

# **Emergency Medical Services Naloxone Distribution and Administration**

Q4 2023

# **Overview of Opioid Overdoses in Vermont**

Data indicates there were 244 accidental or undetermined opioid-related fatalities among Vermont residents in 2022, an increase from previous years. Fentanyl is involved in 93% of these fatalities, while cocaine is involved in 49%, and xylazine in 28%¹. As more substances are involved in overdose fatalities, access to naloxone (the opioid antidote medication) is becoming more important. Naloxone is often known by the brand name Narcan®.

#### **KEY POINTS**

#### **During 2023:**

- EMS administered naloxone to 886 patients in 2023.
- EMS documented distributing 577 naloxone Leave Behind Kits to patients and their families.

### **Naloxone Distribution in Vermont**

The Health Department's Opioid Overdose Prevention and Reversal Program (OOPRP) collaborates with community-based organizations and first responders to distribute naloxone. The OOPRP provides training on overdose prevention, overdose response, and opioid misuse prevention training. The program provides referrals to harm reduction, recovery, and treatment services across Vermont. As one piece of the State of Vermont's coordinated effort to reduce opioid-related fatalities, the program also works to ensure that first responders and the public are trained in overdose response. The goal of the OOPRP is to distribute naloxone overdose rescue kits to Vermonters at risk of overdose, family members of those at risk, and anyone who may be able to help in the event of an overdose. As fentanyl is being found in many illicit substances, it is important for anyone using any powder or pill, not purchased at a pharmacy, to have naloxone on hand, teach loved ones where it is kept and how to use it in case of an opioid overdose. Learn where to access naloxone at VTHelpLink.org.

The OOPRP supports naloxone distribution through three pathways:

- Community distribution by:
  - Narcan® Kit Program and
  - Harm Reduction Pack (HRP) Program
- First responder distribution by the leave behind kit (LBK) program

Further information on opioid overdose prevention can be found at HealthVermont.gov.

This data brief focuses on the first responder leave behind kit (LBK) program and EMS naloxone administration. Read the quarterly community naloxone distribution and administration data brief.

<sup>&</sup>lt;sup>1</sup> Vermont Department of Health - Opioid-Related Fatal Overdoses Among Vermonters

# First Response Naloxone Leave Behind Kits (LBKs)

Leave behind kits are provided to people following an interaction with a first responder such as law enforcement or emergency medical services (EMS). EMS are required to offer LBKs to people who refuse transportation to the hospital following an opioid overdose. EMS are also encouraged to provide LBKs in any circumstance in which opioid use might be indicated, even if the original call to the first responder was not opioid-related. These kits include two doses of 4 mg naloxone, instructions for use, information on harm reduction, treatment, recovery services, and information on Vermont 211. For more information on LBKs contact: naloxone@vermont.gov.

# Naloxone Distribution by the Vermont Department of Health - 2023

The following table contains data on LBKs and naloxone doses for EMS use distributed to the Vermont Department of Health's EMS partners in 2023. Historic data may change due to delays in reporting.

Distribution of Naloxone Doses from the Vermont Department of Health – 2023							
	<b>Q1</b>	Q2	Q3	<b>Q4</b>	Total		
Leave behind kits: Number of doses provided to EMS and law enforcement agencies (3,118 doses in 1,559 kits)	528	498	1244	848	3,118		
For EMS Use: Number of 4 mg doses provided to EMS	462	534	553	511	2,060		
For EMS Use: Number of 2 mg doses provided to EMS		434	517	443	1,825		
Doses of naloxone distributed to first responders		1,466	2,314	1,802	7,003		

# **Naloxone Distribution by Emergency Medical Services – 2023**

The following table contains data from EMS providers who reported leaving **naloxone kits** behind with people who are at higher risk of overdose due to opioid misuse. These data are updated on a quarterly basis. *Note: previously reported data in this table was underreported and has been corrected in this brief.* 

EMS Naloxone Leave Behind Kit Distribution – 2023						
	<b>Q1</b>	<b>Q2</b>	Q3	<b>Q4</b>	Total	
Number of incidents where EMS left naloxone (in a Leave Behind Kit) with people who are at higher risk of overdose due to opioid misuse	112	96	121	122	451	
Number of kits left at EMS scenes with people who are at higher risk of overdose due to opioid misuse (2 doses/kit)	141	121	159	156	577	

# **Naloxone Administration by Emergency Medical Services - 2023**

Naloxone is administered by EMS personnel when medically indicated in several scenarios, including perceived overdoses and cardiac arrests. These administrations are captured in Vermont's State Incident Reporting Network (SIREN) database. In 2023, Vermont EMS agencies administered naloxone to 886 patients (10 patients were administered naloxone out of state).

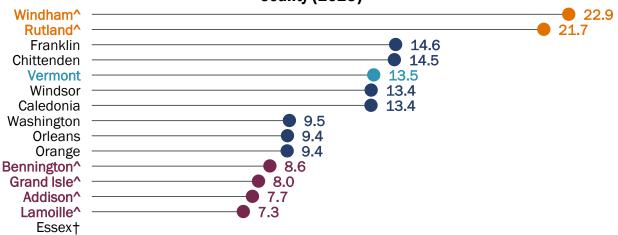
## Demographic Breakdown of Individuals Administered Naloxone by EMS (2023)



Source: Vermont State Incident Reporting Network (SIREN), 2023

In 2023, Windham and Rutland Counties had significantly higher rates of naloxone administration (22.9 and 21.7 per 10,000 residents respectively), while Bennington, Grand Isle, Addison, and Lamoille Counties had significantly lower rates of administration (8.6, 8.0, 7.7, and 7.0 per 10,000 residents respectively). Data for Essex County are suppressed due to insufficient data. All other counties have statistically similar rates to Vermont.

# Rate of EMS Calls Involving Narcan Administration Per 10,000 Residents in County (2023)



Source: Vermont Statewide Incident Reporting Network (SIREN), 2023, Vermont Population Statistics (2022)

<sup>†</sup> Essex and Grand Isle Counties have been suppressed due to insufficient data

<sup>^</sup> Statistically significant at 0.05 level, compared to Vermont rate (12.5 per 10,000 Vermonters)

# **Naloxone Administration by Emergency Medical Services – 2023**

The following tables contain 2023 data on the use of naloxone by emergency medical services personnel in Vermont. These data are updated quarterly using the Statewide Incident Reporting Network (SIREN). Historic data may change if there are delays in reporting. Note – EMS agencies do not administer a 'standardized' 4 mg dose of naloxone.

Number of Patients Administered Naloxone via EMS by County of Incident – 2023						
	Q1	Q2	Q3	Q4	Total	
Addison	7	8	7	7	29	
Bennington	6	6	12	8	32	
Caledonia	8	9	9	15	41	
Chittenden	60	68	67	51	246	
Essex	0	0	*	*	*	
Franklin	27	14	17	16	74	
Grand Isle	*	*	0	*	6	
Lamoille	*	11	*	*	19	
Orange	8	6	8	6	28	
Orleans	9	7	*	6	**	
Rutland	32	37	33	29	131	
Washington	20	6	17	14	57	
Windham	32	28	21	24	105	
Windsor	8	27	23	20	78	
Missing County	1	0	0	0	1	
Out of State (administered by VT agency)	4	1	2	3	10	
Total	227	231	224	204	886	

Number of Patients Administered Naloxone via EMS by Sex and Age – 2023						
	<b>Q1</b>	Q2	Q3	Q4	Total	
Sex	·					
Female	74	76	70	73	293	
Male	152	155	154	130	591	
Age						
< 17	2	3	2	2	9	
18 - 29	25	21	31	23	100	
30 - 59	148	163	141	133	585	
60 +	46	41	42	38	167	

# **Naloxone Distribution and Administration: EMS**

Number of Patients Administered Naloxone via EMS by milligrams (mg) Received – 2023								
Number of mg Received Q1 Q2 Q3 Q4 Total								
2 or fewer	32	43	51	38	164			
2.1 – 4	94	95	74	77	340			
4.1 - 8	76	78	86	69	309			
8.1 - 12	3	1	0	0	4			
More than 12	17	12	9	18	56			

Number of Naloxone Administrations via EMS by Route of Administration – 2023							
	Q1	Q2	Q3	Q4	Total		
Intranasal	142	131	135	116	524		
Intravenous (IV)	44	68	54	55	221		
Intramuscular (IM)	25	36	33	22	116		
Intraosseous (IO)	10	24	17	21	72		
Other/Miscellaneous/Missing	22	10	13	8	53		

# **Key Takeaways:**

First responders, including emergency medical services (EMS) providers play a critical role in addressing the opioid epidemic. EMS provide services to people who are using drugs, their loved ones, or others that may be able to help in the event of an opioid overdose. In addition to reversing overdoses, EMS agencies across the state are helping to build community networks and employ a comprehensive response to the opioid epidemic.

For more information on the OOPRP: <a href="https://www.HealthVermont.gov/naloxone">www.HealthVermont.gov/naloxone</a>

For more information on SIREN: www.HealthVermont.gov/siren

For more information on overdose prevention strategies: www.KnowODVT.com

For more information on harm reduction, treatment, and recovery services: www.VTHelpLink.org

For questions about this data brief: <a href="mailto:naloxone@vermont.gov">naloxone@vermont.gov</a>