

# Naloxone Distribution and Administration in Vermont – Data Brief

## Opioid Misuse in Vermont

The United States is in the middle of an opioid epidemic. In 2016, 11.5 million Americans misused prescription pain relievers.<sup>1</sup> Between 2015 and 2016, Vermont had the 6<sup>th</sup> highest prevalence of past year heroin use compared to other states.<sup>2</sup> In 2017, there were 101 accidental and undetermined opioid-related fatalities among Vermont residents, up from 96 in 2016 and 74 in 2015.<sup>3</sup>

## Vermont's Response

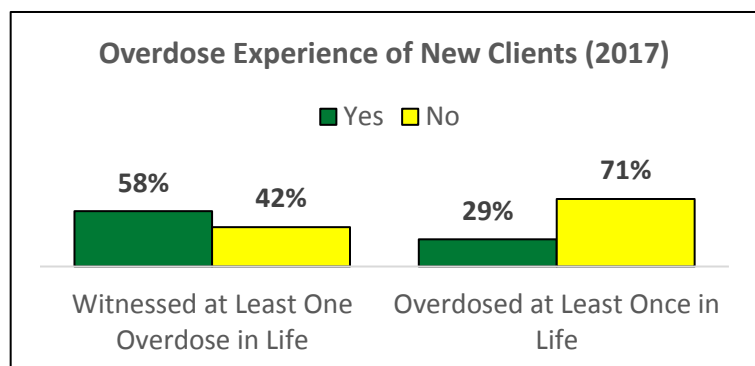
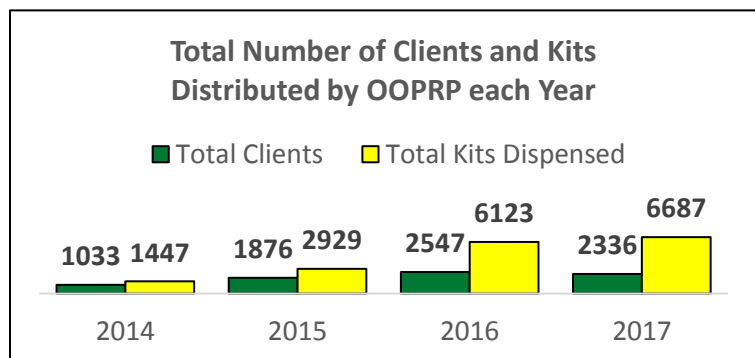
In an effort to reduce the number of opioid-related fatalities, the Department of Health began distributing naloxone (Narcan®) as part of the Naloxone Pilot Project in December of 2013. Naloxone is an opioid antagonist. When sprayed into the nose of a person who has overdosed, it will block the effects of the opioid, restoring normal breathing. In the event of an overdose, naloxone should be administered as quickly as possible. It is safe, easy to administer, and has no potential for abuse.

The goal of the Pilot Project has been to distribute naloxone overdose rescue kits, containing a single 4 mg dose of nasal naloxone spray (originally two 2 mg doses until July of 2016), to individuals who are at risk for overdose, family members of those at risk, and anyone who may be in a position to help in the event of an overdose. Additionally, community-based organizations who distribute naloxone provide overdose response training, opioid misuse prevention training and referrals to treatment. After several years of providing these services to surrounding communities, the Pilot Project is now known as the Opioid Overdose Prevention and Reversal Project (OOPRP).

## OOPRP Survey and 2017 Client Profile

The total number of clients visiting OOPRP sites increased each year between 2014 and 2016 while fewer clients visited in 2017 than in 2016 (2,336 vs. 2,547). The number of naloxone kits distributed has increased each year since 2014. Over 500 more naloxone rescue kits were dispensed in 2017 than in 2016.

In 2017, the OOPRP collected information from new clients (n = 1,465). New clients were 38 years old on average. Half were men, and most were white (94%) and non-Hispanic (97%). Over half said they had witnessed at least one overdose in their life (58%). Nearly three in ten (29%) new clients reported that they had overdosed at least once in their life; heroin (78%) and fentanyl (16%) were the most reported drugs involved (note – these responses were not mutually exclusive).



<sup>1</sup> Results from the 2016 National Survey on Drug Use and Health (NSDUH): Detailed Tables:

<https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2016/NSDUH-DetTabs-2016.pdf>

<sup>2</sup> 2015-2016 NSDUH

<sup>3</sup> Vermont Opioid-Related Fatalities:

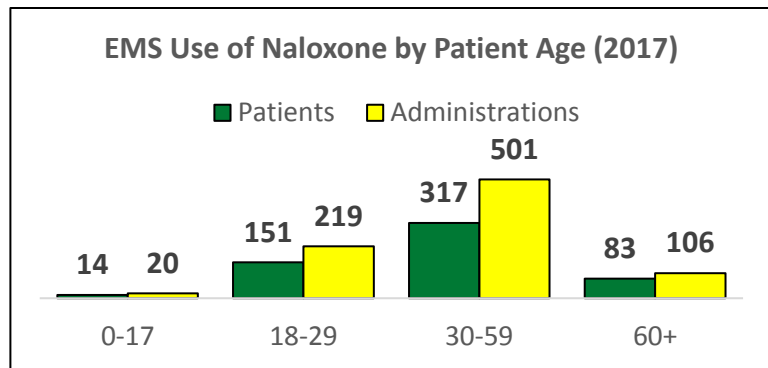
[http://www.healthvermont.gov/sites/default/files/documents/pdf/ADAP\\_Data\\_Brief\\_Opioid\\_Related\\_Fatalities.pdf](http://www.healthvermont.gov/sites/default/files/documents/pdf/ADAP_Data_Brief_Opioid_Related_Fatalities.pdf)

## EMS Use of Naloxone

Contacting emergency medical personnel could be the difference between life and death for someone suffering from an overdose, whether they have been administered naloxone or not. All Vermont-based EMS agencies report their use of naloxone into the Statewide Incident Reporting Network (SIREN).

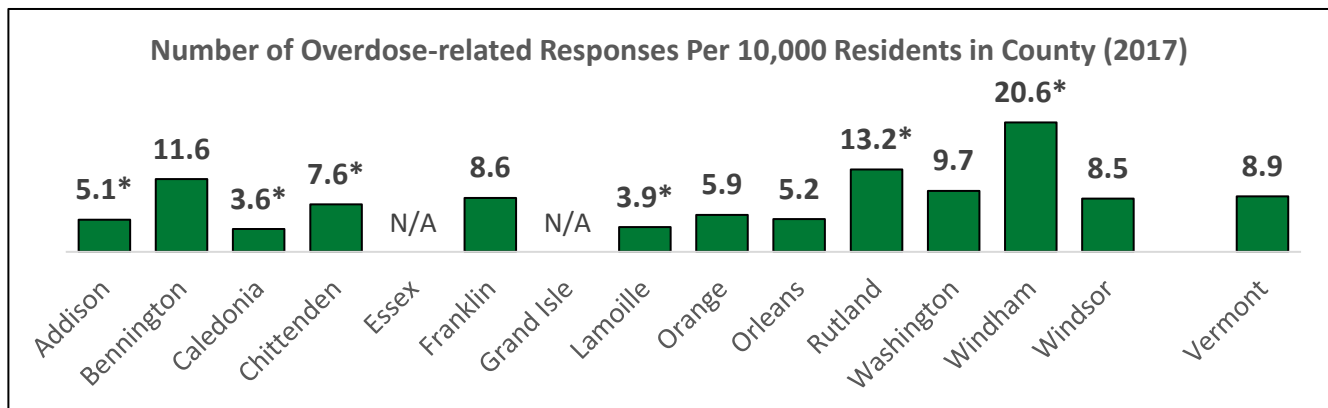
In 2017, SIREN indicates Vermont EMS agencies administered 848 doses of naloxone to 567 individual patients (14

of these incidents occurred out of state, accounting for 27 total administrations of naloxone).<sup>4</sup> Overall, individuals who were administered naloxone by EMS personnel were about 41 years old on average, 61% were male, and 56% were between 30 and 59 years old. Most doses were administered intravenously or intranasally (84%), and the majority of patients were administered either one (62%) or two (29%) doses.



Data Source: Vermont State Incident Reporting Network (SIREN).

EMS agencies in Chittenden County accounted for about one-fourth of the total number of Vermont EMS-reported naloxone administrations; however, the rate of naloxone administration was higher in several counties. The rate of responses involving naloxone administration by EMS agencies in Chittenden County was 7.6 per 10,000 Vermonters which was significantly lower than the overall Vermont rate of 8.9 responses per 10,000 Vermonters. The rates in Windham and Rutland counties were 20.6 and 13.2 responses per 10,000 Vermonters, respectively. Both were significantly greater than the state rate.<sup>5</sup>



Data Source: Vermont State Incident Reporting Network (SIREN).

Note: Data from Essex and Grand Isle has been suppressed due to insufficient data.

\*Statistically significant at 0.05 level, compared to Vermont rate (8.9 per 10,000 Vermonters).

## Conclusion

The opioid epidemic has taken a significant toll on the state of Vermont. Naloxone has been given out at the community level through the Opioid Overdose Prevention and Reversal Project which has led to a large amount of overdose reversals and saved hundreds of lives. In 2017, among those who reported that naloxone was used in a perceived overdose setting, 95% said it reversed the overdose. In addition, Vermont EMS agencies have administered hundreds of doses of naloxone to those believed to be suffering from an overdose, further helping Vermonters in need.

<sup>4</sup> Because EMS agencies do not administer a standardized dose of naloxone, SIREN data is not comparable to that collected by the Opioid Overdose Prevention and Reversal Project.

<sup>5</sup> Differences in rates of naloxone administration between each county do not necessarily indicate higher rates of overdose or addiction. Regional variations and witness behavior (e.g. calling 911 in the event of an emergency) both impact the rates included in this report. Additionally, not all EMS administrations of naloxone result in an overdose-related diagnosis. More information about the strengths and limitations of SIREN can be found [here](#).

## Preliminary Opioid Overdose Prevention and Reversal Project Data – 2018:

The following tables contain data collected by Opioid Overdose Prevention and Reversal Project (OOPRP) naloxone distribution sites. This data is updated on a quarterly basis. Historic data may change if there are delays in reporting. All data in the following tables should be considered preliminary until final data is published.

Clients and Distribution of Kits – Preliminary 2018 Data* <sup>6</sup>				
	Q1	Q2	Q3	Q4
<b>Number of New Clients</b>	242	373	246	
<b>Number of Returning Clients</b>	204	256	182	
<b>Other Clients</b>	39	46	46	
<b>Total</b>	485	675	474	
<b>Kits of Naloxone Distributed</b>	1655	2170	1255	

\*Clients are classified as new/returning/other using the following criteria: (1) new clients are those receiving naloxone who are filling out a naloxone survey for the first time; (2) returning clients are those receiving naloxone who have filled out a naloxone survey at any point since the start of the naloxone program (December 2013) prior to their visit; and (3) other clients are those not receiving naloxone who are filling out the survey – regardless of whether they have visited an OOPRP site for naloxone in the past or not.

Information Reported by Naloxone Kit Recipients – Preliminary 2018 Data*					
	Q1	Q2	Q3	Q4	Total
<b>Overdoses Reported by Naloxone Kit Recipients</b>	83	135	107		325
<b>Number of Individuals Administered Naloxone in Response to a Perceived Overdose</b>	81	130	102		313
<b>Number of Kits Used to Reverse a Perceived Overdose</b>	168	273	194		635
<b>Successful Overdose Reversals Reported</b>	73	123	97		293

\*This information is reported by individuals who have received a naloxone kit through the OOPRP at any point in time – not just those picking up a naloxone kit at the time of the survey.

<sup>6</sup> Quarterly totals will not match yearly totals for distribution data collected from returning clients. For example, if a unique client visits an OOPRP site in 3 out of 4 quarters during the year, they count 3 times toward the total number of unique returning clients if counted by discrete quarters. However, they would only count one time toward the total number of unique returning clients if a count was done for that single year.

### Preliminary SIREN Data – 2018:

The following tables contain data from the Statewide Incident Reporting Network (SIREN). This data outlines the use of naloxone by emergency medical personnel in Vermont. This data is updated on a quarterly basis. Historic data may change if there are delays in reporting. All data in the following tables should be considered preliminary until final data is published. Note – because EMS agencies do not administer a standardized dose of naloxone, SIREN data is not comparable to that collected by OOPRP sites.

<b>Number of Individual Patients Administered Naloxone by County – Preliminary 2018 Data</b>					
	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Total</b>
<b>Addison</b>	*	*	7		10
<b>Bennington</b>	12	11	14		37
<b>Caledonia</b>	7	9	8		24
<b>Chittenden</b>	13	29	24		66
<b>Essex</b>	*	*	*		*
<b>Franklin</b>	13	18	13		44
<b>Grand Isle</b>	*	*	*		*
<b>Lamoille</b>	*	*	*		6
<b>Orange</b>	*	*	*		8
<b>Orleans</b>	*	*	6		14
<b>Rutland</b>	21	10	19		50
<b>Washington</b>	16	16	15		47
<b>Windham</b>	24	22	9		55
<b>Windsor</b>	13	16	18		47
<b>Out of State</b>	*	*	*		*
<b>Total</b>	131	148	140		419

<b>Number of Individual Patients Administered Naloxone by Gender, Age, and Number of Doses Received – Preliminary 2018 Data</b>					
	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Total</b>
<b>Gender</b>					
<b>Male</b>	65	87	86		238
<b>Female</b>	66	60	54		180
<b>Age</b>					
<b>&lt; 14</b>	*	*	*		*
<b>14 - 24</b>	*	*	*		*
<b>25 - 44</b>	60	79	83		222
<b>45 - 64</b>	35	38	33		106
<b>65+</b>	19	14	15		48
<b>Number of Doses Received</b>					
<b>1</b>	88	104	93		285
<b>2</b>	38	34	42		114
<b>3</b>	4	9	4		17
<b>4</b>	1	1	1		3

<b>Number of Naloxone Administrations by Route of Administration – Preliminary 2018 Data</b>					
	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Total</b>
<b>Intravenous (IV)</b>	44	52	60		156
<b>Intranasal</b>	113	117	97		327
<b>Intraosseous (IO)</b>	18	13	23		54
<b>Intramuscular (IM)</b>	1	12	6		19
<b>Other/Miscellaneous</b>	4	9	7		20

For more information about this report, please contact Jeffrey Trites at [Jeffrey.Trites@vermont.gov](mailto:Jeffrey.Trites@vermont.gov).

More information about the Opioid Overdose Prevention and Reversal Project can be found at:

<http://www.healthvermont.gov/response/alcohol-drugs/narcan-naloxone-overdose-rescue>

More information about SIREN can be found at:

<http://www.healthvermont.gov/emergency/ems/siren-statewide-incident-reporting-network>