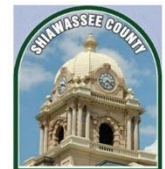




Department of Forensic Pathology  
Office of the Medical Examiner

2022 Drug Report



# Introduction

## Drug-Related Deaths - Defined

We define drug deaths as those which result entirely or partially from the physiologic effects of acute toxicity. Therefore, included here are deaths which resulted from a combination of natural disease and acute intoxication (e.g. heart disease complicated by stimulant intoxication). Our definition does not include deaths by violence, in which the violent behavior may have been caused or contributed to by intoxication (e.g. death due to injury from motor vehicle crash in which the at-fault driver was intoxicated). We also do not include deaths related to the effects of chronic substance use (e.g. deaths due to alcoholic liver disease or heart disease which may have been contributed to by chronic cocaine use) if not combined with acute toxicity.

## Methods

The majority of the drug deaths reported are due to more than one substance, as you will see in the detailed tables that follow. Often, decedents have even more substances present in their body at the time of death or overdose incident than just the substances listed as having caused or contributed to death. After autopsy and review of records, including toxicology report, the medical examiner assigned to the case determines which of the substances present played a causal role in the death. Thus, there may be substances present in a given case which are not included in the cause of death statement.

Occasionally, intoxicated decedents survive in the hospital for a period of time prior to death, following acute drug intoxication. In these cases, all efforts are made to obtain and test the earliest blood and urine available from their time in the hospital for the overdose incident, so that the toxicology results reflect what was in the body at the time the eventually fatal overdose occurred.

New information occasionally becomes available after a “final” cause of death was determined, which sometimes, albeit rarely, results in a change to the “final” cause of death. As such, the statistics contained herein may be subject to change at any time.

The extent of toxicology testing is determined by the medical examiner assigned to the case, based upon the circumstances of death. During the period reported, our office used AXIS Forensic Toxicology for toxicology testing.<sup>1</sup>

## Manner Determination

Drug-related deaths are conventionally certified as accidents (unless otherwise indicated by investigation on a case by case basis). A decedent’s intentions in the interval immediately preceding death may be impossible to ascertain. A common example is a person who has a well-documented history of suicidal ideation or attempts but also abuses drugs recreationally. In such cases a fatal overdose may be intentional or unintentional, and therefore may be best certified as indeterminate.

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<sup>1</sup> If you have questions about what drugs we are currently capable of detecting, please visit [www.axisfortox.com](http://www.axisfortox.com) or email [michelle.fox@sparrow.org](mailto:michelle.fox@sparrow.org)

## Highlights - 2022

Unless otherwise noted, all comparisons here are made to the data from 2021. As stated above, most drug-related deaths are due to a combination of more than one substance. As such, many deaths fall into more than one of the statistical categories (for example, one death involving both fentanyl and cocaine would fall into four categories listed below - opioid, stimulant, fentanyl, and cocaine).

- Total drug-related deaths **decreased** by 9% (18 fewer)
- Opioid-related deaths **decreased** by 8% (13 fewer)
- Heroin-related<sup>2</sup> deaths **decreased** by 25% (1 fewer)
- Fentanyl-related deaths **decreased** by 2% (3 fewer)
- Stimulant-related deaths **increased** by 17% (17 more)
- Cocaine-related deaths **increased** by 35% (18 more)
- Amphetamine/Methamphetamine-related<sup>3</sup> deaths **increased** by 6% (4 more)
- Ethanol (alcohol)-related deaths **decreased** by 35% (16 fewer)
  
- 76% of all drug-related deaths were due to two or more substances
- 82% of all drug-related deaths involved at least one opioid
- 62% of all drug-related deaths involved at least one stimulant drug; 10% involved only a stimulant drug or drugs
- 80% of all stimulant-related deaths also involved at least one opioid
- 16% of all drug-related deaths involved ethanol (alcohol)
- 12% of all drug-related death involved at least one benzodiazepine
  
- Only 6% of drug related deaths (11 of 190) did not involve at least one opioid or one stimulant drug
- 21% of opioid-related deaths involved only an opioid or opioids
- 60% of opioid-related deaths also involved at least one stimulant drug (most cocaine or methamphetamine)
- 16% of opioid-related deaths also involved ethanol (alcohol)
- 13% of opioid-related deaths also involved at least one benzodiazepine

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<sup>2</sup> Heroin is rapidly metabolized to morphine. As such, this may result in some under-reporting of heroin, and over-reporting of morphine

<sup>3</sup> The majority of the cases are due to methamphetamine. Methamphetamine is metabolized to amphetamine in the body; thus, it is not always clear what the presence of amphetamine indicates (illicit methamphetamine use vs. prescription amphetamine use).

# Eaton County

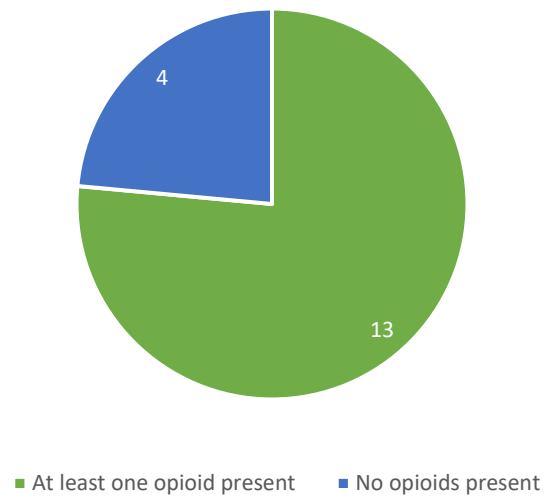
## Drug-Related Deaths

2022 Eaton County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of Death
Male	22	fentanyl	Accident
Male	24	fentanyl	Accident
Male	25	acetylfentanyl, fentanyl	Accident
Female	28	fentanyl	Accident
Male	32	fentanyl	Accident
Female	32	fentanyl, methamphetamine	Accident
Female	39	acetylfentanyl, diphenhydramine, fentanyl, fluorofentanyl, xylazine	Accident
Male	40	acetylfentanyl, alprazolam, fentanyl, fluorofentanyl, gabapentin, methamphetamine	Accident
Male	43	fentanyl, methamphetamine	Accident
Male	47	fentanyl, methamphetamine	Accident
Male	51	cocaine	Accident
Male	53	methamphetamine	Accident
Male	53	methamphetamine	Accident
Female	55	fentanyl, fluorofentanyl, methamphetamine	Accident
Male	61	fentanyl, heroin	Accident
Male	62	methamphetamine	Accident
Male	67	cocaine, fentanyl	Accident

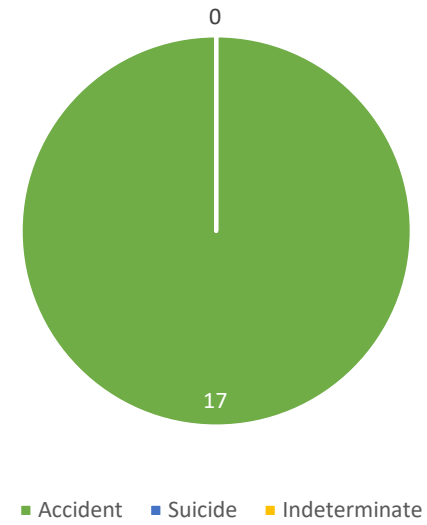
# Eaton County

## Drug-Related Deaths

2022 Eaton County Drug-Related Deaths -  
Opioid vs. Non-opioid

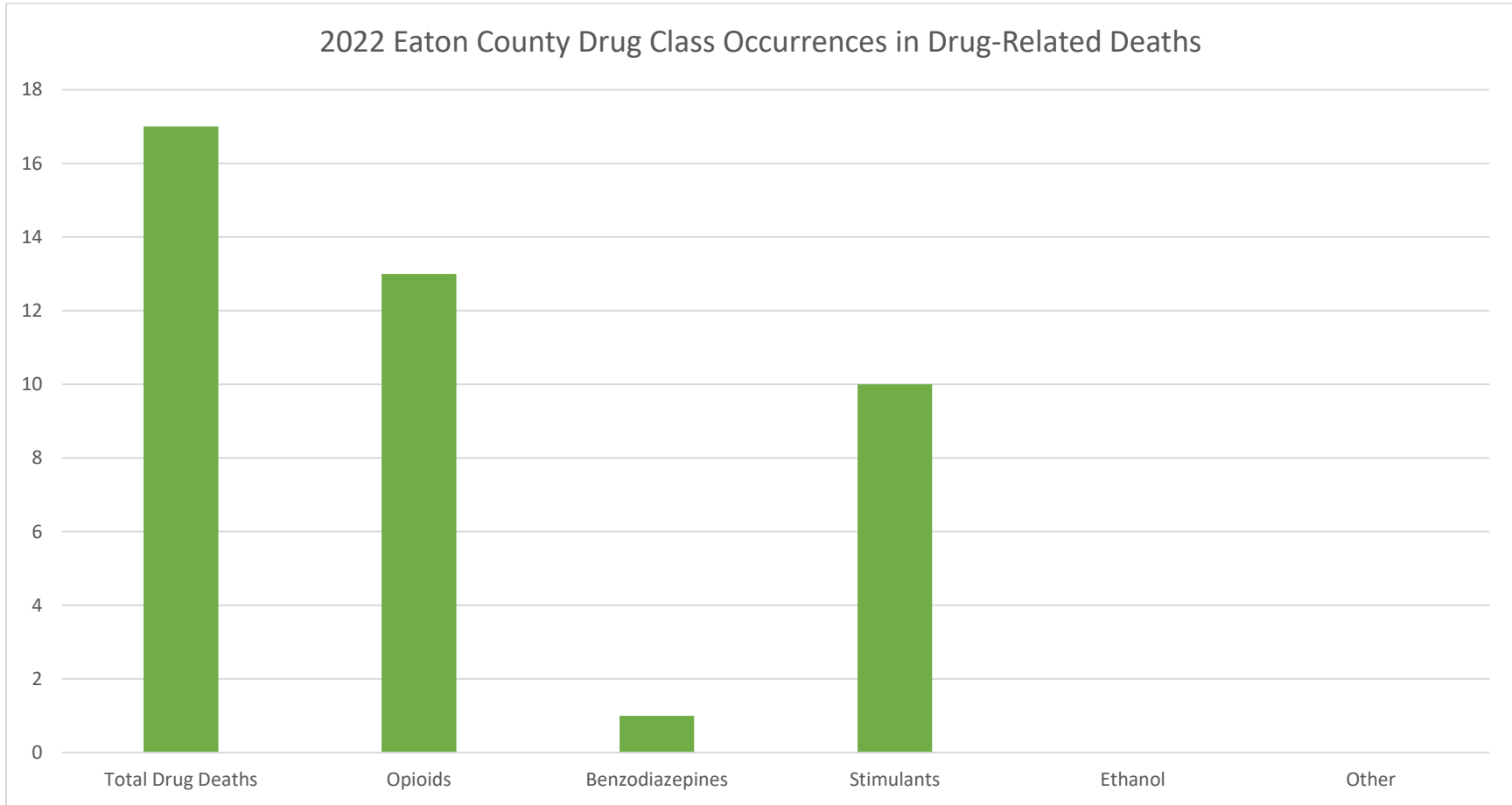


2022 Eaton County Drug-Related Deaths -  
Manner of Death



# Eaton County

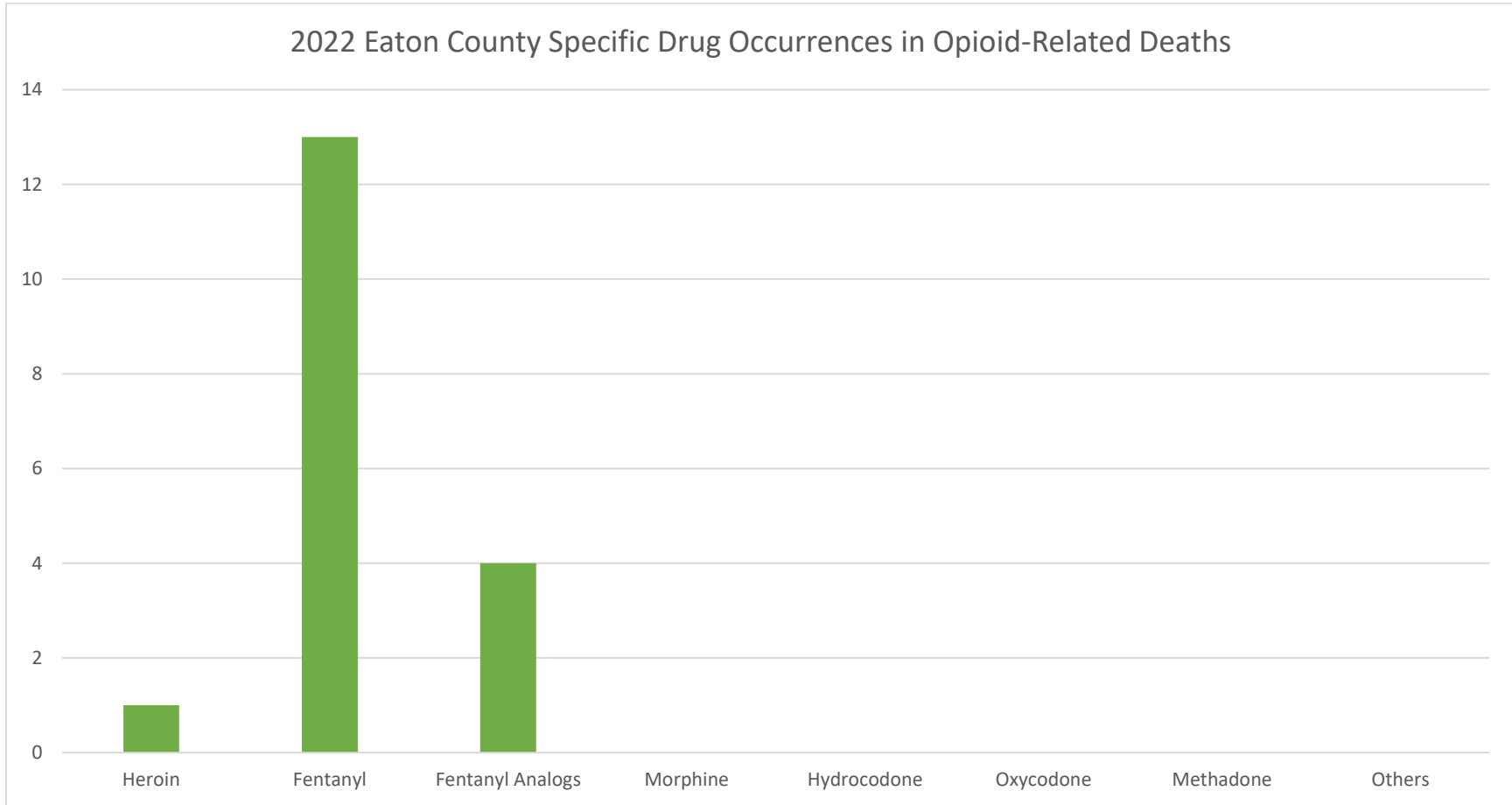
## Drug-Related Deaths



This chart describes occurrences in one death of a given class of drug. As most drug-related deaths are due to two or more substances, the same death may fall into multiple categories (e.g. death due to fentanyl, cocaine, and alprazolam intoxication falls into the opioids, stimulants, and benzodiazepines categories). Multiple of the same class of drug in the same death counts as only one occurrence of that class of drugs (e.g. death due to fentanyl and hydrocodone intoxication – both of these are opioids, so this death falls only in the opioids category, as one occurrence). The “other” category is for occurrences of drug-related deaths due *solely* to drugs which do not fall into the other listed categories.

# Eaton County

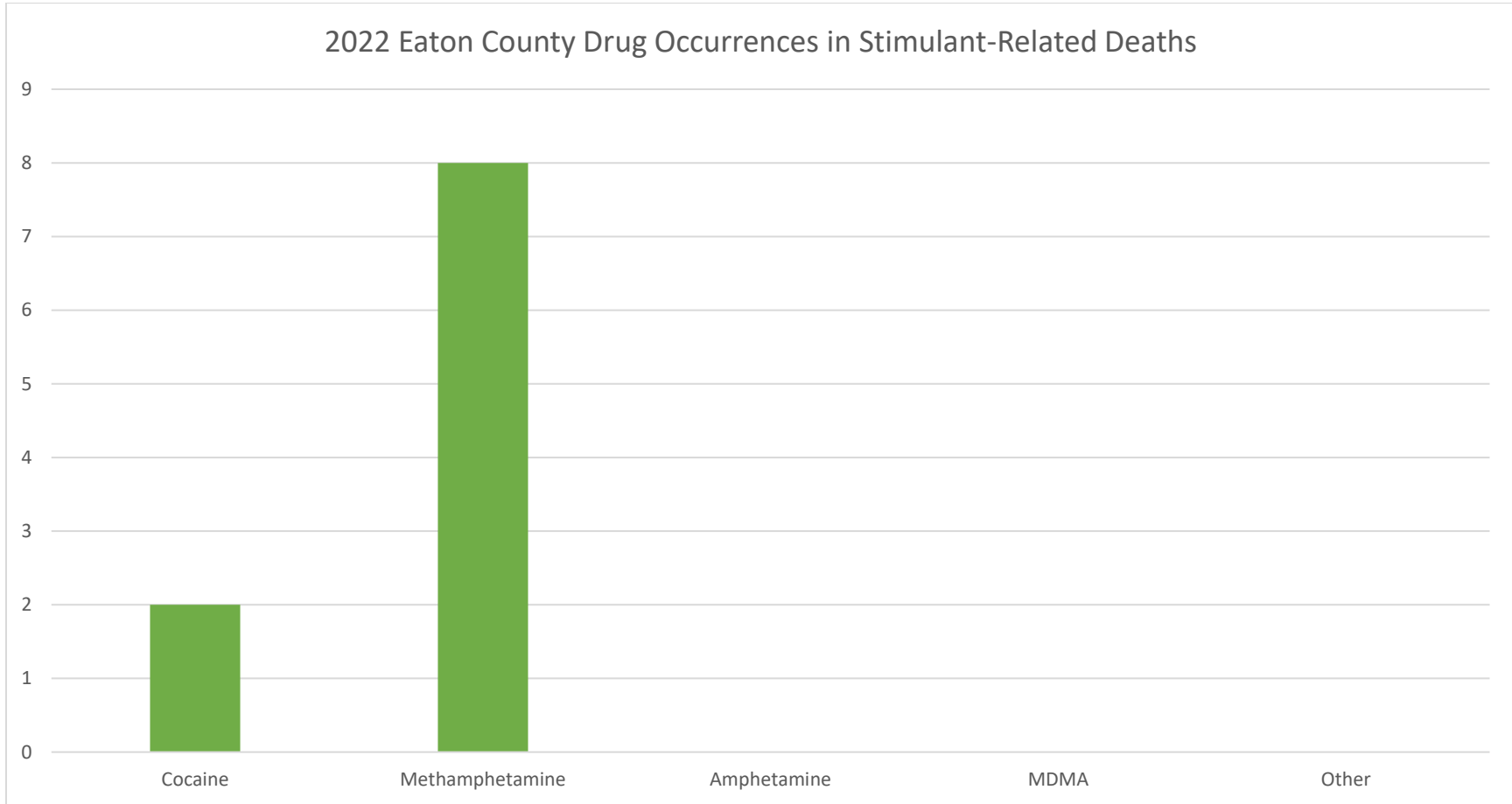
## Drug-Related Deaths



This chart describes occurrences in one death of a specific opioid drug. As some opioid-related deaths are due to two or more opioids, the same death may fall into multiple categories (e.g. death due to fentanyl and heroin intoxication falls into both the fentanyl and heroin categories). The “other” category is for occurrences of other less-frequently observed opioids, including (but not limited to) tramadol, hydromorphone, codeine, buprenorphine, and the opioid-like substance metonitazene.

# Eaton County

## Drug-Related Deaths

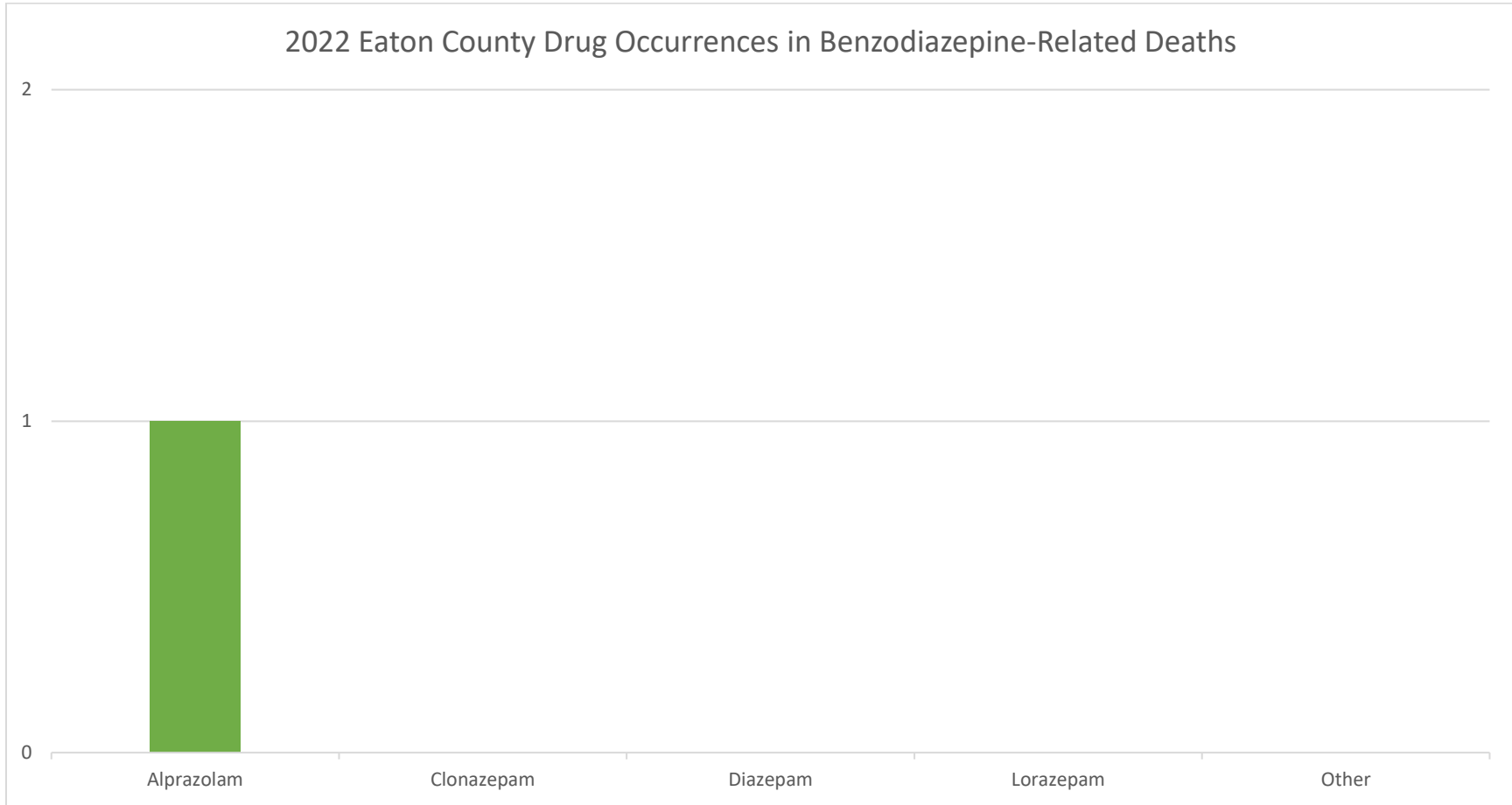


This chart describes occurrences in one death of a specific stimulant drug. As some stimulant drug-related deaths are due to more than one stimulant, the same death may fall into multiple categories (e.g. death due to cocaine and methamphetamine intoxication falls into both categories). The “other” category is for occurrences of other less-frequently observed stimulants, including (but not limited to) pseudoephedrine.



# Eaton County

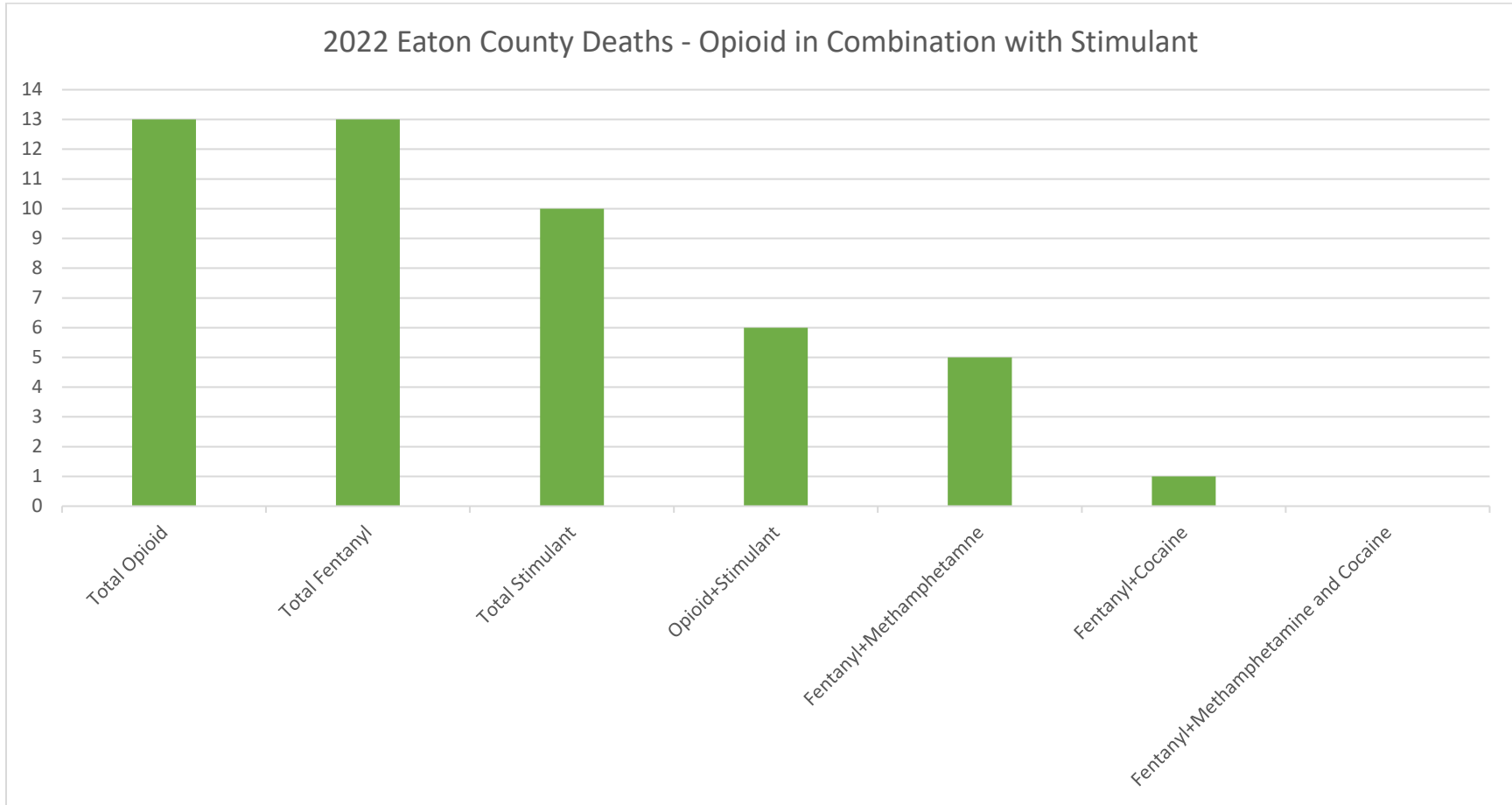
## Drug-Related Deaths



This chart describes occurrences in one death of a specific benzodiazepine drug. As some benzodiazepine drug-related deaths are due to more than one benzodiazepine, the same death may fall into multiple categories (eg. death due to alprazolam and diazepam intoxication falls into both categories). The “other” category is for occurrences of other less-frequently observed benzodiazepine, including (but not limited to) etizolam, chlordiazepoxide, and flualprazolam).

# Eaton County

## Drug-Related Deaths



This chart describes occurrences in one death of both an opioid and a stimulant drug. In most of the cases fentanyl is the (or at least one of) opioid present. In most of the cases the stimulant is either methamphetamine or cocaine.

# Ingham County

## Drug-Related Deaths

2022 Ingham County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of Death
Female	19	cocaine, ethanol, fentanyl, fluorofentanyl	Accident
Male	20	fentanyl	Accident
Male	20	cyclobenzaprine, fentanyl	Accident
Female	24	alprazolam, cocaine, diazepam, fentanyl, methamphetamine	Accident
Female	24	cocaine, chlordiazepoxide, cyclobenzaprine, ethanol, fentanyl	Accident
Female	25	fentanyl	Accident
Female	25	diphenhydramine, salicylate	Suicide
Male	26	fentanyl, methamphetamine	Accident
Male	26	bupropion, ethanol	Suicide
Male	27	fentanyl, methamphetamine	Accident
Male	28	cocaine, ethanol, fentanyl	Accident
Male	28	fentanyl, methamphetamine	Accident
Female	28	cocaine, ethanol, fentanyl, fluorofentanyl, methamphetamine	Accident
Male	28	acetylfentanyl, aripiprazole, diphenhydramine, fentanyl, methamphetamine	Accident
Male	30	alprazolam, fentanyl, methamphetamine	Accident
Male	30	alprazolam, fentanyl, xylazine	Accident
Male	30	cocaine, fentanyl, methamphetamine	Accident
Male	30	fentanyl, methamphetamine	Accident
Female	30	fentanyl, methamphetamine	Accident
Male	31	fentanyl, methamphetamine	Accident
Male	31	fentanyl	Accident
Male	32	fentanyl, fluorofentanyl, methamphetamine	Accident

Male	32	ethanol, fentanyl, hydrocodone	Accident
Female	32	cyclobenzaprine, diazepam, ethanol, fentanyl, hydroxyzine, mitragynine	Accident
Male	32	clonazepam, cocaine, fentanyl, mitragynine	Accident
Female	32	cocaine, fentanyl	Accident
Female	33	cocaine, fentanyl	Accident
Male	33	cocaine, fentanyl, mitragynine	Accident
Male	33	fentanyl, fluorofentanyl	Accident
Female	33	acetylfentanyl, alprazolam, ethanol, fentanyl, fluorofentanyl,	Accident
Female	34	alprazolam, diphenhydramine, fentanyl, hydrocodone, methylenedioxymethamphetamine (MDMA), tramadol	Accident
Female	34	cocaine, diphenhydramine, fentanyl, fluorofentanyl, morphine	Accident
Male	34	hydromorphone	Accident
Male	34	fentanyl, hydrocodone	Accident
Male	34	cocaine, ethanol, fentanyl	Accident
Female	34	bupropion, duloxetine, fentanyl, lamotrigine, methamphetamine, metoclopramide, topiramate	Suicide
Male	34	acetylfentanyl, fentanyl, methamphetamine	Accident
Female	35	amphetamine, ethanol	Accident
Female	35	cocaine, fentanyl, heroin, methamphetamine	Accident
Female	35	fentanyl, methamphetamine	Accident
Male	37	fentanyl, methamphetamine	Accident
Male	37	fentanyl	Accident
Male	37	cocaine, fentanyl, fluorofentanyl	Accident
Male	37	cocaine, mitragynine	Accident
Male	37	fentanyl	Accident
Female	37	cocaine, ethanol, fentanyl	Accident
Female	38	alprazolam, hydrocodone, promethazine, quetiapine	Accident
Male	38	hydroxyzine, methadone	Indeterminate
Female	38	fentanyl, methamphetamine	Accident
Female	38	clonazepam, cocaine, fentanyl, fluorofentanyl, xylazine	Accident
Male	39	mitragynine	Accident
Male	39	cocaine, fentanyl	Accident

Male	40	cocaine, ethanol, fentanyl	Accident
Male	40	ethanol, fentanyl	Accident
Male	40	fentanyl	Accident
Male	41	fentanyl, fluorofentanyl, methamphetamine, mitragynine, morphine	Accident
Female	42	cocaine	Accident
Female	42	insulin	Suicide
Male	42	fentanyl, fluorofentanyl	Accident
Male	42	fentanyl, fluorofentanyl, heroin, methamphetamine	Accident
Female	42	fentanyl	Accident
Male	42	cocaine, cyclobenzaprine, fentanyl	Accident
Male	43	fentanyl	Accident
Female	43	cocaine, fentanyl	Accident
Female	43	fentanyl, methamphetamine	Accident
Male	43	ethanol, fentanyl, xylazine	Accident
Female	43	mitragynine, morphine, pregabalin	Accident
Male	43	cocaine, fentanyl	Accident
Female	44	alprazolam, cocaine, diphenhydramine, fentanyl	Accident
Female	44	fentanyl, methamphetamine	Accident
Male	44	fentanyl, fluorofentanyl, methamphetamine	Accident
Female	45	amitriptyline, cocaine, cyclobenzaprine, fentanyl, hydroxyzine, mirtazapine, olanzapine	Accident
Male	45	cocaine	Accident
Female	45	cocaine, methadone	Accident
Male	45	cocaine, fentanyl, fluorofentanyl, methamphetamine	Accident
Male	47	cocaine, fentanyl	Accident
Female	47	clonazepam, gabapentin, hydroxyzine, methadone	Accident
Male	48	ethanol, fentanyl	Accident
Male	48	cocaine, fentanyl	Accident
Male	48	aripiprazole, diphenhydramine, fentanyl, hydroxyzine, meta-chlorophenylpiperazine, mirtazapine, quetiapine, sertraline, trazodone	Accident
Male	48	methamphetamine	Accident

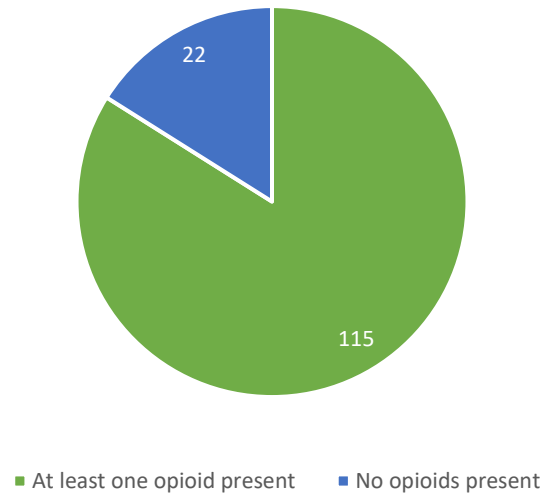
Female	49	cocaine, clonazepam, fentanyl, mirtazapine	Accident
Male	50	cocaine, fentanyl, fluorofentanyl, mitragynine	Accident
Male	50	fentanyl, gabapentin	Accident
Male	51	cocaine, fentanyl, methamphetamine, quetiapine	Accident
Male	51	cocaine, fentanyl, methamphetamine	Accident
Female	51	cocaine, cyclobenzaprine, fentanyl, fluorofentanyl	Accident
Male	51	fentanyl, methamphetamine	Accident
Male	51	ethanol, fentanyl	Accident
Female	52	acetylfentanyl, diazepam, fentanyl	Accident
Male	52	cocaine, methamphetamine	Accident
Male	52	fentanyl, fluorofentanyl	Accident
Female	52	cocaine, diazepam, ethanol, fentanyl	Accident
Male	52	fentanyl, methamphetamine	Accident
Male	52	cocaine, fentanyl	Accident
Male	53	cocaine, ethanol, fentanyl, methamphetamine	Accident
Female	53	fentanyl, fluorofentanyl, methadone	Accident
Female	53	acetaminophen, dextromethorphan, doxylamine, duloxetine, oxycodone, pregabalin	Accident
Male	54	amphetamine, clonazepam, fentanyl, methamphetamine	Accident
Male	54	alprazolam, carisoprodol, diphenhydramine, doxylamine, methamphetamine, zolpidem	Accident
Male	54	cocaine, fentanyl, methamphetamine	Accident
Female	54	fentanyl, methamphetamine	Accident
Male	55	cocaine	Accident
Female	55	cocaine, ethanol, fentanyl	Accident
Male	55	ethanol, fentanyl	Accident
Male	55	fentanyl	Accident
Female	55	cocaine, fentanyl, methamphetamine	Accident
Male	56	cocaine, fentanyl	Accident
Male	56	cocaine, fentanyl	Accident
Male	56	cocaine, fentanyl	Accident
Male	56	cocaine, ethanol, fentanyl	Accident

Female	56	alprazolam, cocaine, ethanol, fentanyl, methadone, morphine	Accident
Female	57	fentanyl, fluorofentanyl	Accident
Male	57	cyclobenzaprine, fentanyl, methamphetamine, morphine	Accident
Male	57	fentanyl	Accident
Male	57	cocaine, fentanyl	Accident
Female	58	fluoxetine, methamphetamine	Accident
Male	58	cocaine, ethanol, fentanyl	Accident
Male	58	acetylfentanyl, fentanyl, fluorofentanyl	Accident
Male	58	ethanol	Accident
Male	58	fentanyl, methamphetamine	Accident
Female	60	cocaine	Accident
Female	60	cocaine, fentanyl	Accident
Male	60	fentanyl, hydrocodone, morphine, orphenadrine	Accident
Male	61	amphetamine, cocaine	Accident
Female	61	methamphetamine	Accident
Female	61	cocaine	Accident
Male	62	fentanyl	Accident
Male	62	cocaine, methamphetamine	Accident
Female	63	cocaine	Accident
Male	66	ethanol, fentanyl	Accident
Male	67	cocaine	Accident
Male	69	fentanyl	Accident
Male	70	cocaine, fentanyl	Accident
Male	71	fentanyl, fluorofentanyl	Accident
Male	73	clonazepam, fentanyl, hydrocodone	Accident
Female	73	alprazolam, amitriptyline, diphenhydramine, doxylamine, ethanol, paroxetine, zolpidem	Suicide

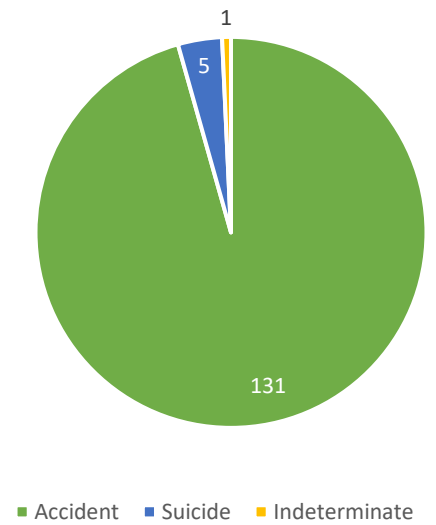
# Ingham County

## Drug-Related Deaths

2022 Ingham County Drug-Related Deaths  
- Opioid vs. Non-opioid



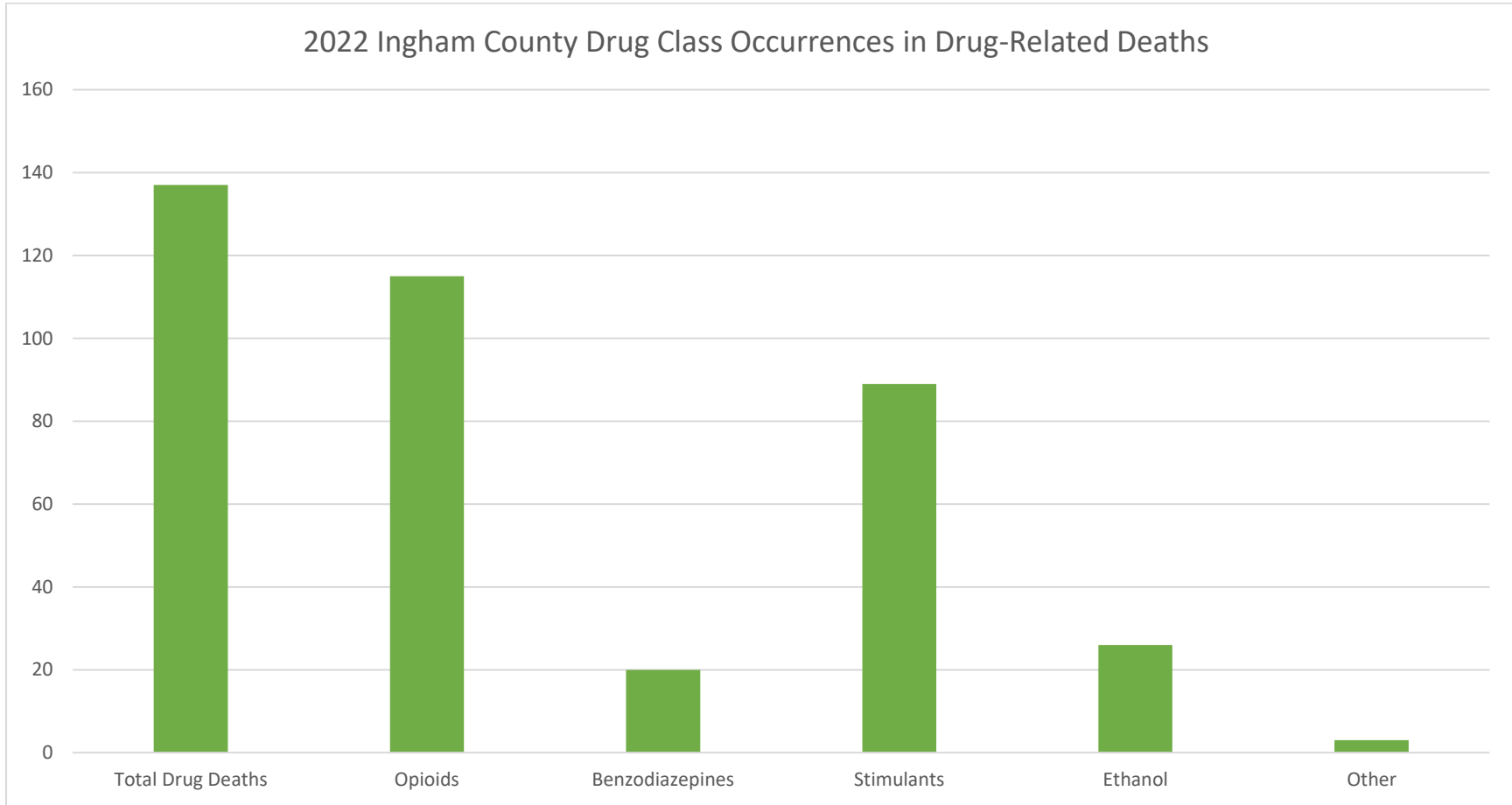
2022 Ingham County Drug-Related Deaths -  
Manner of Death





# Ingham County

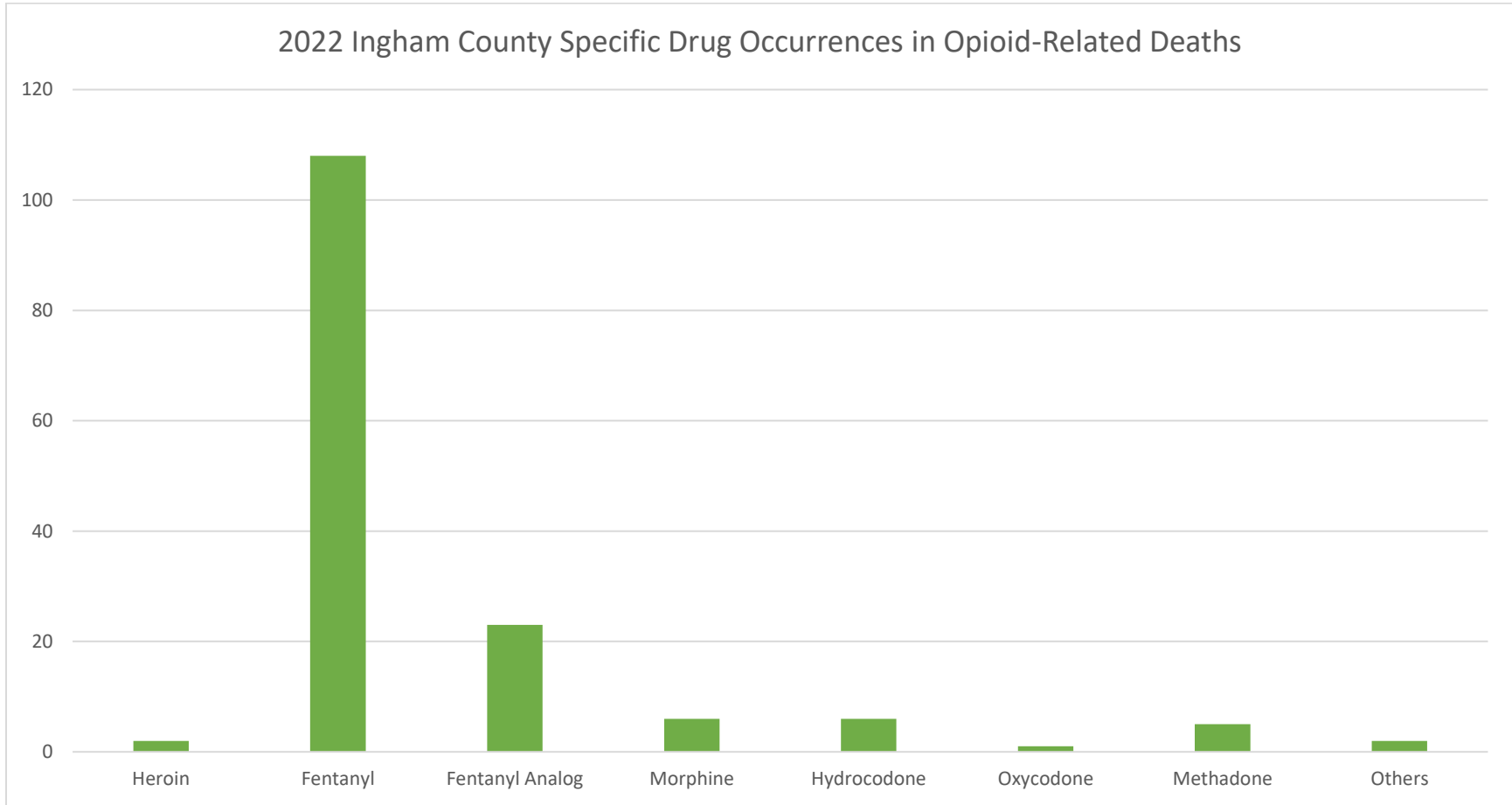
## Drug-Related Deaths



This chart describes occurrences in one death of a given class of drug. As most drug-related deaths are due to two or more substances, the same death may fall into multiple categories (e.g. death due to fentanyl, cocaine, and alprazolam intoxication falls into the opioids, stimulants, and benzodiazepines categories). Multiple of the same class of drug in the same death counts as only one occurrence of that class of drugs (e.g. death due to fentanyl and hydrocodone intoxication – both of these are opioids, so this death falls only in the opioids category, as one occurrence). The “other” category is for occurrences of drug-related deaths due *solely* to drugs which do not fall into the other listed categories.

# Ingham County

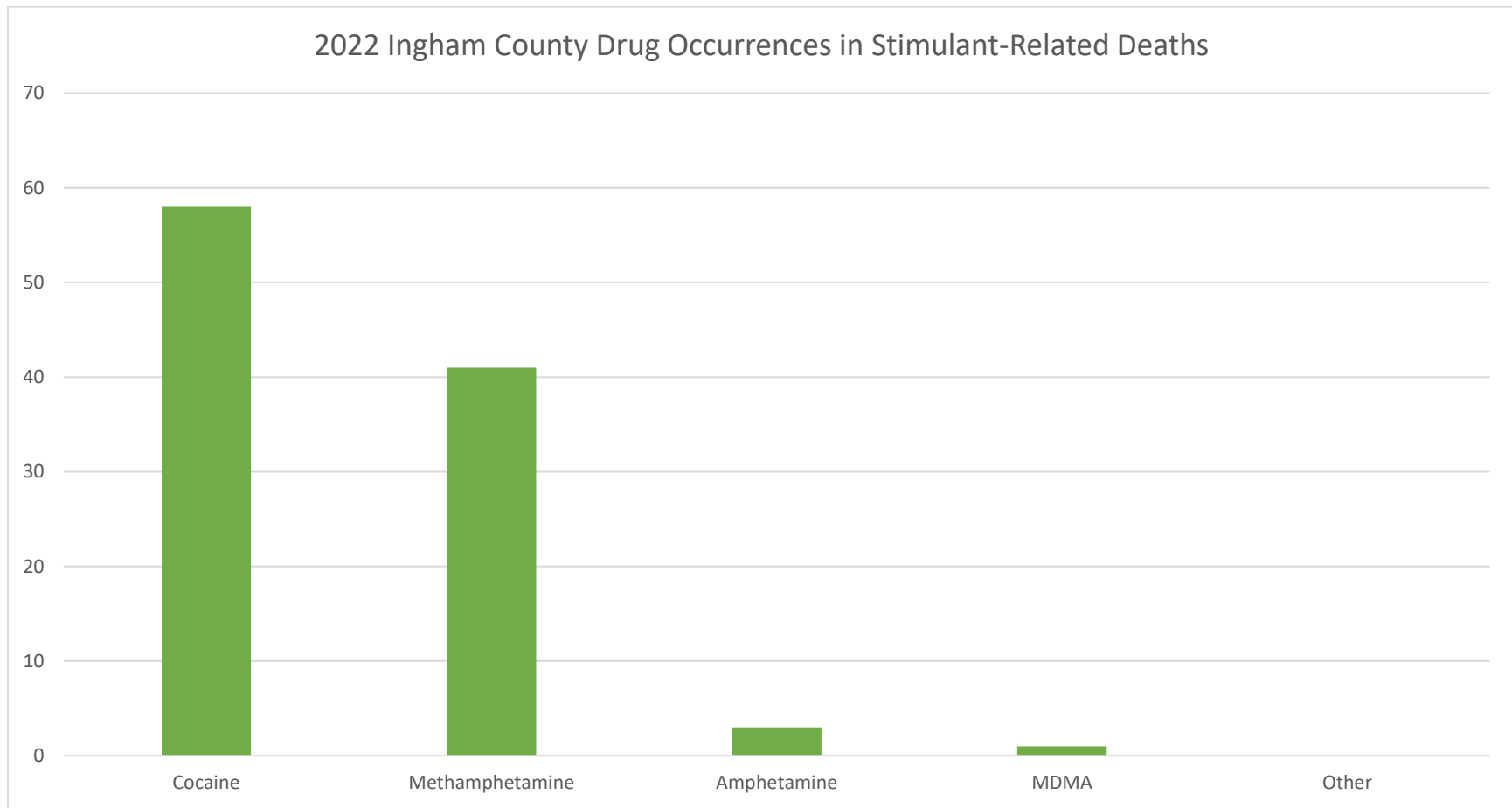
## Drug-Related Deaths



This chart describes occurrences in one death of a specific opioid drug. As some opioid-related deaths are due to two or more opioids, the same death may fall into multiple categories (e.g. death due to fentanyl and heroin intoxication falls into both the fentanyl and heroin categories). The “other” category is for occurrences of other less-frequently observed opioids, including (but not limited to) tramadol, hydromorphone, codeine, buprenorphine, and the opioid-like substance metonitazene.

# Ingham County

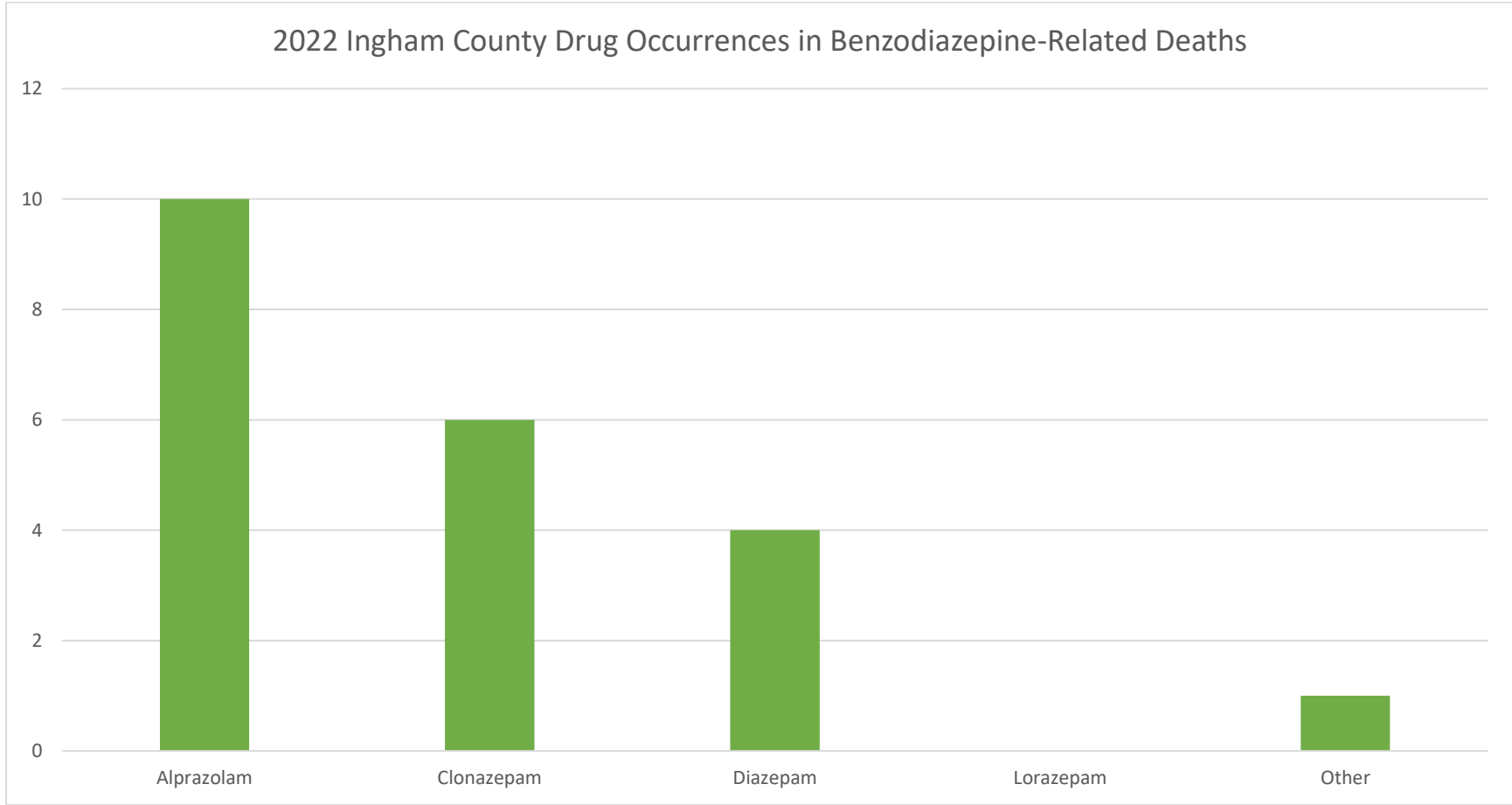
## Drug-Related Deaths



This chart describes occurrences in one death of a specific stimulant drug. As some stimulant drug-related deaths are due to more than one stimulant, the same death may fall into multiple categories (e.g. death due to cocaine and methamphetamine intoxication falls into both categories). The “other” category is for occurrences of other less-frequently observed stimulants, including (but not limited to) pseudoephedrine.

# Ingham County

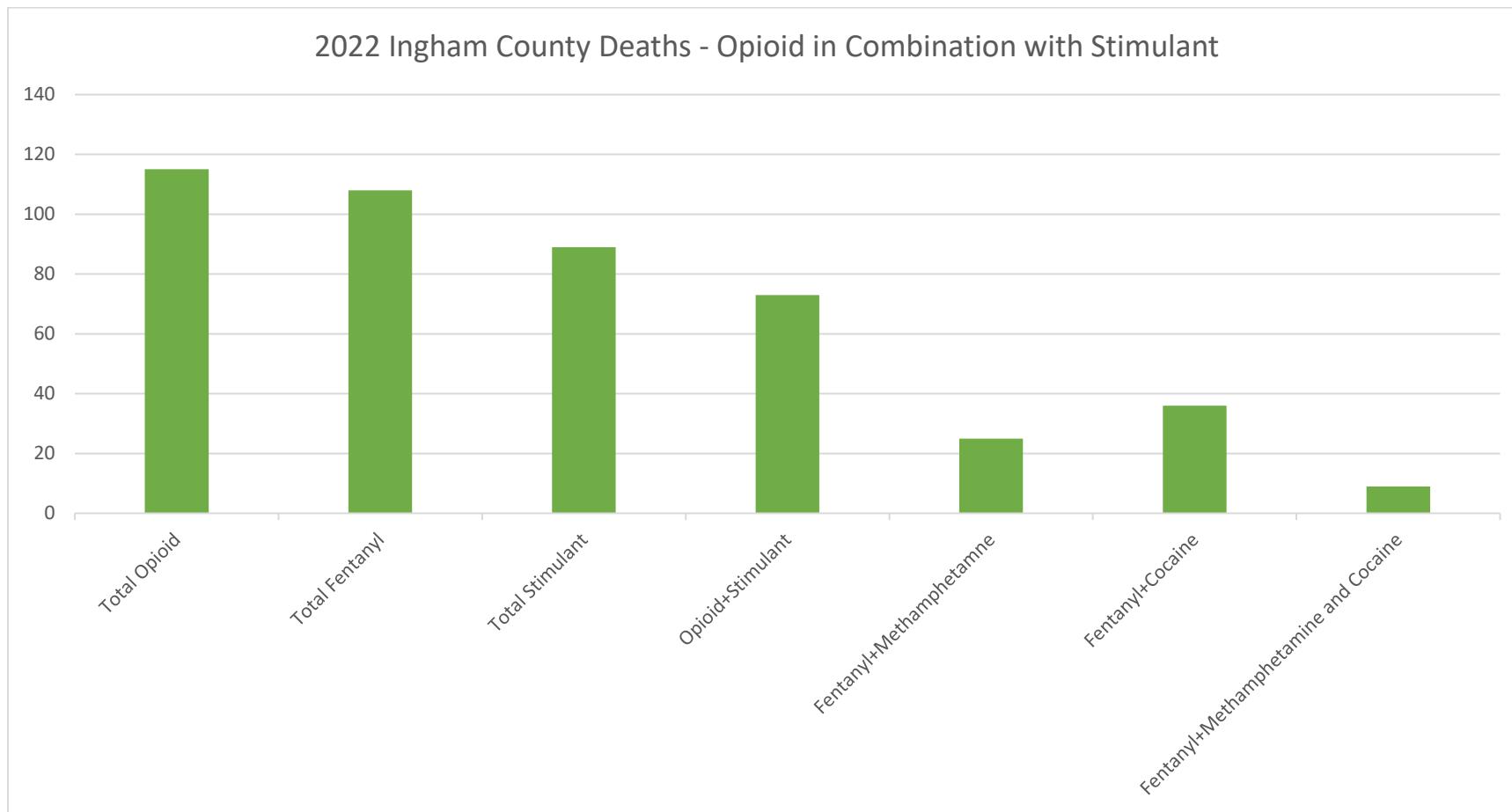
## Drug-Related Deaths



This chart describes occurrences in one death of a specific benzodiazepine drug. As some benzodiazepine drug-related deaths are due to more than one benzodiazepine, the same death may fall into multiple categories (e.g. death due to alprazolam and diazepam intoxication falls into both categories). The “other” category is for occurrences of other less-frequently observed benzodiazepine, including (but not limited to) etizolam, chlordiazepoxide, and flualprazolam).

# Ingham County

## Drug-Related Deaths



This chart describes occurrences in one death of both an opioid and a stimulant drug. In most of the cases fentanyl is the (or at least one of) opioid present. In most of the cases the stimulant is either methamphetamine or cocaine.

# Ionia County

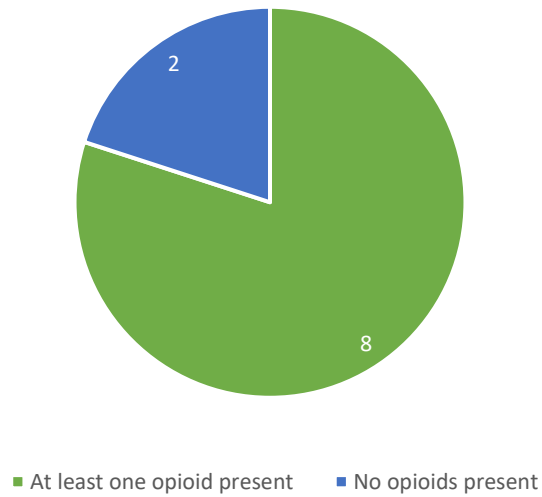
## Drug-Related Deaths

2022 Ionia County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of Death
Male	32	fentanyl, methamphetamine	Accident
Female	34	methamphetamine	Accident
Female	34	alprazolam, cyclobenzaprine, dextromethorphan, hydroxyzine, promethazine, tramadol	Accident
Male	38	fentanyl, methamphetamine, orphenadrine	Accident
Female	40	fentanyl, methamphetamine	Accident
Male	42	fentanyl, mitragynine	Accident
Male	44	methadone	Accident
Male	53	fentanyl, hydrocodone, methamphetamine	Accident
Male	54	nifedipine	Suicide
Male	62	fentanyl, fluorofentanyl	Accident

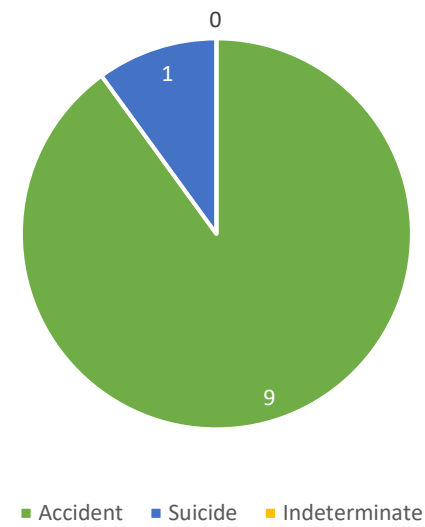
# Ionia County

## Drug-Related Deaths

2022 Ionia County Drug-Related Deaths -  
Opioid vs. Non-opioid

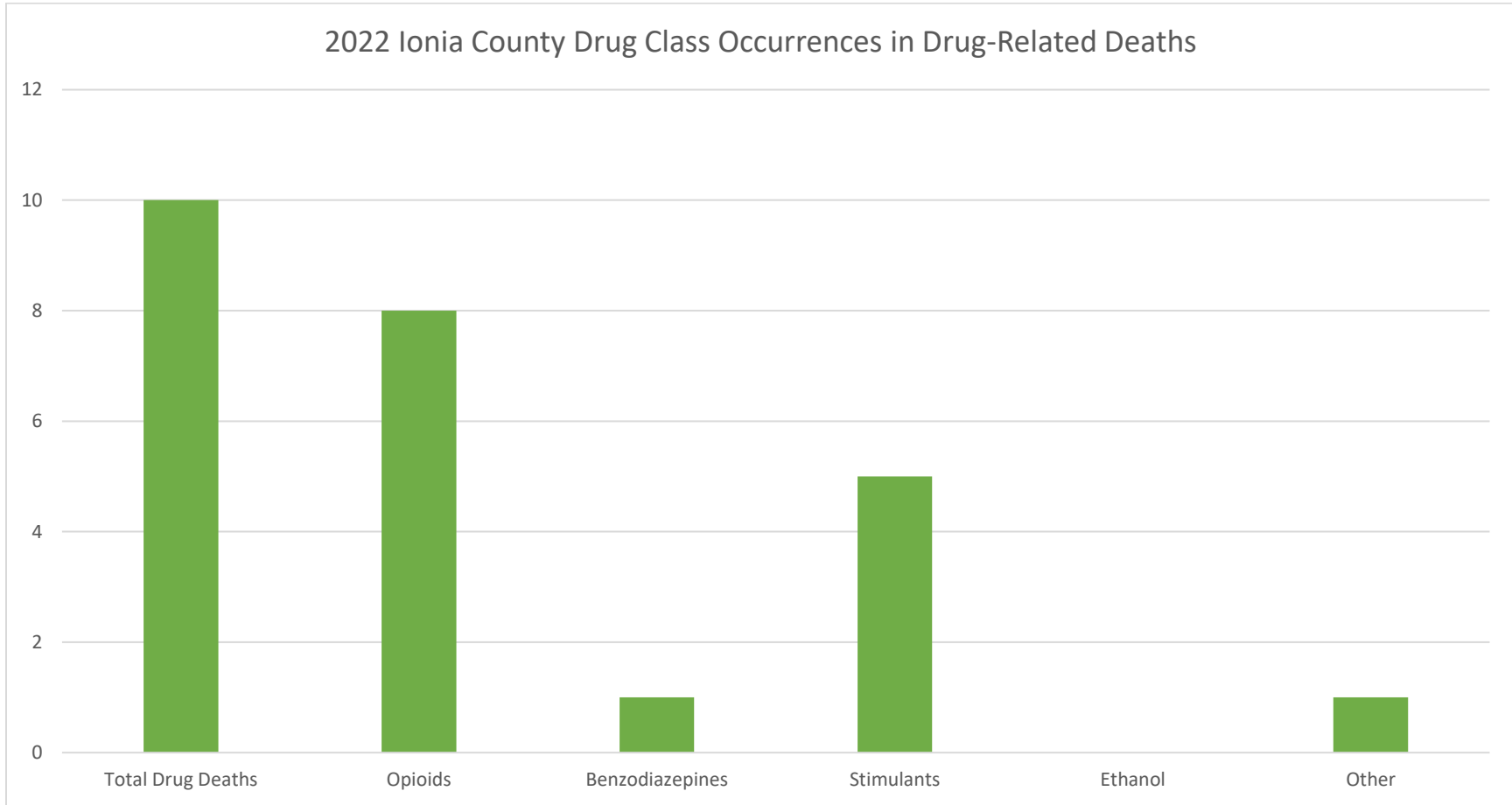


2022 Ionia County Drug-Related Deaths -  
Manner of Death



# Ionia County

## Drug-Related Deaths

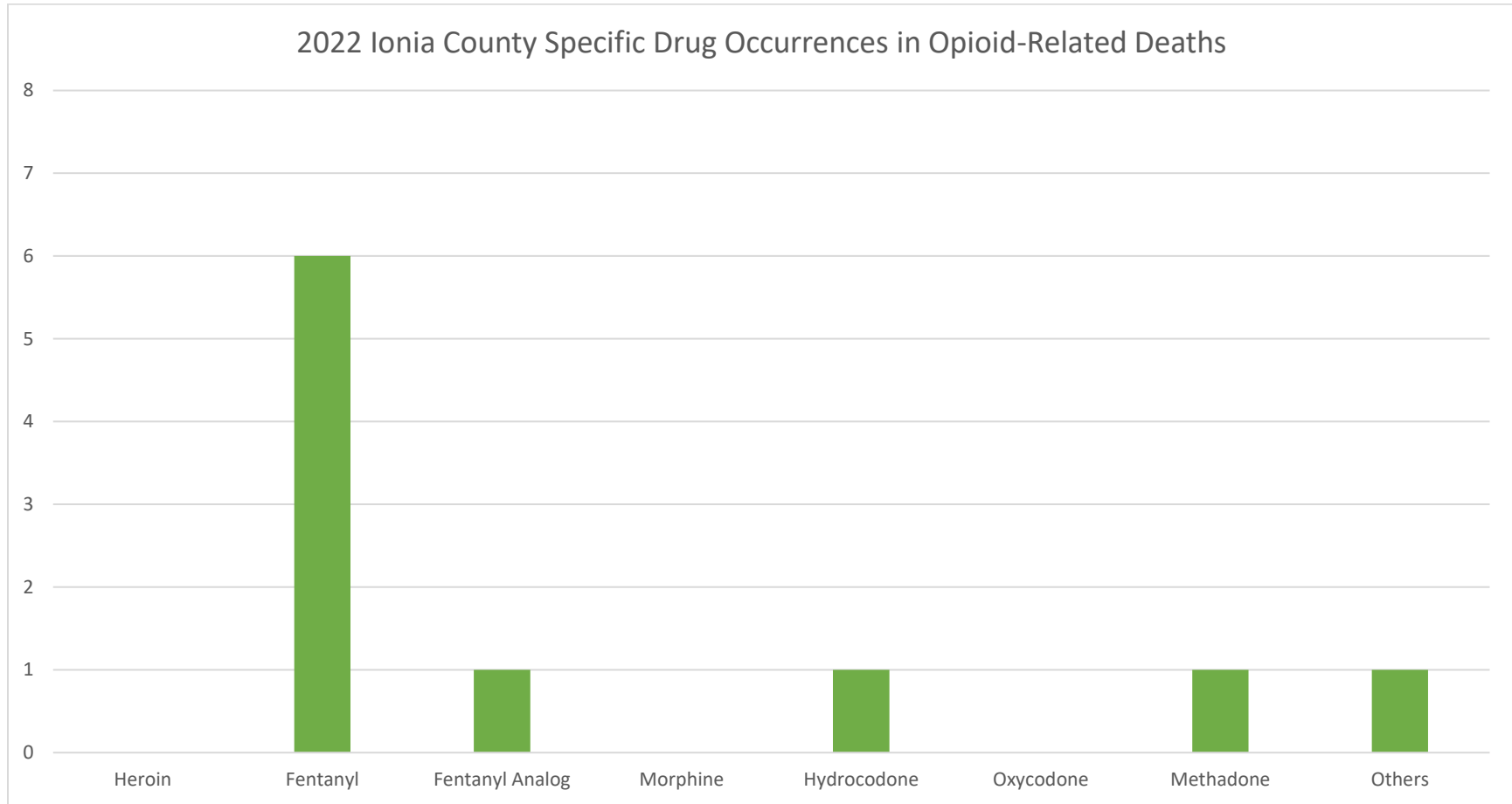


This chart describes occurrences in one death of a given class of drug. As most drug-related deaths are due to two or more substances, the same death may fall into multiple categories (e.g. death due to fentanyl, cocaine, and alprazolam intoxication falls into the opioids, stimulants, and benzodiazepines categories). Multiple of the same class of drug in the same death counts as only one occurrence of that class of drugs (e.g. death due to fentanyl and hydrocodone intoxication – both of these are opioids, so this death falls only in the opioids category, as one occurrence). The “other” category is for occurrences of drug-related deaths due *solely* to drugs which do not fall into the other listed categories.



# Ionia County

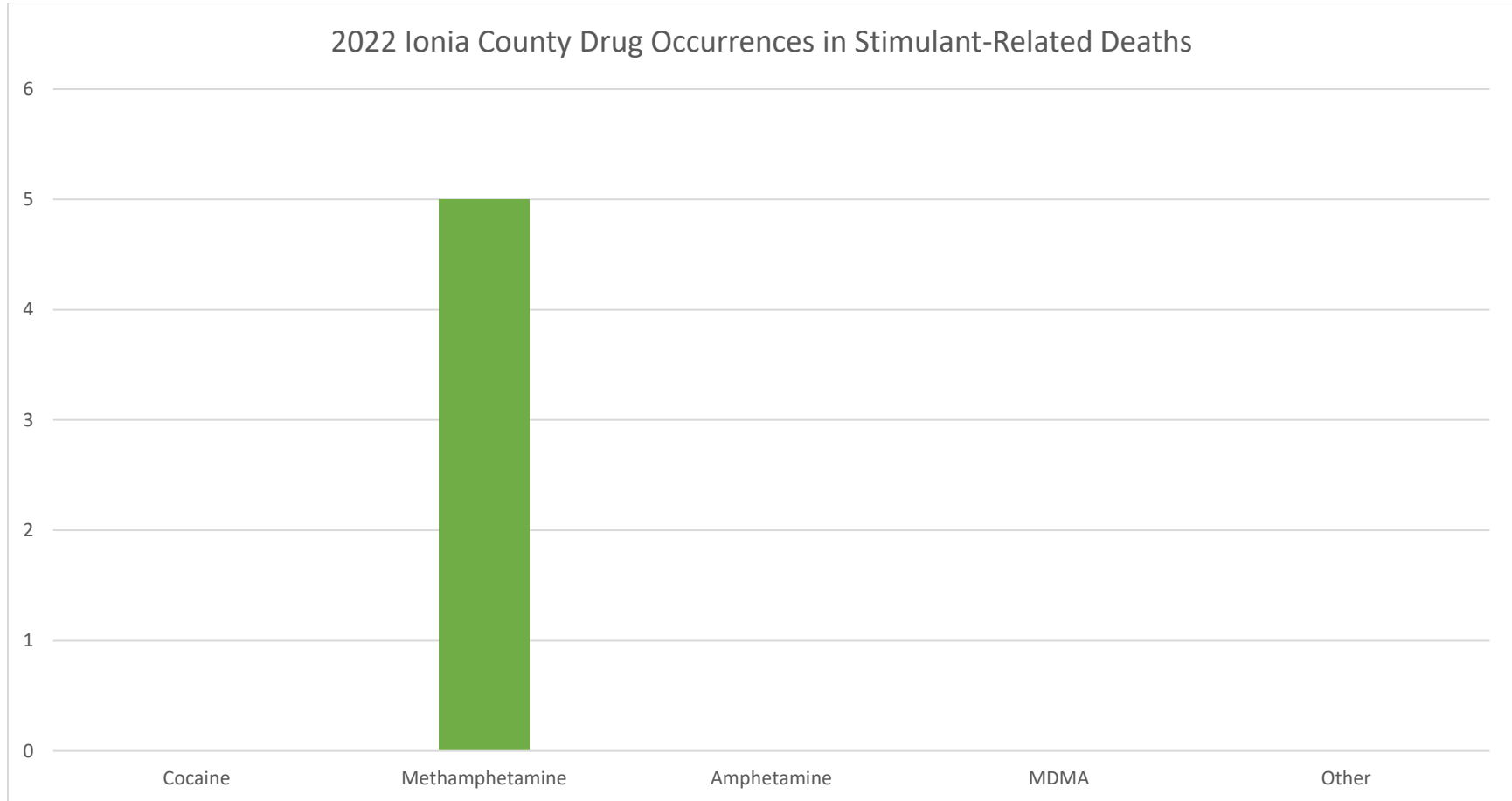
## Drug-Related Deaths



This chart describes occurrences in one death of a specific opioid drug. As some opioid-related deaths are due to two or more opioids, the same death may fall into multiple categories (e.g. death due to fentanyl and heroin intoxication falls into both the fentanyl and heroin categories). The “other” category is for occurrences of other less-frequently observed opioids, including (but not limited to) tramadol, hydromorphone, codeine, buprenorphine, and the opioid-like substance metonitazene.

# Ionia County

## Drug-Related Deaths



This chart describes occurrences in one death of a specific stimulant drug. As some stimulant drug-related deaths are due to more than one stimulant, the same death may fall into multiple categories (e.g. death due to cocaine and methamphetamine intoxication falls into both categories). The “other” category is for occurrences of other less-frequently observed stimulants, including (but not limited to) pseudoephedrine.

# Ionia County

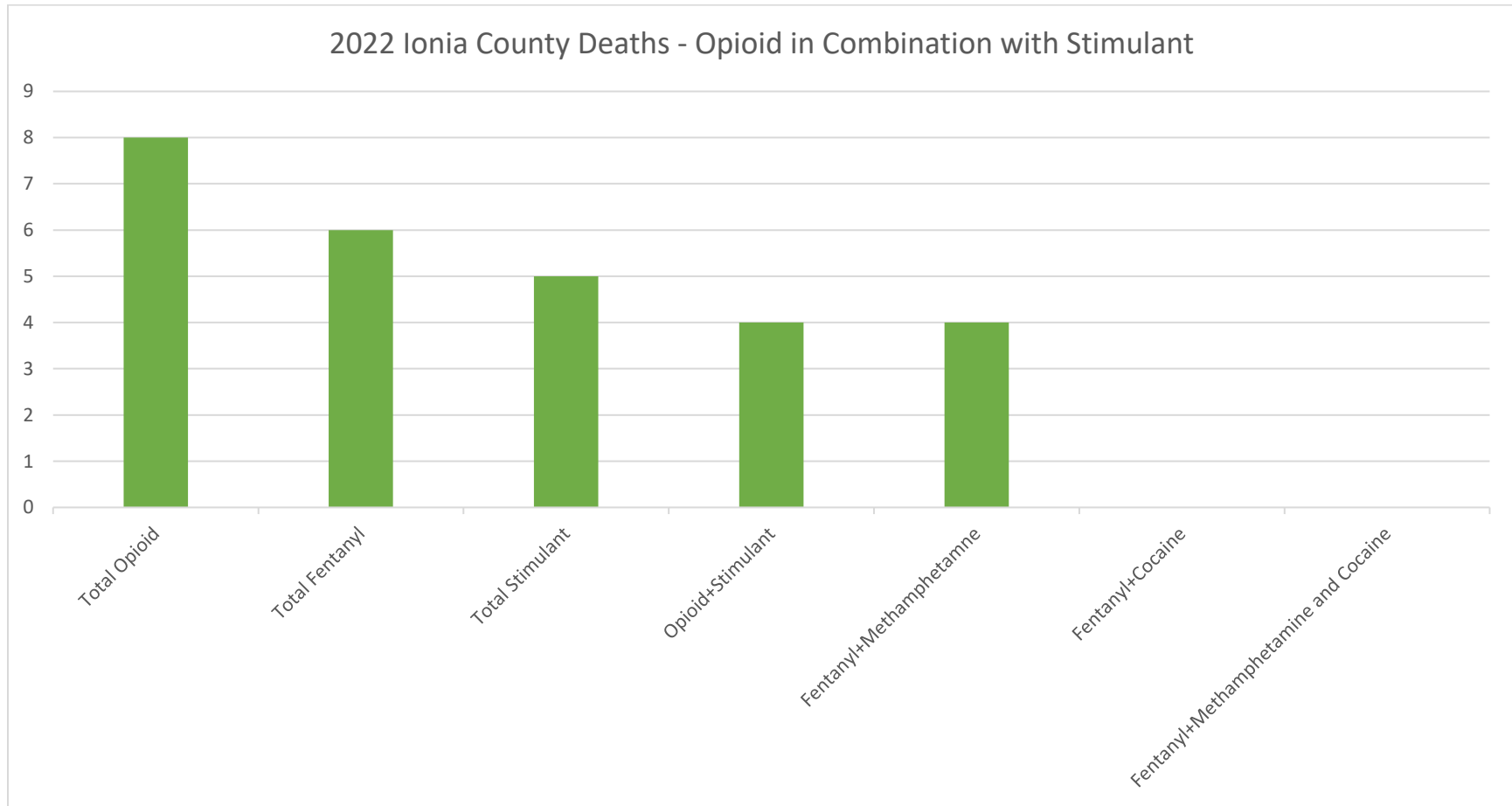
## Drug-Related Deaths



This chart describes occurrences in one death of a specific benzodiazepine drug. As some benzodiazepine drug-related deaths are due to more than one benzodiazepine, the same death may fall into multiple categories (e.g. death due to alprazolam and diazepam intoxication falls into both categories). The “other” category is for occurrences of other less-frequently observed benzodiazepine, including (but not limited to) etizolam, chlordiazepoxide, and flualprazolam).

# Ionia County

## Drug-Related Deaths



This chart describes occurrences in one death of both an opioid and a stimulant drug. In most of the cases fentanyl is the (or at least one of) opioid present. In most of the cases the stimulant is either methamphetamine or cocaine.

# Isabella County

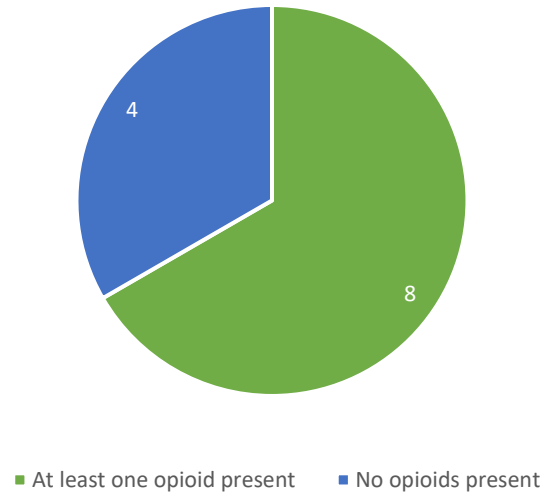
## Drug-Related Deaths

2022 Isabella County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of Death
Female	23	alprazolam, fentanyl	Accident
Female	26	acetylfentanyl, cocaine, fentanyl, gabapentin	Accident
Female	28	fentanyl	Accident
Male	31	fentanyl, fluorofentanyl, methamphetamine	Accident
Male	32	ethanol, fentanyl, fluorofentanyl	Accident
Female	33	methamphetamine	Accident
Male	36	amphetamine, cocaine, dextromethorphan, ethanol	Accident
Female	45	cocaine, fentanyl, fluorofentanyl	Accident
Female	46	bupropion	Suicide
Female	48	fentanyl, methamphetamine	Accident
Female	51	cocaine, fentanyl	Accident
Female	75	duloxetine	Suicide

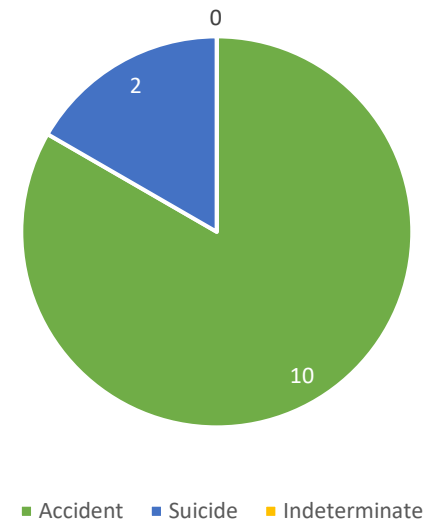
# Isabella County

## Drug-Related Deaths

2022 Isabella County Drug-Related Deaths - Opioid vs. Non-opioid

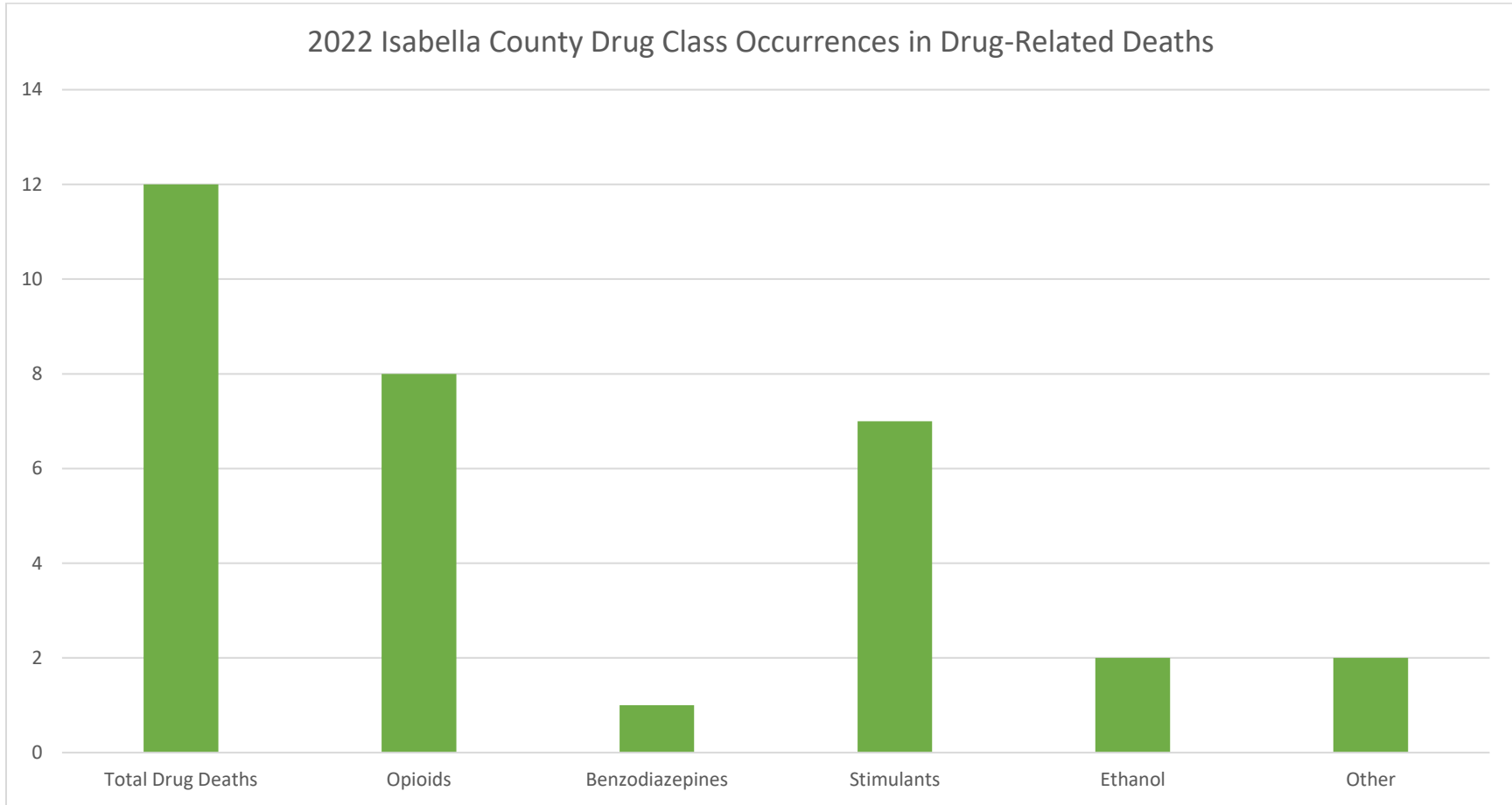


2022 Isabella County Drug-Related Deaths - Manner of Death



# Isabella County

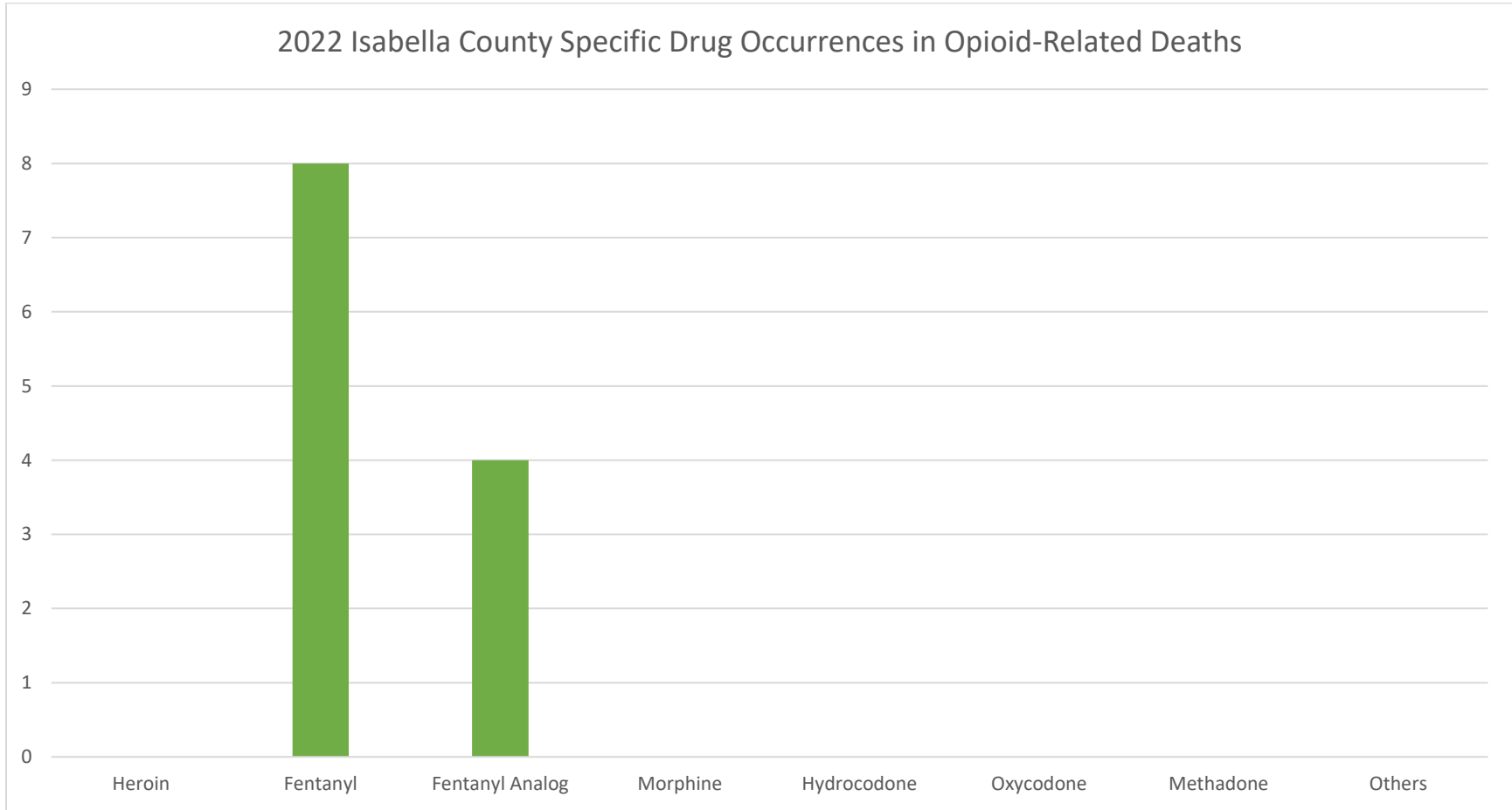
## Drug-Related Deaths



This chart describes occurrences in one death of a given class of drug. As most drug-related deaths are due to two or more substances, the same death may fall into multiple categories (e.g. death due to fentanyl, cocaine, and alprazolam intoxication falls into the opioids, stimulants, and benzodiazepines categories). Multiple of the same class of drug in the same death counts as only one occurrence of that class of drugs (e.g. death due to fentanyl and hydrocodone intoxication – both of these are opioids, so this death falls only in the opioids category, as one occurrence). The “other” category is for occurrences of drug-related deaths due *solely* to drugs which do not fall into the other listed categories.

# Isabella County

## Drug-Related Deaths

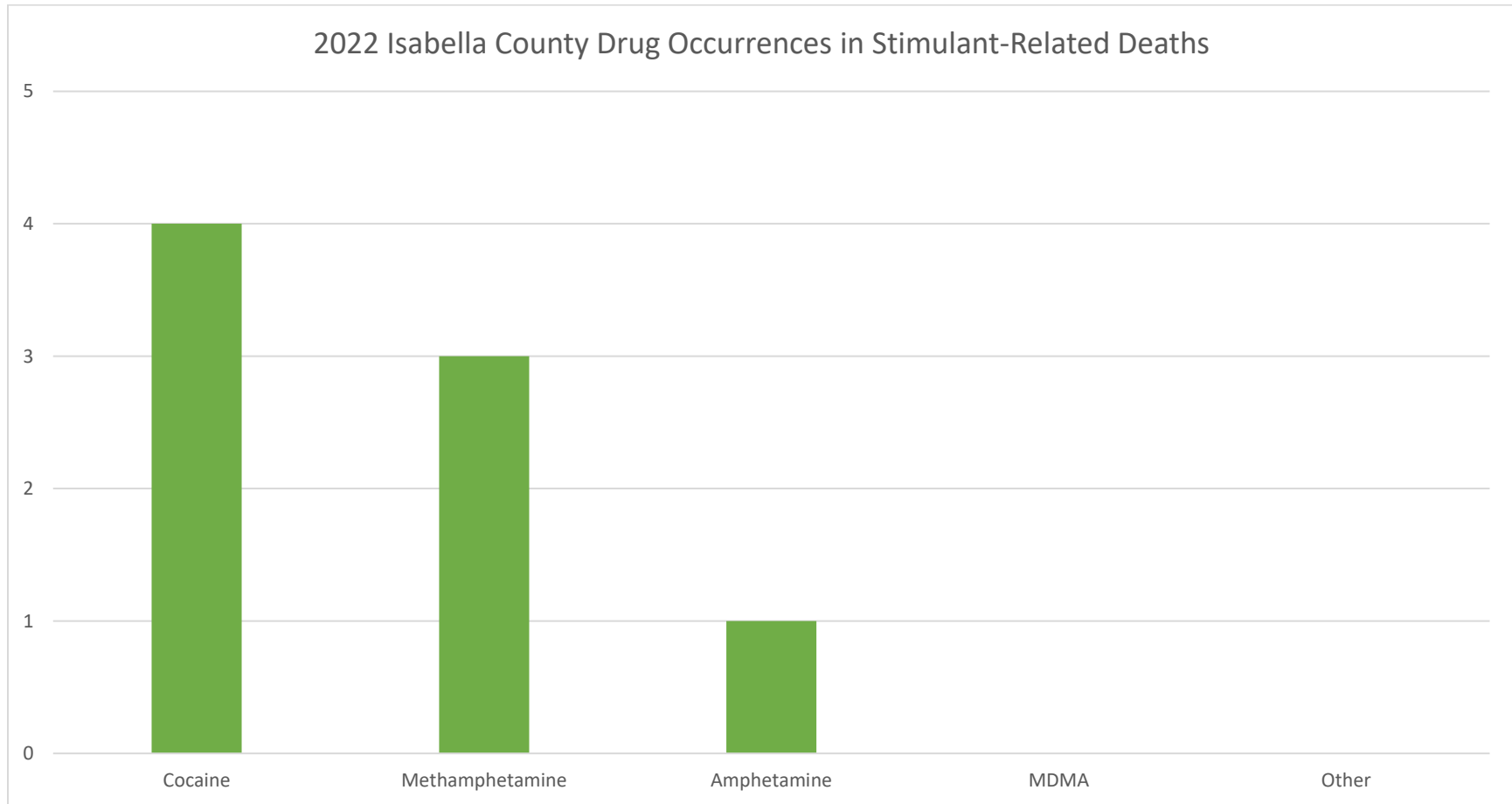


This chart describes occurrences in one death of a specific opioid drug. As some opioid-related deaths are due to two or more opioids, the same death may fall into multiple categories (e.g. death due to fentanyl and heroin intoxication falls into both the fentanyl and heroin categories). The “other” category is for occurrences of other less-frequently observed opioids, including (but not limited to) tramadol, hydromorphone, codeine, buprenorphine, and the opioid-like substance metonitazene.



# Isabella County

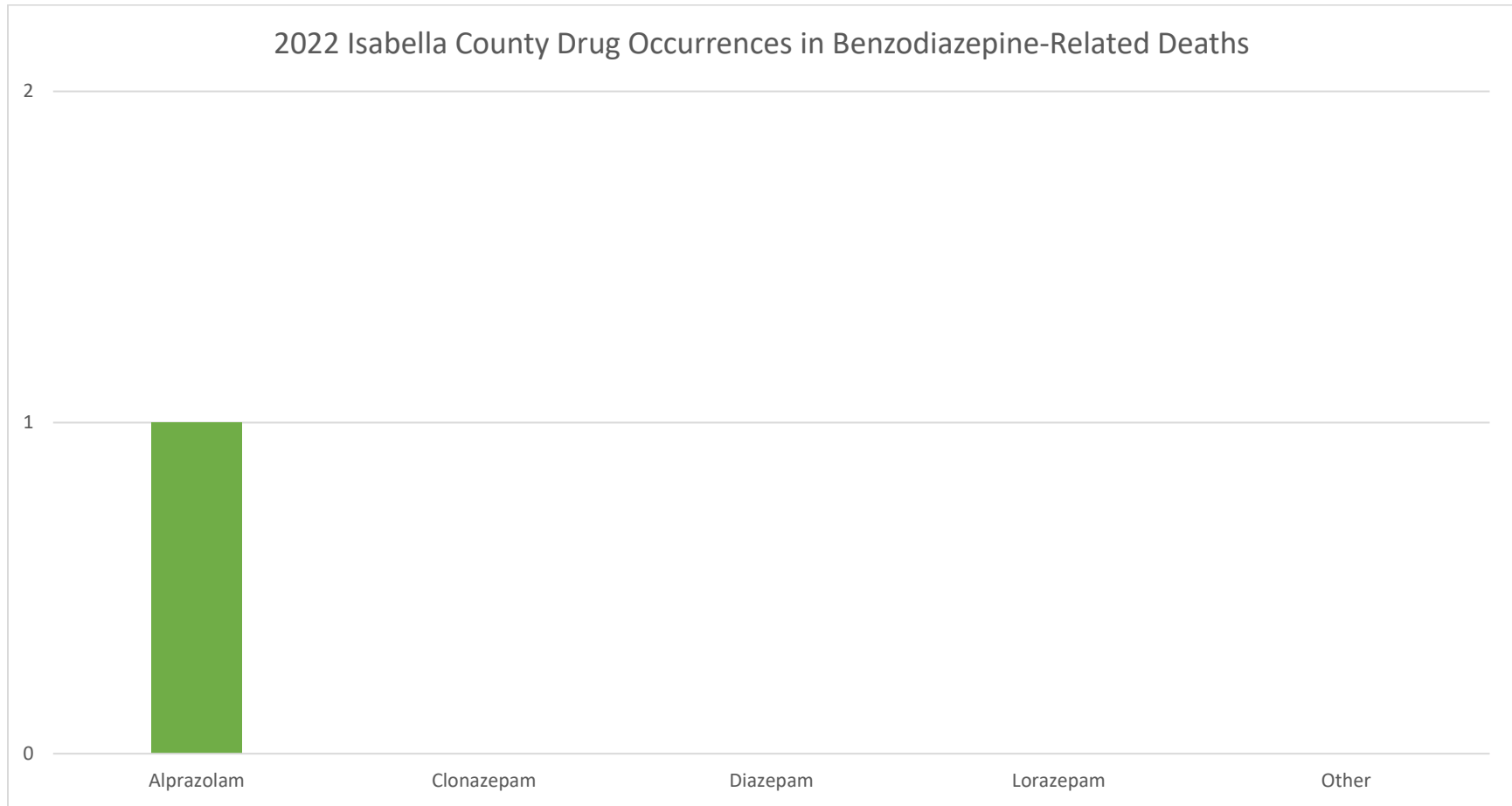
## Drug-Related Deaths



This chart describes occurrences in one death of a specific stimulant drug. As some stimulant drug-related deaths are due to more than one stimulant, the same death may fall into multiple categories (e.g. death due to cocaine and methamphetamine intoxication falls into both categories). The “other” category is for occurrences of other less-frequently observed stimulants, including (but not limited to) pseudoephedrine.

# Isabella County

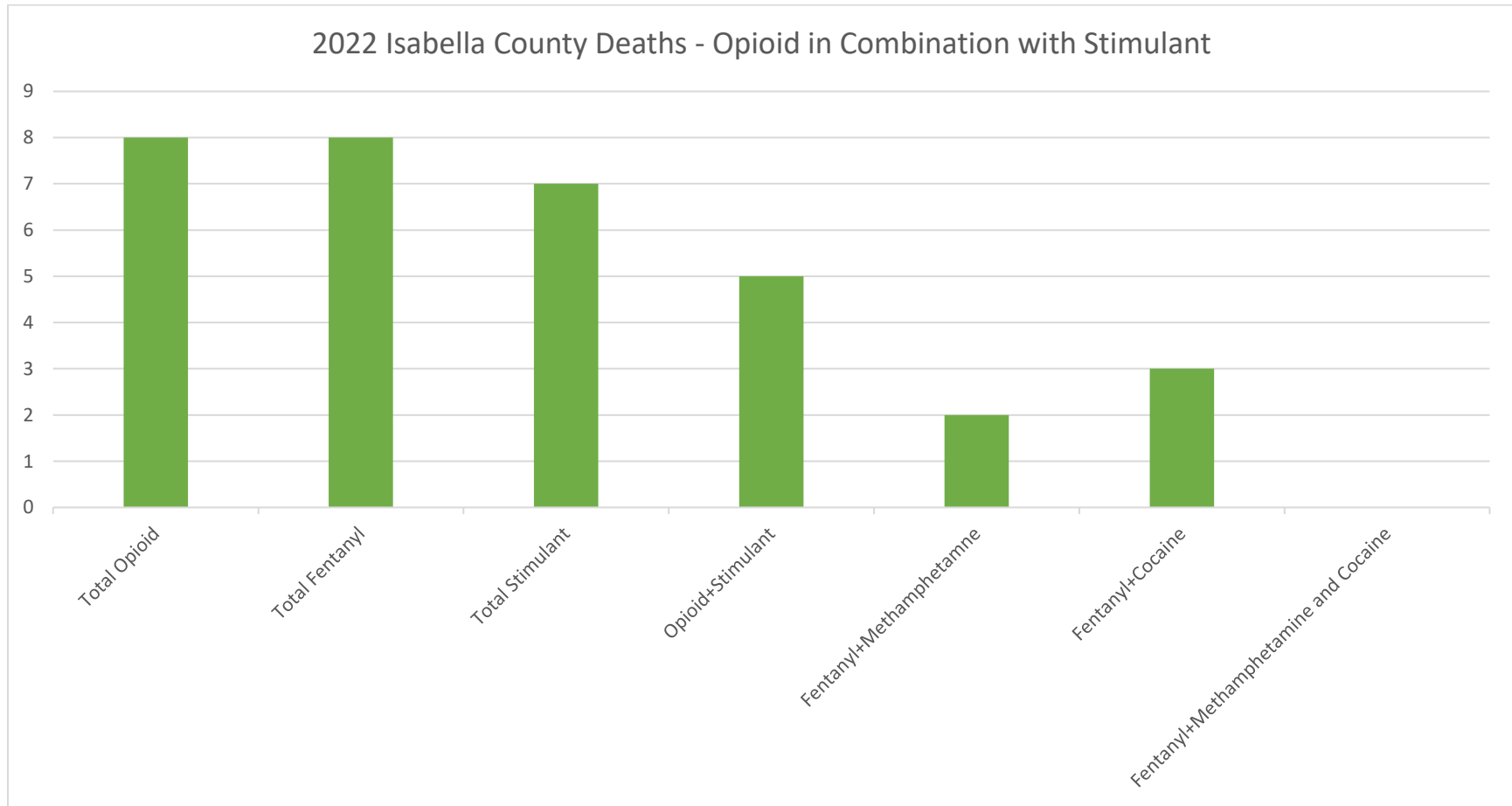
## Drug-Related Deaths



This chart describes occurrences in one death of a specific benzodiazepine drug. As some benzodiazepine drug-related deaths are due to more than one benzodiazepine, the same death may fall into multiple categories (e.g. death due to alprazolam and diazepam intoxication falls into both categories). The “other” category is for occurrences of other less-frequently observed benzodiazepine, including (but not limited to) etizolam, chlordiazepoxide, and flualprazolam).

# Isabella County

## Drug-Related Deaths



This chart describes occurrences in one death of both an opioid and a stimulant drug. In most of the cases fentanyl is the (or at least one of) opioid present. In most of the cases the stimulant is either methamphetamine or cocaine.

# Shiawassee County

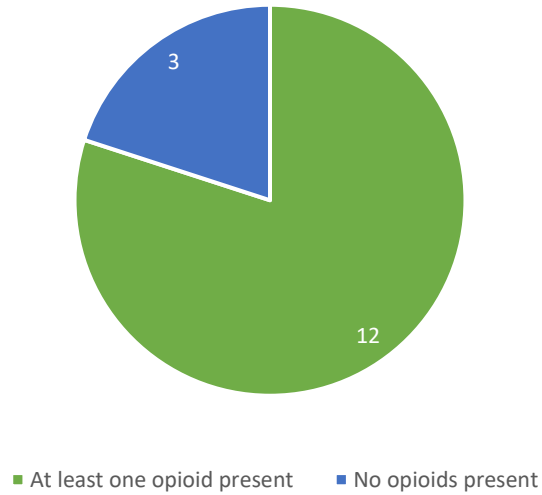
## Drug-Related Deaths

2022 Shiawassee County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of Death
Male	1	fentanyl	Indeterminate
Male	28	fentanyl	Accident
Male	30	fentanyl	Accident
Male	32	insulin	Suicide
Male	32	cocaine, fentanyl, methamphetamine, MDMA	Accident
Male	35	ethanol, methadone	Accident
Male	43	cocaine, dextromethorphan, diphenhydramine, doxylamine, methadone	Accident
Male	44	fentanyl, methamphetamine	Accident
Male	46	cocaine	Accident
Male	50	cocaine, fentanyl	Accident
Male	51	mitragynine	Accident
Female	54	cyclobenzaprine, duloxetine, glipizide, hydrochlorothiazide, pregabalin, tramadol	Suicide
Male	56	cocaine, ethanol, fentanyl	Accident
Male	58	methadone, methamphetamine	Accident
Male	67	diphenhydramine, gabapentin, methadone	Accident

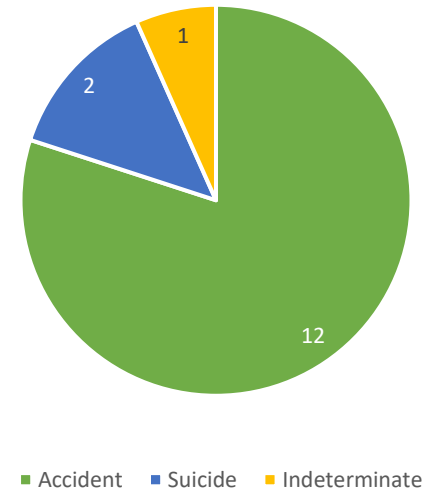
# Shiawassee County

## Drug-Related Deaths

2022 Shiawassee County Drug-Related Deaths - Opioid vs. Non-opioid

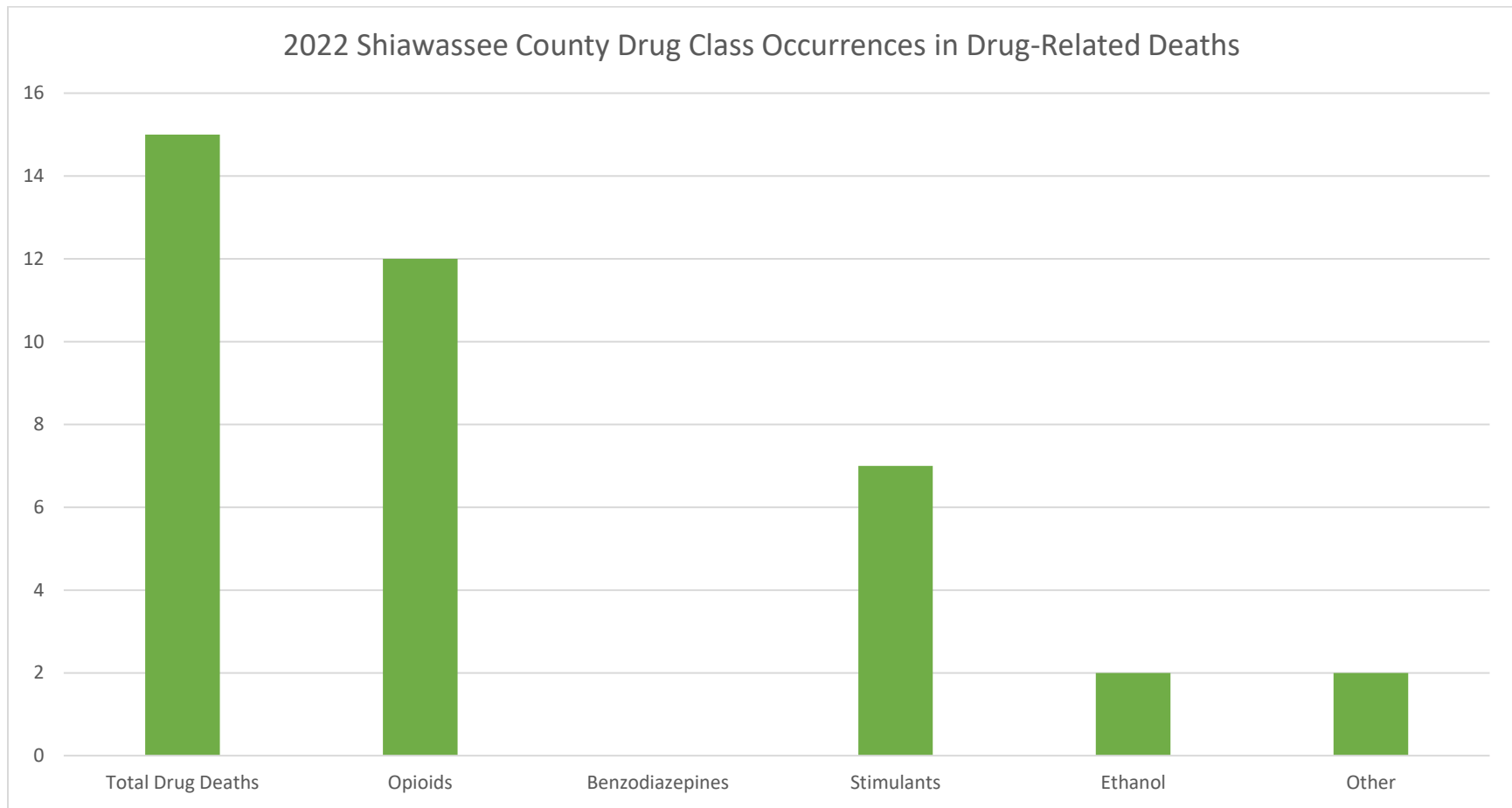


2022 Shiawassee County Drug-Related Deaths - Manner of Death



# Shiawassee County

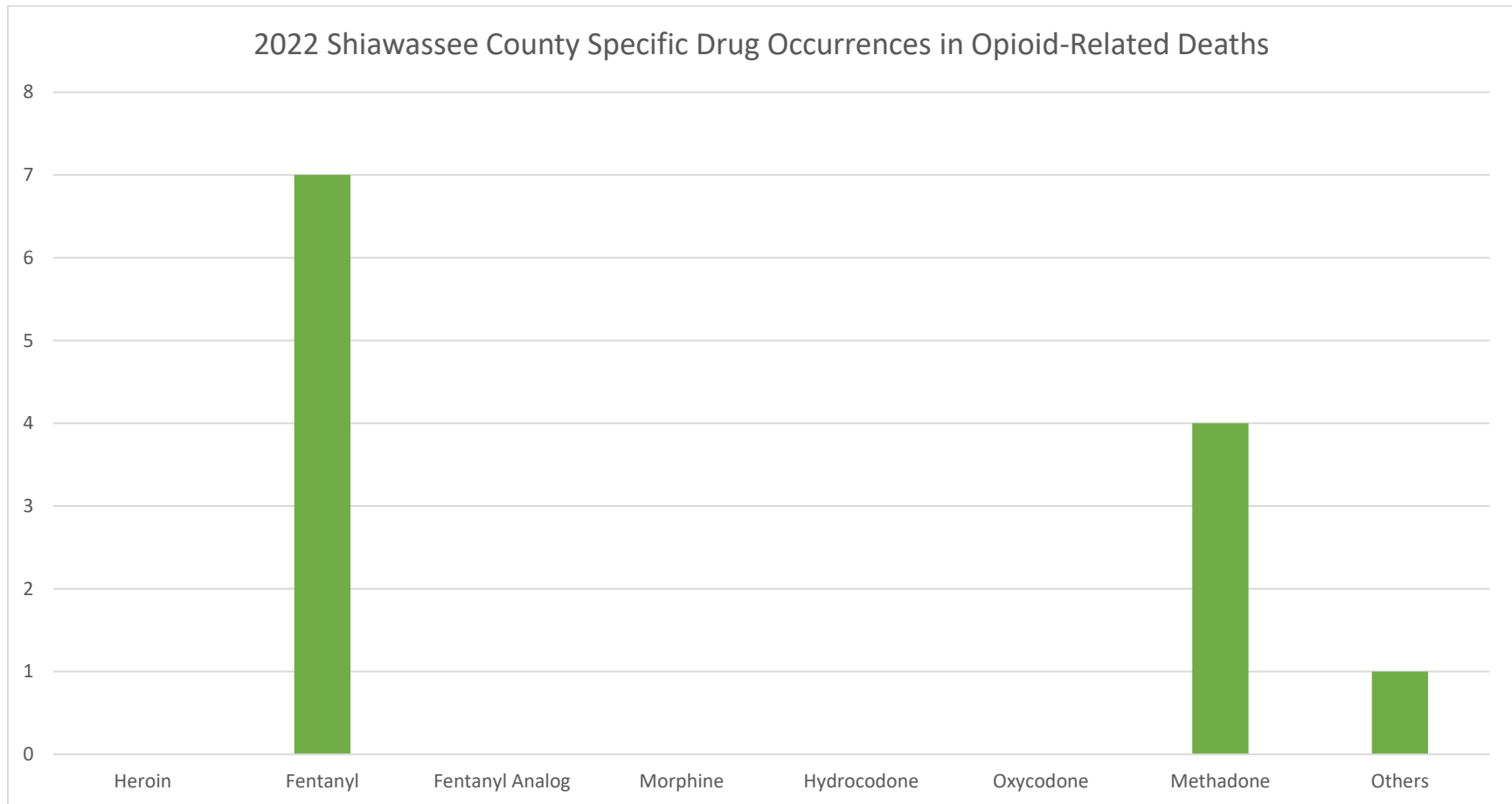
## Drug-Related Deaths



This chart describes occurrences in one death of a given class of drug. As most drug-related deaths are due to two or more substances, the same death may fall into multiple categories (e.g. death due to fentanyl, cocaine, and alprazolam intoxication falls into the opioids, stimulants, and benzodiazepines categories). Multiple of the same class of drug in the same death counts as only one occurrence of that class of drugs (e.g. death due to fentanyl and hydrocodone intoxication – both of these are opioids, so this death falls only in the opioids category, as one occurrence). The “other” category is for occurrences of drug-related deaths due *solely* to drugs which do not fall into the other listed categories.

# Shiawassee County

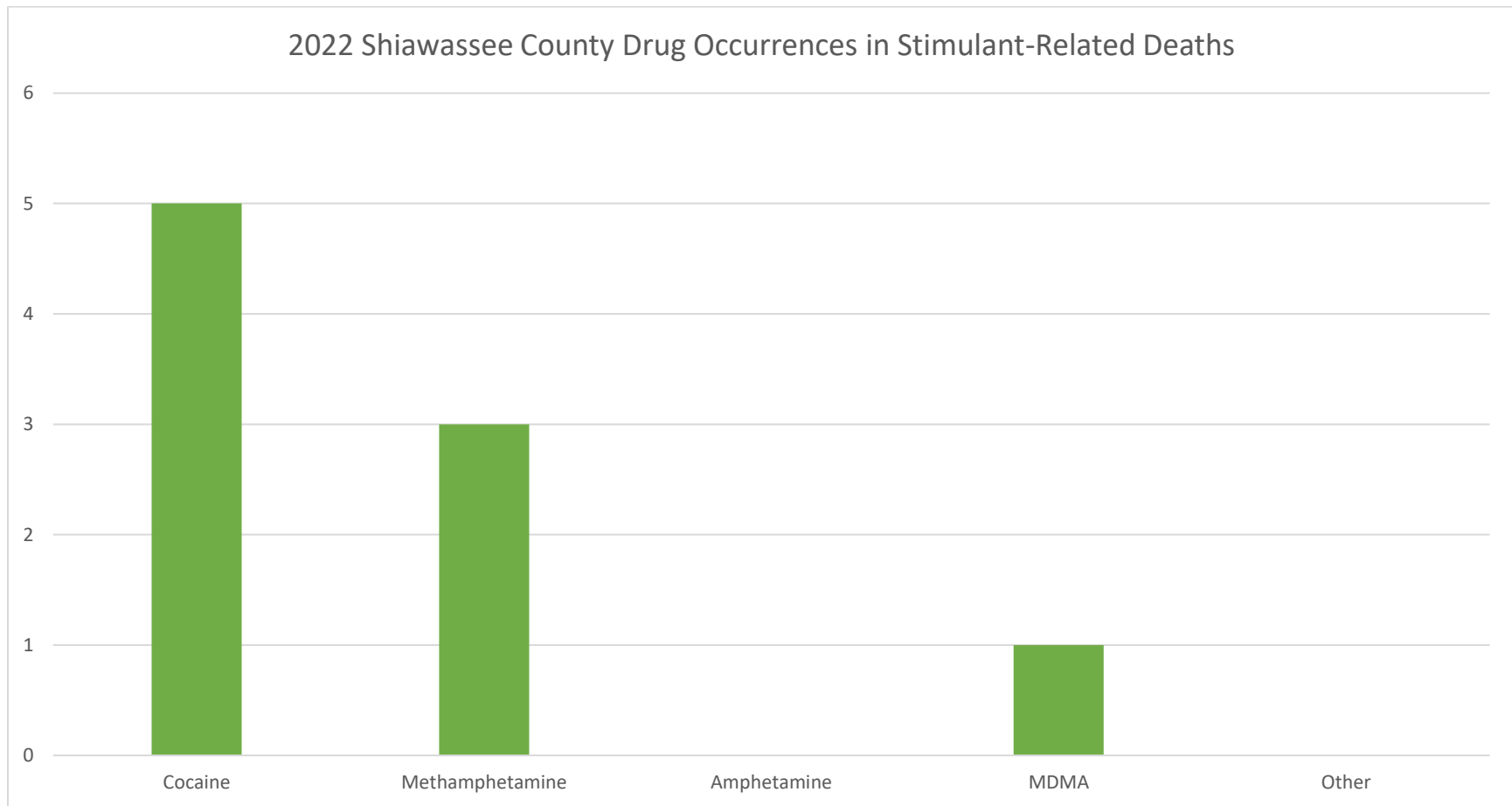
## Drug-Related Deaths



This chart describes occurrences in one death of a specific opioid drug. As some opioid-related deaths are due to two or more opioids, the same death may fall into multiple categories (e.g. death due to fentanyl and heroin intoxication falls into both the fentanyl and heroin categories). The “other” category is for occurrences of other less-frequently observed opioids, including (but not limited to) tramadol, hydromorphone, codeine, buprenorphine, and the opioid-like substance metonitazene.

# Shiawassee County

## Drug-Related Deaths

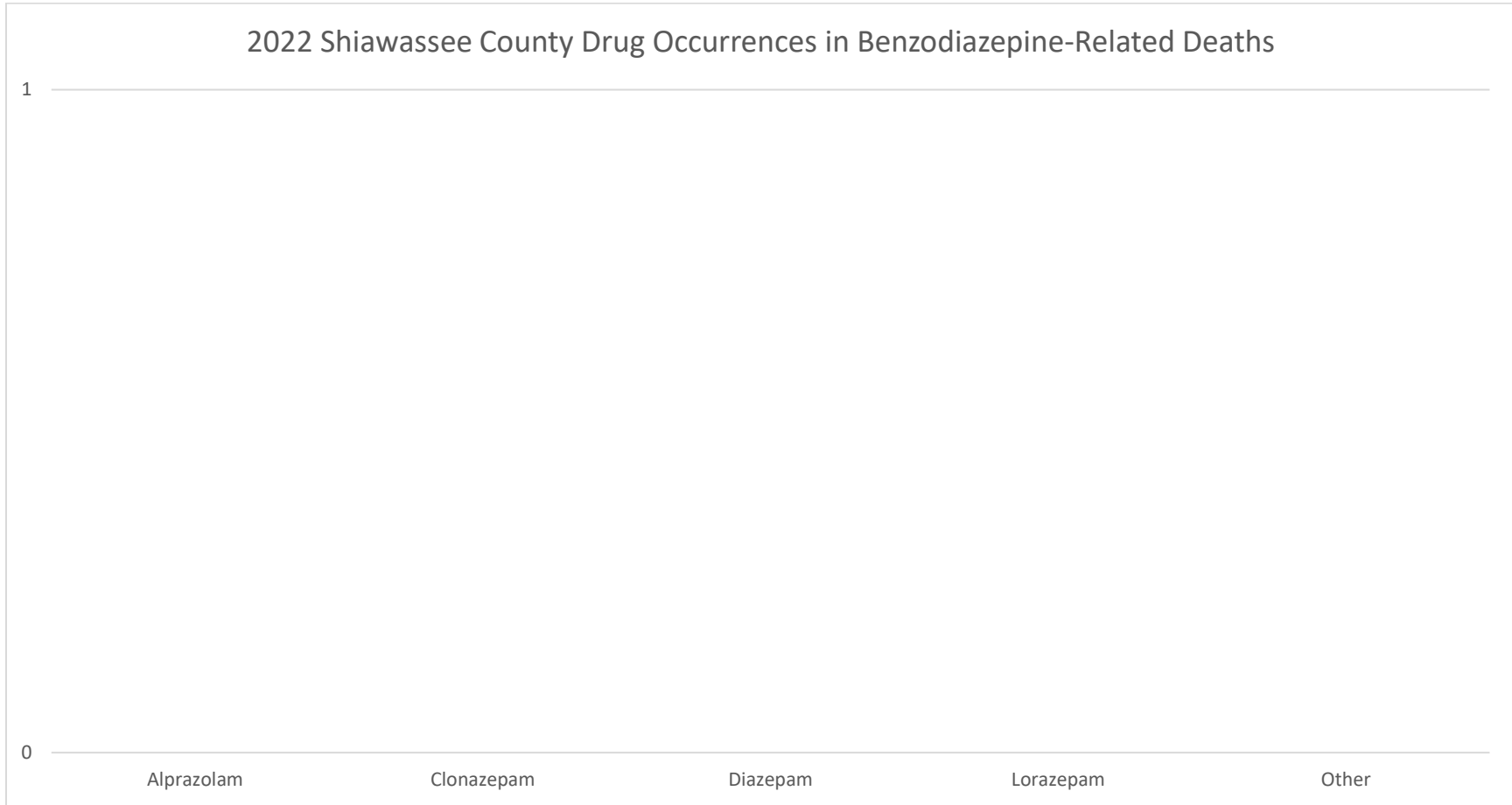


This chart describes occurrences in one death of a specific stimulant drug. As some stimulant drug-related deaths are due to more than one stimulant, the same death may fall into multiple categories (e.g. death due to cocaine and methamphetamine intoxication falls into both categories). The “other” category is for occurrences of other less-frequently observed stimulants, including (but not limited to) pseudoephedrine.



# Shiawassee County

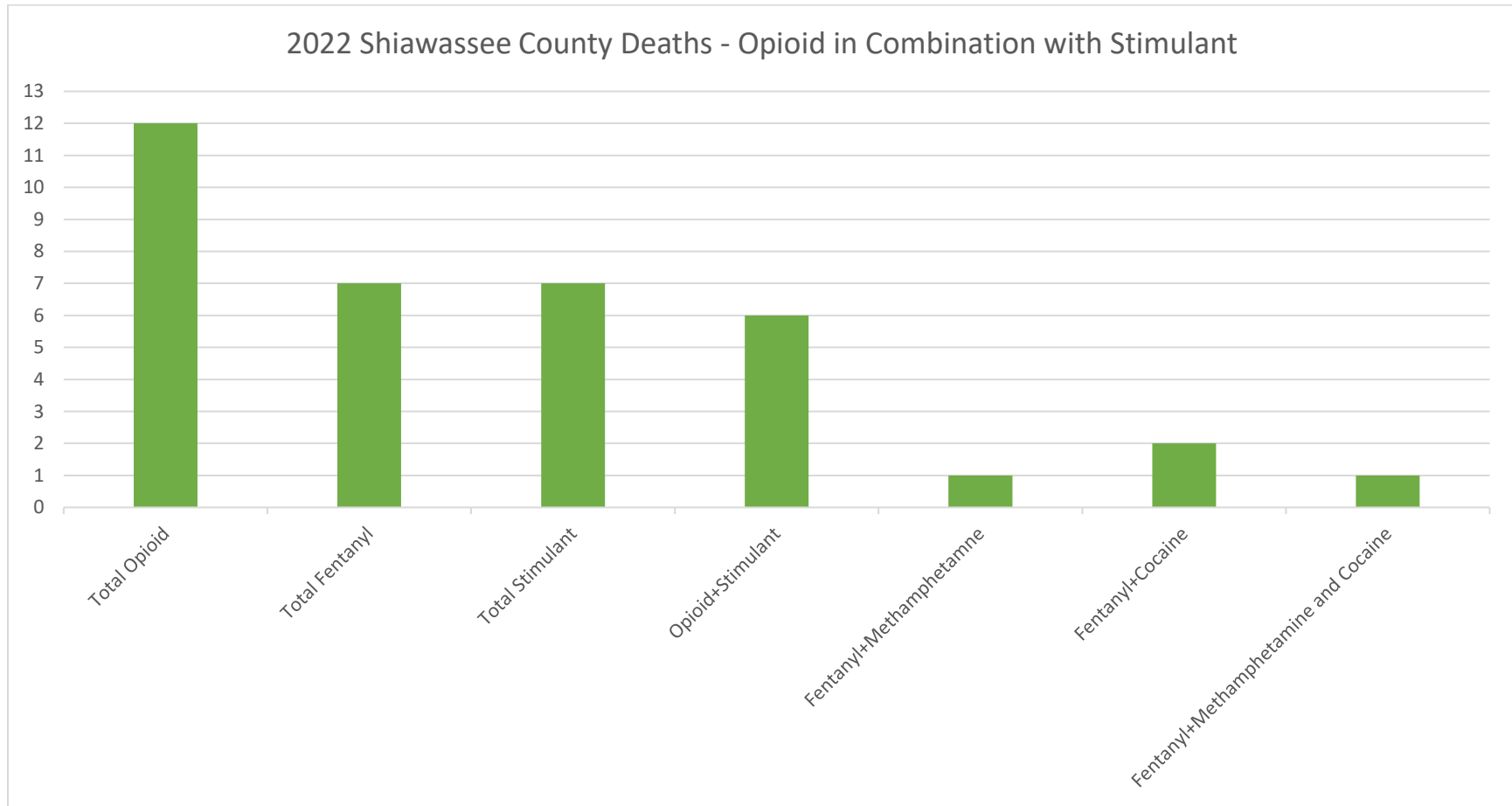
## Drug-Related Deaths



This chart describes occurrences in one death of a specific benzodiazepine drug. As some benzodiazepine drug-related deaths are due to more than one benzodiazepine, the same death may fall into multiple categories (e.g. death due to alprazolam and diazepam intoxication falls into both categories). The “other” category is for occurrences of other less-frequently observed benzodiazepine, including (but not limited to) etizolam, chlordiazepoxide, and flualprazolam).

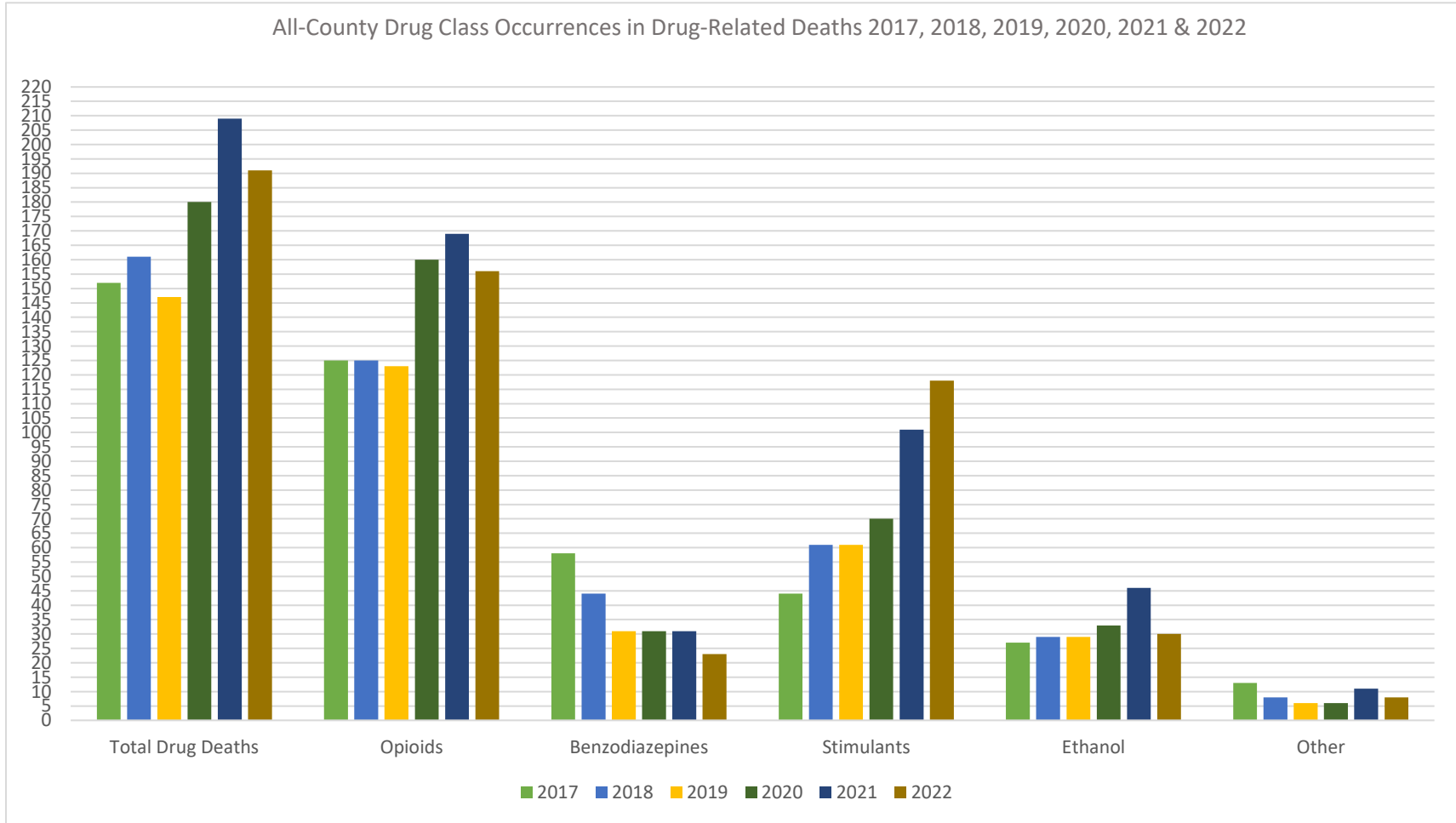
# Shiawassee County

## Drug-Related Deaths



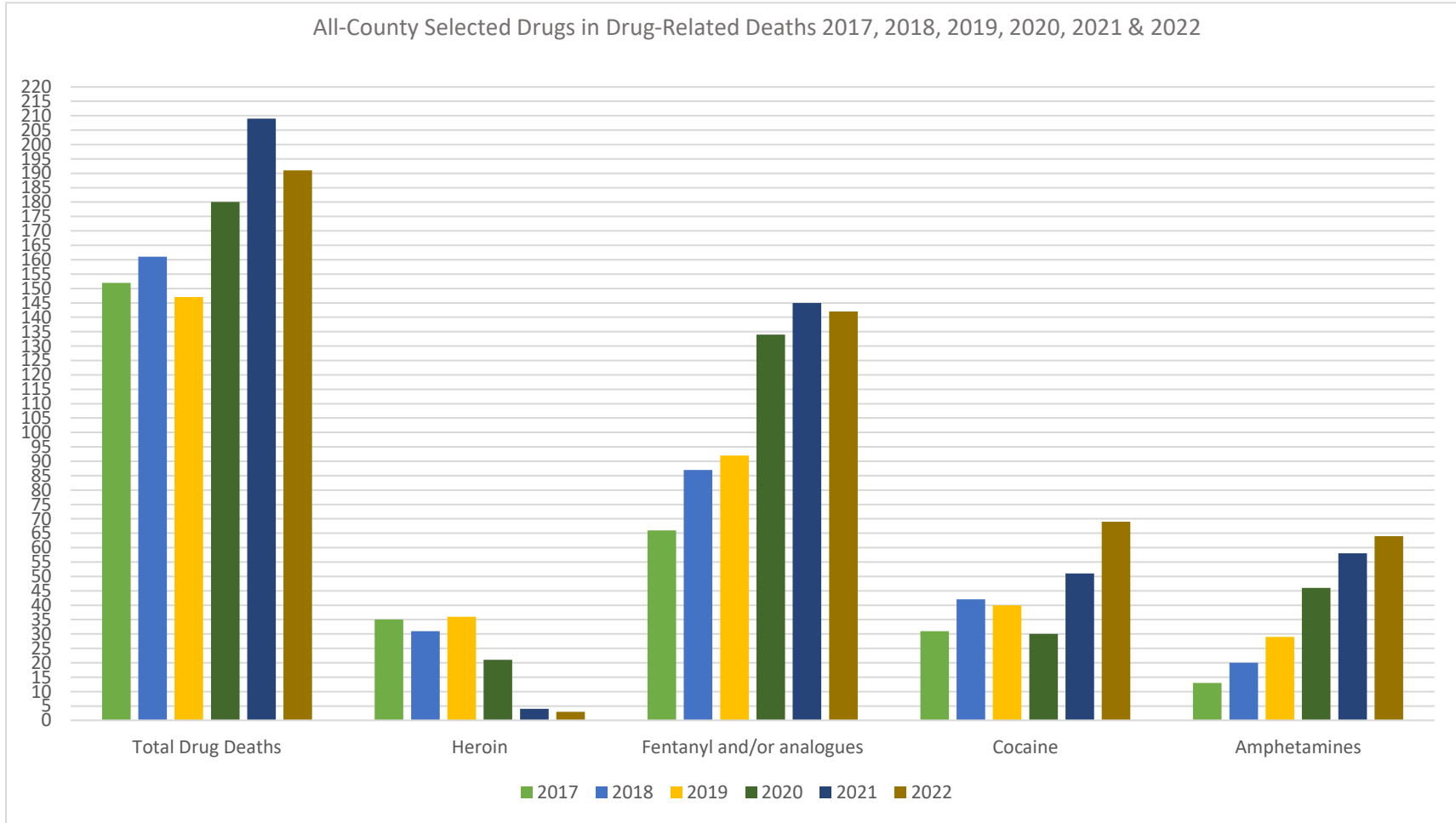
This chart describes occurrences in one death of both an opioid and a stimulant drug. In most of the cases fentanyl is the (or at least one of) opioid present. In most of the cases the stimulant is either methamphetamine or cocaine.

# Historical Data



This chart describes occurrences in one death of a given class of drug. As most drug-related deaths are due to two or more substances, the same death may fall into multiple categories (e.g. death due to fentanyl, cocaine, and alprazolam intoxication falls into the opioids, stimulants, and benzodiazepines categories). Multiple of the same class of drug in the same death counts as only one occurrence of that class of drugs (e.g. death due to fentanyl and hydrocodone intoxication – both of these are opioids, so this death falls only in the opioids category, as one occurrence). The “other” category is for occurrences of drug-related deaths due *solely* to drugs which do not fall into the other listed categories.

# Historical Data



This chart describes occurrences in one death of a given drug. As most drug-related deaths are due to two or more substances, the same death may fall into multiple categories (e.g. death due to fentanyl and cocaine intoxication falls into both categories above).