

2020 ANNUAL REPORT

Deaths related to opioids and other drugs

Muskegon

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.

A few notes...

: Purpose:

- : This data was collected by the **Office of the Medical Examiner in the Department of Pathology at WMed**. Unless otherwise noted, data is from 2020 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) and EMS reports, death certificates, obituaries, Swift Toxicology of Overdose-Related Mortalities (STORM) results, medical records, toxicology reports, MDHHS reports, and autopsy reports.

Please email Chloe Bielby for additional information or to set up a time to discuss your county's report: chloe.bielby@med.wmich.edu

Deaths Related to Opioids and Other Drugs

Muskegon

All Drug-Related Deaths

Age	Race	Sex	Death Certificate: Substances Contributing to Death	Injury Zip Code
21	W	M	Pt. I: Fentanyl	49442
23	W	M	Pt. I: Heroin, temazepam, 7-amino clonazepam, amphetamine	49441
26	B	F	Pt. I: Hydrocodone, fentanyl	49444
27	W	M	Pt. I: Amphetamine, cocaine, fentanyl	49442
27	W	M	Pt. I: Fentanyl, morphine, lorazepam	49451
27	W	F	Pt. I: Methamphetamine, fentanyl, para-fluorofentanyl	49444
28	W	M	Pt. I: Cocaine, fentanyl	49444
28	W	F	Pt. I: Para-flourofentanyl, fentanyl, morphine, gabapentin	49442
29	W	M	Pt. I: Flualprazolam, ethanol, hydrocodone, diphenhydramine, fentanyl	49441
29	B	M	Pt. II: Amphetamine	49457
30	W	M	Pt. I: Cocaine, fentanyl	49441
33	W	M	Pt. I: Amphetamine, methamphetamine, fentanyl, xylazine	49442
33	B	F	Pt. I: Cocaine, fentanyl	Unknown
34	B	M	Pt. I: Acute and chronic ethanol use*	49444
35	B	M	Pt. I: Fentanyl, cocaine, dextromethorphan, diphenhydramine	49444
35	W	F	Pt. I: Diazepam, hydrocodone, oxycodone, gabapentin, fentanyl	49444
35	W	F	Pt. I: Fentanyl, heroin	49441
35	W	F	Pt. I: Fentanyl, methamphetamine	49442
37	W	M	Pt. I: Fentanyl, heroin	49442
37	W	M	Pt. I: Fentanyl	49437
37	W	M	Pt. I: Heroin, fentanyl, ethanol	49444
38	B	M	Pt. I: Fentanyl, morphine, gabapentin, diphenhydramine, flualprazolam	49442
38	W	M	Pt. I: Fentanyl	49444
38	W	F	Pt. I: Cocaine, heroin, methamphetamine, fentanyl, buprenorphine	49442
39	W	F	Pt. I: Amphetamine	49415
39	W	M	Pt. I: Cocaine, fentanyl	49441
40	W	M	Pt. I: Fentanyl, diphenhydramine	49442
40	W	M	Pt. I: Fentanyl, heroin, methamphetamine	49442
40	B	F	Pt. I: Amitriptyline, nortriptyline, cyclobenzaprine, clonidine	49442
41	B	M	Pt. I: Fentanyl, cocaine, ethanol, cocaethylene, tramadol	49441
41	W	M	Pt. I: Fentanyl, heroin, methamphetamine	49440

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All Drug-Related Deaths (cont.)

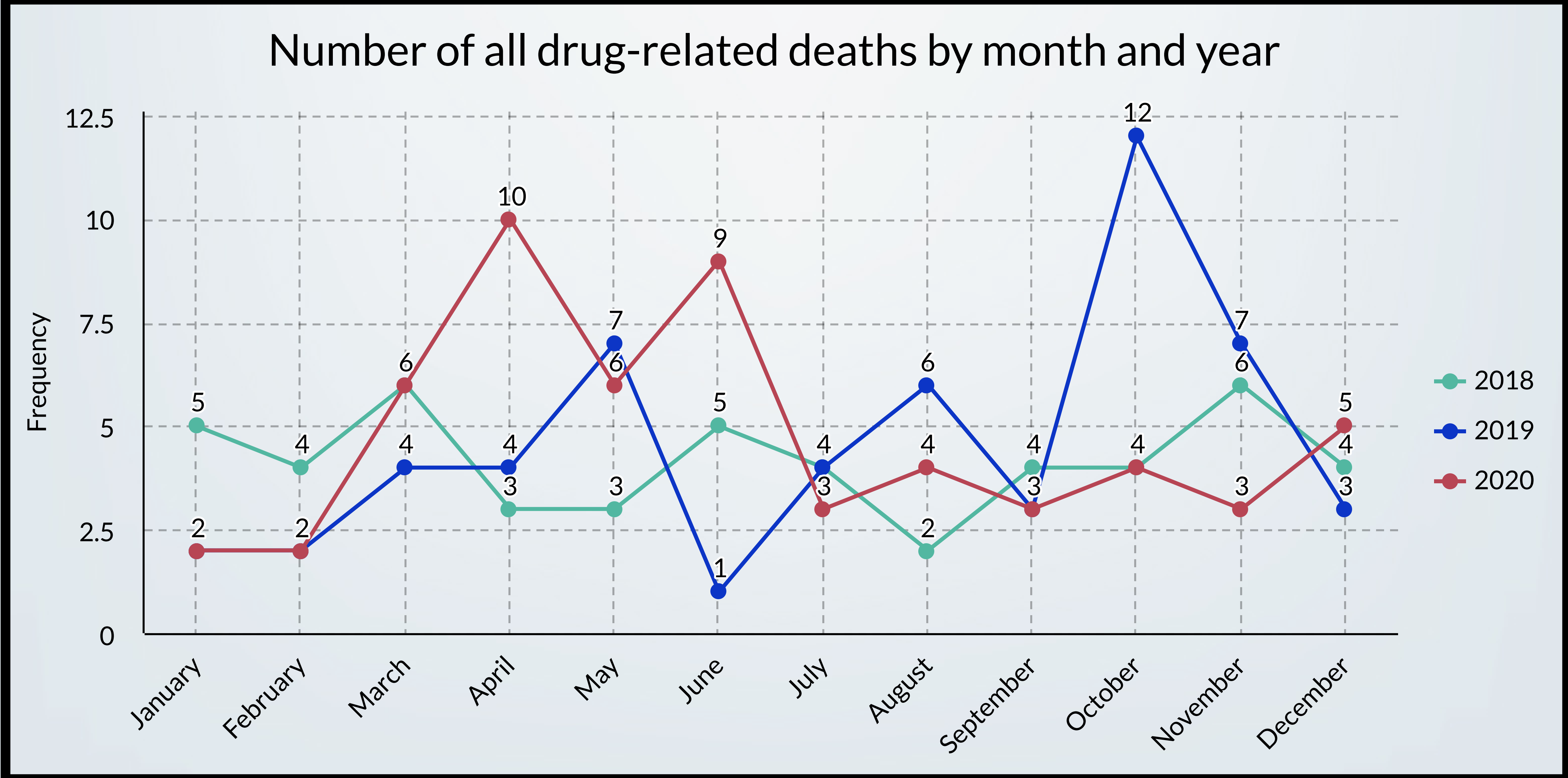
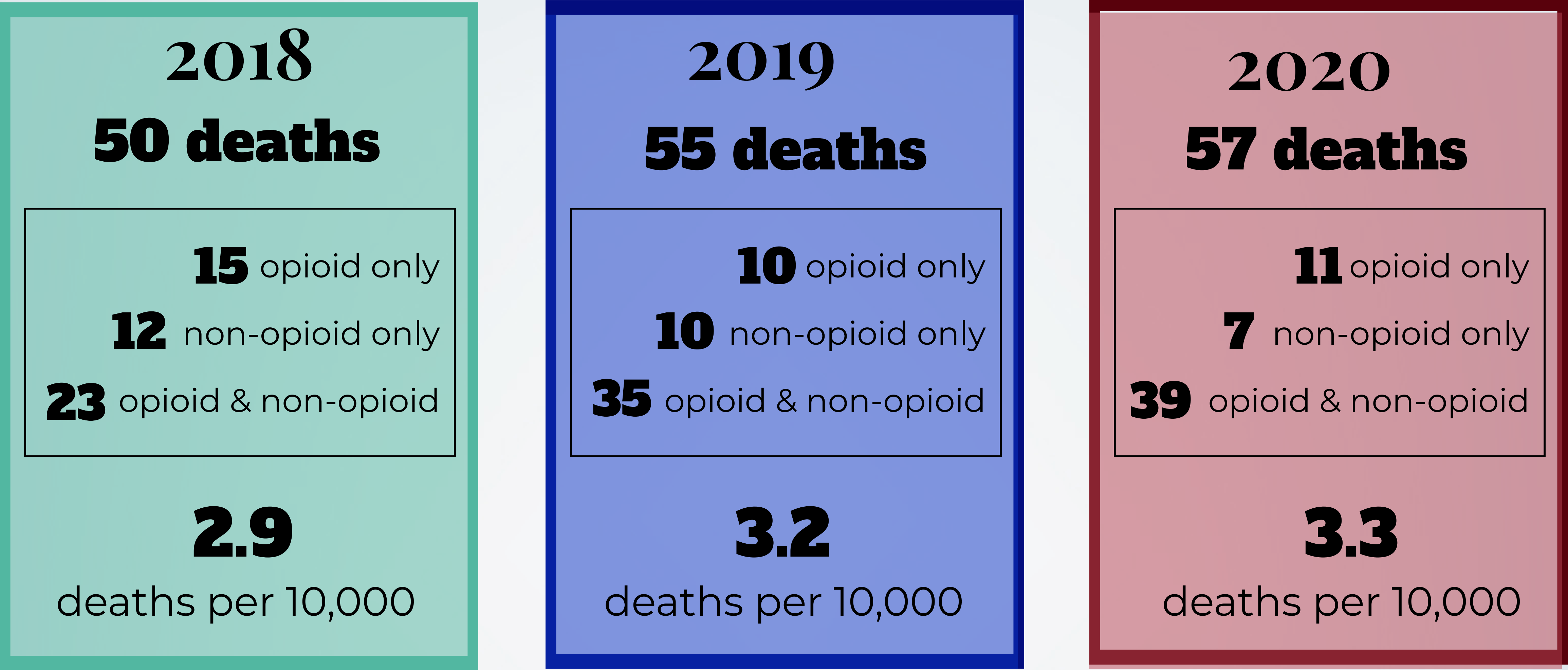
43	W	M	Pt. I: Cocaine, tramadol, xylazine, fentanyl, acetyl-fentanyl	49457
44	W	F	Pt. I: Fentanyl, cocaine, gabapentin	49442
44	W	M	Pt. I: Methamphetamine, fentanyl	49444
45	W	M	Pt. I: Diphenhydramine, doxylamine, dextromethorphan, acetaminophen	49415
49	W	M	Pt. I: Methamphetamine	49441
51	B	M	Pt. I: Cocaine	49441
51	W	M	Pt. I: Fentanyl, heroin, methamphetamine	49442
52	W	F	Pt. I: Methadone, duloxetine, gabapentin, hydroxyzine	49441
53	B	M	Pt. I: Fentanyl, heroin, methadone, alprazolam, clonazepam, diphenhydramine	49442
54	W	M	Pt. I: Para-fluorofentanyl, tramadol, fentanyl	Unknown
55	W	F	Pt. I: Heroin, methamphetamine	Unknown
55	W	F	Pt. I: Fentanyl, cocaine, cocaethylene, ethanol	49442
56	W	M	Pt. I: Cocaine, methamphetamine, fentanyl	49461
57	W	M	Pt. I: Fentanyl, cocaine, ethanol, cocaethylene, gabapentin, diphenhydramine	49444
57	W	F	Pt. I: Fentanyl, heroin, cocaine, mitragynine, gabapentin, diphenhydramine, hydroxyzine, orphenadrine, dextromethorphan	49442
58	W	M	Pt. I: Fentanyl, xylazine, tramadol, lorazepam	49442
58	B	M	Pt. I: Cocaine, ethanol, cocaethylene, heroin, gabapentin, fentanyl	49442
59	W	M	Pt. I: Fentanyl	49444
59	W	F	Pt. I: Methamphetamine, cyclobenzaprine, gabapentin, paroxetine, dextro-levomethorphan	49441
59	W	F	Pt. I: Acetaminophen	49417
59	B	M	Pt. II: Heroin, buprenorphine, fentanyl, acetyl fentanyl*	49441
60	B	F	Pt. I: Alprazolam, methadone, hydrocodone, acetaminophen, xylazine, clonidine, fentanyl	49444
61	W	F	Pt. I: Fentanyl	49441
62	W	F	Pt. I: Fentanyl, heroin, ethanol, gabapentin, cyclobenzaprine, trazodone	49441
65	W	M	Pt. I: Cocaine, morphine, fentanyl	49442
66	W	M	Pt. I: Fentanyl, acetyl-fentanyl, heroin	49441
66	B	M	Pt. I: Morphine, fentanyl	49444
67	W	M	Pt. I: Cocaine	49444
69	W	M	Pt. I: Fentanyl	49442

* Case is not included in the following report

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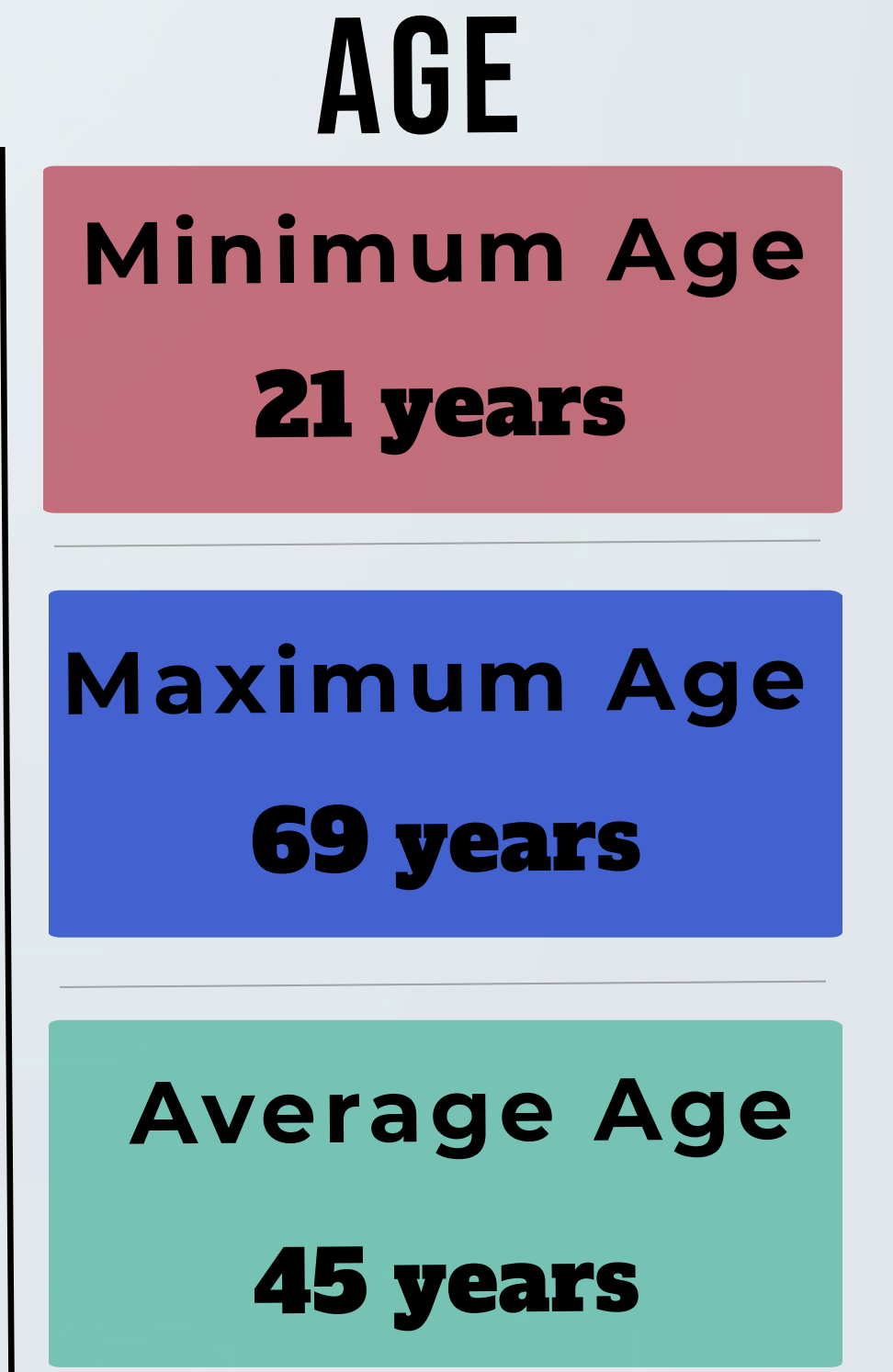
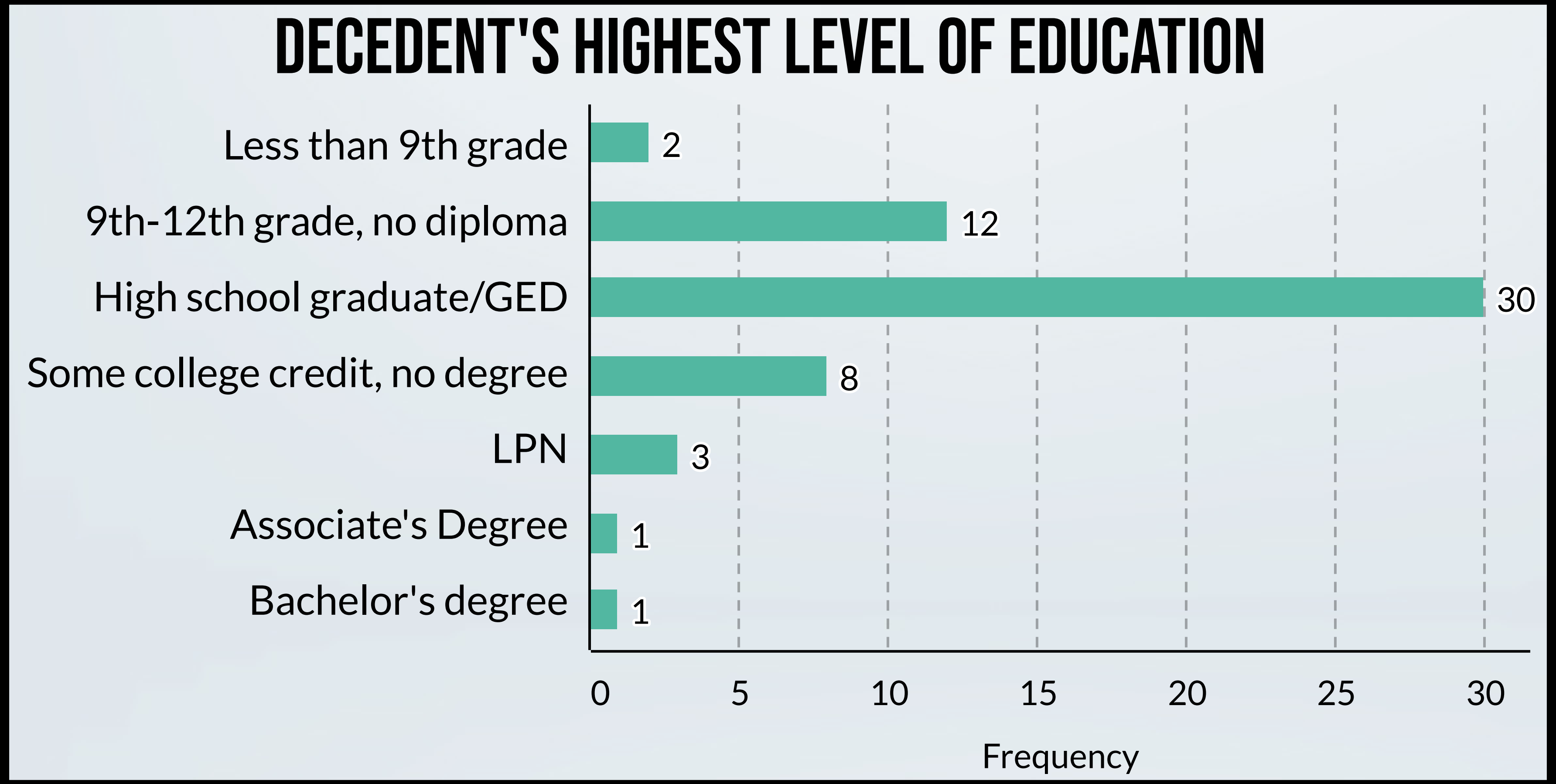
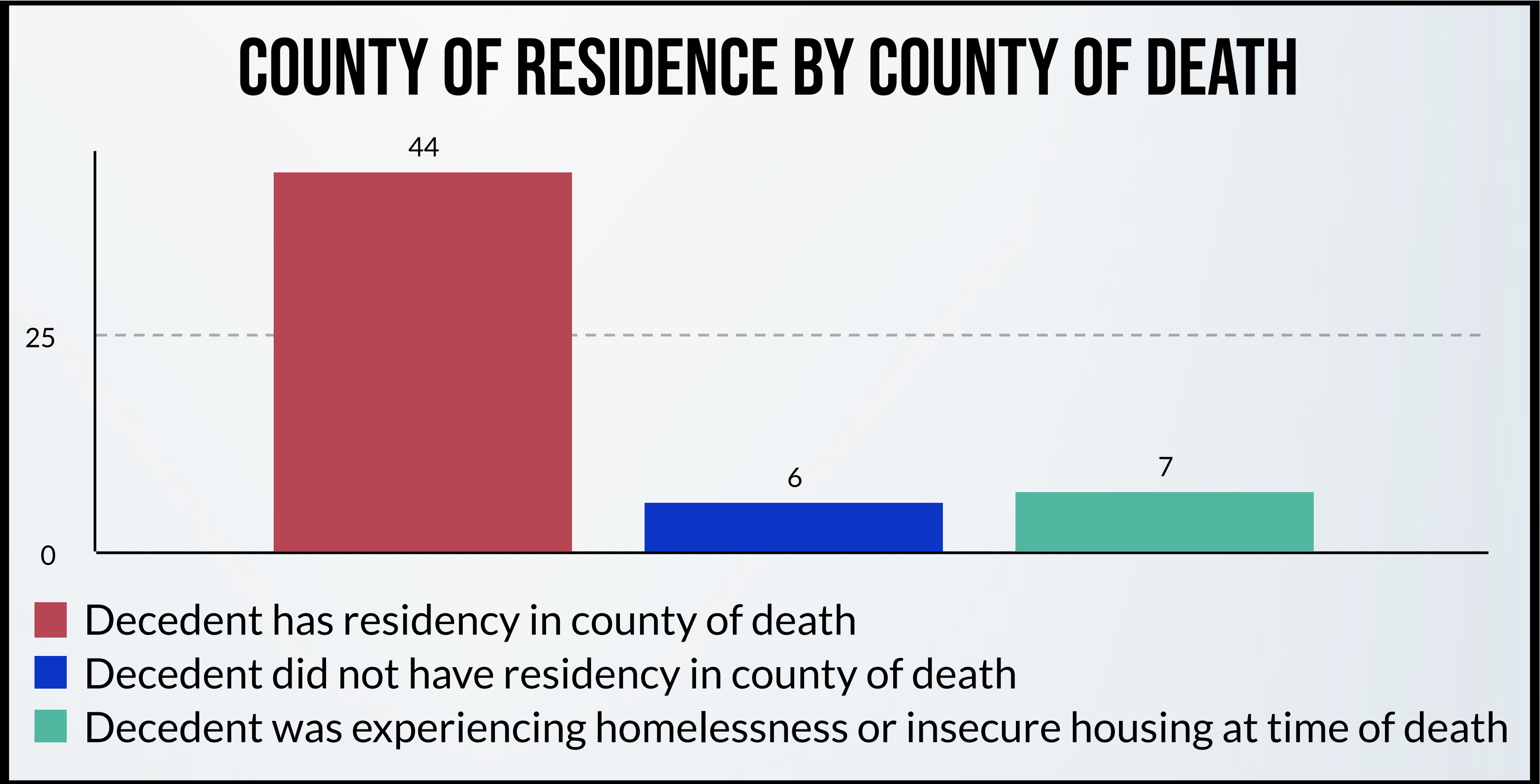
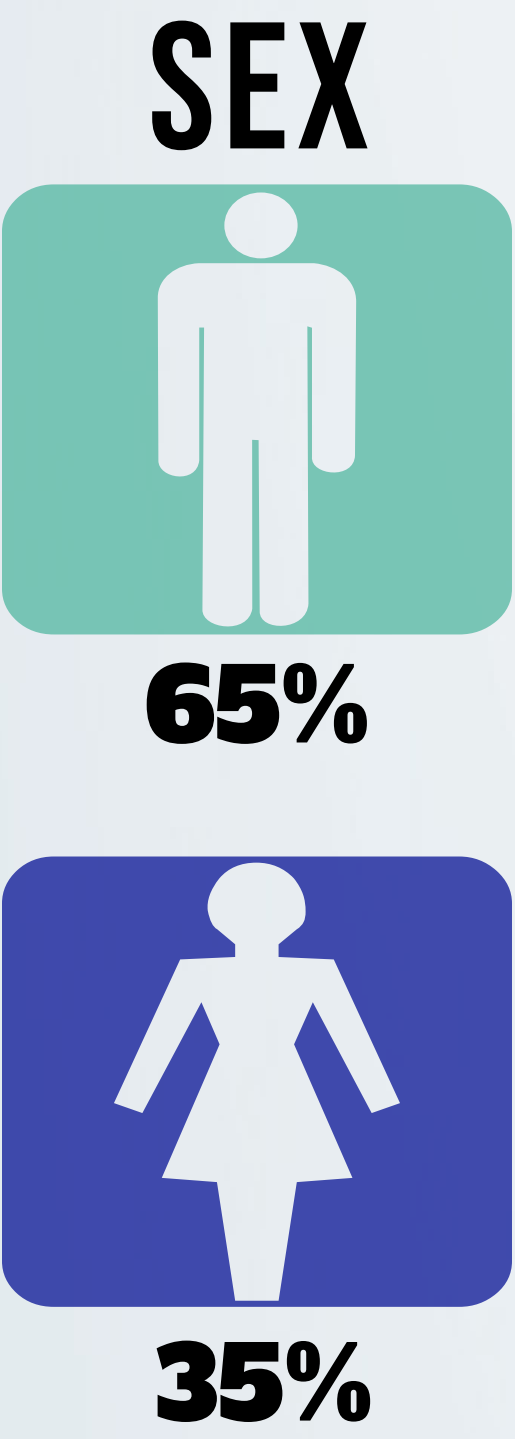
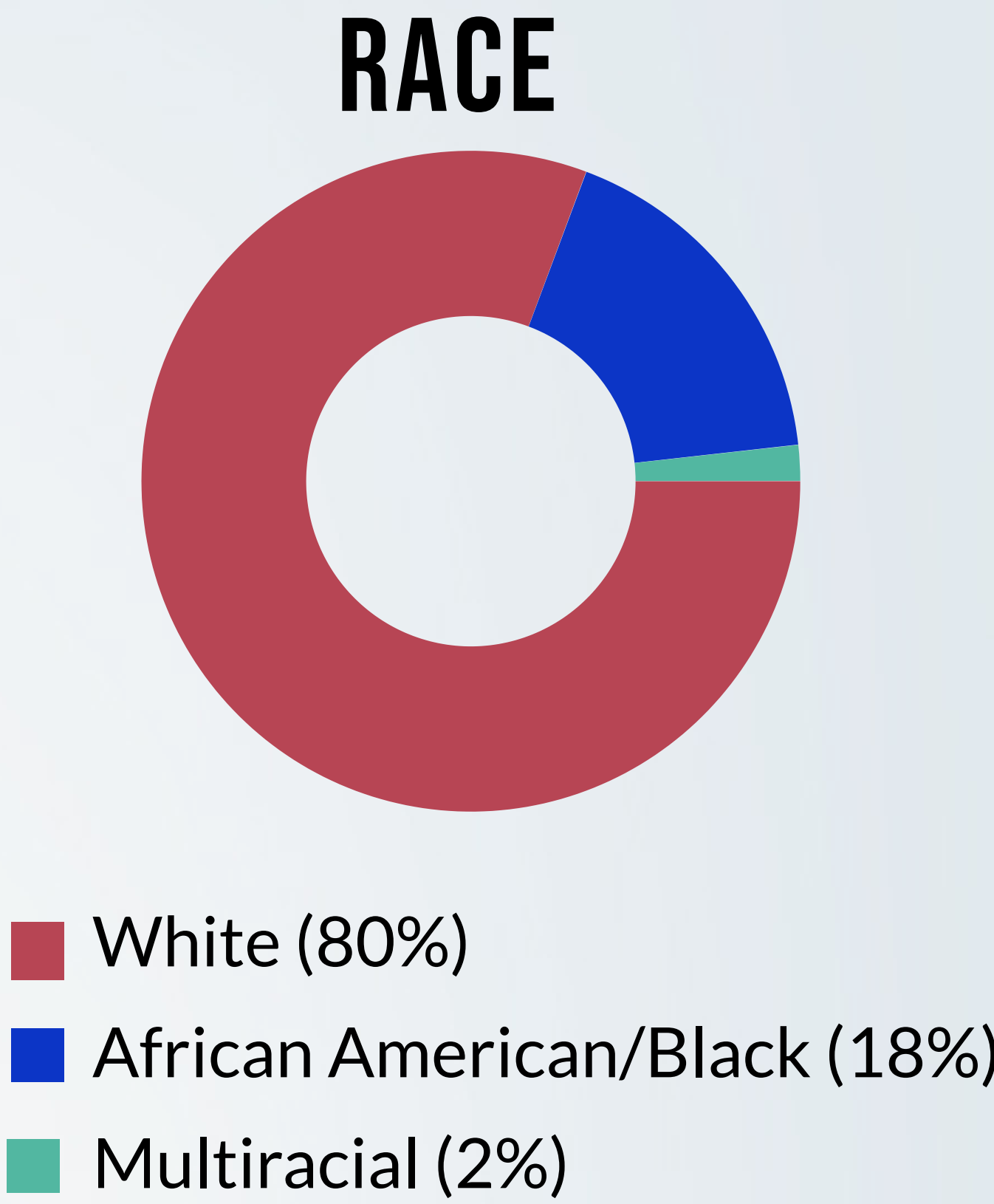
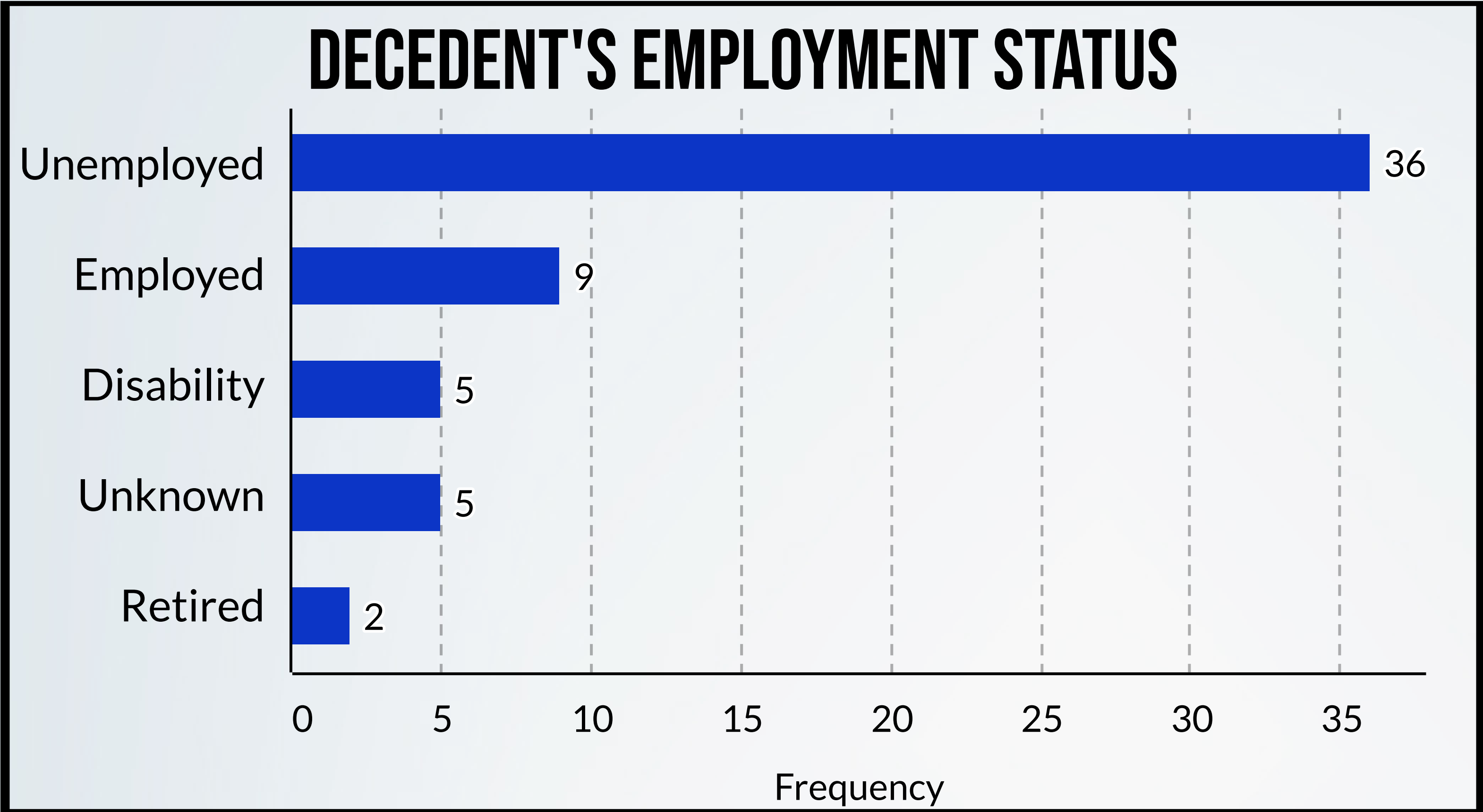
Total deaths due to drugs: 2018, 2019, 2020



Deaths Related to Opioids and Other Drugs

Muskegon

Demographics



Deaths Related to Opioids and Other Drugs

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Health Factors

MOST PREVALENT AILMENTS*

Chronic pain (37%)

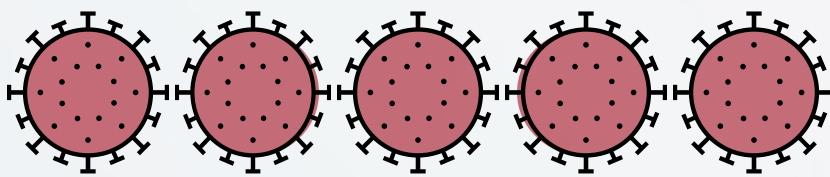
Hypertension (30%)

Lungs** (21%)

GERD (12%)

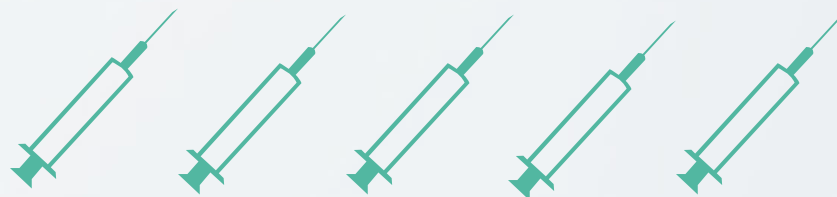
Diabetes (11%)

*Decedents may be represented in more than one category. Only illnesses with official diagnosis are included.
**Lungs includes asthma, COPD, and emphysema



At least 12 decedents were Hepatitis C positive

5 of these decedents were known to use substances intravenously



Decedent used tobacco

84%+



Decedent drank alcohol

61%+

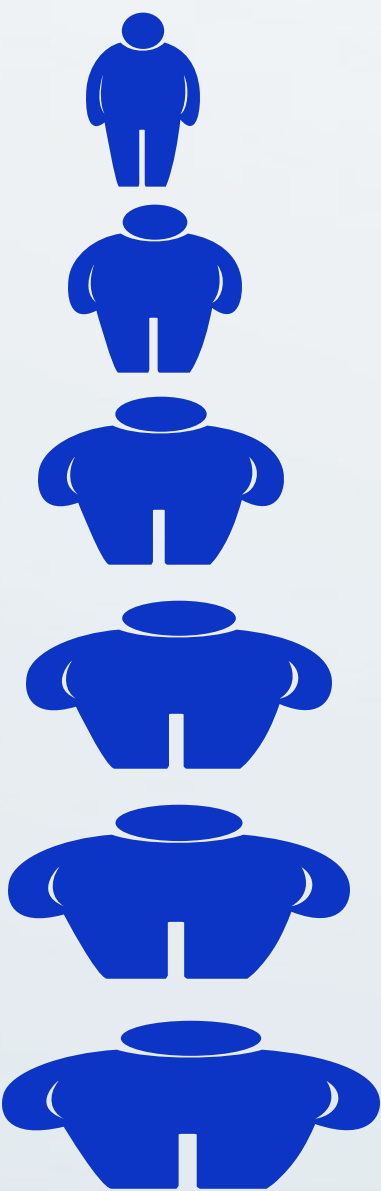


Decedent had a PCP

54%



BODY MASS INDEX (BMI)



Underweight

1

Normal weight

16

Overweight

23

Obese class 1

10

Obese class 2

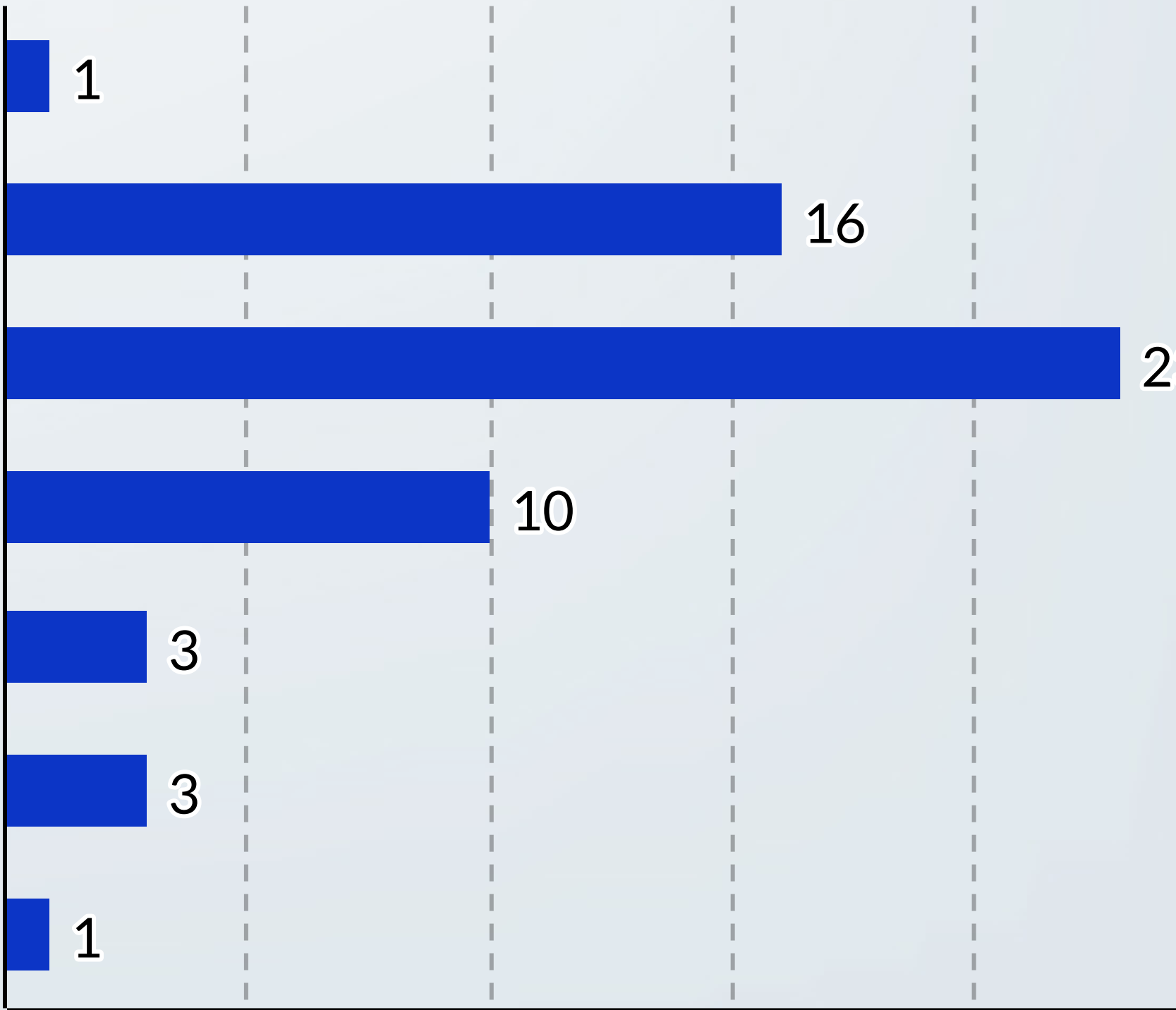
3

Obese class 3

3

Unknown

1



Frequency

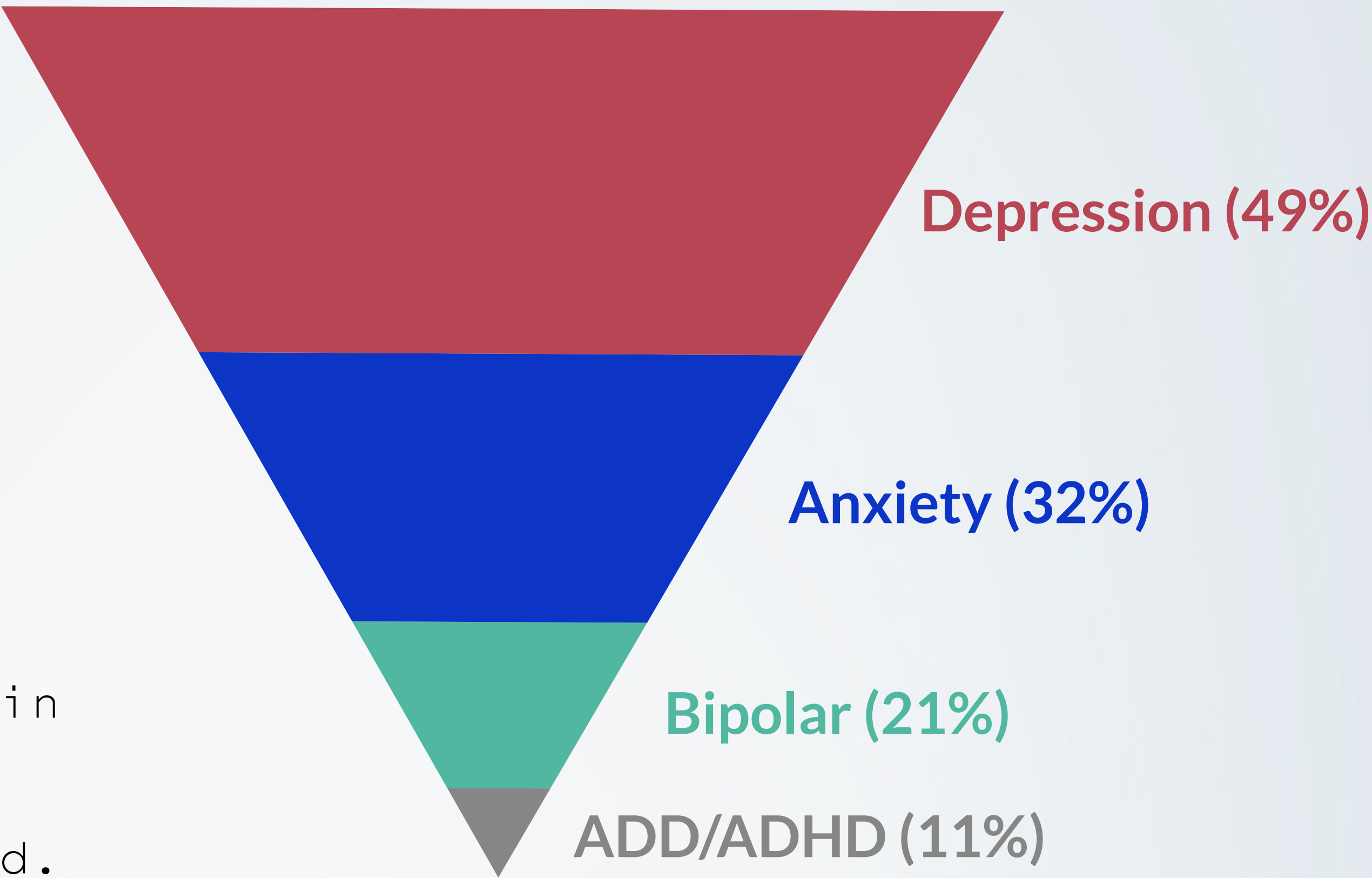
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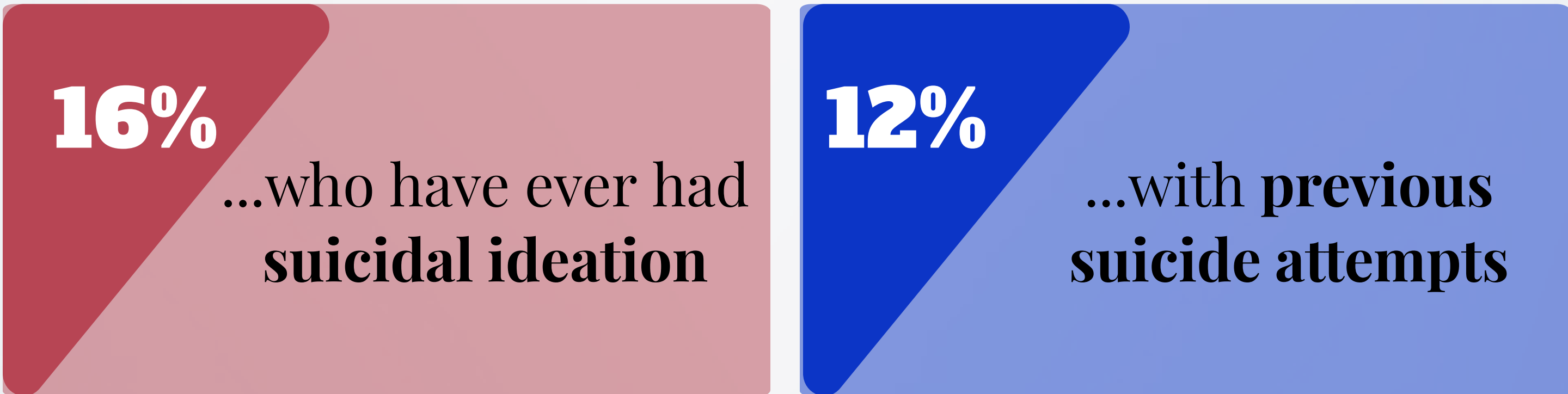
Mental Health Factors

MOST
PREVALENT
MENTAL ILLNESSES*

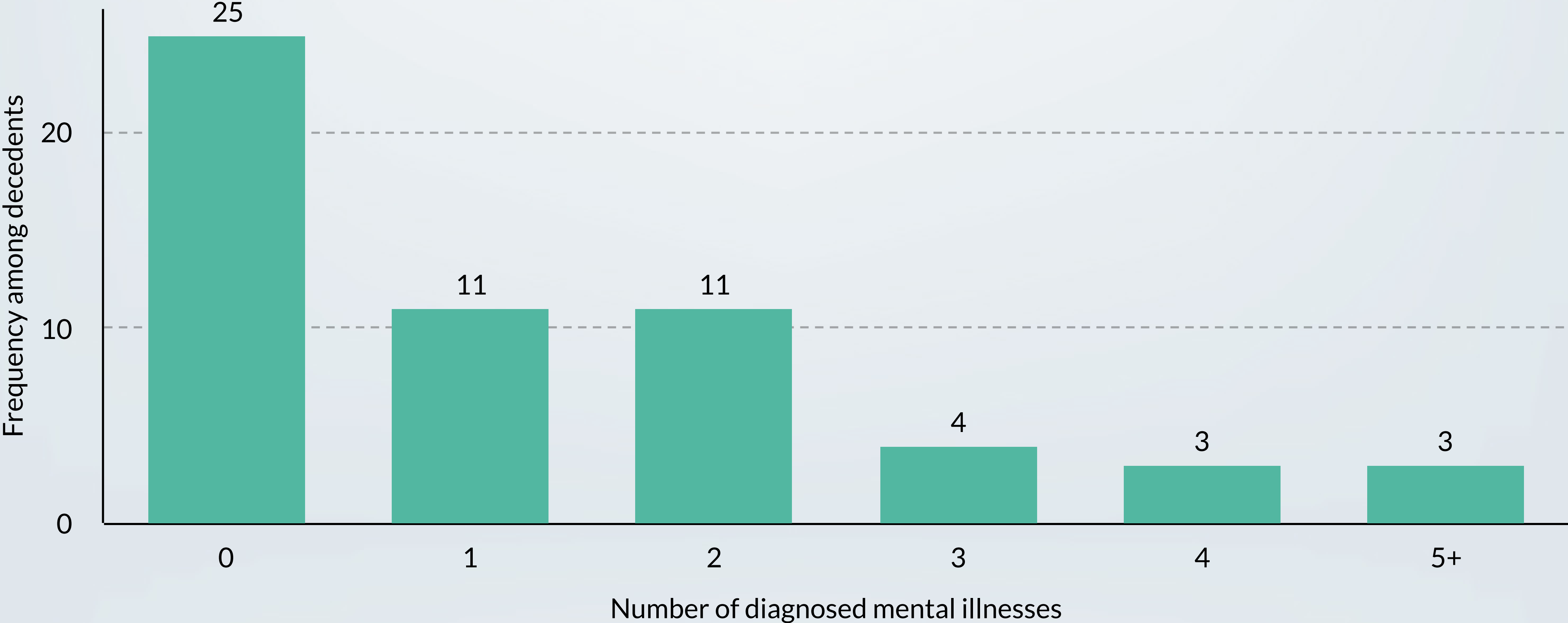
*Decedents may be represented in more than one category. Only mental illnesses with official diagnosis are included.



PERCENTAGE OF DECEDENTS...



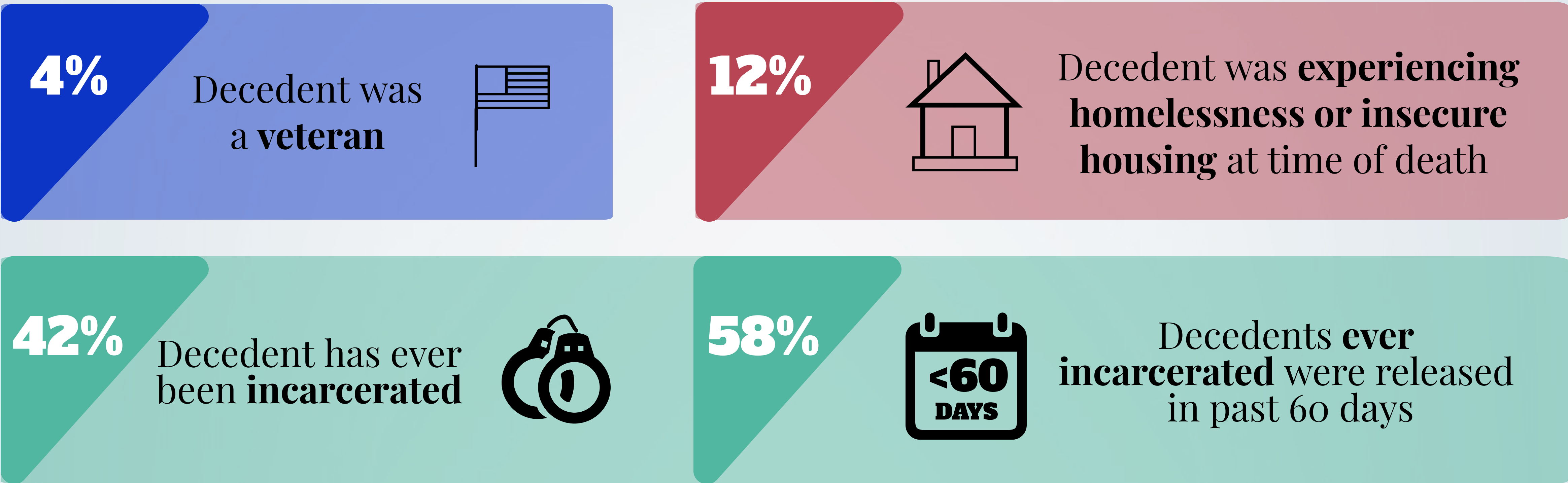
NUMBER DIAGNOSED MENTAL ILLNESSES AMONG DECEDENTS



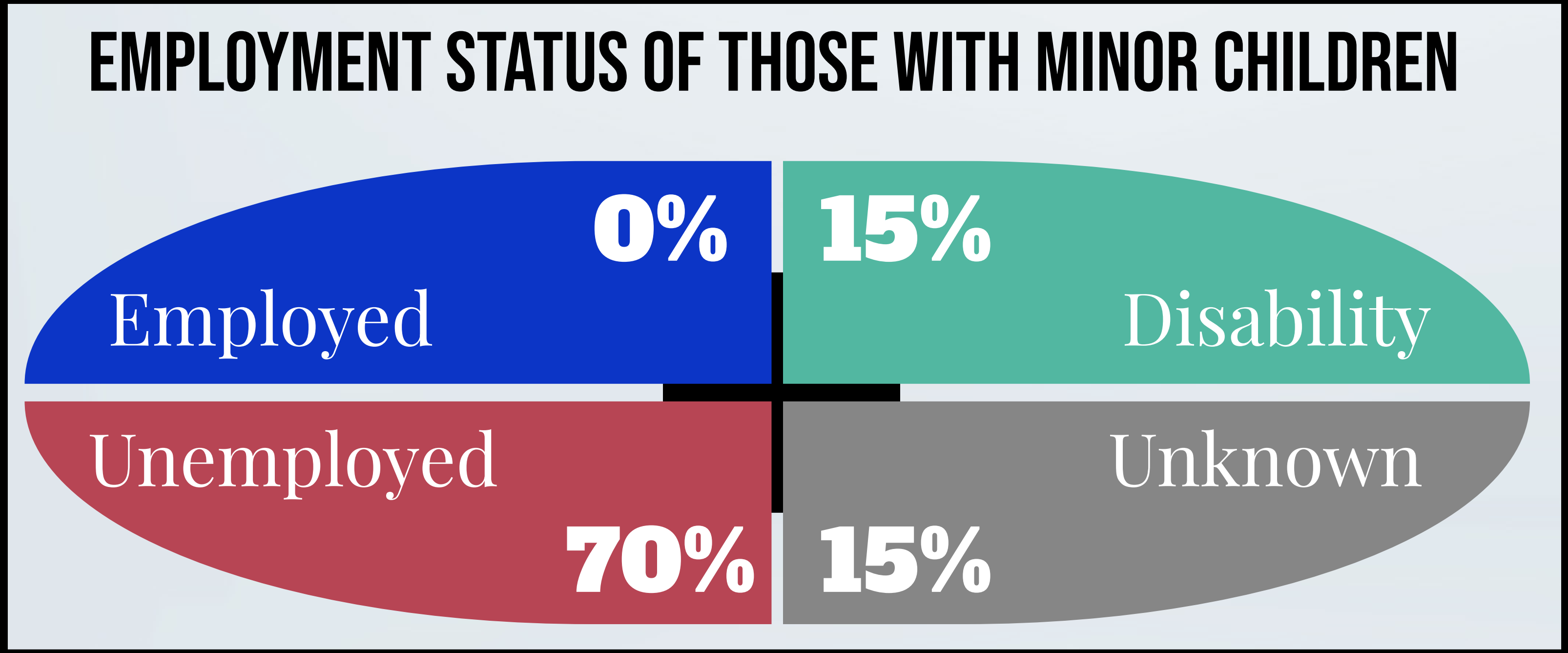
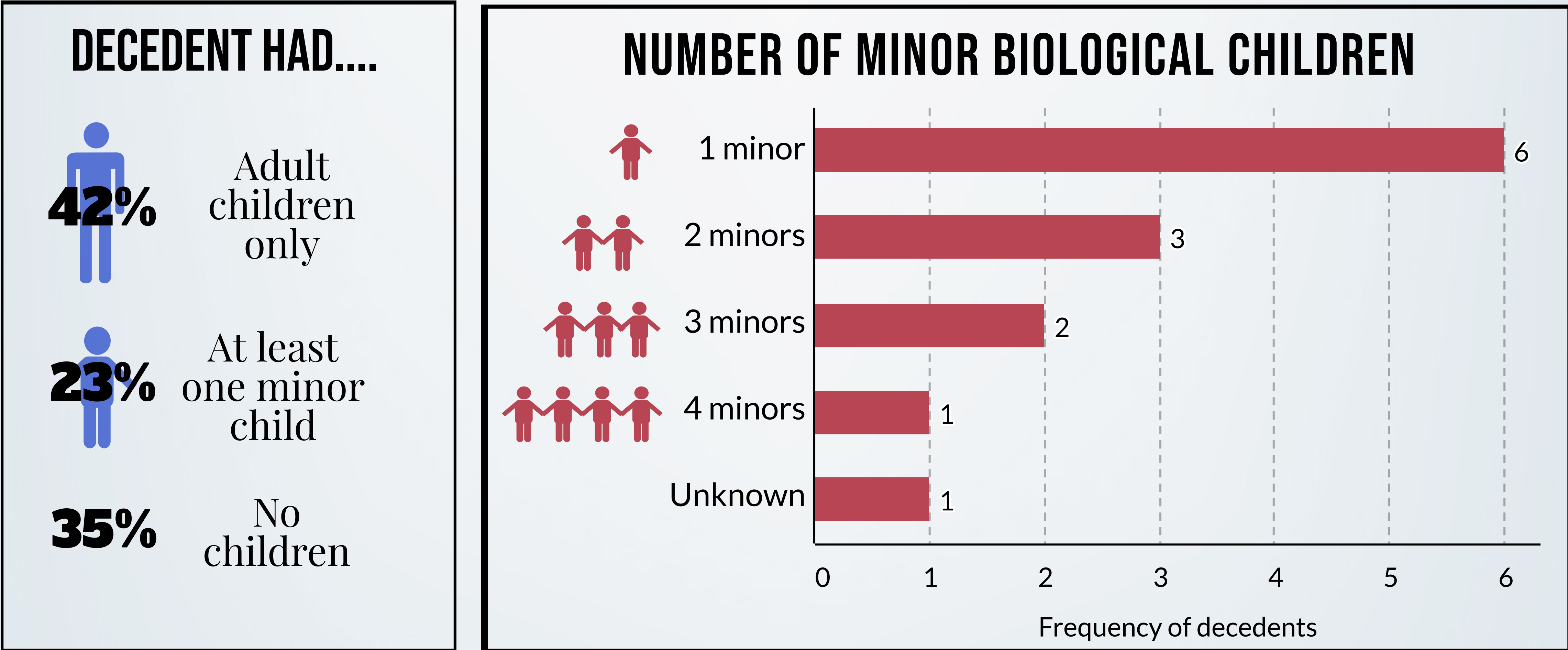
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Social Factors



Children

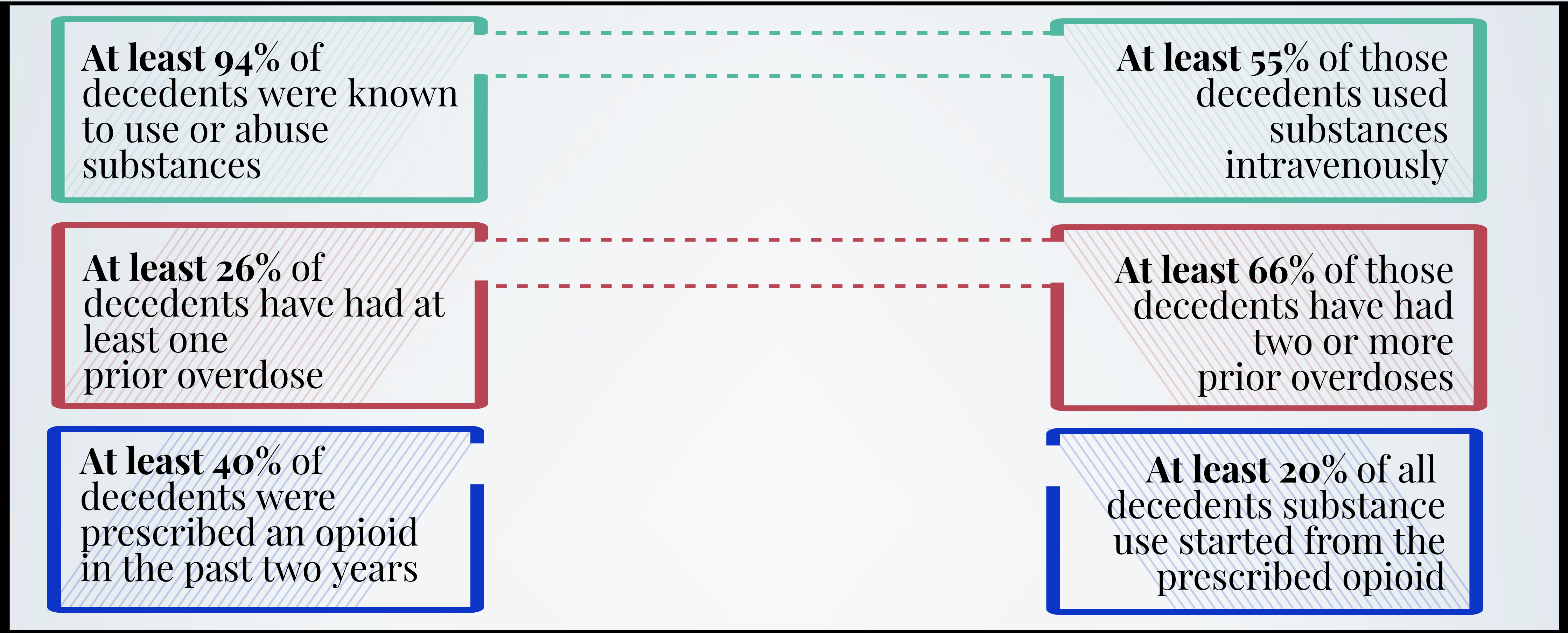


3 decedents lived with their minor child(ren) at time of death

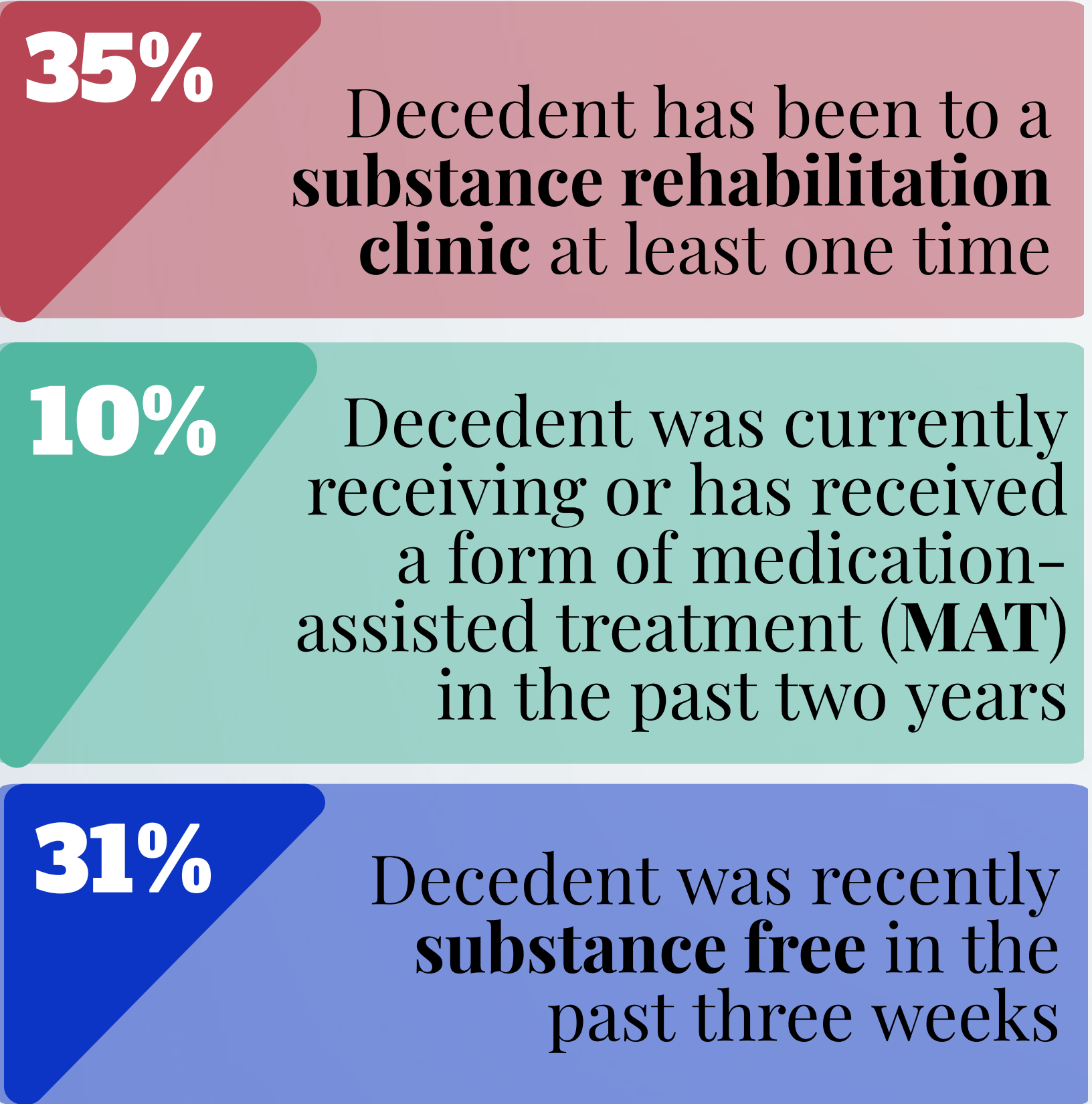
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Substance Use History



RECOVERY HISTORY (N=51*)



SUSPECTED REASONS FOR RELAPSE**

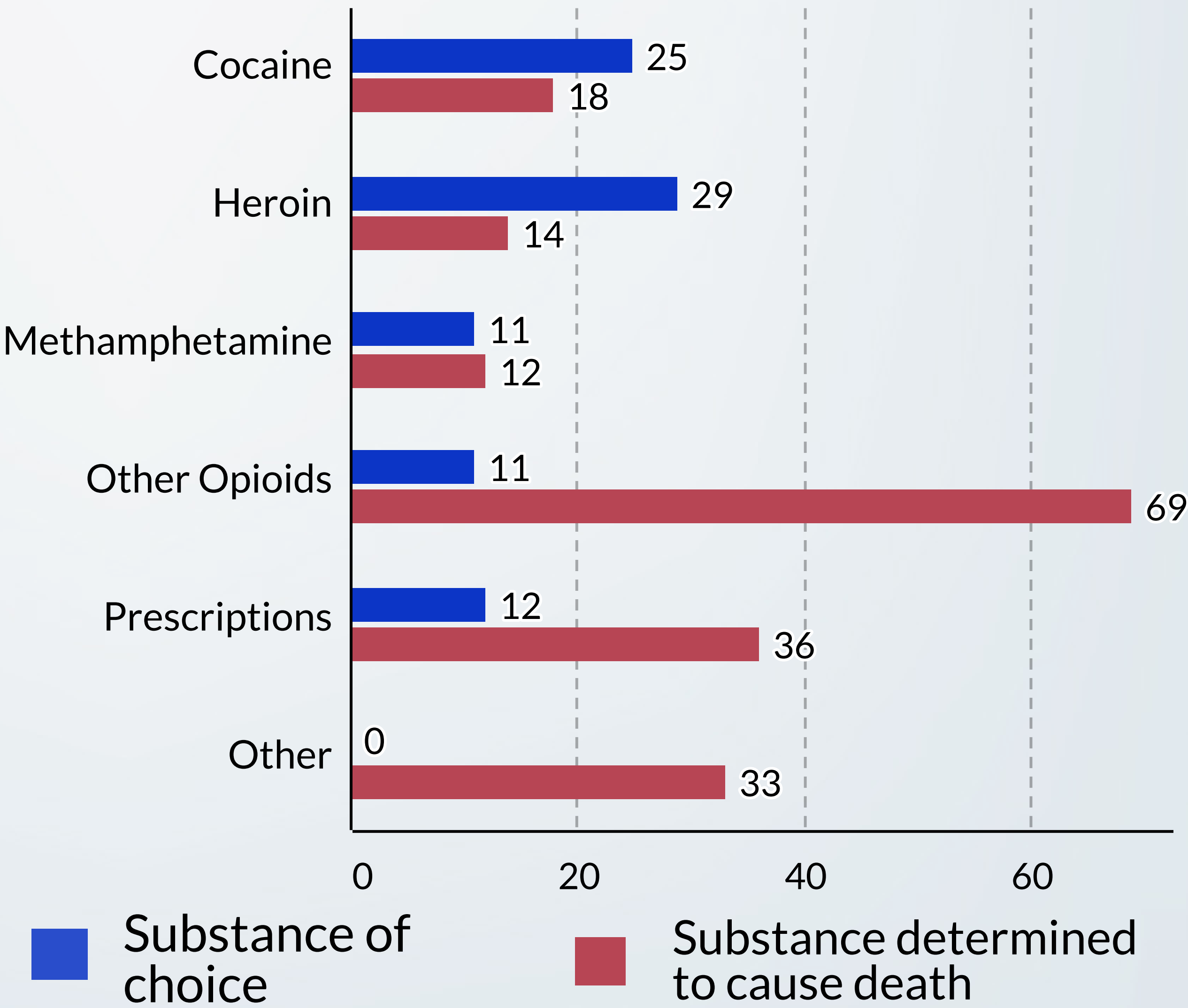


*ONLY decedents known to use substances included.

**These factors were mentioned by those close to decedent for why they may have begun to use substances again after a few months to years of living substance free.

***Life stress includes job loss, lack of rehabilitation access, and social circle influence.

DECEDENT'S SUBSTANCE OF CHOICE VS. WHAT WAS DETERMINED TO CAUSE DEATH*



*Decedent may have had more than one substance of choice and in their toxicology.

NOTE: 5 decedents would use any substance available, 4 were not known to use substances and 3 decedent's substance of choice is unknown.

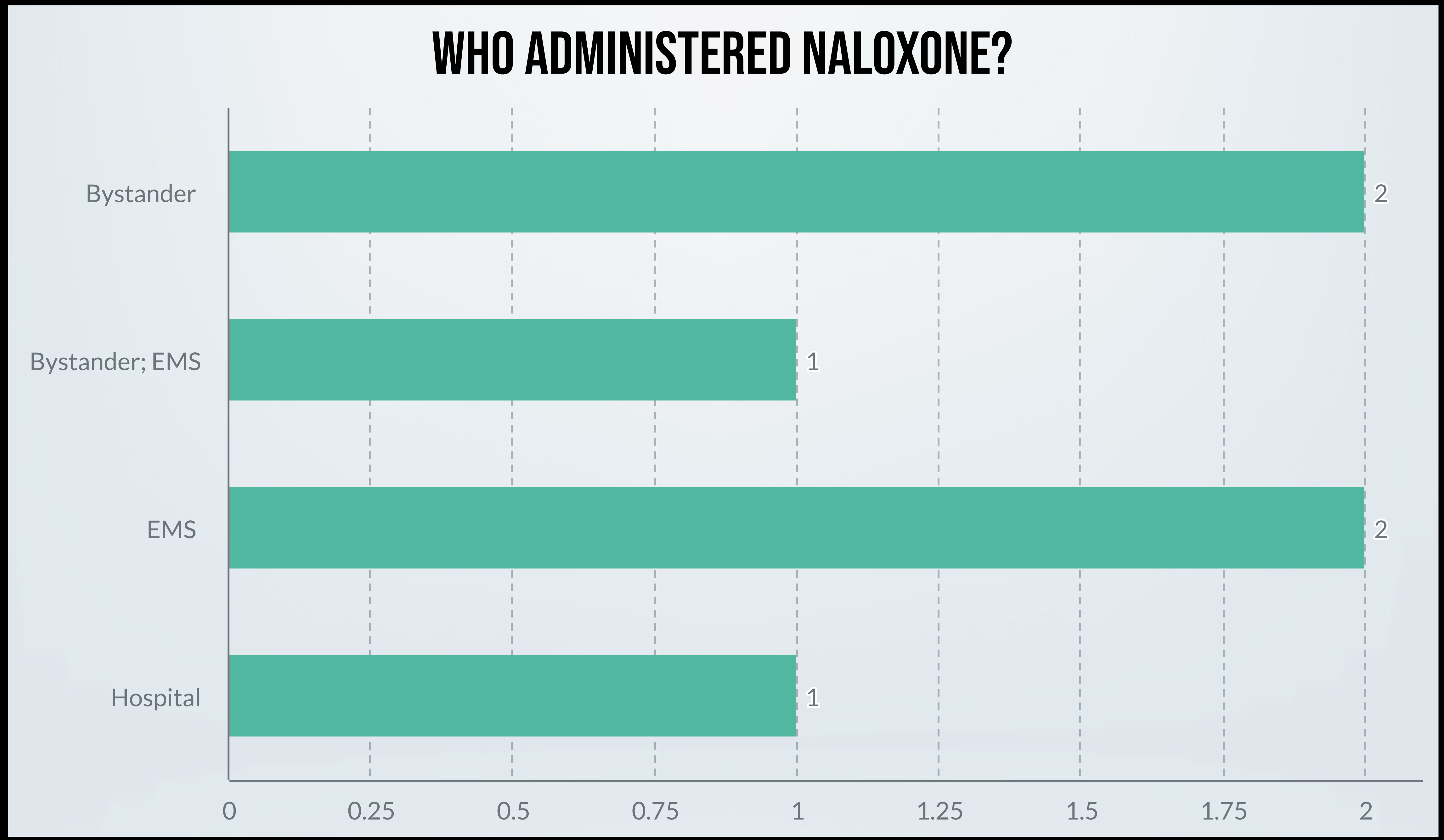
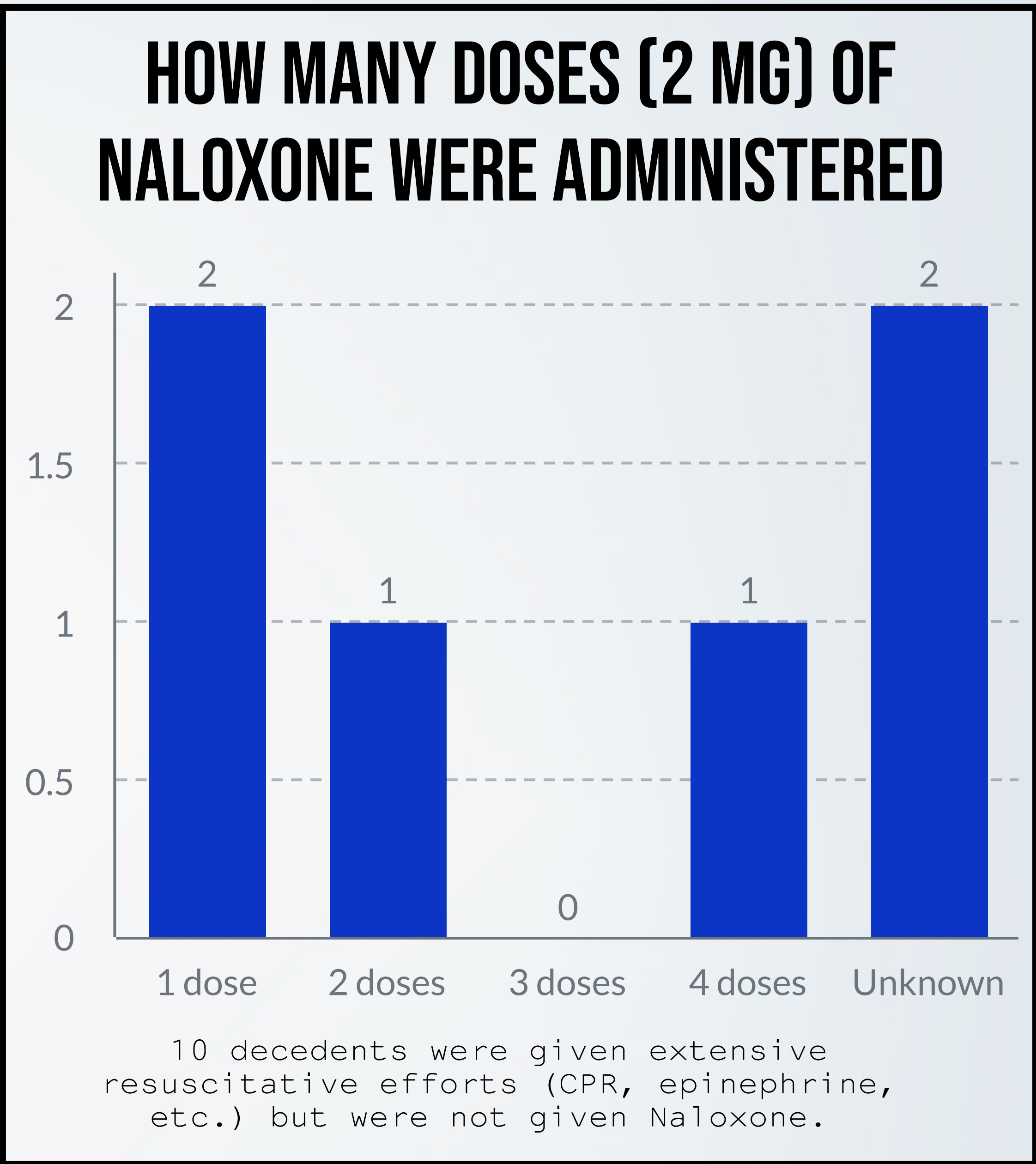
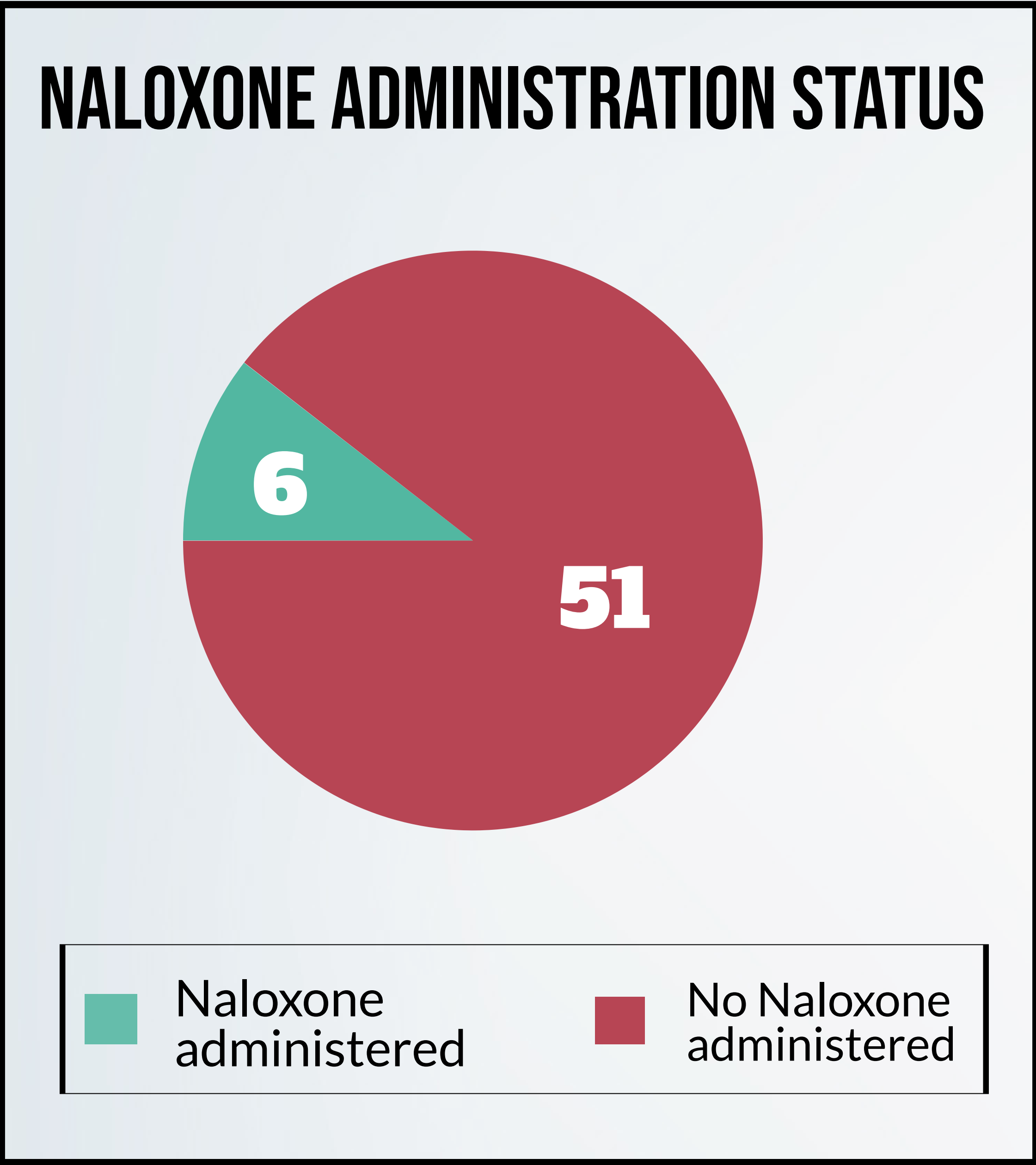
Prescriptions do not include opioids.

Other includes acetaminophen, cocaethylene, dextromethorphan, diphenhydramine, ethanol, flualprazolam, mitragynine, and xylazine.

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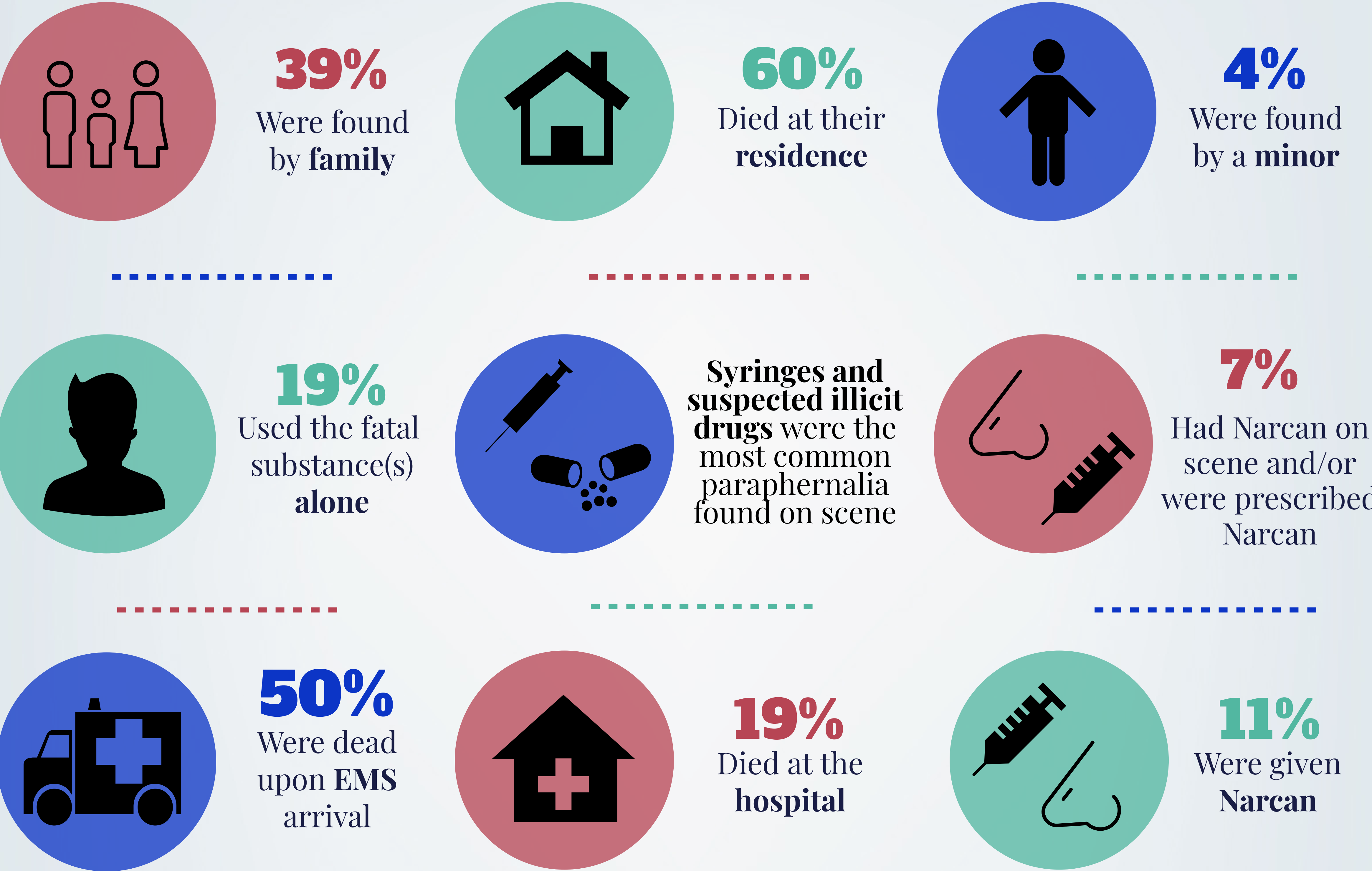
Naloxone Administration



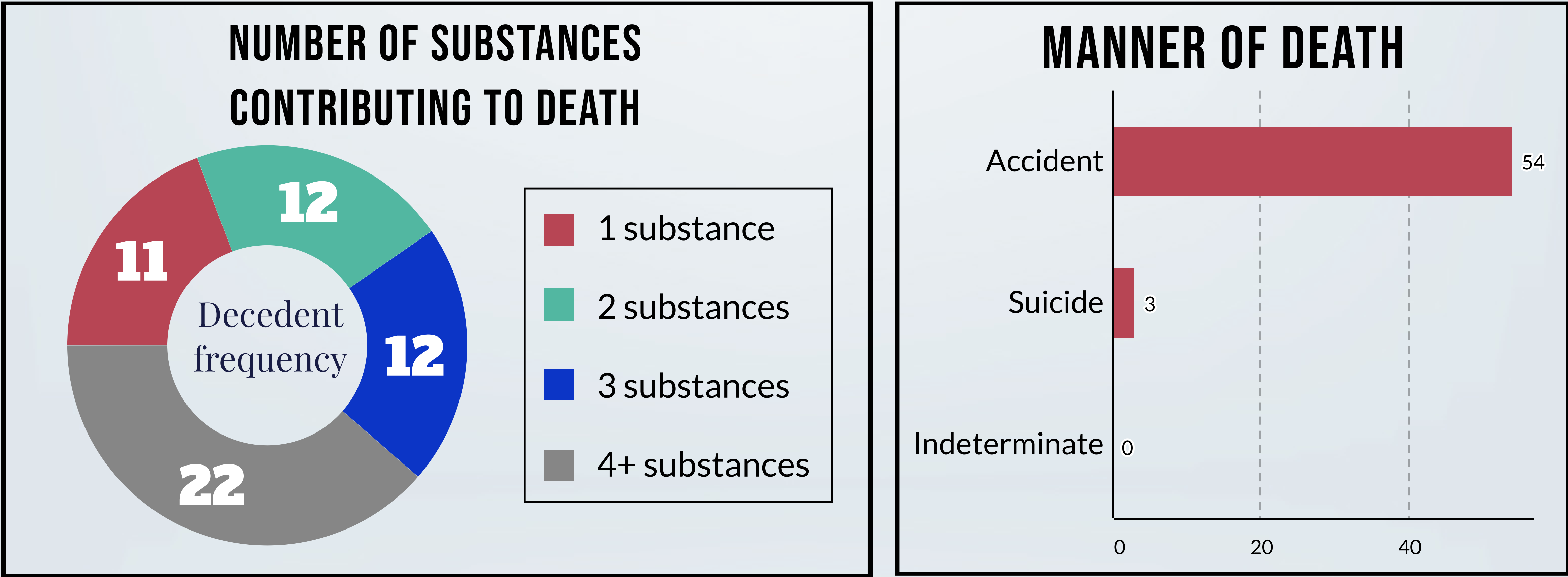
Deaths Related to Opioids and Other Drugs

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Death Scene Findings



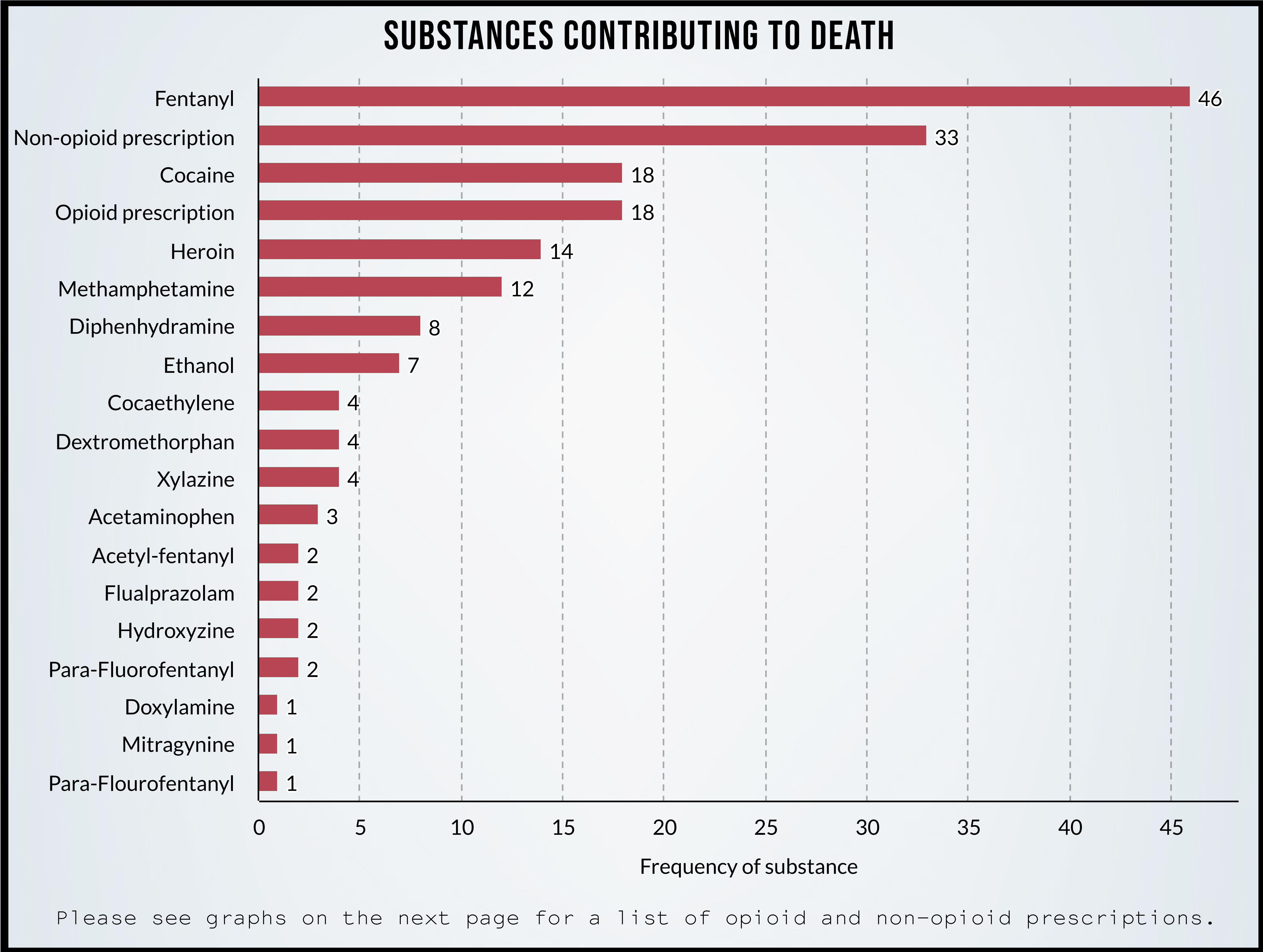
Autopsy and Toxicology Results



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Substance Breakdown



HEROIN & FENTANYL

- 14 decedents had heroin in their toxicology
- 12 of these decedents also had fentanyl in their toxicology

XYLAZINE & FENTANYL

- 4 decedents had xylazine in their toxicology
- 4 of these decedents also had fentanyl in their toxicology

BENZODIAZEPINES & OPIOIDS

- 2 decedents had a benzodiazepine and an opioid in their toxicology
- 0 decedents were prescribed that opioid and benzodiazepine

METHAMPHETAMINE & OPIOIDS

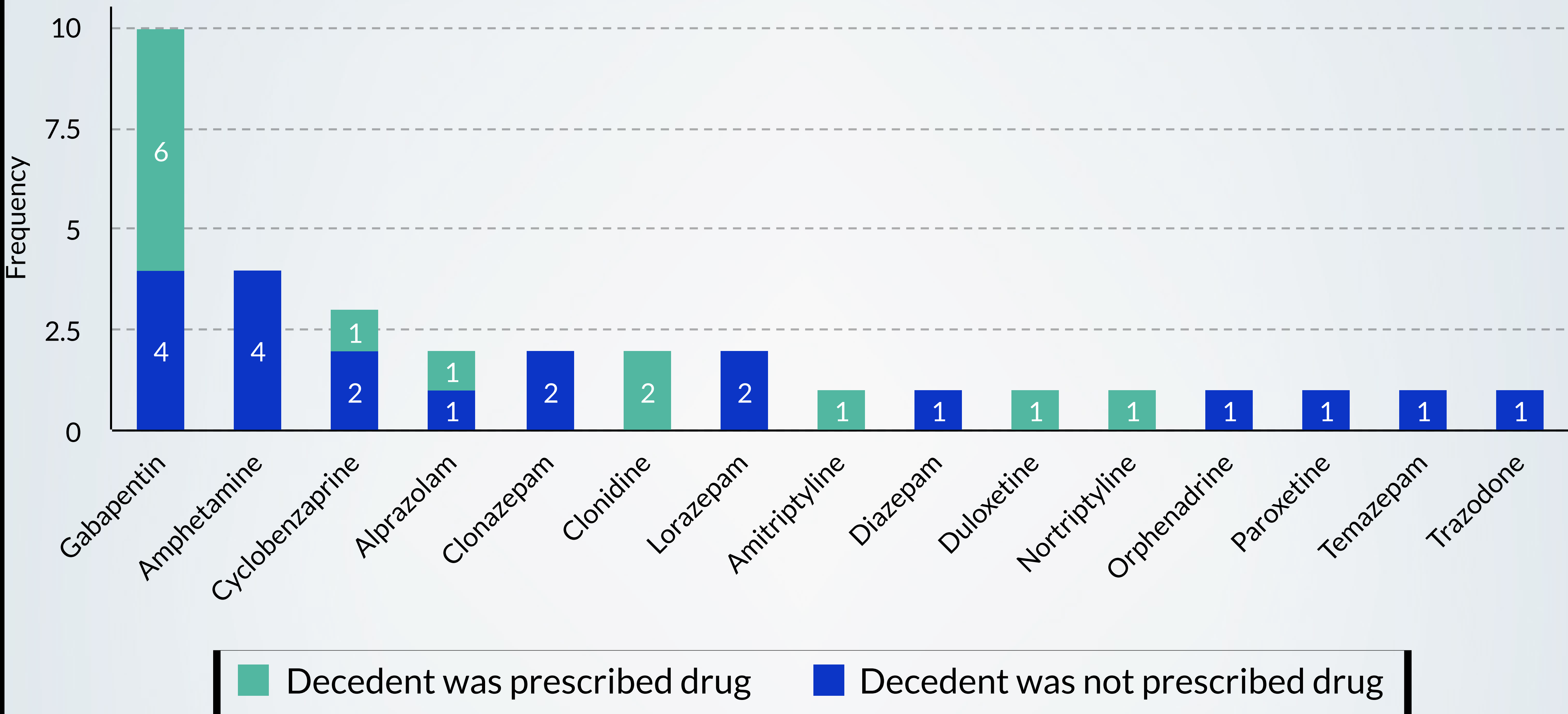
- 10 decedents had methamphetamine and opioid(s) in their toxicology
- 5 decedents had methamphetamine and heroin in their toxicology

Deaths Related to Opioids and Other Drugs

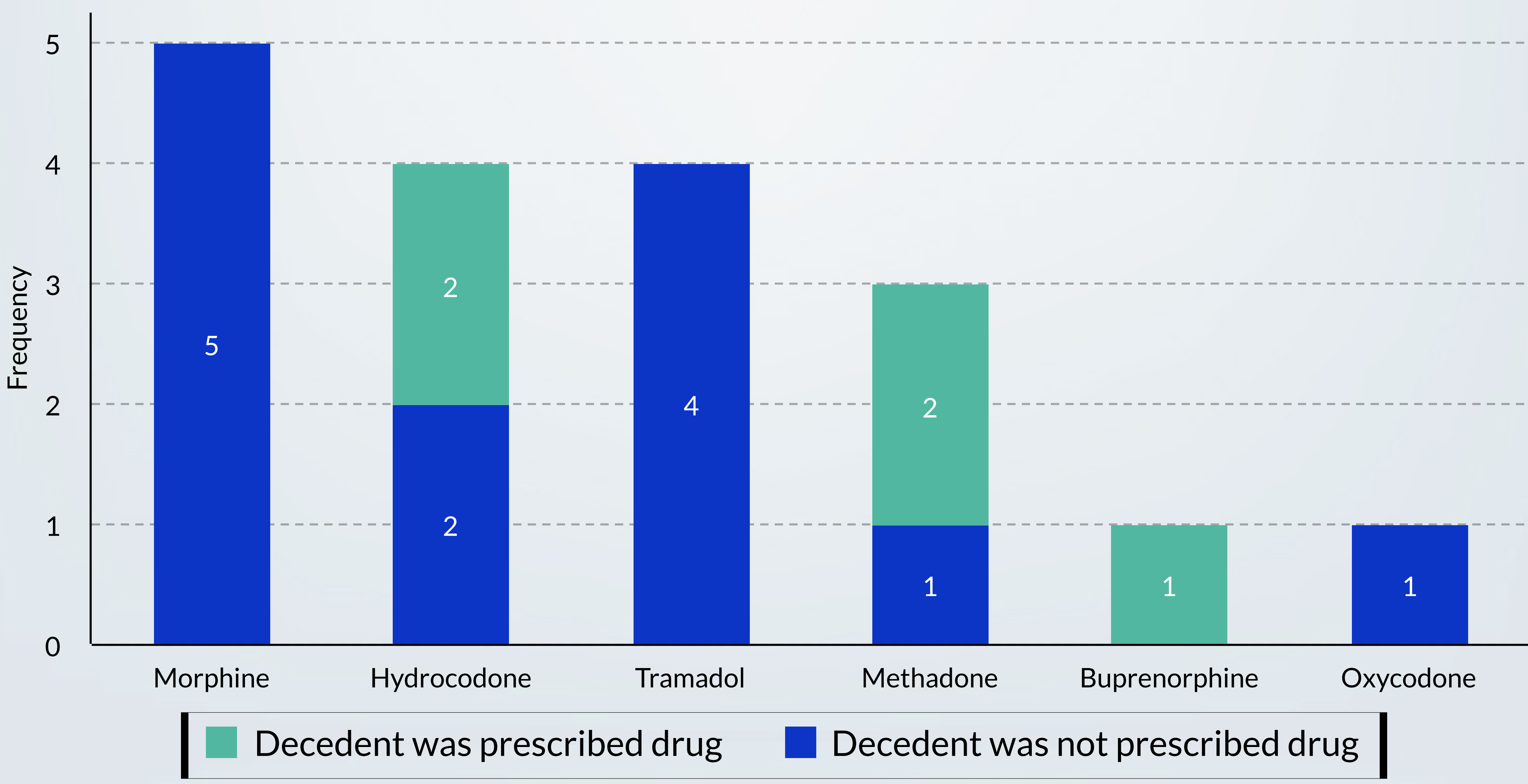
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Autopsy and Toxicology Results, cont.

NON-OPIOID PRESCRIPTIONS PRESENT IN TOXICOLOGY



OPIOID PRESCRIPTIONS PRESENT IN TOXICOLOGY



Note: Of the 46 decedents with fentanyl present in their toxicology, 1 was prescribed fentanyl