Fatal Opioid Overdoses Among Vermonters Annual 2024 Data Brief May 2025

Key Points from the Opioid-Related Fatal Overdose Brief, 2024 Preliminary Data

- While this report is data-driven, each data point refers to a person someone's loved one who lost their life due to an opioid overdose. These data should be viewed with that in mind.
- The number of opioid-related deaths **decreased** from 236 in 2023 to 183 in 2024, a 22% decrease.
- Cocaine involvement in opioid-related deaths increased from 60% in 2023 to 70% in 2024.
- Xylazine involvement increased from 32% in 2023 to 42% in 2024.
- There are still 13 unresolved death certificates in 2024, so it is possible that the number of overdose deaths in 2024 will increase. Unresolved death certificates are not necessarily overdoses.
- See the new <u>Opioid Overdose Dashboard</u>, updated monthly, for preliminary data on overdoses in 2025.

If you need help accessing or understanding this information, contact: AHS.VDHOverdoseDataVT@vermont.gov



HealthVermont.gov 802-863-7200

Opioid-Related Fatal Overdose Data Disclaimer

This brief is a product of the Vermont Department of Health, Division of Health Statistics and Informatics.

Data Source: Vermont Vital Statistics System

This report includes:

- Deaths of Vermonters occurring in-state and out-of-state.
 - Data for residents of other states who died in Vermont are included only where explicitly stated.
- Accidents and overdoses with undetermined intent (deaths when it is not clear if the overdose was accidental or intentional), unless otherwise stated.
- Deaths that involved at least one legal or illicit opioid.

The circumstances under which each of these fatal overdoses occurred are unique and cannot all necessarily be attributed to substance misuse or substance use disorder.

This report does not include deaths due to chronic substance use, injury related to substance use, or medical professional error.

The 2024 data are considered preliminary. At the time of this analysis, there are 13 pending death certificates: 9 people who died in Vermont and 4 who died out of state.

This brief includes seven more 2023 Vermont resident all drug overdose deaths than were reported in the 2023 brief (dated May 2024). These records were finalized after the analysis for that report.



Fatal drug overdoses involving ALL drugs among Vermont residents

Between 2015 and 2024, deaths classified by the Office of the Chief Medical Examiner as caused by an overdose involving **any drug** (i.e., not exclusively opioids and including alcohol) increased from 87 to 225, with a peak of 269 in 2022. Between 2022 and 2024, all-drug overdose deaths have **decreased** by 16%.

This decrease in all-drug overdose deaths, however, is driven by opioid-related overdoses, as the number of deaths that did not involve at least one opioid **increased** from 29 to 42. Fatal overdoses without opioid involvement made up 19% of all overdose deaths in 2024, an increase from 11% in 2023.

The 19% of overdose deaths that only involved non-opioid drugs in 2024 most frequently included drugs such as alcohol, cocaine, benzodiazepines, antidepressants, methamphetamines, or a combination of these substances. Generally, over-the-counter medication such as Tylenol was not involved in these deaths. The proportion of overdose deaths with no opioid-involvement has been increasing since 2022.



Most accidental and undetermined drug overdose deaths involve opioids.



Opioid-related fatal overdose overview

Most opioid-related deaths in 2024 were classified as accidental or undetermined intent. Five deaths were determined to be suicides. The distribution between accidental, undetermined, and suicide deaths has been stable since 2020.

Manner of Death	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Accidental	71	88	106	124	107	152	212	238	227	178
Undetermined	2	8	4	7	8	7	5	6	9	5
Suicide	5	6	6	3	3	1	7	4	2	5

Accidental and undetermined opioid-related fatal overdoses

The rest of this report will focus on accidental and undetermined manner fatal opioid overdoses unless otherwise noted.

There were 183 opioid-related overdose deaths among Vermont residents in 2024, creating a downward trend since 2022.

The number of opioid-related fatal overdoses decreased by 22% between 2023 to 2024.



The rate of opioid-related overdose deaths in 2024, 28.3 per 100,000 residents, was significantly lower than the 2023 rate, 36.4 per 100,000 residents.

Most accidental and undetermined opioid-related fatal overdoses were among white, non-Hispanic males.



The average age of Vermont residents who died from an accidental or undetermined opioid-related overdose in 2024 was 45.



The average age of those who have died from an accidental or undetermined opioid-related overdose has slowly increased from 39 in 2015 to 45 in 2024.



Timeline of opioid policy and substance trends in Vermont

The following timeline contextualizes the numbers presented in this report with events and changes in the substance use landscape of Vermont. Included in the timeline are changes in legislation, updates to toxicology testing, trends in drug involvement, and the COVID-19 pandemic. This is not meant to be a comprehensive list but rather highlights key events.



Opioid Policy and Substance Trends in Vermont



DEPARTMENT OF HEALTH

Drug involvement in fatal opioid overdoses

The Office of the Chief Medical Examiner contracts with an external lab for comprehensive forensic toxicology testing for drug overdose deaths to determine what substances caused the fatal overdose. <u>This testing includes over 200 substances</u>. The Department of Health continuously monitors toxicology testing results for new substances and trends.

The increased percentage of opioid overdose deaths including non-opioid drugs, like cocaine and xylazine, highlights the importance of knowing what one witnessing an overdose should do.

- If an overdose is suspected, call 9-1-1, give naloxone, and start rescue breathing.
- Naloxone is available for free through many community organizations: visit VT Helplink to find locations. You can also call 802.565.5465 (LINK), or text "LINK" to that number, to connect with live support.
- If non-opioid drugs are involved, naloxone alone may not be effective and additional medical assessment will be needed.
- Fentanyl and xylazine test strips can be used to test drug supplies to determine the presence (not amount) of fentanyl and xylazine. These test strips are available for free through syringe services programs and other community organizations.
- More information can be found at <u>KnowODVT.com</u>.

Cocaine, gabapentin, methadone, methamphetamine, prescription opioids (excluding fentanyl), prescription stimulants, tramadol and xylazine involvement as a percent of fatal opioid overdoses increased in 2024 compared to 2023. The percent of deaths involving alcohol, fentanyl and heroin decreased. Counts and percents for individual substance involvement in opioid-related fatal overdoses can be found in Appendix 1, Table 1.

Types of opioids involved in opioid-related fatal overdoses

Fentanyl is the most common substance involved in opioid-related deaths. In 2024, 93% (170) of opioid-related fatal overdoses involved fentanyl. Deaths involving fentanyl could include prescription fentanyl, illicit fentanyl, fentanyl analogs or a combination. Deaths related to fentanyl decreased by 24% between 2023 and 2024, though the percentage related to fentanyl stayed stable.

Heroin involvement in 2024 fatal overdoses is low (3 deaths, 2%). The proportion of overdoses involving heroin has decreased since 2018 (69 deaths, 53%).



Fatal overdoses involving fentanyl decreased by 25% between 2022 and 2024.



Cocaine involvement in opioid-related fatal overdoses

Cocaine was the second most common drug involved in opioid-related fatal overdoses in 2024 (129 deaths, 70%). The number of cocaine-involved deaths has steadily increased since 2015, and the percentage of deaths involving cocaine increased significantly from 2023 (142 deaths, 60%).

Cocaine was involved in 7 out of 10 accidental or undetermined opioidrelated fatal overdoses in 2024.





Multi-substance involvement in opioid-related fatal overdoses

Most opioid-related deaths involve multiple substances. In 2024, 95% (174) of opioid-related fatal overdoses involved two or more substances, with 39% (70) involving four or more substances.

Only 5% of Vermont residents who died of an opioid-related overdose had a single substance contributing to their death.



The most common drug combinations have changed over the last ten years, and multiple substance involvement has become more frequent as the drug supply becomes more complex. In 2024 the top three drug combinations made up a higher proportion of the overdoses than in 2015 because overdose deaths in 2024 were less frequently related to a single substance.

The top three substance combinations on death certificates

2015	2024
Fentanyl and Heroin (14%)	Fentanyl and Cocaine (68%)
Fentanyl and Prescription Opioids (8%)	Fentanyl and Xylazine (42%)
Heroin and Cocaine (7%)	Fentanyl, Cocaine and Xylazine (30%)



Appendix 1: Historic Data Tables

Table 1: Accidental and Undetermined Opioid-Related Fatal Overdoses Among Vermont Residents – Individual Substances*

Substansa	2013	2013	2014	2014	2015	2015	2016	2016
Substance	#	%	#	%	#	%	#	%
Alcohol	14	20%	10	16%	9	12%	16	17%
Benzodiazepines	12	17%	6	9%	6	8%	10	10%
Buprenorphine	4	6%	3	5%	2	3%	1	1%
Cocaine	9	13%	11	17%	8	11%	17	18%
Fentanyl	12	17%	17	27%	28	38%	49	51%
Gabapentin	_	—	—	_	_	—	—	_
Heroin	20	29%	34	53%	33	45%	43	45%
Methadone	14	20%	6	9%	7	10%	14	15%
Methamphetamine	0	0%	0	0%	0	0%	0	0%
Rx Opioid	45	65%	27	42%	30	41%	35	36%
(no fentanyl)								
Rx stimulants	2	3%	5	8%	0	0%	1	1%
Tramadol	2	3%	1	2%	3	4%	2	2%
Xylazine	_	_	_	_	_	_	—	_

Table 1 continued

Substance	2017	2017	2018	2018	2019	2019	2020	2020
Substance	#	%	#	%	#	%	#	%
Alcohol	14	13%	21	16%	12	10%	15	9%
Benzodiazepines	8	7%	8	6%	7	6%	6	4%
Buprenorphine	0	0%	6	5%	3	3%	2	1%
Cocaine	33	30%	48	37%	50	43%	58	36%
Fentanyl	76	69%	102	78%	99	86%	140	88%
Gabapentin	—	—	—	—	5	4%	9	6%
Heroin	42	38%	69	53%	38	33%	41	26%
Methadone	12	11%	11	8%	9	8%	18	11%
Methamphetamine	3	3%	5	4%	2	2%	11	7%
Rx Opioid (no fentanyl)	34	31%	35	27%	31	27%	43	27%
Rx stimulants	2	2%	7	5%	3	3%	8	5%
Tramadol	1	1%	5	4%	0	0%	6	4%
Xylazine	_	_	_	_	6	5%	5	3%



Table 1 continued

Substance	2021	2021	2022	2022	2023	2023	2024	2024
Substance	#	%	#	%	#	%	#	%
Alcohol	31	14%	39	16%	43	18%	28	15%
Benzodiazepines	8	4%	31	13%	37	16%	27	15%
Buprenorphine	2	1%	5	2%	15	6%	9	5%
Cocaine	99	46%	117	48%	142	60%	129	70%
Fentanyl	203	94%	228	93%	224	95%	170	93%
Gabapentin	4	2%	32	13%	24	10%	26	14%
Heroin	22	10%	23	9%	10	4%	3	2%
Methadone	17	8%	29	12%	19	8%	25	14%
Methamphetamine	22	10%	21	9%	14	6%	18	10%
Rx Opioid	50	23%	49	20%	47	20%	44	24%
(no fentanyl)								
Rx stimulants	4	2%	2	1%	3	1%	4	2%
Tramadol	5	2%	2	1%	2	1%	3	2%
Xylazine	29	13%	69	28%	75	32%	76	42%

*Involvement of individual substances is not mutually exclusive.

- Substance was not included in toxicology testing panel.



Table 2: Combinations of Substances Involved * in Opioid-Related FatalOverdoses Among Vermont Residents

Outeteres	2013	2013	2014	2014	2015	2015	2016	2016
Substance	#	%	#	%	#	%	#	%
Cocaine and Heroin	1	1%	8	13%	5	7%	13	14%
Cocaine and RX Opioids	6	9%	2	3%	1	1%	5	5%
Cocaine and	—	—	—	—	_	—	—	—
Gabapentin								
Cocaine and Xylazine	—	—	—	—	_	—	—	—
Cocaine and	0	0%	0	0%	0	0%	0	0%
Benzodiazepines								
Fentanyl and Cocaine	3	4%	4	6%	3	4%	6	6%
Fentanyl and Alcohol	1	1%	0	0%	3	4%	4	4%
Fentanyl and Heroin	0	0%	6	9%	10	14%	21	22%
Fentanyl and RX	6	9%	5	8%	6	8%	6	6%
Opioids (no fentanyl)								
Fentanyl and RX	2	3%	1	2%	0	0%	0	0%
Stimulants								
Fentanyl and	_	—	—	—	_	—	—	—
Gabapentin								
Fentanyl and Xylazine	—	—	-	—	_	_	—	—
Fentanyl and	0	0%	1	2%	3	4%	0	0%
Benzodiazepines								
RX Opioids and	10	14%	5	8%	3	4%	8	8%
Benzodiazepines	-	4.0.(0.01		4.07		001
Alconol and	3	4%	0	0%	1	1%	6	6%
Benzodiazepines								
Gabapentin and	_	_	_	_	_	—	_	_
Aylazine	0	00/	0	00/	0	00/	0	00/
Heroin and KX	0	0%	0	0%	0	0%	0	0%
Stimulants Herein and Cohenentin								
Heroin and Gabapentin	-	- 20/	-	<u> </u>	-	- 20/	-	-
	2	3%	2	3%	2	3%	2	∠%
Heroin and Xylazine	_			_		_		



Table 2 continued

Outestance	2017	2017	2018	2018	2019	2019	2020	2020
Substance	#	%	#	%	#	%	#	%
Cocaine and Heroin	14	13%	27	21%	15	13%	13	8%
Cocaine and RX Opioids	9	8%	10	8%	11	10%	15	9%
Cocaine and	—	_	—	—	2	2%	5	3%
Gabapentin								
Cocaine and Xylazine	_	_	—	—	2	2%	2	1%
Cocaine and	1	1%	1	1%	3	3%	1	1%
Benzodiazepines								
Fentanyl and Cocaine	25	23%	43	33%	45	39%	52	33%
Fentanyl and Alcohol	9	8%	16	12%	11	10%	13	8%
Fentanyl and Heroin	32	29%	60	46%	36	31%	40	25%
Fentanyl and RX	12	11%	16	12%	18	16%	27	17%
Opioids (no fentanyl)								
Fentanyl and RX	1	1%	6	5%	3	3%	6	4%
Stimulants								
Fentanyl and	—	—	—	—	1	1%	6	4%
Gabapentin								
Fentanyl and Xylazine	_	_	-	—	6	5%	5	3%
Fentanyl and	3	3%	4	3%	4	3%	3	2%
Benzodiazepines								
RX Opioids and	6	5%	4	3%	3	3%	2	1%
Benzodiazepines								
Alcohol and	1	1%	3	2%	2	2%	1	1%
Benzodiazepines								
Gabapentin and	_	_	_	—	0	0%	1	1%
Xylazine								
Heroin and RX	0	0%	3	2%	1	1%	1	1%
Stimulants								
Heroin and Gabapentin	-	—	—	_	0	0%	0	0%
Heroin and	0	0%	3	2%	1	1%	2	1%
Benzodiazepines								
Heroin and Xylazine	—	_	—	—	3	3%	2	1%



Table 2 continued

Outeteres	2021	2021	2022	2022	2023	2023	2024	2024
Substance	#	%	#	%	#	%	#	%
Cocaine and Heroin	9	4%	13	5%	5	2%	2	1%
Cocaine and RX Opioids	14	6%	16	7%	20	8%	26	14%
Cocaine and	1	0%	16	7%	9	4%	15	8%
Gabapentin								
Cocaine and Xylazine	16	7%	36	15%	49	21%	54	30%
Cocaine and	3	1%	16	7%	11	5%	16	9%
Benzodiazepines								
Fentanyl and Cocaine	96	44%	112	46%	139	59%	125	68%
Fentanyl and Alcohol	31	14%	36	15%	41	17%	23	13%
Fentanyl and Heroin	22	10%	23	9%	10	4%	3	2%
Fentanyl and RX	36	17%	36	15%	35	15%	31	17%
Opioids (no fentanyl)								
Fentanyl and RX	4	2%	2	1%	3	1%	3	2%
Stimulants								
Fentanyl and	2	1%	28	11%	20	8%	22	12%
Gabapentin								
Fentanyl and Xylazine	29	13%	69	28%	75	32%	76	42%
Fentanyl and	7	3%	28	11%	33	14%	24	13%
Benzodiazepines								
RX Opioids and	2	1%	7	3%	13	6%	10	6%
Benzodiazepines								
Alcohol and	2	1%	3	1%	9	4%	5	3%
Benzodiazepines								
Gabapentin and	0	0%	10	4%	8	3%	14	8%
Xylazine								
Heroin and RX	0	0%	0	0%	0	0%	1	1%
Stimulants								
Heroin and Gabapentin	0	0%	2	1%	1	0%	0	0%
Heroin and	1	0%	3	1%	2	1%	0	0%
Benzodiazepines								
Heroin and Xylazine	4	2%	7	3%	5	2%	0	0%

*Involvement of combinations of substances is not mutually exclusive. For example, a death involving cocaine, fentanyl, and heroin would be counted three separate categories in the table above (cocaine and fentanyl; cocaine and heroin; fentanyl and heroin).

- One or both substances were not included in the toxicology testing panel.



Table 3: Opioid-Related Fatal Overdoses Occurring Among VermontResidents by Sex

	Total VT F	Residents		Male			Female	Female		
	#	Rate*	#	%	Rate*	#	%	Rate*		
2013	69	11.0	44	64%	14.2	25	36%	7.9		
2014	64	10.2	41	64%	13.3	23	36%	7.2		
2015	73	11.7	51	70%	16.5	22	30%	6.9		
2016	96	15.4	63	66%	20.4	33	34%	10.4		
2017	110	17.6	78	71%	25.3	32	29%	10.1		
2018	131	20.9	78	60%	25.2	53	40%	16.7		
2019	115	18.4	78	68%	24.3	37	32%	11.7		
2020	159	24.7	110	69%	34.4	49	31%	15.2		
2021	217	33.6	150	69%	46.8	67	31%	20.6		
2022	244	37.7	166	68%	51.5	78	32%	24.0		
2023	236	36.4	171	73%	53.2	65	27%	19.9		
2024	183	28.3	132	72%	41.1	51	28%	15.6		

* Rates are per 100,000 Vermont residents

Table 4: Opioid-Related Fatal Overdoses	Occurring Among Vermont
Residents by Age	

		<30)		30-3	9		40-4	9		50+	
	#	%	Rate*	#	%	Rate*	#	%	Rate*	#	%	Rate *
2013	12	17%	5.3	15	22%	21.4	17	25%	20.6	25	36%	10.1
2014	16	25%	7.1	22	34%	31.3	10	16%	12.6	16	25%	6.3
2015	15	21%	6.7	29	40%	40.9	11	15%	14.3	18	25%	7.1
2016	20	21%	9.0	32	33%	44.8	25	26%	33.5	19	20%	7.4
2017	30	27%	13.6	38	35%	52.6	16	15%	21.9	26	24%	10.1
2018	30	23%	13.6	46	35%	62.9	23	18%	31.7	32	24%	12.3
2019	22	19%	10.1	40	35%	54.4	25	22%	34.9	28	24%	10.7
2020	27	17%	12.1	47	30%	61.2	41	26%	55.4	44	28%	16.4
2021	41	19%	18.5	60	28%	76.2	62	29%	83.7	54	25%	19.9
2022	28	11%	12.8	84	34%	105.0	68	28%	90.8	64	26%	23.2
2023	26	11%	12.1	68	29%	83.9	65	27%	85.0	77	33%	28.0
2024	18	10%	8.4	49	27%	60.4	54	29%	70.6	62	34%	22.5

* Rates are per 100,000 Vermont residents



Table 5: Opioid-Related Fatal Overdoses Occurring Among VermontResidents by Race/Ethnicity

	Tot Resi	al VT idents	White, Non-Hispanic			Black Peo	, Indigen ople of (ousand Color	Unknown		
1	#	Rate*	#	%	Rate*	#	%	Rate*	#	%	
2013	69	11.0	65	94%	11.1	4	6%	10.4	0	0%	
2014	64	10.2	62	97%	10.6	2	3%	4.9	0	0%	
2015	73	11.7	67	92%	11.5	5	7%	11.9	1	1%	
2016	96	15.4	90	94%	15.5	4	4%	9.2	2	2%	
2017	110	17.6	100	91%	17.2	9	8%	20.8	1	1%	
2018	131	20.9	121	92%	20.8	9	7%	20.8	1	1%	
2019	115	18.4	102	89%	17.7	13	11%	28.0	0	0%	
2020	159	24.7	151	95%	25.4	8	5%	16.3	0	0%	
2021	217	33.6	200	92%	33.6	17	8%	33.7	0	0%	
2022	244	37.7	226	93%	38.0	18	7%	34.5	0	0%	
2023	236	36.4	223	95%	37.7	13	5%	23.5	0	0%	
2024	183	28.3	176	96%	29.7	7	4%	12.7	0	0%	

* Rates are per 100,000 Vermont residents



	2015		2016			2017			2018			2019			
	#	%	Rate*	#	%	Rate*	#	%	Rate*	#	%	Rate*	#	%	Rate*
Addison	1	1%	2.7	4	4%	10.8	2	2%	5.4	2	1%	5.4	2	2%	5.4
Bennington	2	3%	5.5	6	6%	16.6	4	3%	11.2	13	9%	36.5	11	9%	30.9
Caledonia	1	1%	3.2	4	4%	13.2	5	4%	16.6	7	5%	23.1	11	9%	33.0
Chittenden	17	22%	10.5	21	19%	13.0	29	25%	17.9	14	10%	8.5	17	14%	10.3
Essex	3	4%	48.7	0	0%	0.0	0	0%	0.0	0	0%	0.0	2	2%	32.0
Franklin	10	13%	20.5	7	6%	14.3	9	8%	18.4	12	9%	24.3	5	4%	10.1
Grand Isle	2	3%	29.2	2	2%	28.9	1	1%	14.3	0	0%	0.0	0	0%	0.0
Lamoille	0	0%	0.0	3	3%	11.8	3	3%	11.8	4	3%	15.8	4	3%	15.8
Orange	3	4%	10.4	4	4%	13.8	5	4%	17.3	3	2%	10.3	0	0%	0.0
Orleans	6	8%	22.1	6	6%	22.3	4	3%	14.9	3	2%	11.1	5	4%	18.6
Rutland	10	13%	16.7	13	12%	21.9	11	9%	18.6	20	15%	34.1	13	11%	22.3
Washington	4	5%	6.8	8	7%	13.7	13	11%	22.3	12	9%	20.6	11	9%	18.9
Windham	2	3%	4.6	3	3%	7.0	13	11%	30.3	25	18%	58.5	18	15%	39.8
Windsor	12	15%	21.5	14	13%	25.2	11	9%	20.0	16	12%	28.9	13	11%	23.5
Non-VT Residents who Died in VT	6	8%	NA	13	12%	NA	6	5%	NA	6	4%	NA	3	3%	NA

Table 6: Opioid-Related Fatal Overdoses by County of Residence

* Rates per 100,000 Vermont residents

Table 6 continued

		2020		2021		2022			2023			2024			
	#	%	Rate*	#	%	Rate*	#	%	Rate*	#	%	Rate*	#	%	Rate*
Addison	4	2%	10.7	5	2%	13.4	7	3%	18.6	7	3%	18.6	1	1%	2.7
Bennington	9	5%	24.1	17	7%	45.6	17	7%	45.5	22	9%	59.2	4	2%	10.8
Caledonia	12	7%	39.8	10	4%	32.9	12	5%	39.2	8	3%	26.1	14	7%	45.7
Chittenden	26	15%	15.4	41	18%	24.3	48	19%	28.4	52	21%	30.7	48	25%	28.3
Essex	0	0%	0.0	0	0%	0.0	3	1%	50.1	6	2%	99.8	1	1%	16.6
Franklin	5	3%	10.0	15	6%	29.8	18	7%	35.5	8	3%	15.7	18	10%	35.3
Grand Isle	3	2%	41.2	2	1%	27.0	2	1%	26.7	2	1%	26.8	2	1%	26.8
Lamoille	5	3%	19.3	11	5%	42.1	8	3%	30.7	4	2%	15.3	9	5%	34.5
Orange	7	4%	23.9	12	5%	40.6	10	4%	33.5	10	4%	33.4	6	3%	20.0
Orleans	6	4%	21.9	9	4%	32.7	13	5%	47.0	11	5%	40.0	6	3%	21.8
Rutland	20	12%	33.1	28	12%	46.2	34	13%	56.3	34	14%	56.4	18	10%	29.9
Washington	21	13%	35.1	23	10%	38.4	13	5%	21.6	16	7%	26.6	23	12%	38.2
Windham	12	7%	26.2	21	9%	45.6	28	11%	61.1	30	12%	65.3	13	7%	28.3
Windsor	29	17%	50.3	21	9%	36.1	30	12%	51.6	26	11%	44.7	18	10%	31.0
Non-VT Residents who Died in VT	9	5%	NA	15	6%	NA	12	5%	NA	8	3%	NA	8	4%	NA

* Rates per 100,000 residents

	2015		2016		2017			2018			2019				
	#	%	Rate*	#	%	Rate*	#	%	Rate*	#	%	Rate*	#	%	Rate*
Addison	0	0%	0.0	6	6%	16.2	1	1%	2.7	1	1%	2.7	2	2%	5.4
Bennington	1	1%	2.8	6	6%	16.6	3	3%	8.4	10	7%	28.1	12	10%	33.8
Caledonia	2	3%	6.5	5	5%	16.5	5	4%	16.6	4	3%	13.2	9	8%	30.0
Chittenden	20	25%	12.4	24	22%	14.9	35	30%	21.6	19	14%	11.5	19	16%	11.6
Essex	1	1%	16.2	1	1%	16.2	0	0%	0.0	0	0%	0.0	1	1%	16.2
Franklin	7	9%	14.3	7	6%	14.3	7	6%	14.3	7	5%	14.2	3	3%	6.1
Grand Isle	1	1%	14.6	1	1%	14.5	1	1%	14.3	0	0%	0.0	1	1%	13.8
Lamoille	1	1%	4.0	3	3%	11.8	3	3%	11.8	2	1%	7.9	5	4%	19.7
Orange	3	4%	10.4	4	4%	13.8	4	3%	13.8	2	1%	6.9	0	0%	0.0
Orleans	6	8%	22.1	6	6%	22.3	2	2%	7.5	2	1%	7.4	5	4%	18.5
Rutland	14	18%	23.4	11	10%	18.5	10	9%	16.9	16	12%	27.3	13	11%	22.3
Washington	4	5%	6.8	8	7%	13.7	10	9%	17.2	13	9%	22.4	9	8%	15.4
Windham	2	3%	4.6	6	6%	13.9	14	12%	32.7	24	18%	56.1	14	12%	33.2
Windsor	12	15%	21.5	18	17%	32.4	12	10%	21.8	18	13%	32.6	8	7%	14.5
Out of State	5	6%	NA	3	3%	NA	9	8%	NA	19	14%	NA	17	14%	NA

Table 7: Opioid-Related Fatal Overdoses by County of Death

* Rates per 100,000 Vermont residents

Table	7	continued
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	2020		2021		2022			2023			2024				
	#	%	Rate*	#	%	Rate*	#	%	Rate*	#	%	Rate*	#	%	Rate*
Addison	3	2%	8.0	2	1%	5.4	4	2%	10.6	5	2%	13.3	1	1%	2.7
Bennington	7	4%	18.8	17	7%	45.6	12	5%	32.1	17	7%	45.7	5	3%	13.4
Caledonia	12	7%	39.8	13	6%	42.8	13	5%	42.5	10	4%	32.7	12	6%	39.2
Chittenden	33	20%	19.6	52	22%	30.8	55	21%	32.5	57	23%	33.6	54	29%	31.9
Essex	1	1%	16.9	0	0%	0.0	3	1%	50.1	5	2%	83.2	3	2%	49.9
Franklin	3	2%	6.0	12	5%	23.8	15	6%	29.6	8	3%	15.7	17	9%	33.3
Grand Isle	2	1%	27.5	1	0%	13.5	2	1%	26.7	1	0%	13.4	1	1%	13.4
Lamoille	5	3%	19.3	9	4%	34.4	8	3%	30.7	4	2%	15.3	8	4%	30.7
Orange	8	5%	27.3	9	4%	30.5	10	4%	33.5	12	5%	40.1	6	3%	20.0
Orleans	4	2%	14.6	9	4%	32.7	12	5%	43.4	7	3%	25.4	7	4%	25.4
Rutland	20	12%	33.1	29	13%	47.9	40	16%	66.3	32	13%	53.1	17	9%	28.2
Washington	17	10%	28.5	23	10%	38.4	12	5%	20.0	15	6%	24.9	20	11%	33.3
Windham	14	8%	30.5	22	9%	47.7	23	9%	50.2	31	13%	67.4	13	7%	28.3
Windsor	28	17%	48.5	22	9%	37.8	26	10%	44.7	21	9%	36.1	16	8%	27.5
Out of State	11	7%	NA	12	5%	NA	21	8%	NA	19	8%	NA	11	6%	NA

* Rates per 100,000 Vermonters

Appendix 2: 2024 Preliminary Data

Table 8: Month of Death and Substance Type

Month of Death	Total*	Fentanyl	RX Opioid (no fentanyl)	Heroin	Cocaine	Xylazine	Gabapentin	Benzodiazepines	Meth- amphetamine
January	15	15	1	0	11	4	3	3	1
February	16	15	4	0	13	4	3	1	1
March	14	13	4	0	8	5	1	3	4
April	8	8	0	0	7	3	0	1	0
Мау	15	15	1	0	8	8	2	4	1
June	28	26	6	1	21	13	2	1	3
July	22	21	8	1	18	10	3	7	1
August	13	13	3	0	11	9	4	1	1
September	16	13	8	1	10	6	1	0	1
October	20	18	5	0	12	9	5	6	4
November	11	9	2	0	6	4	2	0	1
December	5	4	2	0	4	1	0	0	0
Total Vermont Residents	183	170	44	3	129	76	26	27	18
Vermonters in Vermont	172	159	44	3	122	74	26	26	14
Vermonters Out of State	11	11	0	0	7	2	0	1	4
Non-Vermont Residents	8	8	0	2	3	5	1	1	1

*Involvement of individual substances is not mutually exclusive.

County of Residence	Jan	Feb	Mar	Apr	Мау	June	July	Aug	Sept	Oct	Nov	Dec	Total
Addison	0	0	0	0	0	0	0	1	0	0	0	0	1
Bennington	0	2	0	0	0	0	0	0	0	1	1	0	4
Caledonia	1	3	1	0	0	2	1	2	2	0	2	0	14
Chittenden	3	2	5	1	4	10	4	5	3	8	1	2	48
Essex	0	0	1	0	0	0	0	0	0	0	0	0	1
Franklin	2	0	1	1	0	3	3	0	5	1	0	2	18
Grand Isle	0	0	0	0	0	0	0	0	0	2	0	0	2
Lamoille	2	1	0	0	0	2	1	0	1	0	2	0	9
Orange	1	1	1	1	1	0	0	0	0	0	1	0	6
Orleans	0	1	1	1	1	0	0	1	0	1	0	0	6
Rutland	2	2	0	1	0	6	2	0	2	1	1	1	18
Washington	3	2	2	1	2	1	6	0	1	4	1	0	23
Windham	1	1	1	0	4	1	2	0	1	0	2	0	13
Windsor	0	1	1	1	3	3	2	4	1	2	0	0	18
Missing	0	0	0	1	0	0	1	0	0	0	0	0	2
Vermont Resident Total	15	16	14	8	15	28	22	13	16	20	11	5	183
Non- Vermont Residents	2	1	0	0	2	1	1	1	0	0	0	0	8
Pending	0	0	0	1	0	0	0	1	2	4	0	5	13

Table 9: Number of Opioid-Related Accidental and Undetermined Fatal Overdoses by County of Residence

The number of pending cases represents the total number of cases for each month which have not yet been assigned a cause of death in the Vermont Vital Statistics System. Cases still pending are not necessarily drug related.

Appendix 3: Vermont Methodology for Calculating Drug-Related Fatal Overdoses

The Vermont Department of Health utilizes a unique methodology for calculating a drugrelated fatal overdose. The VDH method differs from the CDC methodology, as described in MMWR: Increases in Drug and Opioid-Involved Overdose Deaths — United States, 2010– 2015:

"The National Vital Statistics System multiple cause-of-death mortality files were used to record drug overdose deaths. Drug overdose deaths were identified using the International Classification of Disease, Tenth Revision (ICD-10), based on the ICD-10 underlying cause-of-death codes X40–44 (unintentional), X60–64 (suicide), X85 (homicide), or Y10–Y14 (undetermined intent). Among deaths with drug overdose as the underlying cause, the type of opioid is indicated by the following ICD-10 multiple cause-of-death codes: opioids (T40.0, T40.1, T40.2, T40.3, T40.4, or T40.6); natural/semisynthetic opioids (T40.2); methadone (T40.3); synthetic opioids other than methadone (T40.4); and heroin (T40.1). Some deaths involved more than one type of opioid; these deaths were included in the rates for each subcategory. Therefore, categories of deaths presented are not mutually exclusive." https://www.cdc.gov/mmwr/volumes/65/wr/mm655051e1.htm

Determining a drug-related fatal overdose is a multi-step process. Any death certificate with a pending investigation or natural death classification is removed before analyses. All causes of death, including any contributing conditions, are scanned to recognize any ICD code that represents a drug poisoning (including alcohol). Next, all literal text fields, including the injury description text are also examined to identify any listed alcohol or drugs. Deaths related to chronic alcohol use, medical complications of medication administration, end of life care, intrauterine or gestational exposure, helium, or exposure/injury in the context of intoxication are excluded as they do not represent a likely "overdose".

There are two main differences between the methodologies used by VDH and the CDC. First, VDH considers all causes of death, contributing conditions, and injury descriptions as opposed to underlying cause of death only. Second, VDH examines a broader list of ICD-10 codes than those used by the CDC. Beyond the list of ICD-10 codes used by the CDC, VDH examines the following additional ICD-10 codes to identify its initial list of drug-related fatal overdoses:

ICD Codes Used in Drug-Related Fatal Overdose Analysis									
(beyond those used by CDC)									
X45	F10.0	F14.0	F17.0						
X65	F10.1	F14.1	F17.1						
Y15	F11.0	F15.0	F18.0						
T36-T50	F11.1	F15.1	F18.1						
T51.0	F13.0	F16.0	F19.0						
	F13.1	F16.1	F19.1						



While the CDC does examine multiple cause-of-death codes for those described in the MMWR excerpt above (T40.0, T40.1, T40.2, T40.3, T40.4, or T40.6), they do so only for individuals who have an underlying cause-of-death code equal to X40-44, X60-64, X85, or Y10-Y14.

In an example of how the VDH and CDC methodologies differ based on use of ICD codes and literal text analysis, an underlying cause of death may be listed as cardiovascular disease and identified in the death record with the ICD-10 code I25.0 (CVD). This individual would not be included as a drug-related fatal overdose using the CDC methodology. However, upon closer inspection of literal text and additional cause of death fields, the injury description lists "substance abuse" with a contributing condition of "acute cocaine intoxication" and ICD codes indicating poisoning by narcotics (T45.0). Based on this additional information, VDH would classify this as a drug-related fatal overdose.

The Vermont Department of Health's method of identification reveals an average 5% fewer fatal overdoses (range 0% to -12%) compared to the <u>CDC's findings for Vermont</u>. This is likely a result of more stringent exclusion criteria. It is also possible that some of the deaths identified by the CDC as overdoses are not the same as those identified by the Department of Health and vice versa.

	Number of Drug-Related Fatal Overdoses*								
	CDC Methodology	Vermont Methodology							
2014	83	80							
2015	99	87							
2016	125	111							
2017	134	121							
2018	153	151							
2019	133	133							
2020	190	188							
2021	252	244							
2022	276	269							
2023	*	265							
2024	*	225							
*2023 a	*2023 and 2024 CDC data are not yet available.								

