

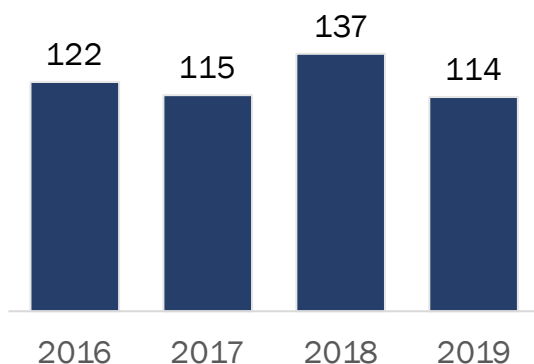
Naloxone is a medication used to reverse an opioid overdose. It is administered into the nose or injected and can save the life of someone experiencing an opioid overdose. Unfortunately, some people never receive naloxone during an overdose, or they receive it too late, despite it being available at no cost throughout Vermont. The State Unintentional Drug Overdose Reporting System (SUDORS) collects data about people who died of an accidental or undetermined intent drug overdose in Vermont. The data, including demographic information, circumstances surrounding the overdose, toxicology results and risk factors for overdose, is obtained from death certificates, law enforcement reports, and medical examiner reports. The availability of circumstance and risk factor data varies and is dependent on the amount of information obtained during death scene investigation interviews with family, friends, and healthcare providers. There were 488 deaths entered into SUDORS for 2016 through 2019, of which 91% percent tested positive for opioids. After increasing from 2016 to 2017, the rate of naloxone administration decreased between 2017 and 2019. Fewer than 3 in 10 of the deaths in SUDORS for 2019 (n=32) had an indication that naloxone was received.

KEY POINTS

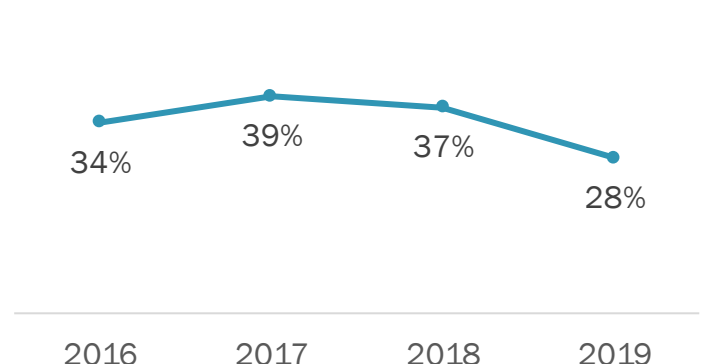
- People who are female, older, or not in a relationship are less likely to be administered naloxone during a fatal overdose.
- People who have no history of substance use disorder, overdose, or are alone at the time of drug use are less likely to be administered naloxone.

In light of this, the Vermont Department of Health has reviewed SUDORS data to assess common factors among people that did not receive naloxone at the time of an overdose in an effort to better direct our naloxone distribution and education efforts. Of the 488 drug overdose deaths from 2016-2019, about one-third were administered naloxone.

SUDORS contains information on 488 overdose deaths that occurred in Vermont between 2016 and 2019.



The percentage of people who died of a drug overdose who were administered naloxone decreased between 2017 and 2019. †



†Difference was not statistically significant (p>.05)

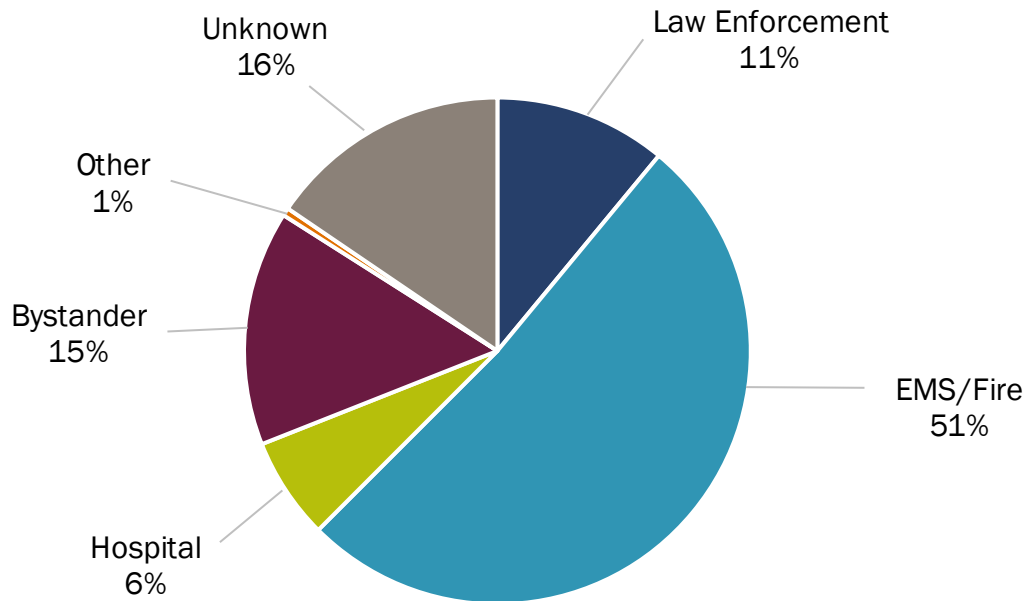
Naloxone Administration in VT Overdose Deaths

Naloxone may be administered by a wide variety of people.

As part of Vermont's effort to decrease fatal overdoses, intranasal naloxone is widely available at no cost to all Vermonters, with targeted distribution to people at risk of overdose and people that are likely to have contact with them. A standing order at Vermont pharmacies issued by the Commissioner of the Vermont Department of Health allows naloxone to be dispensed without a prescription. Additionally, Vermont also has a Good Samaritan Law that provides some legal protection to anyone who gives naloxone or calls 9-1-1 in an overdose situation.

Despite wide availability, naloxone administered in the event of a fatal overdose is most frequently given by EMS/Fire (52%). Bystanders administered naloxone in only 15% of deaths. Law enforcement administered naloxone in about one in ten overdoses (11%). In 16% of fatal overdoses, it was unknown who administered the naloxone.

Naloxone is administered most often by emergency medical service (EMS) or fire personnel.

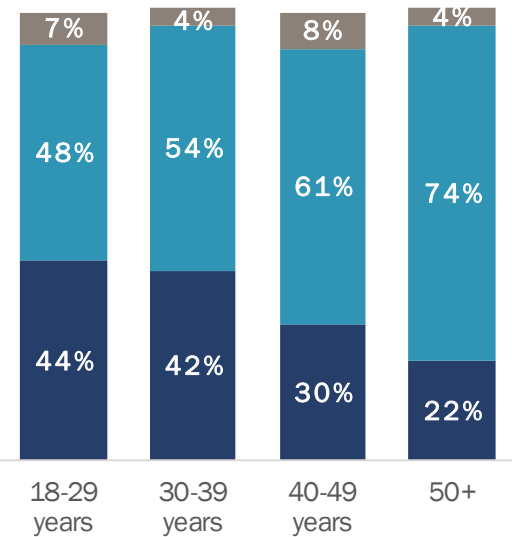


Naloxone Administration in VT Overdose Deaths

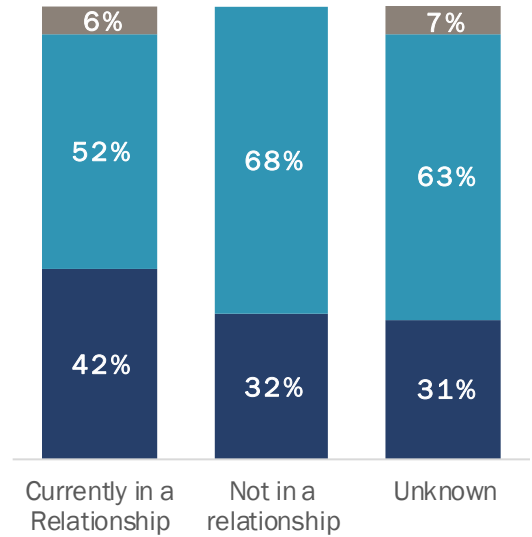
Demographics of those who are less likely to be administered naloxone, among drug overdose deaths

■ Administered Naloxone ■ Not Administered Naloxone ■ Unknown

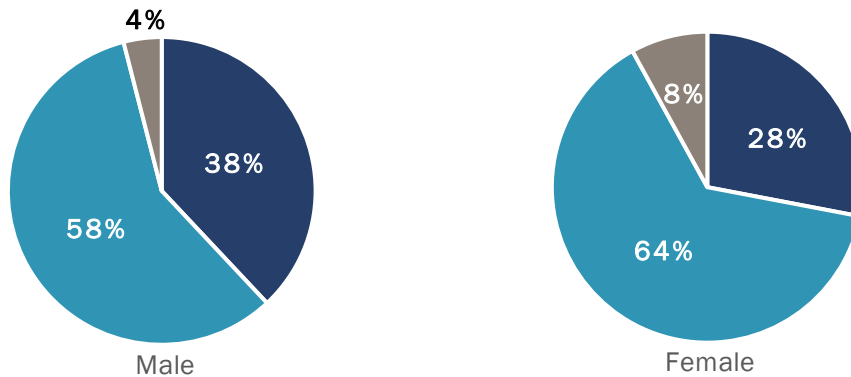
Older individuals are less likely to be administered naloxone compared to younger age groups. *



Individuals who are not currently in a relationship are less likely to be administered naloxone. *



Women are slightly less likely than men to be administered naloxone. *



Between 2016 and 2019, there was no statistically significant difference in naloxone administration by race.

*Differences are statistically significant (p<.05)

Naloxone Administration in VT Overdose Deaths

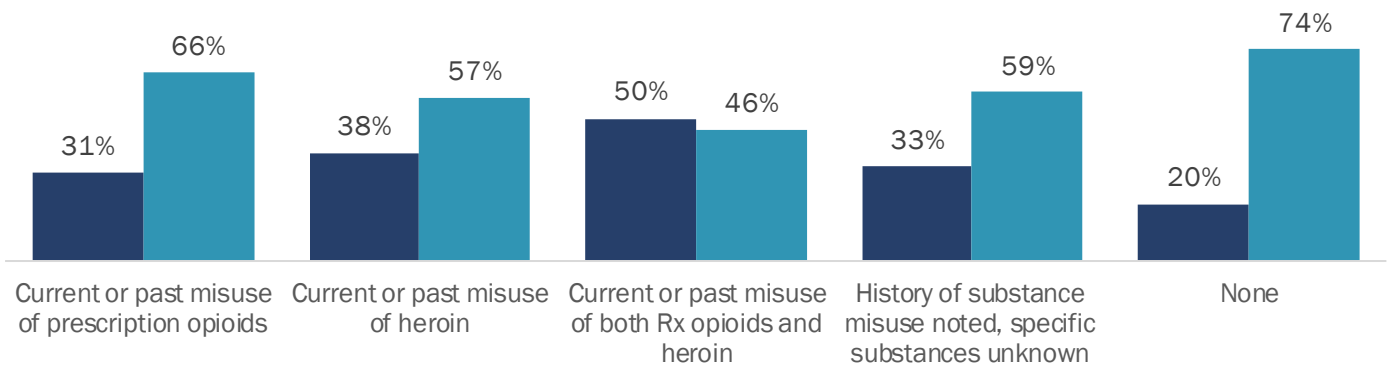
Factors associated with not being administered naloxone during an overdose

■ Administered Naloxone ■ Not Administered Naloxone

People who do not have a known history of substance misuse are least likely to be administered naloxone (20%). Those with a history of current or past misuse of prescription opioids and heroin are more likely to be administered naloxone (50%).

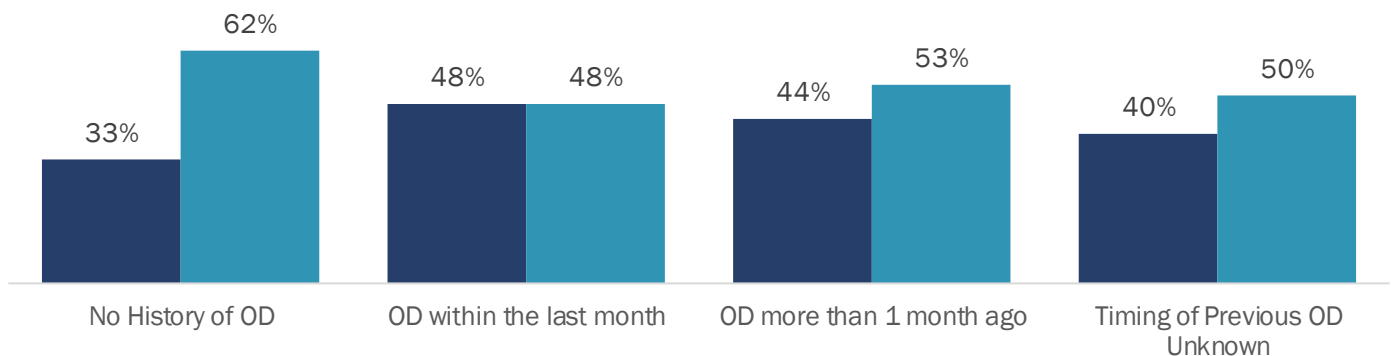
Note, for a small number of individuals who died of a drug overdose, it's unknown whether they were administered naloxone. Due to the small counts, percentages for unknown naloxone administration status have been suppressed in this analysis and those following.

People without a known history of substance misuse are less likely to be administered naloxone. *



Naloxone is more likely to be administered if the decedent previously experienced an overdose. Among those without a previous overdose reported, 33% were administered naloxone, compared to 48% who experienced an overdose within the last month (this difference is not statistically significant).

People without a known history of overdose are less likely to be administered naloxone than people who have experienced an overdose in the last month.



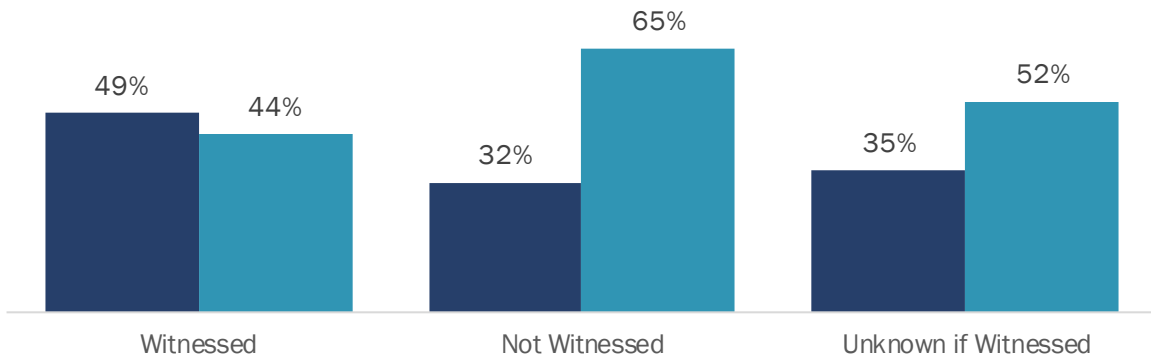
*Differences are statistically significant (p<.05)

Naloxone Administration in VT Overdose Deaths

■ Administered Naloxone ■ Not Administered Naloxone

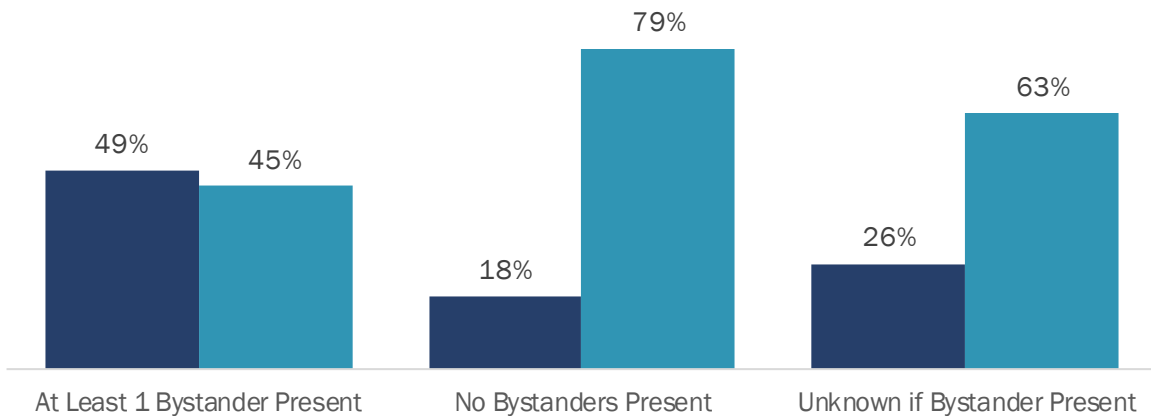
If the drug use leading to the decedent's fatal overdose is not witnessed, they are less likely to be administered naloxone (32%) compared to those whose drug use is witnessed (49%).

If the individual's drug use is not witnessed, they are less likely to be administered naloxone than those who had witnesses to their drug use. *



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 to be a bystander. If there are bystanders present at the time of the overdose, people are more likely to be administered naloxone. Nearly half of people with a bystander present receive naloxone compared to only 18% of people without a bystander.

One in five people without a bystander present at the time of overdose receive naloxone, compared to nearly half of people with at least one bystander present. *



*Differences are statistically significant (p<.05)

Naloxone Administration in VT Overdose Deaths

People who die of a drug overdose at home are less likely to be administered naloxone than those who die in the hospital (either inpatient or outpatient). Most drug overdose deaths occur at the person's home (64%, n=310).

Fewer than 30% of people who die from a drug overdose at home are administered naloxone, compared to 8 in 10 individuals who die in an inpatient unit at the hospital. *



Home

28%



Hospital-
Inpatient

83%



Hospital-
ED/Outpatient

68%



Other

29%

Limitations

The completeness of SUDORS data is dependent on the availability of information in death certificates and medical examiner and law enforcement reports. Prior to 2017, only opioid-related deaths were entered into SUDORS. The system and coding guidance has also been updated, which may have changed how some circumstances were coded over time.

Prevention of Overdose Deaths with Naloxone

One of the key strategies to reducing the number of opioid related fatalities in Vermont is community distribution of nasal naloxone, known by its brand name, Narcan. Narcan can be found throughout the state at free distribution sites. Information on where to find Narcan be found at www.healthvermont.gov/naloxone.

There are also six key harm reduction steps to reduce one's risk of an opioid overdose:

- Avoid using alone
- Use new syringes
- Test for fentanyl
- Go slow
- Carry naloxone
- Call 911 in case of an overdose

The Health Department website has a page dedicated to overdose prevention and includes information on how to identify an overdose, how to help in the event of a potential overdose, where to get naloxone, training videos, and other overdose prevention information. For more information on how to identify and respond to an opioid overdose, visit www.KnowODVT.com.

*Differences are statistically significant (p<.05)

Key Takeaways

There are differences in the characteristics of people who are and are not administered naloxone. Individuals who are female, older, or not in a relationship are less likely to receive naloxone. People who are not witnessed using the drugs or don't have anyone nearby during the overdose, and those who have no history of substance misuse or overdose are also less likely to receive naloxone.

The characteristics of individuals who receive naloxone differ from those who do not.

References:

State Unintentional Drug Overdose Reporting System (SUDORS)

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