

WESTERN MICHIGAN UNIVERSITY
Homer Stryker M.D.
SCHOOL OF MEDICINE

MEDICAL EXAMINER AND
FORENSIC SERVICES

MEDICAL EXAMINER'S OFFICE

2024 Semi-Annual Report

DRUG-RELATED FATALITIES

Allegan

Barry

Berrien

Calhoun

Cass

Grand Traverse

Kalamazoo

Leelanau

Mason

Muskegon

Osceola

St. Joseph

Van Buren

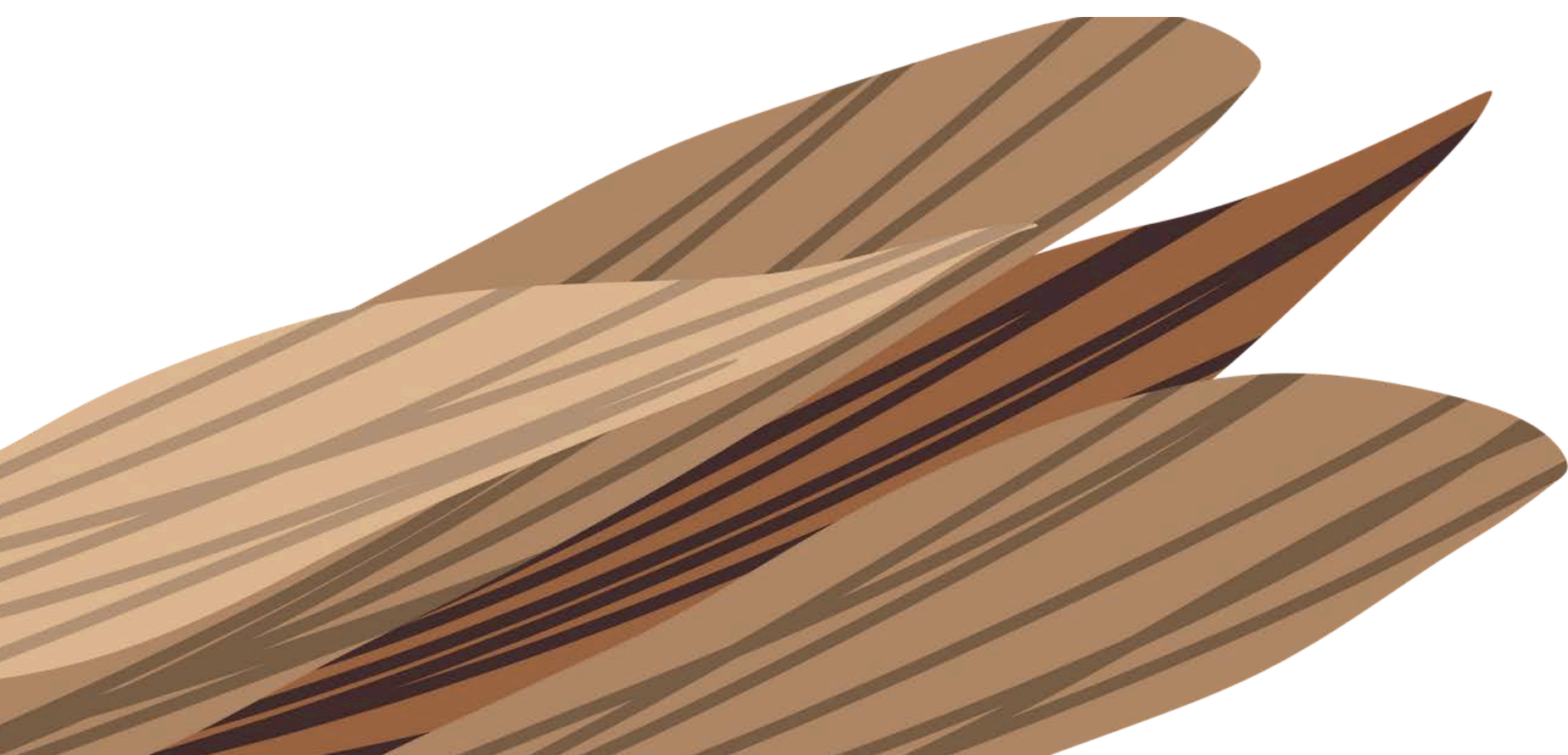
**Office of the Medical Examiner
Western Michigan University
Homer Stryker M.D. School of Medicine**

Acknowledgement

The data in this report was collected from 13 counties served by the Office of the Medical Examiner located within the Department of Pathology at Western Michigan University Homer Stryker M.D. School of Medicine (WMed). Data includes deaths in which drugs were listed as the immediate cause of death or as contributory to death on the death certificate. Acute alcohol-related deaths are deemed drug-related deaths and are included in this report. Leelanau and Osceola County are not included in this report as no drug-related deaths occurred in this time period. Contrary to previous reports, mitragynine is no longer considered an opioid and is reported as a non-opioid in this report. This report provides updated statistics in an effort to reduce the frequency of drug-related deaths in the counties we serve. All data in this report is preliminary.

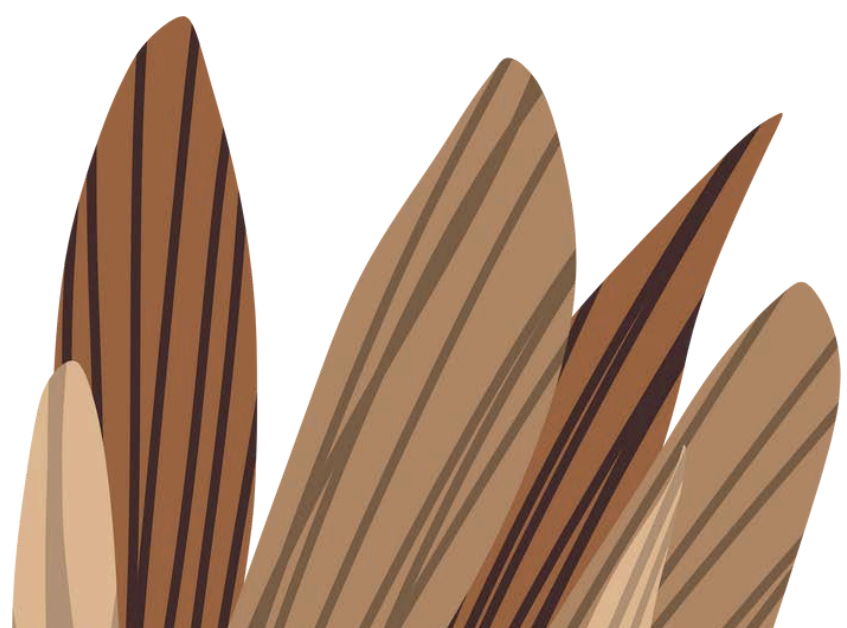


Sources: All information included in this report was extracted from death scene investigation reports, law enforcement and EMS reports, death certificates, obituaries, and autopsy reports.



Contents

Manner of Drug-Related Deaths	1
Opioid-Related Deaths	2
Polysubstance Use & Drug Type	3
Routes of Administration & Location of Injury	4
Naloxone Administration & Independent Drug Use	5
Demographics	6
Allegan County	10
Barry County	11
Berrien County	12
Calhoun County	14
Cass County	16
Grand Traverse County	17
Kalamazoo County	19
Mason County	22
Muskegon County	23
St. Joseph County	25
Van Buren County	26

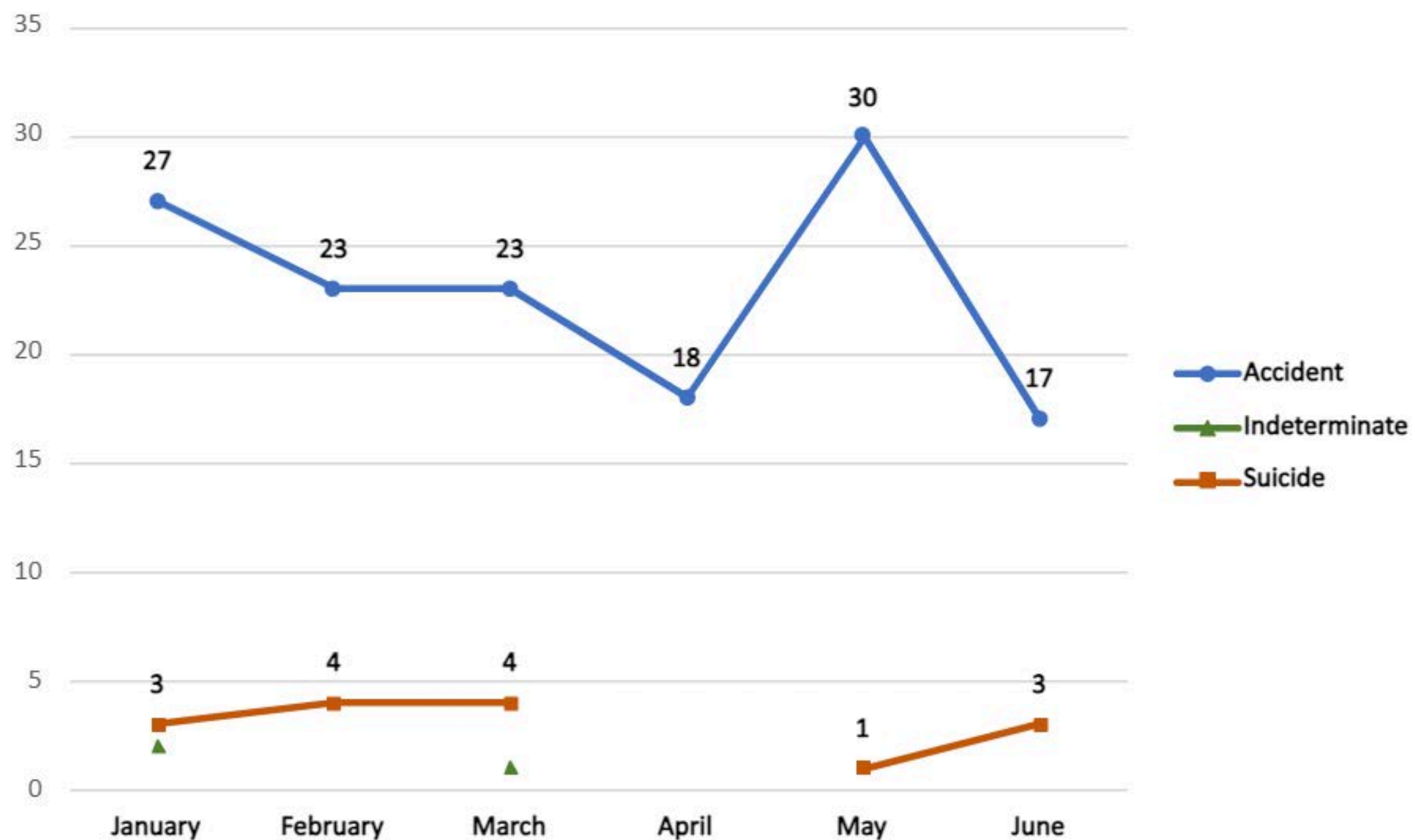


Manner of Drug-Related Deaths

Manner of Drug-Related Deaths by Month, All Counties (11)

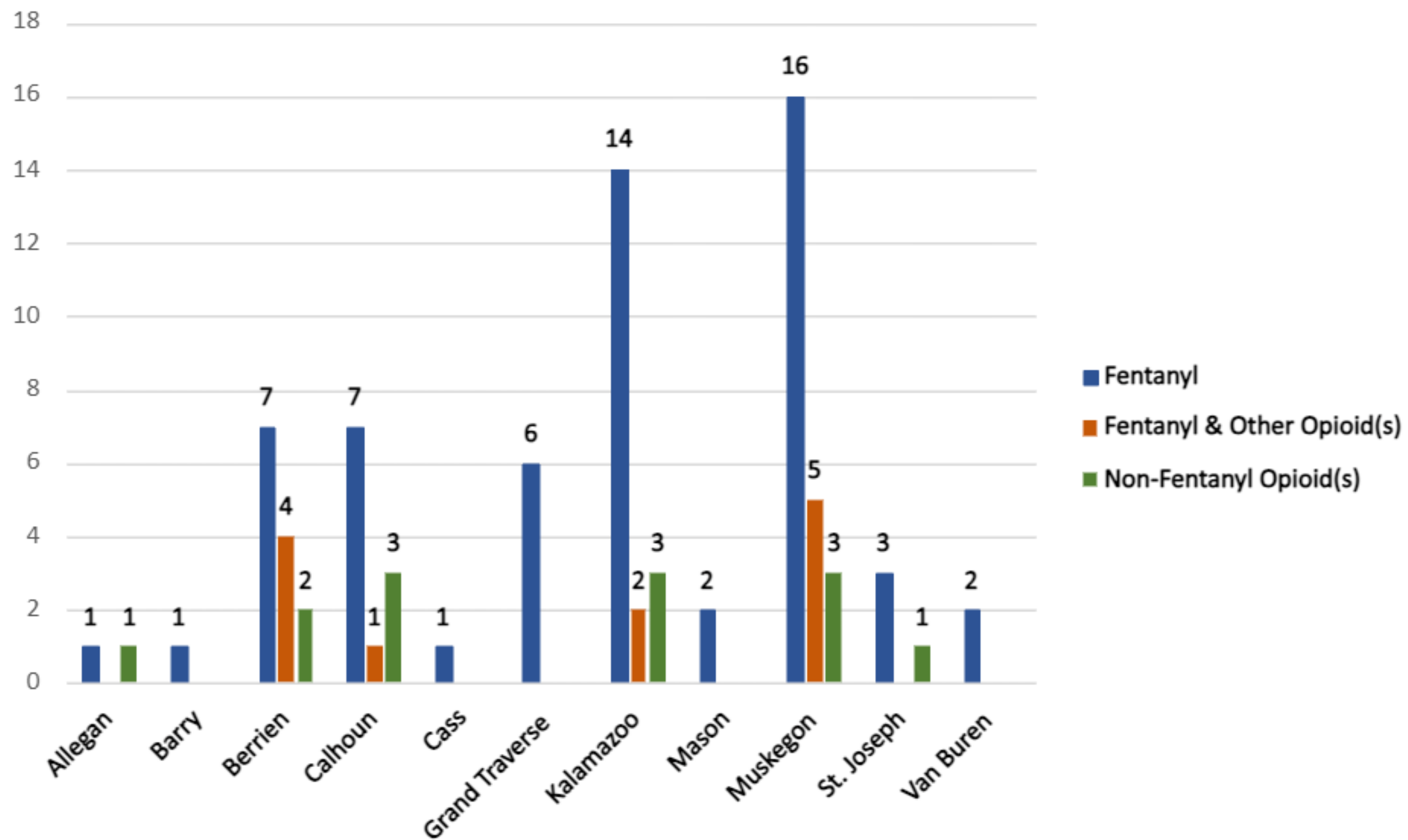
	January	February	March	April	May	June	Total
Accident	27	23	23	18	30	17	138
Suicide	3	4	4	0	1	3	15
Indeterminate	2	0	1	0	1	0	4
Total	32	27	28	18	32	20	157
Total involving opioids	21	13	17	11	20	8	90
% of Deaths involving opioid(s)	66%	48%	61%	61%	63%	40%	57%

Drug-Related Deaths by Month, All Counties (11)



Opioid-Related Deaths

Opioids Identified in Cause of Death of Accidental Drug-Related Deaths by County

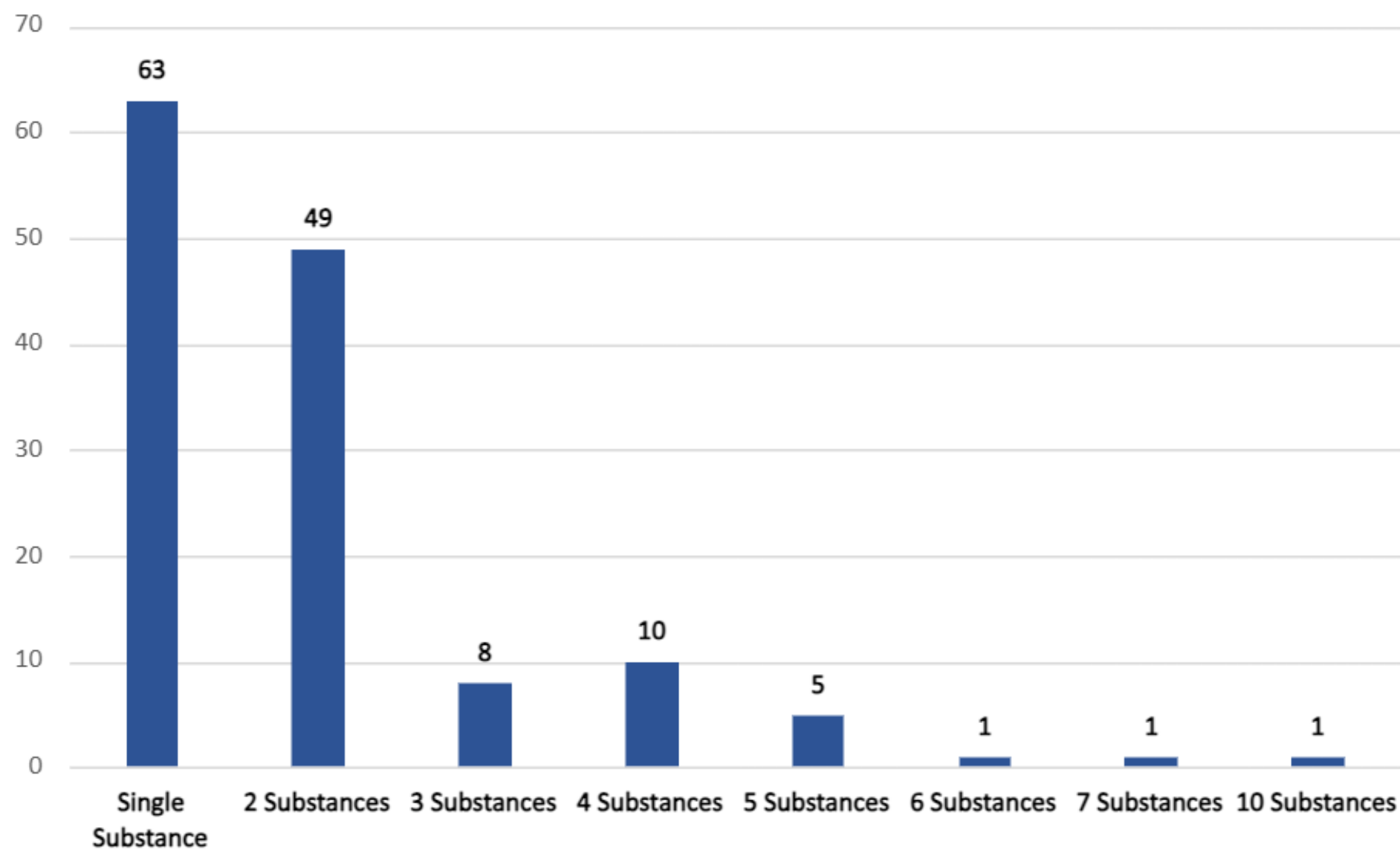


- **72 (52%)** of all accidental drug-related deaths involved fentanyl
- **85 (61.5%)** of all accidental drug-related deaths involved fentanyl or some type of opioid
- **13 (9.4%)** Non-fentanyl opioid(s)



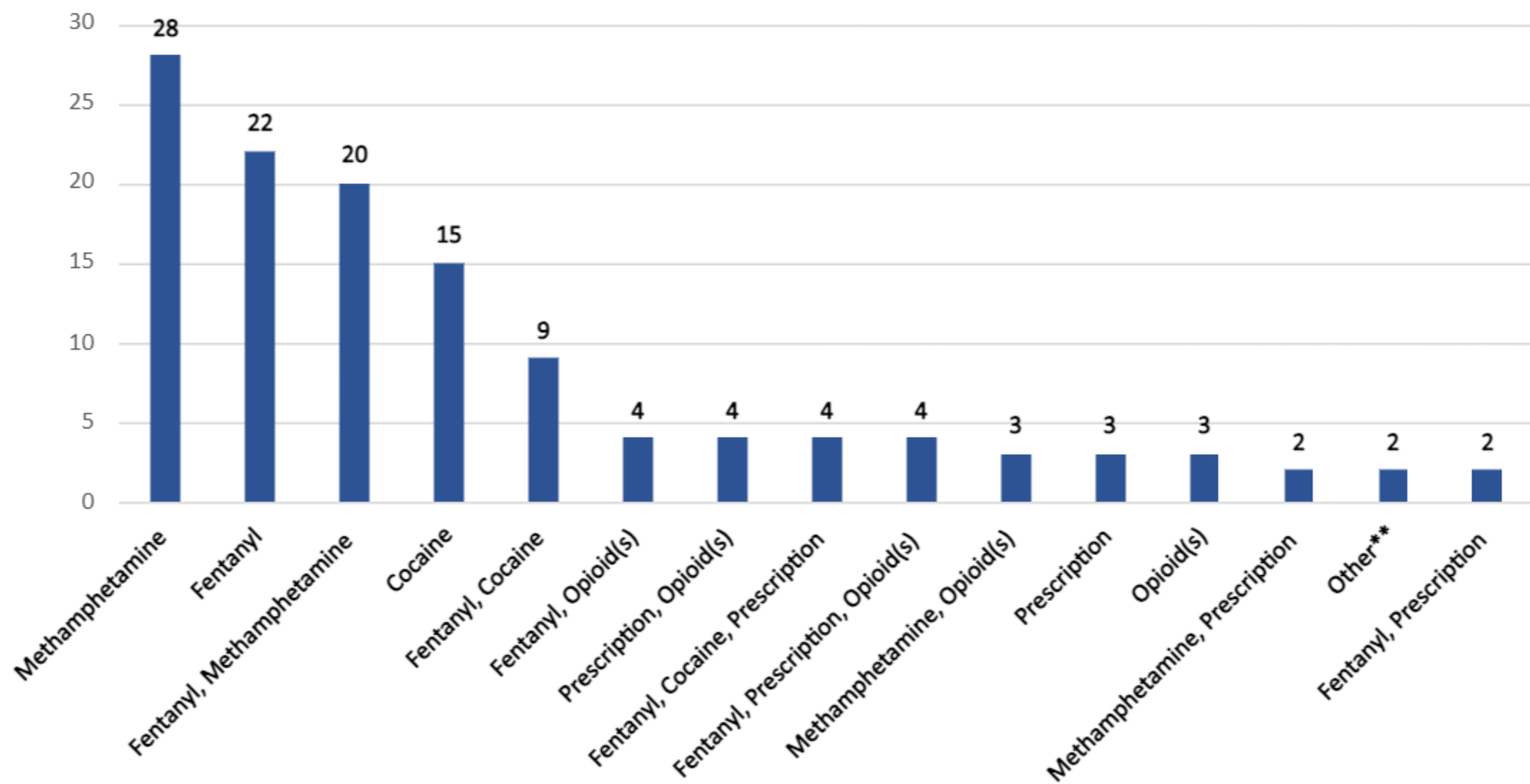
Polysubstance Use & Drug Type

Number of Substances Listed on Death Certificate that Contributed to Accidental Drug-Related Deaths



- **63 (46%)** involved a single substance
- **26 (19%)** of accidental drug-related deaths involved 3 or more substances

Drugs Identified in Cause of Death of Accidental Deaths*



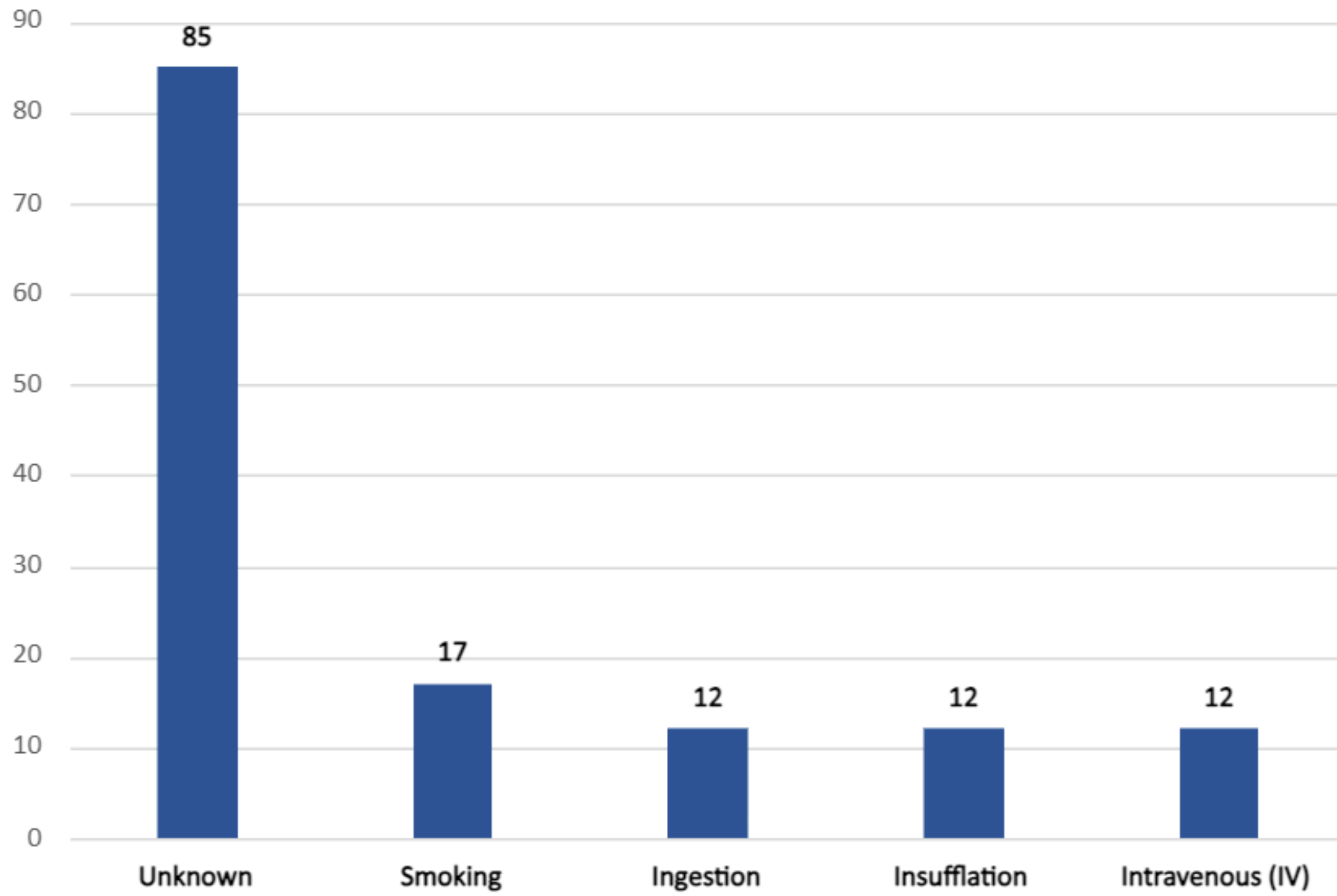
*Only showing instances where each drug combination occurred more than once in this time period

**Other refers to any non-opioid prescription, cleaning materials, and chemicals



Route & Location of Injury

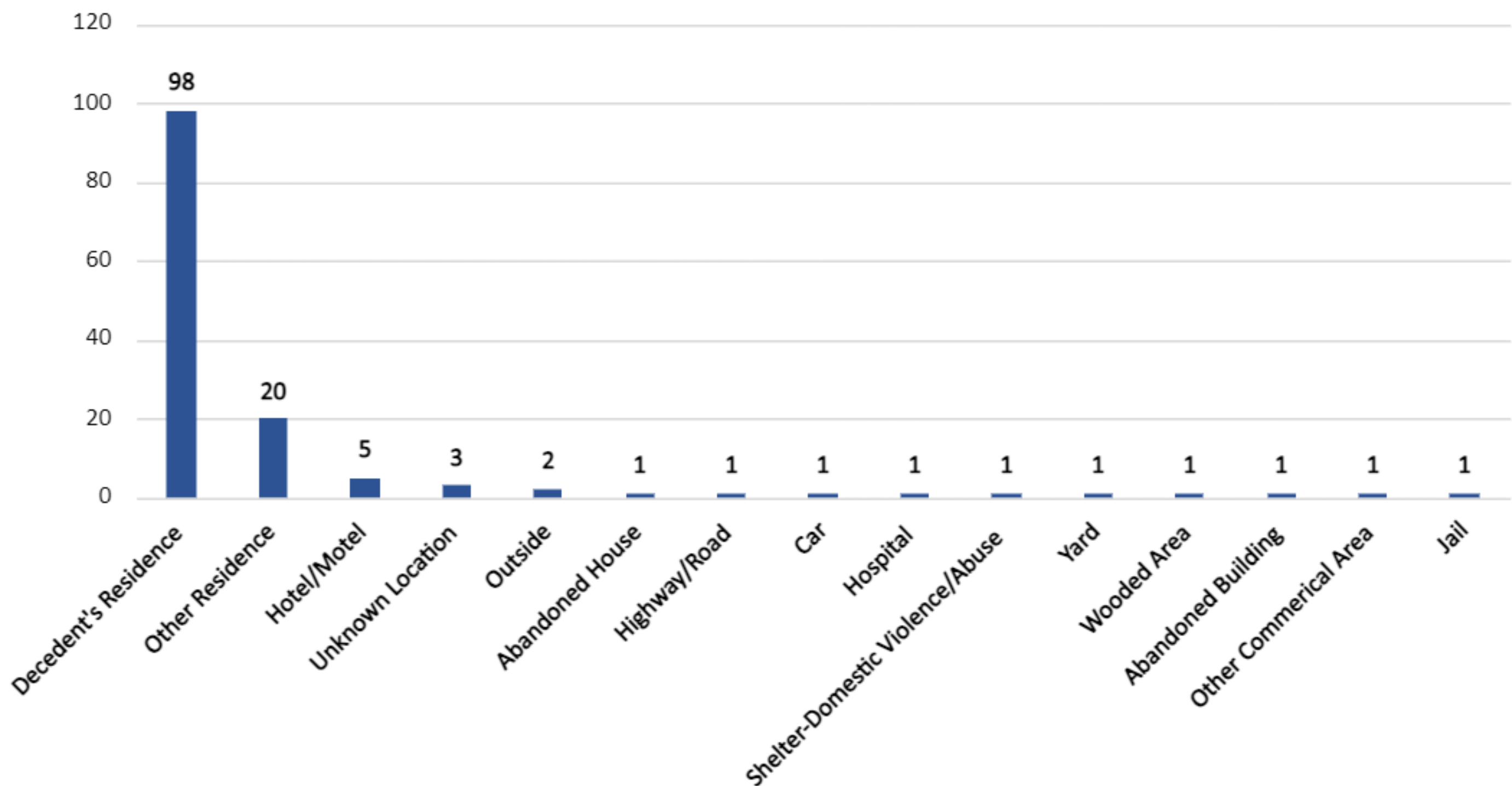
Route of Administration for Accidental Drug-Related Deaths



- **17 (13)%** of accidental drug-related deaths involved smoking of illicit substances
- Accidental drug-related deaths also involved:
 - 12 (8.7%) Insufflation*
 - 12 (8.7%) Ingestion
 - 12 (8.7%) Intravenous (IV)

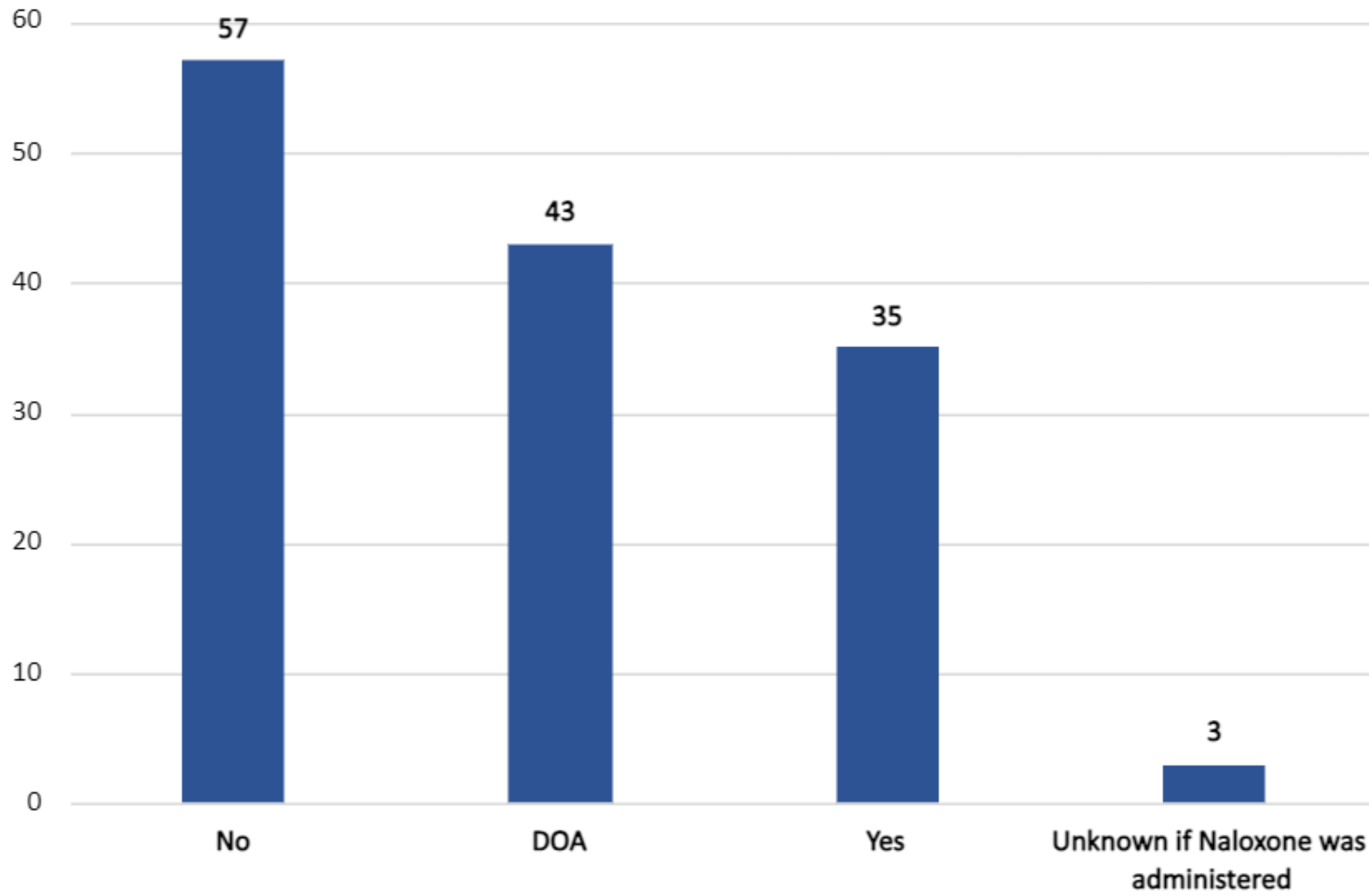
*Insufflation is the act of blowing a substance into a body cavity. This route of administration is commonly known as "snorting".

Location of Injury & Accidental Drug-Related Deaths



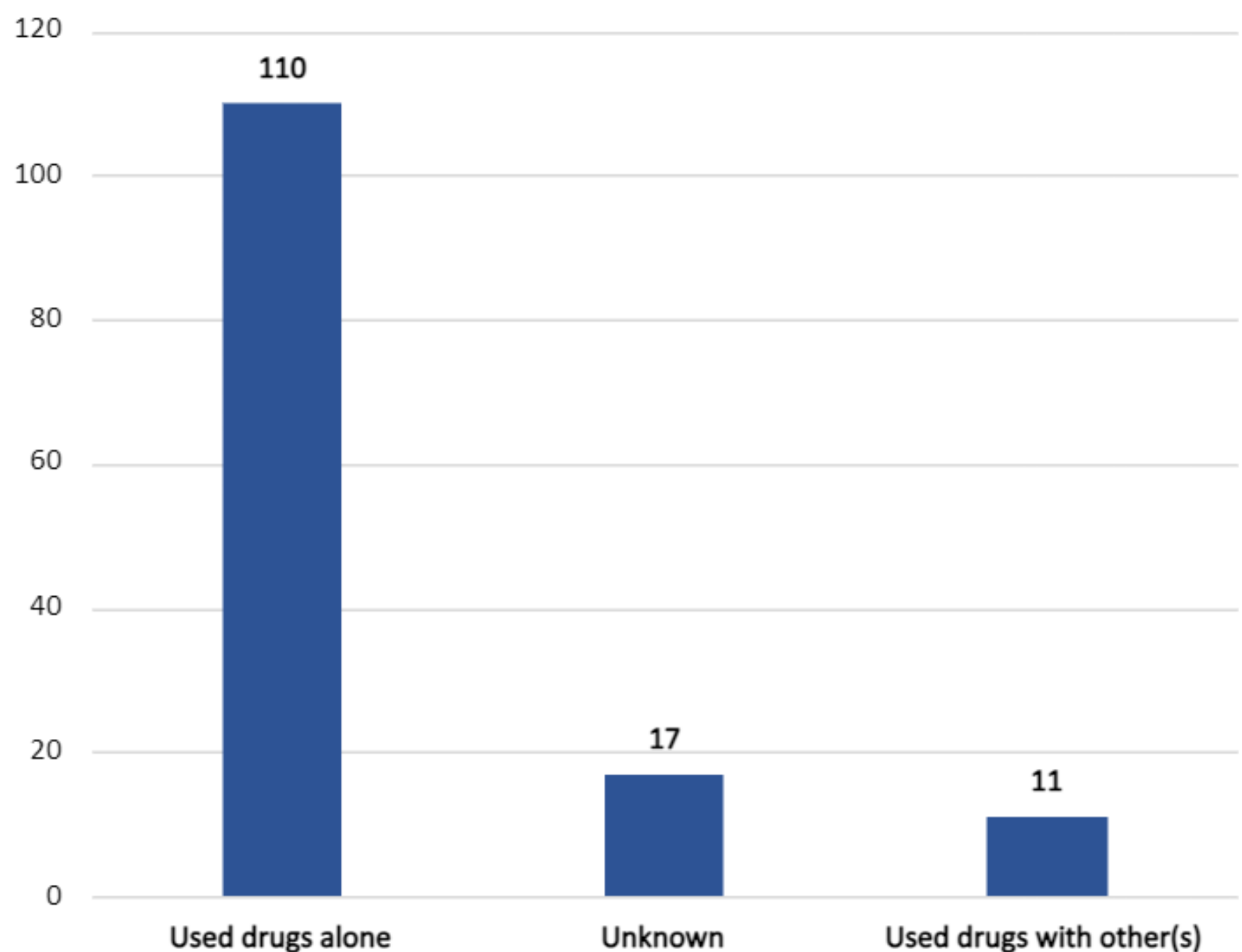
Naloxone & Independent Drug Use

Accidental Drug-Related Deaths & Naloxone (Narcan) Administration



- Naloxone was administered in **35 (37%)** of accidental drug-related deaths
 - This excludes cases where the individual was deceased on arrival

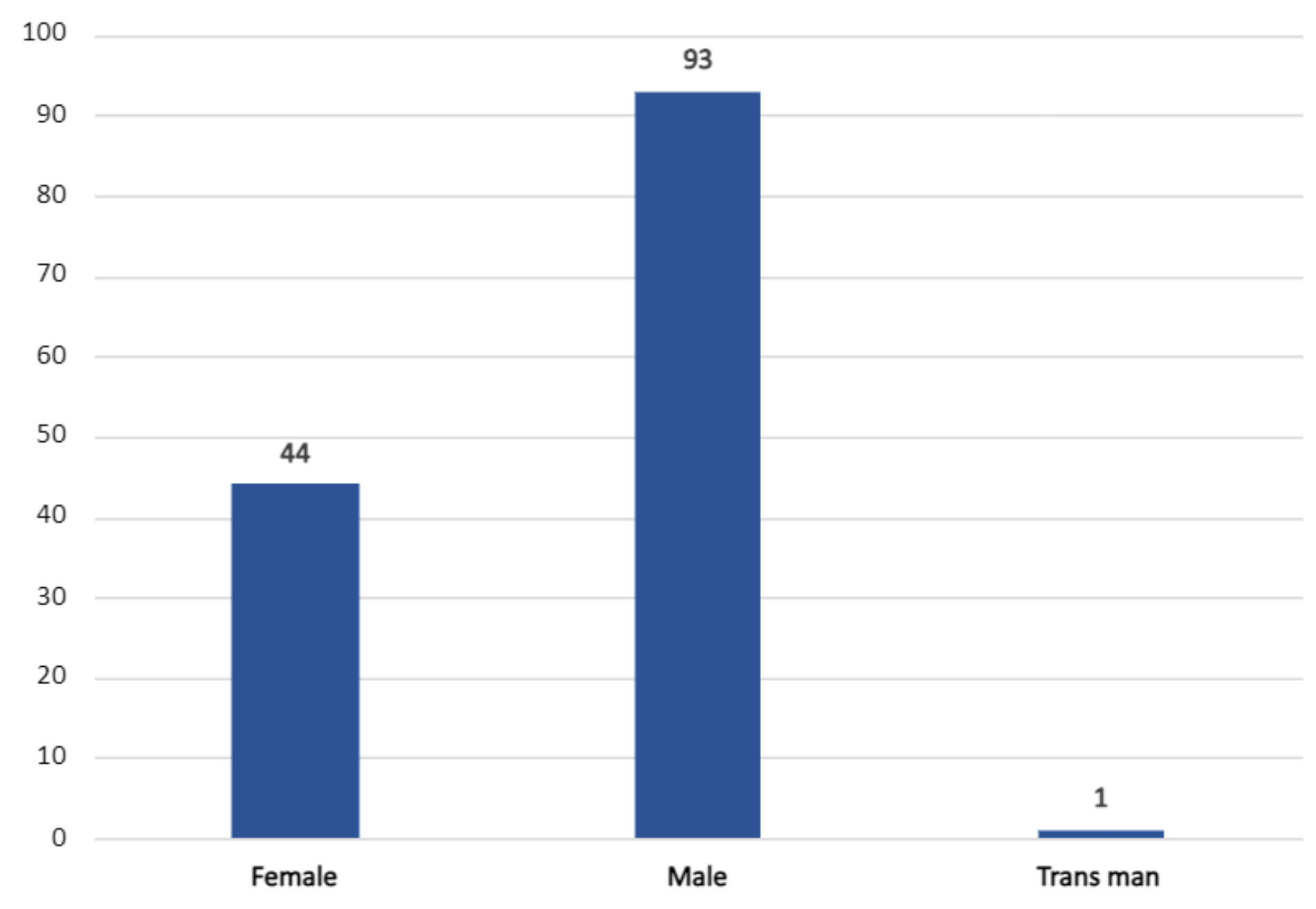
Accidental Drug-Related Deaths & Independent Drug Use



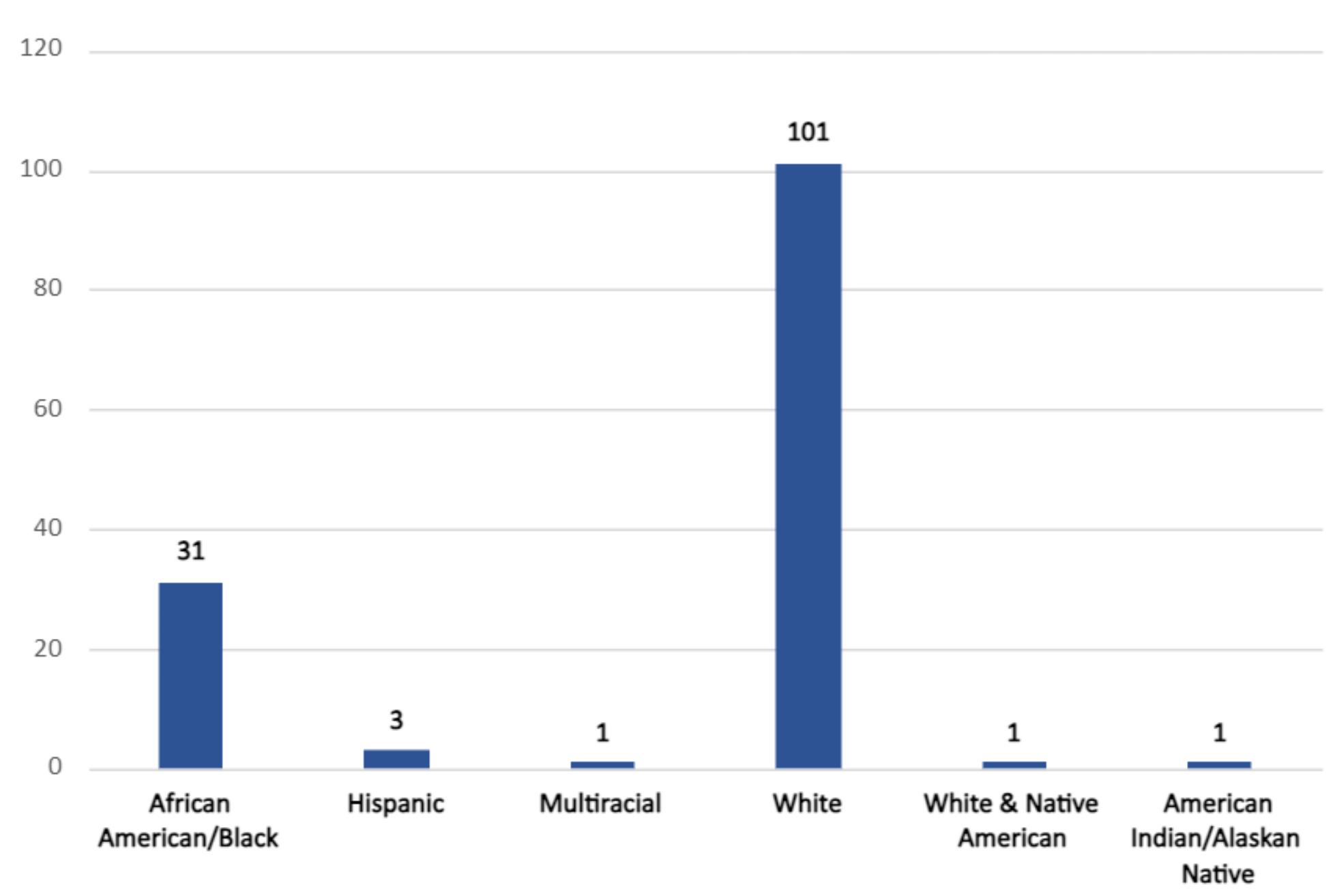
- Naloxone was only administered in **5 cases** where they were using drugs with other(s)

Demographics

Accidental Drug-Related Deaths & Sex



Accidental Drug-Related Deaths & Race



Accidental Drug-Related Deaths & Age

- **1** adolescent (<18 yrs)
- **9** young adults (18-29 yrs)
- **114** adults (30-65 yrs)
- **14** older adults (65+ yrs)

Accidental Drug-Related Deaths & Veteran Status

- **9** were veterans
- **129** were not veterans



Demographics

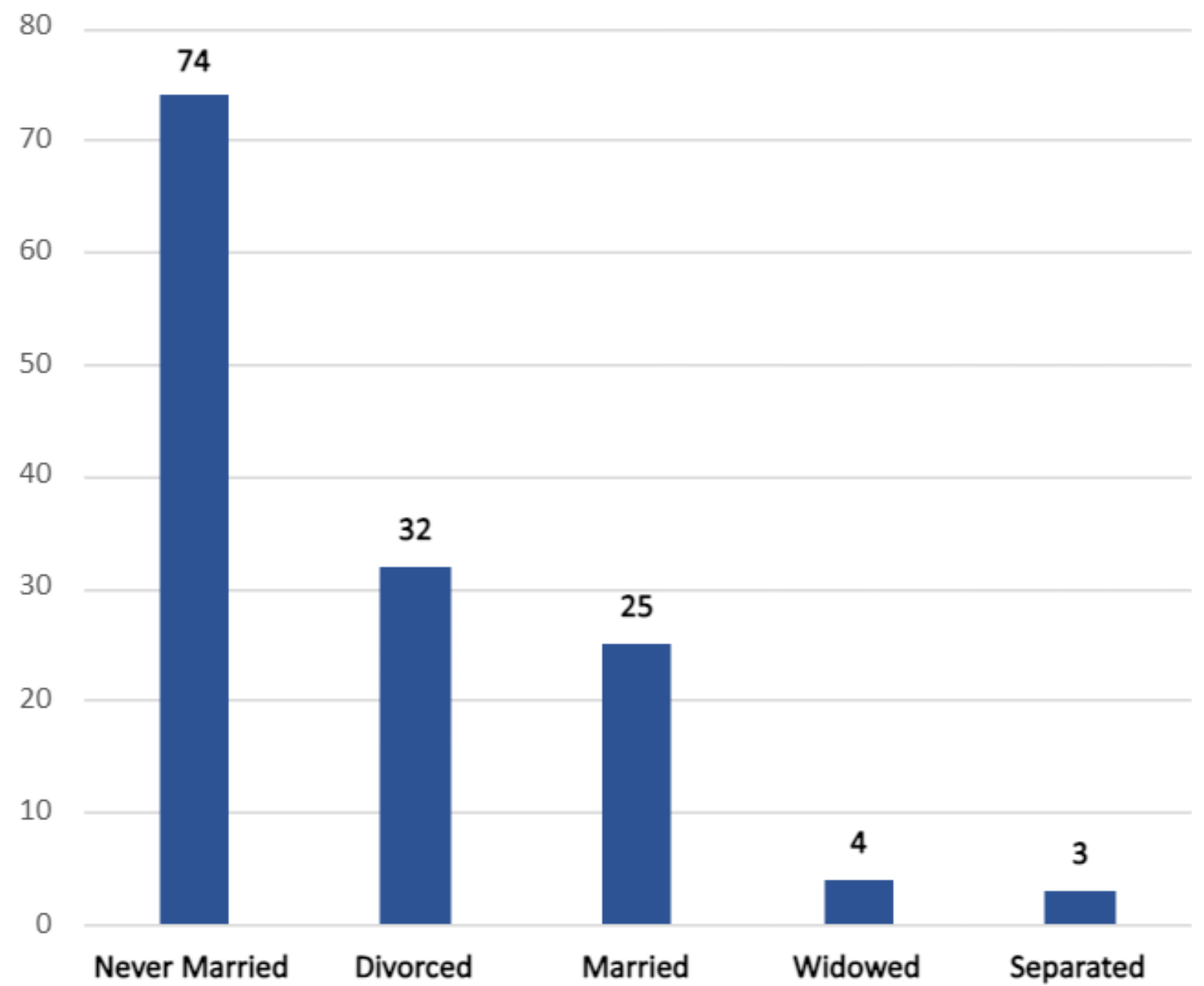
Accidental Drug-Related Deaths & Housing Status

- **120** had secure housing
- **18** were unhoused

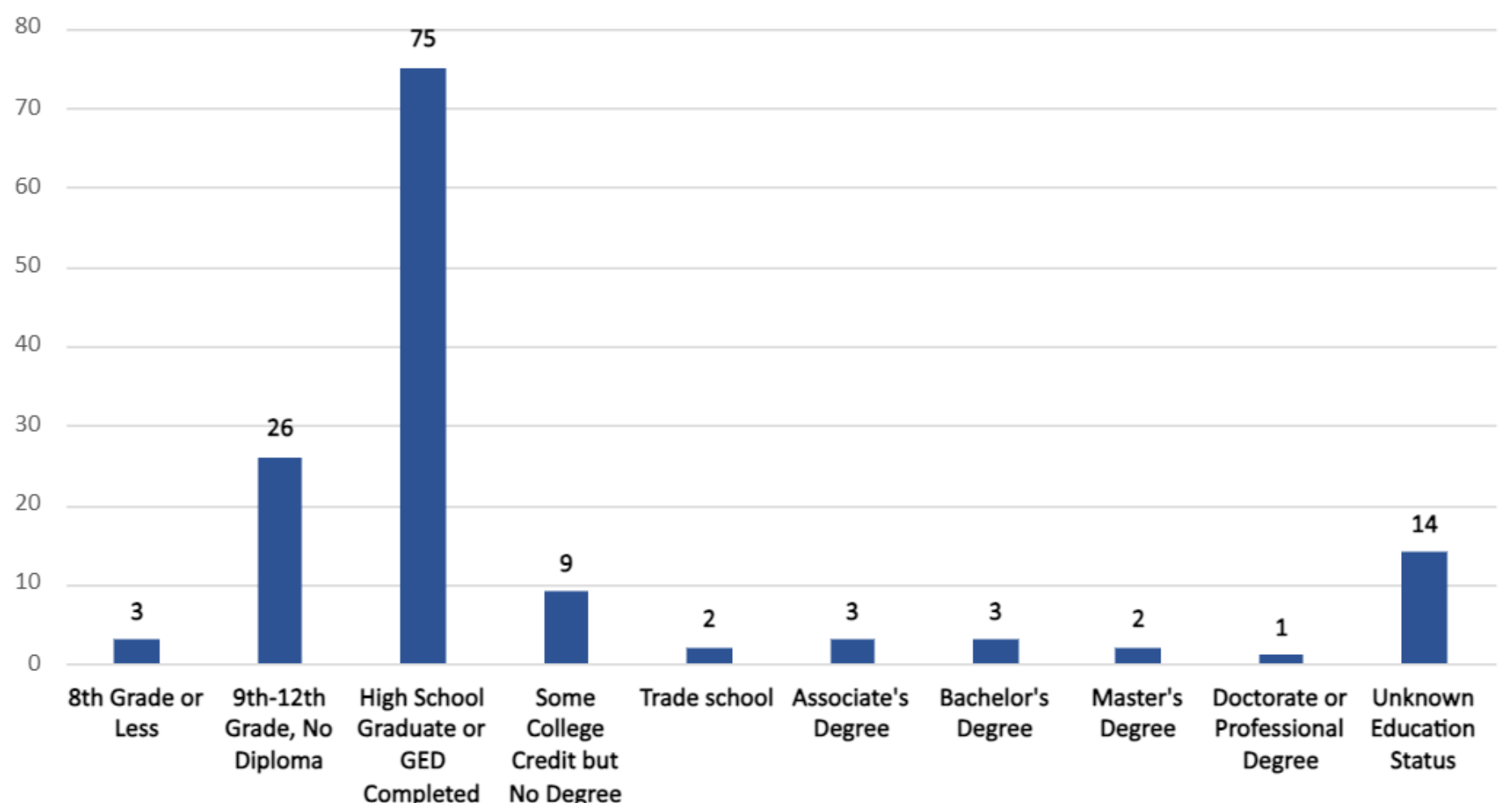
Accidental Drug-Related Deaths & Employment Status

- **34** were employed
- **62** were unemployed
- **4** were retired
- **2** were unemployed due to disability
- **36** had an unknown employment status

Accidental Drug-Related Deaths & Marital Status

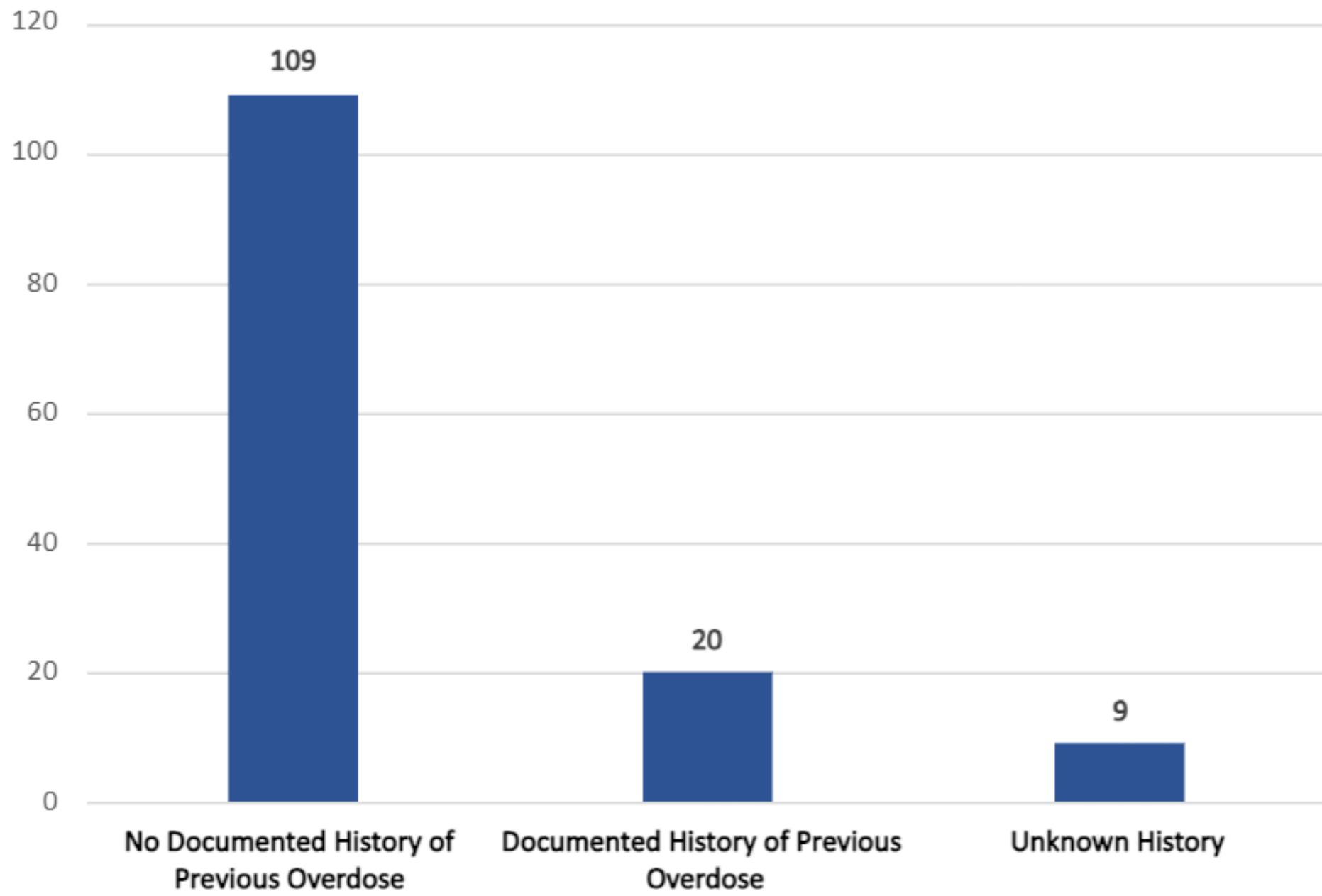


Accidental Drug-Related Deaths & Education Status



Demographics

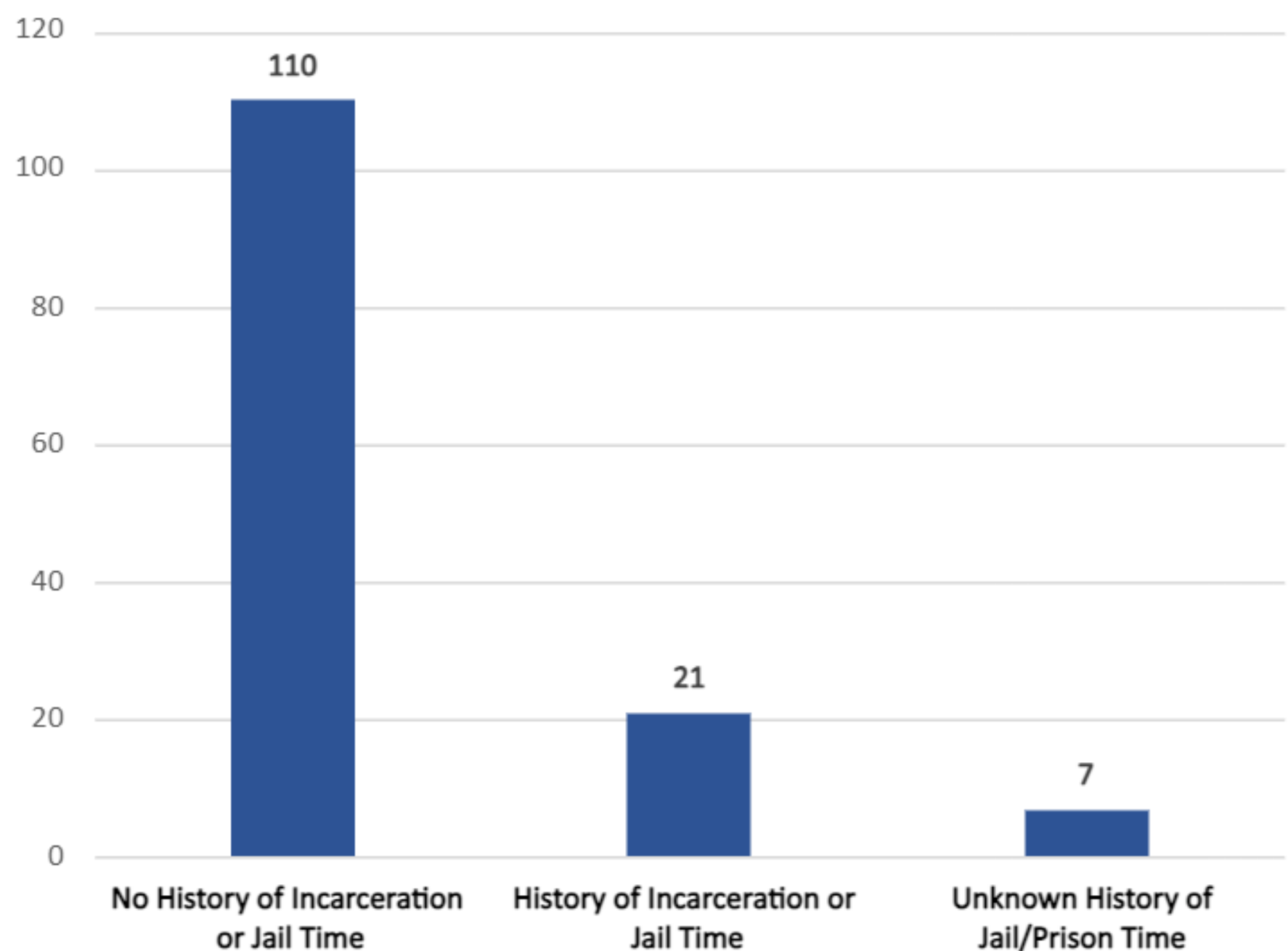
Accidental Drug-Related Deaths & History of Previous Overdose



- **20 (14.5%)** of all accidental drug-related deaths had at least one overdose incident reported in their medical history

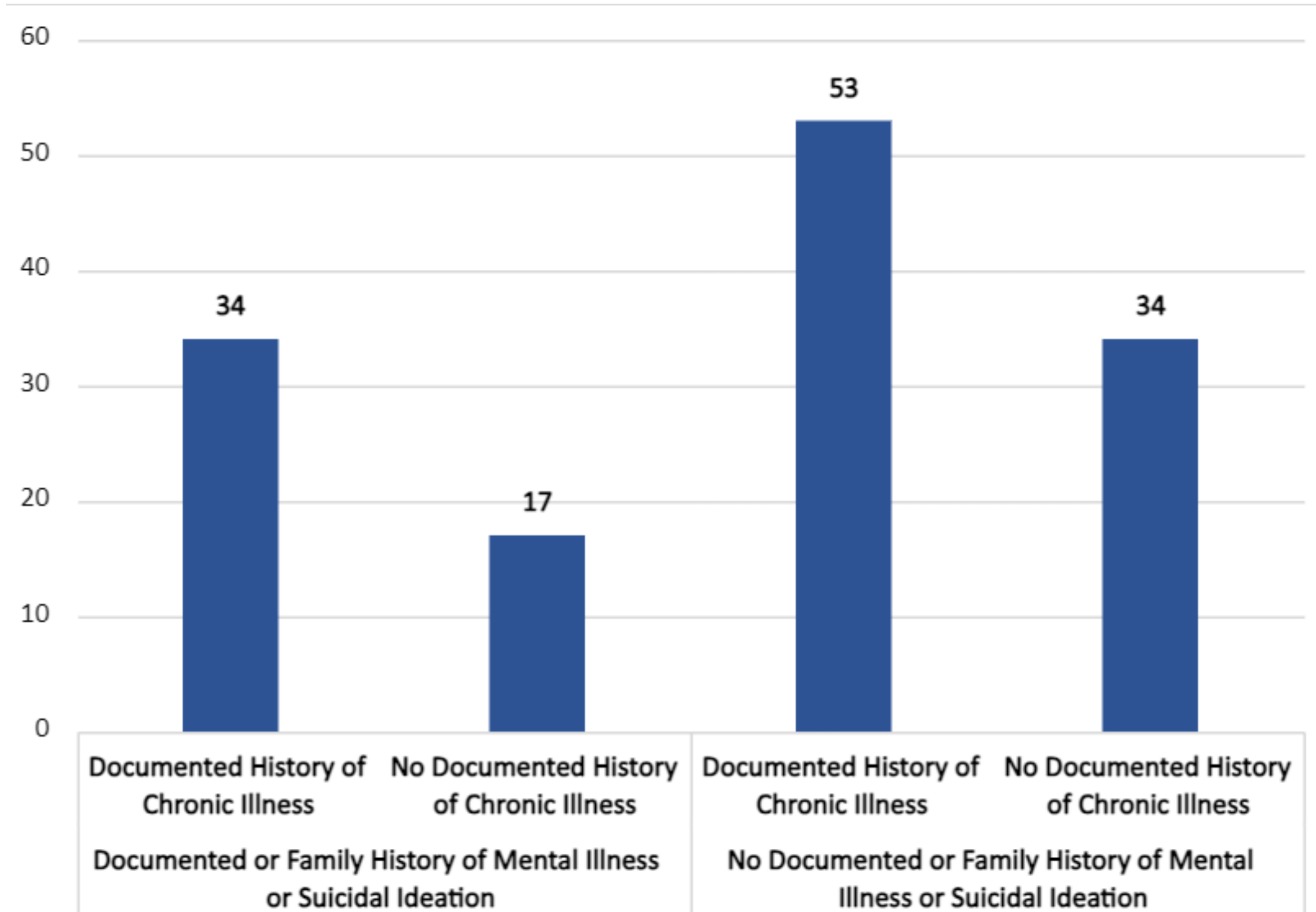
Accidental Drug-Related Deaths & History of Incarceration

- **21 (15%)** of all accidental drug-related deaths had a history of jail or incarceration at some point in their life



Demographics

Accidental Drug-Related Deaths & History of Mental and Chronic Illness



- **51 (33%)** of all accidental drug-related deaths had a documented or family history of mental illness or suicidal ideation
- **87 (55%)** of all accidental drug-related deaths had a documented history of chronic illness
- **34 (22%)** of all accidental drug-related deaths had **both** a documented history of mental illness and a chronic illness

Allegan County

Drug-Related Deaths by Manner

	January	February	March	April	May	June	Total
Accident	1	0	2	0	2	0	5
Suicide	0	1	0	0	0	0	1
Total	1	1	2	0	2	0	6
Total involving opioids	0	0	1	0	1	0	2
% of Deaths involving opioid(s)	0%	0%	50%	0%	50%	0%	33%

All Drug-Related Deaths

Age	Sex	Race & Ethnicity	Zip Code of Injury	Substances Contributing to Death	Opioid (Y/N)
28	Male	White	49010	Insulin	N
40	Female	White	49010	Methamphetamine	N
33	Male	White	49315	Cocaine, Ethanol, 3,4-methylenedioxymethamphetamine	N
40	Male	White	49348	Fentanyl	Y
67	Male	White	49423	Morphine	Y
69	Male	White	49450	Methamphetamine	N

Barry County

Drug-Related Deaths by Manner

	January	February	March	April	May	June	Total
Accident	0	1	0	0	1	0	2
Total involving opioids	0	1	0	0	0	0	1
% of Deaths involving opioid(s)	0%	100%	0%	0%	0%	0%	50%

All Drug-Related Deaths

Age	Sex	Race & Ethnicity	Zip Code of Injury	Substances Contributing to Death	Opioid (Y/N)
31	Female	White	49046	Fentanyl, Methamphetamine	Y
45	Male	White	49046	Amphetamine, Methamphetamine	N

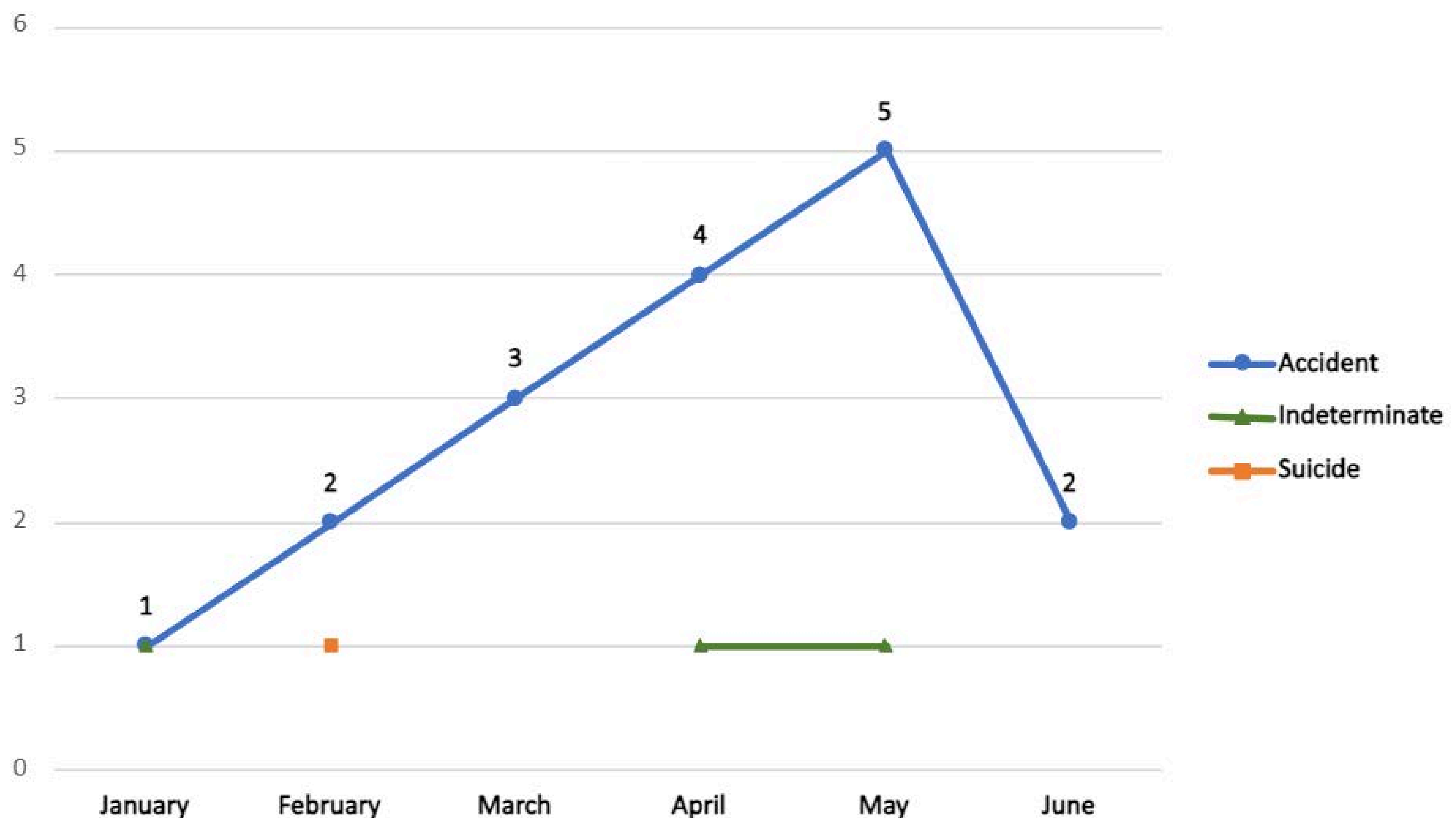


Berrien County

Drug-Related Deaths by Manner

	January	February	March	April	May	June	Total
Accident	1	2	3	4	5	2	17
Suicide	0	1	0	0	0	0	1
Indeterminate	1	0	0	0	1	0	2
Total	2	3	3	4	6	2	20
Total involving opioids	2	2	3	2	4	2	15
% of Deaths involving opioid(s)	100%	66%	100%	50%	66%	100%	75%

Drug-Related Deaths by Month



Berrien County

All Drug-Related Deaths

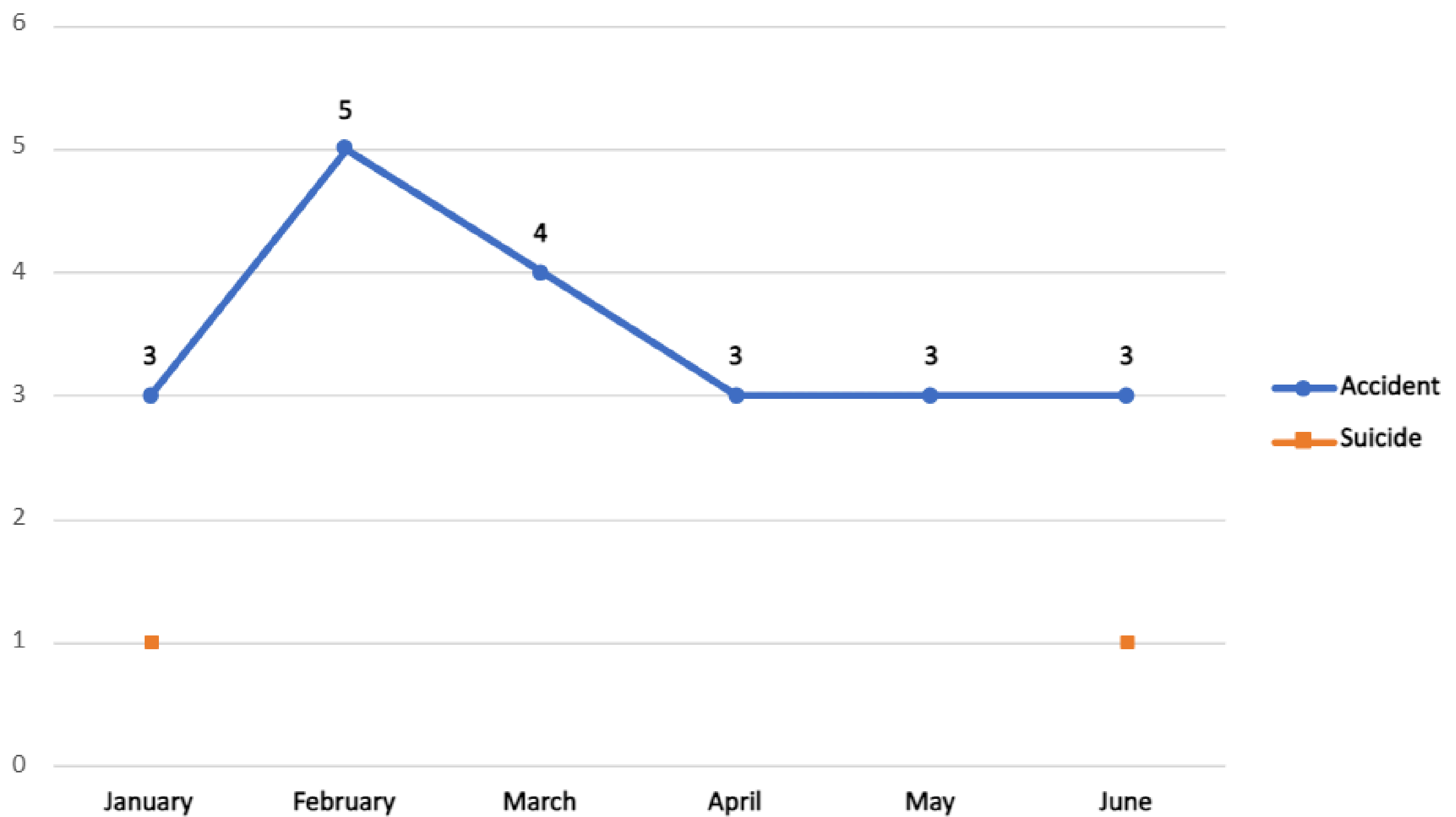
Age	Sex	Race & Ethnicity	Zip Code of Injury	Substances Contributing to Death	Opioid (Y/N)
34	Female	African American/Black	49022	Fentanyl, Alprazolam, Cocaine, Cyclobenzaprine, Gabapentin, Pregabalin, Tramadol	Y
38	Male	White	49022	Fentanyl, Bromazolam, Cocaine	Y
42	Male	African American/Black	49022	Fentanyl	Y
53	Male	African American/Black	49022	Cocaine	N
59	Female	White	49022	Methamphetamine, Morphine	Y
61	Male	African American/Black	49022	Fentanyl	Y
64	Male	White	49022	Alprazolam, Methadone	Y
38	Male	White	49120	Fentanyl	Y
41	Female	White	49120	Fentanyl, Morphine	Y
42	Male	White	49120	Fentanyl, Methamphetamine	Y
50	Male	White	49120	Methamphetamine	N
54	Female	White & Native American	49120	Fentanyl, Morphine	Y
36	Female	White	49038	Fentanyl, Alprazolam, Bupropion, Duloxetine, Gabapentin	Y
41	Male	White	49038	Fentanyl, Acetyl Fentanyl, Fluorofentanyl, Methamphetamine	Y
41	Male	White	49038	1,1-Difluoroethane	N
50	Male	White	49038	Oxycodone	Y
30	Female	White	49127	Fentanyl, Alprazolam, Ethanol, Morphine	Y
38	Male	White	49106	Bupirone, Diphenhydramine, Quetiapine	N
41	Male	White & African American/Black	49112	Amphetamine, Methamphetamine	N
59	Female	White	49101	Fentanyl, Methamphetamine	Y

Calhoun County

Drug-Related Deaths by Manner

	January	February	March	April	May	June	Total
Accident	3	5	4	3	3	3	21
Suicide	1	0	0	0	0	1	2
Total	4	5	4	3	3	4	23
Total involving opioids	2	1	2	1	3	2	11
% of Deaths involving opioid(s)	50%	20%	50%	33%	100%	50%	48%

Drug-Related Deaths by Month



Calhoun County

All Drug-Related Deaths

Age	Sex	Race & Ethnicity	Zip Code of Injury	Substances Contributing to Death	Opioid (Y/N)
33	Male	White	49014	Fentanyl, Acetyl Fentanyl	Y
34	Male	White	49014	Fentanyl	Y
38	Female	White	49014	Alprazolam, Cocaine, 1,1-Difluoroethane, Hydrocodone, Methamphetamine	Y
49	Female	White	49014	Amitriptyline, Cyclobenzaprine, Diphenhydramine, Nortriptyline	N
65	Male	African American/Black	49014	Cocaine	N
71	Male	White	49014	Fentanyl	Y
26	Male	White	49037	Fentanyl, Cocaine, Methamphetamine	Y
28	Female	White	49037	Methamphetamine	N
30	Male	Hispanic	49037	Cocaine, Clonazepam, Hydromorphone, Tramadol	Y
38	Male	White	49037	Fentanyl, Methamphetamine	Y
45	Male	White	49037	Methamphetamine	N
48	Male	White	49037	Methamphetamine	N
37	Male	African American/Black	49017	Fentanyl, Acetyl Fentanyl	Y
38	Female	White	49017	Fentanyl, Gabapentin	Y
61	Male	White	49017	Morphine	Y
63	Female	African American/Black	49017	Methamphetamine	N
36	Male	African American/Black	49015	Methamphetamine	N
38	Transwomen	White	49015	Nitrite/Nitrate	N
40	Male	White	49076	Fentanyl, Cyclobenzaprine, Diazepam, Gabapentin, Hydrocodone, Hydroxyzine	Y
45	Male	White	49224	Cocaine	N
48	Female	White	49051	Dextro/Levo Methorphan	N
52	Female	White	49001	Methamphetamine	N
54	Female	White	49068	Cocaine	N

Drug-Related Deaths by Manner

	January	February	March	April	May	June	Total
Accident	0	1	1	0	0	1	3
Total	0	1	1	0	0	1	3
Total involving opioids	0	1	0	0	0	0	1
% of Deaths involving opioid(s)	0%	100%	0%	0%	0%	0%	33%

All Drug-Related Deaths

Age	Sex	Race & Ethnicity	Zip Code of Injury	Substances Contributing to Death	Opioid (Y/N)
45	Male	White	49120	Fentanyl, Cocaine, Fluorofentanyl	Y
49	Male	White	49112	Citalopram	N
61	Female	White	49047	Cocaine	N

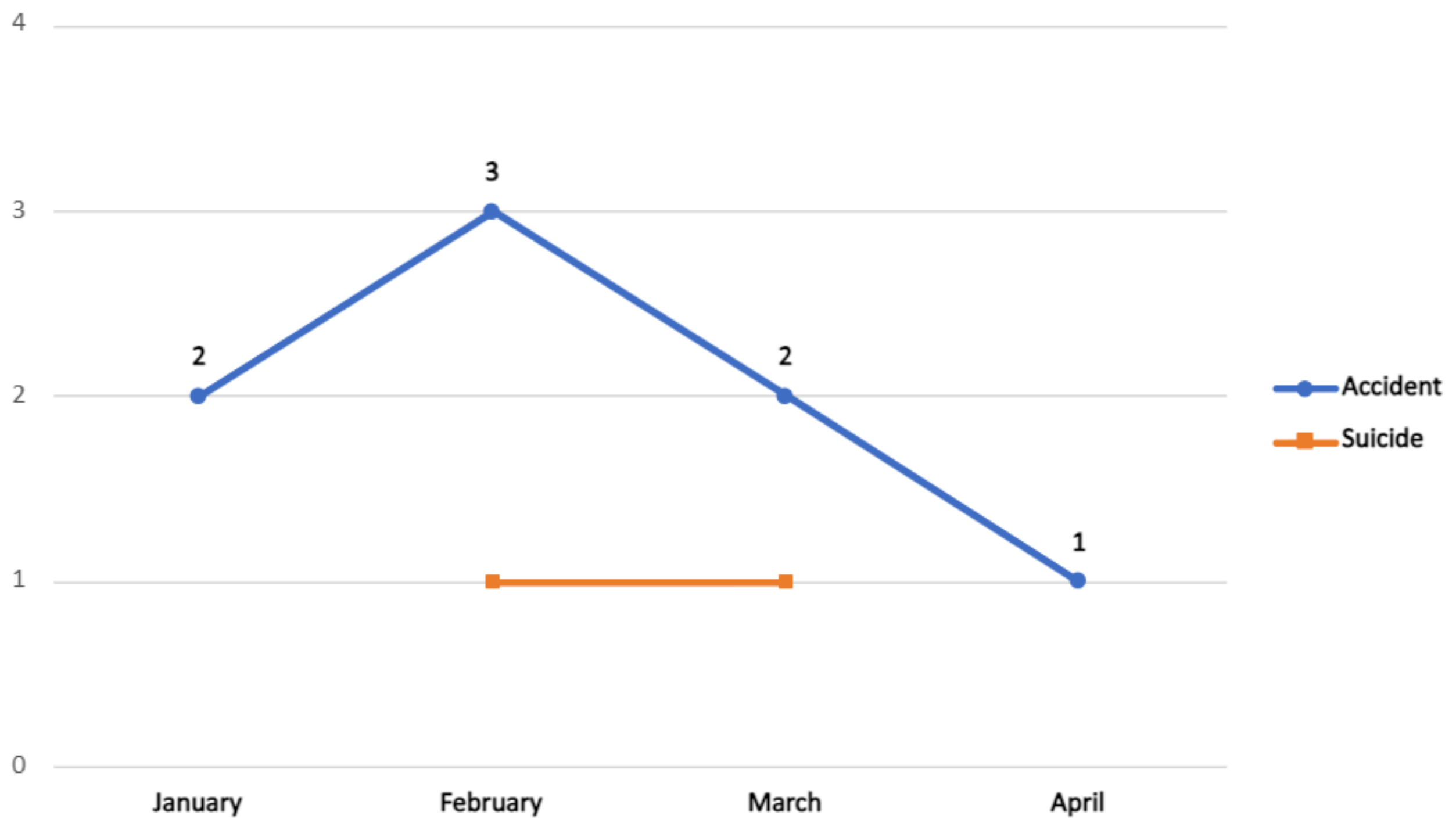


Grand Traverse County

Drug-Related Deaths by Manner

	January	February	March	April	May	June	Total
Accident	2	3	2	1	0	0	8
Suicide	0	1	1	0	0	0	2
Total	2	4	3	1	0	0	10
Total involving opioids	2	2	1	1	0	0	6
% of Deaths involving opioid(s)	100%	50%	33%	100%	0%	0%	60%

Drug-Related Deaths by Month



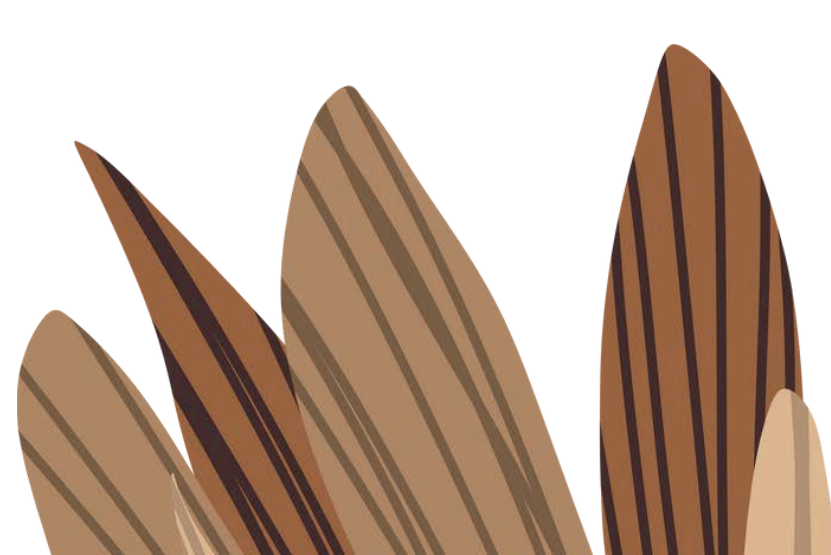
Grand Traverse County

All Drug-Related Deaths

Age	Sex	Race & Ethnicity	Zip Code of Injury	Substances Contributing to Death	Opioid (Y/N)
29	Male	African American/Black	49690	Fentanyl, Methamphetamine	Y
56	Male	White	49690	Fentanyl	Y
44	Male	White	49684	Fentanyl	Y
48	Male	African American/Black	49686	Fentanyl, Methamphetamine	Y
66	Male	White	49615	Fentanyl, Methamphetamine	Y
69	Male	White	49637	Toxic Substance*	N
69	Male	White	49621	Ethanol, Mitragynine**	N
77	Male	White	49653	Baclofen	N
90	Male	White	49660	Amiodarone, Carvedilol	N
30	Male	White	Unknown Location of Injury	Fentanyl, Fluorofentanyl, Methamphetamine	Y

* Ingestion of a household cleaning solution

** Mitragynine is no longer considered an opioid

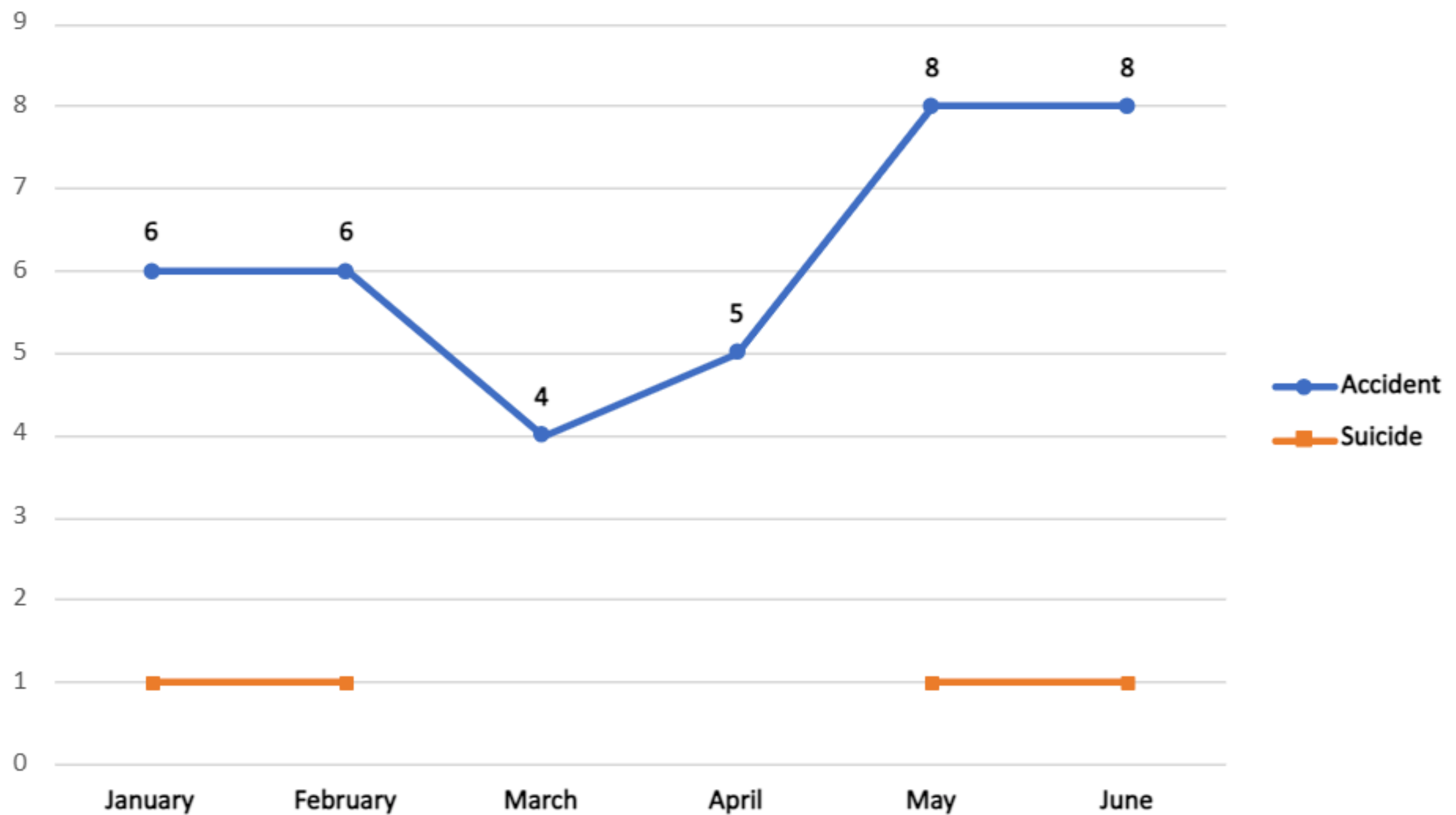


Kalamazoo County

Drug-Related Deaths by Manner

	January	February	March	April	May	June	Total
Accident	6	6	4	5	8	8	37
Suicide	1	1	0	0	1	1	4
Total	7	7	4	5	9	9	41
Total involving opioids	4	2	3	3	6	2	20
% of Deaths involving opioid(s)	57%	29%	75%	60%	67%	22%	49%

Drug-Related Deaths by Month



Kalamazoo County

All Drug-Related Deaths

Age	Sex	Race & Ethnicity	Zip Code of Injury	Substances Contributing to Death	Opioid (Y/N)
29	Female	African American/Black	49007	Fentanyl, Acetyl Fentanyl, Cocaine	Y
33	Male	African American/Black	49007	Cocaethylene, Cocaine, Ethanol, Methamphetamine	N
39	Female	African American/Black	49007	Fentanyl, Cocaine	Y
40	Male	African American/Black	49007	Fentanyl	Y
42	Female	White	49007	Methamphetamine	N
43	Female	African American/Black	49007	Fentanyl, Aripiprazole, Cocaine, Lidocaine	Y
62	Male	White	49007	Citalopram, Cyclobenzaprine, Methamphetamine	N
64	Female	White	49007	Cocaine	N
69	Male	White	49007	Cocaine	N
70	Male	African American/Black	49007	Cocaine	N
17	Trans man	White	49001	Fentanyl, Methamphetamine	Y
28	Female	African American/Black	49001	Fentanyl	Y
37	Female	African American/Black	49001	Fentanyl, Cocaine	Y
38	Male	White	49001	Fentanyl, Methamphetamine	Y
58	Male	White	49001	Loperamide, Morphine	Y
61	Male	African American/Black	49001	Methamphetamine	N
18	Male	Asian	49002	Bromazolam	N
39	Male	Hispanic	49002	Methamphetamine	N
58	Female	African American/Black	49002	Fentanyl, Cocaine, Codeine, Ethanol, Hydroxyzine	Y
61	Female	White	49002	Diphenhydramine	N
31	Male	African American/Black	49009	Ketamine	N
32	Male	White	49009	Fentanyl, Methamphetamine	Y
53	Male	White	49009	Methamphetamine	N
74	Female	White	49009	Ethanol, Lorazepam, Propranolol, Tramadol	Y
32	Female	African American/Black	49024	Fentanyl, Methamphetamine	Y
41	Male	White	49024	Fentanyl, Alprazolam, Ethanol	Y
56	Male	White	49024	Fentanyl, Atomoxetine, Bupropion, Cocaine, Clonazepam, Cyclobenzaprine, Fluorofentanyl, Methamphetamine, Tramadol, Trazodone	Y
75	Female	White	49024	Alprazolam, Citalopram, Ethanol, Ibuprofen, Metoprolol	N
28	Male	White	49008	Fentanyl, Methamphetamine	Y
62	Male	White	49008	Fentanyl, Duloxetine, Metoprolol, Morphine	Y



Kalamazoo County

All Drug-Related Deaths

Age	Sex	Race & Ethnicity	Zip Code of Injury	Substances Contributing to Death	Opioid (Y/N)
33	Male	African American/Black	49048	Cocaine	N
59	Male	White	49048	Ethanol, Methamphetamine	N
62	Male	White	49048	Methamphetamine	N
34	Male	White	49004	Methamphetamine	N
54	Male	White	49004	Cocaine	N
45	Female	White	49006	Methamphetamine	N
50	Male	White	49006	Methamphetamine	N
33	Female	White	49068	Fentanyl	Y
49	Female	White	49010	Methamphetamine	N
55	Female	White	49031	Methamphetamine, Oxycodone	Y
57	Male	White	Unknown Location of Injury	Amphetamine, Methadone	Y



Mason County

Drug-Related Deaths by Manner

	January	February	March	April	May	June	Total
Accident	0	1	0	0	1	0	2
Suicide	0	0	1	0	0	1	2
Total	0	1	1	0	1	1	4
Total involving opioids	0	1	0	0	1	0	2
% of Deaths involving opioid(s)	0%	100%	0%	0%	100%	0%	50%

All Drug-Related Deaths

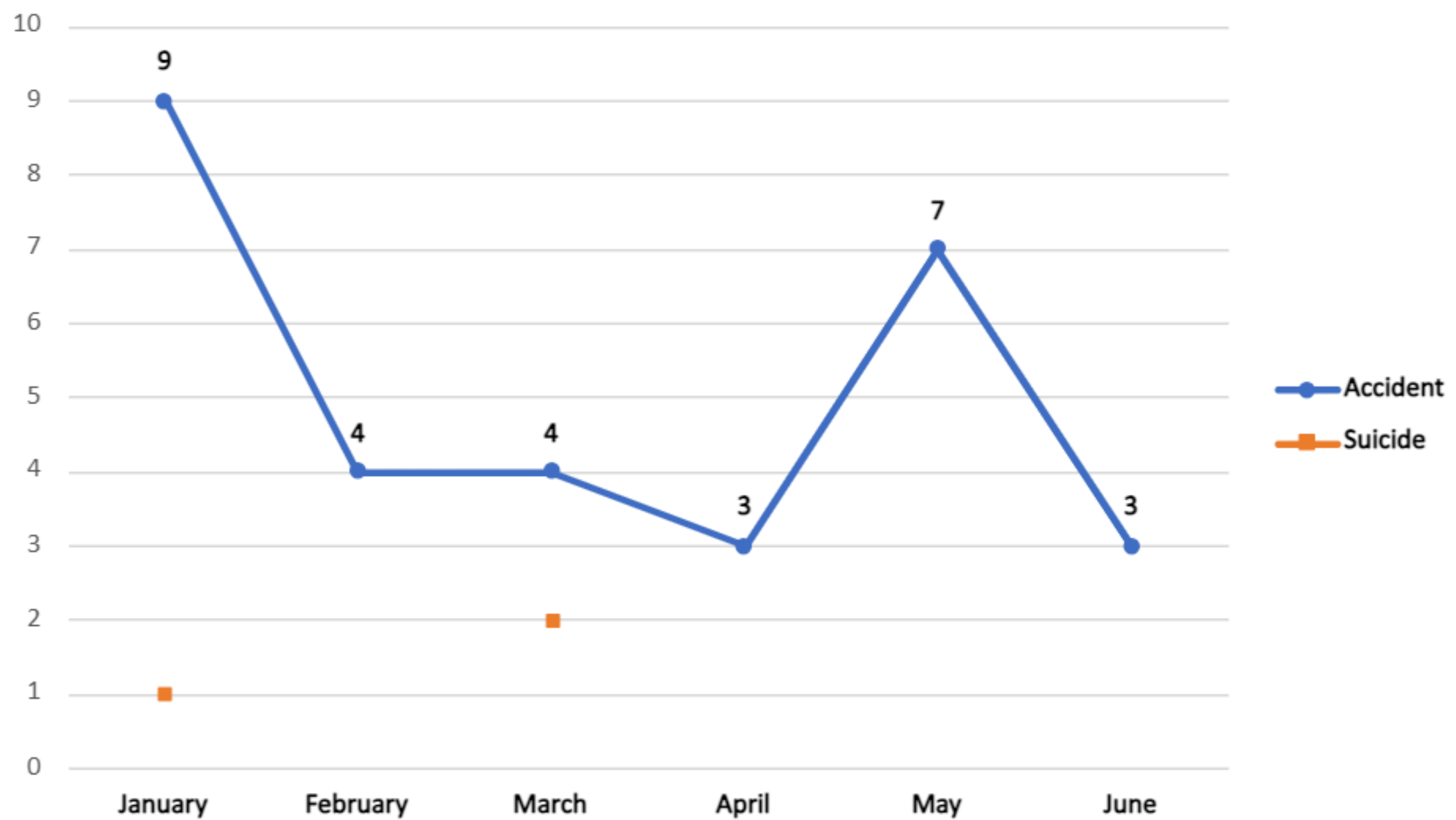
Age	Sex	Race & Ethnicity	Zip Code of Injury	Substances Contributing to Death	Opioid (Y/N)
50	Male	White	49431	Fentanyl, Methamphetamine	Y
52	Male	White	49431	Fentanyl	Y
58	Female	White	49431	Diphenhydramine, Fluoxetine, Gabapentin	N
48	Male	White	49411	Citalopram/Escitalopram, Diphenhydramine, Flecainide	N

Muskegon County

Drug-Related Deaths by Manner

	January	February	March	April	May	June	Total
Accident	9	4	4	3	7	3	30
Suicide	1	0	2	0	0	0	3
Total	10	4	6	3	7	3	33
Total involving opioids	7	3	4	3	6	2	25
% of Deaths involving opioid(s)	70%	75%	67%	100%	71%	67%	76%

Drug-Related Deaths by Month



Muskegon County

All Drug-Related Deaths

Age	Sex	Race & Ethnicity	Zip Code of Injury	Substances Contributing to Death	Opioid (Y/N)
23	Male	White	49442	Fentanyl, Ethanol	Y
30	Male	White	49442	Fentanyl, Cocaine, Ethanol	Y
32	Male	White	49442	Methadone, Ethanol	Y
36	Male	African American/Black	49442	Fentanyl, Cocaine, Methamphetamine	Y
38	Male	African American/Black	49442	Fentanyl, Ethanol, Heroin	Y
39	Female	White	49442	Methamphetamine	N
40	Female	White	49442	Acetaminophen, Acetyl Fentanyl, Diphenhydramine, Duloxetine, Gabapentin	Y
40	Male	White	49442	Fentanyl	Y
40	Male	White	49442	Fentanyl, Ethanol	Y
51	Male	White	49442	Fentanyl, Methamphetamine	Y
63	Male	White	49442	Cocaine	N
63	Female	White	49442	Fentanyl, Cocaine	Y
65	Female	African American/Black	49442	Fentanyl, Hydrocodone	Y
68	Female	White	49442	Cocaine	N
70	Female	African American/Black	49442	Fentanyl, Cocaine	Y
26	Female	White	49441	Fentanyl, Methamphetamine	Y
41	Male	White	49441	Fentanyl, Cocaine, Ethanol, Haloperidol	Y
48	Female	White	49441	Fentanyl, Cocaine	Y
56	Male	White	49441	Cocaine	N
59	Male	White	49441	Fentanyl, Alprazolam, Methadone	Y
68	Female	White	49441	Bupropion, Diphenhydramine, Gabapentin	N
37	Male	White	49444	Fentanyl, Acetyl Fentanyl, Clonazepam, Morphine, Pregabalin	Y
40	Female	White	49444	Fentanyl, Methamphetamine	Y
51	Male	White	49444	Carfentanil, Cocaine	Y
52	Male	African American/Black	49444	Fentanyl	Y
53	Male	White	49444	Fentanyl, Morphine	Y
61	Male	African American/Black	49444	Fentanyl	Y
24	Male	White	49445	Fentanyl, Methamphetamine	Y
49	Female	White	49445	Alprazolam, Ethanol, O-Desmethylvenlafaxine	N
41	Male	African American/Black	49440	Fentanyl, Cocaine	Y
34	Male	African American/Black	49452	Cocaine, Lysergic Acid Diethylamide	N
62	Female	White	49420	Amphetamine	N
86	Female	White	49461	Morphine	Y



St. Joseph County

Drug-Related Deaths by Manner

	January	February	March	April	May	June	Total
Accident	3	0	1	0	3	0	7
Indeterminate	0	0	1	0	0	0	1
Total	3	0	2	0	3	0	8
Total involving opioids	3	0	1	0	0	0	4
% of Deaths involving opioid(s)	100%	0%	50%	0%	0%	0%	50%

All Drug-Related Deaths

Age	Sex	Race & Ethnicity	Zip Code of Injury	Substances Contributing to Death	Opioid (Y/N)
37	Male	White	49093	Fentanyl	Y
48	Male	African American/Black	49093	Fentanyl	Y
52	Female	White	49093	Methamphetamine	N
53	Female	White	49093	Fentanyl, Methamphetamine	Y
66	Male	White	49091	Amitriptyline, Dextro/Levo methorphan, Doxylamine, Methamphetamine, Pregabalin	N
67	Female	White	49091	Hydrocodone, Dihydrocodeine	Y
40	Male	White	49040	Ethanol, Gabapentin	N
47	Female	White	49099	Methamphetamine	N

Van Buren County

Drug-Related Deaths by Manner

	January	February	March	April	May	June	Total
Accident	2	0	2	2	0	0	6
Indeterminate	1	0	0	0	0	0	1
Total	3	0	2	2	0	0	7
Total involving opioids	1	0	1	1	0	0	3
% of Deaths involving opioid(s)	33%	0%	50%	50%	0%	0%	43%

All Drug-Related Deaths

Age	Sex	Race & Ethnicity	Zip Code of Injury	Substances Contributing to Death	Opioid (Y/N)
30	Male	White	49079	Fentanyl, Bupropion, Dextro/Levo Methorphan, Venlafaxine, Xylazine	Y
57	Male	White	49079	Methamphetamine	N
53	Female	White	49043	Methamphetamine	N
55	Male	White	49043	Cocaine	N
47	Female	White	49071	Acetaminophen, Cyclobenzaprine, Doxepin, Hydrocodone, Tramadol	Y
48	Male	White	49090	Fentanyl	Y
59	Male	White	49065	Ethanol, Methamphetamine	N



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