

### Vermont Social Autopsy Report: Identifying Patterns in Drug Overdose Deaths

September 2025



The purpose of the Social Autopsy Report is to identify trends in how Vermonters who died of a drug overdose interacted with state systems prior to death to identify opportunities for intervention. These state systems include, but are not limited to, local law enforcement, EMS, and other community-based systems at the municipal and local levels.

These reports are dedicated to the people who died of overdose and their loved ones. While the work is data-driven, we must not lose sight of the fact that each data point is far more than that. These are Vermonters who lost their lives.

The Vermont Department of Health, along with the partner departments and people that contributed to this project, analyze these data in the context of this humanity. We believe that the findings and recommendations within these documents are valuable assets for informing our collective work to prevent future losses of life due to overdose.

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#### **Executive Summary**

The Vermont Social Autopsy Project was created to identify trends in how Vermonters who died of an overdose (including all illicit drugs, legal drugs, and alcohol) interacted with Vermont state systems prior to death to identify opportunities for intervention. This iteration of the Social Autopsy Report examines interactions for people who died of an overdose in 2022 and 2023. The **Executive Summary and Recommendations** sections have been strategically placed at the beginning of the document to underscore the importance of linking the data back to action. Links to all previous reports are in the introduction section and trend data for 2019-2023 are in the appendices.

technical assistance, contact Vermont's Overdose Data to Action (OD2A) team at AHS.VDHod2a@vermont.gov.

### For more information on this report or for

#### **Trends and Insights:**

Fentanyl and xylazine involvement remain dominant and have slightly increased.

**Key Points** 

Of the 491 Vermonters who died of an

Fentanyl was the most frequently

involved drug (84% in 2022 and

More than a third (35%) did not

at the time of overdose

have a potential bystander present

Nearly one in five people (18-19%)

two or more days before their

had not been seen or heard from for

overdose in 2022 and 2023:

85% in 2023).

overdose

- Cocaine presence spiked significantly in 2023. Percentages of overdose deaths involving cocaine were 45% in 2021, 49% in 2022, and 62% in 2023.
- Mental health conditions and heart disease prevalence among those who died by overdose increased.
- Fewer overdose deaths occurred in motels.

The demographic trends observed in this report were similar to previous years:

- People who died from overdoses are disproportionately male, white, and between the ages of 25 and 44.
- Most completed or had limited secondary education.
- Most were unmarried.
- Most were likely to be employed in the construction or food service industries.

#### **Fewer Overdoses in Motels: Policy Implications**

The decline in overdoses occurring at motels, down from 13% in 2021 to 6–7% in 2022 and 2023, aligns with changes in the General Assistance Emergency Housing Program, including new eligibility criteria and caps on the number of rooms funded through this program statewide. While this may reflect improved oversight or reduced motel usage, it may also signal a return to more precarious housing situations not captured in formal records. Continued monitoring is essential to understand how housing instability is evolving and where overdose risks may emerge in new environments.

#### **Shifts in Drug Supply and Method of Use**

One of the most striking changes in the 2022–2023 data is the continued rise of xylazine as a co-occurring substance in fatal overdoses. Identified in nearly a third of cases in 2023, xylazine is now a consistent presence in Vermont's illicit drug supply. This poses additional risks due to its non-opioid pharmacology and resistance to naloxone reversal. Additionally, the top combination of drugs in 2022 and 2023 was cocaine and fentanyl at 43% in 2022 and 54% in 2023 (up from 41% in 2021).

Concurrently, the increase in smoking as a primary method of drug use (44%) surpassed injection (38%) in 2023. This trend warrants adjustments in harm reduction messaging, outreach techniques, and resource distribution (e.g., safer smoking supplies alongside injection kits).

#### **Takeaway**

These persistent patterns highlight deep-rooted structural vulnerabilities, including socioeconomic instability, limited educational attainment and occupational risk factors that must remain central to any meaningful intervention strategy.

Additionally, most people who died from an overdose interacted with at least one local or municipal system before death. This finding reinforces previous conclusions: **our public** health and first responder systems frequently engage with people at risk, but opportunities for effective intervention are still being missed.

Our public health and public safety systems frequently engage people at risk, but there are more opportunities for effective intervention.

The following Recommendations section should be seen as a starting point for agencies and communities to consider how to implement these or other measures to reduce overdose morbidity and mortality in Vermont.

#### **Recommendations**

The following recommendations are based on findings from this report, as well as input from program managers, data managers and departmental commissioners.

These recommendations are intended to guide both state-level and community-based overdose prevention and response efforts, with an emphasis on early intervention and support strategies.

### Invest in primary prevention to increase protective factors for Vermont's youth.

#### Why:

• 26% (2022) and 37% (2023) of those who died of an overdose had involvement from the Department for Children and Families (DCF) when they were children.

#### Recommendation:

- Expand substance use prevention programming to reduce the number of youth and young adults engaging in substance use in Vermont.
- Expand early substance use intervention efforts for youth and young adults at increased risk of substance use.

## Expand education, communication campaigns and other resources to decrease the number of people using substances alone and increase messaging on how to get treatment and recovery support.

#### Why:

• 35% of those who died of an overdose in 2022 and 2023 did not have a bystander present at the time of their overdose.

#### **Recommendation:**

- Expand education and communication efforts to decrease stigma associated with asking for support and monitoring when using substances.
- Expand education and communication efforts to encourage loved ones to engage in conversations about how they can best support keeping their loved one safe when they are using substances.
- Expand promotion of call and/or text lines, like <u>Never Use Alone</u> or <u>Safe Spot</u>
   Overdose Hotline, that people using substances alone can engage so that emergency services can be called if needed.
- Create messaging on overdose risks for those who smoke substances in addition to those who inject substances.
- Increase <u>VT Helplink</u> messaging across the state to ensure awareness of this
  resource as a connection to treatment and recovery services for people using
  substances and their loved ones.

Increase education opportunities to social service providers, first responders, and
other community partners about <u>VT Helplink</u> and how to use or share this resource to
support referrals to treatment and recovery services as appropriate.

### Strengthen services to support those leaving institutions, including hospitals and correctional facilities.

#### Why:

- 13% of those who died in 2022 and 14% of those who died in 2023 had evidence of being released from an institution within a month of their death. Of those with evidence of recent release from an institution, 71% were released from a hospital in 2022 and 65% were released from a hospital in 2023.
- 13% of those who died had been incarcerated within a year of their death in 2022 and 17% in 2023. Most people (60%) who had been incarcerated and died by overdose, died within five months of release.

#### Recommendation:

- Support hospitals in identifying opportunities for enhanced support and coordination of care post hospital release for those at risk of an opioid overdose.
- Develop greater collaboration and coordination among community providers to create a more robust ecosystem of corrections reentry services and supports for people experiencing substance use disorder leaving incarceration.
- Utilize case management services, such as case workers from Vermont's Chronic Care Initiative, to support this coordination for people leaving incarceration.
- Expand community collaborations throughout the state to support more effective coordination across social service, substance use, mental health, and physical health care providers, and first responders.

### Further integrate substance use, mental health, and physical health care services.

#### Why:

- 60–61% of those who died of an overdose had mental health diagnoses; more than two diagnoses were common.
- Increased prevalence of heart disease (30% in 2022 and 41% 2023) and COPD (19% in 2022 and 15% in 2023) among those who died of an overdose compared to the overall Vermont population.

#### Recommendation:

 Increase coordination and efficiency of care between substance use, mental health and physical health care services.  Increase the number of mental health and physical health care providers offering Harm Reduction Packs at their locations.

### Expand connection to those experiencing unstable housing and social isolation in Vermont.

#### Why:

- About 19% of people had not been heard from in two or more days prior to their death.
- 19% of people received homelessness services within 6 months of their death.

#### Recommendation:

- Explore the development of additional subsidized and low-cost, low-barrier housing and shelter options.
- Expand consistent outreach efforts to those known to be experiencing homelessness or unstable housing to ensure regular points of contact to reduce social isolation.

### Evolve terminology from syringe services programs to harm reduction agencies.

#### Why:

 Smoking surpassed injection as the most common method of use in 2023, and cocaine involvement has continued to increase.

#### Recommendation:

- Reflect the needs of the Vermont communities in relation to overdose prevention to support these programs to feel more accessible to those who are not injecting substances.
- Expand messaging about the availability of drug-checking services to those who are intending to use cocaine and may not be aware of cross-contamination with fentanyl.

#### Introduction

#### **Contributing State Partners**

#### **Vermont Department of Health**

- Commissioner's Office
- Health Statistics & Informatics
- Division of Substance Use Programs
- Emergency Preparedness, Response, and Injury Prevention

#### **Department of Corrections**

### Department of Vermont Health Access

#### **Department of Mental Health**

#### **Department of Public Safety**

Vermont Intelligence Center

#### Department of Labor

Department for Children and Families

#### **Contributing External Partners**

#### **Institute for Community Alliances**

Continua of Care

The Vermont Social Autopsy Project is dedicated to understanding and reducing drug-related overdose deaths across the state. By analyzing data from multiple state agencies, we aim to uncover patterns in how individuals interacted with various systems before their deaths, identifying opportunities for earlier support and intervention.

This report is the fifth edition of the Vermont Social Autopsy Report. Previous editions were published in 2020 (2017 data), 2021 (2018 data), 2022 (2019–2020 data), and 2023 (2021 data). This current report examines the lives and circumstances of 491 Vermonters who died from drug overdoses in Vermont in 2022 (248 deaths) and 2023 (243 deaths).

The Social Autopsy Report has become a critical tool in fostering partnerships and shaping strategies to reduce the toll of overdose on individuals, families and communities. In response to recommendations from previous Social Autopsy Reports, and with Overdose Data to Action (OD2A) funding from the Centers for Disease Control and Prevention (CDC), Vermont has implemented changes to reduce the risk of fatal overdose among people who use drugs. Through the CDC OD2A grant and insights gained from the report, the Vermont Department of Health's Division of Substance Use Programs has partnered with four Syringe Service Programs (SSPs) and four Recovery Centers. The SSPs offer services such as case management, opioid overdose response & naloxone training, and overdose prevention outreach,

especially focusing on people who are not yet connected to formal systems of care. Each Recovery Center focuses on supporting a specific group disproportionately affected by substance use, including people who are pregnant, people experiencing homelessness, those involved in the criminal justice system, and people who have interacted with Emergency Medical Services due to overdose. Together, these eight community partners provide harm reduction services, distribute naloxone and drug-checking tools (such as

fentanyl and xylazine test strips), offer referrals, and connect people to harm reduction and recovery support.

Before we turn to the data from 2022 and 2023, we pause to acknowledge that these numbers represent real people whose lives mattered. Each person counted in this report had loved ones, dreams and potential. As we examine these statistics, let us remember the people behind them and commit to using this information to build a more responsive and compassionate system—one that prevents future loss and honors the lives that have been lost.

#### **Methodology**

Overdose deaths were identified using death certificate data from Vermont Vital Statistics. This analysis examines interactions with state systems for people who died of an overdose in 2022 and 2023. Data matching for this analysis followed methodology established in earlier iterations of the Social Autopsy report.

In the first iteration of this report, which analyzed 2017 data and was released in 2020, the Health Department approached each partner department separately to explain the project concept and goals. Partners were asked to identify measures that would best represent the intersection between people who overdosed, their department's programming and the datasets available for inclusion. Given the sensitivity of the person-level data involved and the need to maintain trust between partners, the project team worked with each partner to select the measures to be included in the analysis and to validate the findings and conclusions in the report. The Health Department has added data from multiple new partners since the first iteration of the report to show a more complete picture of Vermonters who died of an overdose.

After identifying the measures, the project team received approval from the Agency of Human Services Institutional Review Board (IRB) to ensure the privacy of the people who died. Memorandums of understanding (MOUs) were developed and executed between the Health Department and each of the participating departments and organizations. The MOUs specified the data to be provided to the Health Department, how the data could be used, and the data suppression rules that the data-owning department or organization required the Health Department to use to protect anonymity.

Data matching was completed using the person's first and last name, date of birth, and sometimes social security number. Data was returned for analysis in either line level or aggregate format.

Upon completion of analysis, the findings were disseminated to the commissioners and contributing staff of the partner agencies, as well as Department of Health staff and leadership, for their review. The recommendations in this report were collaboratively developed during the final review process.

# **Summary of Interactions with Vermont Agencies and Datasets**

#### **Summary of Interactions with Vermont Agencies and Datasets**

#### **Interactions with State Agencies or Datasets Prior to Death**

Five Department of Health datasets and data from seven other State of Vermont agencies were included in this project:

#### Internal to the Vermont Department of Health:

- Vital Statistics
- State Unintentional Drug Overdose Reporting System (SUDORS)
- Statewide Incident Reporting Network (SIREN)
- Vermont Prescription Monitoring System (VPMS)
- Impaired Driver Rehabilitation Program (IDRP)

#### External to the Department of Health:

- Departments of Corrections
- · Department of Labor
- Department of Mental Health
- Department of Public Safety
- Department of Vermont Health Access
- Department for Children and Families
- Institute for Community Alliances (ICA)

This summary section excludes data from Vital Statistics and SUDORS because the information included in these datasets is collected after death. The datasets referenced in this report varied in the years that were available for analysis. This likely impacted the number of interactions that were found among those in this report.

- People who died of an overdose in 2022 were most likely to interact with the Department of Vermont Health Access (78%) and the Vermont Prescription Monitoring System (74%).
- People who died of an overdose in 2023 were most likely to interact with the Department of Vermont Health Access (80%), the Department of Public Safety (74%) and the Vermont Prescription Monitoring System (74%).

### Interactions with Individual Agencies/Datasets Among Vermonters Who Died of Overdose

|           | Agency/Dataset        | Description   | 2022 | 2023 |
|-----------|-----------------------|---|------|------|
| Ų•        | Vermont Health Access | Were enrolled in Medicaid in year prior to death.   |      | 80%  |
|           | VPMS                  | Had at least one prescription for a controlled substance in the five years prior to death.              | 74%  | 74%  |
| **        | SIREN                 | Interacted with EMS in the five years prior to death.   | 64%  | 66%  |
|           | Public Safety         | Interacted with a Vermont law enforcement agency (state or local) in year prior to death.               | 62%  | 74%  |
| <b>in</b> | Children and Families | Interacted with DCF-FSD between 1982 and their death.   | 46%  | 53%  |
| <b>P</b>  | Mental Health         | Interacted with a Vermont Designated<br>Agency or Specialized Service Agency in<br>year prior to death. | 30%  | 16%  |
|           | ICA                   | Received homelessness services in year prior to death.  | 21%  | 24%  |
| <b>~</b>  | IDRP                  | Had an impaired driving offense in the IDRP database in the 20 years prior to death.                    | 19%  | 21%  |
|           | Corrections           | Were incarcerated within one year of their death.   | 13%  | 17%  |
|           | Labor                 | Filed a claim for unemployment benefits in year prior to death.   | 11%  | 6%   |

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### **Death Certificate Information**

(Source: Vermont Vital Statistics System)

#### **Death Certificate Information**

#### **Demographics of Vermonters Who Died of an Overdose**

The Vermont Vital Statistics System contains identifying information about people who died of accidental or unintentional overdose (i.e., overdose deaths that are not classified as suicide or homicide). This information was linked to the other data sources used in this report to help identify where these Vermonters interacted with state systems. The people included in this report are Vermont residents who died in Vermont in 2022 and 2023, with data separated by year of death where appropriate. An appendix of results from previous Social Autopsy Reports can be found at the end of this report.

Between 2022 and 2023, 491 Vermonters died of a drug overdose in Vermont (248 in 2022 and 243 in 2023). Most Vermonters who died of an overdose had a high school education or less (81% in 2022 and 77% in 2023), were male (68% in 2022 and 73% in 2023), had never married (53% in 2022 and 54% in 2023), were between the ages of 25 and 44 (49% in 2022 and 48% in 2023), and were white and non-Hispanic (WNH) (94% in 2022 and 95% in 2023).1

The demographics of people who died from an overdose are different in many ways compared to others who died of any other cause of death (6,238 in 2022 and 6,002 in 2023).

**Sex**: In 2022 and 2023, half of people who died of any cause were male (53% in 2022 and 51% in 2023), while more than two-thirds of people who died due to overdose were male (68% in 2022 and 73% in 2023).

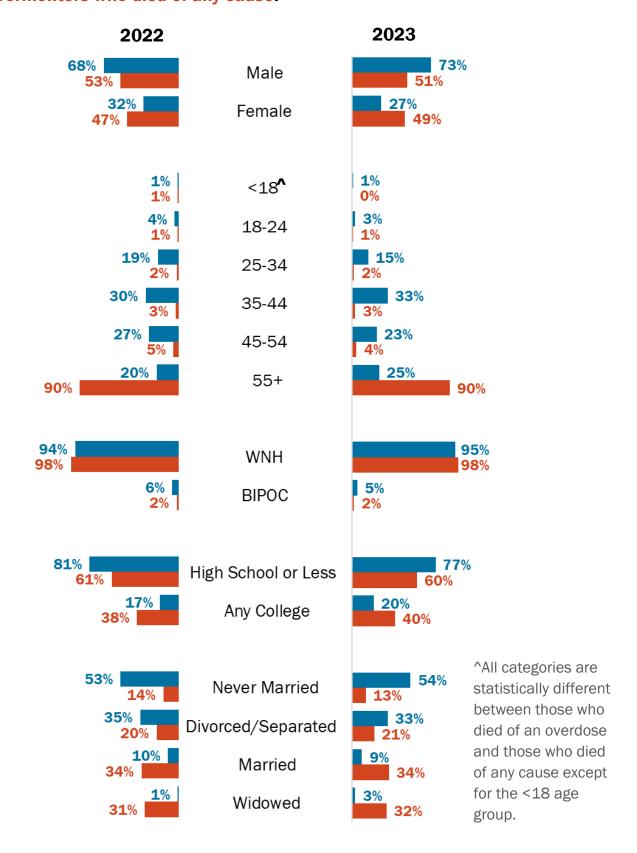
**Age:** Vermonters who died of overdose died at a younger age than other Vermonters, with fewer who died of overdose being over 55 (20% in 2022 and 25% in 2023) compared to Vermonters who died overall (90%).

Race: A higher percent of those who died of overdose were Black, Indigenous and people of color (BIPOC)—6% in 2022 and 5% in 2023—than those who died from other causes (2%).

**Education & Relationships:** A higher percent of those who died of overdose had a high school education or less (81% in 2022 and 77% in 2023) compared to those who died of any cause (61% in 2022 and 60% in 2023). About 1 in 8 people who died of any cause were never married (14% in 2022 and 13% in 2023), while about half of the people who died of overdose were never married (53% in 2022 and 54% in 2023).

<sup>1</sup> Although the Vermont Department of Health recognizes genders beyond the binary, Vital Statistics death certificate data are only categorized as male or female. For this reason, all data throughout this report will reference male or female only.

### Demographics vary between Vermonters who died of overdose and Vermonters who died of any cause.

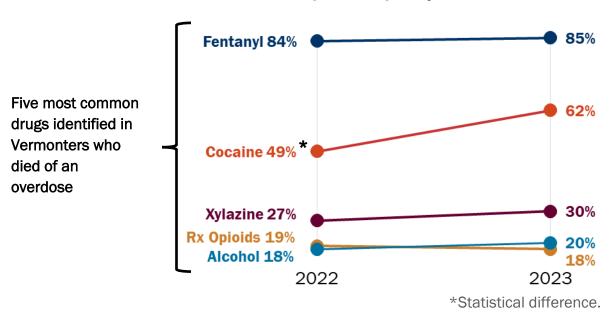


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#### **Drug Involvement**

Death certificate data were analyzed to identify commonly occurring drugs and drug combinations contributing to overdoses that were identified through toxicology screening. In most cases, people who died of overdose had an opioid in their system that contributed to their death (90% in 2022 and 89% in 2023). Fentanyl was the most frequently identified individual drug (84% in 2022 and 85% in 2023), followed by cocaine (49% in 2022 and 62% in 2023) and xylazine (27% in 2022 and 30% in 2023). The presence of cocaine statistically increased in 2023 compared to prior years. The presence of xylazine, a veterinary sedative, increased in 2022 and 2023 relative to prior years and was the third-most common substance involved in overdose deaths.

In 2023, a higher percentage of overdose deaths involved cocaine compared to prior years.



Most people who died of an overdose had multiple drugs in their system when they died. Fentanyl is the most frequent individual drug associated with drug overdose death, so the most common combinations of drugs contributing to death all involve fentanyl.

### Most Common Drug Combinations Identified in Vermonters Who Died of an Overdose

| 2022                                       | 2023                                       |
|--|--|
| 1. Fentanyl and Cocaine (43%)              | 1. Fentanyl and Cocaine (54%)              |
| 2. Fentanyl and Xylazine (27%)             | 2. Fentanyl and Xylazine (30%)             |
| 3. Fentanyl and Alcohol (14%)              | 3. Fentanyl, Cocaine, and Xylazine (20%)   |
| 3. Fentanyl, Cocaine, and Xylazine (14%)   | 3. Cocaine and Xylazine (20%)              |
| 3. Cocaine and Xylazine (14%)              | 5. Fentanyl and Alcohol (16%)              |
| 3. Fentanyl and Prescription Opioids (14%) | 6. Fentanyl and Prescription Opioids (14%) |

#### **Industry and Occupation of Employment**

Death certificates include information about the industry and occupation of people who have died.<sup>2</sup> In this context, industry and occupation both refer to the work performed during most of a person's working life. This means that while a person may have been unemployed or may have been retired at the time of death, their death certificate could still include industry and occupation data. These data are collected for the death certificate through interviews with relatives or others who knew the deceased person, so this information is not always collected consistently, and some data are missing. All percentages presented in this section are out of the 248 people who died of overdose in 2022 and the 243 people who died of overdose in 2023, although 25% of death certificates were missing industry and occupational information in 2022 and 19% were missing this information in 2023. The 'missing' category is omitted from the graphics and tables presented in this section.

<sup>&</sup>lt;sup>2</sup> The United States Census Bureau <u>defines</u> industry as "the kind of business of the [person's] employer" and occupation as "the kind of work a person does at their job." In other words, industry is the broad category of work that includes multiple types of occupations. For example, the construction industry employs people working in a variety of occupations, including carpenters, accountants, and human resource personnel, among others.

According to the Bureau of Labor Statistics, only 5% of Vermonters worked in the construction industry in 2022 and 2023, while nearly a quarter (23%) of Vermonters who died of an overdose worked in this industry. This is a statistical difference. After construction, the most common industries in 2022 were accommodation and food services (11%), and retail trade (8%). These percentages are statistically similar to all Vermonters who were employed in 2022. In 2023, the second and third most common industries (after construction) were accommodation and food services (11%), and health care and social assistance (9%). In 2023, statistically fewer people who died of an overdose worked in health care and social assistance than Vermonters who were employed overall.

#### Industry of Vermonters Who Died of an Overdose in 2022

|    | Industry                        | People Who Died of an Overdose | Vermont Overall |
|----|---------------------------------|--------------------------------|-----------------|
| 8  | Construction                    | 23%*                           | 5%              |
|    | Accommodation and Food Services | 11%                            | 10%             |
| 44 | Retail Trade                    | 8%                             | 12%             |

#### Industry of Vermonters Who Died of an Overdose in 2023

| Industry |                                   | People Who Died of an Overdose | Vermont Overall |  |
|----------|-----------------------------------|--------------------------------|-----------------|--|
| 8        | Construction                      | 23%*                           | 5%              |  |
| 8        | Accommodation and Food Services   | 11%                            | 10%             |  |
| Ų,       | Health Care and Social Assistance | 9%*                            | 18%             |  |

<sup>\*</sup>Statistical difference.

Although there is no indication on the death certificate of whether the deceased person was working in a full- or part-time capacity at the time of their death, the most common industries and occupations listed on people's death certificates typically employ workers part-time, seasonally, or temporarily.<sup>3</sup> These positions tend to be more physically demanding than jobs in other industries and occupations and may be lower-paying as well.<sup>4,5</sup>

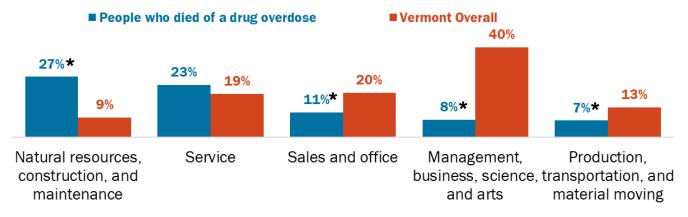
<sup>3</sup> https://www.cdc.gov/niosh/docs/2015-178/pdfs/2015-178.pdf

https://www.nist.gov/system/files/documents/2017/09/21/brian\_d\_lowe\_exoskeleton\_tech\_interchange\_meeting\_-\_niosh\_-\_lowe\_v2.pdf

<sup>&</sup>lt;sup>5</sup> https://blogs.cdc.gov/niosh-science-blog/2023/02/16/sdoh/

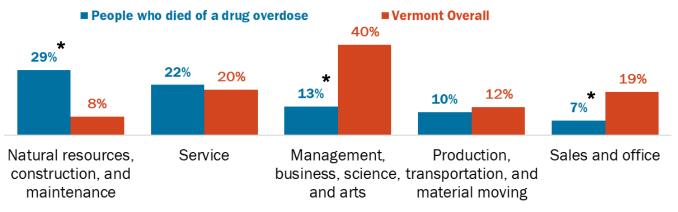
Compared to other employed Vermonters in 2022, a significantly higher proportion of people who died of a drug overdose in 2022 worked in occupations related to "natural resources, construction, and maintenance" (27% vs 9%), while significantly fewer worked in "management, business, science, and arts" (8% vs 40%), "sales and office" (11% vs 20%), or "production, transportation, and material moving" (7% vs 13%) occupations.

Vermonters who died of an overdose in 2022 were more likely to work in natural resources, construction and maintenance than Vermonters overall.



The occupations of people who died of overdose in 2023 were mostly similar to 2022. A significantly higher proportion of people who died of overdose worked in construction occupations than Vermont overall (29% vs 8%), and a lower proportion worked in "management, business, science, and arts" (13% vs 40%) and "sales and office" occupations (7% vs 19%). Unlike 2022, the 2023 proportion of people who died of overdose and worked "production, transportation, and material moving" occupations was not significantly different compared to Vermonters overall.

Vermonters who died of overdose in 2023 were more likely to work in natural resources, construction, and maintenance occupations than Vermonters overall.

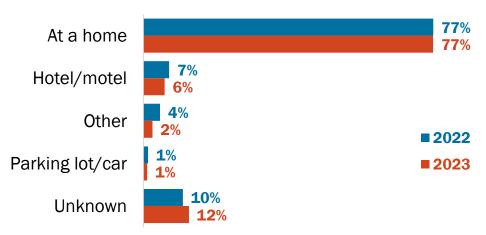


\*Statistical difference.

#### **Place of Injury and Death**

The place of injury on a person's death certificate describes where the overdose occurred. Most people experienced a fatal overdose in their home or the home of another person (77%). Overdoses were less likely to occur at a hotel/motel in 2022 (7%) and 2023 (6%) than in 2021 (13%). During the COVID-19 pandemic, people without housing were provided housing at motels through the General Assistance Program. In recent years, changes to the program have reduced eligibility. This may be a reason for the decrease in overdoses occurring at motels between 2021 and 2022-2023.

#### Most fatal overdoses occurred at a home.



The place of death may be different from where the overdose occurred. Most people died at either their home or the home of another individual (78% in 2022 and 79% in 2023), while some died at a hospital in either the emergency room, intensive care unit, or as an inpatient (10% in 2022 and 8% in 2023).

#### How does this compare to previous years?

Data from 2019 through 2023 can be found in the Appendix.

# History and Circumstances Surrounding Overdose

(Source: State Unintentional Drug Overdose Reporting System)

#### **History and Circumstance Surrounding Overdose**

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

SUDORS collects detailed information on accidental and undetermined deaths from drug overdoses using death certificates, law enforcement reports, medical examiner reports (including toxicology results), electronic medical records, EMS incident records, and prescription drug monitoring data. This database includes demographics, overdose-specific circumstances, substances present on toxicology tests, and other reported drug overdose risk factors. The availability of SUDORS data is dependent on the amount and type of information obtained during death scene investigation interviews with family, friends and healthcare providers. This means that any given data point could be underestimated, as the information may not have been reported consistently.

#### **Social Determinants of Health**

Social determinants of health are the social, economic, and physical environments that affect a wide range of health and quality of life outcomes.<sup>6</sup> Some examples of social determinants of health include income, employment, education, housing, early life experiences, social inclusion, structural discrimination, and access to affordable, high-quality health services.<sup>7</sup> Throughout this report, there are examples of how different levels of income, education, housing status and other social determinants of health impact Vermonters who died of an overdose. Comparisons between people who died from an overdose and the Vermont adult population are presented when data are available. Most comparison values are from the <u>Vermont Behavioral Risk Factor Surveillance System</u> (BRFSS), an annual survey of Vermont adults (age 18 and older).<sup>8</sup>

#### Social Determinants of Health Among Vermonters Who Died of an Overdose

| Social Determinant                                  | 2022 | VT Adults<br>Overall 2022 | 2023 | VT Adults<br>Overall 2023 |
|---|------|---------------------------|------|---------------------------|
| Last heard from two or more days before their death | 18%  | _                         | 19%  | -                         |
| Unemployed at the time of death                     | 25%  | 4%                        | 20%  | 3%                        |
| Without housing at the time of death <sup>9</sup>   | 5%   | <del>-</del>              | 11%  | _                         |

<sup>6</sup> https://www.healthvermont.gov/sites/default/files/documents/pdf/PLN\_HE\_Glossary.pdf

<sup>&</sup>lt;sup>7</sup> https://www.who.int/health-topics/social-determinants-of-health#tab=tab\_1

<sup>8</sup> https://www.healthvermont.gov/health-statistics-vital-records/population-health-surveys-data/brfss

<sup>&</sup>lt;sup>9</sup> Without housing refers to people who did not have a permanent address of residence. Without housing does not include Vermonters who were living with a friend, family member, or other acquaintance.

#### **Multiple Health Conditions**

Physical and mental wellness influences quality of life, health conditions and general health outcomes. Having multiple health conditions places a person at greater risk for poor quality of life and health outcomes. When available, comparisons are made to the Vermont adult population to look at differences in people who died of an overdose using BRFSS data and data from the National Survey on Drug Use and Health (NSDUH).<sup>10,11</sup> In both 2022 and 2023, about six in ten Vermonters who died of an overdose had a mental health diagnosis (60%, 61%), compared to less than one in three (27%, 27%) Vermont adults overall. While rates of hypertension were similar among people who died of an overdose in both 2022 (31%) and 2023 (32%) compared to Vermonters overall (32%, 33%), the rate of heart disease was approximately three times higher among people who died of an overdose in 2022 (30%), and over four times as high in 2023 (41%) compared to the adult population of Vermont (9%, 8%).<sup>12</sup>

**Health Conditions Among Vermonters Who Died of an Overdose** 

| Health Conditions                            | 2022 | VT Adults<br>Overall<br>2022 | 2023 | VT Adults<br>Overall<br>2023 |
|--|------|------------------------------|------|------------------------------|
| Substance use disorder <sup>10,11</sup>      | 93%  | 22%                          | 97%  | 21%                          |
| Alcohol use disorder <sup>10,11</sup>        | 39%  | 12%                          | 45%  | 11%                          |
| Mental Health                                |      |                              |      |                              |
| Any mental health diagnosis <sup>10,11</sup> | 60%  | 27%                          | 61%  | 27%                          |
| 2+ mental health diagnoses                   | 35%  | _                            | 40%  | _                            |
| Depression                                   | 38%  | 25%                          | 43%  | 26%                          |
| Anxiety                                      | 31%  | _                            | 37%  | _                            |
| History of suicidal thoughts                 | 11%  | 6%                           | 16%  | _                            |
| Ever attempted suicide                       | 6%   | _                            | 8%   | _                            |

 $<sup>^{10}</sup>$  https://www.samhsa.gov/data/sites/default/files/reports/rpt44484/2022-nsduh-sae-tables-percent\_CSVs/2022-nsduh-sae-tables-percent.pdf

<sup>&</sup>lt;sup>11</sup> https://www.samhsa.gov/data/sites/default/files/reports/rpt56185/2023-nsduh-sae-tables-percents/2023-nsduh-sae-tables-percent.pdf

 $<sup>^{12}</sup>$  Disclaimer: hypertension and diabetes are not individual fields in the SUDORS system, they are based on free-text coding from the case narrative. Therefore, they may be underreported.

#### **Health Conditions Among Vermonters Who Died of an Overdose Continued**

| Health Conditions                  | 2022 | VT Adults<br>Overall 2022 | 2023 | VT Adults<br>Overall 2023 |
|------------------------------------|------|---------------------------|------|---------------------------|
| Chronic physical health conditions |      |                           |      |                           |
| Hypertension <sup>12</sup>         | 31%  | 32%                       | 32%  | 33%                       |
| Heart Disease                      | 30%  | 9%                        | 41%  | 8%                        |
| Diabetes <sup>12</sup>             | 13%  | 8%                        | 10%  | 9%                        |
| Asthma                             | 13%  | 13%                       | 11%  | 11%                       |
| COPD                               | 19%  | 7%                        | 15%  | 6%                        |
| Back pain                          | 16%  | -                         | 19%  | _                         |
| Other chronic pain                 | 27%  | _                         | 29%  | _                         |
| Hepatitis C                        | 18%  | _                         | 22%  | _                         |

#### **Type of Overdose**

SUDORS categorizes the type of overdose by capturing the context in which the drugs contributing to the fatal overdose were used by the person who died. The purpose is to understand the circumstances surrounding the person's overdose.

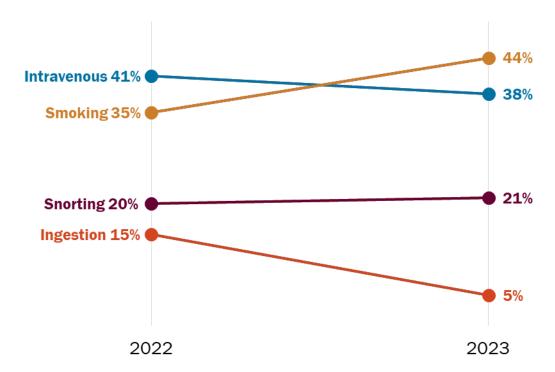
In both 2022 and 2023, most overdoses were related to the use of illicit substances or misuse of prescription medications (95% in 2022 and 97% in 2023). The remaining overdoses were due to overmedication from prescribed medications, or there was insufficient information to determine the type of overdose. Other overdose types not represented in the data are unintentionally taking a drug other than what the person intended to take or taking the wrong dose of the intended drug.

#### **Risk Factors for Overdose**

#### **Method of Use**

In 2022, scene evidence suggested that the most common methods of use among Vermonters who died from an overdose were intravenous (41%), smoking (35%), and snorting (20%).<sup>13</sup> In 2023, the most common methods of use were smoking (44%), intravenous (38%), and snorting (21%).

In 2022, the most common method of use among Vermonters who died from an overdose was intravenous (41%). In 2023, smoking (44%) became the most common method of use among Vermonters who died from an overdose.



<sup>&</sup>lt;sup>13</sup> There may have been evidence of more than one method of use; the route by which each substance was administered is unknown; there may be evidence of a method of use for a substance that did not contribute to the person's death; or there may be no scene evidence of the method of use for a substance that contributed to the person's death.

#### **History of Overdose**

#### 2022

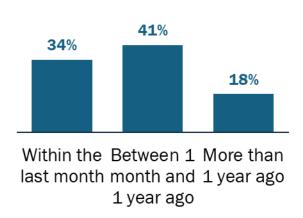
A history of a previous non-fatal overdose was reported for nearly one in four Vermonters who died of an overdose in 2022 (23%). Among those who died in 2022 and had experienced a previous overdose, 41% had done so between one month and one year prior to their death, while 18% last experienced an overdose more than a year before their death.

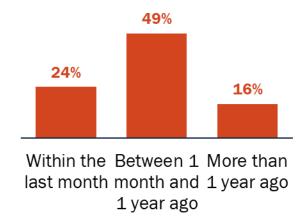
#### 2023

A history of a previous overdose was reported for nearly one in three Vermonters who died of an overdose in 2023 (31%). The previous overdose occurred within the last month for 24% of people and 49% experienced an overdose between one month and one year before their death. The timing of the previous overdose was unknown for 11% of people.

In 2022, 23% of Vermonters who died of an overdose had experienced a previous overdose. The previous overdose occurred...

In 2023, 31% of Vermonters who died of an overdose had experienced a previous overdose. The previous overdose occurred...





#### **History of Recurrence of Use**

Recurrence is defined as starting to use a substance again after a period of no use. In both 2022 and 2023, 16% of Vermonters who died of an overdose had a history of recent opioid use recurrence within three months of their death. Many people who had returned to use did so in the two weeks before their death (32% in 2022 and 44% in 2023).

#### **Release From an Institution**

In this context, an institution refers to a hospital, residential treatment facility, or correctional facility. People recently released from an institution may be at elevated risk for overdose if, for example, their body is not able to tolerate the dose they used prior to admittance to the institution.

In 2022, 13% of Vermonters who died of an overdose had evidence of being released from an institution within a month of their death. Among those with evidence of recent release, 71% were released from a hospital. In 2023, 14% of Vermonters who died of an overdose had evidence of recently being released from an institution. Among those with evidence of recent release, 65% were released from a hospital.

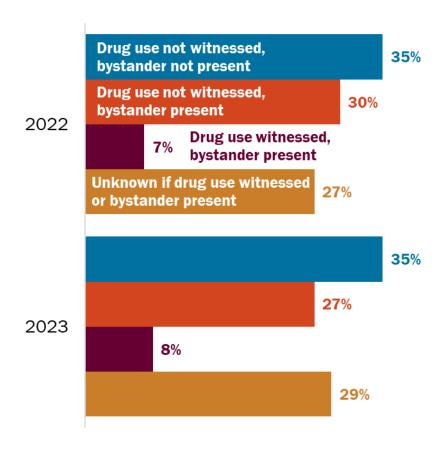
#### **Presence of Other People**

In SUDORS, a bystander is someone who was physically nearby during the overdose and had the opportunity to respond to it. A person does not have to witness the drug use that led to the overdose to be a bystander.

In both 2022 and 2023, 35% of people who died of an overdose were not witnessed using the drugs that led to the fatal overdose, nor was a bystander nearby during the fatal overdose. It is unknown if drug use was witnessed for about one-fourth of Vermonters who died of an overdose.

Scene evidence suggests that about 6% of people experienced a rapid overdose in 2022, which is defined as losing consciousness within 10 minutes of using drugs. Scene evidence used to determine whether a rapid overdose occurred may include: a needle still in the person's body, the person slumped over the drugs they were using, body positioning relative to drug paraphernalia, and witness reports. Scene evidence also suggests that about 14% of people experienced a rapid overdose in 2023.

### In 2022 and 2023, fatal overdoses most commonly occurred without a potential bystander present.



#### How does this compare to previous years?

More information on how these data compare to data from 2019 through 2023 can be found in the Appendix.

# Interactions with Emergency Medical Services

(Source: Statewide Incident Reporting Network)

#### **Interactions with Emergency Medical Services**

#### Interactions with EMS since 2018/2019

This section uses data from the Statewide Incident Reporting Network (SIREN). SIREN is Vermont's emergency medical services (EMS) electronic patient care reporting system. All EMS agencies are required to use SIREN to document each incident within one business day of when it occurs. The following section analyzes interactions with EMS personnel in the five years before the person's fatal overdose.

#### 2022

Of the 248 Vermonters who died of overdose, 223 had an EMS incident in the years 2018-2022. Of those 223 people, 175 were either declared dead on scene by EMS personnel or died in the hospital after being transported by EMS (78%).

#### 2023

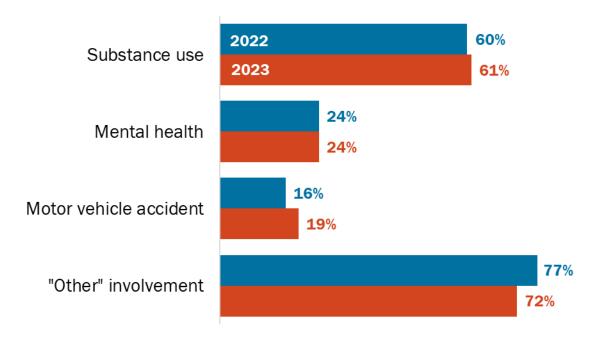
Of the 243 Vermonters who died of overdose, 210 had an EMS incident in the years 2019-2023. Of those 210 people, 161 were either declared dead on scene by EMS personnel or died in the hospital after being transported by EMS (77%).

Among the 248 people who died in 2022, 159 (64%) had a previous interaction with EMS before they died (i.e., it was not related to their death by overdose). Among the 243 people who died in 2023, 161 (66%) had a previous interaction with EMS before they died. **The numbers presented below include only these people who had an interaction with EMS prior to their fatal overdose.** 

Among people who interacted with EMS in the five years prior to their death, more than half had interactions that involved substance use (60% in 2022 and 61% in 2023). Mental health (24% for both years) and motor vehicle accidents (16% in 2022 and 19% in 2023) were also commonly identified as reasons for EMS interaction. An "other" category was created to include interaction types that could not be easily categorized. These include miscellaneous injuries and other types of medical complaints (e.g., pain, allergic reactions, etc.), as well as cases that could not be classified due to a lack of information. This "other" category was the most common interaction type among those in SIREN (77% in 2022 and 72% in 2023).

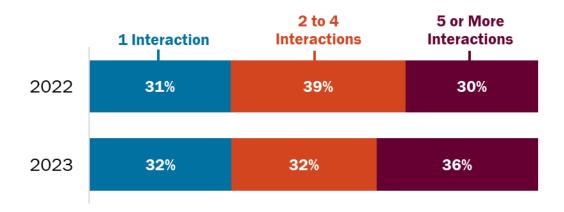
The interaction categories described above are not mutually exclusive. In other words, people could have interactions with EMS that involved substance use and mental health and would be counted in both categories.

### More than half of Vermonters who died of an overdose previously interacted with EMS for a substance use related reason.



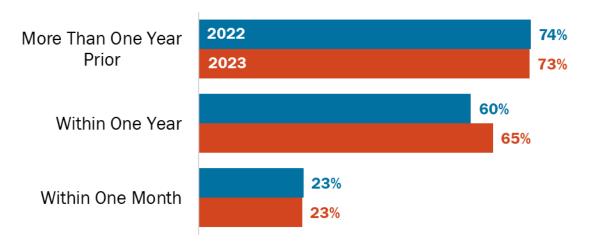
Those who interacted with emergency medical personnel typically had more than one incident in the five years prior to their date of their death. Among people who died in 2022, 109 (69%) interacted with EMS two or more times. Among people who died in 2023, 110 (68%) interacted with EMS two or more times. People who died in 2022 and 2023 had a median of three interactions in the five years before their death.

### Most Vermonters who died of an overdose and previously interacted with EMS did so more than once in the five years before their death.



Most people had an interaction with EMS personnel in the year before they died of overdose (60% in 2022 and 65% in 2023). About one in four Vermonters who died of overdose had an interaction with EMS within one month of their death (23%).

### Most Vermonters who died of an overdose and previously interacted with EMS had an interaction with EMS within a year before their death.



#### How does this compare to previous years?

Data from 2019 through 2023 can be found in the Appendix.

# **Controlled Substance Prescription History**

(Source: Vermont Prescription Monitoring System)

# **Controlled Substance Prescription History**

# **Vermont Prescription Monitoring System (VPMS) Data**

Vermont's prescription drug monitoring system, called <u>VPMS</u>, is operated and managed at the Vermont Department of Health. This statewide, electronic database contains all Schedule II-IV controlled substance prescriptions that are dispensed by Vermont-licensed pharmacies, including mail-order pharmacies that dispense to Vermonters. Scheduled II-IV controlled substances have been identified by the Drug Enforcement Administration (DEA) as substances that are most likely to be misused or to cause dependence. The prescriptions captured in VPMS fit into the following drug classes, which are based on the U.S. Centers for Disease Control and Prevention's (CDC) treatment classes:

- Analgesic opioids: opioids used in the treatment of pain.
   Examples: oxycodone, hydrocodone, prescribed fentanyl
- Medication for opioid use disorder (MOUD) opioid agonist/antagonist: medications
  used to treat opioid use disorder. With a few exceptions, any drug containing
  buprenorphine is considered an MOUD opioid. VPMS does not include medication
  assisted treatment prescriptions dispensed by specialty treatment providers such as
  opioid treatment programs (OTP) which are known as "hubs" in Vermont.
  Examples: Suboxone, Subutex
- **Benzodiazepines:** sedatives to treat anxiety, insomnia, and other conditions. *Examples: lorazepam, clonazepam, diazepam*
- **Stimulants:** medication to increase alertness, attention, and energy. *Examples: methylphenidate, amphetamine*
- Other: all other schedule II-IV drugs that are not in the other categories

VPMS is a clinical tool used by health care providers to support the appropriate use of controlled substances for legitimate medical purposes and deter the misuse and diversion of these medications. For more information, visit <a href="https://example.com/legitimate/">HealthVermont.gov/VPMS</a>.

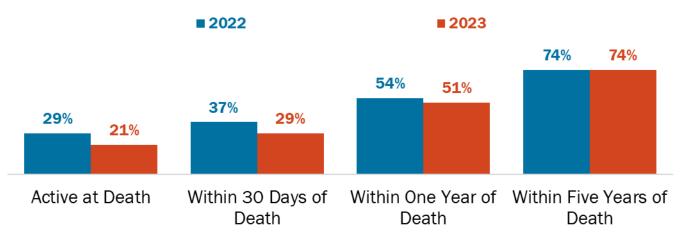
### **Prescriptions That Contributed to a Person's Overdose Death**

Of the 491 Vermonters who died of an overdose in 2022 and 2023, 107 had substances listed on their death certificate that are schedule II-IV drugs reportable to VPMS. Almost half of those (52) had an active prescription in VPMS for at least one of the substances listed on their death certificate. An additional 13 people received a prescription for one of the substances that contributed to their death in the year prior to their death, and six more had received a prescription within five years of their death.

# **Prescription History Among Those Who Died of an Overdose**

Seventy-four percent of the Vermonters who died of an overdose in both 2022 and 2023 had at least one controlled substance prescription in VPMS within five years prior to their death. Twenty-nine percent of people who died in 2022 had an active prescription at the time of their death, while 21% of people who died in 2023 had an active prescription. More than half of the people who died of an overdose (54% in 2022 and 51% in 2023) received a Schedule II-IV prescription within a year of their death.

Nearly three-quarters of Vermonters who died of an overdose in 2022 and 2023 had at least one prescription within five years prior to their death.



People who died of an overdose in 2022 and 2023 were about 20 times more likely to have an MOUD prescription, 2.5 times as likely to have had a benzodiazepine prescription, and twice as likely to have an analgesic opioid prescription than the Vermont population. People who died of an overdose were also 1.5 times more likely in 2022 and more than twice as likely in 2023 to have had a stimulant prescription. Data for the Vermont population for both 2022 and 2023 were very similar, so only 2023 data is used for comparison in this report.

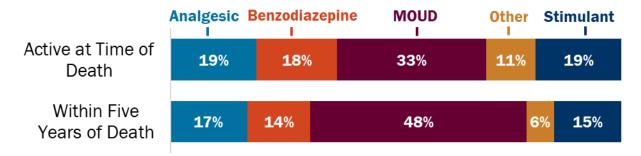
 $<sup>^{14}</sup>$  An "active prescription" refers to a prescription that covered the time frame in which the person died by overdose.

Vermonters who died of an overdose in 2022 and 2023 were more likely to receive prescriptions than Vermonters overall in 2023.

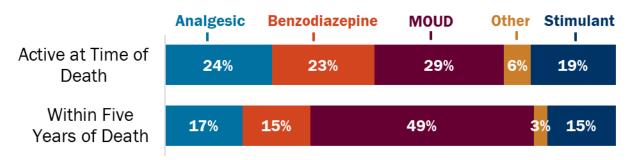


People who died of an overdose in 2022 and 2023 were most likely to have a medication for opioid use disorder (MOUD) prescription at the time of death, as well as over the five-year period prior to death. In 2020 and earlier, benzodiazepines and opioid analgesics were the types most prescribed to this population. This change may reflect prescribing practices modified following the adoption of prescribing rules for <u>opioid analgesics in 2017</u>.

### **Prescriptions by Drug Class, 2022**



# **Prescriptions by Drug Class, 2023**



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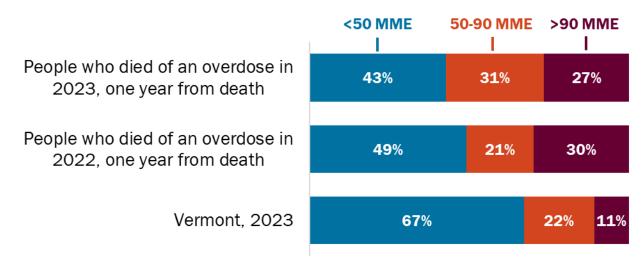
# **Comparing Opioid Prescriptions**

Morphine Milligram Equivalents (MME) are a measurement used by medical providers to describe the strength of an opioid prescription for pain management. MME is a standardized measure to help compare different drug strengths and dosages. The CDC <u>Guidelines for Prescribing Opioids for Chronic Pain</u> categorizes prescribing based on three daily MME groups: <50 MME, 50-90 MME, and >90 MME. Higher MMEs are associated with greater risks of harm.

In 2022, the CDC updated its guidelines for calculating MMEs for opioid analgesic prescriptions. As a result, there may be some differences in MME measures between 2022 and 2023 prescription data attributable to these new calculations. For more information, please visit the CDC's website: <a href="CDC Clinical Practice Guideline for Prescribing Opioids for Pain — United States">CDC Clinical Practice Guideline for Prescribing Opioids for Pain — United States</a>, 2022.

In comparison with analgesic opioid prescriptions received by all Vermonters in 2023, people who died of an overdose in 2022 and 2023 received a greater percentage of high-dose opioid prescriptions (greater than 90 MME) and a lower percentage of lower MME prescriptions.

Vermonters who died of an overdose in 2022 and 2023 who had an opioid prescription received a greater percentage of high-dose opioid prescriptions than Vermonters overall in 2023.



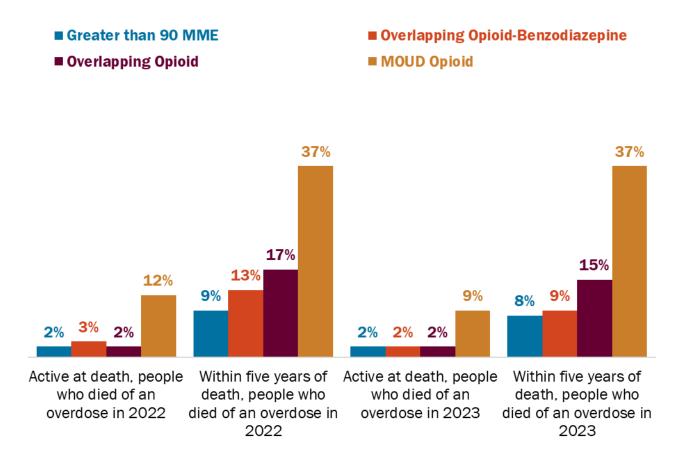
This difference in MME received is also evident in the average MME of prescriptions received by Vermonters in 2023 (55 MME) and by people who died of an overdose (111 MME in 2022 and 92 MME in 2023). The total MME of opioids dispensed per 100 people who died of an overdose in the year before their death is nearly 10 times the total MME per 100 Vermonters in 2023 (343,490 in 2022 and 341,038 in 2023 vs 35,018).

### **Higher Risk Prescription Patterns**

Some prescribing patterns may put people at higher risk, such as overlapping opioid prescriptions (i.e., more than one active opioid prescription), overlapping opioid and benzodiazepine prescriptions, and opioid prescriptions greater than 90 MME. Those receiving MOUD might also be at higher risk of an overdose. These prescription categories are not mutually exclusive (i.e., it is possible to receive a prescription of 90 MME or greater and to have overlapping opioid and benzodiazepine prescriptions).

Over one-third (37%) of people who died of an overdose in both 2022 and 2023 received some type of high-risk prescription at least once in the five-year period before their death. However, few people who died of an overdose had high-risk prescriptions that were active at the time of their death.

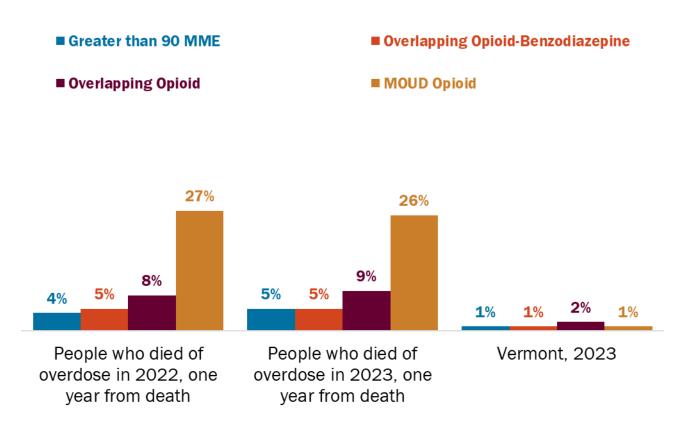
Over one-third of Vermonters who died of an overdose in 2022-2023 received some type of high-risk prescription in the five-year period before their death.



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While few people who died of an overdose had active high-risk prescriptions at the time of their death, dependent on the prescription category, between 4% and 27% received a high-risk prescription within a year of their death. This percentage is much higher than the percentage of Vermonters overall who received these high-risk prescriptions in 2023.

Vermonters who died of an overdose in 2022 and 2023 received more high-risk prescriptions than Vermonters overall in 2023.



# How does this compare to previous years?

More information on how these data compare to data from 2019 through 2023 can be found in the <u>Appendix</u>.

# **Medicaid Enrollment and Utilization**

(Source: Department of Vermont Health Access)

## **Medicaid Enrollment and Utilization**

### **Vermont's Medicaid Claims Data**

The <u>Department of Vermont Health Access (DVHA)</u> is responsible for the management of Vermont's publicly funded health insurance program, also known as the Vermont Medicaid Program. Medicaid claims (requests for payment submitted to Medicaid by a medical provider) were analyzed to look for enrollment status and health care utilization measures.

#### **Medicaid Enrollment**

#### 2022

Of the 248 people who died of a drug overdose in 2022, 78% (193) were enrolled in Medicaid in the year prior to death. Seventy-seven percent (192) were enrolled within the three months prior to death, and 77% (191) were actively enrolled in Medicaid at death.

#### 2023

Of the 243 people who died of a drug overdose in 2023, 80% (194) were enrolled in Medicaid in the year prior to death. Seventy-nine percent (192) were enrolled within the three months prior to death, and 75% (183) were actively enrolled in Medicaid at death.

#### **Medicaid Claims**

#### 2022

Of the 193 people enrolled in Medicaid a year prior to death, 93% (179) had at least one claim in the year before they died. About two in three (67%) people had claims within one month of death.

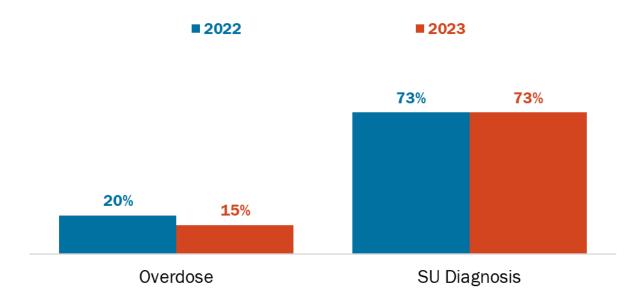
Of the 179 people who had claims within a year of death in 2022, 20% had an overdose-related claim. About three-quarters (73%) had a claim with a substance use diagnosis. Most (59%) had an opioid use disorder diagnosis. Furthermore, 23% had an alcohol-use disorder diagnosis, 21% had a stimulant-use diagnosis and 8% had a cannabis-use diagnosis. Sedative and alcohol poisonings were less frequently identified.

#### 2023

Of the 194 people enrolled in Medicaid in the year before their death, 90% (175) had at least one claim in the year before they died. About two in three (66%) people had claims within one month of death.

Of the 175 people who had claims within a year of death, 15% had an overdose-related claim. About three-quarters (73%) had a claim with a substance use diagnosis in the last year. Most (54%) had an opioid use disorder diagnosis. Furthermore, 30% had an alcoholuse disorder diagnosis, 25% had a stimulate-use diagnosis and 10% had a cannabis-use diagnosis. Sedative and alcohol poisonings were again less frequently identified.

# Almost 3 out of 4 people with a Medicaid claim in the year before their death had a claim with a substance-use diagnosis.



#### **Medicaid Claims for Substance Use Treatment**

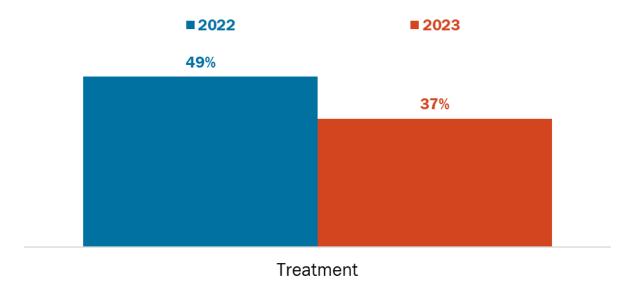
#### 2022

Nearly half of the people with a Medicaid claim in the year before they died had a claim related to substance use treatment. All forms of treatment are included, such as medications for opioid use disorder (MOUD), residential treatment and outpatient services. Almost 90% of people with a claim for treatment were accessing MOUD. They may have received more than one type of treatment. Treatment percentages decrease closer to death, which suggests discontinuing treatment as a risk factor for fatal overdose.

#### 2023

More than a third of people with a Medicaid claim in the year before they died had a claim related to substance use treatment. All forms of treatment are included, such as medications for opioid use disorder (MOUD), residential treatment and outpatient services. Almost 90% of people with a claim for treatment were accessing MOUD. Treatment percentages decrease closer to death, which suggests discontinuing treatment as a risk factor for fatal overdose.

The percent of people on Medicaid who received substance use treatment in the year before their death decreased from 2022 to 2023.



# How does this compare to previous years?

Data from 2019 through 2023 can be found in the Appendix.

# Interactions with Family Services and Economic Services

(Source: Department for Children and Families)

# **Interactions with Family Services and Economic Services**

# **Family Services Division**

The Family Services Division (FSD) of the Department for Children and Families (DCF) is responsible for ensuring children and youth are safe from abuse. The FSD data system was launched in 1982, so people involved with FSD before 1982 would not be captured in these data.

Among people who died of an overdose in 2023, 37% were involved with FSD as children and 26% were involved as parents.

#### 2022

Of the 248 people who died of an overdose, 26% were involved with the Vermont FSD as children. As parents, 28% had a history of involvement with FSD.

#### 2023

Of the 243 people who died of drug overdose, 37% were involved with the Vermont FSD as children. As parents, 26% had a history of involvement with FSD.

#### **Economic Services Division**

The Economic Services Division (ESD) of the Department for Children and Families provides financial assistance to families and people in need. This analysis focuses on three ESD benefit programs – 3Squares Vermont, Fuel Assistance, and Reach Up – although the Division provides additional programs. 3Squares Vermont is a supplemental nutrition assistance program offered to low-income Vermonters. The fuel assistance program helps pay heating bills for low-income Vermonters who rent or own a home. Reach Up provides case management and financial support to low-income families.

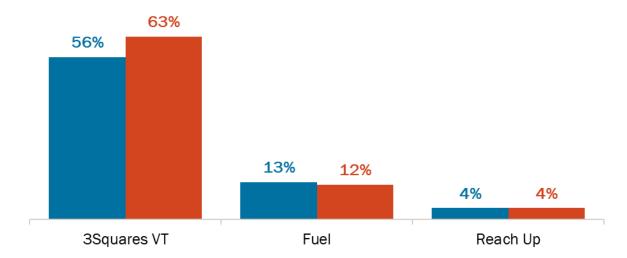
#### 2022

Fifty-eight percent of Vermonters who died from an overdose were enrolled in at least one ESD Program in the year of their death, and 66% received at least one ESD service in 2022, including burial payment assistance after their death. The program most frequently used was 3Squares Vermont, used by 56%. The fuel assistance program was less likely to be used by people who died of overdose compared to 3Squares Vermont, with 13% accessing that program in 2022. Reach Up was the program used the least (4%).

#### 2023

Nearly two-thirds (63%) of Vermonters who died from overdose were enrolled in at least one ESD Program in the year of their death, and 74% received at least one ESD service in 2023, including burial payment assistance after their death. The program most frequently used was 3Squares Vermont, used by 63%. The fuel assistance program was less likely to be used by people who died of overdose compared to 3Squares Vermont, with 12% using it in 2023. Reach Up was the program used the least (4%).

# 3Squares Vermont was utilized more by people who died of overdose compared to fuel benefits or Reach Up in both 2022 and 2023.



In addition to the three economic services offered to low-income Vermonters, the Economic Services Division will also pay for the burials of people who meet economic qualifications. Forty-two percent of Vermonters who died of overdose had their burial paid for by the Department for Children and Families in 2022. In 2023, 49% of Vermonters who died of overdose had their burial paid for by DCF.

# How does this compare to previous years?

Data from 2019 through 2023 can be found in the Appendix.

# **Interactions with Law Enforcement**

(Source: Department of Public Safety)

### **Interactions with Law Enforcement**

# **Interactions with Vermont law enforcement agencies**

The Department of Health partnered with the Department of Public Safety to learn how law enforcement agencies in Vermont interacted with Vermonters who died of an overdose in 2022 and 2023. Records of each person's interactions with law enforcement in the year before their death were collected from Vermont's law enforcement records management systems, Spillman and Valcour. An interaction is defined as any time a person came into contact with State or local police and includes when a person calls the police, or is a witness, victim, person of interest, or offender. Encounters where the person was found deceased were excluded.

#### **Recent interactions**

#### 2022

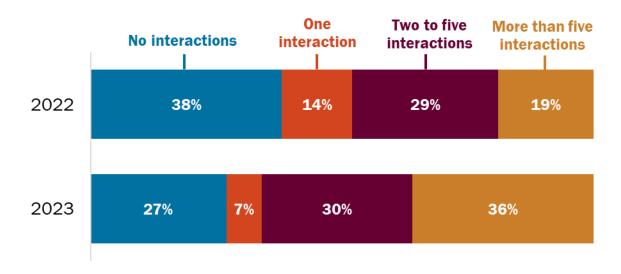
Of the Vermonters who died of an overdose, 62% interacted with law enforcement within one year of death, and 22% were involved within one month of death. Nearly half of the people who died in 2022 had more than one interaction with law enforcement (48%), and 19% had more than five interactions. Among people who had any interaction with law enforcement in the year before their death, the median number of interactions was three.

#### 2023

Seventy-three percent of Vermont residents who died of an overdose interacted with law enforcement within one year of death, and 31% were involved within one month of their death. Two-thirds of people who died in 2023 had more than one interaction with law enforcement (66%), and 36% had more than five interactions. Among people who had any interaction with law enforcement in the year before their death, the median number of interactions was five.

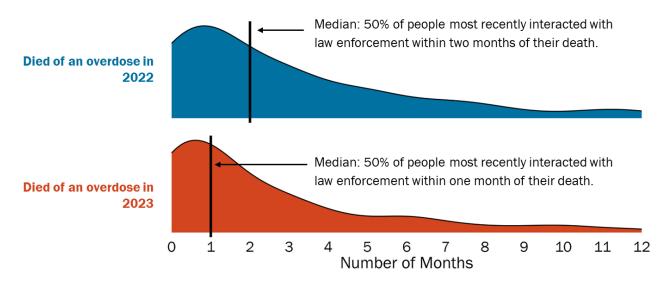
<sup>&</sup>lt;sup>15</sup> The records management systems reviewed for this analysis contain information from all but three Vermont law enforcement agencies (Hartford Police Department, Norwich Police Department, and Windsor Police Department).

# Most people who died of an overdose interacted with law enforcement in the year before their death.



Of the people who died of an overdose in 2022 and interacted with law enforcement at least once in the year before their death, there was a median of two months between the date of the most recent interaction and date of death. This means 50% of people had most recently interacted with law enforcement within two months of their death. For people who died of an overdose in 2023 and had interacted with law enforcement, the median was one month.

# Among Vermonters who died of an overdose and had a law enforcement interaction in the year prior to their death, most people had most recently interacted within two months of their death.



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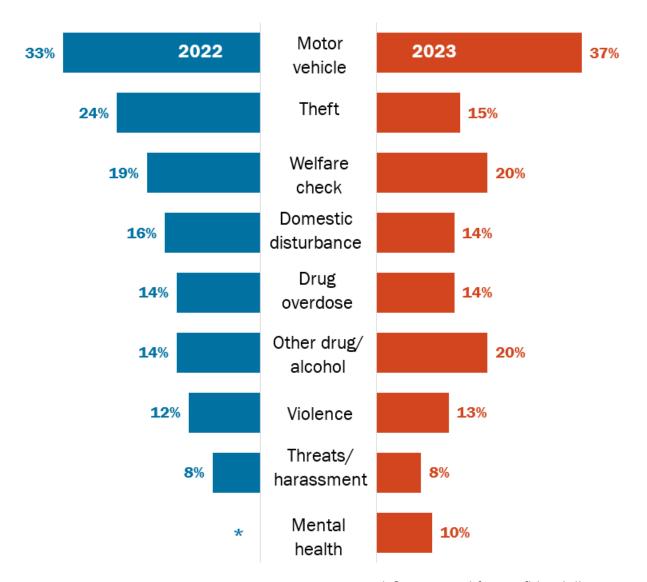
# **Interaction type**

For this analysis, each person's five most recent interactions with law enforcement were categorized by type. The categories included in this report are:

- Motor vehicle-related incidents, including traffic stops, crashes, and driving under the influence of drugs or alcohol
- Drug overdoses, including past non-fatal overdoses and incidents where other people had overdosed. This category does not include the fatal overdose of the person.
- Other incidents related to drugs or alcohol, such as public intoxication and consuming or selling drugs
- · Mental health related incidents
- Welfare checks
- Theft, burglary, larceny or fraud
- Domestic disturbances or assault, including verbal and physical altercations
- Other violence or assault
- Threats and harassment

People who interacted with law enforcement more than five times in the year leading up to their death may have had interactions within these categories that are not included in this analysis. Therefore, percentages may be an underestimate of all interactions that occurred in that category in the year before death. Interactions were categorized regardless of the person's role (complainant, victim, person of interest, offender, etc.) in the incident.

Among Vermonters who died of an overdose and had at least one interaction with law enforcement in the year before their death, one in three had a motor vehicle-related reason as one of their most recent interactions.



<sup>\*</sup> Suppressed for confidentiality reasons

# How does this compare to previous years?

The methodology for Department of Public Safety data collection and analysis differs from previous iterations of the Social Autopsy Report. Therefore, these data are only available for 2022 and 2023 and can also be found in the <u>Appendix</u>.

# **Incarceration History**

(Source: Department of Corrections)

# **Incarceration History**

# **Department of Corrections Data**

Data from the Vermont Department of Corrections (DOC) was reviewed to determine whether people who died in 2022 and 2023 from an unintentional overdose had been recently incarcerated and if so, whether they had participated in a substance use screening or treatment during their incarceration. Notably, the DOC's medication for opioid use disorder (MOUD) program was in a pilot phase in 2017. This program allowed people who were incarcerated to continue all forms of federally approved MOUD with a verified prescription – the only standard of care during the timeframe. It did not allow for people to start MOUD treatment. When Act 176 went into effect on July 1, 2018, the DOC was directed to not only continue all forms of federally approved and verified MOUD, but to also start people on buprenorphine (one type of medication that can be used to treat opioid use disorder) when it was medically necessary, and the person elected to begin the treatment. 2020 was the first year this was the standard for care for people while in a correctional facility.

The analyses in this report cannot fully describe the scope of, or reflect on, the DOC's current treatment practices of those with substance-use disorder within Vermont correctional facilities. Moreover, because the number of people included in this data is very small (N=73), with little time spent within the correctional facility (median = 4 days), and involves only a one-year snapshot, larger, longitudinal datasets are needed to draw predictive conclusions and provide a more comprehensive narrative.

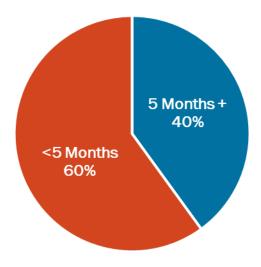
# **General Incarceration History**

Of the 248 people who died of an unintentional drug overdose in 2022, 13% (32) had been incarcerated within a year of their death. Of the 243 people who died in 2023, 17% (41) had been incarcerated within a year of their death.

Of the 73 people who died in 2022 and 2023 (combined) who were incarcerated in the year before their death, about 3 in 4 (74%) were male and 1 in 4 (26%) were female, transgender or unknown. Approximately 93% were white. The mean age of this population was 41 years.

The median length of stay was four days for their most recent incarceration. Of those who were incarcerated within a year of their death, 60% died less than five months after release.

Among those who were incarcerated in the year before their death, most died less than five months after release.



# **Substance Use Screening and Treatment**

Approximately 73% of the people who were incarcerated within one year of their death in 2022 or 2023 were screened for substance-use disorder upon entering a correctional facility. Those who were not screened upon incarceration were either incarcerated for one day or less or refused, so they did not receive an intake screening. About 37% received MOUD while incarcerated. Those who did not receive MOUD while incarcerated were released within 24 hours or less after admission or did not express an interest in receiving MOUD.

# How does this compare to previous years?

Data from 2019 through 2023 can be found in the Appendix.

# **Impaired Driving Offenses**

(Source: Impaired Driver Rehabilitation Program)

# **Impaired Driving Offenses**

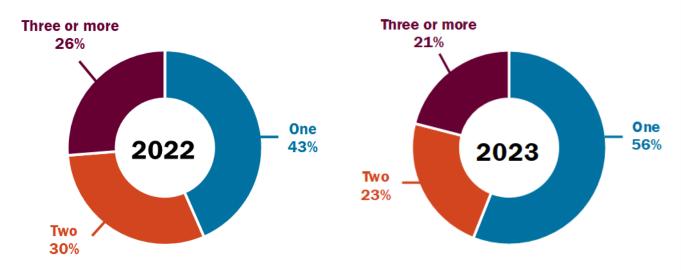
# **Impaired Driver Rehabilitation Program**

The Impaired Driver Rehabilitation Program (IDRP) is a program administered by the Department of Health Division of Substance Use Programs that provides screening, education, and referral to substance use treatment services for people who have received a conviction for operating a motor vehicle under the influence of alcohol or other substances. People are not eligible to have their unrestricted driver's license reinstated by the Department of Motor Vehicles until the person has successfully completed the IDRP. IDRP clinical evaluators screen people with a first offense to determine if additional SUD treatment with a licensed counselor is required (people with more than one impaired driving offense are required to complete treatment).

# **Impaired Driving Offenses**

A similar percentage of people who died of an overdose in 2022 and 2023 had an impaired driving offense in the IDRP database within 20 years of their death (19% in 2022 and 21% in 2023). Among people who died in 2022 and 2023 with an impaired driving offense in the database, most were male (76% in 2022 and 73% in 2023) and in their early to mid-forties (average age at time of death was 44 in 2022 and 41 in 2023). More than half of people who died in 2022 and had an offense in the IDRP database had two or more impaired driving offenses (56%), while most people who died in 2023 had only one offense (56%).

Most Vermonters who died of an overdose in 2022 or 2023 and had an offense in the IDRP database within the last 20 years had one or two offenses.



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All IDRP participants are required to complete the IDRP education program and are screened for referral to treatment with a licensed counselor. Of the 46 people who died in 2022 and had at least one offense in the IDRP database, 89% had a completed screening. Similarly, 88% of the 52 people who died in 2023 and had at least one offense in the IDRP database completed a screening.

While the treatment component of IDRP falls outside of the scope of this report, most people who had an offense attended the IDRP class (87% in both 2022 and 2023). The class completion rate was also high (100% in 2022 and 98% in 2023). These percentages are similar to the percentage of all IDRP clients in Vermont who completed the class in 2022 and 2023.

# How does this compare to previous years?

More information on how these data compare to data from 2019 through 2023 can be found in the Appendix.

# Interactions with the Department of Mental Health

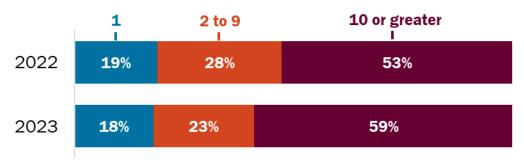
(Source: Department of Mental Health)

# **Interactions with the Department of Mental Health**

The Department of Health partnered with the Department of Mental Health (DMH) to identify people who died of an overdose and were seen by a <u>Vermont Designated Agency (DA) or Specialized Service Agency (SSA)</u> during the year before their death.<sup>16</sup>

In 2022, 74 of the 248 (30%) Vermonters who died of an overdose interacted with either a DA or SSA in the year before they died. Of these 74, 53% had 10 or more interactions. In 2023, 39 of the 243 (16%) Vermonters who died of an overdose interacted with a DA or SSA in the year before they died, and 59% of these had 10 or more interactions.

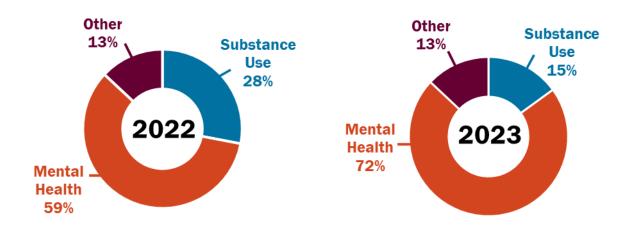
More than half of Vermonters who died of an overdose in 2022 or 2023 and previously interacted with a DA or SSA had 10 or more interactions.



In 2022, 28% of the diagnoses the Department of Mental Health reported for people who died of an overdose were substance-use related. In 2023, 15% of the diagnoses the DMH reported for people who died of an overdose were substance-use related. Most diagnoses were related to mental health, such as anxiety disorder or major depressive disorder (59% in 2022 and 72% in 2023). Of note, some DAs are certified by the Vermont Department of Health Division of Substance Use Programs as a Preferred Provider that offers specialized substance use disorder care.

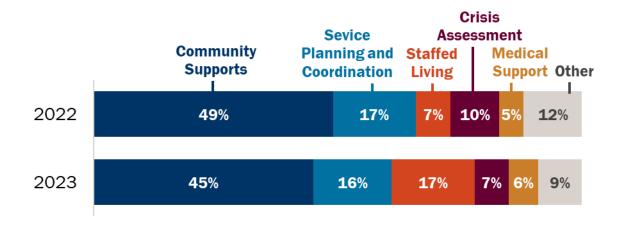
<sup>&</sup>lt;sup>16</sup> The Department of Mental Health has oversight over Designated Agencies and Specialized Service Agencies but not primary care providers who are treating people with mental health disorders. In addition, if a person receives mental healthcare at a location other than a DA or SSA, they would not be included in this data, so it may underrepresent mental health interactions.

Most diagnoses were mental health related. The second most common diagnosis category was substance use related.



The 74 Vermonters who died of an overdose in 2022 received a total of 3,161 mental health services (i.e., individual interactions) in the year they died. The 39 Vermonters who died of an overdose in 2023 received a total of 1,235 mental health services in the year they died. The most common types of services used in 2022 and 2023 included: community supports, staffed living, service planning and coordination, emergency/crisis assessments, and medication/medical support/consult services. The remaining types, including individual and group therapy, made up less than 15% of the total types of services.

Community supports were the most used service among Vermonters who died of an overdose in 2022 and 2023 who interacted with a DA or SSA.



Of the 3,161 services in 2022 and the 1,235 services in 2023, more than half took place in an office or a community setting (57% in 2022 and 51% in 2023).

# Location of Services Received by Vermonters who Died of an Overdose who Interacted with a DA or SSA

| Location                       | 2022 | 2023 |
|--------------------------------|------|------|
| Office                         | 34%  | 31%  |
| Community                      | 23%  | 20%  |
| Telemedicine                   | 17%  | 14%  |
| Home                           | 10%  | 11%  |
| Other (ER, schools, hospitals) | 15%  | 24%  |

# How does this compare to previous years?

Data from 2019 through 2023 can be found in the Appendix.

# **Employment Rates and Unemployment Claims**

(Source: Department of Labor)

# **Employment Rates and Unemployment Claims**

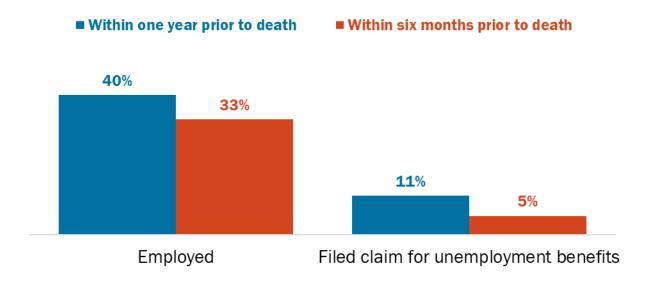
# **Unemployment Claims**

The Department of Health partnered with the Vermont Department of Labor (VDOL) to assess rates of employment, unemployment claims, industry of employment and wages earned among Vermonters who died of a drug overdose in 2022 and 2023. The following caveats should be taken into consideration when interpreting the data below:

- The data only include jobs in Vermont that are covered by unemployment insurance.
   For example, most self-employed and agricultural jobs are excluded from the data,
   among others. Additionally, a small share of Vermonters work in another state and
   are not included in the data.
- Of the 248 Vermonters who died of overdose in 2022, 214 (86%) had valid Social Security numbers associated with their death certificate. While some percentages are reported using a denominator of 248, the missing data should be noted.
- Of the 243 Vermonters who died of overdose in 2023, 209 (86%) had valid Social Security numbers associated with their death certificate. While some percentages are reported using a denominator of 243, the missing data should be noted.

In 2022, 99 of the 248 (40%) Vermonters who died of overdose were employed in Vermont in the year before they died, while 82 (33%) were employed in the six months before they died. Additionally, 27 people (11%) filed a claim to receive unemployment benefits in the year before they died, while 13 (5%) filed a claim in the six months before they died.

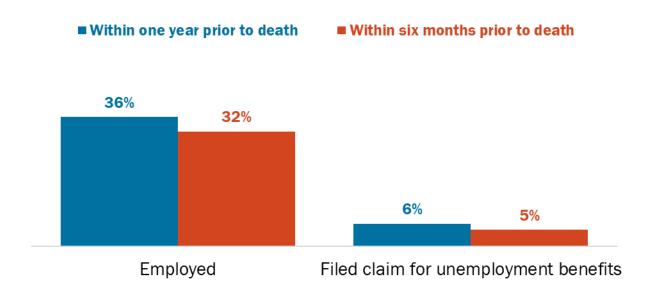
One in three of Vermonters who died of an overdose in 2022 were employed in the six months prior to their death.



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In 2023, 88 of the 243 (36%) Vermonters who died of overdose were employed in the year before they died, while 78 (32%) were employed in the six months before they died. Additionally, 15 people (6%) filed a claim to receive unemployment benefits in the year before they died, while 11 (5%) filed a claim in the six months before they died.

One in three Vermonters who died of an overdose in 2023 were employed in the six months prior to their death.



# **Industry of Employment and Wages in 2021 and 2022**

# **Industry of Employment**

The following data differ slightly from those presented in the <u>Vital Statistics</u> section of this report. In addition to the caveats described above, the data below refer to the industry where the person worked in 2021 and 2022, whereas the industry described on the death certificate refers to the work performed during most of the person's working life. Additionally, VDOL data are obtained from verified employment records, while death certificate data are typically collected from interviews with family and friends.

Similar to the data in the Vital Statistics section of this report, Vermonters who died of overdose in 2022 and were employed in 2021 were statistically more likely to work in construction than Vermonters overall (20% vs 6%). Likewise, Vermonters who died of overdose in 2023 and were employed in 2022 were statistically more likely to work in construction than Vermonters overall (16% vs 6%).

# Industry of Primary Wages in 2021 among Vermont Workers Who Died of an Overdose in 2022 Compared to Vermont Workers Overall

| Industry                             | Number of<br>VT Workers<br>who Died of<br>Overdose | Percent of<br>VT Workers<br>who Died of<br>Overdose | Overall<br>Number of<br>VT Workers | Percent of<br>Overall VT<br>Workers |
|--------------------------------------|--|---|------------------------------------|-------------------------------------|
| Accommodation and Food Services      | 16   | 18.0%   | 41,299                             | 11.4%                               |
| Administrative and Waste Services    | 13   | 14.6%   | 17,586                             | 4.9%                                |
| Construction                         | 18   | 20.2%   | 20,437                             | 5.7%                                |
| Education and Health                 | *  | *   | 43,562                             | 12.1%                               |
| Information                          | 0  | 0.0%  | 4,817                              | 1.3%                                |
| Manufacturing                        | *  | *   | 34,408                             | 9.5%                                |
| Natural Resources and Mining         | 0  | 0.0%  | 5,688                              | 1.6%                                |
| Trade, Transportation, and Utilities | 23   | 25.8%   | 66,662                             | 18.5%                               |
| Unclassified                         | 0  | 0.0%  | 636                                | 0.2%                                |
| Other**                              | 9  | 10.1%   | 125,789                            | 34.9%                               |

<sup>\*</sup>Suppressed for confidentiality reasons.

<sup>\*\*</sup>Combined due to confidentiality standards. This category includes Finance and Insurance; Real Estate and Rental and Leasing; Professional, Scientific, and Technical Services; Management of Companies and Enterprises; Health Care and Social Assistance; Arts, Entertainment, and Recreation; Other Services; and Public Administration

# Industry of Primary Wages in 2022 Among Vermont Workers Who Died of an Overdose in 2023 Compared to Vermont Workers Overall

| Industry                             | Number of<br>VT Workers<br>who Died of<br>Overdose | Percent of<br>VT Workers<br>who Died of<br>Overdose | Overall<br>Number of<br>VT Workers | Percent of<br>Overall VT<br>Workers |
|--------------------------------------|--|---|------------------------------------|-------------------------------------|
| Accommodation and Food Services      | 16   | 20.8%   | 44,612                             | 12.0%                               |
| Administrative and Waste Services    | *  | *   | 18,787                             | 5.1%                                |
| Construction                         | 12   | 15.6%   | 20,450                             | 5.5%                                |
| Education and Health                 | 0  | 0.0%  | 45,236                             | 12.2%                               |
| Information                          | 0  | 0.0%  | 5,397                              | 1.5%                                |
| Manufacturing                        | 13   | 16.9%   | 34,613                             | 9.3%                                |
| Natural Resources and Mining         | *  | *   | 5,543                              | 1.5%                                |
| Trade, Transportation, and Utilities | 13   | 16.9%   | 66,461                             | 17.9%                               |
| Unclassified                         | 1  | 1.3%  | 740                                | 0.2%                                |
| Other**                              | 16   | 20.8%   | 128,771                            | 34.7%                               |

<sup>\*</sup>Suppressed for confidentiality reasons.

#### **Wages**

Of the Vermonters who died of an overdose in 2022 and 2023 and were employed in the years prior to their death, most earned annual wages below the Federal Poverty Level (FPL) for a single income. Among 2022 decedents, in 2017, 2018, and 2019, the median income was less than 100% of the FPL. In other words, at least half of the Vermonters who died of an overdose in 2022 and were employed earned below the FPL in those years. Among 2023 decedents, the median income was less than 100% of the FPL in 2018 and 2020.

<sup>\*\*</sup>Combined due to confidentiality standards. This category includes Finance and Insurance; Real Estate and Rental and Leasing; Professional, Scientific, and Technical Services; Management of Companies and Enterprises; Health Care and Social Assistance; Arts, Entertainment, and Recreation; Other Services; and Public Administration

The VDOL information below are specific to the person who died and do not take into account the income of others within their household. Therefore, comparisons to FPL guidelines may be imprecise due to unaccounted additional household income and increased FPL based on the number of people in the person's household.

# Annual Wages of Vermonters Employed between 2016 and 2021 among Vermont Residents Who Died in 2022

| Year | Number of VT<br>Residents who<br>Died of<br>Overdose | Median Wages of<br>VT Residents<br>who Died of<br>Overdose | Overall<br>Number of VT<br>Workers | Median<br>Wages of VT<br>Workers | Federal<br>Poverty<br>Level |
|------|--|--|------------------------------------|----------------------------------|-----------------------------|
| 2021 | 89   | \$13,912   | 360,884                            | \$33,495                         | \$12,880                    |
| 2020 | 93   | \$13,299   | 356,871                            | \$31,136                         | \$12,760                    |
| 2019 | 95   | \$10,630   | 361,813                            | \$31,199                         | \$12,490                    |
| 2018 | 97   | \$11,326   | 370,460                            | \$29,141                         | \$12,140                    |
| 2017 | 99   | \$10,934   | 369,142                            | \$27,949                         | \$12,060                    |
| 2016 | 108  | \$12,746   | 367,563                            | \$27,288                         | \$11,880                    |

# Annual Wages of Vermonters Employed between 2016 and 2022 among Vermont Residents Who Died in 2023

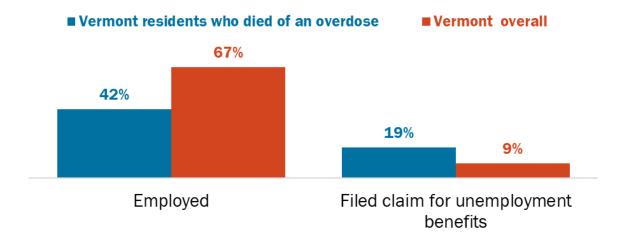
| Year | Number of VT<br>Residents who<br>Died of<br>Overdose | Median Wages of<br>VT Residents<br>who Died of<br>Overdose | Overall<br>Number of VT<br>Workers | Median<br>Wages of VT<br>Workers | Federal<br>Poverty<br>Level |
|------|--|--|------------------------------------|----------------------------------|-----------------------------|
| 2022 | 77   | \$17,997   | 370,610                            | \$36,259                         | \$13,590                    |
| 2021 | 75   | \$17,122   | 360,884                            | \$33,495                         | \$12,880                    |
| 2020 | 87   | \$7,787  | 356,871                            | \$31,136                         | \$12,760                    |
| 2019 | 98   | \$14,315   | 361,813                            | \$31,199                         | \$12,490                    |
| 2018 | 90   | \$11,742   | 370,460                            | \$29,141                         | \$12,140                    |
| 2017 | 85   | \$13,760   | 369,142                            | \$27,949                         | \$12,060                    |
| 2016 | 84   | \$13,783   | 367,563                            | \$27,288                         | \$11,880                    |

# How do employment and unemployment benefits compare to Vermont overall?

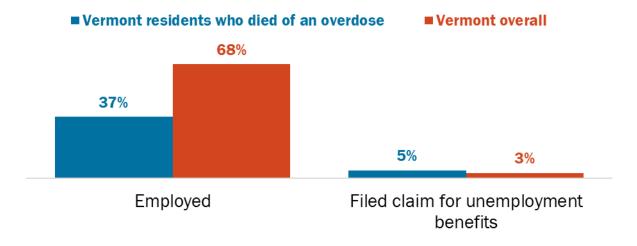
To compare rates of employment and unemployment claims among Vermonters who died of overdose in 2022 to Vermont overall, VDOL analyzed records from 2021 to ensure a full year of employment was represented. For Vermonters who died of overdose in 2023, VDOL analyzed records from 2022. Statistically fewer Vermonters who died of overdose in 2022

were employed in 2021 compared to Vermont overall (42% employed vs 67% employed). Similarly, statistically fewer Vermonters who died of overdose in 2023 were employed in 2022 compared to Vermont overall (37% employed vs 68% employed).

2021 employment rates among those who died of an overdose in 2022 were significantly lower than those of Vermont overall. Unemployment claim rates were higher for those who died of an overdose.



2022 employment rates among those who died of an overdose in 2023 were significantly lower than those of Vermont overall.



# How does this compare to prior years?

Data from 2021 can be found in the Appendix.

## Homelessness Services Utilization Among Vermonters who Died of Overdose

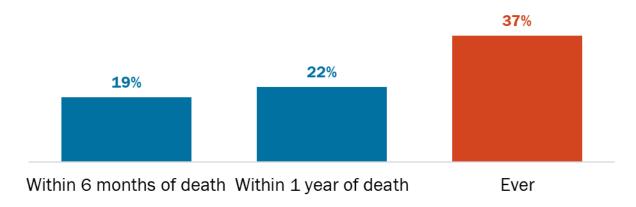
(Source: Institute for Community Alliances)

#### Homelessness Services Utilization Among Vermonters who Died of Overdose

The Department of Health partnered with the <u>Institute for Community Alliances</u> (ICA) to assess rates of homelessness services utilization among Vermonters who died of a drug overdose in 2022 and 2023. Homelessness services are defined as programs that serve people who are unhoused or at risk of being unhoused. ICA provides technical support and guidance for Vermont's continua of care (CoCs), which provide direct services to Vermonters experiencing homelessness or at risk of homelessness. The data in this section come from ICA's Homelessness Management Information System (HMIS).

Of the 491 Vermonters who died of a drug overdose in 2022 and 2023, 37% (183) received homelessness services at any point prior to their death from overdose (90 people who died in 2022 and 93 who died in 2023). More than one in five (109) received homelessness services in the year prior to death, while 19% (94) received these services within the six months prior to death.

More than one-third of Vermonters who died of an overdose in 2022 or 2023 received homelessness services at some point in their lives.



Those who received homelessness services typically had multiple contacts with CoCs. This group had 658 total interactions with CoCs at any point in their lives, with a median of three contacts per person. The median number of days they were served by homelessness services providers was 615 days, or about 1.7 years. The median number of days served increases to 968 among those who received homelessness services within a year of their death.

#### **Service Type**

Vermonters who died of overdose in 2022 or 2023 accessed several different types of homelessness services.

# Number of Vermont Residents who Died of Overdose by Service Type Received (2022 and 2023 Overdose Deaths)

| Service Type      | Definition via HUD Exchange <sup>17</sup>   | # of People |
|-------------------|---|-------------|
| Emergency Shelter | Emergency Shelter activities are designed to increase the quantity and quality of temporary shelters provided to people experiencing homelessness through the renovation of existing shelters or conversion of buildings to shelters, paying for the operating costs of shelters, and providing essential services.   | 77          |
| Rapid Rehousing   | RRH is permanent housing that provides short-term (up to three months) and medium-term (4-24 months) tenant-based rental assistance and supportive services to households experiencing homelessness.  | 51          |
| Street Outreach   | Street Outreach activities are designed to meet the immediate needs of people experiencing homelessness in unsheltered locations by connecting them with emergency shelter, housing, or critical services, and providing them with urgent, non-facility-based care. Component services generally consist of engagement, case management, emergency health and mental health services, and transportation. | 21          |

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 $<sup>^{17}\ \</sup>underline{\text{https://www.hudexchange.info/homelessness-assistance/coc-esg-virtual-binders/esg-program-components/overview/}$ 

# How does homelessness services utilization compare to Vermonters overall?

People who died of an overdose were statistically more likely to have received homelessness services (21% in 2022, 24% in 2023) than the approximately 3% of Vermonters who received these services in both 2022 and 2023. Vermonters in general who received homelessness services in 2022 and 2023 had the same median number of contacts with CoCs (three) compared to people who died of overdose.

#### How does this compare to prior years?

Data from 2021 can be found in the Appendix.

## **Discussion**

#### **Discussion**

#### **Discussion and Implications**

This is the fifth iteration of the Vermont Social Autopsy Report analyzing the interactions that people who died of an overdose with various State of Vermont and partner programs prior to death.

The 2022–2023 Vermont Social Autopsy Report reveals trends and significant shifts in the patterns of overdose deaths in the state. While the overall number of fatal overdoses decreased slightly from 2022 (248 deaths) to 2023 (243 deaths), both years yielded a higher number of deaths than the previous Social Autopsy of 2021 data, which saw 231 deaths. This persistently high toll—491 lives lost over two years—underscores the continued urgency of addressing overdose as a complex public health crisis. Key findings are highlighted in the <a href="Executive Summary">Executive Summary</a>. Trend data for all sections of the report are in the Appendix.

The presence of social and health risk factors among those who died of overdose continues to mirror findings from earlier years but with some escalations. People who died of an overdose were less likely to be employed and had lower incomes than the overall Vermont population. Nearly one in five people had not been in contact with anyone for two or more days prior to their death, which is a concerning indicator of social isolation. One in three had a known history of a prior overdose. These data indicate not only high baseline risk factors but also opportunities where targeted intervention could have been deployed more proactively.

The recurrence of use following abstinence remains a key risk factor. Sixteen percent of those who died had recently returned to use, with many doing so within two weeks of their death. This pattern, coupled with the elevated risk following institutional discharge, particularly from hospitals, reiterates the critical need for timely and robust continuity of care, including harm reduction education and medication for opioid use disorder (MOUD) initiation at the point of discharge. Data from VPMS show a decrease in the percentage of people who had an active MOUD prescription in VPMS at the time of their death (12% in 2022 and 9% in 2023) in comparison to within five years of their death (37% for both 2022 and 2023). Additionally, VPMS does not include prescriptions from Hubs, so it may undercount the number of people who receive MOUD.

Behind each datapoint included in this report is a person. The robust review of interactions with many state entities provides valuable insights into opportunities for interventions that are more likely to reach people before a fatal overdose occurs. While the decline in overdose deaths is cause for cautious optimism, the enduring presence of multiple high-risk factors and evolving drug trends suggests that Vermont must not only continue its work but also accelerate and adapt it. A compassionate, evidence-informed, and equity-focused approach remains essential if we are to prevent further unnecessary loss of life.

## Appendix

#### **Vital Statistics**

| Measure                                       | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|------|------|------|------|------|
| Vermonters who died of overdose in<br>Vermont | 113  | 172  | 231  | 248  | 243  |
|   |      |      |      |      |      |
| Education                                     |      |      |      |      |      |
| High school or less                           | 71%  | 70%  | 78%  | 81%  | 77%  |
| Any college                                   | 29%  | 30%  | 22%  | 17%  | 20%  |
| Sex   |      |      |      |      |      |
| Male  | 66%  | 69%  | 68%  | 68%  | 73%  |
| Female  | 34%  | 31%  | 32%  | 32%  | 27%  |
| Age   |      |      |      |      |      |
| <18   | 0%   | 1%   | 0%   | 1%   | 1%   |
| 18 to 24                                      | 6%   | 4%   | 7%   | 4%   | 3%   |
| 25 to 34                                      | 27%  | 26%  | 22%  | 19%  | 15%  |
| 35 to 44                                      | 31%  | 23%  | 32%  | 30%  | 33%  |
| 45 to 54                                      | 21%  | 29%  | 23%  | 27%  | 23%  |
| 55+   | 14%  | 17%  | 17%  | 20%  | 25%  |
|   |      |      |      |      |      |

| Measure                                   | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|------|------|------|------|------|
| Marital status                            |      |      |      |      |      |
| Never married                             | 65%  | 59%  | 60%  | 53%  | 54%  |
| Divorced/separated                        | 21%  | 27%  | 26%  | 35%  | 33%  |
| Married                                   | 12%  | 13%  | 13%  | 10%  | 9%   |
| Widowed                                   | 3%   | 2%   | 2%   | 1%   | 3%   |
| Race/ethnicity                            |      |      |      |      |      |
| BIPOC                                     | 11%  | 3%   | 6%   | 6%   | 5%   |
| White, non-Hispanic                       | 89%  | 97%  | 94%  | 94%  | 95%  |
|   |      |      |      |      |      |
| Drug involvement                          |      |      |      |      |      |
| Fentanyl                                  | 74%  | 74%  | 83%  | 84%  | 85%  |
| Heroin                                    | 29%  | 23%  | 10%  | 9%   | 3%   |
| Prescription opioids (excluding fentanyl) | 26%  | 22%  | 20%  | 19%  | 18%  |
| Cocaine                                   | 44%  | 39%  | 45%  | 49%  | 62%  |
| Alcohol                                   | 15%  | 9%   | 16%  | 18%  | 20%  |
| Fentanyl and heroin                       | 27%  | 22%  | 10%  | 9%   | 3%   |
| Fentanyl and cocaine                      | 35%  | 29%  | 41%  | 43%  | 54%  |
| Cocaine and heroin                        | 12%  | 7%   | 4%   | 5%   | 2%   |

| Measure  | 2019  | 2020  | 2021                                     | 2022                                     | 2023  |
|--|---|---|--|--|---|
| Drug involvement (continued)                     |   |   |  |  |   |
| Fentanyl and prescription opioids                | 15%   | 13%   | 15%                                      | 14%                                      | 14%   |
| Cocaine, heroin, and fentanyl                    | 12%   | 6%  | 4%                                       | 5%                                       | 2%  |
|  |   |   |  |  |   |
| Occupation                                       |   |   |  |  |   |
| Management, business, science, arts              | 16%   | 15%   | 13%                                      | 8%                                       | 13%   |
| Service  | 20%   | 23%   | 19%                                      | 23%                                      | 22%   |
| Sales and office                                 | 8%  | 8%  | 10%                                      | 11%                                      | 7%  |
| Natural resources, construction, and maintenance | 25%   | 23%   | 26%                                      | 27%                                      | 29%   |
| Production, transportation, and material moving  | 8%  | 11%   | 12%                                      | 7%                                       | 10%   |
| Industry   |   |   |  |  |   |
| 1  | Construction (23%)                              | Construction (22%)                              | Construction (23%)                       | Construction (23%)                       | Construction (23%)                              |
| 2  | Accommodation<br>/Food Services<br>(12%)        | Accommodation<br>/Food Services<br>(13%)        | Accommodation<br>/Food Services<br>(12%) | Accommodation<br>/Food Services<br>(11%) | Accommodation<br>/Food Services<br>(11%)        |
| 3  | Health Care and<br>Social<br>Assistance<br>(8%) | Health Care and<br>Social<br>Assistance<br>(9%) | Manufacturing<br>(9%)                    | Retail (8%)                              | Health Care and<br>Social<br>Assistance<br>(9%) |

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| Measure                      | 2019 | 2020 | 2021 | 2022 | 2023 |
|------------------------------|------|------|------|------|------|
| Place of injury              |      |      |      |      |      |
| Home                         | 86%  | 69%  | 72%  | 77%  | 77%  |
| Motel                        | 4%   | 9%   | 13%  | 7%   | 6%   |
| Parking lot/car              | 2%   | 5%   | 0%   | 1%   | 1%   |
| Work                         | 2%   | 1%   | 0%   | 0%   | 0%   |
| Other/unknown                | 7%   | 16%  | 14%  | 15%  | 16%  |
|                              |      |      |      |      |      |
| Place of death               |      |      |      |      |      |
| Home                         | 68%  | 60%  | 61%  | 78%  | 79%  |
| Emergency room               | 8%   | 4%   | 5%   | 6%   | 5%   |
| Inpatient                    | 4%   | 5%   | 2%   | 2%   | 1%   |
| Hospital intensive care unit | 1%   | 5%   | 2%   | 2%   | 2%   |
| Nursing home                 | 0%   | 0%   | 0%   | 0%   | 0%   |
| Other                        | 19%  | 26%  | 31%  | 12%  | 13%  |

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

| Measure   | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|------|------|------|------|------|
| Substance use history                               |      |      |      |      |      |
| Substance use disorder                              | 95%  | 92%  | 93%  | 93%  | 97%  |
| Alcohol use disorder                                | 30%  | 32%  | 36%  | 39%  | 45%  |
|   |      |      |      |      |      |
| Social isolation                                    |      |      |      |      |      |
| Last heard from two or more days before their death | 17%  | 13%  | 16%  | 18%  | 19%  |
|   |      |      |      |      |      |
| Unemployed  | 25%  | 22%  | 24%  | 25%  | 20%  |
| Without housing                                     | 10%  | 8%   | 8%   | 5%   | 11%  |
|   |      |      |      |      |      |
| Mental Health                                       | 44%  | 52%  | 45%  | 60%  | 61%  |
| Depression  | 31%  | 28%  | 26%  | 38%  | 43%  |
| Anxiety   | 15%  | 27%  | 24%  | 31%  | 37%  |
| Two or more mental health diagnoses                 | 20%  | 26%  | 27%  | 35%  | 40%  |
| Three or more mental health diagnoses               | 11%  | 9%   | 12%  | 16%  | 20%  |
|   |      |      |      |      |      |
|   |      |      |      |      |      |

| Measure                                      | 2019 | 2020 | 2021 | 2022 | 2023 |
|--|------|------|------|------|------|
| Suicidal thoughts or behavior                |      |      |      |      |      |
| Thoughts of suicide                          | 10%  | 9%   | 9%   | 11%  | 16%  |
| Past suicide attempt                         | 9%   | 6%   | 5%   | 6%   | 8%   |
| Chronic disease                              |      |      |      |      |      |
| Hypertension                                 | 24%  | 24%  | 24%  | 31%  | 32%  |
| Heart disease                                | 17%  | 20%  | 24%  | 30%  | 41%  |
| Diabetes                                     | 11%  | 10%  | 11%  | 13%  | 10%  |
| Asthma                                       | 10%  | 11%  | 7%   | 13%  | 11%  |
| Chronic obstructive pulmonary disease (COPD) | 15%  | 16%  | 11%  | 19%  | 15%  |
| Back Pain                                    | 9%   | 7%   | 4%   | 16%  | 19%  |
| Other Chronic Pain                           | 17%  | 13%  | 16%  | 27%  | 29%  |
| Hepatitis C                                  | 11%  | 10%  | 9%   | 18%  | 22%  |
|  |      |      |      |      |      |
|  |      |      |      |      |      |
|  |      |      |      |      |      |
|  |      |      |      |      |      |
|  |      |      |      |      |      |

| Measure  | 2019 | 2020 | 2021 | 2022 | 2023 |
|--|------|------|------|------|------|
| Type of Overdose   |      |      |      |      |      |
| Related to substance use/misuse  | 96%  | 93%  | 95%  | 95%  | 97%  |
| Related to overmedication from prescribed medications                                  | 2%   | 3%   | 0%   | 2%   | 0%   |
| Unintentionally took a drug or the wrong dose  | 0%   | 1%   | 0%   | 0%   | 0%   |
| Other  | 0%   | 1%   | 0%   | 0%   | 0%   |
| Insufficient information on type of overdose   | 2%   | 2%   | 5%   | 3%   | 2%   |
|  |      |      |      |      |      |
| History of opioid use recurrence   | 17%  | 21%  | 18%  | 16%  | 16%  |
| Of those with a history of recurrence, the recurrence occurred within 2 weeks of death | 26%  | 40%  | 24%  | 32%  | 44%  |
|  |      |      |      |      |      |
| Recent release from institution  | 9%   | 9%   | 6%   | 13%  | 14%  |
| Of those with recent release, the facility was a                                       |      |      |      |      |      |
| Jail, prison, or detention facility  | 30%  | 20%  | 36%  | *    | *    |
| Hospital (including psychiatric hospital)  | 50%  | 53%  | 64%  | 71%  | 65%  |
| Residential facility   | 20%  | 27%  | 0%   | *    | *    |
| Unknown facility type  | 0%   | 0%   | 0%   | 0%   | *    |

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| Measure  | 2019 | 2020 | 2021 | 2022 | 2023 |
|--|------|------|------|------|------|
| Of those who experienced a recurrence in use, % who were recently released from an institution | 16%  | 20%  | 20%  | 26%  | 28%  |
| History of overdose  | 20%  | 17%  | 16%  | 23%  | 31%  |
| Of those who had previously experienced an overdose, the overdose occurred                     |      |      |      |      |      |
| Within the last month  | 9%   | 10%  | 40%  | 34%  | 24%  |
| Between 1 month and 1 year before death  | 41%  | 24%  | 11%  | 41%  | 49%  |
| More than 1 year before death  | 32%  | 21%  | 17%  | 18%  | 16%  |
| Method of Drug Use   |      |      |      |      |      |
| Injection  | 51%  | 41%  | 37%  | 41%  | 38%  |
| Ingestion  | 22%  | 11%  | 17%  | 15%  | 5%   |
| Snorting   | 24%  | 17%  | 20%  | 20%  | 21%  |
| Smoking  | 15%  | 19%  | 29%  | 35%  | 44%  |
| No reported method of use  | 11%  | 13%  | 13%  | 10%  | 10%  |
|  |      |      |      |      |      |
|  |      |      |      |      |      |

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| Measure   | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|------|------|------|------|------|
| Substance use was not witnessed                             | 82%  | 89%  | 61%  | 65%  | 62%  |
| And a bystander was not present at the time of the overdose | 42%  | 52%  | 41%  | 35%  | 35%  |
|   |      |      |      |      |      |
| Evidence of rapid overdose                                  | 12%  | 10%  | 5%   | 6%   | 14%  |

<sup>\*</sup> Suppressed due to small numbers

## **Statewide Incident Reporting Network (SIREN)**

| Measure  | 2019 | 2020 | 2021 | 2022 | 2023 |
|--|------|------|------|------|------|
| Vermonters who died of overdose in<br>Vermont                              | 113  | 172  | 231  | 248  | 243  |
|  |      |      |      |      |      |
| In SIREN database prior 5 years*   | 97   | 149  | 214  | 223  | 210  |
| Declared dead by EMS   | 77   | 116  | 172  | 175  | 161  |
| * Prior to 2022 all people in the SIREN database since 2015 were included. |      |      |      |      |      |
|  |      |      |      |      |      |
| Had EMS interaction prior to death (denominator for below)                 | 68   | 108  | 159  | 159  | 161  |
| Interaction types  |      |      |      |      |      |
| Substance use  | 51%  | 61%  | 58%  | 60%  | 61%  |
| Mental health  | 28%  | 36%  | 28%  | 24%  | 24%  |
| Motor vehicle accident   | 10%  | 21%  | 18%  | 16%  | 19%  |
| Other  | 65%  | 63%  | 74%  | 77%  | 72%  |
|  |      |      |      |      |      |
|  |      |      |      |      |      |
|  |      |      |      |      |      |
|  |      |      |      |      |      |

| Measure                               | 2019 | 2020 | 2021 | 2022 | 2023 |
|---------------------------------------|------|------|------|------|------|
| Number of interactions                |      |      |      |      |      |
| 1                                     | 49%  | 31%  | 32%  | 31%  | 32%  |
| 2 to 4                                | 34%  | 43%  | 43%  | 39%  | 32%  |
| 5 or more                             | 18%  | 27%  | 25%  | 30%  | 30%  |
| Median                                | 2    | 3    | 2    | 3    | 3    |
|                                       |      |      |      |      |      |
| Timing of interactions prior to death |      |      |      |      |      |
| One month prior                       | 15%  | 19%  | 14%  | 23%  | 23%  |
| One year prior                        | 53%  | 64%  | 53%  | 60%  | 65%  |
| More than one year prior              | 75%  | 78%  | 81%  | 74%  | 73%  |

## **Vermont Prescription Monitoring System (VPMS)**

| Measure  | 2019 | 2020 | 2021 | 2022 | 2023 |
|--|------|------|------|------|------|
| Vermonters who died of an overdose in<br>Vermont                                       | 113  | 172  | 231  | 248  | 243  |
|  |      |      |      |      |      |
| Percent of population with at least one prescription in class, one year prior to death |      |      |      |      |      |
| At least one opioid prescription in year before death                                  | 24%  | 26%  | 16%  | 18%  | 18%  |
| At least one benzodiazepine prescription in year before death                          | 21%  | 24%  | 20%  | 19%  | 18%  |
| At least one MOUD prescription in year before death                                    | 20%  | 22%  | 25%  | 27%  | 26%  |
| At least one stimulant prescription in year before death                               | 13%  | 13%  | 12%  | 8%   | 12%  |
|  |      |      |      |      |      |
| Prescriptions by MME category in year before death                                     |      |      |      |      |      |
| <50 MME  | 45%  | 41%  | 69%  | 49%  | 43%  |
| 50-90 MME  | 36%  | 14%  | 11%  | 21%  | 31%  |
| >90 MME  | 19%  | 45%  | 21%  | 30%  | 27%  |
|  |      |      |      |      |      |

| Measure   | 2019    | 2020    | 2021    | 2022    | 2023    |
|---|---------|---------|---------|---------|---------|
| Total MME per 100 individuals   | 393,782 | 641,887 | 261,808 | 343,940 | 341,038 |
| Average MME   | 73      | 191     | 61      | 111     | 92      |
|   |         |         |         |         |         |
| Percent of population with high-risk prescriptions in year before death |         |         |         |         |         |
| MOUD prescription   | 20%     | 22%     | 25%     | 27%     | 26%     |
| >90 MME   | 5%      | 5%      | 4%      | 4%      | 5%      |
| Overlapping opioid prescriptions  | 15%     | 12%     | 6%      | 8%      | 9%      |
| Overlapping opioid-benzodiazepine prescriptions                         | 6%      | 10%     | 4%      | 5%      | 5%      |
|   |         |         |         |         |         |
| Active prescription   |         |         |         |         |         |
| At time of death  | 27%     | 28%     | 26%     | 29%     | 21%     |
| Within 30 days of death   | 37%     | 37%     | 37%     | 37%     | 29%     |
| Within 1 year of death  | 53%     | 61%     | 54%     | 54%     | 51%     |
| Within 5 years of death   | 79%     | 85%     | 78%     | 74%     | 74%     |
|   |         |         |         |         |         |
|   |         |         |         |         |         |
|   |         |         |         |         |         |
|   |         |         |         |         |         |

| Active MOUD prescription       7%       5%       7%       12%         Within 30 days of death       10%       8%       16%       19%         Within 1 year of death       20%       22%       25%       27%         Within 5 years of death       31%       33%       31%       37%         Active high-dose analgesic prescription  | Measure                                 | 2019 | 2020 | 2021 | 2022 | 2023 |
|--|---|------|------|------|------|------|
| Within 30 days of death       10%       8%       16%       19%         Within 1 year of death       20%       22%       25%       27%         Within 5 years of death       31%       33%       31%       37%         Active high-dose analgesic prescription         At time of death       2%       2%       2%       2%         Within 30 days of death       3%       4%       2%       2%         Within 1 year of death       5%       5%       4%       4%         Within 5 years of death       20%       13%       9%       9%         Active overlapping opioid prescriptions       Active overlapping opioid prescriptions       0%       2%       0%       2%         Within 30 days of death       4%       5%       1%       4%         Within 1 year of death       15%       12%       6%       8%   | Active MOUD prescription                |      |      |      |      |      |
| Within 1 year of death       20%       22%       25%       27%         Within 5 years of death       31%       33%       31%       37%         Active high-dose analgesic prescription       At time of death       2%       2%       2%       2%         Within 30 days of death       3%       4%       2%       2%         Within 1 year of death       5%       5%       4%       4%         Within 5 years of death       20%       13%       9%       9%         Active overlapping opioid prescriptions       At time of death       0%       2%       0%       2%         Within 30 days of death       4%       5%       1%       4%         Within 1 year of death       15%       12%       6%       8%   | At time of death                        | 7%   | 5%   | 7%   | 12%  | 9%   |
| Within 5 years of death       31%       33%       31%       37%         Active high-dose analgesic prescription       2%       2%       2%       2%         At time of death       3%       4%       2%       2%         Within 30 days of death       5%       5%       4%       4%         Within 5 years of death       20%       13%       9%       9%         Active overlapping opioid prescriptions       At time of death       0%       2%       0%       2%         Within 30 days of death       4%       5%       1%       4%         Within 1 year of death       15%       12%       6%       8%   | Within 30 days of death                 | 10%  | 8%   | 16%  | 19%  | 12%  |
| Active high-dose analgesic prescription  At time of death  2%  Within 30 days of death  5%  Within 1 year of death  20%  Active overlapping opioid prescriptions  At time of death  0%  2%  0%  Within 30 days of death  13%  Active overlapping opioid prescriptions  At time of death  0%  2%  Within 30 days of death  4%  5%  1%  4%  Within 1 year of death  15%  12%  6%  8%   | Within 1 year of death                  | 20%  | 22%  | 25%  | 27%  | 26%  |
| At time of death       2%       2%       2%         Within 30 days of death       3%       4%       2%       2%         Within 1 year of death       5%       5%       4%       4%         Within 5 years of death       20%       13%       9%       9%         Active overlapping opioid prescriptions       At time of death       0%       2%       0%       2%         Within 30 days of death       4%       5%       1%       4%         Within 1 year of death       15%       12%       6%       8%   | Within 5 years of death                 | 31%  | 33%  | 31%  | 37%  | 37%  |
| Within 30 days of death       3%       4%       2%       2%         Within 1 year of death       5%       5%       4%       4%         Within 5 years of death       20%       13%       9%       9%         Active overlapping opioid prescriptions       Company of death       2%       0%       2%         Within 30 days of death       4%       5%       1%       4%         Within 1 year of death       15%       12%       6%       8%  | Active high-dose analgesic prescription |      |      |      |      |      |
| Within 1 year of death       5%       5%       4%       4%         Within 5 years of death       20%       13%       9%       9%         Active overlapping opioid prescriptions       Company of the comp | At time of death                        | 2%   | 2%   | 2%   | 2%   | 2%   |
| Within 1 year of death       20%       13%       9%       9%         Active overlapping opioid prescriptions       ————————————————————————————————————  | Within 30 days of death                 | 3%   | 4%   | 2%   | 2%   | 2%   |
| Active overlapping opioid prescriptions  At time of death  Within 30 days of death  Within 1 year of death  15%  Active overlapping opioid prescriptions  2%  0%  2%  4%  5%  1%  4%  8%   | Within 1 year of death                  | 5%   | 5%   | 4%   | 4%   | 5%   |
| At time of death       0%       2%       0%       2%         Within 30 days of death       4%       5%       1%       4%         Within 1 year of death       15%       12%       6%       8%  | Within 5 years of death                 | 20%  | 13%  | 9%   | 9%   | 8%   |
| Within 30 days of death       4%       5%       1%       4%         Within 1 year of death       15%       12%       6%       8%   | Active overlapping opioid prescriptions |      |      |      |      |      |
| Within 1 year of death         15%         12%         6%         8%   | At time of death                        | 0%   | 2%   | 0%   | 2%   | 2%   |
| Wildin's Lydal of dodd!  | Within 30 days of death                 | 4%   | 5%   | 1%   | 4%   | 5%   |
|  | Within 1 year of death                  | 15%  | 12%  | 6%   | 8%   | 9%   |
| Within 5 years of death 27% 33% 17% 17%  | Within 5 years of death                 | 27%  | 33%  | 17%  | 17%  | 15%  |
|  |   |      |      |      |      |      |

| Measure  | 2019 | 2020 | 2021 | 2022 | 2023 |
|--|------|------|------|------|------|
| Active overlapping opioid-<br>benzodiazepine prescriptions |      |      |      |      |      |
| At time of death   | 2%   | 2%   | 2%   | 3%   | 2%   |
| Within 30 days of death                                    | 3%   | 6%   | 3%   | 3%   | 2%   |
| Within 1 year of death                                     | 6%   | 10%  | 4%   | 5%   | 5%   |
| Within 5 years of death                                    | 16%  | 25%  | 11%  | 13%  | 9%   |
| Percent of prescription type active at time of death       |      |      |      |      |      |
| Analgesics   | 29%  | 21%  | 11%  | 19%  | 24%  |
| Benzodiazepines  | 31%  | 29%  | 26%  | 18%  | 23%  |
| MOUD   | 22%  | 14%  | 28%  | 33%  | 29%  |
| Stimulants   | 12%  | 26%  | 26%  | 19%  | 19%  |
| Other  | 6%   | 11%  | 9%   | 11%  | 6%   |
|  |      |      |      |      |      |
|  |      |      |      |      |      |
|  |      |      |      |      |      |
|  |      |      |      |      |      |
|  |      |      |      |      |      |

| Measure   | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|------|------|------|------|------|
| Percent of prescription type active within 30 days of death         |      |      |      |      |      |
| Analgesics  | 25%  | 27%  | 8%   | 16%  | 22%  |
| Benzodiazepines   | 22%  | 24%  | 24%  | 16%  | 18%  |
| MOUD  | 38%  | 26%  | 43%  | 47%  | 41%  |
| Stimulants  | 12%  | 18%  | 18%  | 15%  | 15%  |
| Other   | 4%   | 6%   | 7%   | 6%   | 5%   |
|   |      |      |      |      |      |
| Percent of prescriptions in each drug class, within 1 year of death |      |      |      |      |      |
| Analgesics  | 24%  | 27%  | 8%   | 14%  | 18%  |
| Benzodiazepines   | 18%  | 22%  | 23%  | 14%  | 15%  |
| MOUD  | 43%  | 31%  | 48%  | 52%  | 48%  |
| Stimulants  | 11%  | 14%  | 15%  | 15%  | 15%  |
| Other   | 4%   | 5%   | 7%   | 5%   | 4%   |
|   |      |      |      |      |      |
|   |      |      |      |      |      |
|   |      |      |      |      |      |
|   |      |      |      |      |      |

| Measure   | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|------|------|------|------|------|
| Percent of prescription type active within 5 years of death |      |      |      |      |      |
| Analgesics  | 33%  | 38%  | 17%  | 17%  | 17%  |
| Benzodiazepines   | 17%  | 21%  | 22%  | 14%  | 15%  |
| MOUD  | 33%  | 24%  | 38%  | 48%  | 49%  |
| Stimulants  | 9%   | 11%  | 15%  | 15%  | 15%  |
| Other   | 8%   | 6%   | 8%   | 6%   | 3%   |

<sup>\*</sup>Of the 172 people who died of an overdose in 2020, a small number (fewer than 6) were dispensed extremely high-MME prescriptions. These prescriptions make it appear as though 2020 has increased dramatically relative to previous years, however, because of these outliers, any results from 2020 involving MME should be interpreted with caution.

## **Department of Vermont Health Access**

| Measure                                       | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|------|------|------|------|------|
| Vermonters who died of overdose in<br>Vermont | 113  | 172  | 231  | 248  | 243  |
|   |      |      |      |      |      |
| Medicaid enrolled within 90 days              | 61%  | 64%  | 68%  | 77%  | 79%  |
|   |      |      |      |      |      |
| Overdose within one year prior to death       | 15%  | 16%  | 18%  | 20%  | 15%  |
| Overdose within 90 days prior to death        | 7%   | 12%  | 11%  | 13%  | 9%   |
|   |      |      |      |      |      |
| SUD diagnosis within year prior to death      | 67%  | 65%  | 72%  | 73%  | 73%  |
| SUD diagnosis 90 days prior to death          | 40%  | 47%  | 58%  | 55%  | 48%  |
|   |      |      |      |      |      |
| Treatment within year prior to death          | 45%  | 41%  | 49%  | 49%  | 37%  |
| Treatment within 90 days prior to death       | 24%  | 20%  | 34%  | 36%  | 23%  |

#### **Department for Children and Families**

| Measure                                       | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|------|------|------|------|------|
| Vermonters who died of overdose in<br>Vermont | 113  | 172  | 231  | 248  | 243  |
|   |      |      |      |      |      |
| Economic Services Division                    |      |      |      |      |      |
| Receiving 3SquaresVT                          | 47%  | 49%  | 47%  | 56%  | 63%  |
| Fuel Benefits                                 | 12%  | 11%  | 6%   | 13%  | 12%  |
| Reach Up                                      | 5%   | 3%   | 4%   | 4%   | 4%   |
| Burial costs paid by DCF                      | 39%  | 45%  | 41%  | 42%  | 49%  |
|   |      |      |      |      |      |
| Family Services Division                      |      |      |      |      |      |
| Involved with the FSD as a parent             | 36%  | 26%  | 26%  | 28%  | 26%  |
| Involved with the FSD as a child*             | 24%  | 20%  | 29%  | 26%  | 37%  |

<sup>\*</sup>The percentages for involvement with DCF as children have been recalculated compared to previous versions of this report. The denominator for these percentages is now all people who died of an overdose instead of people born in or after 1982.

## **Department of Public Safety**

| Measure   | 2022 | 2023 |
|---|------|------|
| Vermonters who died of overdose in Vermont                        | 248  | 243  |
|   |      |      |
| Number of interactions  |      |      |
| 0   | 38%  | 27%  |
| 1   | 14%  | 7%   |
| 2 to 5  | 29%  | 30%  |
| More than 5   | 19%  | 36%  |
| Median  | 3    | 5    |
|   |      |      |
| Median number of months between most recent interaction and death | 2    | 1    |
|   |      |      |
| Had an interaction with law enforcement in year prior to death    | 154  | 178  |
| (denominator for below)   | 154  | 110  |
|   |      |      |
| Interaction type  |      |      |
| Motor vehicle   | 33%  | 37%  |
| Theft   | 24%  | 15%  |
| Welfare check   | 19%  | 20%  |
| Domestic disturbance  | 16%  | 14%  |

| Measure                      | 2022 | 2023 |
|------------------------------|------|------|
| Interaction type (continued) |      |      |
| Drug overdose                | 14%  | 14%  |
| Other drug/alcohol           | 14%  | 20%  |
| Violence                     | 12%  | 13%  |
| Threats/harassment           | 8%   | 8%   |
| Mental health                | *    | 10%  |

<sup>\*</sup> Suppressed due to small numbers

## **Department of Corrections**

| Measure   | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|------|------|------|------|------|
| Vermonters who died of overdose in<br>Vermont               | 113  | 172  | 231  | 248  | 243  |
|   |      |      |      |      |      |
| Incarcerated in year prior to death (denominator for below) | 11   | 22   | 21   | 32   | 41   |
| Median length of stay (in days)                             | 101  | 10   | 51   | 5    | 4    |
| Screened for substance use disorder                         | 100% | 91%  | 71%  | 78%  | 68%  |
| Received MOUD while incarcerated                            | 64%  | 59%  | 62%  | 41%  | 34%  |
| Months between release from incarceration and death         |      |      |      |      |      |
| <4 months   | 55%  | 55%  | 43%  | 53%  | 59%  |
| 4+ months   | 45%  | 45%  | 57%  | 47%  | 41%  |

## **Impaired Driver Rehabilitation Program (IDRP)**

| Measure   | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|------|------|------|------|------|
| Vermonters who died of an overdose in<br>Vermont                          | 113  | 172  | 231  | 248  | 243  |
|   |      |      |      |      |      |
| Offense in IDRP database within 20 years of death (denominator for below) | 32   | 48   | 50   | 46   | 52   |
| Number of Offenses  |      |      |      |      |      |
| One   | 38%  | 52%  | 46%  | 43%  | 56%  |
| Two   | 28%  | 33%  | 28%  | 30%  | 23%  |
| Three or more   | 34%  | 15%  | 26%  | 26%  | 21%  |
|   |      |      |      |      |      |
| Completed assessment after offense  | 97%  | 92%  | 92%  | 89%  | 88%  |
| Attended IDRP class   | 91%  | 90%  | 86%  | 87%  | 87%  |
| Completed IDRP class (percent of people who attended)                     | 100% | 98%  | 98%  | 100% | 98%  |

## **Department of Mental Health**

| Measure  | 2019  | 2020 | 2021 | 2022  | 2023  |
|--|-------|------|------|-------|-------|
| Vermonters who died of overdose in<br>Vermont                    | 113   | 172  | 231  | 248   | 243   |
|  |       |      |      |       |       |
| Interacted with a DA or SSA                                      | 50    | 28   | 30   | 74    | 39    |
| Frequency of services among people who interacted with DA or SSA |       |      |      |       |       |
| 1  | 16%   | 14%  | 33%  | 19%   | 18%   |
| 2 to 9   | 36%   | 43%  | 30%  | 28%   | 23%   |
| 10+  | 48%   | 43%  | 37%  | 53%   | 59%   |
|  |       |      |      |       |       |
| Total number of services provided (denominator for below)        | 2,349 | 588  | 379  | 3,161 | 1,235 |
| Types of services provided                                       |       |      |      |       |       |
| Community supports   | 38%   | 52%  | 60%  | 49%   | 45%   |
| Service planning and coordination                                | 39%   | 14%  | 17%  | 17%   | 16%   |
| Individual or group therapy                                      | 11%   | 12%  | 5%   | 4%    | 6%    |
| Emergency/crisis assessment                                      | 4%    | 13%  | 8%   | 10%   | 7%    |
| Other  | 8%    | 9%   | 11%  | 20%   | 26%   |
|  |       |      |      |       |       |

| Measure                        | 2019 | 2020 | 2021 | 2022 | 2023 |
|--------------------------------|------|------|------|------|------|
| Location of services provided  |      |      |      |      |      |
| Office                         | 58%  | 57%  | 33%  | 34%  | 31%  |
| Community                      | 36%  | 4%   | 34%  | 23%  | 20%  |
| Home                           | 5%   | 28%  | 3%   | 10%  | 11%  |
| Telemedicine*                  |      | 7%   | 27%  | 17%  | 14%  |
| Other (ER, schools, hospitals) | 1%   | 5%   | 3%   | 15%  | 24%  |

<sup>\*</sup>Telemedicine is a new service location as of 2020.

## **Department of Labor**

| Measure  | 2021     | 2022     | 2023     |
|--|----------|----------|----------|
| Vermonters who died of overdose in Vermont                           | 231      | 248      | 243      |
|  |          |          |          |
| Employed in year prior to death                                      | 37%      | 40%      | 36%      |
| Employed in six months prior to death                                | 33%      | 33%      | 32%      |
|  |          |          |          |
| Filed a claim for unemployment benefits in year prior to death       | 19%      | 11%      | 6%       |
| Filed a claim for unemployment benefits in six months prior to death | 14%      | 5%       | 5%       |
|  |          |          |          |
| Median income in year prior to death                                 | \$11,474 | \$13,912 | \$17,997 |

## **Institute for Community Alliances**

| Measure   | 2021 | 2022 | 2023 |
|---|------|------|------|
| Vermonters who died of overdose in Vermont                        | 231  | 248  | 243  |
|   |      |      |      |
| Utilization of homelessness services at any point prior to death  | 53%  | 36%  | 38%  |
| Utilization of homelessness services in year prior to death       | 24%  | 21%  | 24%  |
| Utilization of homelessness services in six months prior to death | 21%  | 18%  | 20%  |