

Deaths related to opioids and other drugs

Annual Report 2021

Allegan and Barry County

**This report is in memory of those who lost their
life or a loved one to substance use.
These losses must motivate us all to prevent future deaths.**

Purpose: This data was collected by the Office of the Medical Examiner (MEO) in the Department of Pathology at Western Michigan University Homer Stryker M.D. School of Medicine (WMed). Unless otherwise noted, data is from 2021 and includes deaths where drugs were the immediate cause of death. This report is meant to provide up to date statistics to those involved in efforts to reduce the number of drug-related deaths.

Sections with the following headings are approximations and frequencies may be higher than what is reported: Health Factors, Mental Health Factors, Social Factors, Children and Substance Use History.

Sources: All data was extracted from a Medical Examiner database, law enforcement (LE) reports, EMS runsheets, death certificates, obituaries, medical records, toxicology reports, and autopsy reports.

Note: Allegan and Barry counties are combined to protect decedents' identities due to low count numbers ($n < 10$) in Barry. The two counties are combined due to geographic proximity. B=Black/African-American; H=Hispanic; W=White; F=Female; M=Male

Please email questions to pathology@med.wmich.edu

Office of the Medical Examiner
Department of Pathology
Homer Stryker M.D. School of Medicine

Deaths Related to Opioids and Other Drugs

Allegan and Barry County

All drug-related deaths: Allegan

Age	Race	Sex	Death certificate: Substances contributing to death	Injury Zip code
19	B	M	fentanyl	49010
27	W	M	fentanyl, ethanol	49010
28	W	M	fentanyl, ethanol, cocaine	49078
36	W	F	fentanyl, methamphetamine, xylazine, alprazolam, hydroxyzine	49080
41	H	M	fentanyl	49423
45	W	M	fentanyl, methamphetamine	49348
45	W	M	methamphetamine	49408
50	W	M	fentanyl, cocaine	unknown
54	W	F	alprazolam, oxycodone, duloxetine, gabapentin, trazodone, diphenhydramine	49078
58	W	M	methamphetamine	unknown
60	H	M	methamphetamine, ethanol	49423
61	W	M	tramadol, gabapentin, trazodone, duloxetine	49078
66	W	M	chloroethane	49080

Deaths Related to Opioids and Other Drugs

Allegan and Barry County

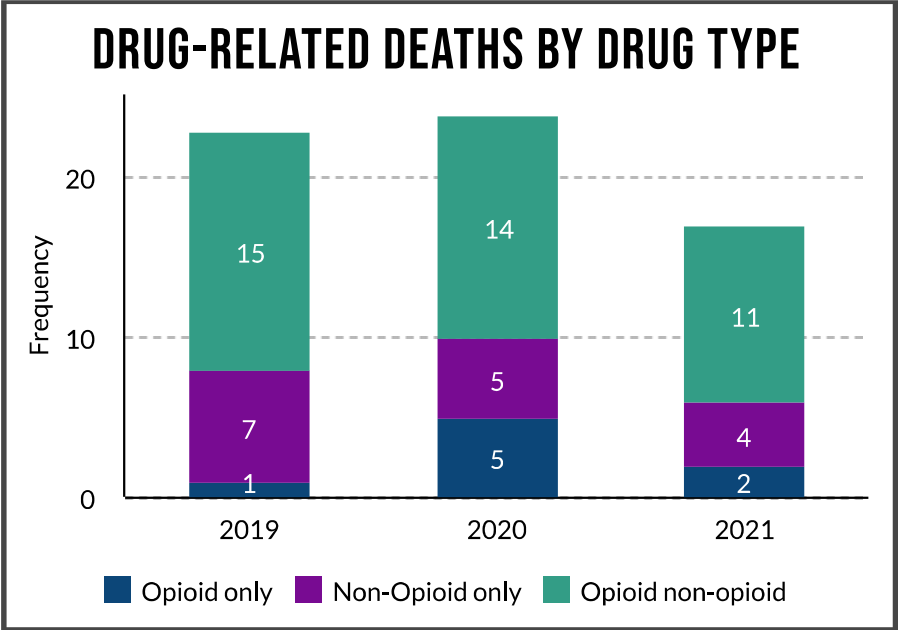
All drug-related deaths: Barry

Age	Race	Sex	Death certificate: Substances contributing to death	Injury Zip code
30	W	F	fentanyl, methamphetamine	49058
35	W	F	alprazolam, fentanyl	49046
39	W	M	diphenhydramine, etizolam, fentanyl, heroin	49348
46	W	F	gabapentin, oxycodone, zolpidem	49058

Deaths Related to Opioids and Other Drugs

Allegan and Barry County

Total Drug-Related Deaths



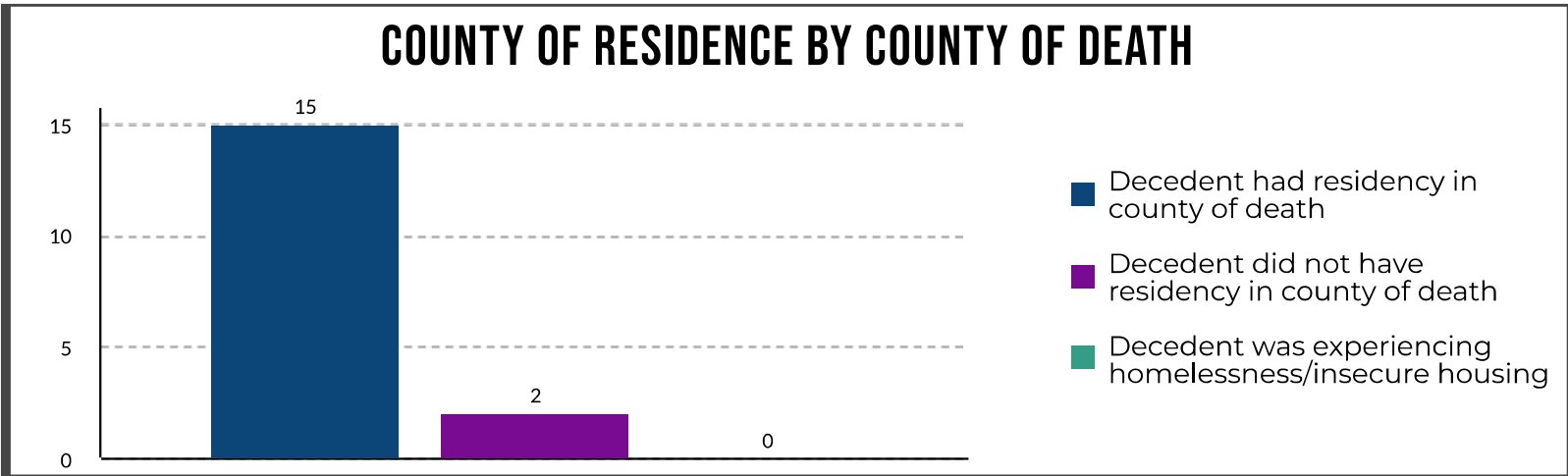
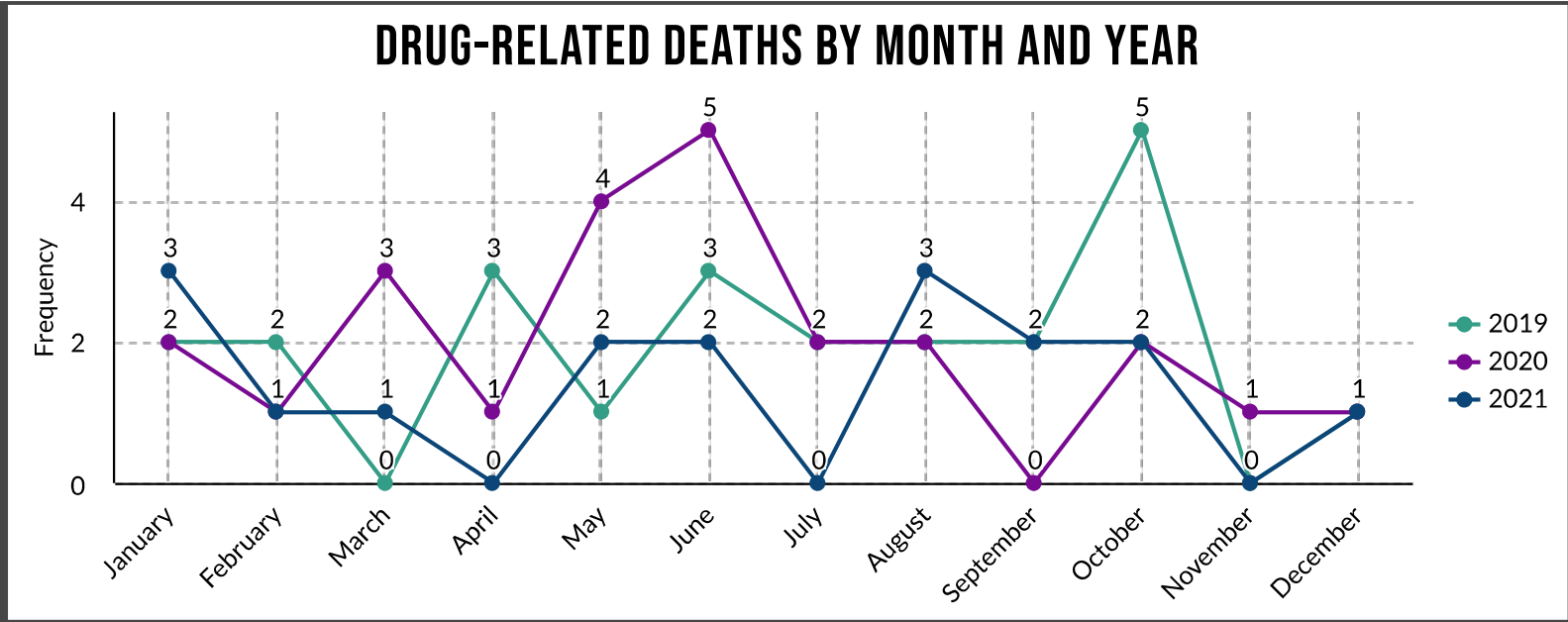
Year	Total deaths	Deaths per 10,000
2019	23	1.3
2020	24	1.4
2021	17	0.9

Percent change

▼

29%

from 2020 to 2021

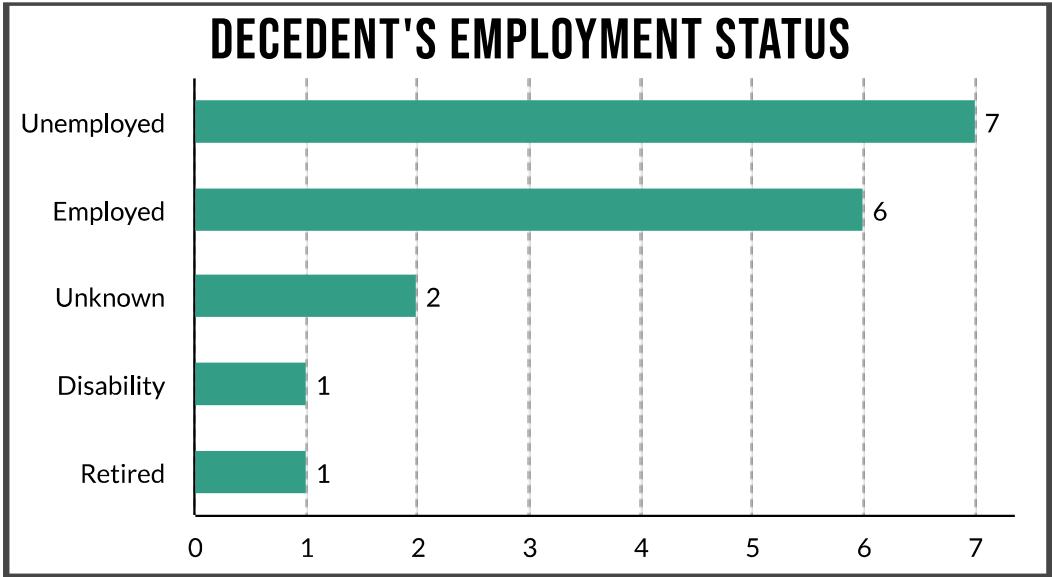


Deaths Related to Opioids and Other Drugs

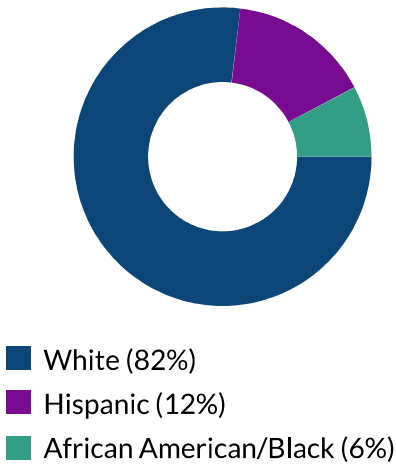
Allegan and Barry County

Demographics

DECEDENT'S EMPLOYMENT STATUS



RACE



SEX

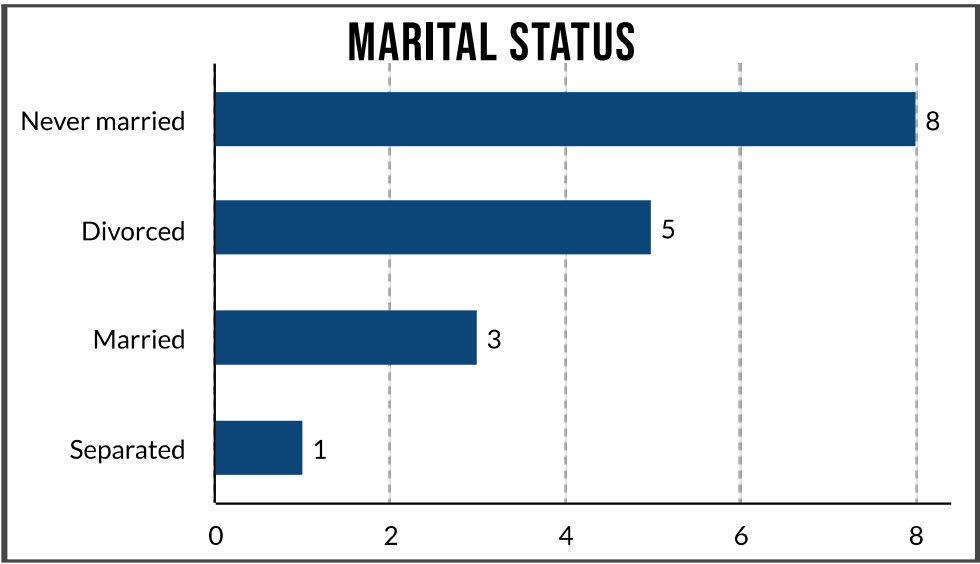


29%



71%

MARITAL STATUS



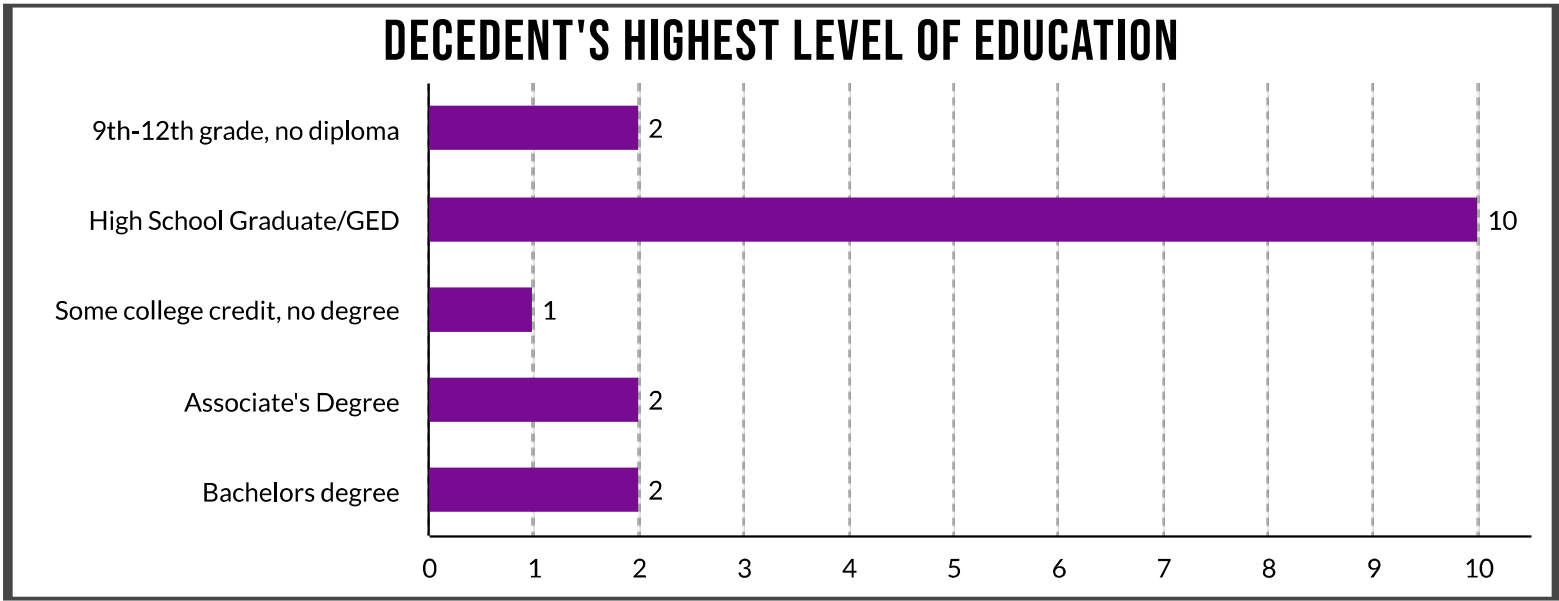
AGE

Minimum Age
19 years

Maximum Age
66 years

Average Age
44 years

DECEDENT'S HIGHEST LEVEL OF EDUCATION

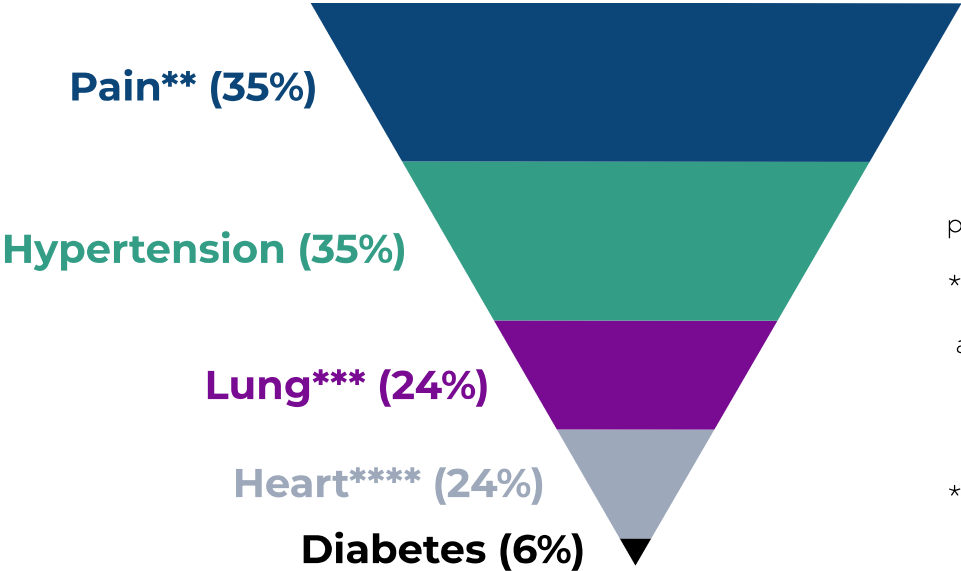


Deaths Related to Opioids and Other Drugs

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Health Factors

MOST COMMON AILMENTS*

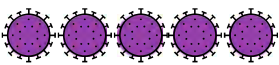


*Decedents may be represented in more than one category.
Only illnesses with diagnosis by a medical professional are included.

**Pain includes back pain, arthritis, nerve damage, and peripheral neuropathy

***Lung includes asthma and COPD

****Heart includes CAD and CHF
(see end of page)



1 decedent was known to be **Hepatitis C** positive

This decedent was known to use **substances intravenously**



Decedent used tobacco

82%



Decedent drank alcohol*

35%



*Moderate to heavy use

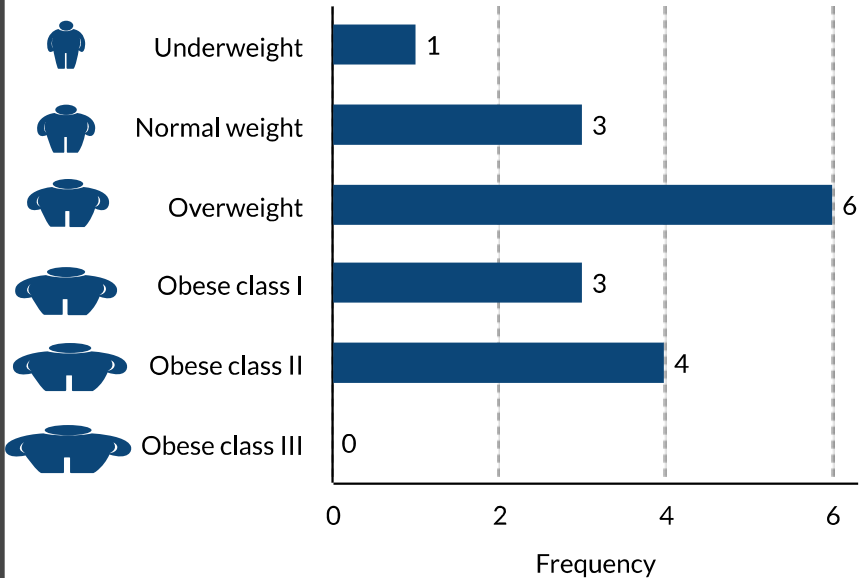
Decedent had a PCP*

35%



*Primary care physician

BODY MASS INDEX (BMI)



COPD=Chronic obstructive pulmonary disease; CAD=Coronary artery disease; CHF=Congestive heart failure

Deaths Related to Opioids and Other Drugs

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Mental Health Factors

MOST COMMON MENTAL ILLNESSES

Depression (41%)

Anxiety (41%)

ADD/ADHD (12%)

Bipolar (12%)

*Decedents may be represented in more than one category. Only mental documented illnesses with official diagnosis are included.

PERCENTAGE OF DECEDENTS

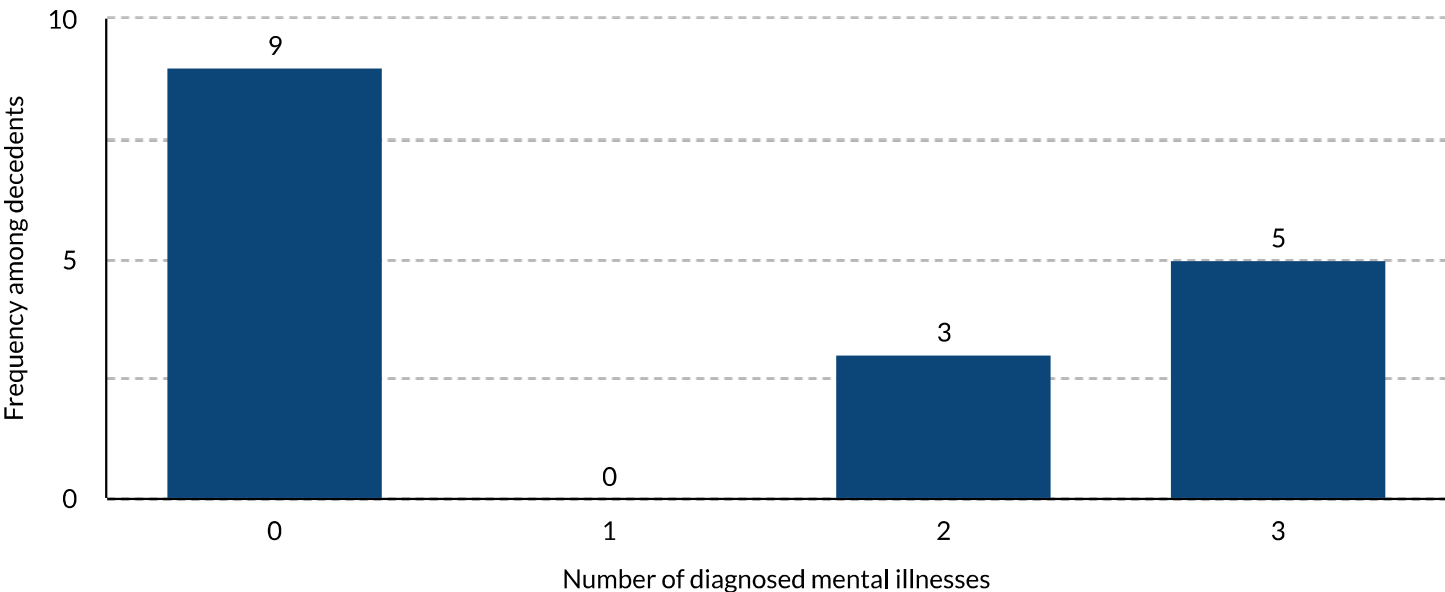
24%

...who have ever had **suicidal ideation**

18%

...with **previous suicide attempts**

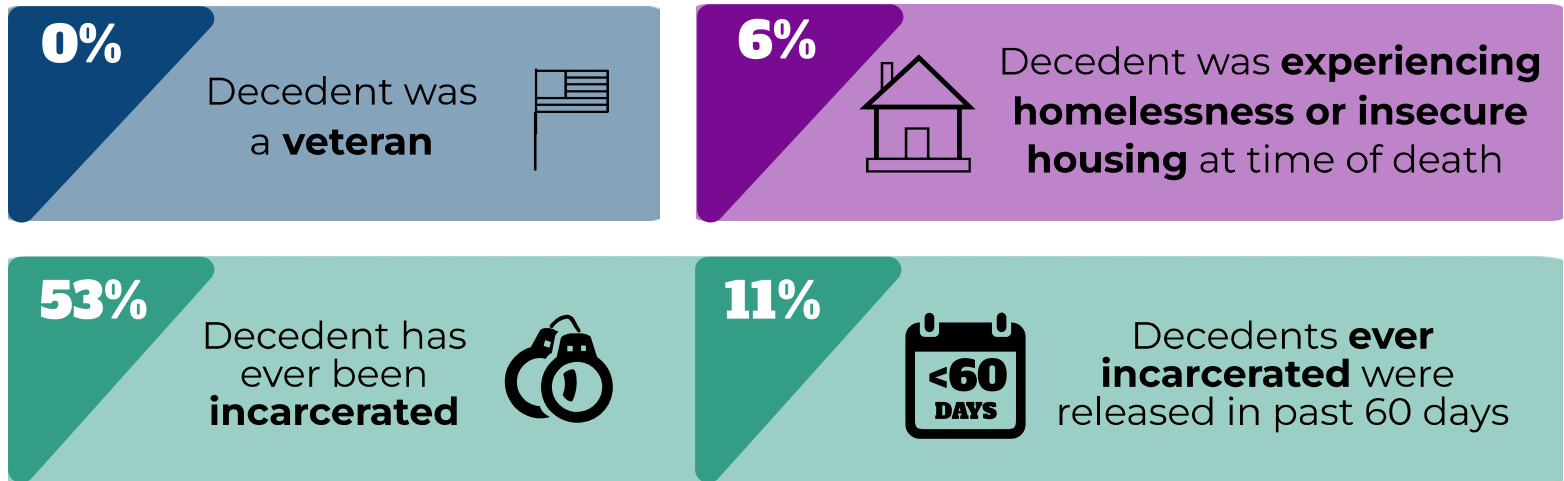
NUMBER OF DIAGNOSED MENTAL ILLNESSES AMONG DECEDENTS



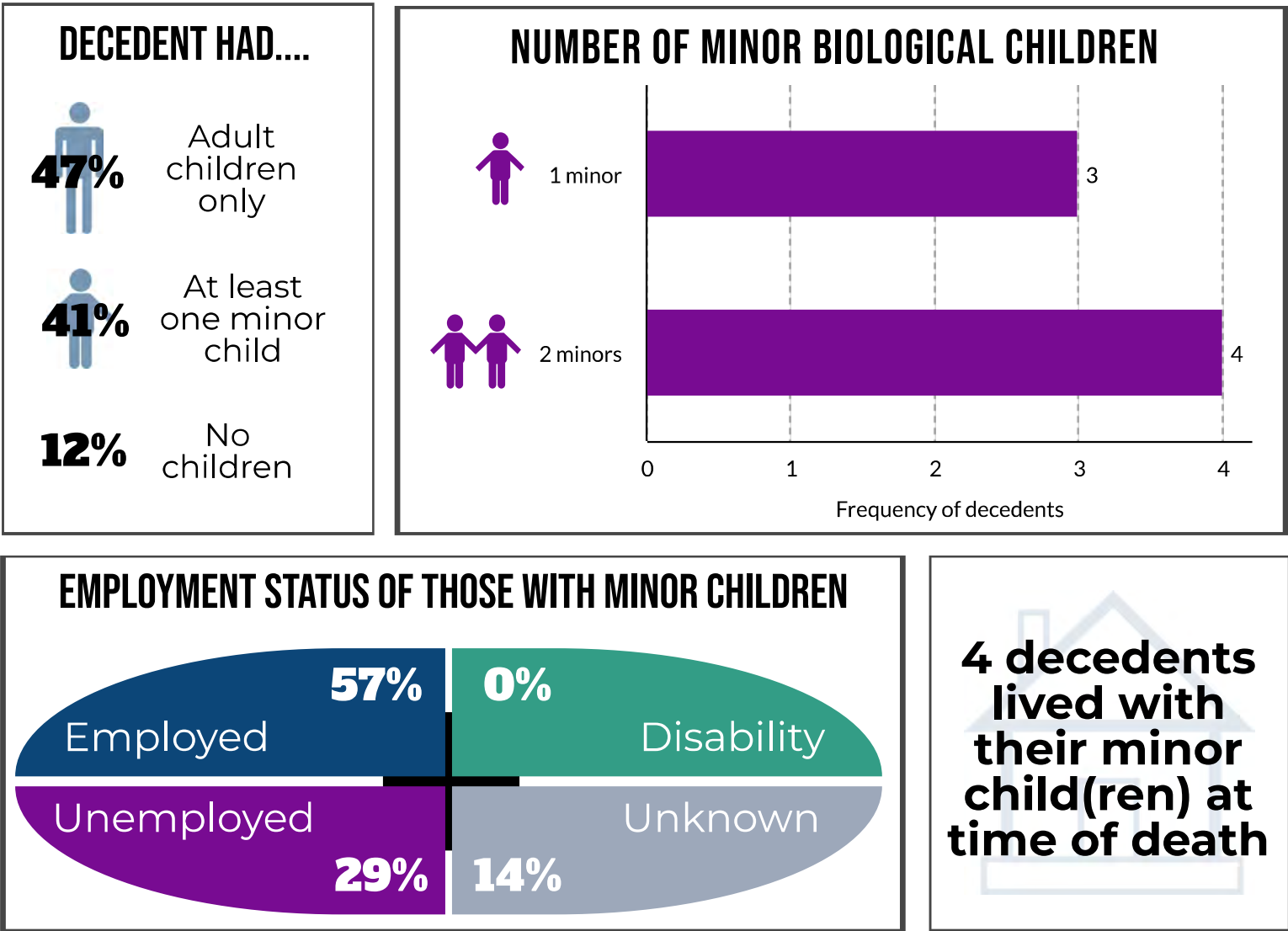
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Social Factors



Children

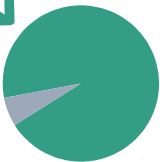


Deaths Related to Opioids and Other Drugs

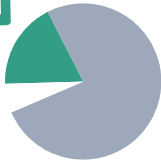
Allegan and Barry County

Substance Use History

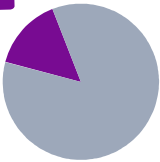
94% of decedents were known to use or abuse substances



At least 18% of those decedents used substances intravenously



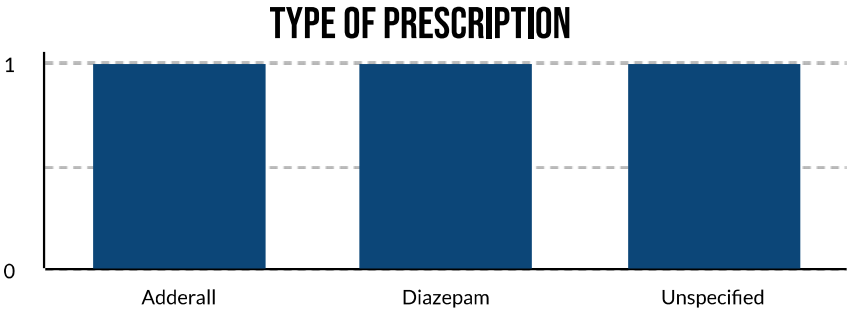
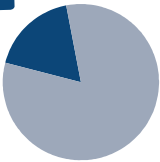
At least 24% of decedents have had at least one prior overdose



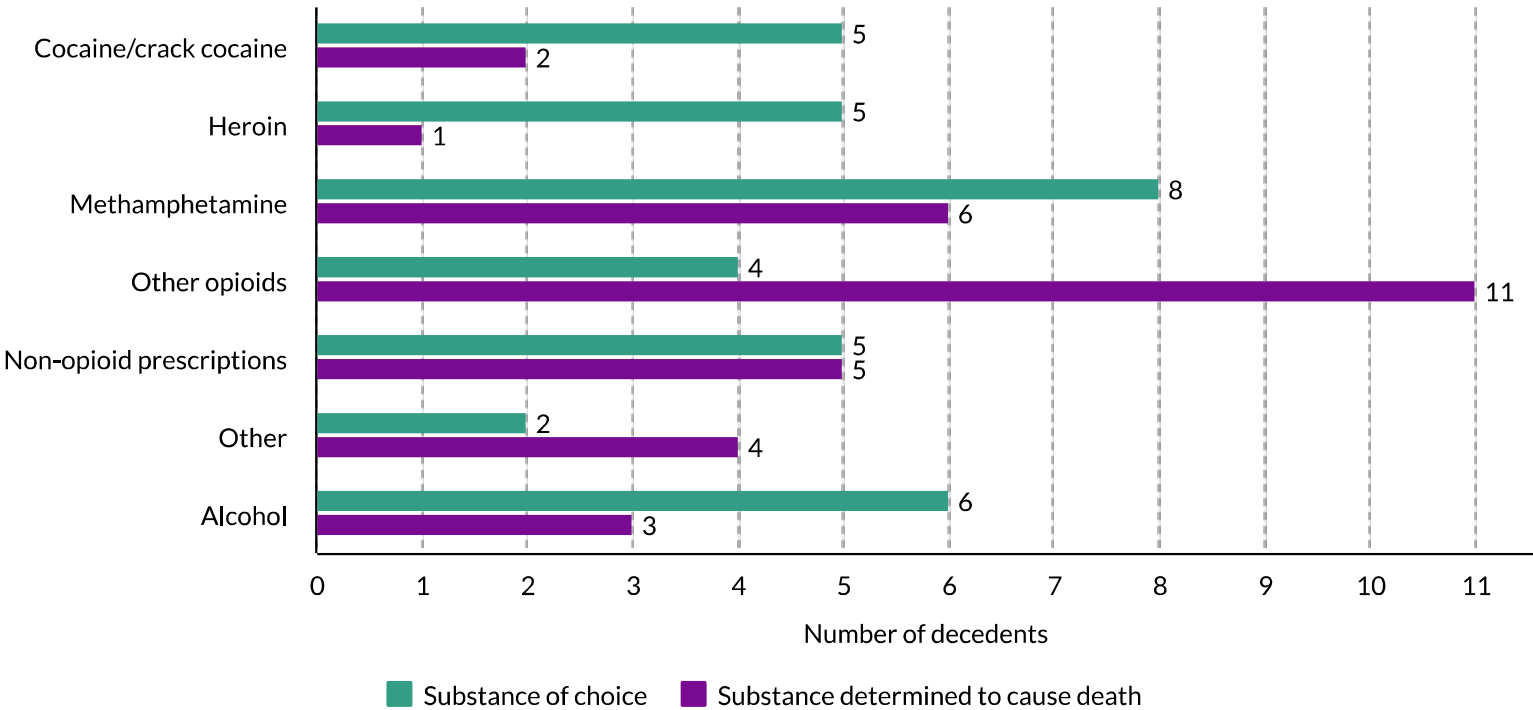
At least 25% of those decedents have had two or more prior overdoses



At least 18% of decedent's substance use started from a prescription



DECEDENT'S SUBSTANCE(S) OF CHOICE VS. SUBSTANCE(S) THAT CAUSED DEATH*



*Decedent may have had more than one substance of choice and in their toxicology. Other substance of choice includes huffing agents and mushrooms; Other substance causing death includes chloroethane, diphenhydramine, etizolam, hydroxyzine, LSD, and xylazine

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Substance Use History, cont.

PREFERRED METHOD OF ADMINISTRATION*

Method	Male (=12)	Female (n=4)	White (n=13)	Hispanic (n=2)	Total (n=15)**
Intravenous	1	2	3	0	3
Snort	4	1	5	0	5
Smoke	3	0	3	0	3
Transdermal	0	0	0	0	0
Huff	1	0	1	0	1
Oral	2	1	3	0	3
Unknown	3	0	1	2	3

*Decedent may have had more than one preferred method of administration. Only includes decedents with a substance use history.

**Decedent of African American descent is excluded (n=1).

RECOVERY HISTORY (N=16)*

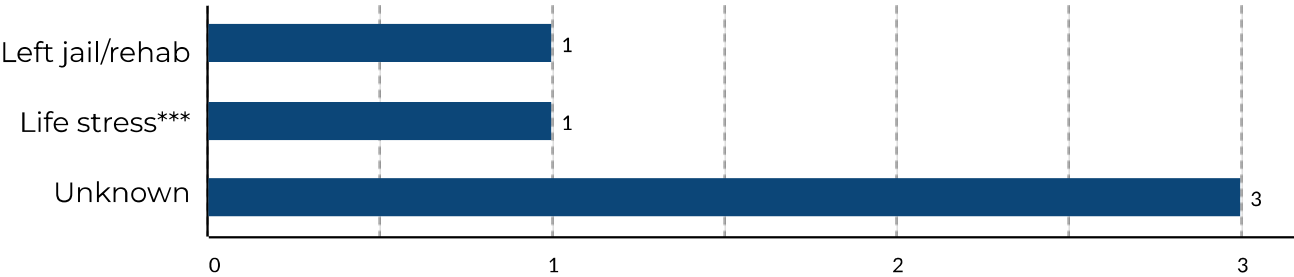
18%
Decedent has been to a **treatment clinic or detox center** at least one time

Decedent was recently **substance free** in the past three weeks

6%
Decedent was currently receiving or has received **medication for opioid use disorder** in the past two years

31%

SUSPECTED REASON FOR RELAPSE**



*ONLY Decedents known to use substances are included.

**These factors were mentioned by those close to the decedent for why they may have begun to use substances again after being substances free for at least three weeks.

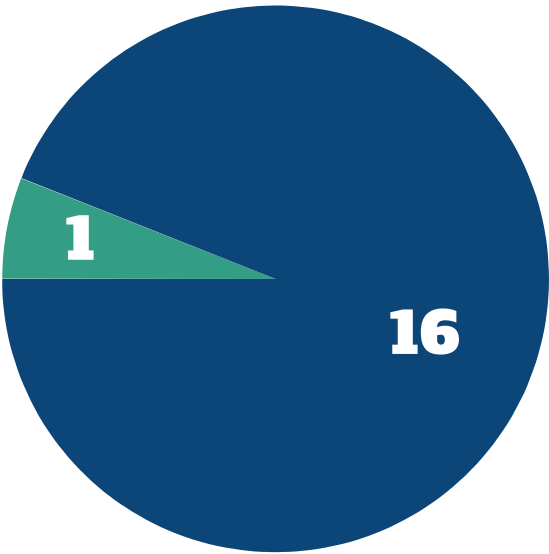
***Life stress includes recent job loss.

Deaths Related to Opioids and Other Drugs

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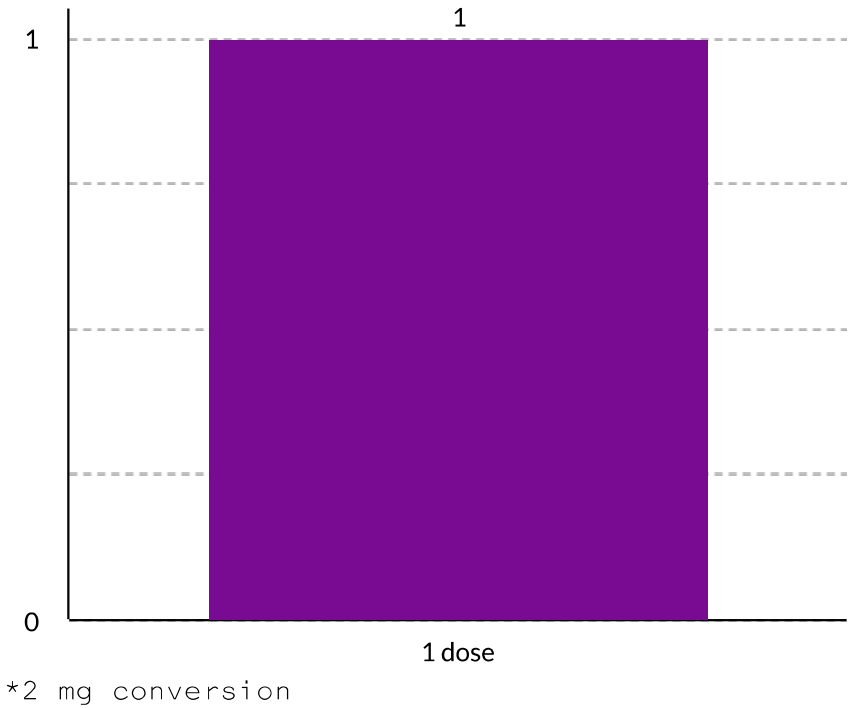
Naloxone Administration

NALOXONE ADMINISTRATION STATUS

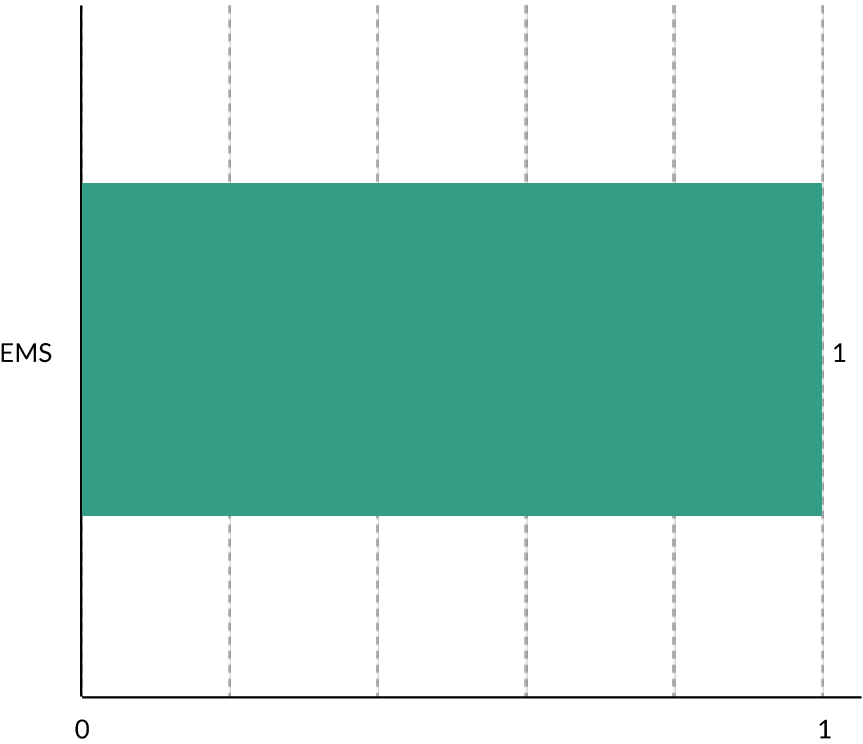


■ Naloxone administered (6%)
■ No naloxone administered (94%)

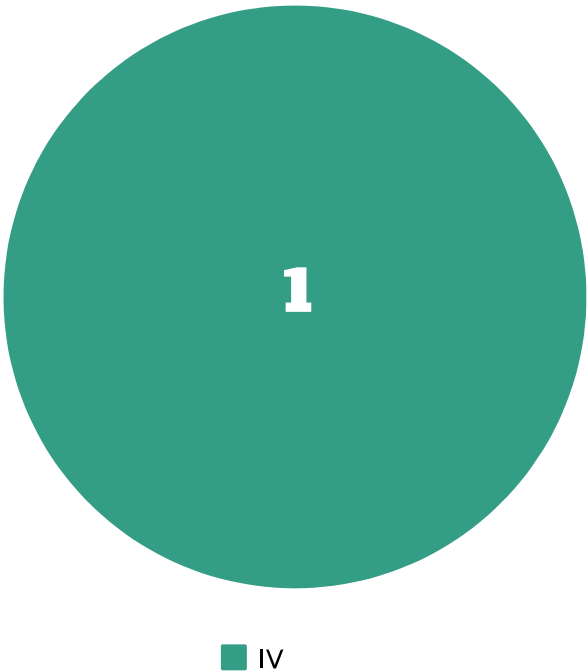
NUMBER OF DOSES (2 MG) ADMINISTERED



WHO ADMINISTERED NALOXONE?



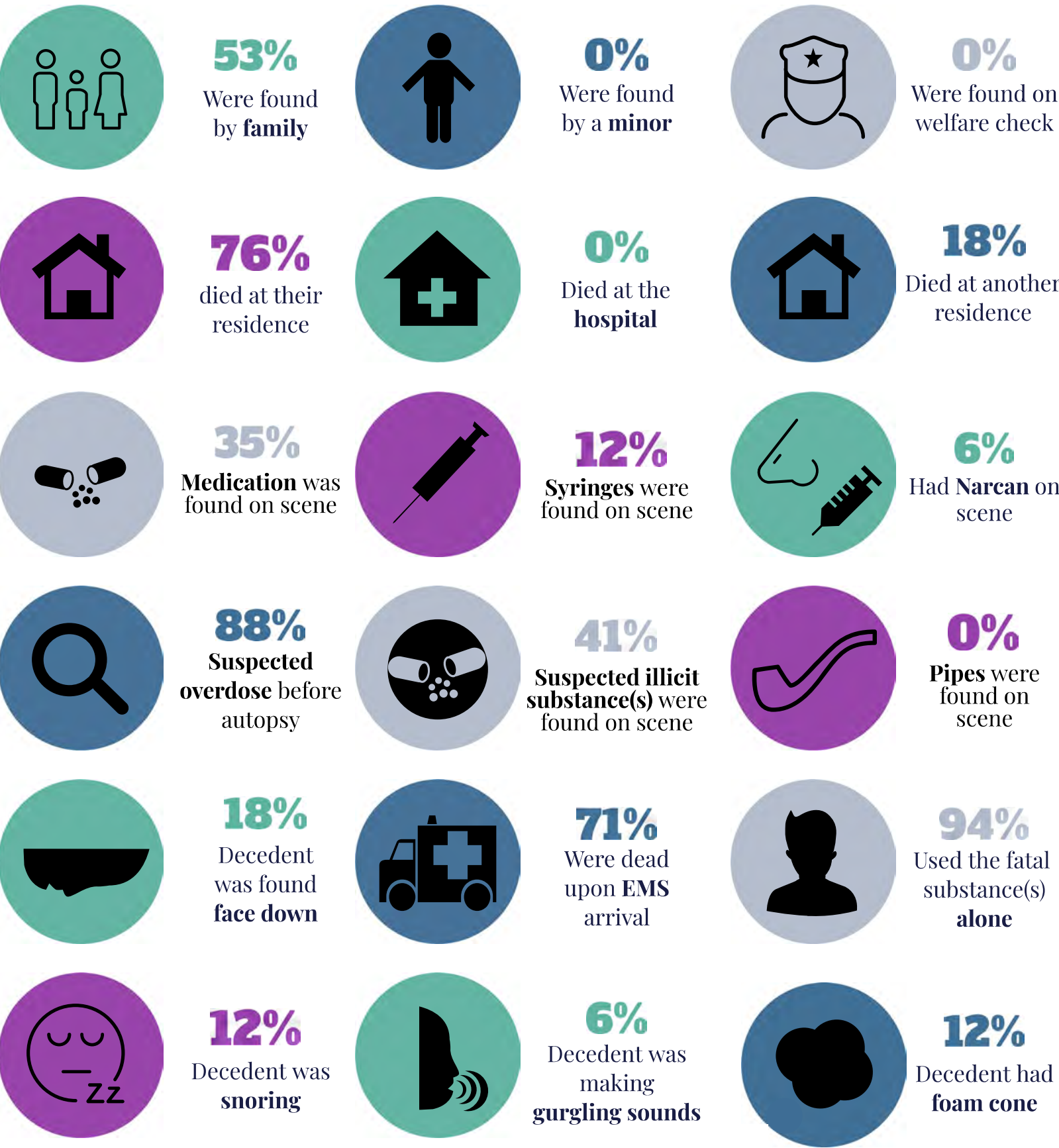
NALOXONE METHOD OF ADMINISTRATION



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Death Scene Findings

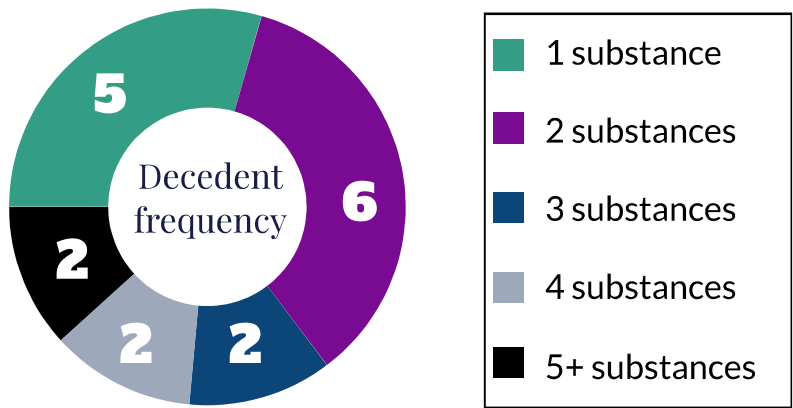


Deaths Related to Opioids and Other Drugs

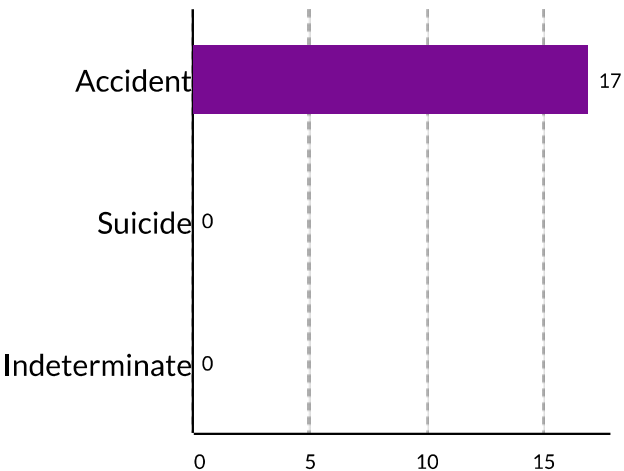
Allegan and Barry County

Autopsy and Toxicology Results

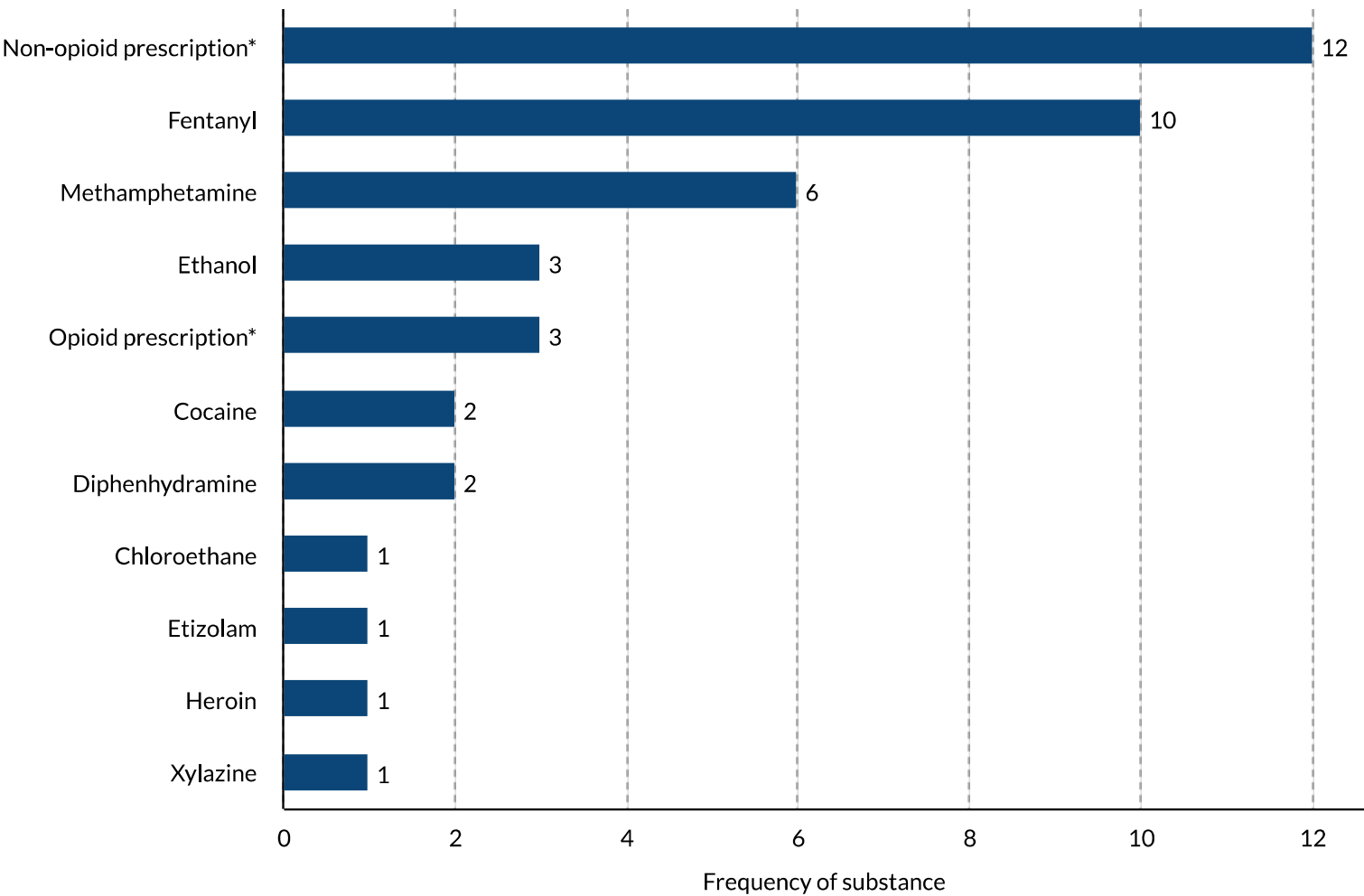
NUMBER OF SUBSTANCES
CONTRIBUTING TO DEATH



MANNER OF DEATH



SUBSTANCES CONTRIBUTING TO DEATH

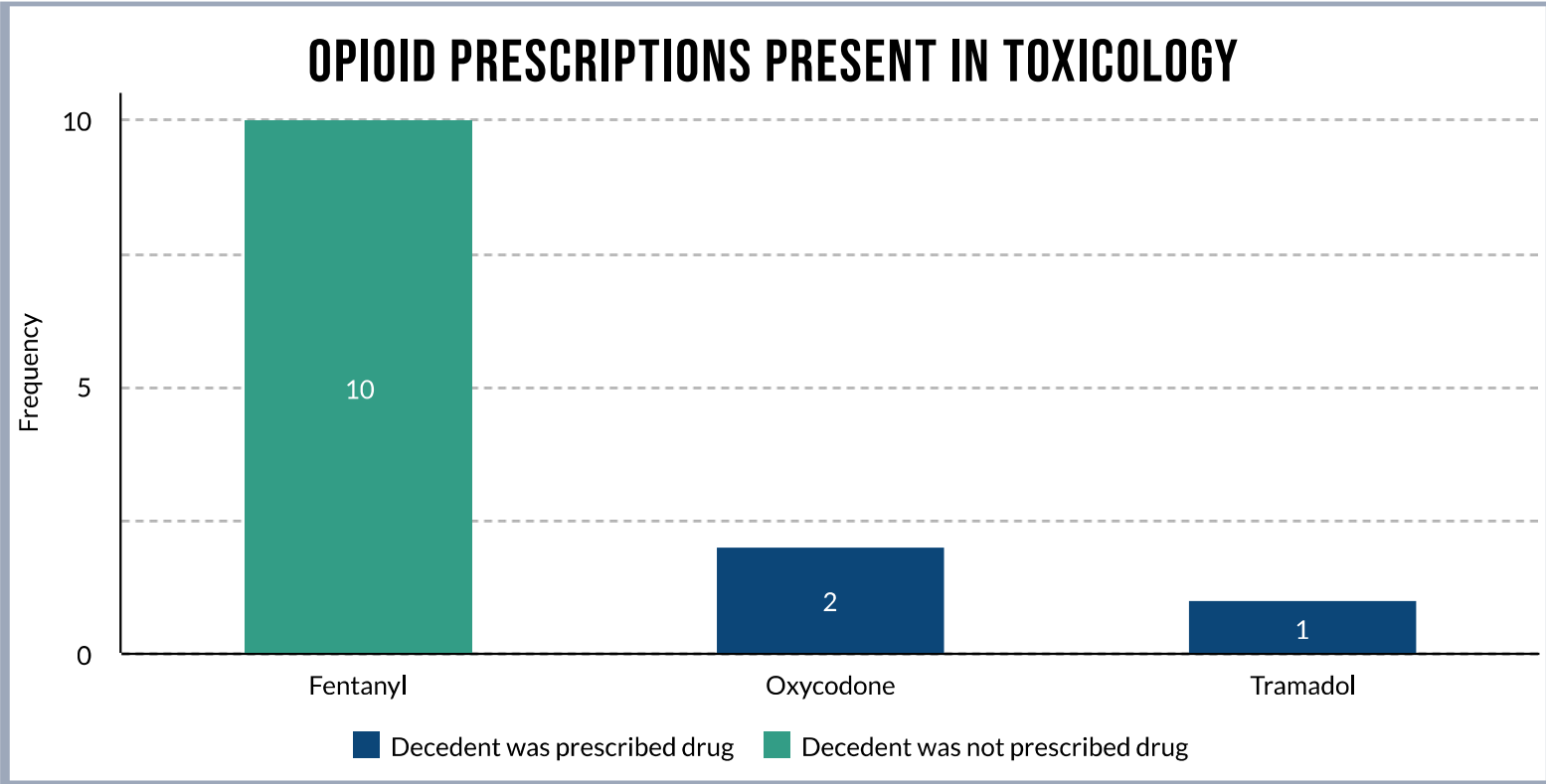
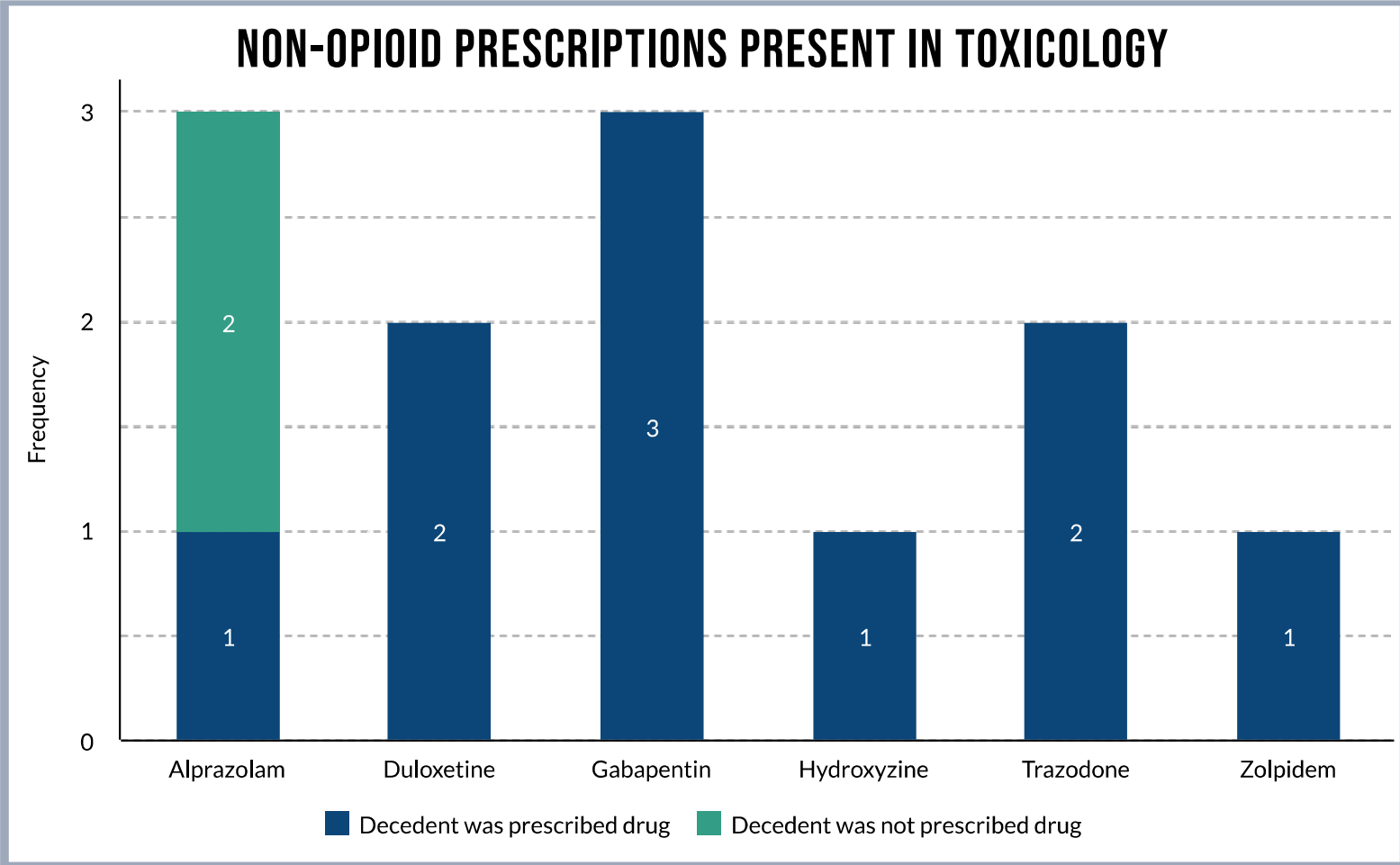


*Please see graphs on the next page for a list of opioid and non-opioid prescriptions.

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Autopsy and Toxicology Results, cont.



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Highlights

OPIOIDS AND POSITIONAL ASPHYXIA

23% (3 of 13) of decedents who died due an opioid were originally found in a **potentially airway compromising position**

These positions include decedent found face down on the floor or on their bed

0% (0 of 47) of decedents who died due to only non-opioid substance(s) were originally found in a **potentially airway compromising position**

Opioids depress the respiratory system and when coupled with positional asphyxia, there may be an increase risk of death. This MEO suggests that those who use substances not use alone and to ensure they are not at risk for slumping forward onto their face.

NOVEL SUBSTANCES

Xylazine
1 death

- Only approved use is for veterinarian medicine in horses, cattle, etc.
- Used for sedation, anesthesia, muscle relaxation, and analgesia

Etizolam
1 death

- Benzodiazepine
- Legal in Japan, Italy, and India
- Used for short term treatment of obsessive compulsive disorder, anxiety, and insomnia

Chloroethane
1 death

- Largely used as a blowing agent in foamed plastics
- Huffing this may cause temporary feelings of drunkenness, lack of muscle coordination, unconsciousness, and death

SUBSTANCE COMBINATIONS

HEROIN & FENTANYL

1 decedent had heroin in their toxicology
This decedent also had fentanyl in their toxicology

XYLAZINE & FENTANYL

1 decedent had xylazine in their toxicology
This decedent also had fentanyl in their toxicology

BENZODIAZEPINES & OPIOIDS

4 decedents had a benzodiazepine and an opioid in their toxicology
0 decedents were prescribed the opioid and benzodiazepine

METHAMPHETAMINE & OPIOIDS

3 decedents had methamphetamine and opioid(s) in their toxicology
All decedents had methamphetamine and fentanyl in their toxicology