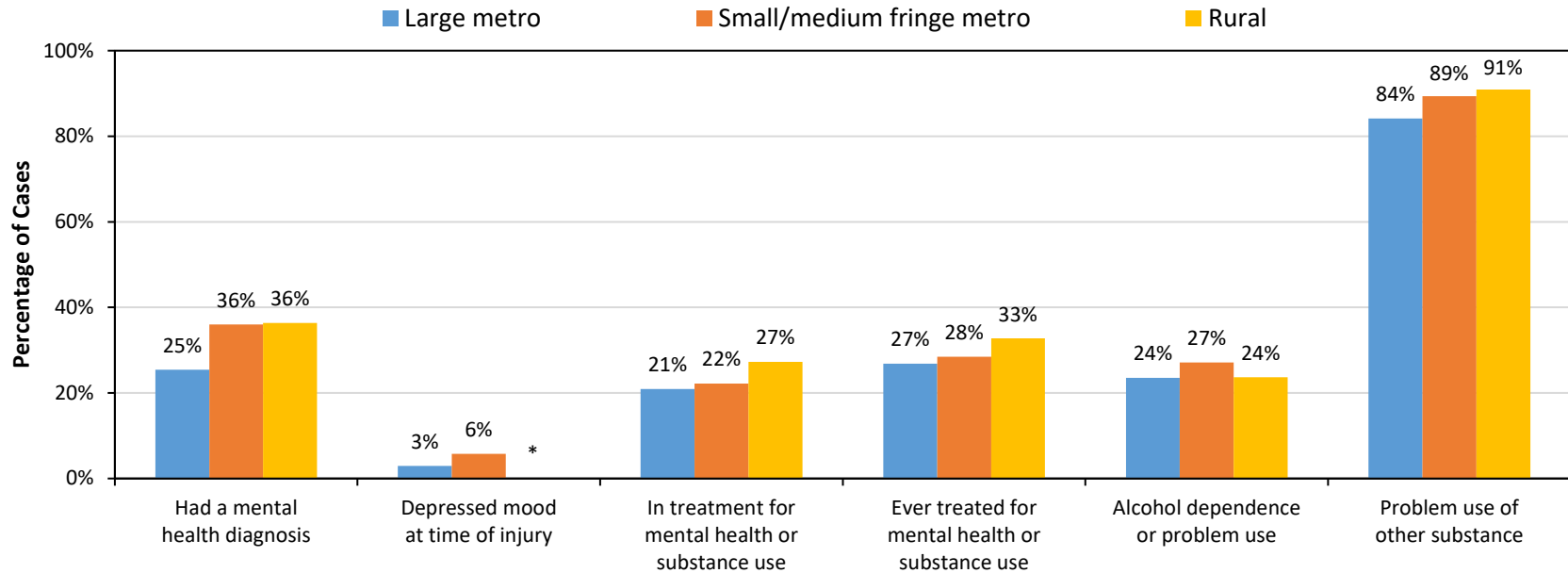


<sup>1</sup>Health history data may be incomplete. See note on Table of Contents (page 3).

\*Per Centers for Disease Control and Prevention (CDC) requirement: data suppressed due to fewer than 11 cases.



Figure 9: Prevalence of Mental Health, Substance Abuse, and Other Addiction<sup>1</sup> by Urban-Rural<sup>2</sup> Classification of County of Residence, 2020



<sup>1</sup>Health history data may be incomplete. See note on Table of Contents (page 3).

<sup>2</sup>Large metro: counties in central or fringe metropolitan statistical areas of 1 million or more population; small or medium metro: counties in metropolitan statistical areas of populations less than 999,999; rural: counties in micropolitan statistical areas and nonmetropolitan counties of less than 49,999 (defined by the 2013 NCHS Urban-Rural Classification Scheme for Counties).

\*Per Centers for Disease Control and Prevention (CDC) requirement: data suppressed due to fewer than 11 cases.

Figure 10: Prevalence of Mental Health, Substance Abuse, and Other Addiction<sup>1</sup> by Service in the U.S. Armed Forces, 2020

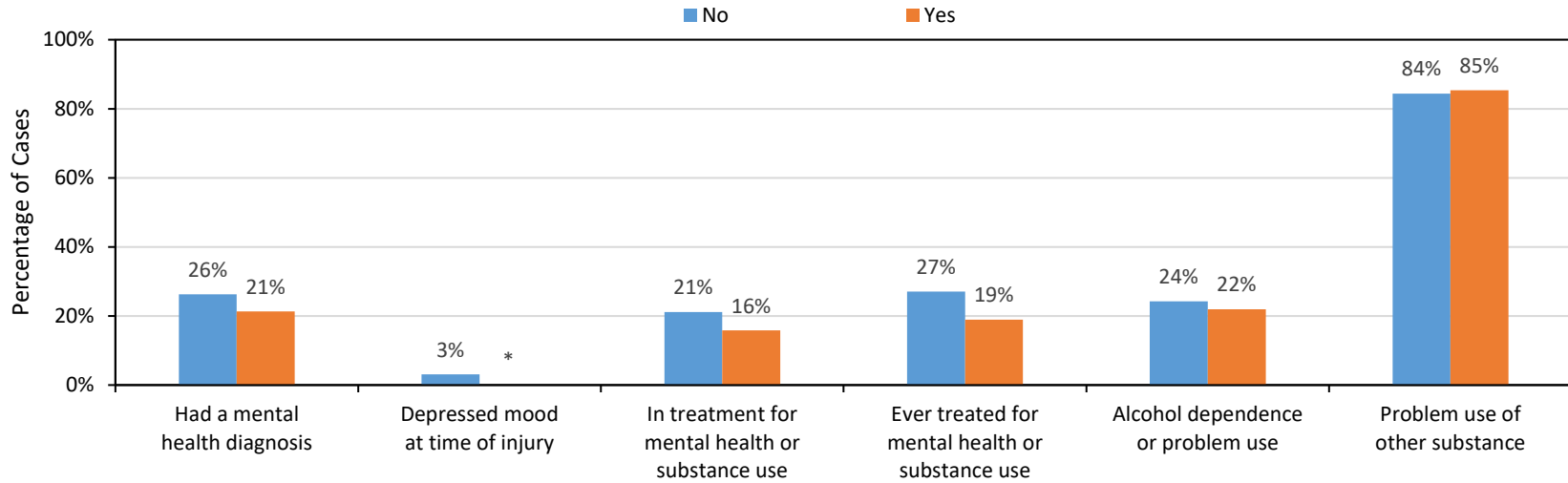
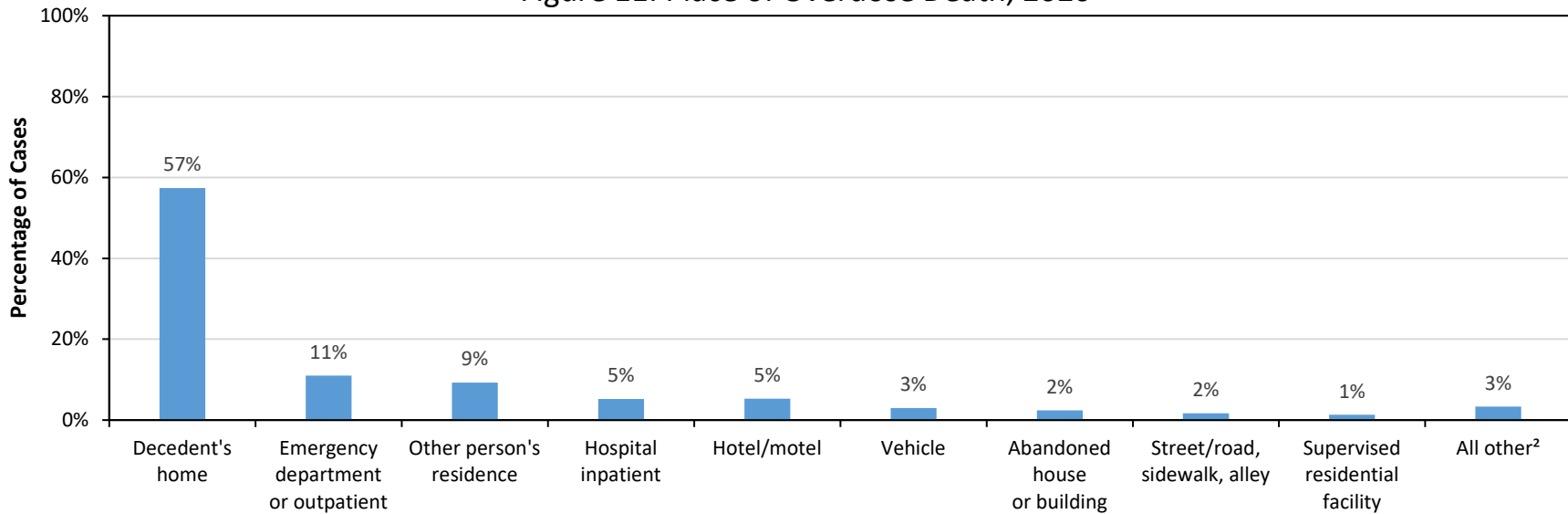


Figure 11: Place of Overdose Death, 2020

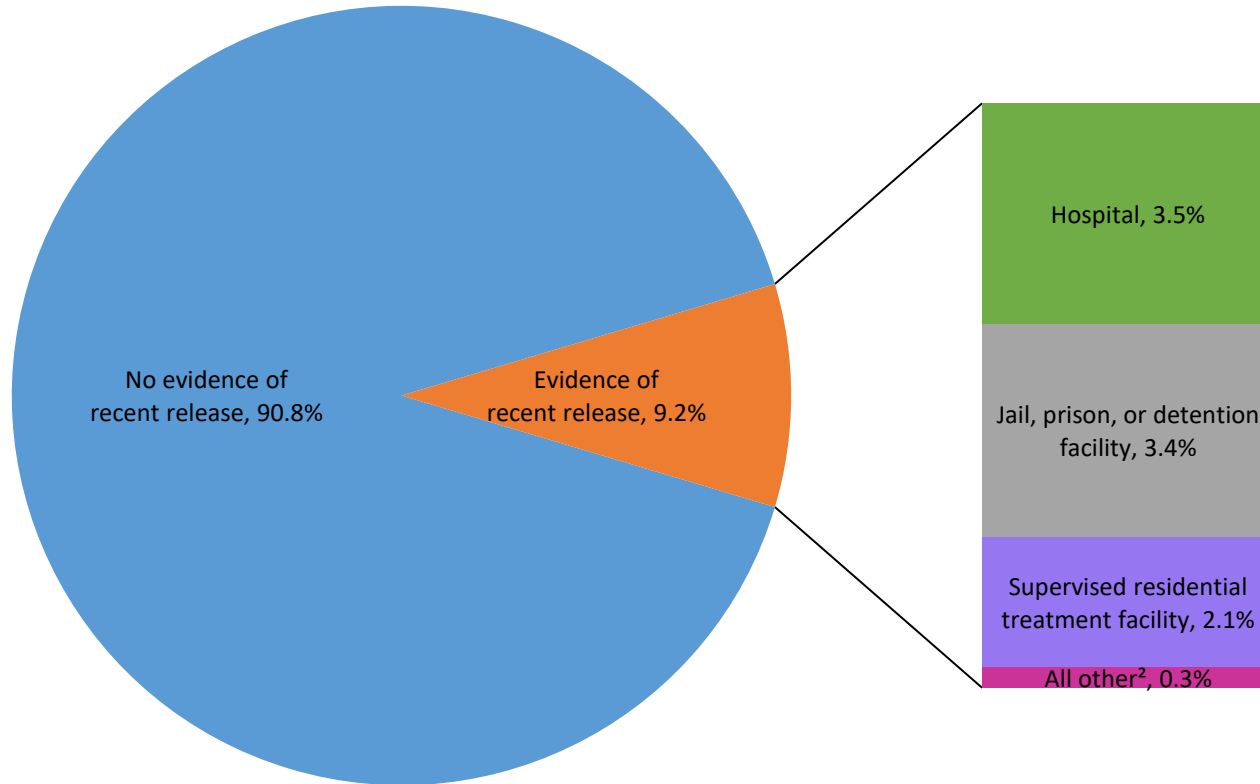


<sup>1</sup>Health history data may be incomplete. See note on Table of Contents (page 3).

<sup>2</sup>All other includes: commercial establishment, hospice care, jail/prison, long-term care facility, natural area, nursing home, and public use areas.

\*Per Centers for Disease Control and Prevention (CDC) requirement: data suppressed due to fewer than 11 cases.

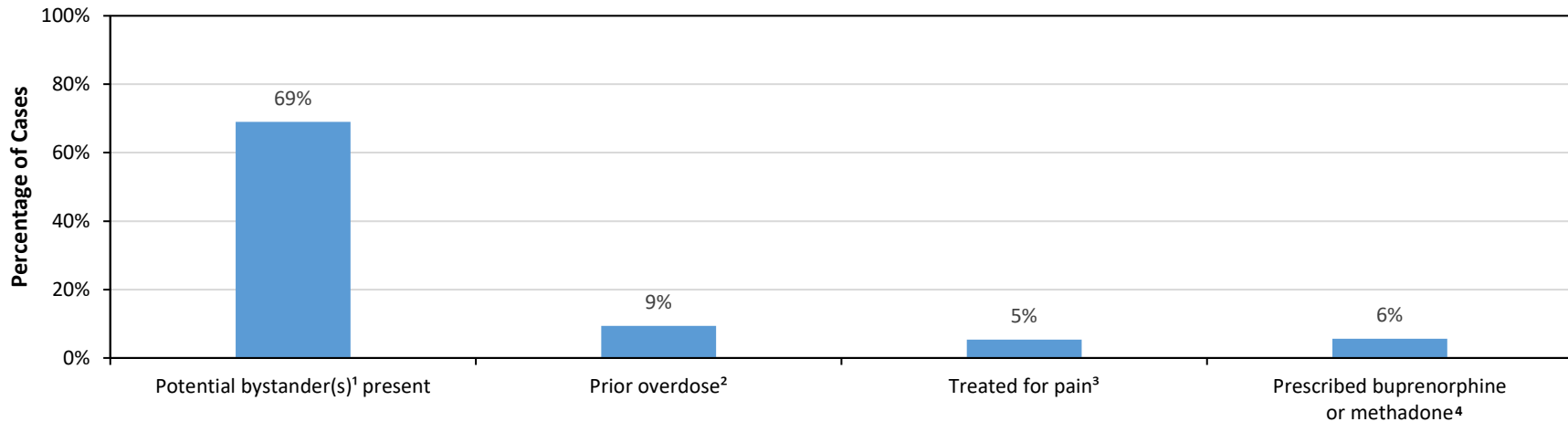
Figure 12: Recent Release From Institution<sup>1</sup>, 2020



<sup>1</sup>Recent release from an institution is defined as deaths that occurred within a month of the decedent being released from or admitted to an institutional setting. The decedent is considered institutionalized if they spent one or more nights in the institution.

<sup>2</sup>All other includes: long term residential health facility (e.g., nursing home), other psychiatric treatment, psychiatric hospital, supervised residential facilities not related to alcohol or substance abuse treatment, and unknown type of institution.

Figure 13: Presence of Potential Bystanders, Previous Overdose, Treatment for Pain, and Prescribed Buprenorphine or Methadone, 2020



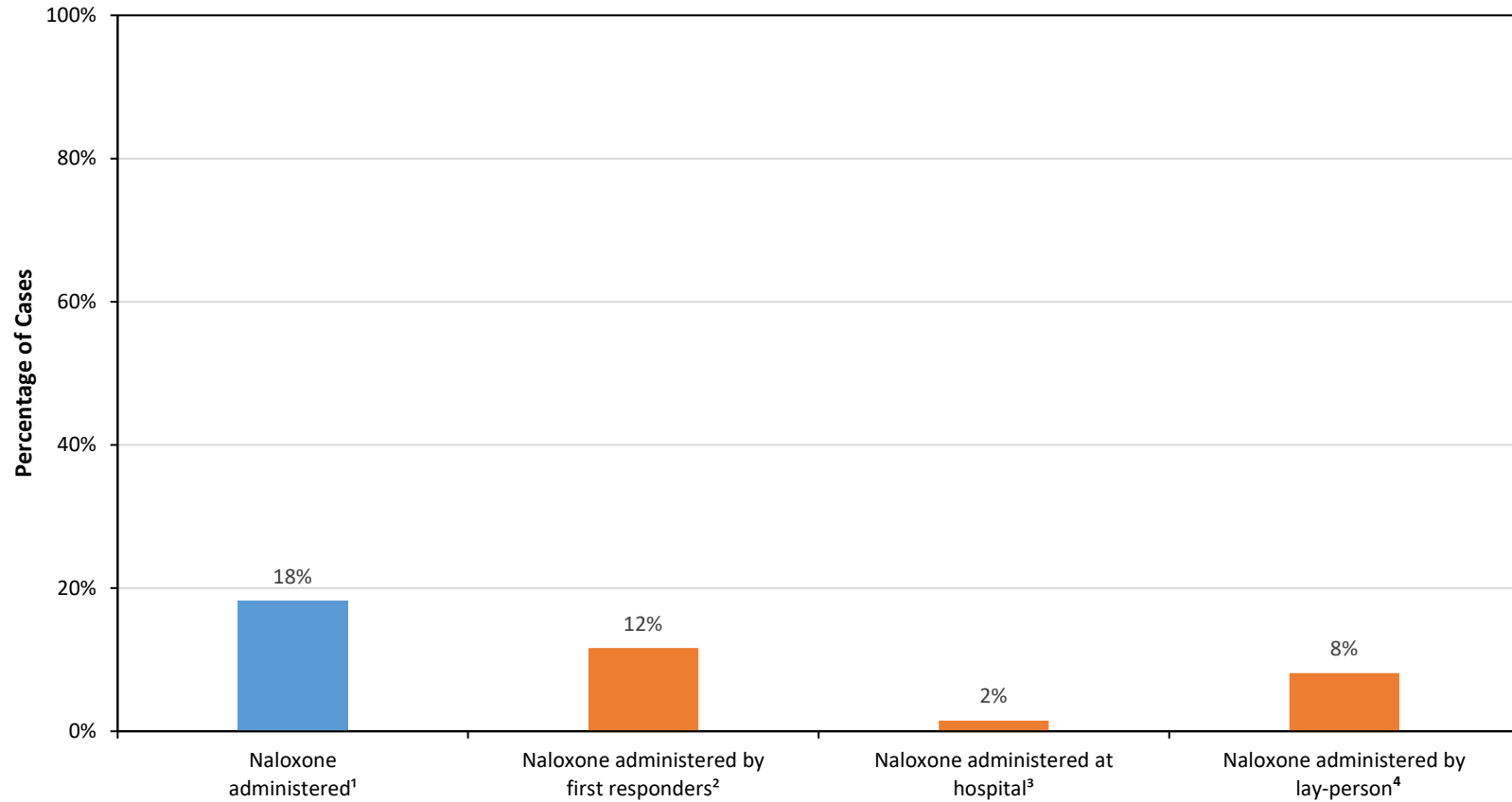
<sup>1</sup>A potential bystander is defined as a person aged  $\geq 11$  years who was physically nearby either during or shortly preceding a drug overdose and potentially had an opportunity to intervene or respond to the overdose. This includes any persons in the same structure (e.g., same room or same building, but different room) as the decedent during that time. For example, the family member of an opioid overdose decedent who was in another room during the fatal incident would be considered a potential bystander if that person might have had an opportunity to provide life-saving measures such as naloxone administration, if adequate

<sup>2</sup>Prior overdose is defined by as a drug overdose related to ANY substance in which one of the following occurred: treatment in an emergency department of other medical center, medical services responded but the person refused to be transported to the hospital, or naloxone was administered by a layperson and medical treatment was not sought.

<sup>3</sup>Treated for pain is defined as a situation in which a decedent was receiving any type of treatment for acute and/or chronic pain at the time of the fatal overdose, including prescription opioid pain relievers.

<sup>4</sup>Prescribed buprenorphine or methadone is defined as a situation in which there is any evidence, including witness reports, prescription history, and/or scene evidence that suggests that the decedent was prescribed methadone or buprenorphine at the time of the fatal overdose for either medication-assisted treatment or pain relief.

Figure 14: Naloxone Administration, 2020



<sup>1</sup>Naloxone administration is defined as EITHER a situation in which a decedent was administered naloxone for their fatal opioid overdose by an EMS responder, law enforcement officer, firefighter, or health care worker, OR a situation in which naloxone was *reportedly* administered by a layperson and there was evidence that naloxone was *actually* administered.

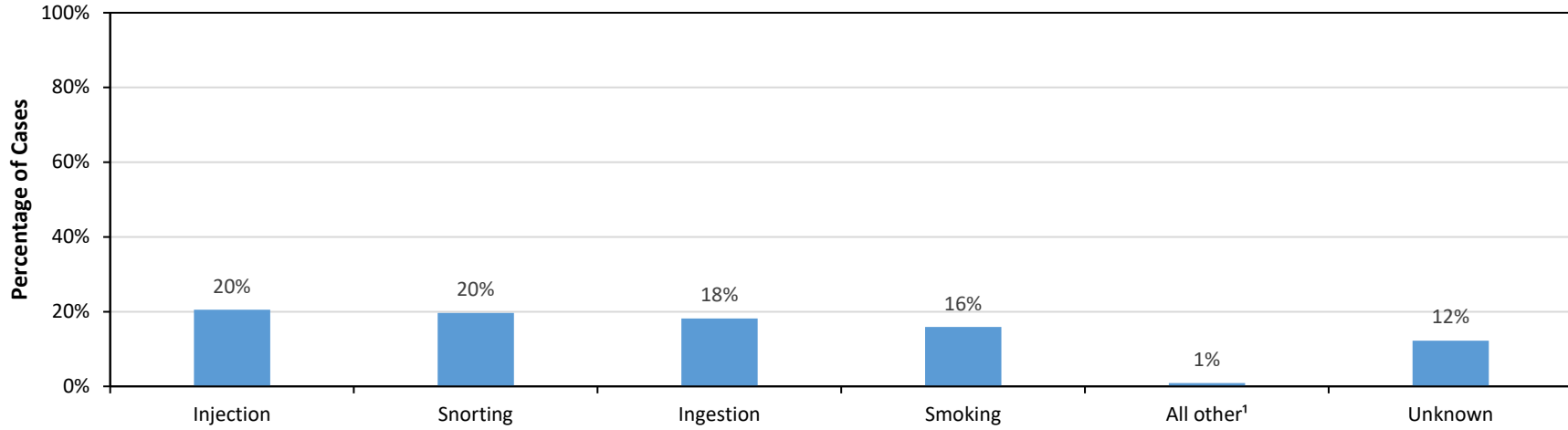
<sup>2</sup>First responder includes: law enforcement, emergency medical services, firefighters, or other trained professional.

<sup>3</sup>Hospital includes: emergency department, inpatient hospital setting, or a critical care center.

<sup>4</sup>Lay-person includes: as a person using drugs/alcohol with the decedent, intimate partner, friend, family member, roommate, or a bystander with no relationship to the decedent.

Note: Counts may exceed the total number of cases due to multiple administration.

Figure 15: Route of Administration, 2020



<sup>1</sup>All other includes: sublingual and transdermal.

Note: Counts may exceed the total number of cases due to multiple findings at the scene.

**Table 1: Usual Industry<sup>1</sup> of Opioid Overdose Decedents, 2020**

| Usual Industry Sector <sup>1</sup>                                       | n            | %             |
|--|--------------|---------------|
| Construction   | 522          | 21.6%         |
| Accommodation and food services  | 227          | 9.4%          |
| Not in workforce (homemaker, student, volunteer, unable to work)         | 180          | 7.5%          |
| Retail trade   | 161          | 6.7%          |
| Other services (except public administration)                            | 159          | 6.6%          |
| Administrative and support and waste management and remediation services | 145          | 6.0%          |
| Health care and social assistance  | 138          | 5.7%          |
| Transportation and warehousing   | 116          | 4.8%          |
| Manufacturing  | 110          | 4.6%          |
| Public administration  | 57           | 2.4%          |
| Professional, scientific, and technical services                         | 46           | 1.9%          |
| Arts, entertainment, and recreation                                      | 41           | 1.7%          |
| Finance and insurance  | 19           | 0.8%          |
| Wholesale trade  | 18           | 0.8%          |
| Educational services   | 18           | 0.8%          |
| Real estate and rental and leasing                                       | 17           | 0.7%          |
| Information  | 15           | 0.6%          |
| Agriculture, forestry, fishing and hunting                               | 12           | 0.5%          |
| All other industries <sup>2</sup>  | 17           | 70.0%         |
| Missing, unknown, and not enough information                             | 395          | 16.4%         |
| <b>Total</b>   | <b>2,413</b> | <b>100.0%</b> |

<sup>1</sup>Major industry sectors defined using the 2012 North American Industry

<sup>2</sup>All other industries includes: Military; utilities; mining, quarrying, and oil and gas extraction.

\*Analysis limited to decedents of workforce age, 18-65 years.

| <b>Most Common Usual Industry, by Sex</b>  |   |
|--|---|
| <b>Among males:</b>  | <b>Among females:</b>                       |
| 1. Construction (29.8%)  | 1. Not in workforce (18.6%)                 |
| 2. Accommodation and food services (7.4%)  | 2. Accommodation and food services (14.5%)  |
| 3. Administrative and support and waste management and remediation services (6.6%) | 3. Healthcare and social assistance (13.5%) |

| <b>Most Common Usual Industry, by Race and Ethnicity</b> |   |
|--|---|
| <b>Among White, Non-Hispanics:</b>                       | <b>Among Black, Non-Hispanics:</b>                      |
| 1. Construction (26.3%)                                  | 1. Construction (13.8%)                                 |
| 2. Accommodation and food services (10.2%)               | 2. Accommodation and food services (7.4%)               |
| 3. Not in workforce (9.0%)                               | 3. Other services (except public administration) (7.2%) |
| <b>Among Hispanics:</b>                                  | <b>Among All other, Non-Hispanics:</b>                  |
| 1. Construction (27.6%)                                  | 1. Construction (21.8%)                                 |

| <b>Most Common Usual Industry, by Age Group</b> |   |
|---|---|
| <b>Among 18-24 year-olds:</b>                   | <b>Among 45+ year-olds:</b>                             |
| 1. Accommodation and food services (19.5%)      | 1. Construction (23.2%)                                 |
| 2. Construction (16.3%)                         | 2. Other services (except public administration) (6.7%) |
| 3. Not in workforce (16.3%)                     | 3. Accommodation and food services (6.6%)               |
| <b>Among 25-44 year-olds:</b>                   |   |
| 1. Construction (20.6%)                         |   |
| 2. Accommodation and food services (11.2%)      |   |
| 3. Retail trade (8.1%)                          |   |

**Table 2: Usual Occupation<sup>1</sup> of Opioid Overdose Decedents, 2020**

| Usual Major Occupation <sup>1</sup>                              | n            | %             |
|--|--------------|---------------|
| Construction and extraction                                      | 474          | 19.6%         |
| Transportation and material moving                               | 246          | 10.2%         |
| Not in workforce (homemaker, student, volunteer, unable to work) | 184          | 7.6%          |
| Food preparation and serving related                             | 184          | 7.6%          |
| Building and grounds cleaning and maintenance                    | 137          | 5.7%          |
| Installation, maintenance, and repair                            | 134          | 5.6%          |
| Sales and related  | 127          | 5.3%          |
| Personal care and service  | 86           | 3.6%          |
| Management   | 80           | 3.3%          |
| Production   | 78           | 3.2%          |
| Office and administrative support                                | 76           | 3.2%          |
| Healthcare support   | 43           | 1.8%          |
| Arts, design, entertainment, sports, and media                   | 36           | 1.5%          |
| Healthcare practitioners and technical occupations               | 35           | 1.5%          |
| Protective service   | 30           | 1.2%          |
| Community and social service                                     | 25           | 1.0%          |
| Business and financial operations                                | 21           | 0.9%          |
| Computer and mathematical  | 18           | 0.8%          |
| Architecture and engineering                                     | 12           | 0.5%          |
| All other occupations <sup>2</sup>                               | 38           | 1.6%          |
| Missing, unknown, and not enough information                     | 349          | 14.5%         |
| <b>Total</b>   | <b>2,413</b> | <b>100.0%</b> |

<sup>1</sup>Usual occupation defined using the 2010 Standard Occupational Classification (SOC) system major groups.

<sup>2</sup>All other occupations includes: Military; life, physical, and social science; education, training, and library; farming, fishing, and forestry; legal occupations

\*Analysis limited to decedents of workforce age, 18-65 years.

| <b>Most Common Usual Occupation, by Sex</b>     |   |
|---|---|
| <b>Among males:</b>                             | <b>Among females:</b>                           |
| 1. Construction and extraction (27.2%)          | 1. Not in workforce (18.8%)                     |
| 2. Transportation and material moving (12.4%)   | 2. Food preparation and serving related (12.3%) |
| 3. Installation, maintenance, and repair (7.6%) | 3. Sales and related (8.8%)                     |

| <b>Most Common Usual Occupation, by Race and Ethnicity</b> |   |
|--|---|
| <b>Among White, Non-Hispanics:</b>                         | <b>Among Black, Non-Hispanics:</b>                      |
| 1. Construction and extraction (23.7%)                     | 1. Transportation and material moving (15.8%)           |
| 2. Not in workforce (9.2%)                                 | 2. Construction and extraction (12.6%)                  |
| 3. Food preparation and serving related (8.3%)             | 3. Building and grounds cleaning and maintenance (6.5%) |
| <b>Among Hispanics:</b>                                    | <b>Among All other, Non-Hispanics:</b>                  |
| 1. Construction and extraction (26.5%)                     | 1. Construction and extraction (21.8%)                  |
| 2. Installation, maintenance, and repair (11.2%)           |   |

| <b>Most Common Usual Occupation, by Age Group</b> |   |
|---|---|
| <b>Among 18-24 year-olds:</b>                     | <b>Among 45+ year-olds:</b>                   |
| 1. Not in workforce (17.1%)                       | 1. Construction and extraction (21.8%)        |
| 2. Food preparation and serving related (16.3%)   | 2. Transportation and material moving (10.7%) |
| 3. Construction and extraction (15.5%)            | 3. Not in workforce (6.4%)                    |
| <b>Among 25-44 year-olds:</b>                     |   |
| 1. Construction and extraction (18.0%)            |   |
| 2. Transportation and material moving (9.8%)      |   |
| 3. Food preparation and serving related (9.0%)    |   |