

# Drug-Related Deaths Summary Report: Overdose Deaths in Western Michigan, 2024

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



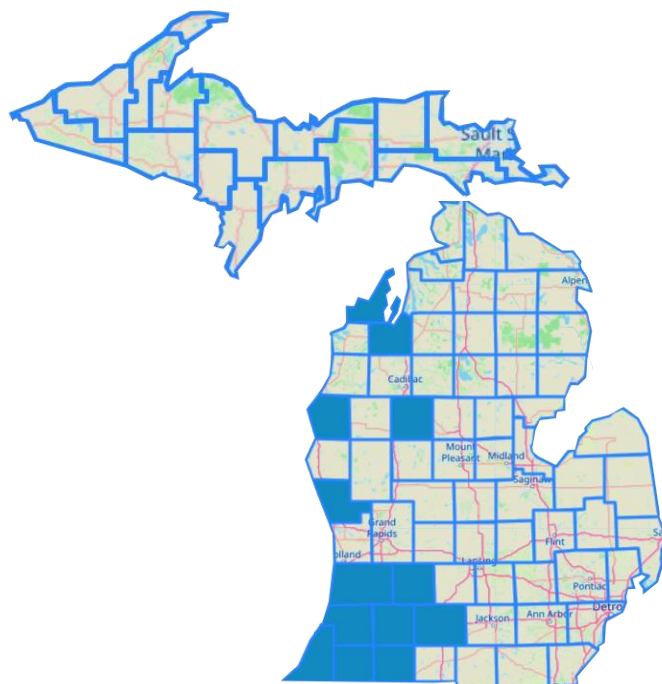
Allegan  
Barry  
Berrien  
Cass  
Calhoun  
Grand Traverse  
Kalamazoo  
Leelanau  
Mason  
Muskegon  
St. Joseph  
Van Buren



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## **Introduction**

This report includes summarized data 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). The 13 counties are as follows: Allegan, Barry, Berrien, Cass, Calhoun, Grand Traverse, Kalamazoo, Leelanau, Mason, Muskegon, Osceola, St. Joseph, and Van Buren. Drug-related deaths are considered deaths that list drug(s) as the immediate cause of death or as contributory to death on the death certificate without other unnatural lethal means. Data was extracted from death scene investigation reports, law enforcement reports, EMS reports, medical records, Offender Tracking Information (OTIS), and death certificates. Acute alcohol-related deaths are deemed drug-related and are included in this report. This report provides updated statistics to help reduce drug-related deaths in the counties we serve. Some key highlights from this report include:

- Drug-related deaths in western Michigan (throughout WMed's 13 counties) have **decreased** by 27% from 2023 to 2024.
- Drug-related deaths involving opioid(s) represented 53% of all drug-related deaths in 2024.
- Deaths involving opioids have **decreased** by 46% from 2023 to 2024.
- Stimulant-related deaths have **increased** by 35.7% from 2023 to 2024.
- The Medical Examiner's Office has investigated and certified 1,649 drug-related deaths from 2020 to 2024.

## **Disclaimer**

Data provided is from January to December 2024 and includes summarized data from the web-based case management system used at WMed for tracking and organizing reported deaths. This summary report is intended to provide valuable information about overdose mortality in western Michigan so that it may support data-driven policy decisions and interventions by public health agencies aiming to prevent fatal overdoses. Please be advised that our office is unable to confirm all information of every individual in our system as decedent information is typically gathered during the death investigation. Additionally, the race or gender of the decedent may not reflect how they identified in life.

In April of 2024, the Medical Examiner's Office at WMed began providing services to Osceola County. Given that there are significant limitations to the data we have access to from 2024, this report does not include overall annual statistics for the county. Inclusion of Osceola County annual data will resume in 2025. Additionally, our office no longer considers Mitragynine (Kratom) an opioid. Data from 2024 has been adjusted to reflect this, while previous yearly data has not been adjusted.

For all drug-related data inquiries or further questions about the data and figures in this report please contact: [gemma.harkin@wmed.edu](mailto:gemma.harkin@wmed.edu).

For all other data inquiries or further questions for our office, please contact: [pathology@wmed.edu](mailto:pathology@wmed.edu).

## Table of Contents

Figure 1. Drug-Related Deaths by Manner of Death by Year, All Counties .....	1
Figure 2. Zip Code of Injury Heat Map, All Counties .....	1
Table 1. Drug-Related Deaths by Manner of Death Comparison by Year, All Counties .....	1
Figure 3. Opioid-Related Deaths & Stimulant-Related Deaths Comparison by Year, All Counties.....	1
Table 2. Common Substances Contributing to Death, All Counties.....	1
Table 3. Race, Ethnicity & Gender, All Counties .....	1
Figure 1. Allegan County, Drug-Related Deaths by Manner of Death .....	1
Table 1. Allegan County, Drug-Related Deaths by Manner of Death .....	1
Table 2. Allegan County, Race, Ethnicity, & Gender .....	1
Figure 1. Barry County, Drug-Related Deaths by Manner of Death .....	1
Table 1. Barry County, Drug-Related Deaths by Manner of Death.....	1
Table 2. Barry County, Race, Ethnicity, & Gender .....	1
Figure 1. Berrien County, Drug-Related Deaths by Manner of Death .....	1
Table 1. Berrien County, Drug-Related Deaths by Manner of Death by Year.....	1
Table 2. Berrien County, Race, Ethnicity, & Gender .....	1
Figure 1. Calhoun County, Drug-Related Deaths by Manner of Death.....	1
Table 1. Calhoun County, Drug-Related Deaths by Manner of Death by Year .....	1
Table 2. Calhoun County, Race, Ethnicity, & Gender.....	1
Figure 1. Cass County, Drug-Related Deaths by Manner of Death .....	1
Table 1. Cass County, Drug-Related Deaths by Manner of Death by Year .....	1
Table 2. Cass County, Race, Ethnicity, & Gender .....	1
Figure 1. Grand Traverse County, Drug-Related Deaths by Manner of Death .....	1
Table 1. Grand Traverse County, Drug-Related Deaths by Manner of Death by Year.....	1
Table 2. Grand Traverse, Race, Ethnicity, & Gender .....	1
Figure 1. Kalamazoo County, Drug-Related Deaths by Manner of Death .....	1
Table 1. Kalamazoo County, Drug-Related Deaths by Manner of Death by Year.....	1
Table 2. Kalamazoo County, Race, Ethnicity, & Gender.....	1
Figure 1. Mason County, Drug-Related Deaths by Manner of Death .....	1
Table 1. Mason County, Drug-Related Deaths by Manner of Death by Year .....	1
Table 2. Mason County, Race, Ethnicity, & Gender .....	1
Figure 1. Muskegon County, Drug-Related Deaths by Manner of Death .....	1
Table 1. Muskegon County, Drug-Related Deaths by Manner of Death by Year.....	1
Table 2. Muskegon County, Race, Ethnicity, & Gender .....	1

Figure 1. St. Joseph County, Drug-Related Deaths by Manner of Death ..... 1

Table 1. St. Joseph County, Drug-Related Deaths by Manner of Death by Year ..... 1

Table 2. St. Joseph County, Race, Ethnicity, & Gender ..... 1

Figure 1. Van Buren County, Drug-Related Deaths by Manner of Death ..... 1

Table 1. Van Buren County, Drug-Related Deaths by Manner of Death by Year..... 1

Table 2. Van Buren County, Race, Ethnicity, & Gender ..... 1

# Overview of All Drug-Related Deaths

Figure 1. Drug-Related Deaths by Manner of Death by Year, All Counties

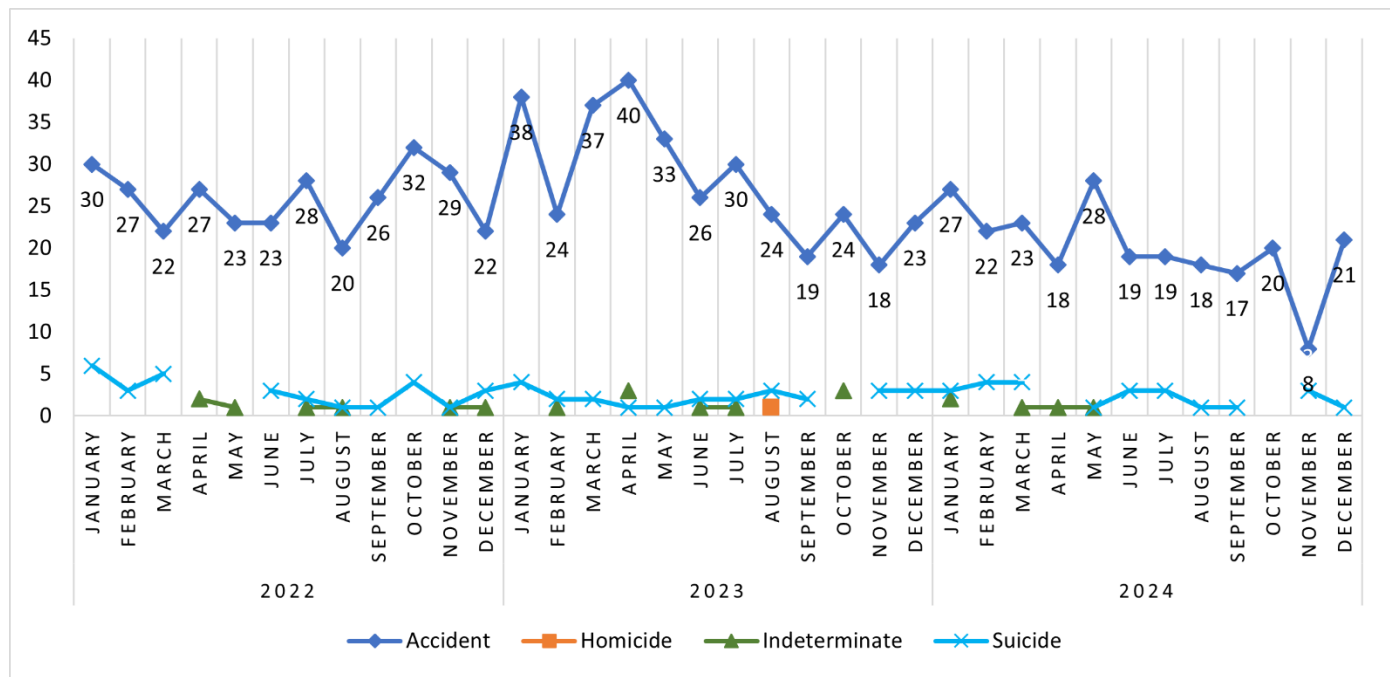


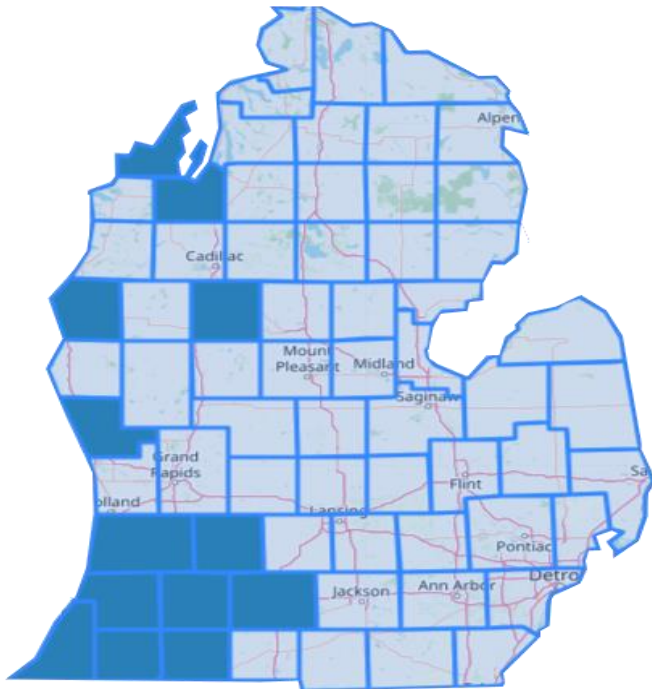
Figure 1 provides counts of drug-related deaths from all 13 counties from 2022 to 2024, compared by manner of death (MOD). Accident is the most common MOD in these deaths. Drug-related deaths have decreased by 27% from 2023 to 2024.

Table 1. Drug-Related Deaths by Manner of Death Comparison by Year, All Counties

	2020	2021	2022	2023	2024
Accident	292	319	309	336	241
Suicide	15	20	29	25	24
Homicide	0	1	0	1	0
Indeterminate	5	7	7	9	5
Total Involving Opioid(s)	240 (77%)	266 (77%)	265 (77%)	267 (72%)	141 (52%)
Total	312	347	345	371	270

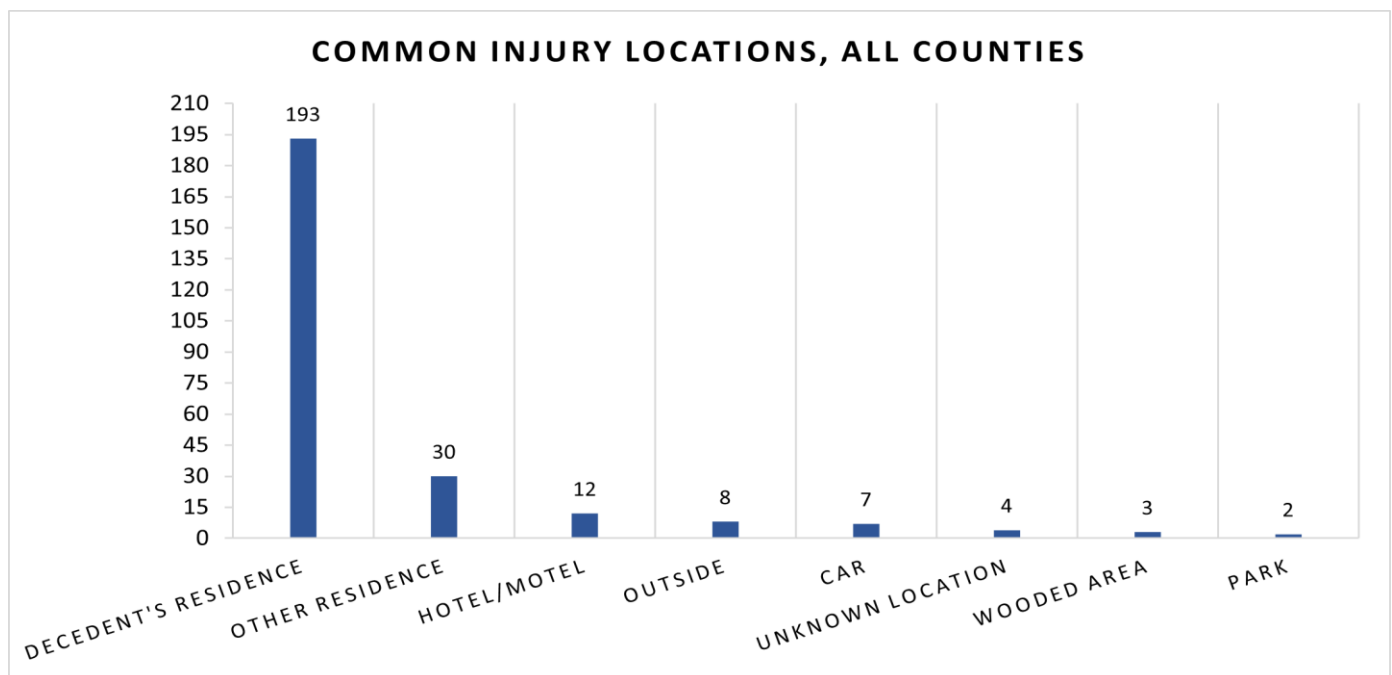
Total involving opioid(s) refers to drug-related deaths that included at least one opioid listed as contributory to death in either Part I or Part II of the death certificate. Opioid-related deaths in 2024 are the lowest they have been since 2020, representing 70.3% of all drug-related deaths investigated by this office. The Medical Examiner’s Office has investigated 1,648 drug-related deaths between January 1<sup>st</sup>, 2020 to December 31<sup>st</sup>, 2024.

# Overview of All Drug-Related Deaths



Zip Code of injury refers to the location where the decedent most likely administered drugs. We may not always be able to determine exactly where a substance was used. n=269

- **Muskegon County**
  - 49442 represented 22 instances.
- **Calhoun County**
  - 49037 represented 17 instances.
- **Berrien County**
  - 49022 represented 14 instances.
- **Kalamazoo County**
  - 49007 represented 14 instances.



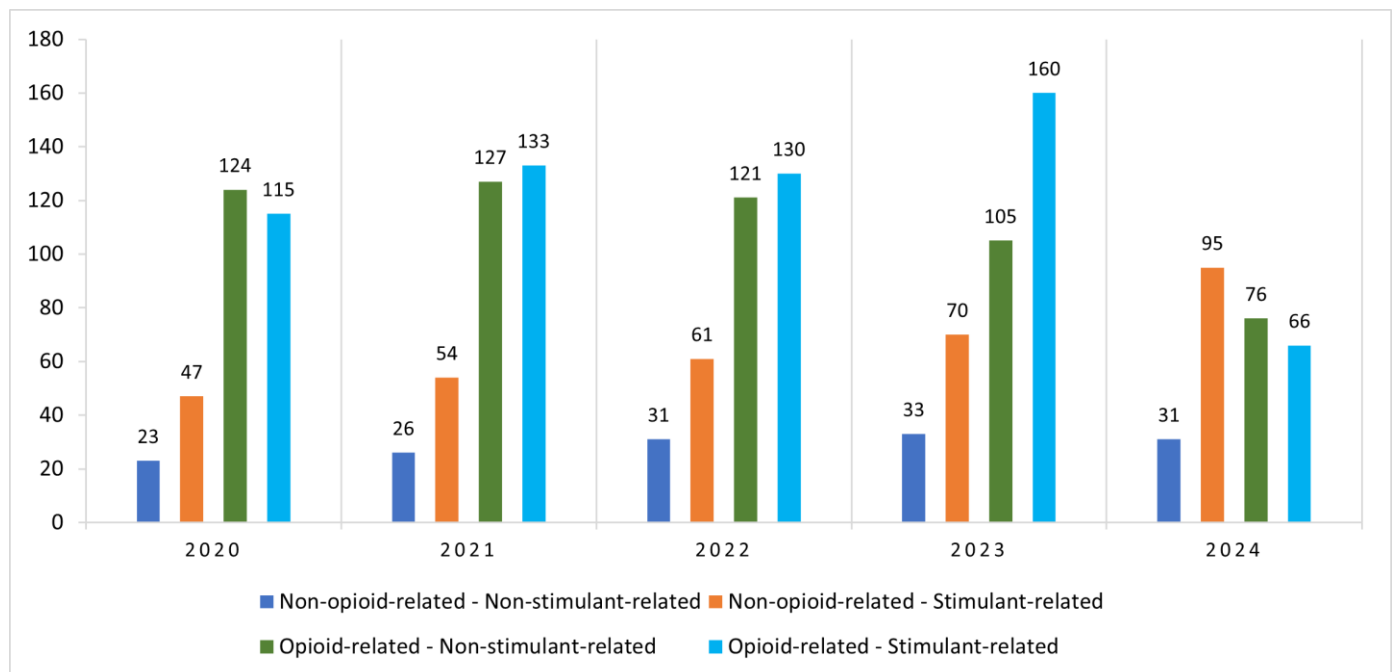
The most common location of injury was their residence, accounting for 194 (71.6%) of all drug-related deaths.

# Overview of All Drug-Related Deaths

**Table 2. Common Substances Contributing to Death, All Counties**

Substance	Times Listed on Death Certificate	2024 % Change from 2023
<b>Fentanyl</b>	116	-52.8% ▼
<b>Methamphetamine</b>	102	-27.6% ▼
<b>Cocaine</b>	69	-24.2% ▼
<b>Prescription Medication</b> (e.g., Gabapentin)	54	-37.2% ▼
<b>Prescription Opioid</b> (e.g., Oxycodone)	37	-16% ▼
<b>Ethanol</b>	34	-34.6% ▼
<b>Diphenhydramine</b>	16	+128.6% ▲
<b>Amphetamine</b>	10	+100% ▲
<b>Xylazine</b>	3	0% —
<b>Mitragynine (Kratom)</b>	3	-57.1% ▼
<b>1, 1-Difluoroethane</b>	3	0% —
<b>Over-The-Counter Medication</b> (e.g., Acetaminophen)	2	-60% ▼
<b>Heroin</b>	2	-90% ▼
<b>Chemicals (e.g., Lysol)</b>	2	-50% ▼
<b>Ketamine</b>	1	+100% ▲

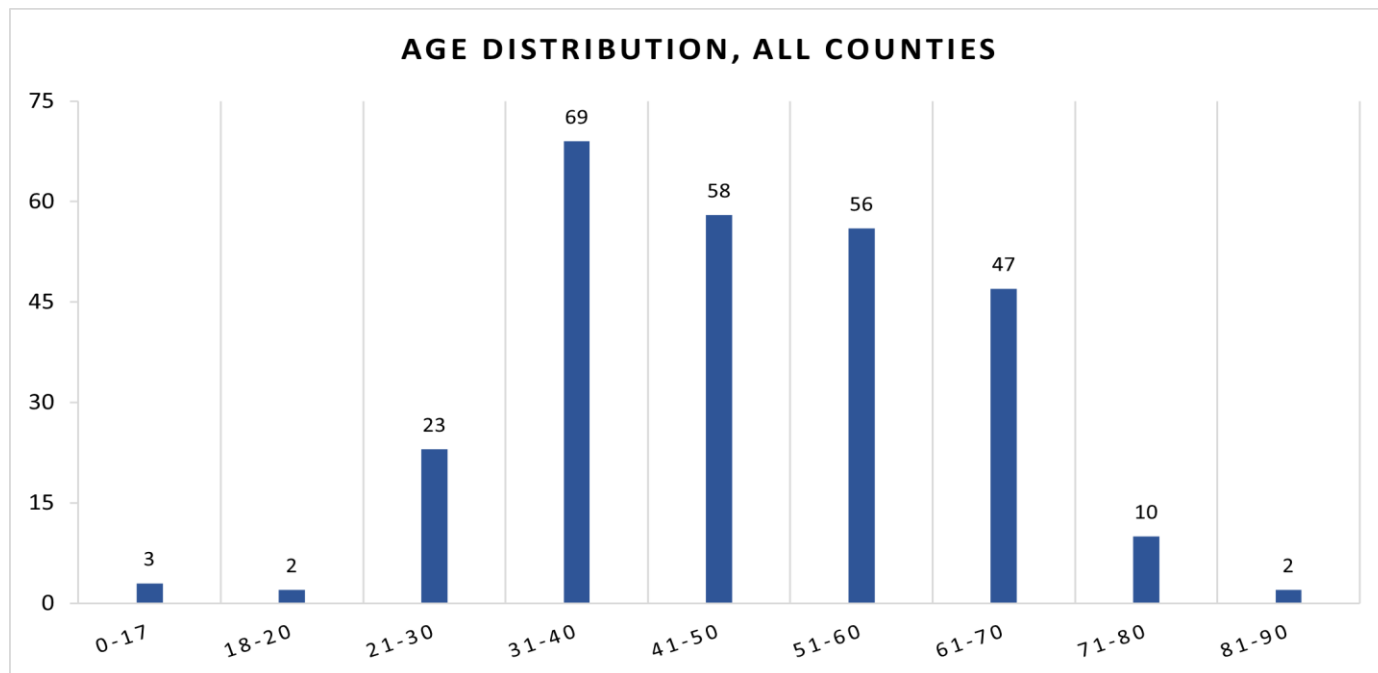
**Figure 3. Opioid-Related Deaths & Stimulant-Related Deaths Comparison by Year, All Counties**



Stimulants are a class of drugs that include but are not limited to: amphetamine, methamphetamine and cocaine. Opioid-related deaths have decreased by 46% from 2023 to 2024. Stimulant-related deaths have increased by 35.7% from 2023 to 2024.



# Overview of All Drug-Related Deaths



The most common age group in 2024 was individuals between the ages of 31 and 40, representing 69 (25.5%) of all drug-related deaths. The median age of these deaths was 47 years.

**Table 3. Race, Ethnicity & Gender, All Counties**

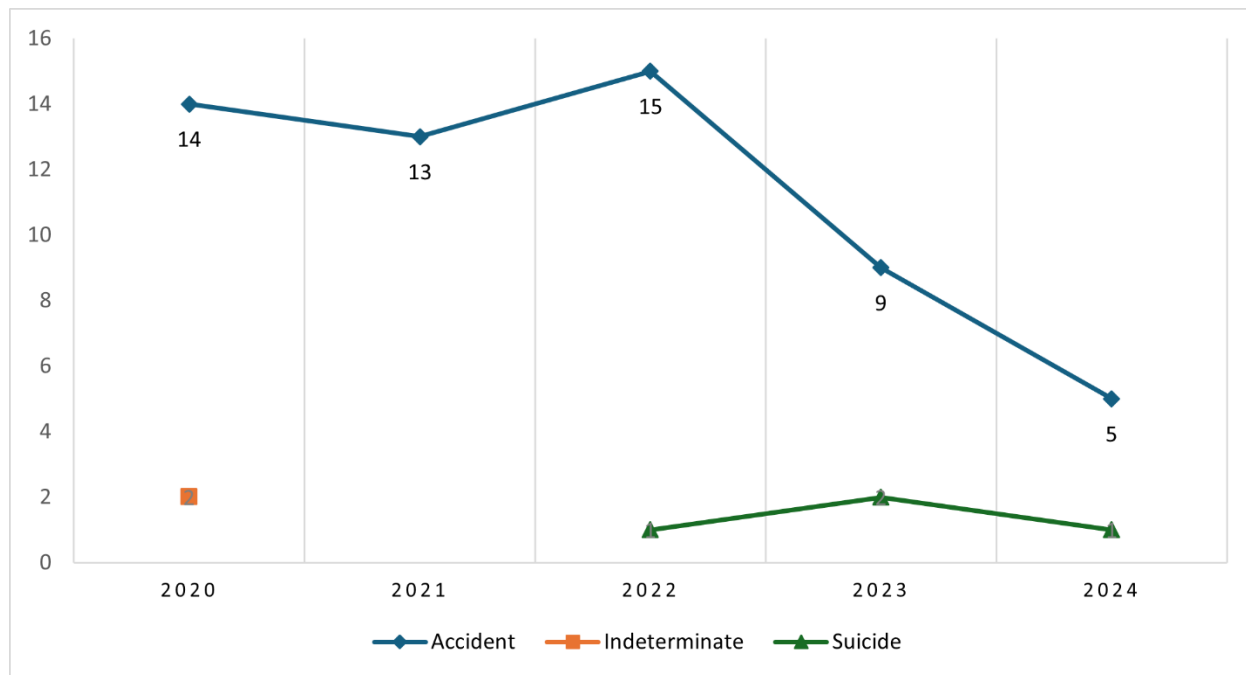
	Male	Female	Trans Man	Trans Woman	Total
American Indian/Alaskan Native	3	2	0	0	5
African American/Black	40	16	1	0	57
Asian	1	0	0	0	1
Hispanic	5	2	0	0	7
Mixed Race	1	1	0	0	2
White	119	76	1	2	198
<b>Total</b>	<b>169</b>	<b>97</b>	<b>2</b>	<b>2</b>	<b>270</b>

Males accounted for 169 (62.6%) of drug-related deaths, females accounted for 97 (36%), and Transgender individuals accounted for 4 (1.5%). White individuals accounted for 198 (73%) of all drug-related deaths with 119 (60%) of these cases being male, 76 (38.4%) being female, and 3 (1.5%) being Transgender. African American/Black individuals accounted for 57 (21%) of all drug-related deaths with 40 (70.2%) being male, 16 (28.1%) being female, and 1 (1.8%) being transgender.



# Allegan County

**Figure 1. Allegan County, Drug-Related Deaths by Manner of Death**

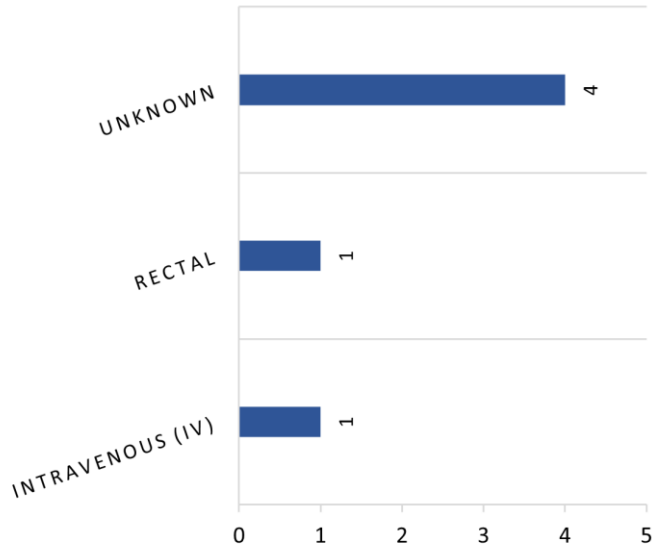


**Table 1. Allegan County, Drug-Related Deaths by Manner of Death**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
<b>Accident</b>	7	11	10	9	17	14	13	15	9	5
<b>Suicide</b>	0	0	0	2	0	0	0	1	2	1
<b>Indeterminate</b>	0	1	2	0	0	2	0	0	0	0
<b>Total Involving Opioid(s)</b>	6 (86%)	8 (67%)	6 (50%)	8 (73%)	13 (76%)	11 (69%)	9 (69%)	9 (60%)	6 (55%)	2 (29%)
<b>Total</b>	<b>7</b>	<b>12</b>	<b>12</b>	<b>11</b>	<b>17</b>	<b>16</b>	<b>13</b>	<b>16</b>	<b>11</b>	<b>6</b>

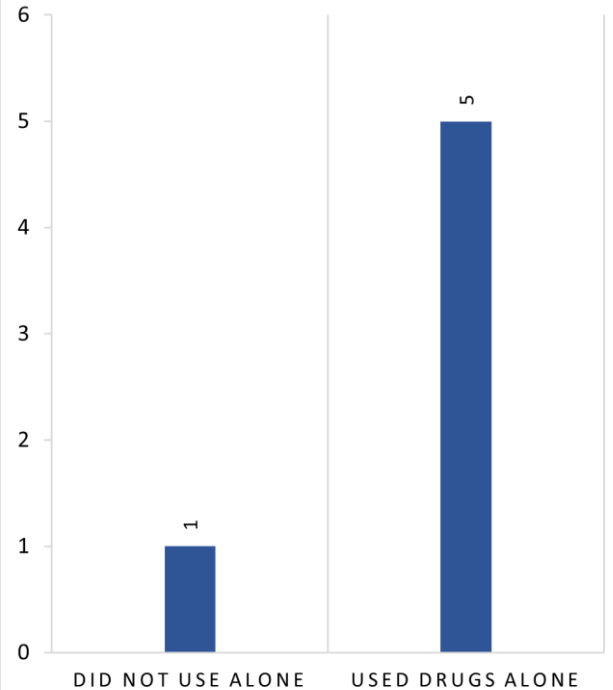
# Allegan County

## ROUTE OF ADMINISTRATION



All Substances Contributing to Death	#
Methamphetamine	3
Fentanyl	1
Insulin	1
Morphine	1

## INDEPENDENT DRUG USE



**HISTORY OF DRUG USE: 5 (71%)**

**HISTORY OF A PREVIOUS OVERDOSE: 0 (0%)**

**NALOXONE/NARCAN ADMINISTERED: 0 (0%)**

- DOA: 6 (86%)

# Allegan County

Table 2. Allegan County, Race, Ethnicity, & Gender

Race/Ethnicity	Male	Female	Total
White	5	1	6
Total	5	1	6

## Mental Illness History

Mental Illness History	#
Generalized Anxiety Disorder (GAD)	1



HIGH SCHOOL/GED: 4 (57%)

COLLEGE CREDIT: 1 (14%)

UNKNOWN: 1 (14%)

2 (28%)

WERE  
VETERANS



2 (28%)

WERE  
PREVIOUSLY  
INCARCERATED

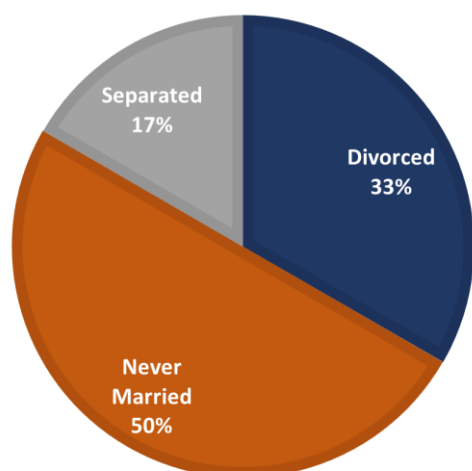


0 (0%)

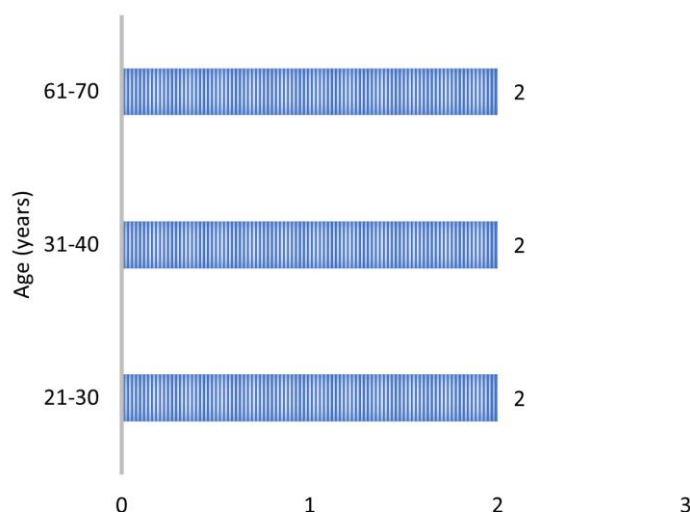
WERE  
HOMELESS



## MARITAL STATUS



## AGE DISTRIBUTION



# Barry County

Figure 1. Barry County, Drug-Related Deaths by Manner of Death

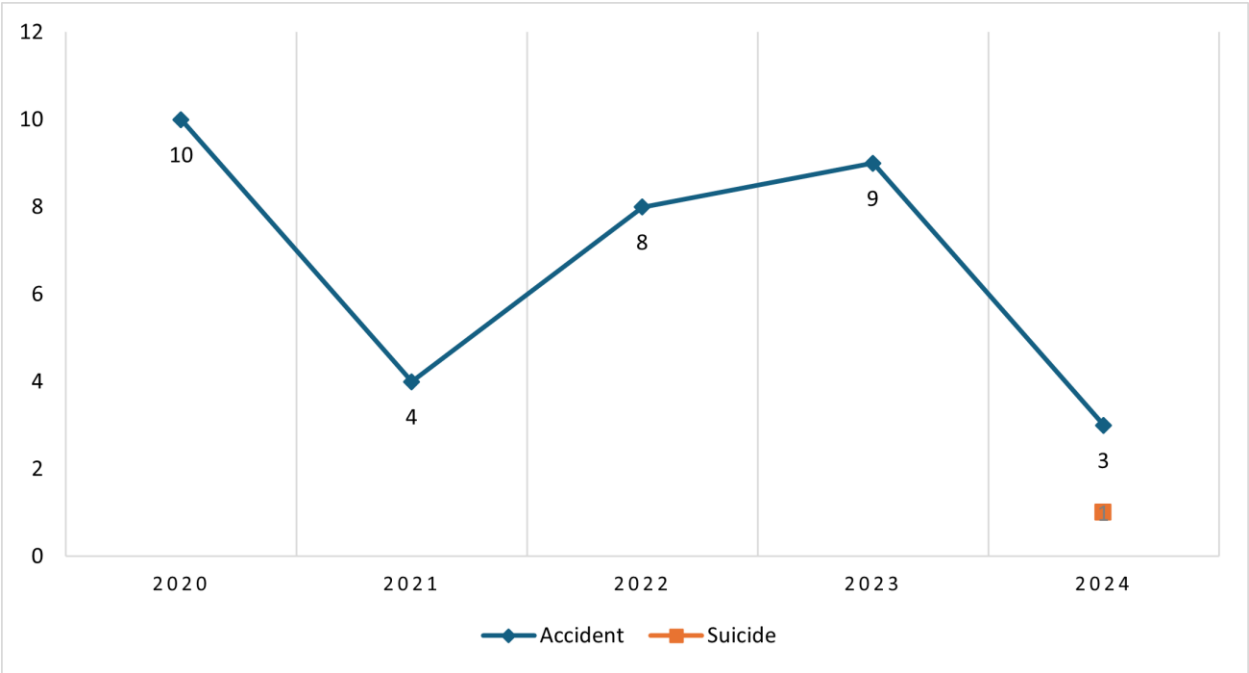
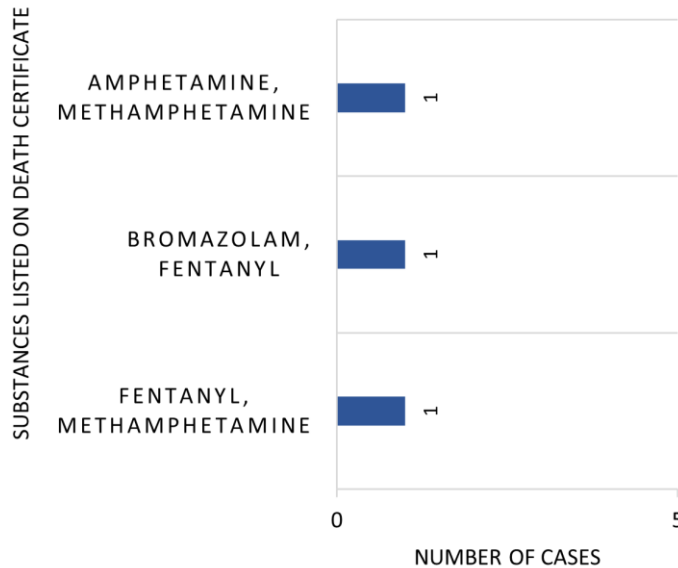


Table 1. Barry County, Drug-Related Deaths by Manner of Death

	2018	2019	2020	2021	2022	2023	2024
Accident	4	5	10	4	8	9	3
Suicide	0	0	0	0	0	0	1
Indeterminate	1	1	0	0	0	0	0
Total Involving Opioid(s)	2 (40%)	4 (67%)	8 (80%)	4 (100%)	7 (88%)	7 (78%)	2 (50%)
Total	5	6	10	4	8	9	4

# Barry County

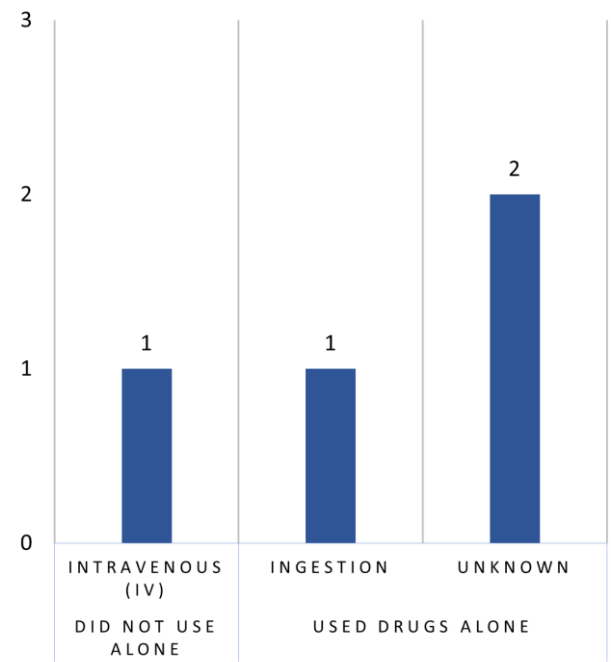
## POLYSUBSTANCE USE



### All Substances Contributory to Death #

Methamphetamine	2
Fentanyl	2
Bromazolam	1
Nortriptyline	1
Amphetamine	1

## ROUTE OF ADMINISTRATION & INDEPENDENT DRUG USE



**HISTORY OF DRUG USE: 3 (75%)**

**HISTORY OF A PREVIOUS OVERDOSE: 1 (25%)**

**NALOXONE/NARCAN ADMINISTERED: 2 (50%)**

- EMS: 1 (50%)
- FAMILY: 1 (50%)
- DOA: 2 (50%)

# Barry County

Table 2. Barry County, Race, Ethnicity, & Gender

Race/Ethnicity	Male	Female	Trans Man	Total
African American/Black	0	0	1	1
White	1	2	0	3
Total	1	2	1	4

## Mental Illness History

#

ADD/ADHD

1

Generalized Anxiety Disorder (GAD)

1

Major Depressive Disorder (MDD)

2



HIGH SCHOOL/GED: 3 (75%)

BACHELOR'S DEGREE: 1 (25%)

0 (0%)

WERE  
VETERANS



2 (50%)

WERE  
PREVIOUSLY  
INCARCERATED

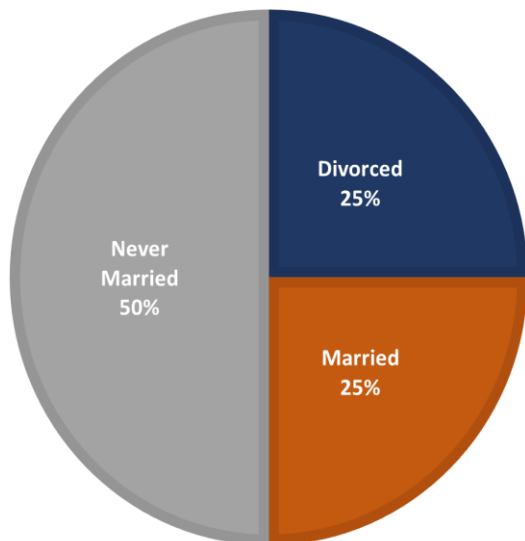


0 (0%)

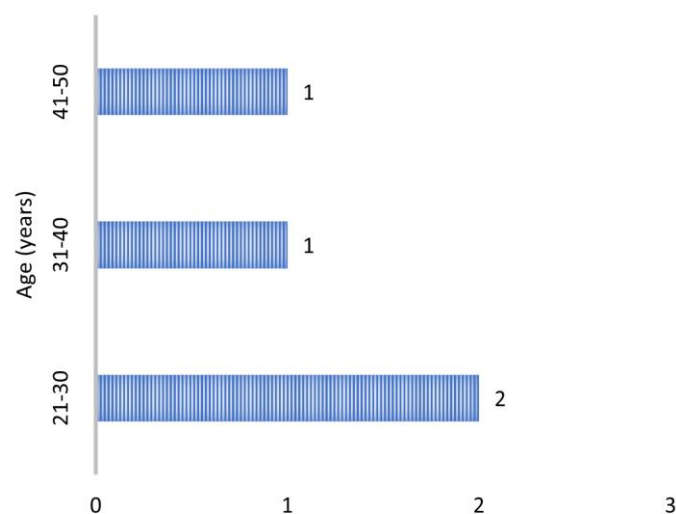
WERE  
HOMELESS



## MARITAL STATUS



## AGE DISTRIBUTION



# Berrien County

Figure 1. Berrien County, Drug-Related Deaths by Manner of Death

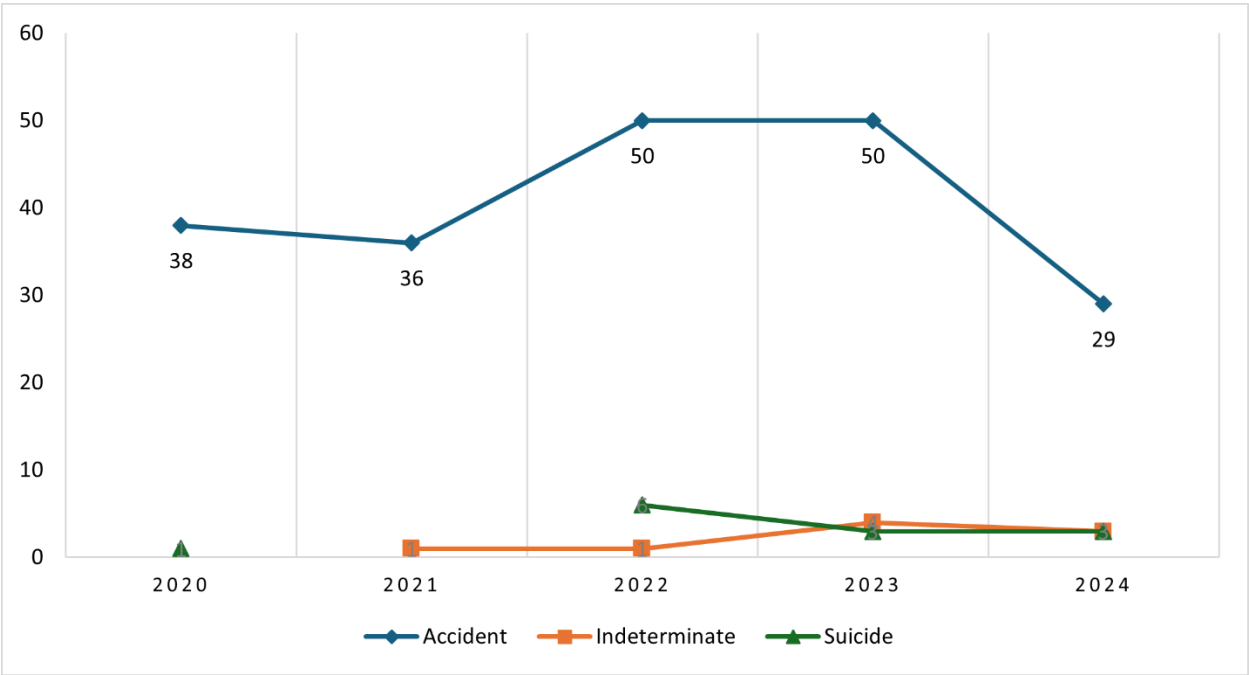
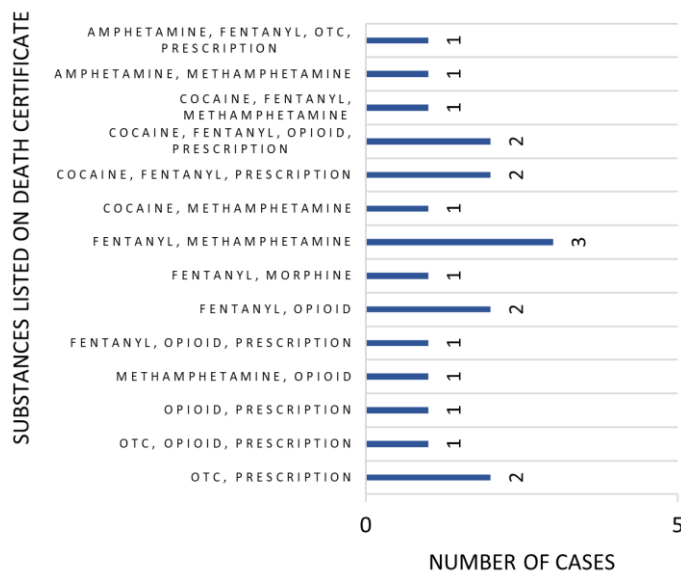


Table 1. Berrien County, Drug-Related Deaths by Manner of Death by Year

	2019	2020	2021	2022	2023	2024
Accident	23	37	36	50	50	29
Suicide	2	1	0	6	3	3
Indeterminate	1	0	1	1	4	3
Total Involving Opioid(s)	22 (92%)	29 (78%)	28 (76%)	46 (88%)	38 (67%)	22 (63%)
Total	26	38	37	57	57	35



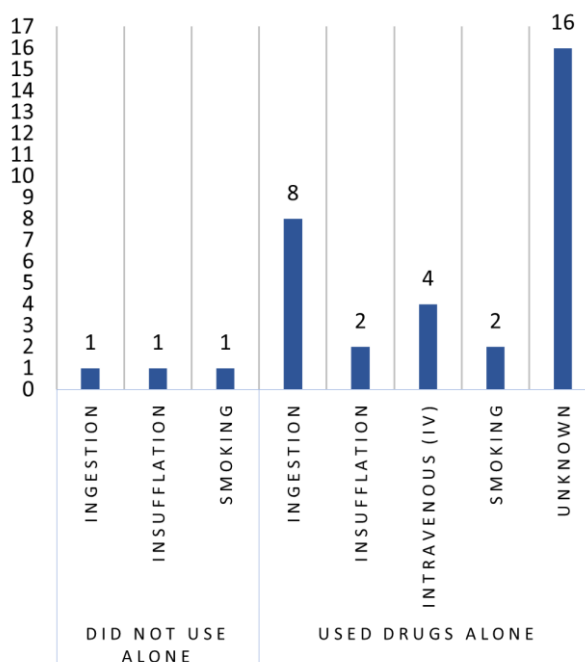
## POLYSUBSTANCE USE



### All Substances Contributory to Death\*

All Substances Contributory to Death*	#
Fentanyl	17
Methamphetamine	11
Cocaine	9
Alprazolam	6
Diphenhydramine	5
Morphine	5
Ethanol	3
Gabapentin	3
Amphetamine	2
Oxycodone	2
Tramadol	2
Quetiapine	2

## ROUTE OF ADMINISTRATION & INDEPENDENT DRUG USE



HISTORY OF DRUG USE: 32 (91%)

HISTORY OF A PREVIOUS OVERDOSE: 7 (20%)

NALOXONE/NARCAN ADMINISTERED: 11 (31%)

- EMS: 11 (100%)
- DOA: 14 (40%)
- DOA: 19 (46%)

\*Only showing substances with instances occurring more than once.

# Berrien County

Table 2. Berrien County, Race, Ethnicity, & Gender

Race/Ethnicity	Male	Female	Trans Women	Total
African American/Black	8	2	0	10
Hispanic	1	0	0	1
Mixed Race	1	1	0	2
White	14	7	1	22
<b>Total</b>	<b>24</b>	<b>10</b>	<b>1</b>	<b>35</b>

## Mental Illness History

Mental Illness History	#
Attention-Deficit/Hyperactivity Disorder (ADD/ADHD)	1
Generalized Anxiety Disorder (GAD)	9
Bipolar Disorder/Manic Depression	1
Major Depressive Disorder (MDD)	9
Paranoid Personality Disorder (PPD)	1
Post-Traumatic Stress Disorder (PTSD)	1
Schizoaffective Disorder	1
Schizophrenia	3



**8<sup>TH</sup> GRADE OR LESS: 2 (6%)**  
**9<sup>TH</sup>-12<sup>TH</sup> GRADE NO DIPLOMA: 11 (31%)**  
**HIGH SCHOOL/GED: 13 (37%)**  
**COLLEGE CREDIT: 2 (6%)**  
**TRADE SCHOOL: 1 (3%)**  
**ASSOCIATE'S DEGREE: 1 (3%)**  
**BACHELOR'S DEGREE: 2 (6%)**  
**UNKNOWN: 3 (9%)**

**2 (6%)**  
**WERE**  
**VETERANS**



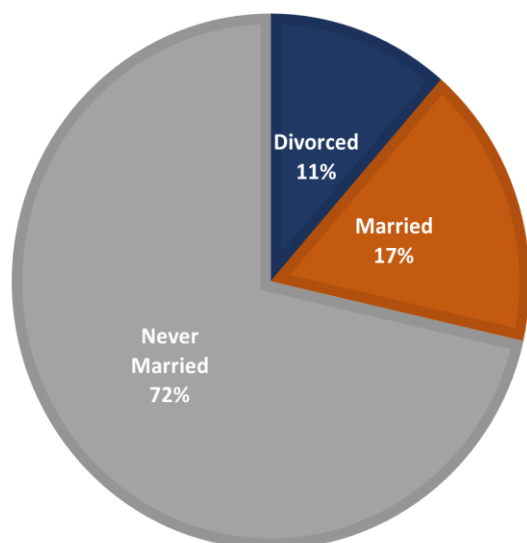
**1 (3%)**  
**WERE**  
**PREVIOUSLY**  
**INCARCERATED**



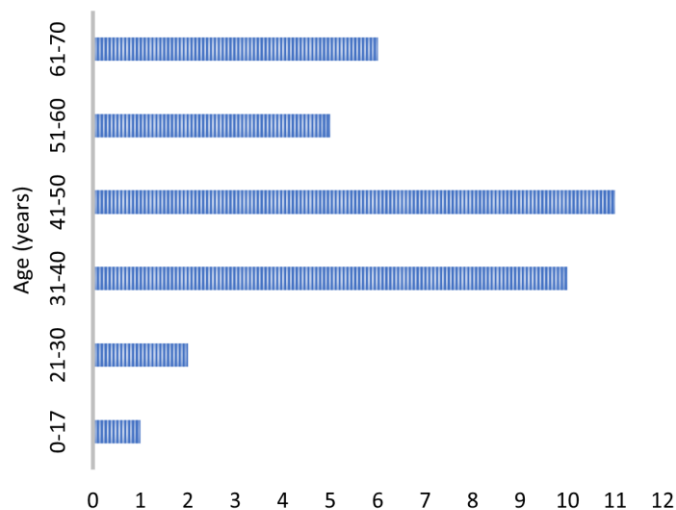
**4 (11%)**  
**WERE**  
**HOMELESS**



## MARITAL STATUS

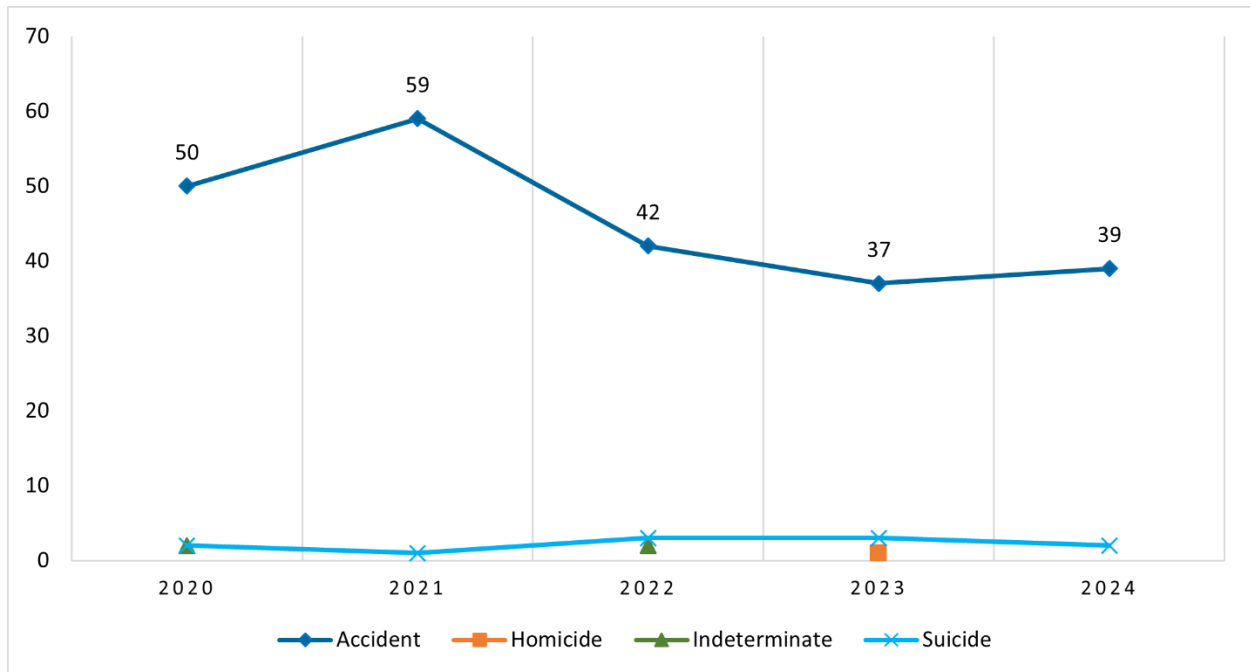


## AGE DISTRIBUTION



# Calhoun County

**Figure 1. Calhoun County, Drug-Related Deaths by Manner of Death**

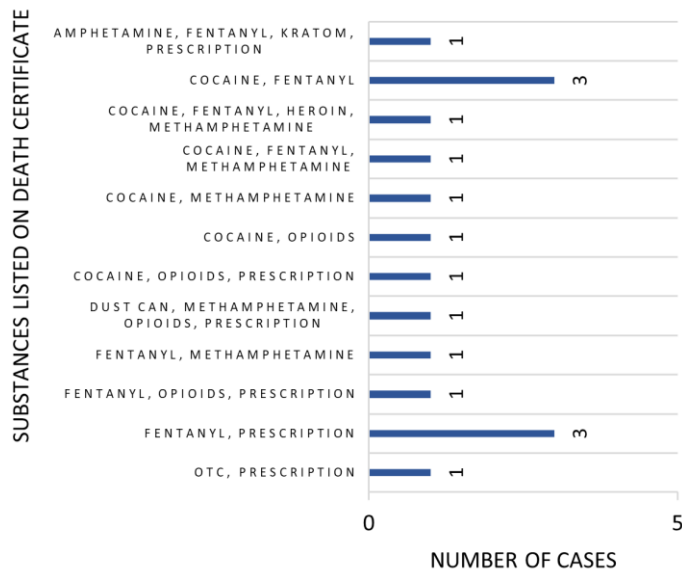


**Table 1. Calhoun County, Drug-Related Deaths by Manner of Death by Year**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
<b>Accident</b>	43	38	44	49	40	50	59	42	37	39
<b>Suicide</b>	2	5	3	3	3	2	1	3	3	2
<b>Indeterminate</b>	2	4	5	2	0	2	0	2	0	0
<b>Homicide</b>	0	0	0	0	0	0	0	0	1	0
<b>Total Involving Opioid(s)</b>	42 (91%)	40 (88%)	48 (94%)	48 (92%)	36 (88%)	46 (78%)	49 (76%)	38 (88%)	30 (67%)	20 (49%)
<b>Total</b>	<b>47</b>	<b>47</b>	<b>52</b>	<b>54</b>	<b>43</b>	<b>54</b>	<b>60</b>	<b>47</b>	<b>41</b>	<b>41</b>

# Calhoun County

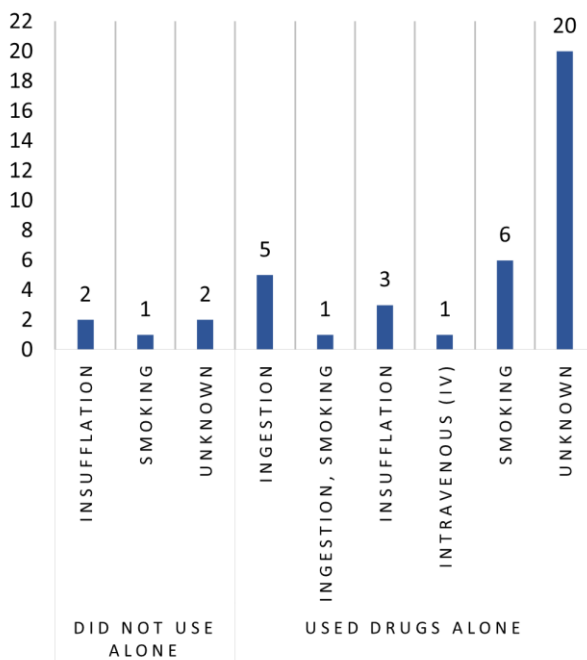
## POLYSUBSTANCE USE



### All Substances Contributory to Death\*

	#
Cocaine	17
Fentanyl	17
Methamphetamine	14
Gabapentin	4
Alprazolam	2
Ethanol	2
Hydrocodone	2
Clonazepam	2

## ROUTE OF ADMINISTRATION & INDEPENDENT DRUG USE



HISTORY OF DRUG USE: 34 (83%)

HISTORY OF A PREVIOUS OVERDOSE: 7 (17%)

NALOXONE/NARCAN ADMINISTERED: 11 (27%)

- EMS: 9 (81%)
- FRIEND: 2 (18%)
- DOA: 19 (46%)

\*Only showing substances with instances occurring more than once.

# Calhoun County

Table 2. Calhoun County, Race, Ethnicity, & Gender

Race/Ethnicity	Male	Female	Trans Women	Total
African American/Black	6	2	0	8
Hispanic	1	1	0	2
White	18	12	1	31
Total	25	15	1	41

## Mental Illness History

	#
Generalized Anxiety Disorder (GAD)	4
Bipolar Disorder/Manic Depression	1
Major Depressive Disorder (MAD)	7
Paranoid Personality Disorder (PPD)	1
Post-Traumatic Stress Disorder (PTSD)	1



9<sup>TH</sup>-12<sup>TH</sup> GRADE NO DIPLOMA:

7 (17%)

HIGH SCHOOL/GED: 18 (44%)

COLLEGE CREDIT: 8 (19%)

TRADE SCHOOL: 1 (2%)

BACHELOR'S DEGREE: 1 (2%)

MASTER'S DEGREE: 1 (2%)

UNKNOWN: 5 (12%)

5 (12%)

WERE  
VETERANS



7 (17%)

WERE  
PREVIOUSLY  
INCARCERATED

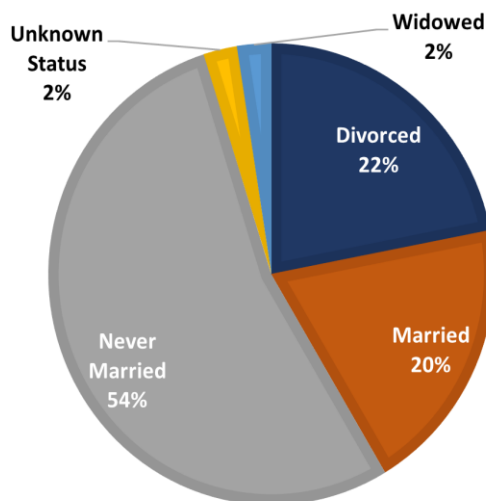


6 (14%)

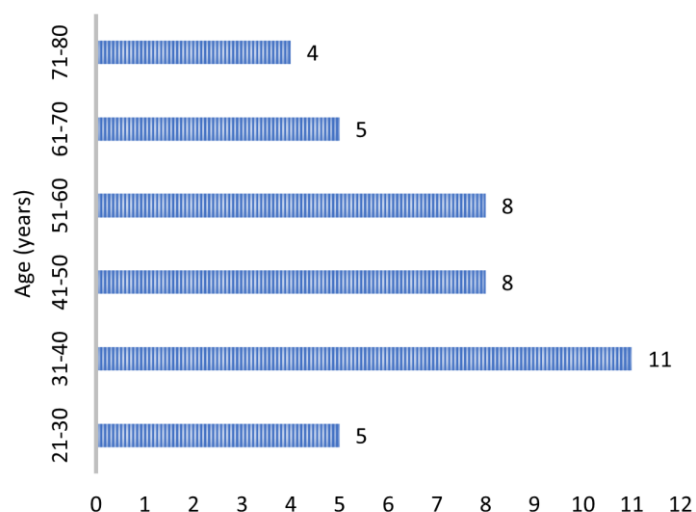
WERE  
HOMELESS



## MARITAL STATUS



## AGE DISTRIBUTION



# Cass County

Figure 1. Cass County, Drug-Related Deaths by Manner of Death

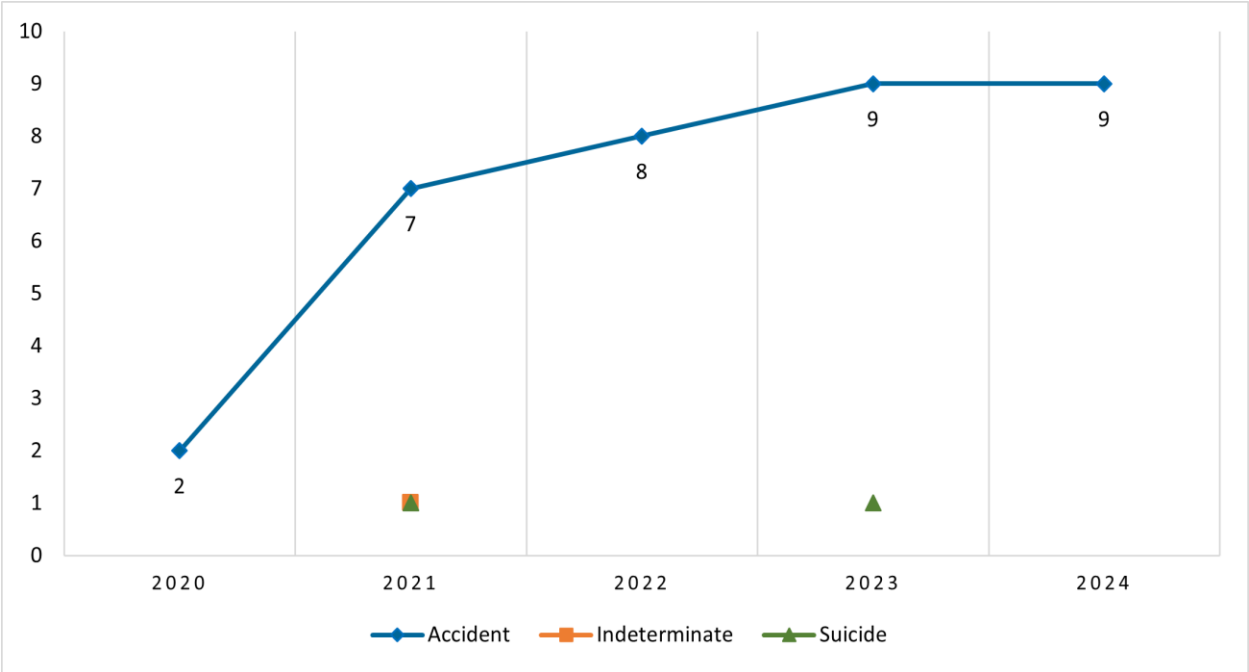
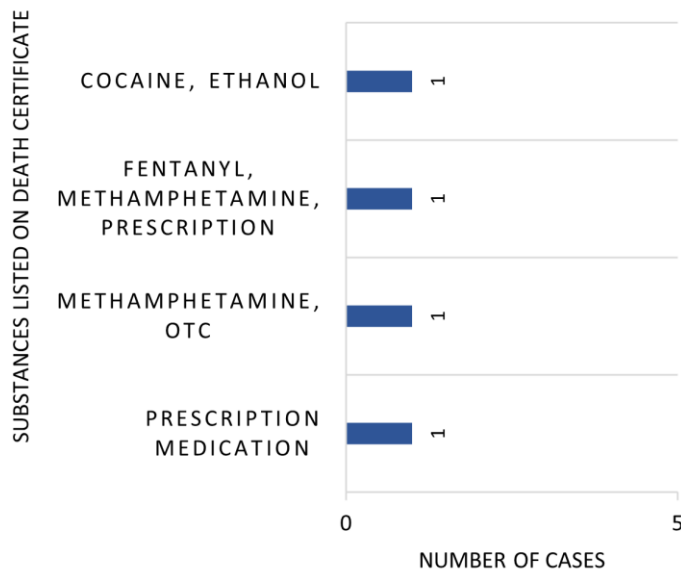


Table 1. Cass County, Drug-Related Deaths by Manner of Death by Year

	2021	2022	2023	2024
Accident	7	8	9	9
Suicide	1	0	1	0
Indeterminate	1	0	0	0
Total Involving Opioid(s)	8 (88%)	6 (75%)	8 (80%)	2 (22%)
Total	9	8	10	9

# Cass County

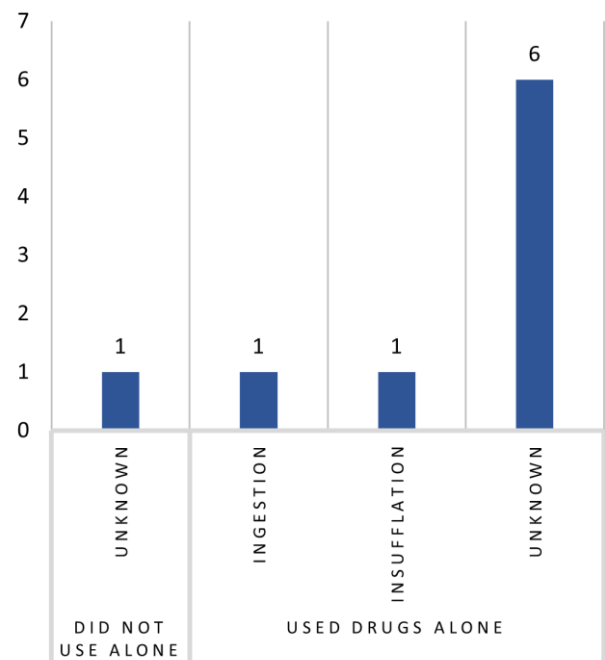
## POLYSUBSTANCE USE



### All Substances Contributory to Death #

Cocaine	3
Methamphetamine	3
Fentanyl	2
Ethanol	1
Alprazolam	1
Citalopram	1
Diphenhydramine	1
Hydroxyzine	1
Paroxetine	1

## ROUTE OF ADMINISTRATION & INDEPENDENT DRUG USE



**HISTORY OF DRUG USE: 6 (66%)**

**HISTORY OF A PREVIOUS OVERDOSE: 6 (22%)**

**NALOXONE/NARCAN ADMINISTERED: 1 (11%)**

- EMS: 1 (100%)
- DOA: 5 (55%)



# Cass County

Table 2. Cass County, Race, Ethnicity, & Gender

Race/Ethnicity	Male	Female	Total
American Indian/Alaskan Native	1	0	1
African American/Black	2	0	2
White	5	1	6
Total	8	1	9

## Mental Illness History

Mental Illness History	#
Bipolar Disorder/Manic Depression	1
Major Depressive Disorder (MAD)	2



9<sup>TH</sup>-12<sup>TH</sup> GRADE NO DIPLOMA:  
2 (20%)

HIGH SCHOOL/GED: 5 (55%)

COLLEGE CREDIT: 1 (10%)

0 (0%)

WERE  
VETERANS



2 (20%)

WERE  
PREVIOUSLY  
INCARCERATED

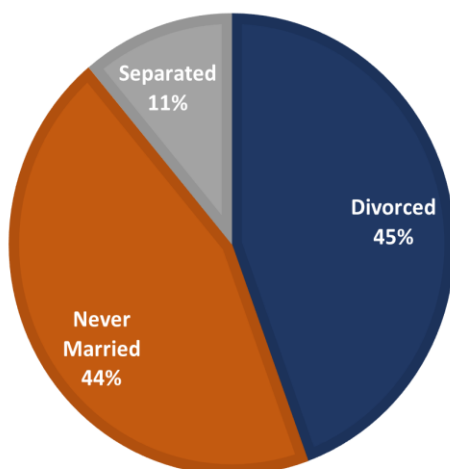


0 (0%)

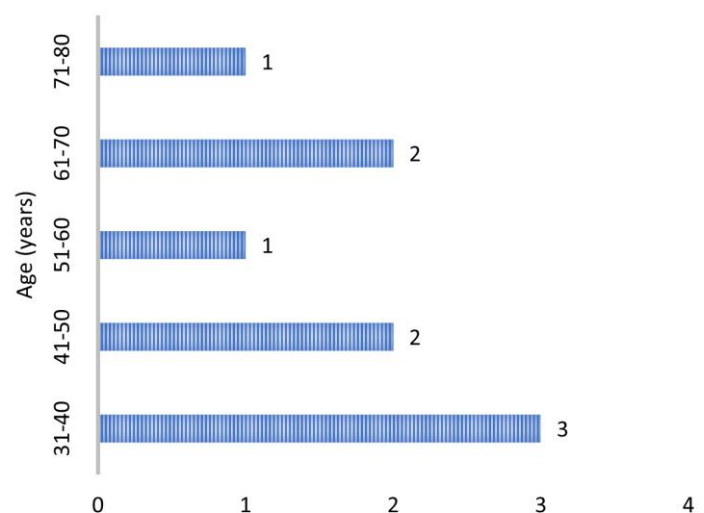
WERE  
HOMELESS



## MARITAL STATUS



## AGE DISTRIBUTION



# Grand Traverse County

Figure 1. Grand Traverse County, Drug-Related Deaths by Manner of Death

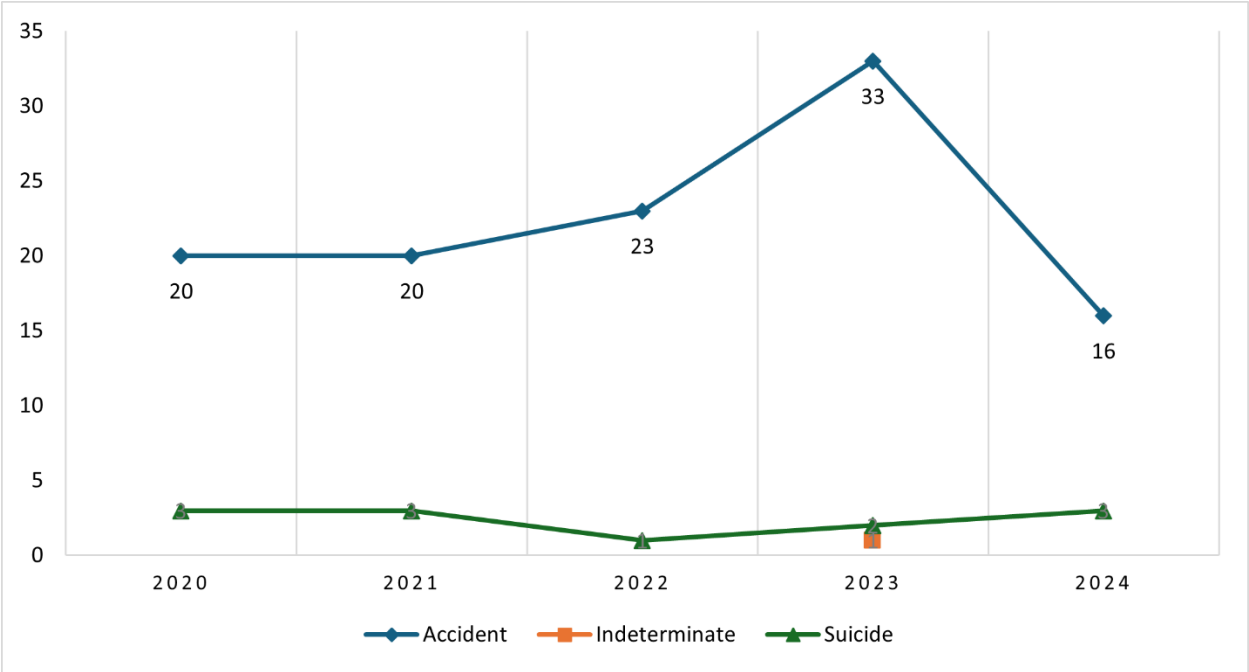


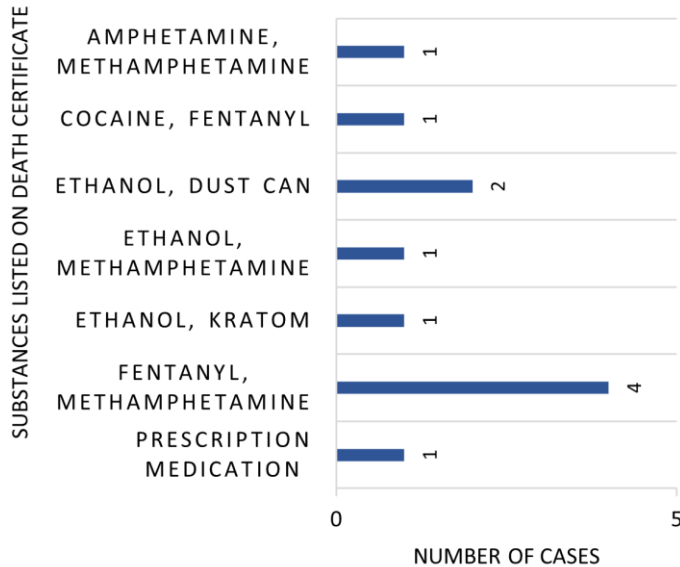
Table 1. Grand Traverse County, Drug-Related Deaths by Manner of Death by Year

	2017	2018	2019	2020	2021	2022	2023	2024*
Accident	20	10	10	20	20	23	33	16
Suicide	4	1	2	3	3	1	2	3
Indeterminate	0	0	0	0	0	0	1	0
Total Involving Opioid(s)	19 (79%)	8 (73%)	8 (66%)	16 (70%)	19 (83%)	22 (92%)	22 (61%)	8 (23%)
Total	24	11	12	23	23	24	36	19

\*Leelanau was excluded from this report due to the low number of drug-related deaths in this county; previous data has not been adjusted.

# Grand Traverse County

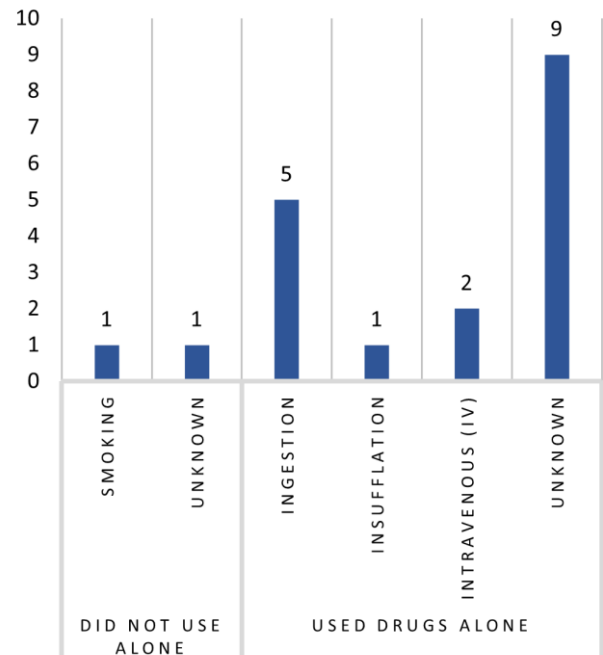
## POLYSUBSTANCE USE



### All Substances Contributory to Death #

Fentanyl	8
Methamphetamine	7
Ethanol	4
Amphetamine	2
1,1-difluoroethane	2
Amiodarone	1
Baclofen	1
Carvedilol	1
Cocaine	1
Diphenhydramine	1
Mitragynine	1

## ROUTE OF ADMINISTRATION & INDEPENDENT DRUG USE



**HISTORY OF DRUG USE: 15 (79%)**

**HISTORY OF A PREVIOUS OVERDOSE: 1 (5%)**

**NALOXONE/NARCAN ADMINISTERED: 7 (37%)**

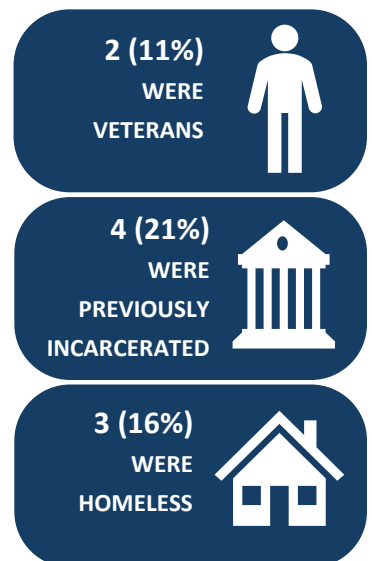
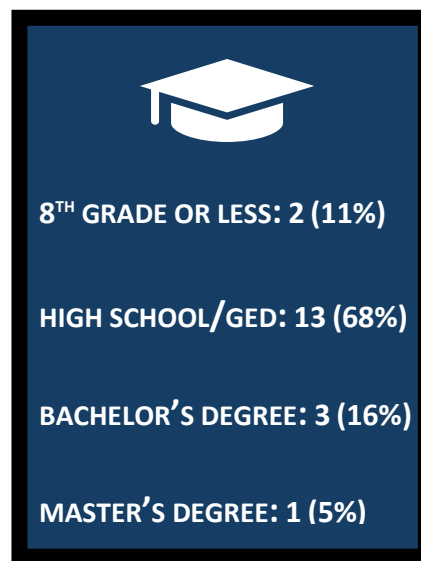
- EMS: 3 (43%)
- LE: 3 (43%)
- FAMILY: 1 (14%)
- DOA: 3 (43%)

# Grand Traverse County

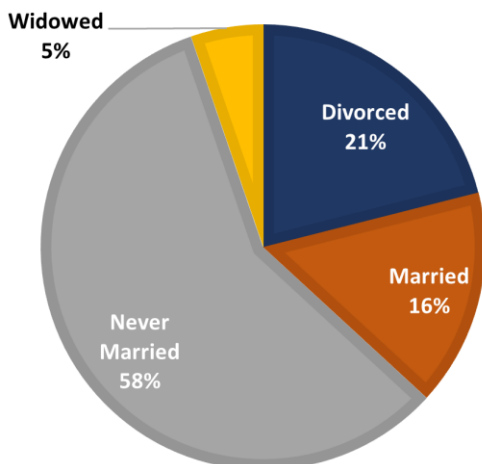
Table 2. Grand Traverse, Race, Ethnicity, & Gender

Race/Ethnicity	Male	Female	Total
American Indian/Alaskan Native	1	1	2
African American/Black	2	0	2
Hispanic	1	0	1
White	12	2	14
<b>Total</b>	<b>16</b>	<b>3</b>	<b>19</b>

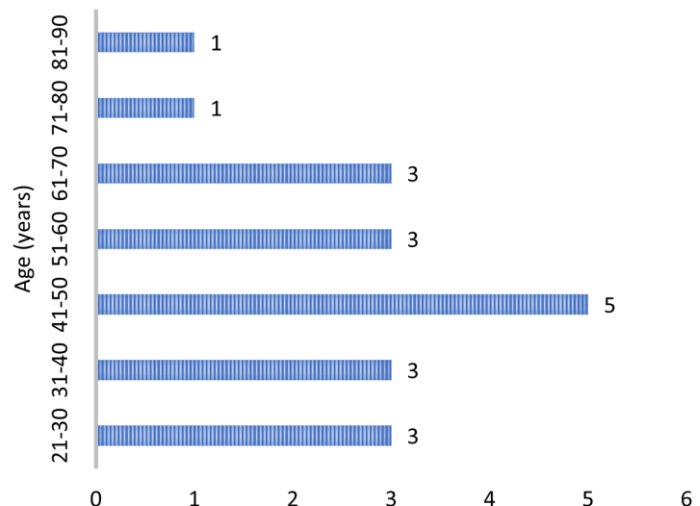
Mental Illness History	#
Attention-Deficit/Hyperactivity Disorder (ADD/ADHD)	2
Generalized Anxiety Disorder (GAD)	4
Bipolar Disorder/Manic Depression	3
Borderline Personality Disorder (BPD)	1
Major Depressive Disorder (MDD)	3
Post-Traumatic Stress Disorder (PTSD)	1
Schizophrenia	2



## MARITAL STATUS



## AGE DISTRIBUTION



# Kalamazoo County

Figure 1. Kalamazoo County, Drug-Related Deaths by Manner of Death

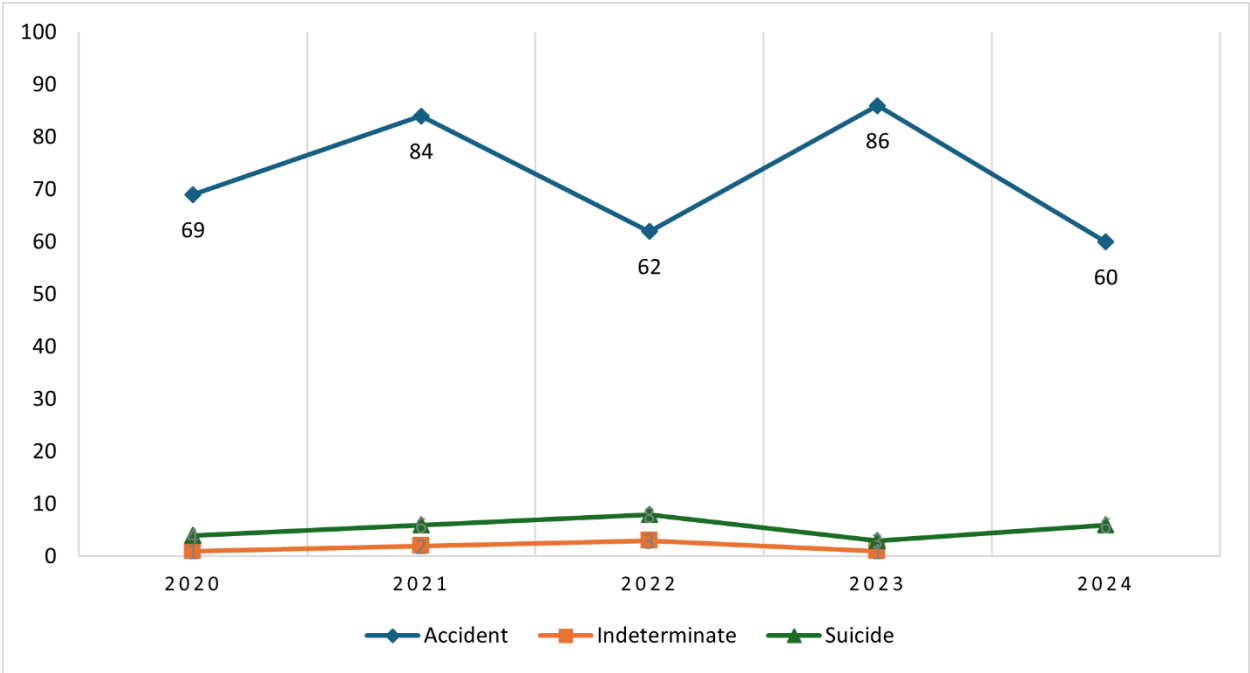
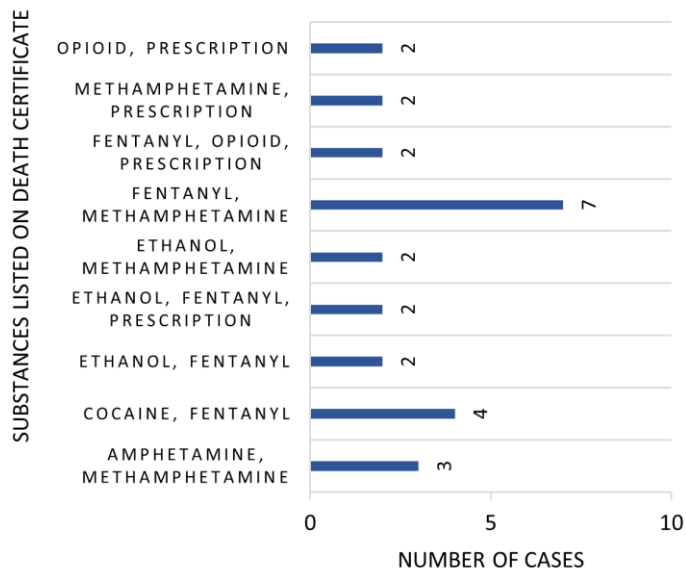


Table 1. Kalamazoo County, Drug-Related Deaths by Manner of Death by Year

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Accident	33	72	61	63	47	69	84	62	86	60
Suicide	8	3	12	5	11	4	6	8	3	6
Indeterminate	3	5	5	7	3	1	2	3	1	0
Homicide	0	0	1	0	0	0	0	0	0	0
Total Involving Opioid(s)	30	64	59	51	32	56	63	43	67	32
	(83%)	(82%)	(74%)	(73%)	(60%)	(80%)	(69%)	(60%)	(74%)	(49%)
Total	44	80	79	75	61	74	92	73	90	66

# Kalamazoo County

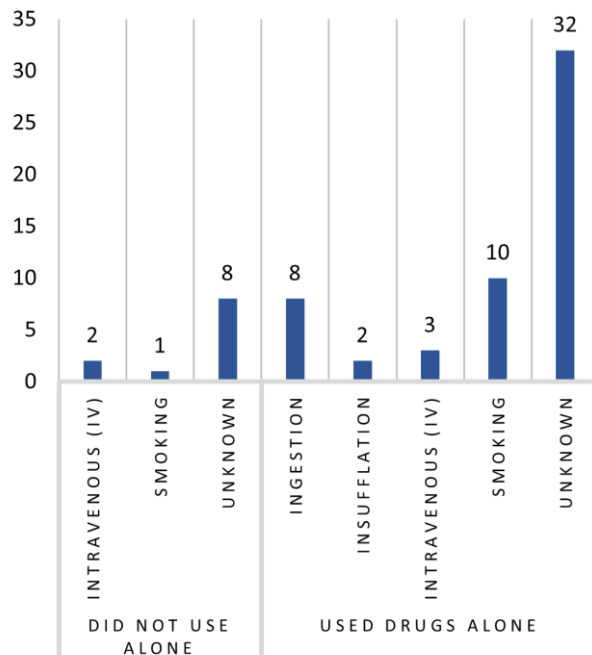
## POLYSUBSTANCE USE



### All Substances Contributory to Death\*

	#
Methamphetamine	32
Fentanyl	27
Cocaine	16
Ethanol	11
Amphetamine	4
Alprazolam	3
Citalopram	3
Oxycodone	3
Clonazepam	3
Codeine	3
Tramadol	3
Bromazolam	2
Cyclobenzaprine	2
Morphine	2

## ROUTE OF ADMINISTRATION & INDEPENDENT DRUG USE



HISTORY OF DRUG USE: 55 (83%)

HISTORY OF A PREVIOUS OVERDOSE: 7 (11%)

NALOXONE/NARCAN ADMINISTERED: 13 (20%)

- EMS: 8 (62%)
- LE: 2 (15%)
- FRIEND: 3 (23%)
- DOA: 19 (29%)

\*Only showing substances with instances occurring more than once.

# Kalamazoo County

Table 2. Kalamazoo County, Race, Ethnicity, & Gender

Race/Ethnicity	Male	Female	Trans Man	Total
African American/Black	12	6	0	18
Asian	1	0	0	1
Hispanic	1	0	0	1
White	23	22	1	46
Total	37	28	1	66

## Mental Illness History

Mental Illness History	#
Attention-Deficit/Hyperactivity Disorder (ADD/ADHD)	1
Generalized Anxiety Disorder (GAD)	12
Bipolar Disorder/Manic Depression	9
Delusional Disorder	1
Major Depressive Disorder (MDD)	21
Psychosis	1
Schizoaffective Disorder	1
Schizophrenia	4



**8<sup>TH</sup> GRADE OR LESS: 1 (2%)**  
**9<sup>TH</sup>-12<sup>TH</sup> GRADE NO DIPLOMA: 16 (24%)**  
**HIGH SCHOOL/GED: 28 (42%)**  
**COLLEGE CREDIT: 5 (8%)**  
**TRADE SCHOOL: 1 (2%)**  
**ASSOCIATE'S DEGREE: 1 (2%)**  
**BACHELOR'S DEGREE: 5 (8%)**  
**MASTER'S DEGREE: 2 (4%)**  
**DOCTORATE/MD: 1 (2%)**  
**UNKNOWN: 6 (9%)**

**3 (5%)**  
**WERE**  
**VETERANS**



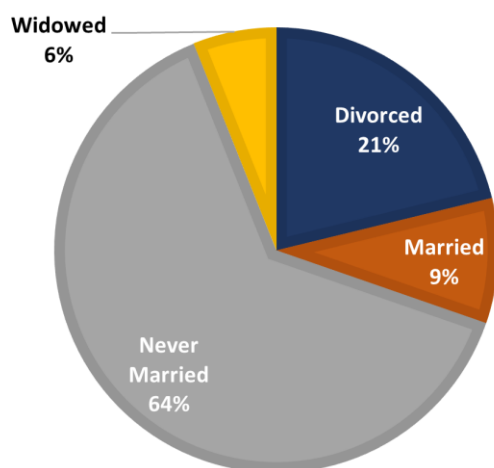
**8 (12%)**  
**WERE**  
**PREVIOUSLY**  
**INCARCERATED**



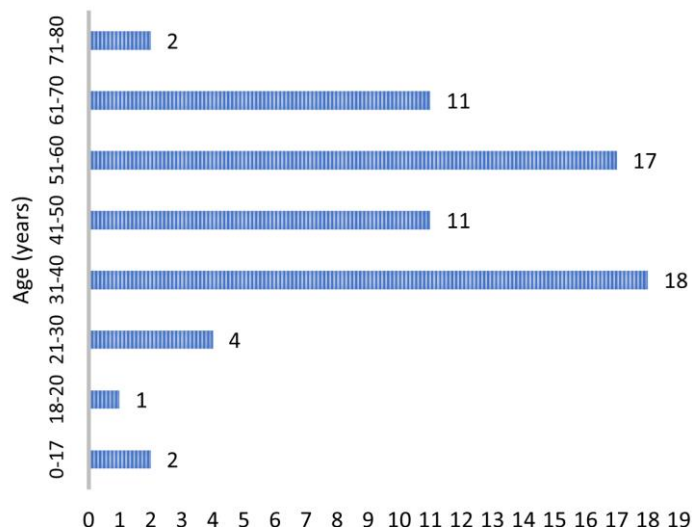
**13 (20%)**  
**WERE**  
**HOMELESS**



## MARITAL STATUS



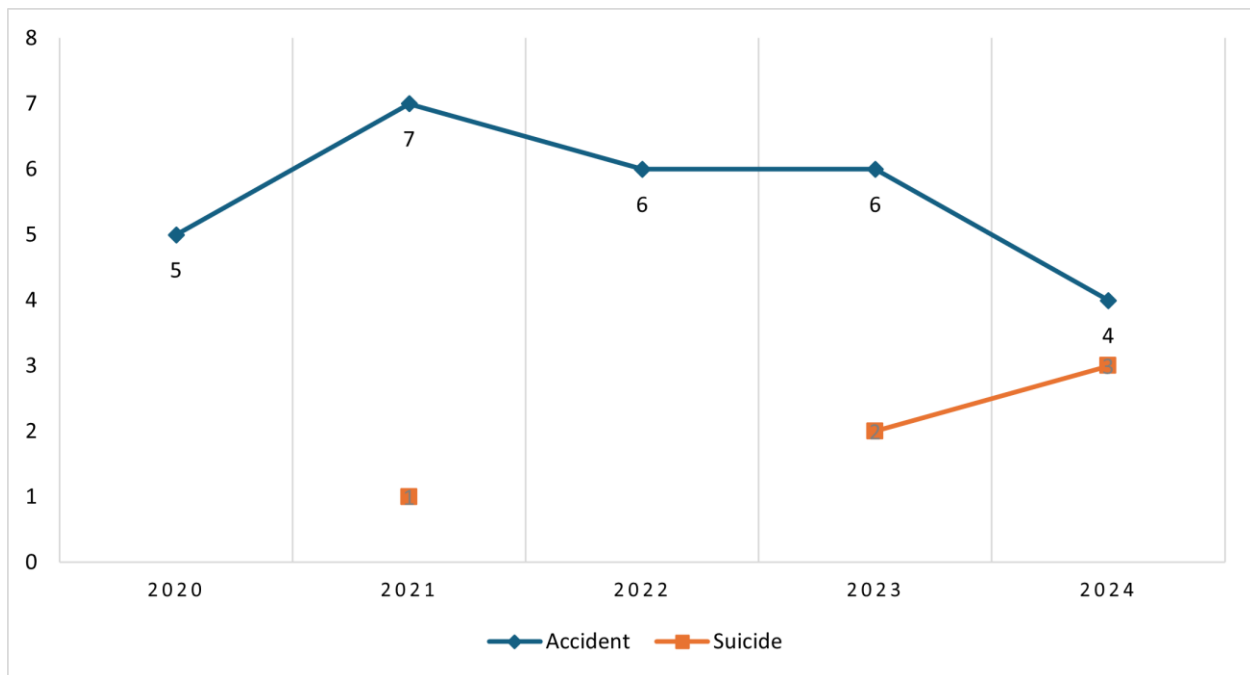
## AGE DISTRIBUTION





# Mason County

**Figure 1. Mason County, Drug-Related Deaths by Manner of Death**

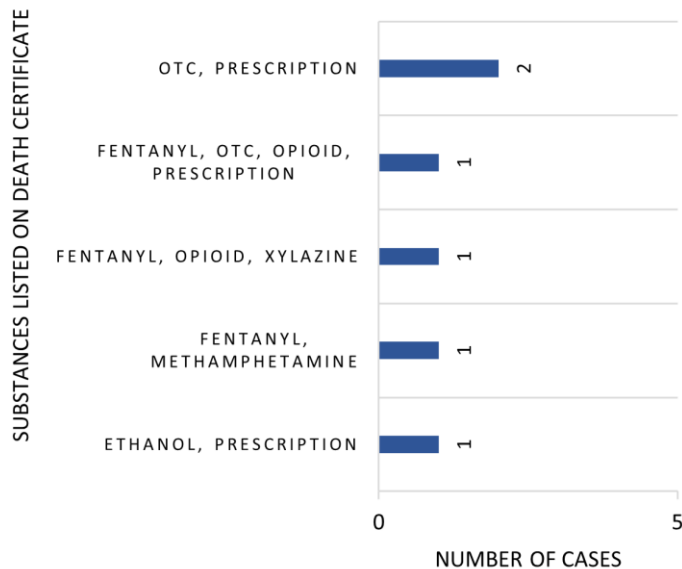


**Table 1. Mason County, Drug-Related Deaths by Manner of Death by Year**

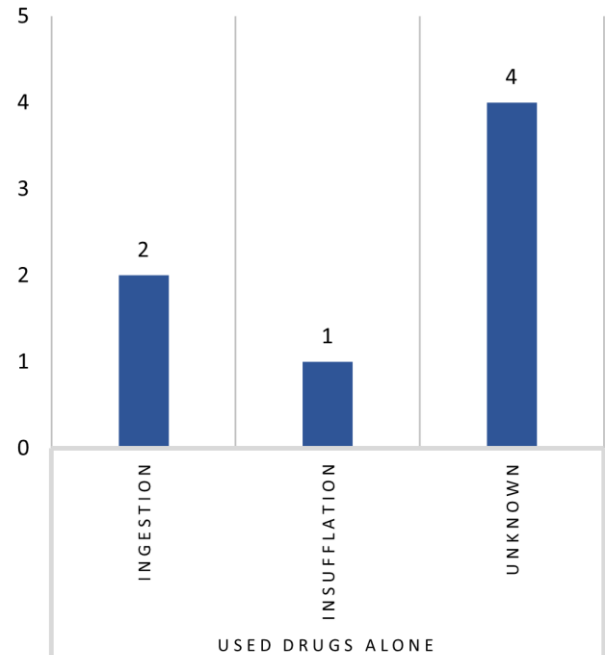
	2018	2019	2020	2021	2022	2023	2024
<b>Accident</b>	6	2	5	7	6	6	4
<b>Suicide</b>	1	0	0	1	0	2	3
<b>Indeterminate</b>	0	1	0	0	0	0	0
<b>Total Involving Opioid(s)</b>	4 (57%)	1 (33%)	5 (100%)	7 (100%)	4 (67%)	7 (88%)	4 (57%)
<b>Total</b>	<b>7</b>	<b>3</b>	<b>5</b>	<b>8</b>	<b>6</b>	<b>8</b>	<b>7</b>

# Mason County

## POLYSUBSTANCE USE



## ROUTE OF ADMINISTRATION & INDEPENDENT DRUG USE



### All Substances Contributory to Death #

Fentanyl	4
Diphenhydramine	3
Gabapentin	2
Citalopram/Escitalopram	1
Cyclobenzaprine	1
Diazepam	1
Ethanol	1
Flecainide	1
Fluoxetine	1
Methadone	1
Methamphetamine	1
Morphine	1
Trazodone	1
Xylazine	1

HISTORY OF DRUG USE: 5 (71%)

HISTORY OF A PREVIOUS OVERDOSE: 3 (43%)

NALOXONE/NARCAN ADMINISTERED: 1 (14%)

- EMS: 1 (100%)
- DOA: 4 (57%)

# Mason County

Table 2. Mason County, Race, Ethnicity, & Gender

Race/Ethnicity	Male	Female	Total
White	4	3	7
Total	4	3	7

## Mental Illness History

Mental Illness History	#
Generalized Anxiety Disorder (GAD)	2
Bipolar Disorder/Manic Depression	1
Disordered Eating	1
Major Depressive Disorder (MDD)	2
Schizophrenia	1



9<sup>TH</sup>-12<sup>TH</sup> GRADE NO DIPLOMA: 1 (14%)  
 HIGH SCHOOL/GED: 3 (43%)  
 COLLEGE CREDIT: 1 (29%)  
 MASTER'S DEGREE: 1 (2%)  
 UNKNOWN: 1 (2%)

0 (0%)

WERE  
VETERANS



2 (29%)

WERE  
PREVIOUSLY  
INCARCERATED

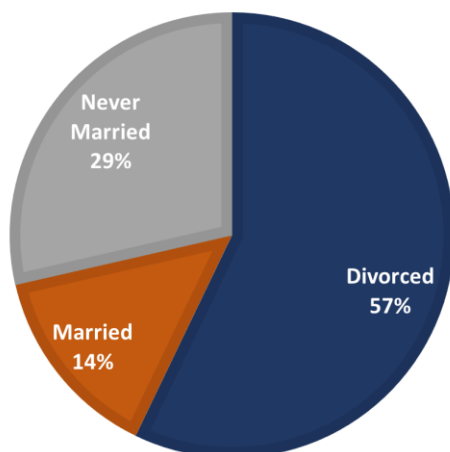


2 (29%)

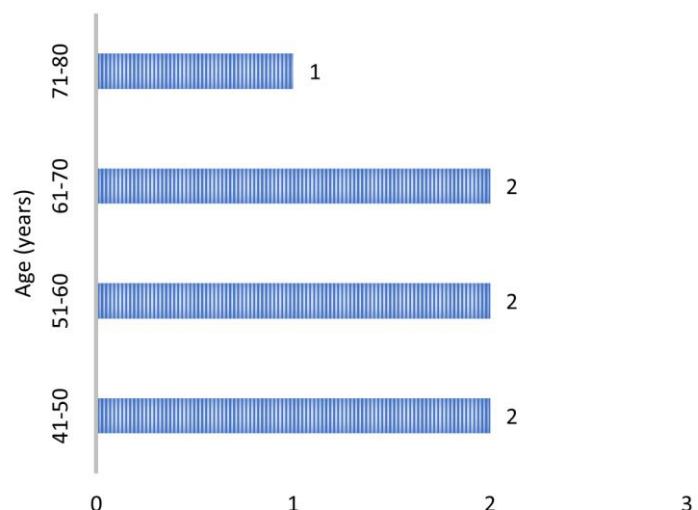
WERE  
HOMELESS



## MARITAL STATUS



## AGE DISTRIBUTION



# Muskegon County

Figure 1. Muskegon County, Drug-Related Deaths by Manner of Death

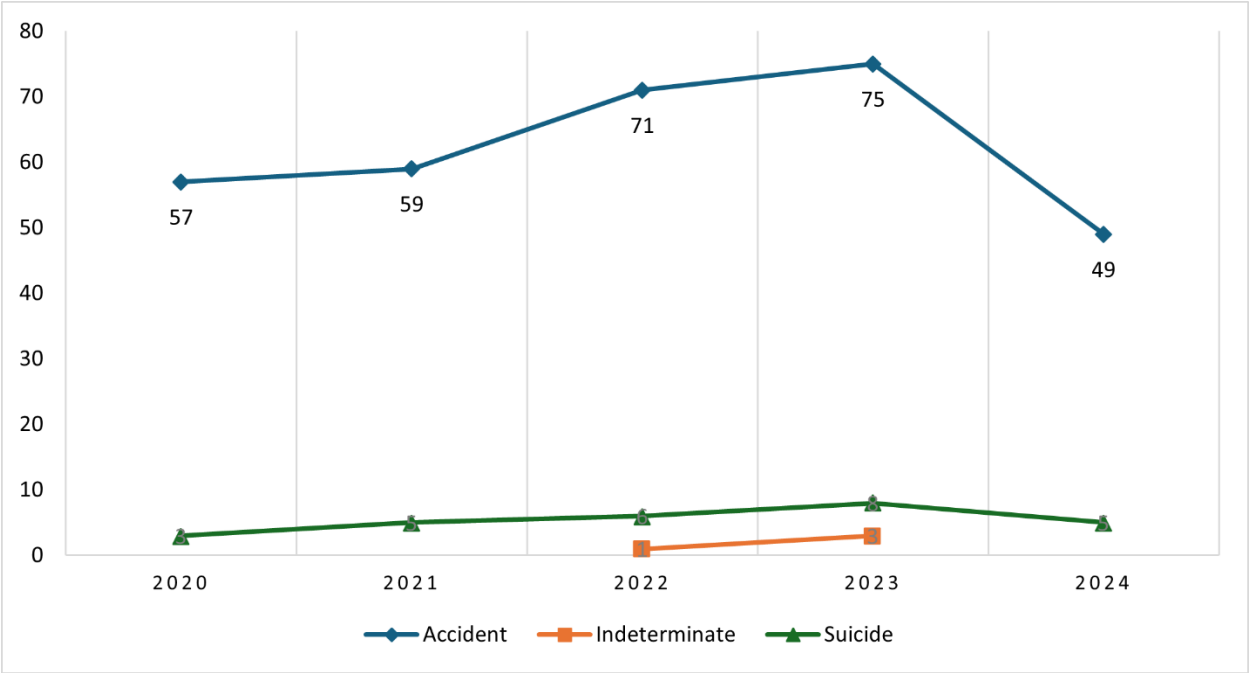
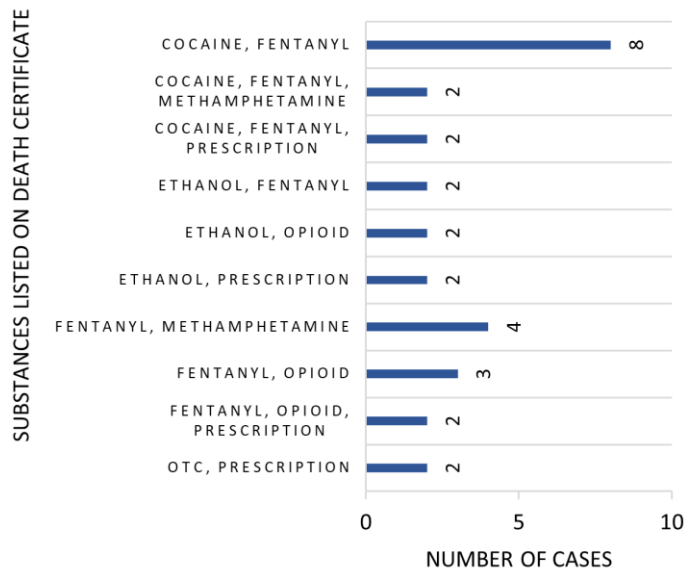


Table 1. Muskegon County, Drug-Related Deaths by Manner of Death by Year

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Accident	39	39	47	39	46	57	59	71	75	49
Suicide	7	3	4	10	4	3	5	6	8	5
Indeterminate	4	6	3	1	5	0	0	1	3	0
Total Involving Opioid(s)	43 (95%)	41 (87%)	43 (84%)	39 (85%)	43 (84%)	50 (88%)	54 (88%)	64 (83%)	67 (78%)	38 (70%)
Total	50	48	54	50	55	60	64	78	86	54

# Muskegon County

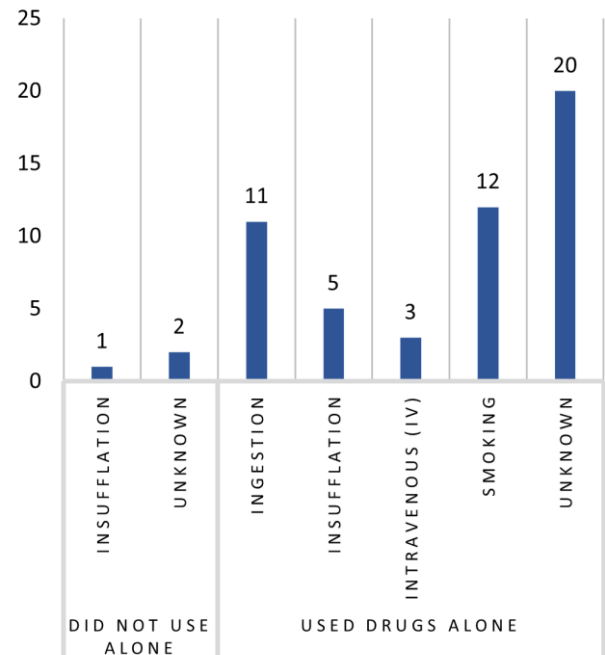
## POLYSUBSTANCE USE



### All Substances Contributory to Death\* #

Fentanyl	31
Cocaine	20
Methamphetamine	12
Ethanol	12
Morphine	4
Alprazolam	3
Diphenhydramine	3
Methadone	3
Bupropion	2
Carfentanil	2
Cyclobenzaprine	2
Gabapentin	2
Hydrocodone	2
Pregabalin	2

## ROUTE OF ADMINISTRATION & INDEPENDENT DRUG USE



HISTORY OF DRUG USE: 46 (85%)

HISTORY OF A PREVIOUS OVERDOSE: 9 (17%)

NALOXONE/ ADMINISTERED: 9 (17%)

- EMS: 5 (55%)
- LE: 2 (22%)
- FRIEND/FAMILY: 2 (22%)
- DOA: 22 (41%)


\*Only showing substances with instances occurring more than once.

# Muskegon County

Table 2. Muskegon County, Race, Ethnicity, & Gender

Race/Ethnicity	Male	Female	Total
African American/Black	9	5	14
American Indian/Alaskan Native	1	1	2
Hispanic	0	1	1
White	22	15	37
<b>Total</b>	<b>32</b>	<b>22</b>	<b>54</b>

Mental Illness History	#
Attention-Deficit/Hyperactivity Disorder (ADD/ADHD)	1
Generalized Anxiety Disorder (GAD)	14
Bipolar Disorder/Manic Depression	6
Borderline Personality Disorder (BPD)	1
Major Depressive Disorder (MDD)	14
Post-Traumatic Stress Disorder (PTSD)	1
Schizophrenia	1

  
**8<sup>TH</sup> GRADE OR LESS: 2 (4%)**  
**9<sup>TH</sup>-12<sup>TH</sup> GRADE NO DIPLOMA: 6 (11%)**  
**HIGH SCHOOL/GED: 31 (57%)**  
**COLLEGE CREDIT: 7 (13%)**  
**TRADE SCHOOL: 1 (2%)**  
**ASSOCIATE'S DEGREE: 1 (2%)**  
**BACHELOR'S DEGREE: 2 (4%)**  
**MASTER'S DEGREE: 1 (2%)**  
**UNKNOWN: 3 (5%)**

**1 (2%)**  
**WERE**  
**VETERANS**



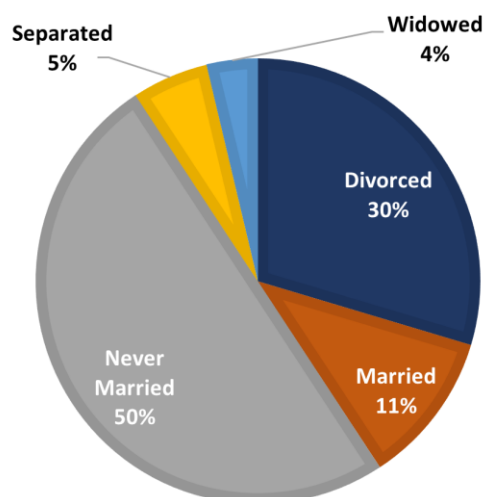
**5 (9%)**  
**WERE**  
**PREVIOUSLY**  
**INCARCERATED**



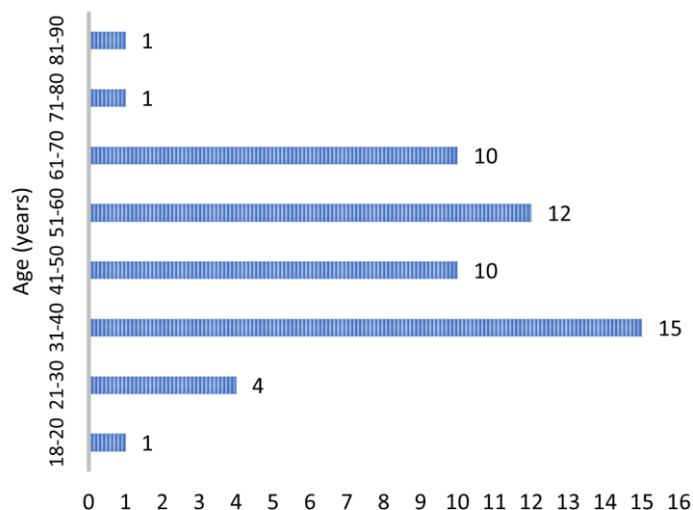
**5 (9%)**  
**WERE**  
**HOMELESS**



## MARITAL STATUS



## AGE DISTRIBUTION



# St. Joseph County

Figure 1. St. Joseph County, Drug-Related Deaths by Manner of Death

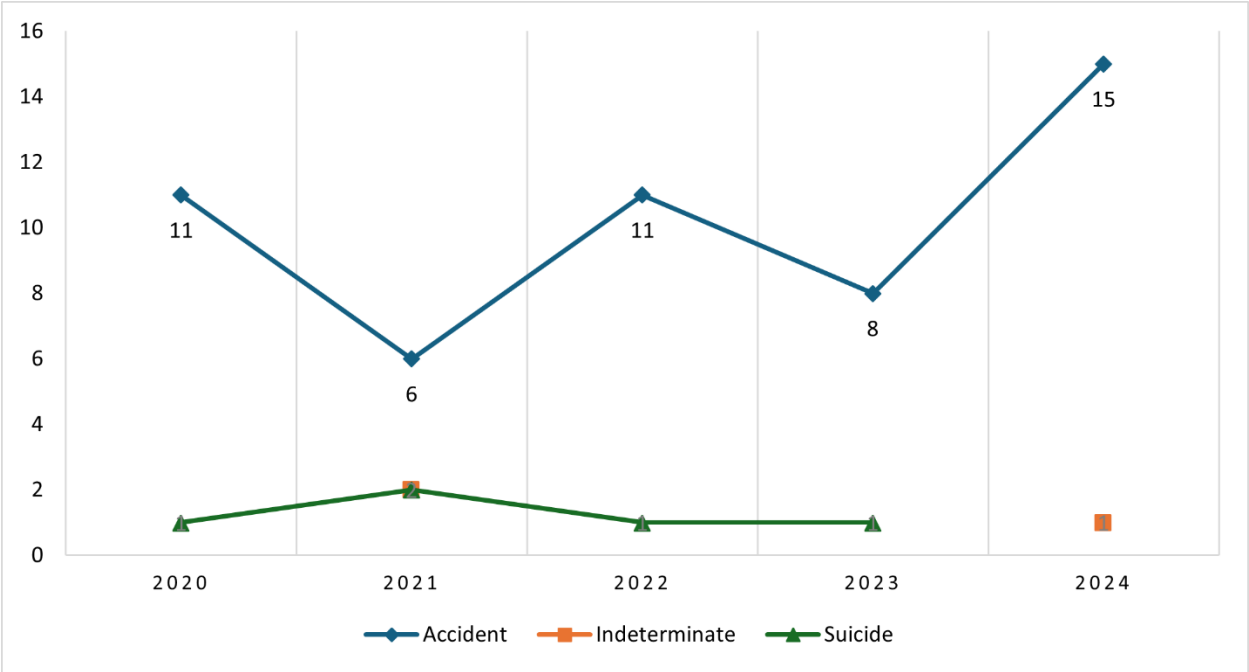


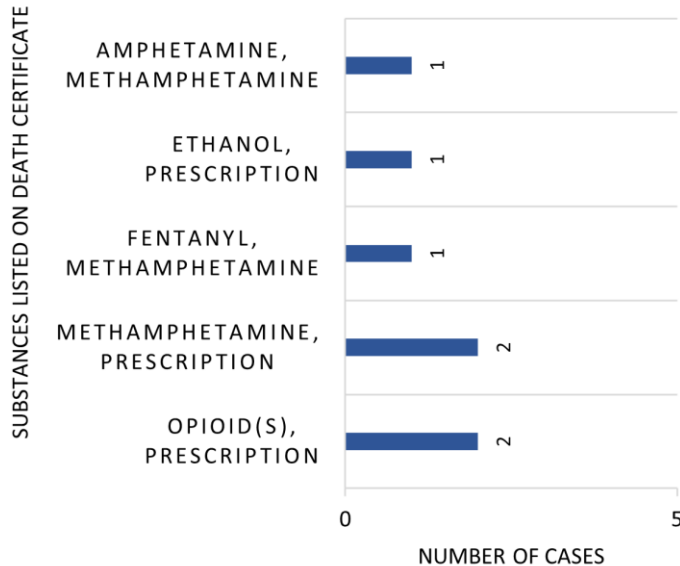
Table 1. St. Joseph County, Drug-Related Deaths by Manner of Death by Year

	2017	2018	2019	2020	2021	2022	2023	2024
Accident	6	4	10	11	6	11	8	15
Suicide	0	2	1	1	2	1	1	0
Indeterminate	1	0	0	0	2	0	0	1
Total Involving Opioid(s)	6 (86%)	4 (75%)	4 (40%)	11 (91%)	7 (88%)	5 (45%)	6 (67%)	6 (38%)
Total	7	6	11	12	10	12	9	16



# St. Joseph County

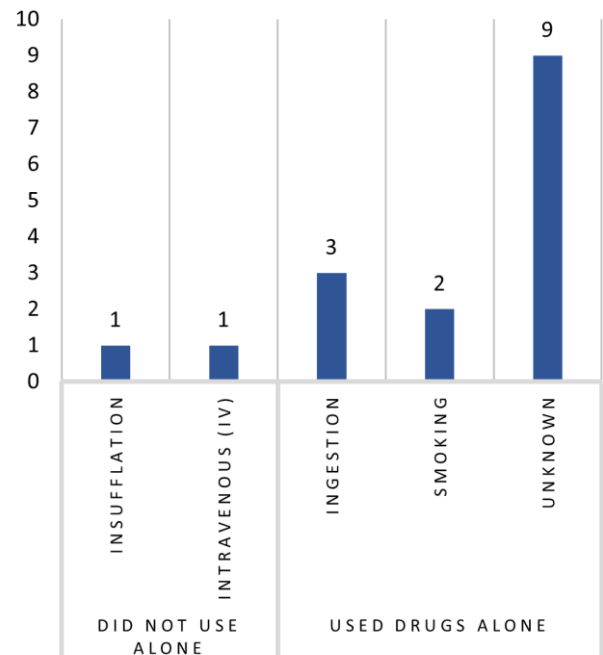
## POLYSUBSTANCE USE



### All Substances Contributory to Death #

Methamphetamine	10
Fentanyl	4
Gabapentin	2
Hydrocodone	2
Amitriptyline	1
Amphetamine	1
Bromazolam	1
Clonazepam	1
Dextro/Levo Methorphan	1
Dihydrocodeine	1
Diphenhydramine	1
Doxylamine	1
Duloxetine	1
Ethanol	1
Metoprolol	1
Olanzapine	1
Pregabalin	1

## ROUTE OF ADMINISTRATION & INDEPENDENT DRUG USE



HISTORY OF DRUG USE: 15 (94%)

HISTORY OF A PREVIOUS OVERDOSE: 4 (25%)

NALOXONE/ ADMINISTERED: 4 (25%)

- EMS: 2 (50%)
- FAMILY: 2 (50%)
- DOA: 8 (50%)

# St. Joseph County

Table 2. St. Joseph County, Race, Ethnicity, & Gender

	Male	Female	Total
African American/Black	1	0	1
White	8	7	15
Total	9	7	16

Mental Illness History	#
Generalized Anxiety Disorder (GAD)	3
Bipolar Disorder/Manic Depression	1
Major Depression Disorder (MDD)	6
Schizophrenia	1



9<sup>TH</sup>-12<sup>TH</sup> GRADE NO DIPLOMA:  
7 (44%)  
HIGH SCHOOL/GED: 6 (38%)  
COLLEGE CREDIT: 1 (6%)  
ASSOCIATE'S DEGREE: 1 (6%)  
TRADE SCHOOL: 1 (6%)

0 (0%)  
WERE  
VETERANS



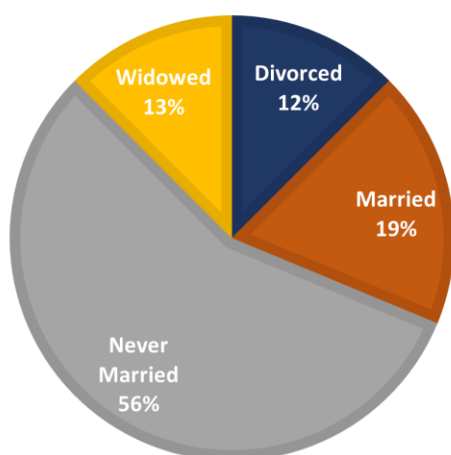
4 (25%)  
WERE  
PREVIOUSLY  
INCARCERATED



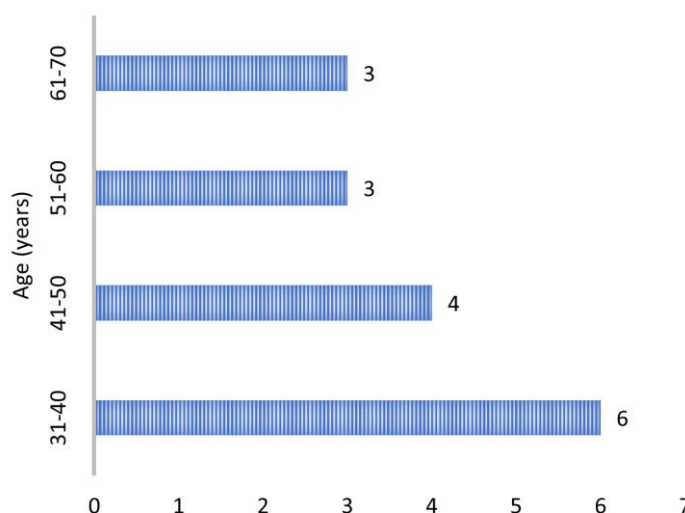
2 (2%)  
WERE  
HOMELESS



## MARITAL STATUS



## AGE DISTRIBUTION



# Van Buren County

Figure 1. Van Buren County, Drug-Related Deaths by Manner of Death

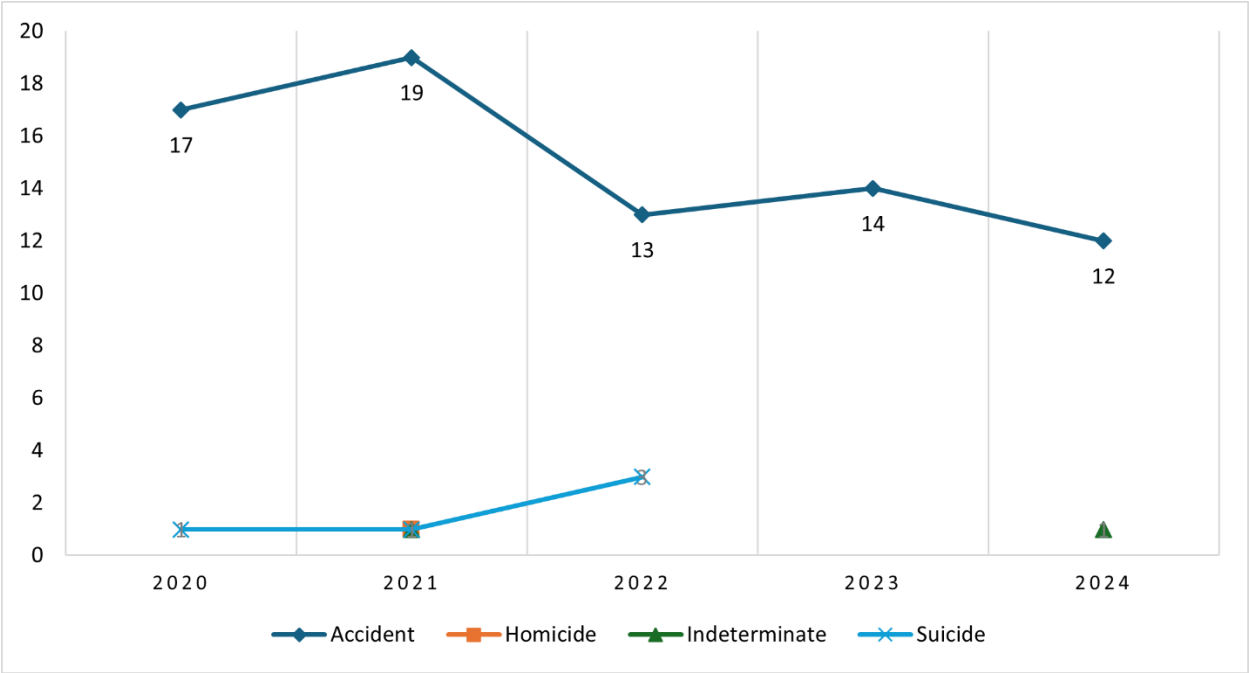
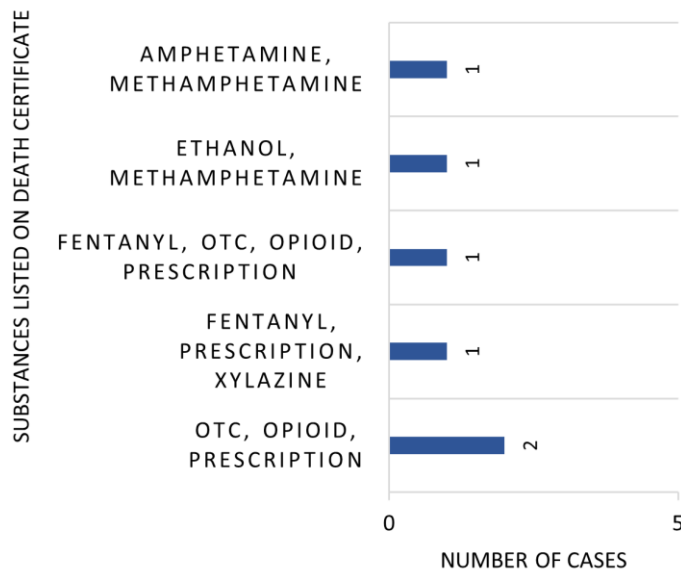


Table 1. Van Buren County, Drug-Related Deaths by Manner of Death by Year

	2018	2019	2020	2021	2022	2023	2024
Accident	10	15	17	19	13	14	12
Suicide	1	1	1	1	3	0	0
Indeterminate	0	0	0	1	0	0	1
Homicide	0	0	0	1	0	0	0
Total Involving Opioid(s)	9 (90%)	12 (80%)	11 (59%)	14 (70%)	10 (69%)	9 (64%)	5 (39%)
Total	11	16	18	22	16	14	13

# Van Buren County

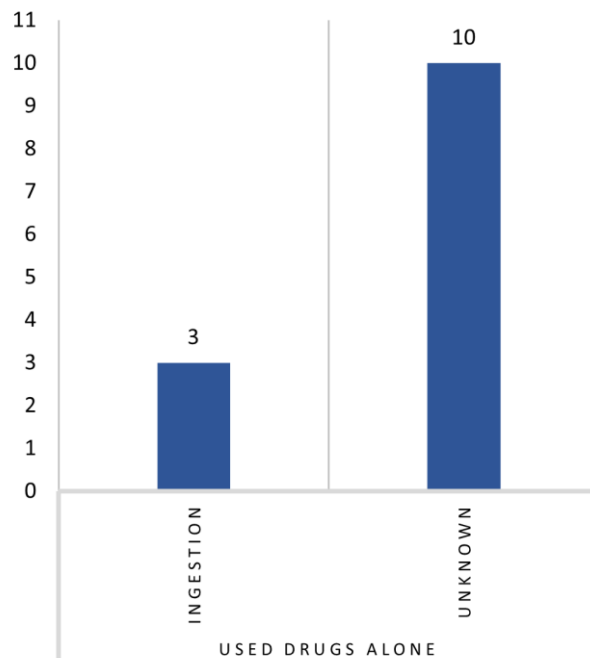
## POLYSUBSTANCE USE



### All Substances Contributory to Death #

Methamphetamine	6
Fentanyl	3
Cocaine	2
Cyclobenzaprine	2
Diphenhydramine	2
Amphetamine	1
Ethanol	1
Morphine	1
Acetaminophen	1
Bupropion	1
Dextro/Levo Methorphan	1
Doxepin	1
Duloxetine	1
Gabapentin	1
Hydrocodone	1
Oxycodone	1
Tramadol	1
Venlafaxine	1
Xylazine	1

## ROUTE OF ADMINISTRATION & INDEPENDENT DRUG USE



HISTORY OF DRUG USE: 10 (77%)

HISTORY OF A PREVIOUS OVERDOSE: 2 (15%)

NALOXONE/ ADMINISTERED: 2 (15%)

- EMS: 2 (100%)
- DOA: 4 (31%)

# Van Buren County

Table 2. Van Buren County, Race, Ethnicity, & Gender

	Male	Female	Total
African American/Black	0	1	1
Hispanic	1	0	1
White	7	4	11
Total	8	5	13

Mental Illness History	#
Generalized Anxiety Disorder (GAD)	1
Bipolar Disorder/Manic Depression	1
Major Depressive Disorder (MDD)	3



9<sup>TH</sup>-12<sup>TH</sup> GRADE NO DIPLOMA: 5 (38%)  
 HIGH SCHOOL/GED: 5 (38%)  
 ASSOCIATE'S DEGREE: 1 (8%)  
 MASTER'S DEGREE: 1 (8%)

1 (8%)  
WERE  
VETERANS



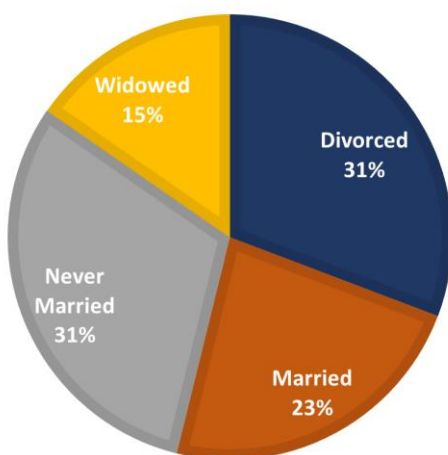
2 (15%)  
WERE  
PREVIOUSLY  
INCARCERATED



0 (0%)  
WERE  
HOMELESS



## MARITAL STATUS



## AGE DISTRIBUTION

