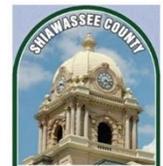




Department of Forensic Pathology
Office of the Medical Examiner

2021 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. lung disease complicated by opioid 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.¹

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.

¹ If you have questions about what drugs we are currently capable of detecting, please visit www.axisfortox.com or email michelle.fox@sparrow.org

Highlights - 2021

Unless otherwise noted, all comparisons here are made to the data from 2020. 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 **increased** by 17% (32 more)
- Opioid-related deaths **increased** by 6% (9 more)
- Heroin-related² deaths **decreased** by 81% (17 less)
- Fentanyl-related deaths **increased** by 8% (1 more)
- Stimulant-related deaths **increased** by 44% (31 more)
- Cocaine-related deaths **increased** by 70% (21 more)
- Amphetamine/Methamphetamine-related³ deaths **increased** by 32% (15 more)
- Ethanol (alcohol)-related deaths **increased** by 39% (13 more)

- 71% of all drug-related deaths were due to two or more substances
- 81% of all drug-related deaths involved at least one opioid
- 48% of all drug-related deaths involved at least one stimulant drug; 10% involved only a stimulant drug or drugs
- 76% of all stimulant-related deaths also involved at least one opioid
- 22% of all drug-related deaths involved ethanol (alcohol)
- 15% of all drug-related death involved at least one benzodiazepine

- Only 8% of drug related deaths (16 of 209) did not involve at least one opioid or one stimulant drug
- 26% of opioid-related deaths involved only an opioid or opioids
- 46% of opioid-related deaths also involved at least one stimulant drug (most cocaine or methamphetamine)
- 23% of opioid-related deaths also involved ethanol (alcohol)
- 18% of opioid-related deaths also involved at least one benzodiazepine
- Special note – in 45 drug related deaths (22%) the fentanyl analogue para-flourofentanyl (pFF) was presumptively detected
 - In all 45 cases fentanyl was also detected indicating likely use of a drug substance containing both compounds

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

³ 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

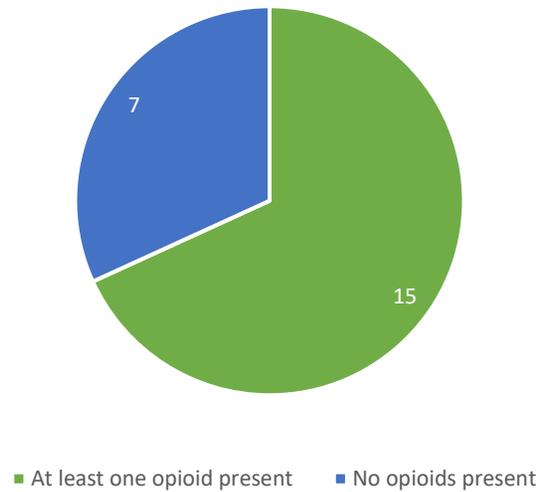
Drug-Related Deaths

2021 Eaton County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of Death
Male	20	diphenhydramine, ethanol	Suicide
Female	26	fentanyl	Accident
Male	29	ethanol, diazepam, mitragynine, methadone	Accident
Male	31	fentanyl	Accident
Female	32	fentanyl, methamphetamine	Accident
Male	34	methamphetamine	Accident
Female	37	fentanyl, morphine	Accident
Male	38	alprazolam, oxycodone	Accident
Male	42	ethanol, fentanyl, heroin	Accident
Female	43	cocaine, cyclobenzaprine	Accident
Female	45	cocaine	Accident
Male	46	MDMA, cocaine	Accident
Female	47	ethanol, fentanyl, methamphetamine	Accident
Male	47	cocaine, ethanol, fentanyl	Accident
Male	50	amphetamine	Accident
Male	51	alprazolam, ethanol, fentanyl	Accident
Male	56	fentanyl, methamphetamine	Accident
Male	57	cocaine, ethanol, fentanyl	Accident
Male	57	fentanyl, methamphetamine	Accident
Female	58	fentanyl, methadone	Accident
Male	58	acetylfentanyl, alprazolam, cocaine, fentanyl	Accident
Female	65	cocaine	Accident

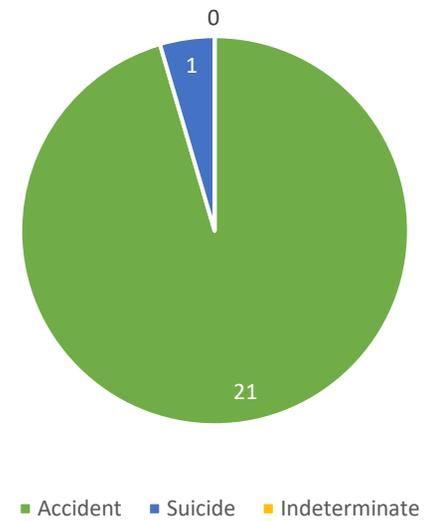
Eaton County

Drug-Related Deaths

2021 Eaton County Drug-Related Deaths -
Opioid vs. Non-opioid

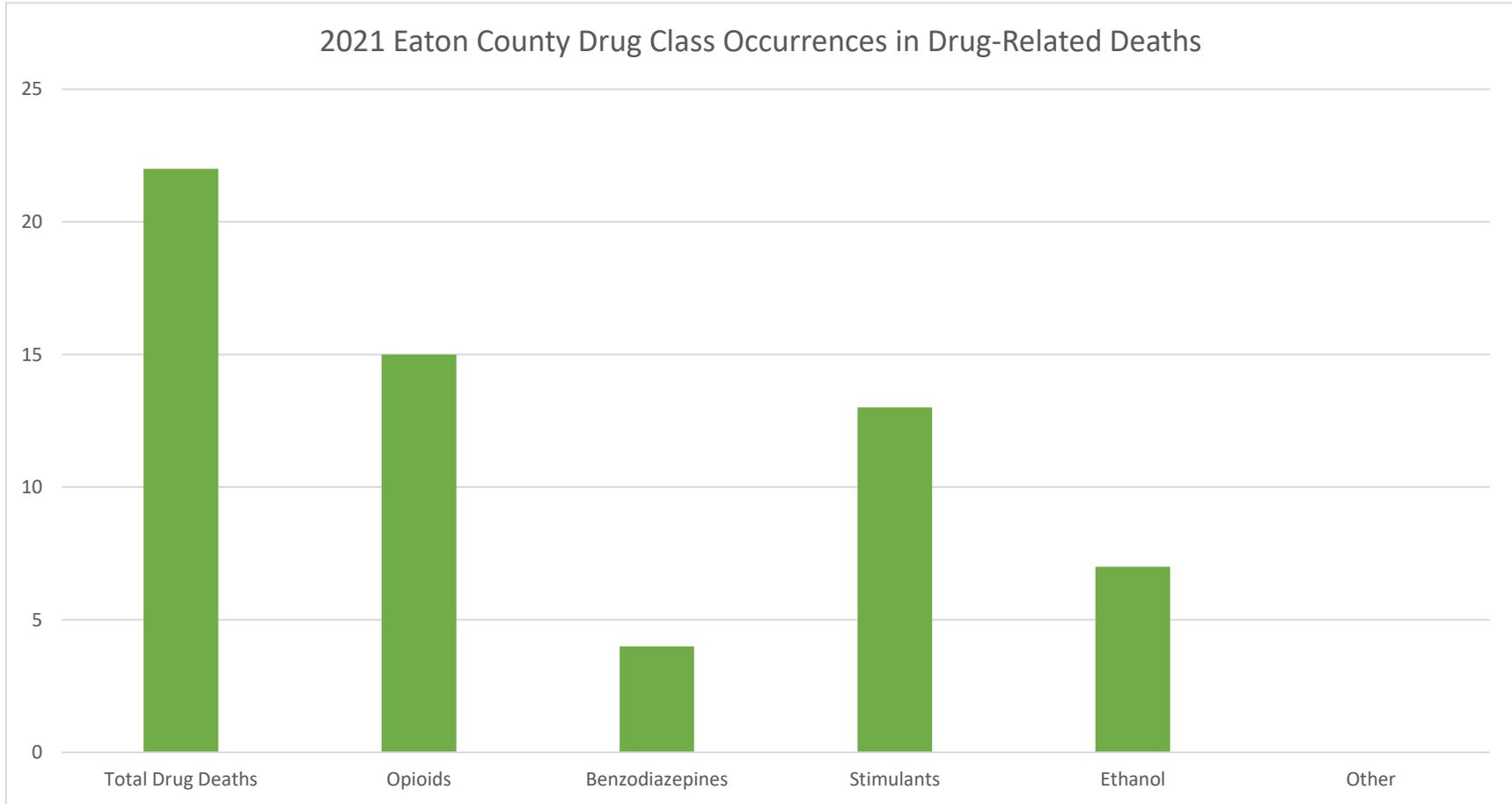


2021 Eaton County Drug-Related Deaths -
Manner of Death



Eaton County

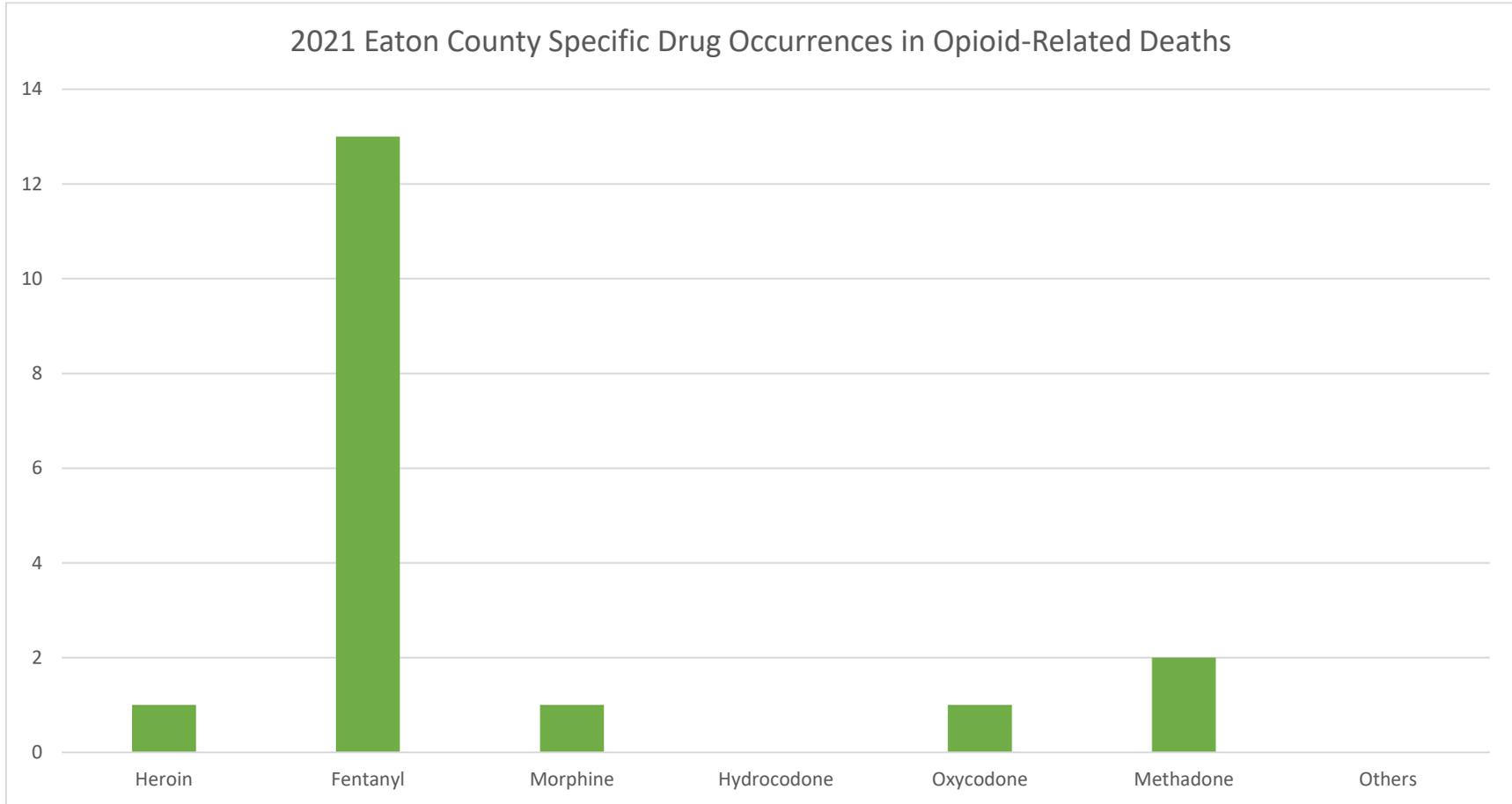
Drug-Related Deaths



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

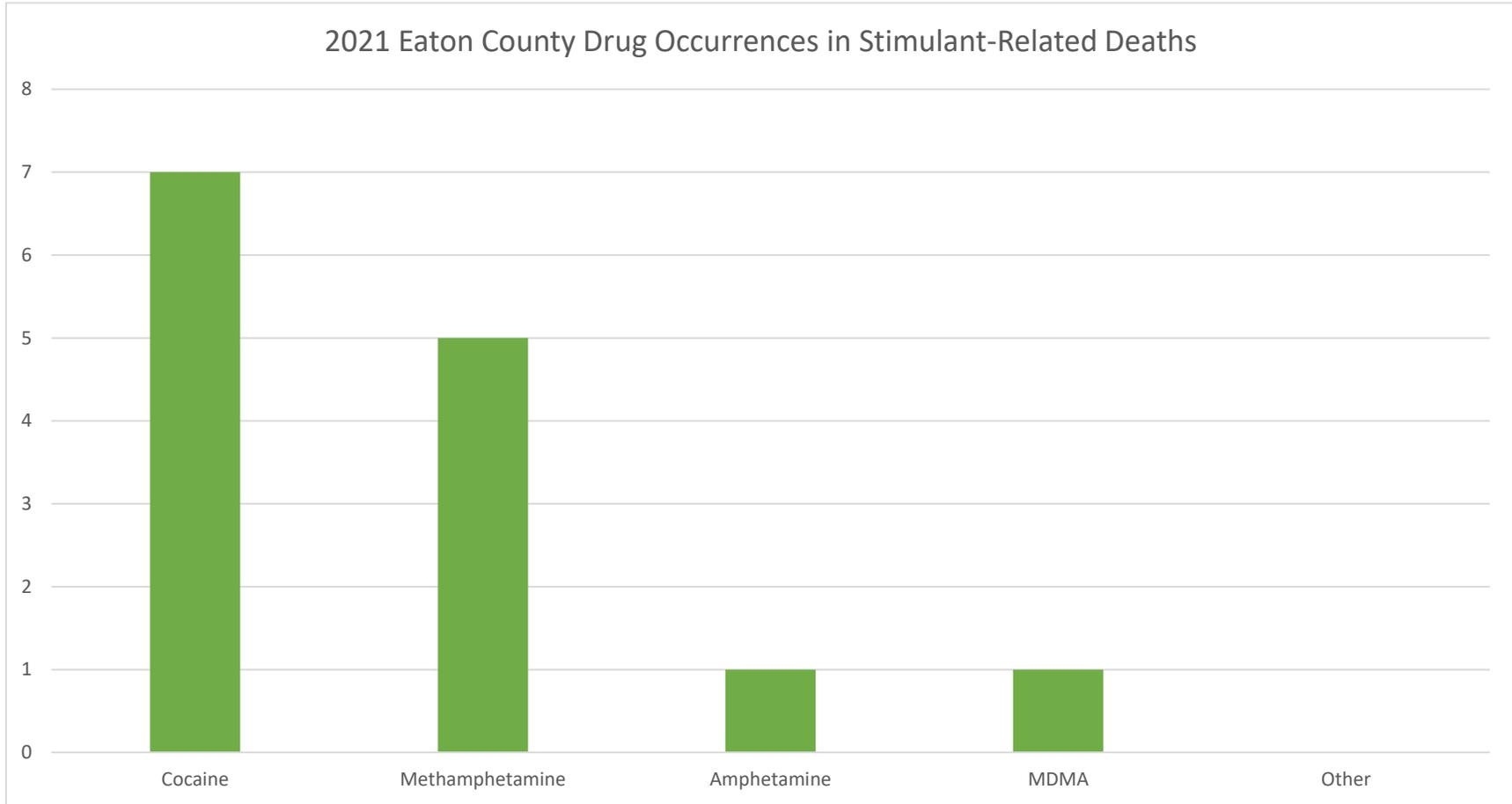
Drug-Related Deaths



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

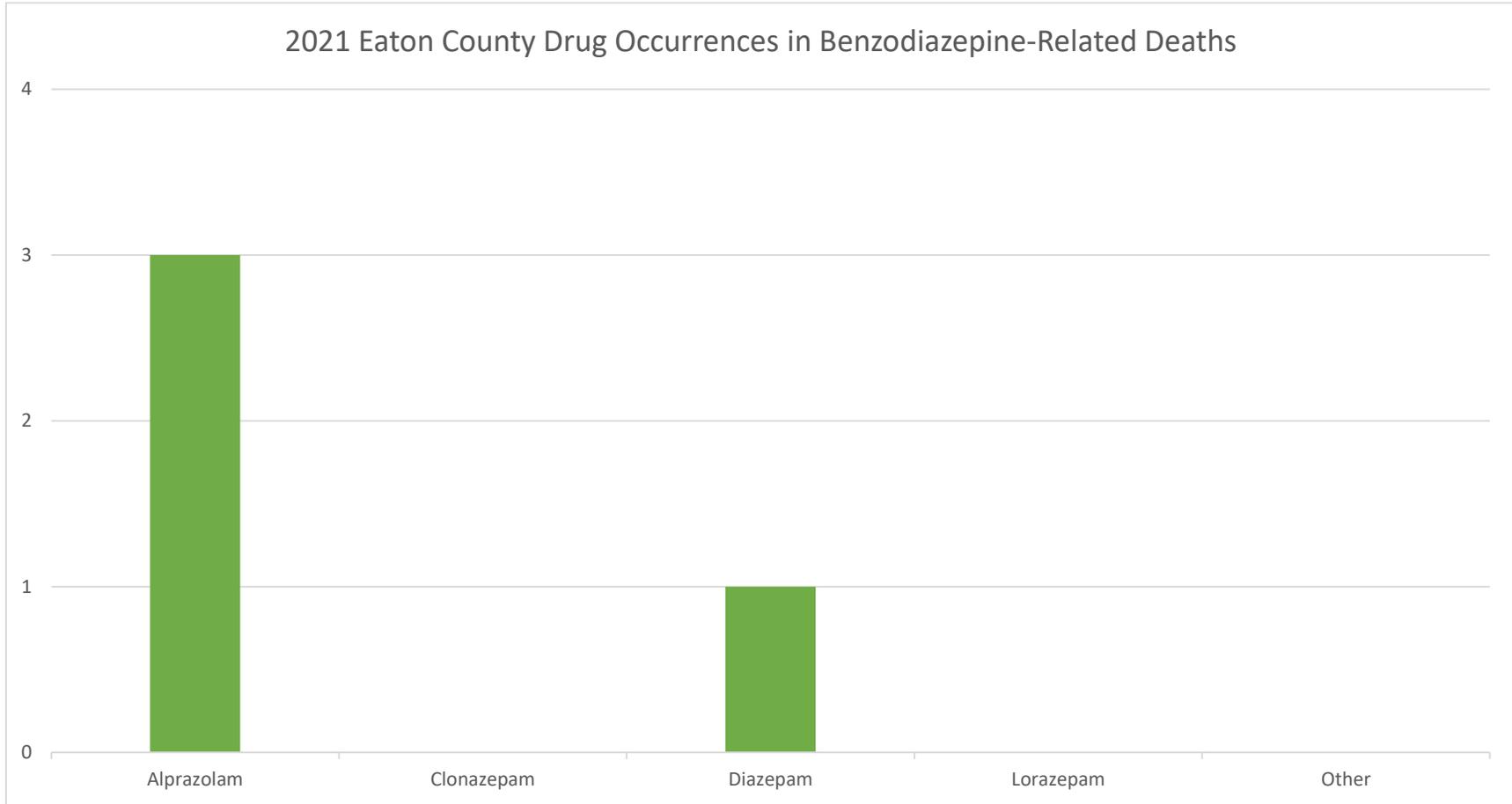
Drug-Related Deaths



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).

Ingham County

Drug-Related Deaths

2021 Ingham County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of Death
Female	14	propranolol	Suicide
Male	19	alprazolam, fentanyl, mitragynine, oxycodone	Accident
Male	19	fentanyl, methamphetamine	Accident
Female	20	amphetamine, ethanol, fentanyl	Accident
Male	21	ethanol	Accident
Male	21	etizolam, fentanyl, ketamine	Accident
Male	22	ethanol, etizolam, fentanyl	Accident
Male	22	benzodiazepine, probable fentanyl	Indeterminate
Male	22	alprazolam, fentanyl, oxycodone	Indeterminate
Female	23	fentanyl	Accident
Female	24	fentanyl, methamphetamine	Accident
Female	24	fentanyl, morphine, methamphetamine	Accident
Female	24	cocaine, methamphetamine	Accident
Male	25	alprazolam, fentanyl	Accident
Female	25	methamphetamine, memantine, metonitazene	Accident
Male	26	alprazolam, cocaine, fentanyl	Accident
Male	26	fentanyl	Accident
Male	27	fentanyl	Accident
Female	27	fentanyl, methamphetamine	Accident
Male	27	cocaine, fentanyl	Accident
Female	28	fentanyl	Accident
Male	28	cocaine, cyclobenzaprine, ethanol, fentanyl	Accident

Male	28	alprazolam, fentanyl, mitragynine	Accident
Female	29	cocaine, ethanol, fentanyl	Accident
Male	29	cocaine, ethanol, fentanyl	Accident
Male	30	metonitazene	Accident
Male	31	fentanyl	Accident
Female	32	amphetamine, clonazepam, cocaine, fentanyl	Accident
Male	32	methamphetamine	Accident
Female	33	fentanyl, methamphetamine	Accident
Male	33	methamphetamine	Accident
Male	33	alprazolam, cocaine, codeine, oxycodone	Accident
Male	33	fentanyl	Accident
Male	33	cocaine, ethanol, fentanyl	Accident
Male	34	fentanyl	Accident
Male	34	fentanyl	Accident
Female	34	fentanyl, acetylfentanyl, cocaine	Accident
Male	34	fentanyl, mitragynine	Accident
Male	34	ethanol, fentanyl	Accident
Female	34	fentanyl, methamphetamine	Accident
Male	34	Propranolol	Suicide
Female	34	amitriptyline, ethanol	Suicide
Male	35	heroin, oxycodone, hydrocodone, codeine, alprazolam	Accident
Female	35	cocaine, fentanyl	Accident
Female	35	fentanyl, methamphetamine	Accident
Male	36	fentanyl, methamphetamine	Accident
Male	36	methamphetamine	Accident
Female	36	cocaine, fentanyl, MDMA	Accident
Male	36	methamphetamine	Accident
Male	36	fentanyl, methamphetamine, clonazepam	Accident
Female	36	fentanyl, cocaine	Accident
Male	36	cocaine, fentanyl	Accident

Male	36	ethanol, fentanyl	Accident
Male	36	chlordiazepoxide, gabapentin, methadone, phenobarbital	Accident
Male	36	fentanyl	Accident
Female	37	diphenhydramine, ethanol, fentanyl, xylazine	Accident
Female	37	fentanyl, methamphetamine	Accident
Female	37	fentanyl, methamphetamine	Accident
Female	37	fentanyl, methamphetamine	Accident
Male	37	fentanyl, methamphetamine, cocaine, clonazepam	Accident
Female	37	fentanyl	Accident
Male	38	cocaine, fentanyl	Accident
Female	38	acetaminophen	Accident
Female	38	ethanol, fentanyl	Accident
Male	38	fentanyl, methamphetamine	Accident
Female	38	fentanyl, methamphetamine	Accident
Male	38	buprenorphine, methamphetamine	Accident
Female	39	cocaine, fentanyl	Accident
Male	39	fentanyl, methamphetamine	Accident
Male	39	fentanyl, alprazolam, hydroxyzine, cocaine	Accident
Male	39	fentanyl	Accident
Male	39	cocaine, fentanyl, tramadol	Accident
Female	40	cocaine, fentanyl, morphine	Accident
Female	40	cocaine, fentanyl, methamphetamine	Accident
Male	41	fentanyl, methamphetamine	Accident
Male	41	opioid/opiate (cannot be further specified)	Accident
Female	41	aripiprazole, chlorpromazine, olanzapine, mitragynine, sertraline	Indeterminate
Female	42	cocaine, fentanyl	Accident
Male	42	amphetamine, diazepam, ethanol, fentanyl, hydrocodone	Accident
Male	42	fentanyl, methamphetamine	Accident
Male	42	fentanyl	Accident
Female	42	cocaine, methamphetamine, methadone	Accident

Male	43	cocaine, fentanyl	Accident
Female	44	cocaine, cyclobenzaprine, fentanyl	Accident
Male	44	fentanyl, cocaine, ethanol	Accident
Female	44	amphetamine, cocaine, fentanyl, methadone	Accident
Male	44	ethanol, fentanyl	Accident
Female	45	cocaine	Accident
Female	46	methamphetamine	Accident
Male	46	ethanol	Accident
Female	47	acetaminophen	Accident
Female	47	fentanyl, cocaine	Accident
Female	47	diphenhydramine, fentanyl	Indeterminate
Male	48	ethanol, fentanyl	Accident
Male	48	amitriptyline, bupropion, gabapentin	Suicide
Male	49	pregabalin, mirtazapine, paroxetine, quetiapine, codeine, oxycodone	Accident
Female	49	cocaine, ethanol, fentanyl	Accident
Male	49	cyclobenzaprine, methadone	Accident
Female	49	methamphetamine	Accident
Male	49	cocaine, ethanol, fentanyl	Accident
Male	50	cyclobenzaprine, fentanyl	Accident
Male	51	ethanol, fentanyl	Accident
Male	51	ethanol	Accident
Male	51	fentanyl, methamphetamine	Accident
Male	51	methamphetamine	Accident
Female	51	alprazolam, cyclobenzaprine, morphine, nordiazepam	Accident
Female	51	fentanyl, methamphetamine	Accident
Male	51	cocaine, ethanol, fentanyl	Accident
Male	52	cyclobenzaprine, ethanol, fentanyl	Accident
Male	52	cocaine, ethanol	Accident
Female	52	bupropion, dextromethorphan, diazepam, morphine, nortriptyline, venlafaxine	Indeterminate
Female	52	alprazolam, fentanyl	Indeterminate

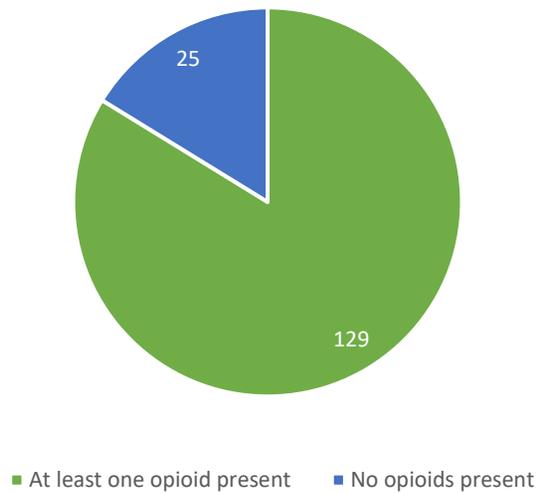
Male	53	ethanol, fentanyl, heroin, methamphetamine	Accident
Male	54	fentanyl, cocaine, oxycodone	Accident
Male	54	fentanyl, hydrocodone	Accident
Female	54	cocaine, ethanol, fentanyl	Accident
Male	55	fentanyl, ethanol	Accident
Male	55	fentanyl, hydrocodone, methadone	Accident
Male	56	fentanyl, methamphetamine	Accident
Female	56	ethanol, fentanyl	Accident
Male	56	fentanyl	Accident
Male	56	cyclobenzaprine, diazepam, gabapentin, oxycodone	Accident
Female	56	gabapentin, fentanyl, tramadol	Accident
Male	57	fentanyl	Accident
Female	58	cocaine, pseudoephedrine	Accident
Female	58	cocaine, opioids	Indeterminate
Male	59	dextromethorphan, diphenhydramine, doxylamine, fentanyl, methadone	Accident
Female	59	hydrocodone, methadone	Accident
Male	59	fentanyl	Accident
Male	59	ethanol, fentanyl, hydrocodone	Accident
Female	59	diphenhydramine, ethanol, fentanyl	Accident
Male	60	fentanyl	Accident
Female	60	cocaine, fentanyl	Accident
Male	61	cocaine, fentanyl	Accident
Male	61	methamphetamine	Accident
Male	61	methamphetamine	Accident
Male	62	fentanyl, tramadol	Accident
Male	63	fentanyl, mitragynine, gabapentin, diphenhydramine, doxylamine	Accident
Male	63	methadone	Accident
Female	63	diphenhydramine	Suicide
Male	64	fentanyl	Accident
Female	64	fentanyl, morphine	Accident

Male	64	fentanyl, morphine	Accident
Male	65	fentanyl	Accident
Female	65	oxycodone	Accident
Male	65	methadone, clonazepam	Accident
Male	66	fentanyl	Accident
Male	67	fentanyl, hydrocodone, metonitazene	Accident
Male	68	cocaine, fentanyl	Accident
Male	68	cocaine, fentanyl	Accident
FEmale	73	amlodipine	Suicide

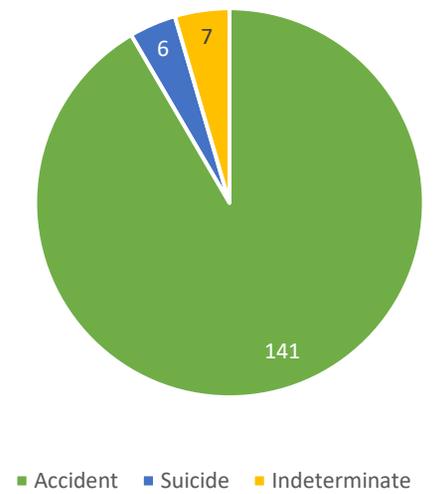
Ingham County

Drug-Related Deaths

2021 Ingham County Drug-Related Deaths
- Opioid vs. Non-opioid

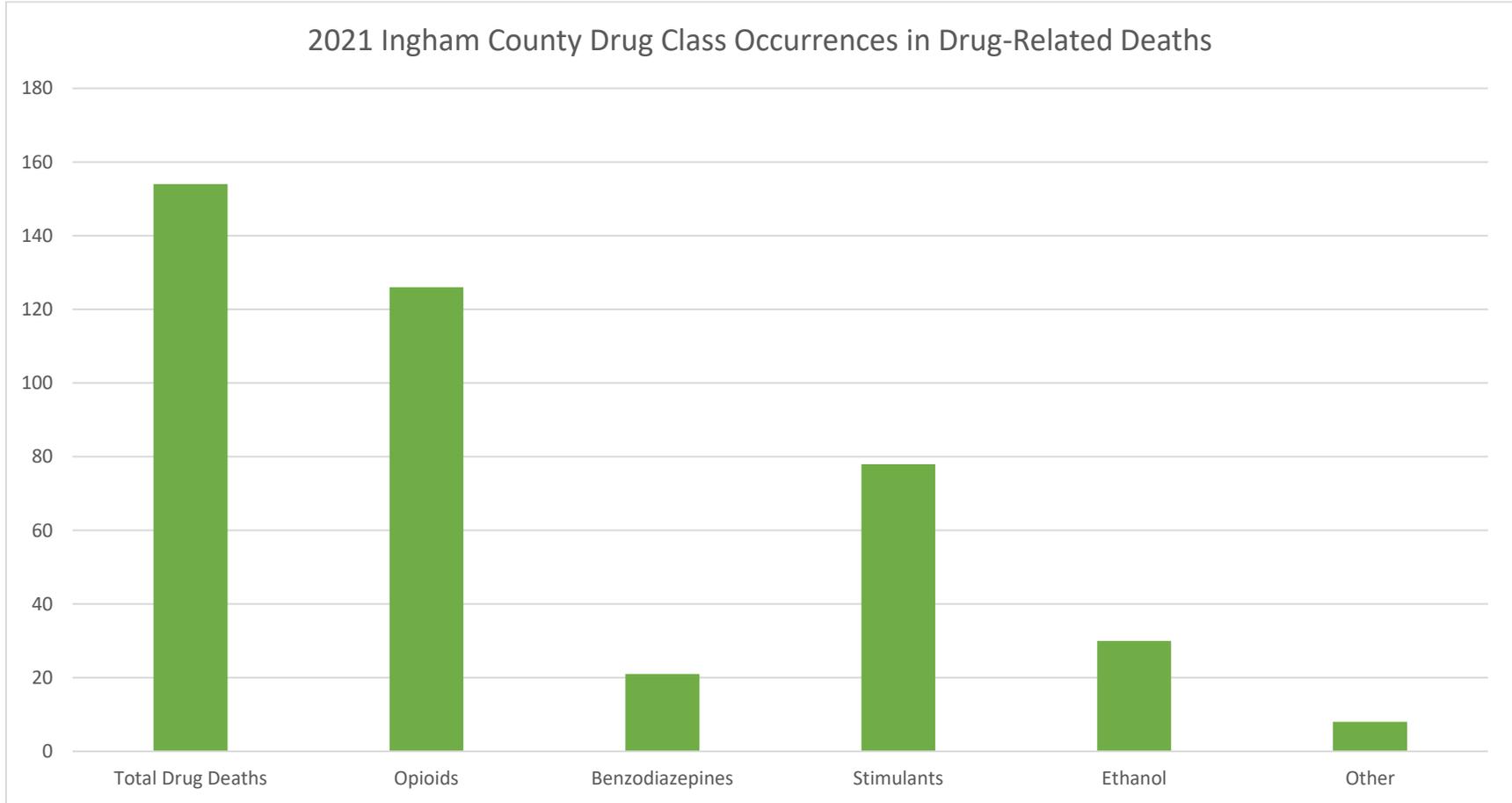


2021 Ingham County Drug-Related Deaths -
Manner of Death



Ingham County

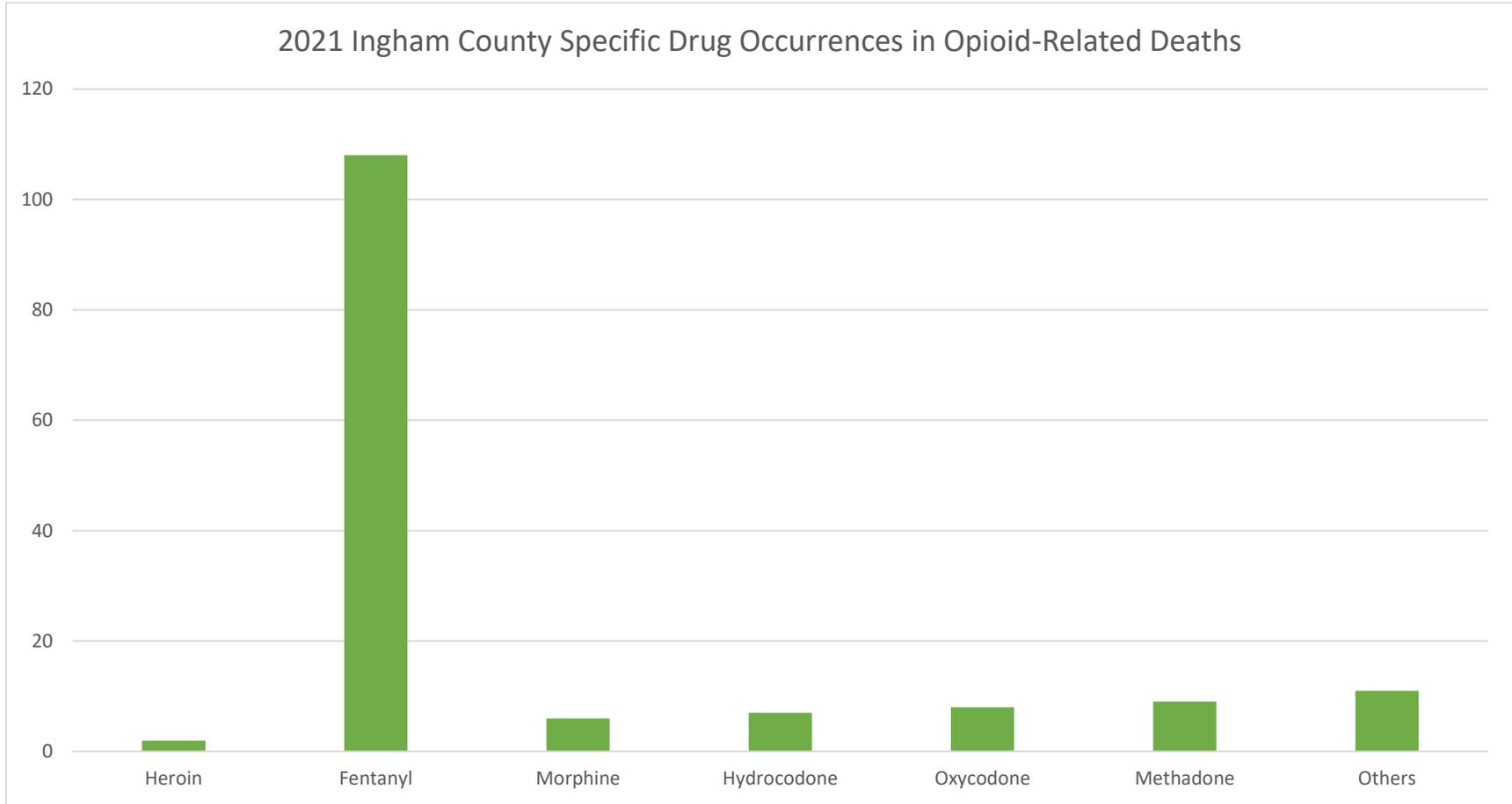
Drug-Related Deaths



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

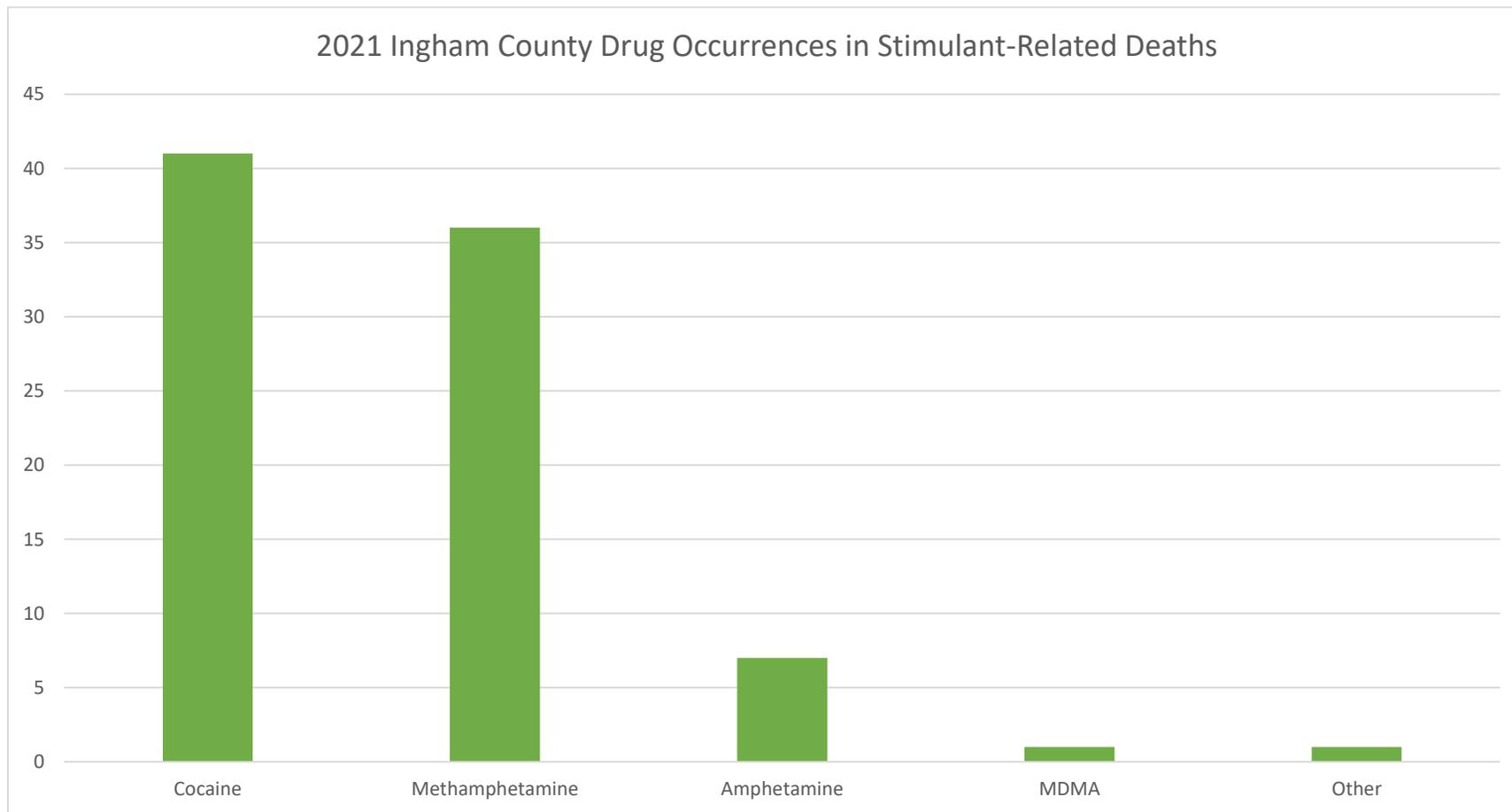
Drug-Related Deaths



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

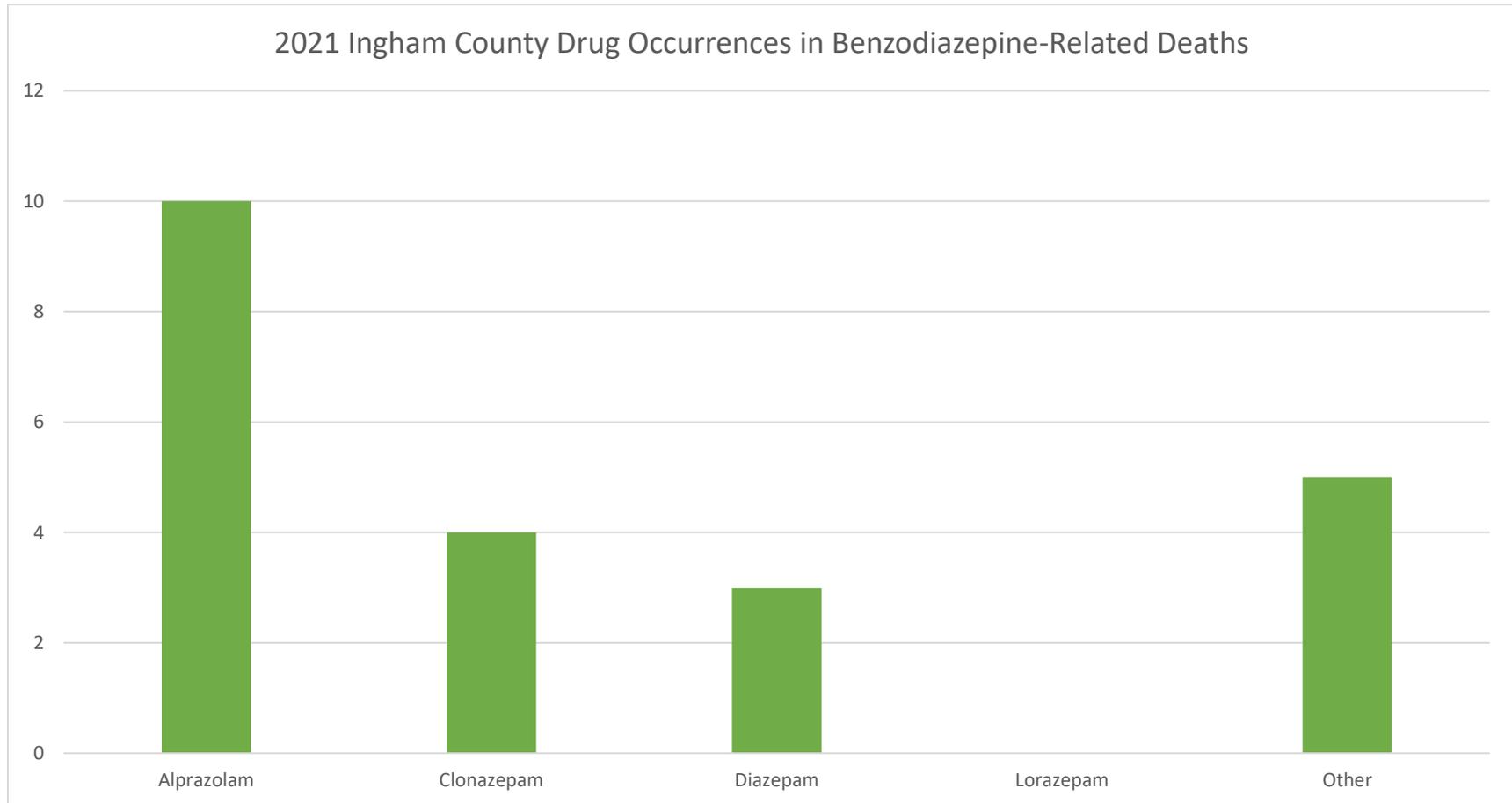
Drug-Related Deaths



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).

Ionia County

Drug-Related Deaths

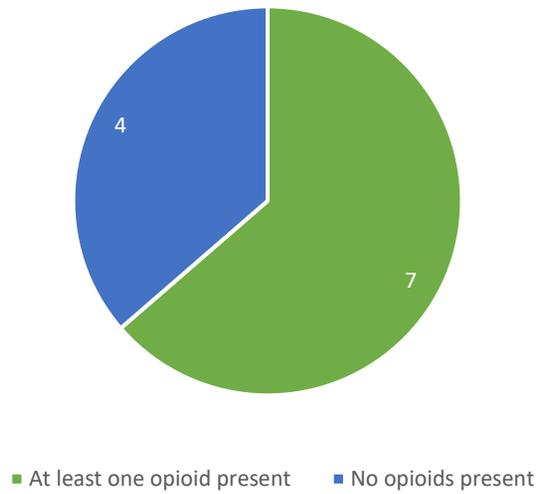
2021 Ionia County Drug-Related Deaths

Sex	Age	Substance(s) Causing Death	Manner of Death
Female	12	bupropion, metoprolol	Suicide
Female	27	methamphetamine	Accident
Male	29	fentanyl, flualprazolam	Accident
Male	36	diphenhydramine, fentanyl	Accident
Female	37	methamphetamine	Accident
Female	47	ethanol, hydromorphone, lorazepam	Suicide
Male	50	fentanyl, methamphetamine	Accident
Female	53	fentanyl, morphine	Accident
Female	60	insulin	Suicide
Male	62	fentanyl	Accident
Female	63	bupropion, dextromethorphan, diphenhydramine, gabapentin, hydrocodone, methadone, paroxetine	Accident

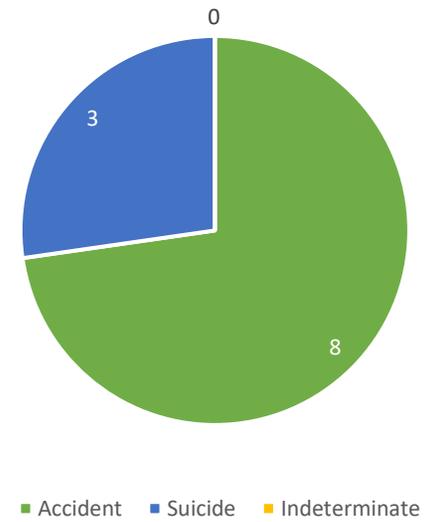
Ionia County

Drug-Related Deaths

2021 Ionia County Drug-Related Deaths -
Opioid vs. Non-opioid

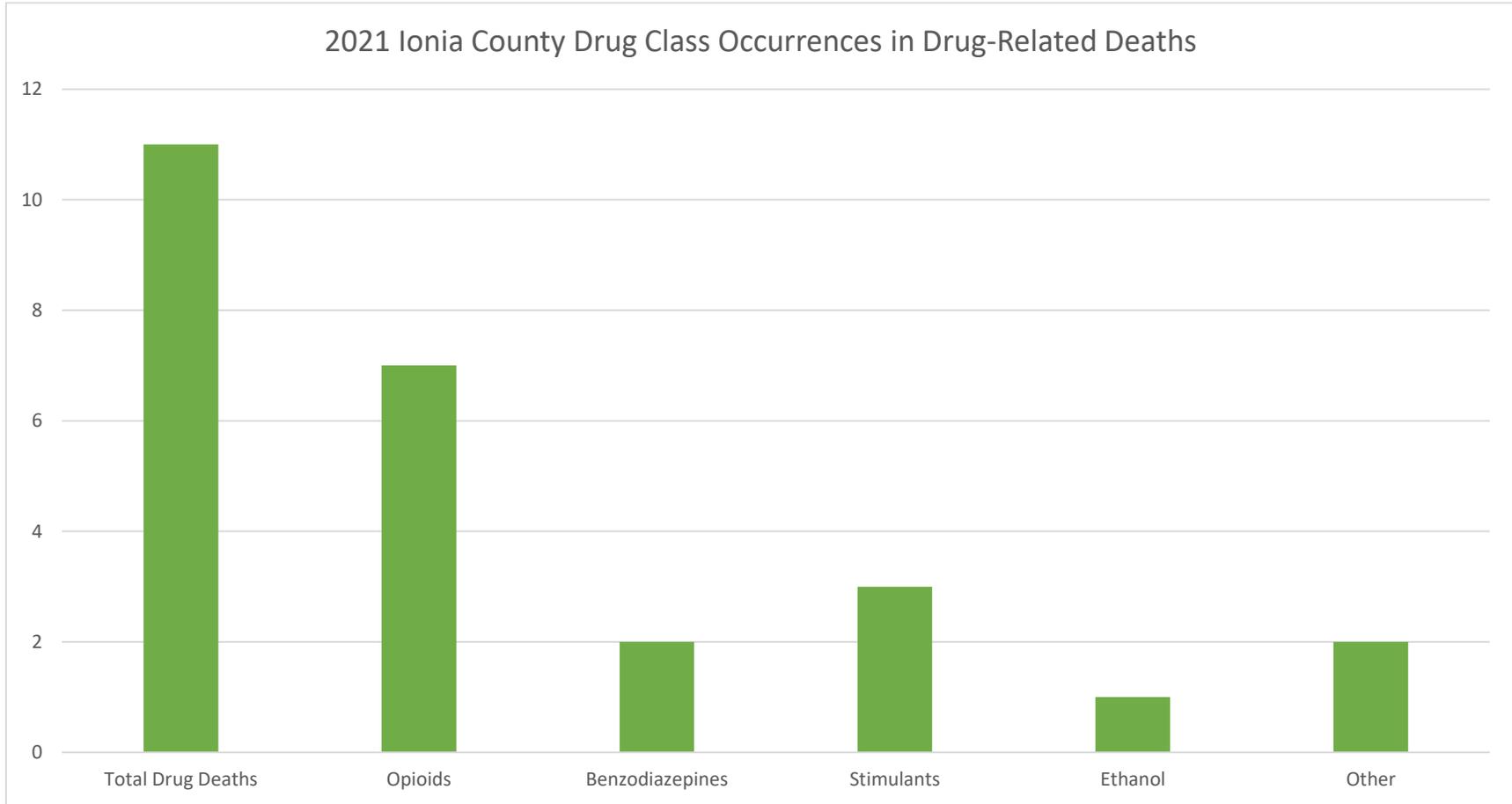


2021 Ionia County Drug-Related Deaths -
Manner of Death



Ionia County

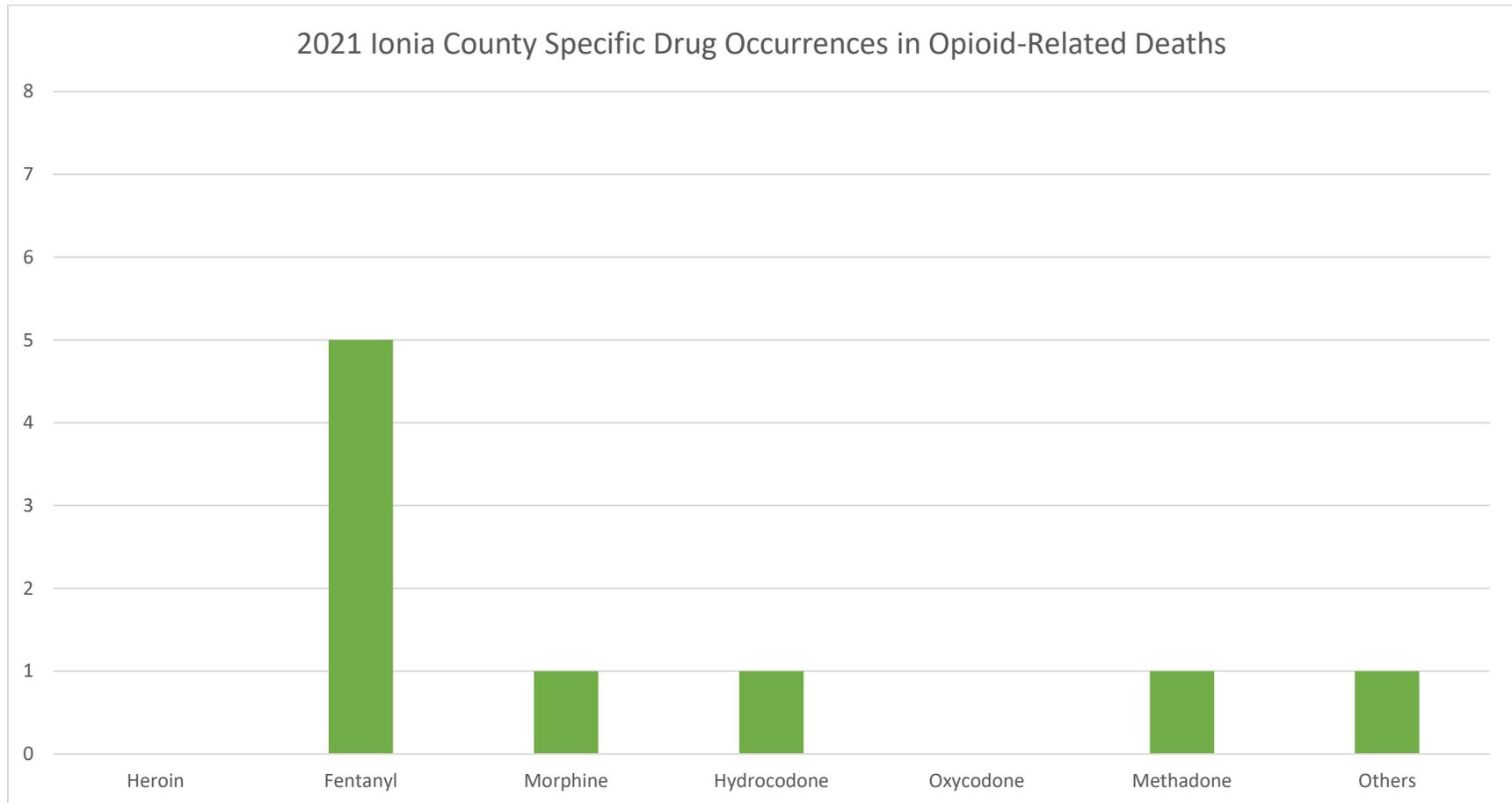
Drug-Related Deaths



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

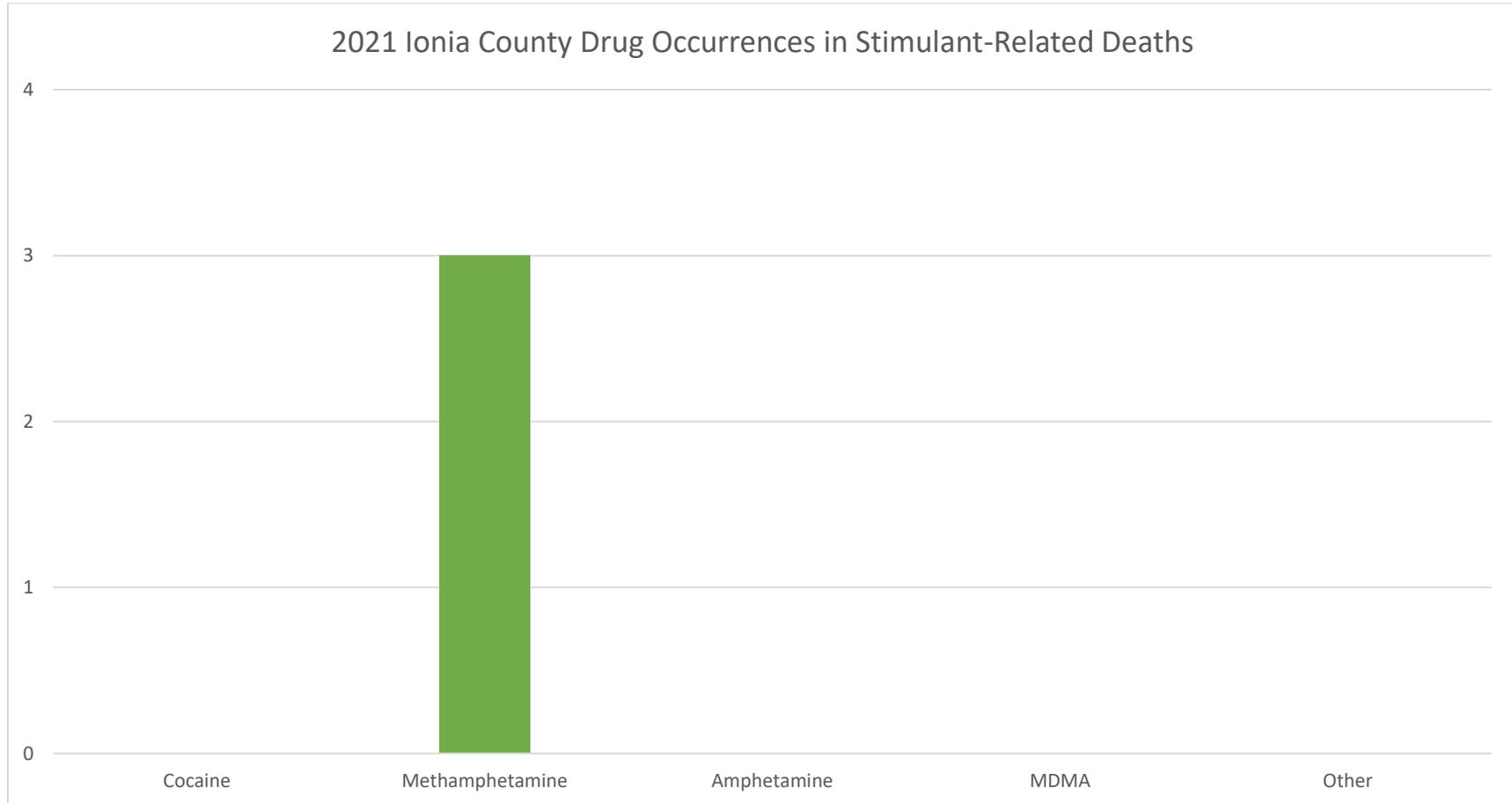
Drug-Related Deaths



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

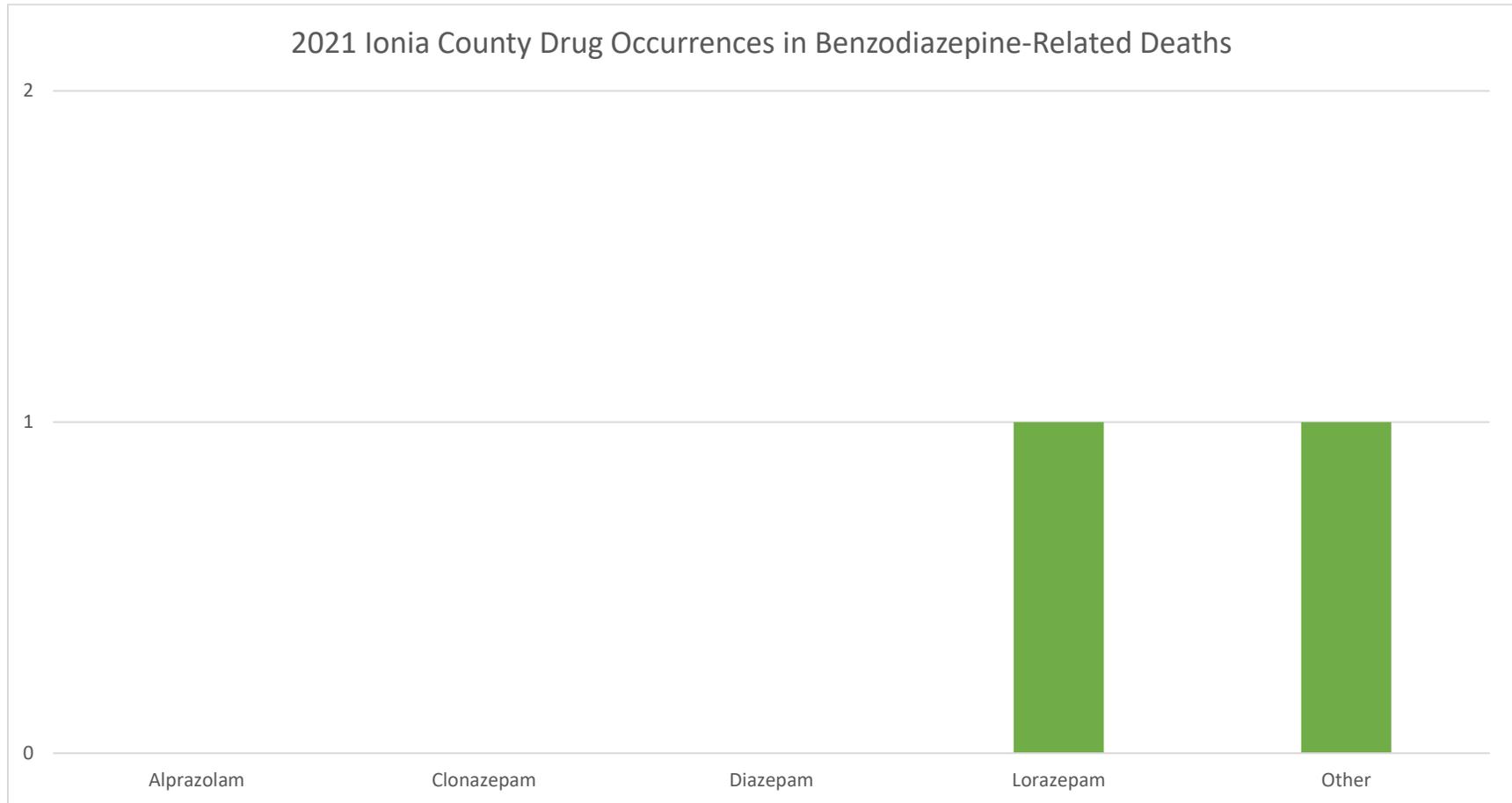
Drug-Related Deaths



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).

Isabella County

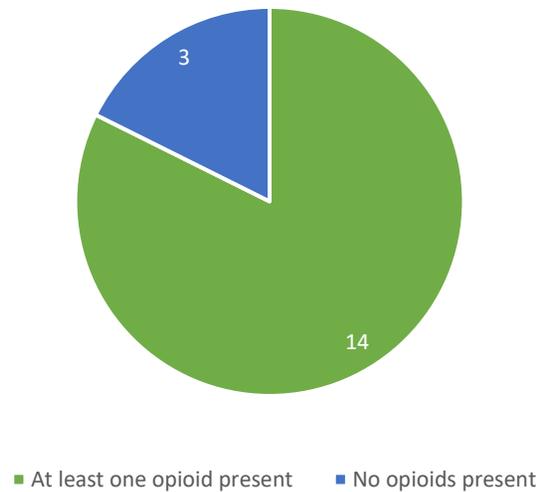
Drug-Related Deaths

2021 Isabella County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of Death
Male	22	fentanyl	Accident
Male	22	fentanyl	Accident
Female	25	fentanyl	Accident
Male	30	fentanyl, heroin	Accident
Male	30	cocaine, ethanol, fentanyl	Accident
Male	32	fentanyl, oxycodone, mitragynine, ethanol	Accident
Male	32	fentanyl	Accident
Female	35	diazepam, ethanol, fentanyl, methamphetamine	Accident
Male	41	ethanol, fentanyl, methamphetamine	Accident
Female	49	ethanol, fentanyl, methamphetamine	Accident
Male	53	methamphetamine	Accident
Male	54	fentanyl, methamphetamine	Accident
Male	56	cyclobenzaprine, dextromethorphan, duloxetine, guaifenesin, hydroxyzine, tramadol	Accident
Male	58	fentanyl, ethanol	Accident
Male	63	fentanyl, methamphetamine	Accident
Female	63	acetaminophen	Accident
Female	64	ethanol, diazepam, sertraline	Accident

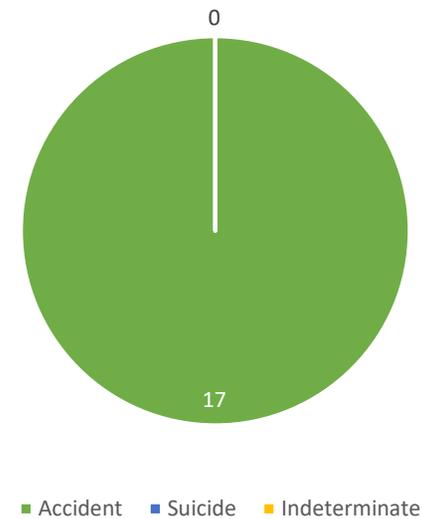
Isabella County

Drug-Related Deaths

2021 Isabella County Drug-Related Deaths - Opioid vs. Non-opioid

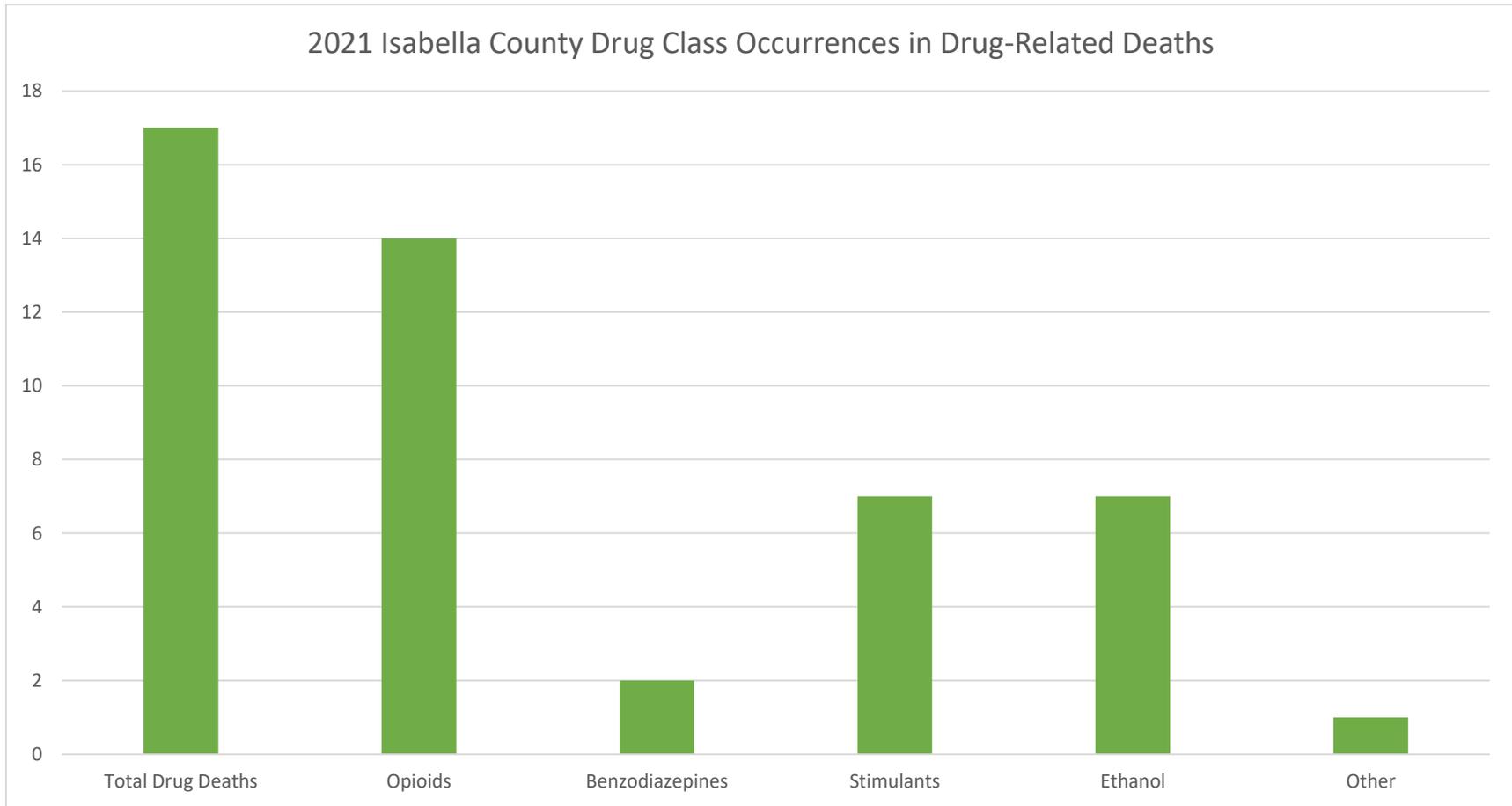


2021 Isabella County Drug-Related Deaths - Manner of Death



Isabella County

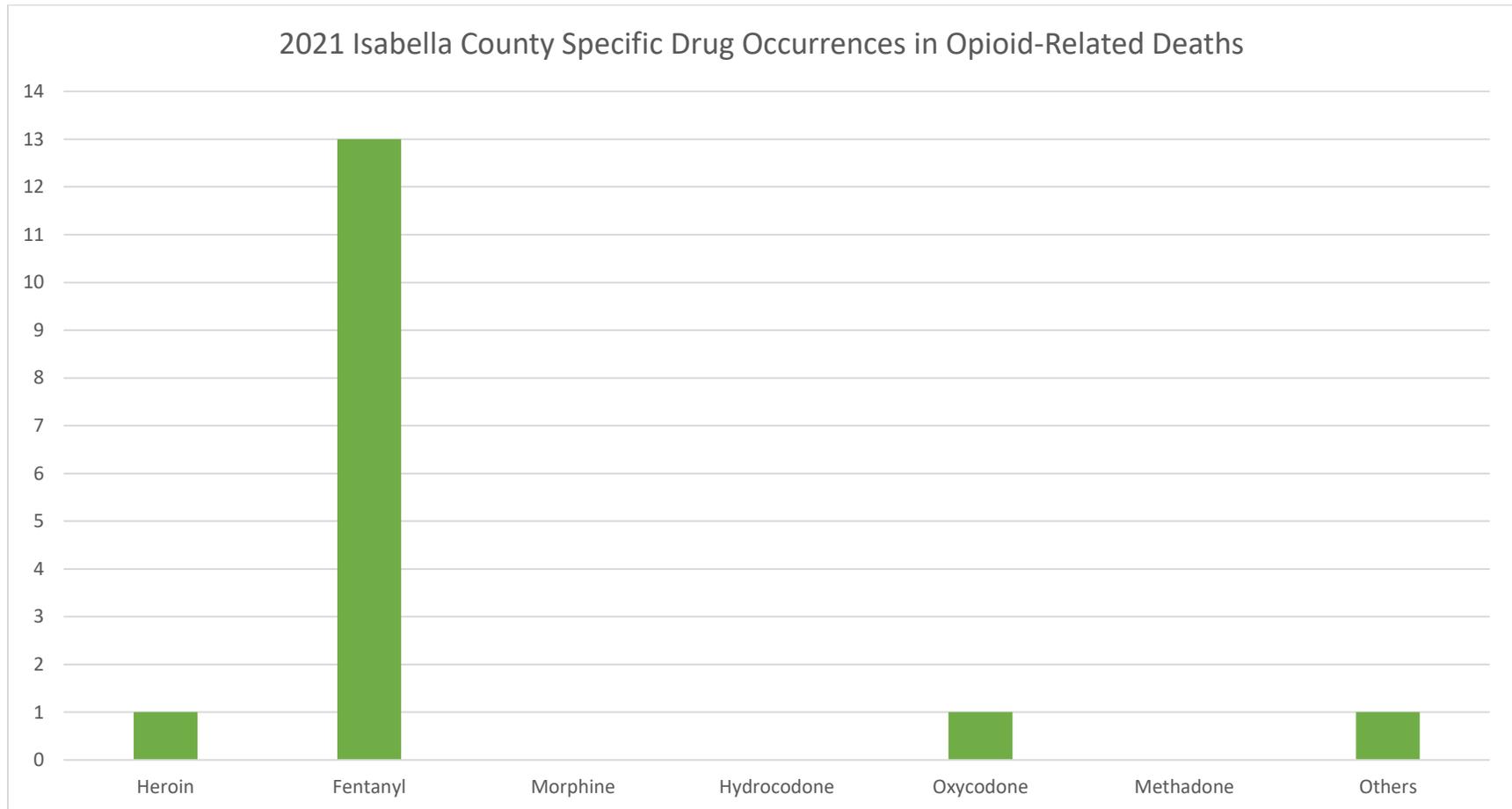
Drug-Related Deaths



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

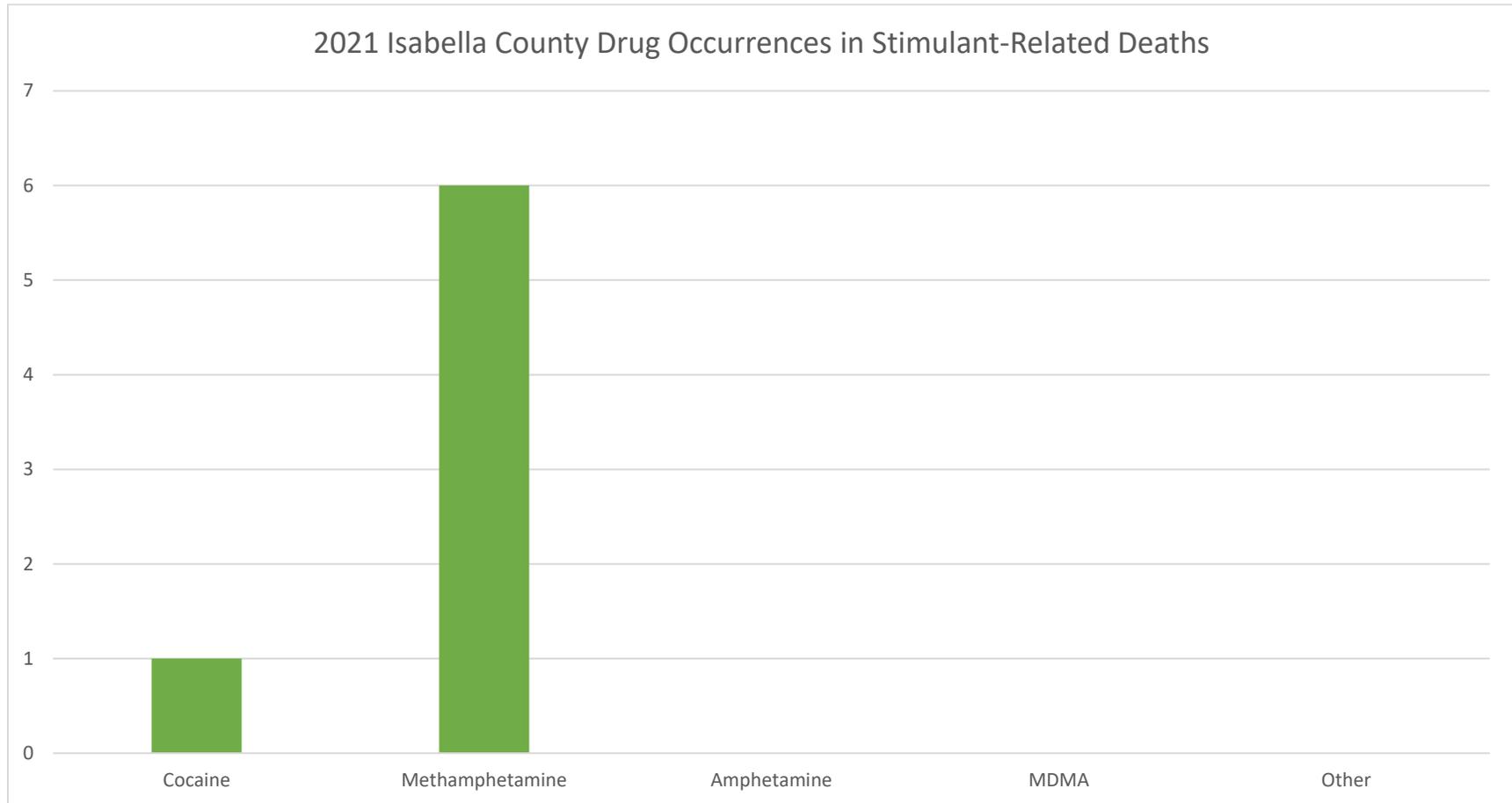
Drug-Related Deaths



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

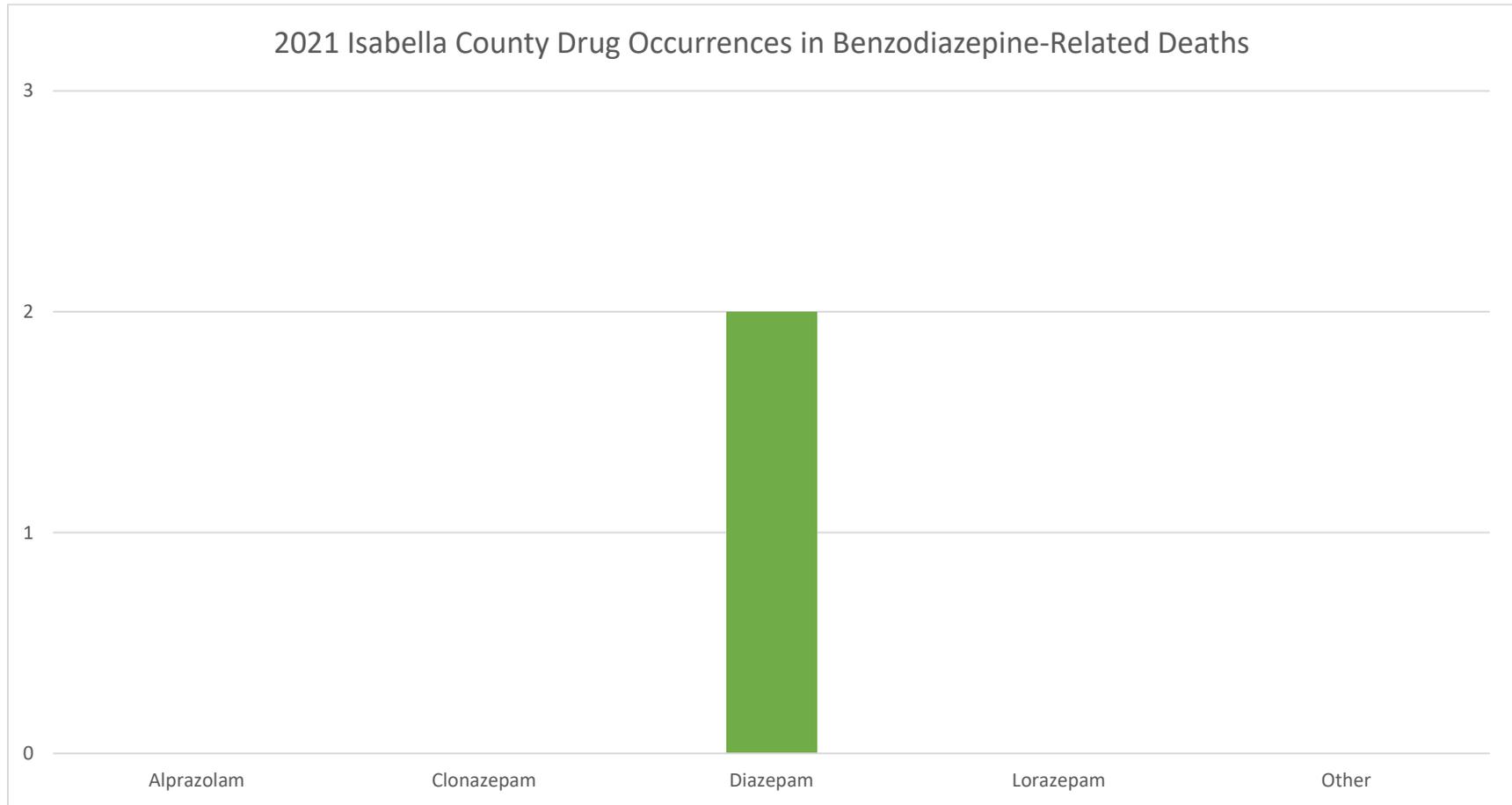
Drug-Related Deaths



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).

Shiawassee County

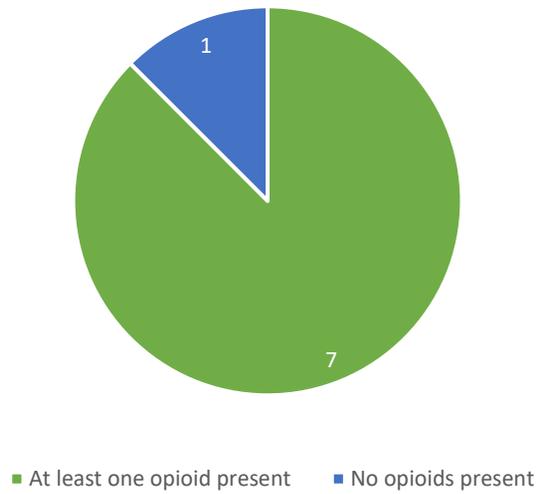
Drug-Related Deaths

2021 Shiawassee County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of Death
Male	22	alprazolam, cocaine, fentanyl, methamphetamine/amphetamine	Accident
Female	28	cyclobenzaprine, ethanol, fentanyl, mitragynine	Accident
Male	33	fentanyl	Accident
Male	35	fentanyl	Accident
Female	50	diazepam, diphenhydramine, fentanyl, morphine	Accident
Female	52	cocaine, methamphetamine	Accident
Male	65	fentanyl, methamphetamine	Accident
Female	74	tramadol	Indeterminate

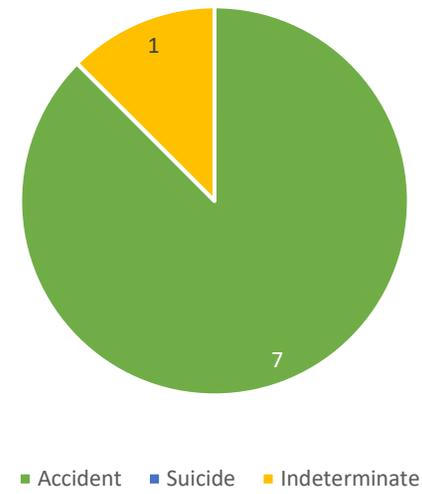
Shiawassee County

Drug-Related Deaths

2021 Shiawassee County Drug-Related Deaths - Opioid vs. Non-opioid

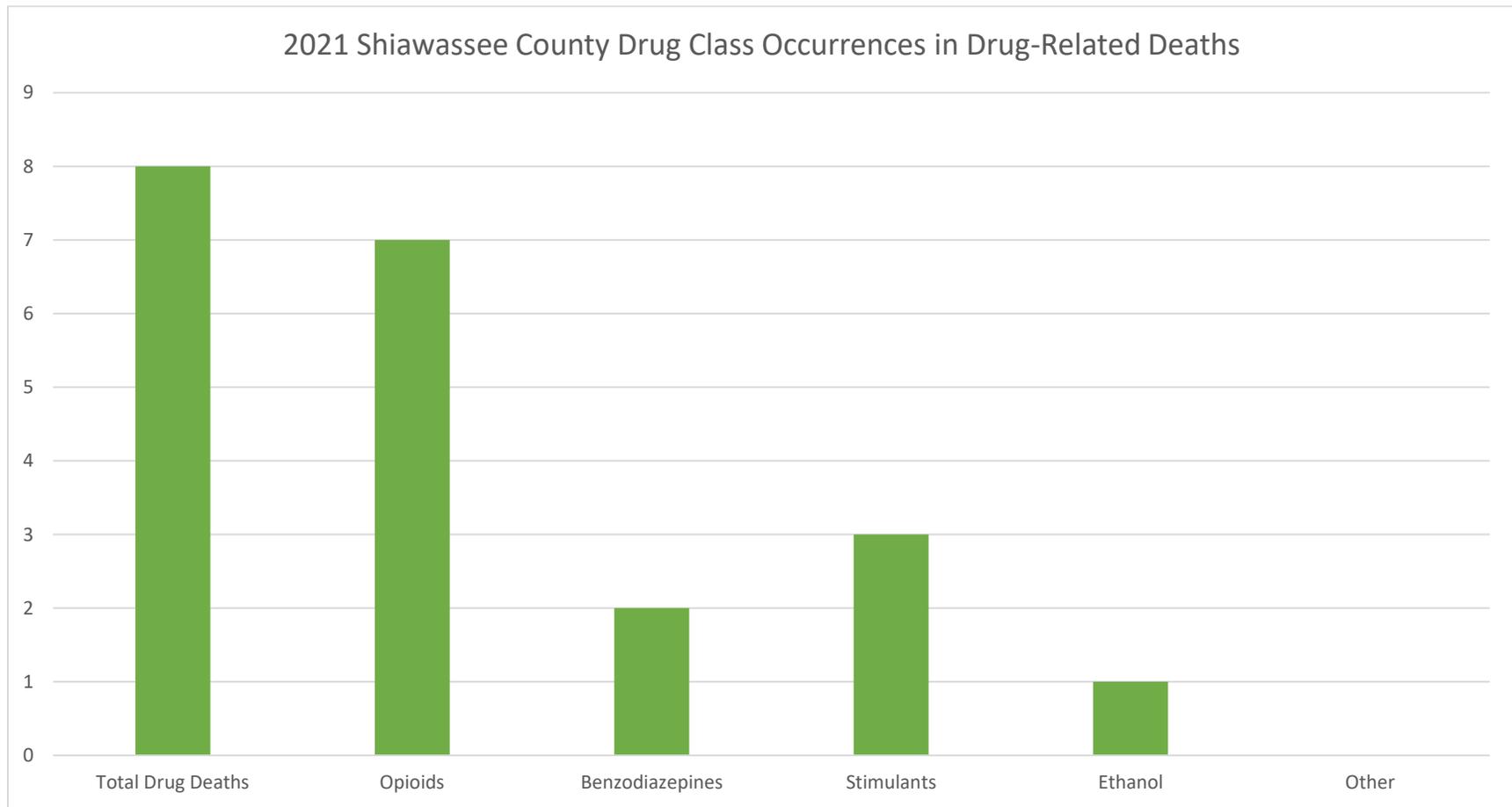


2021 Shiawassee County Drug-Related Deaths - Manner of Death



Shiawassee County

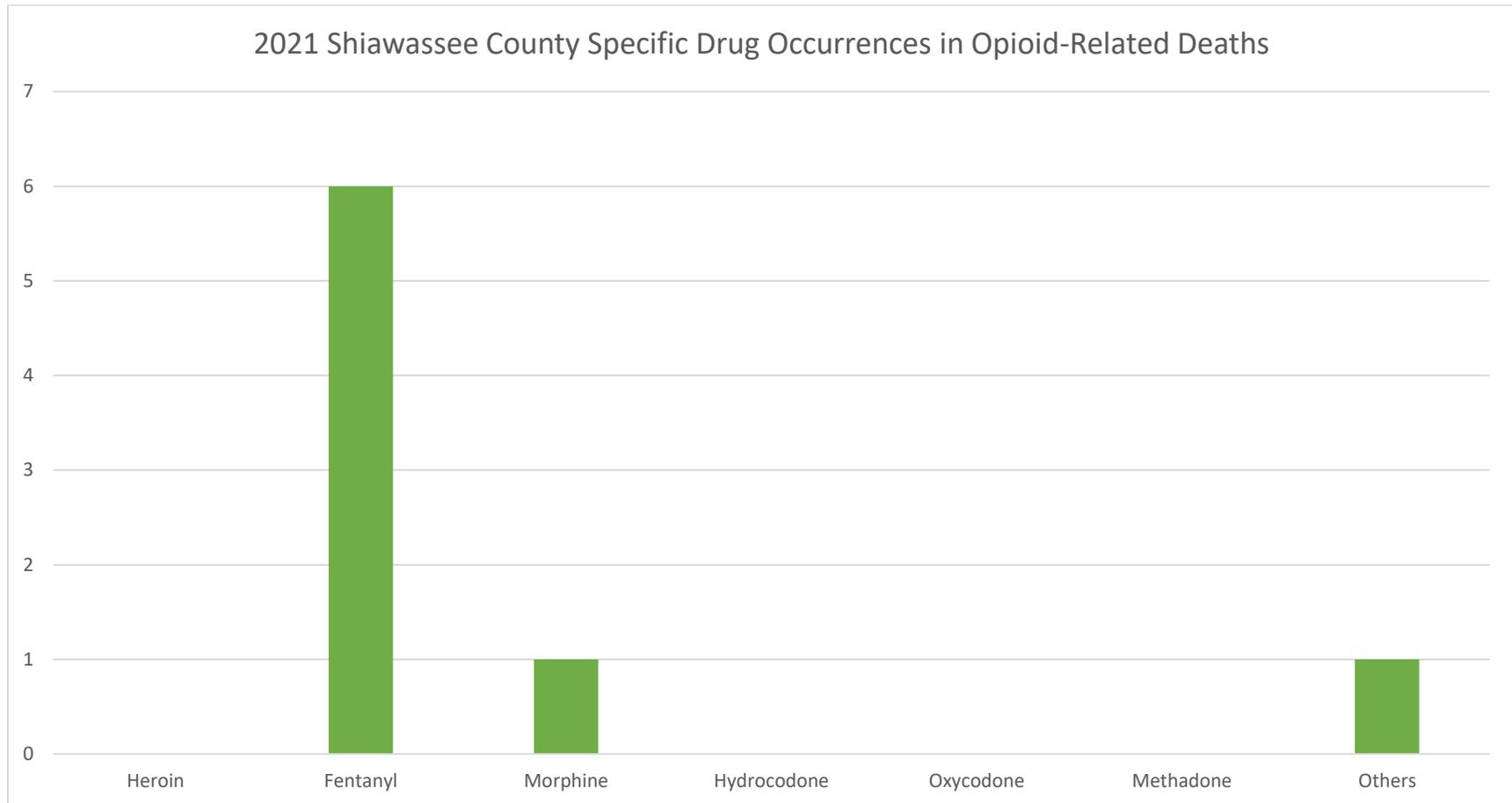
Drug-Related Deaths



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

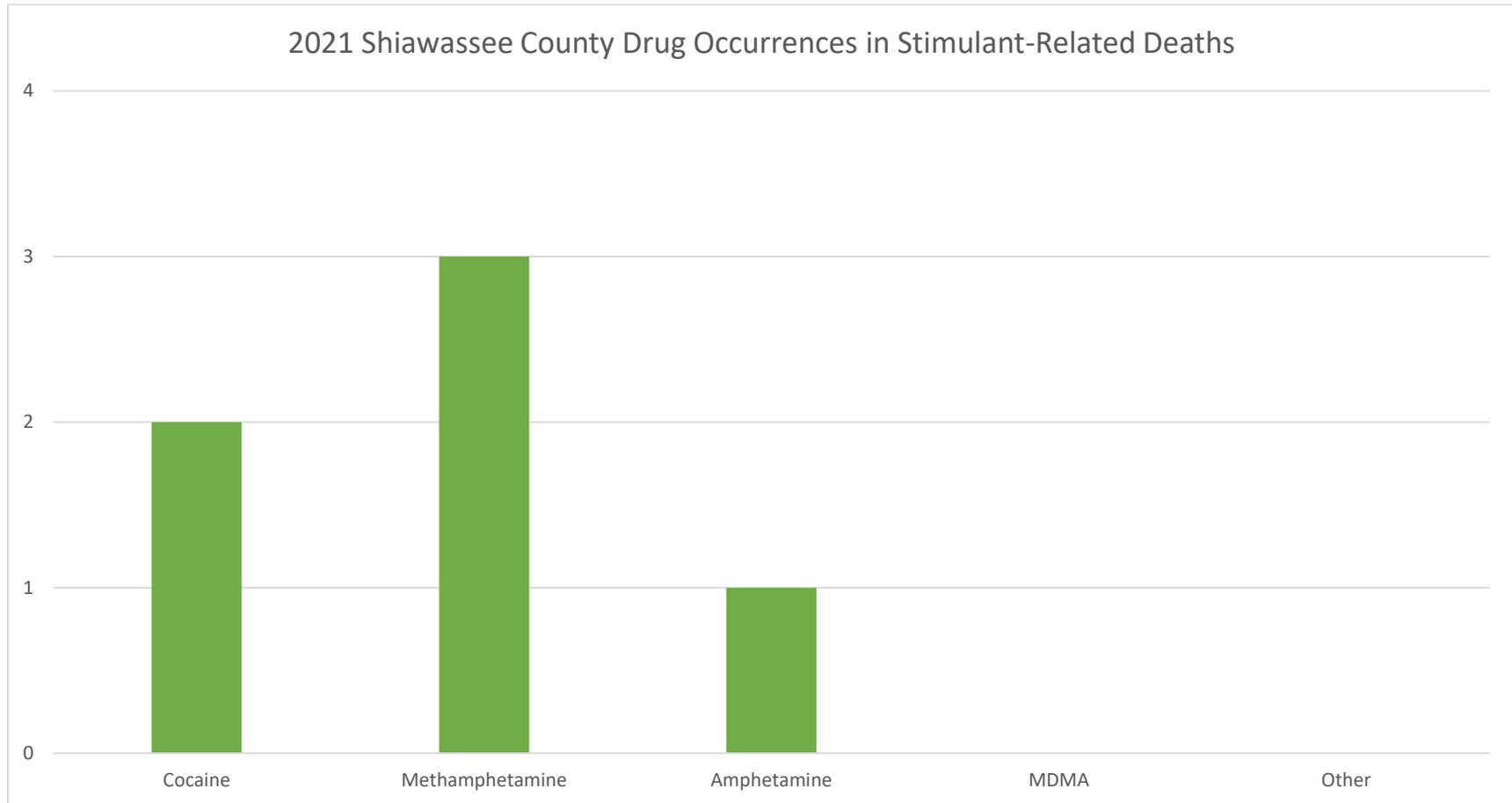
Drug-Related Deaths



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

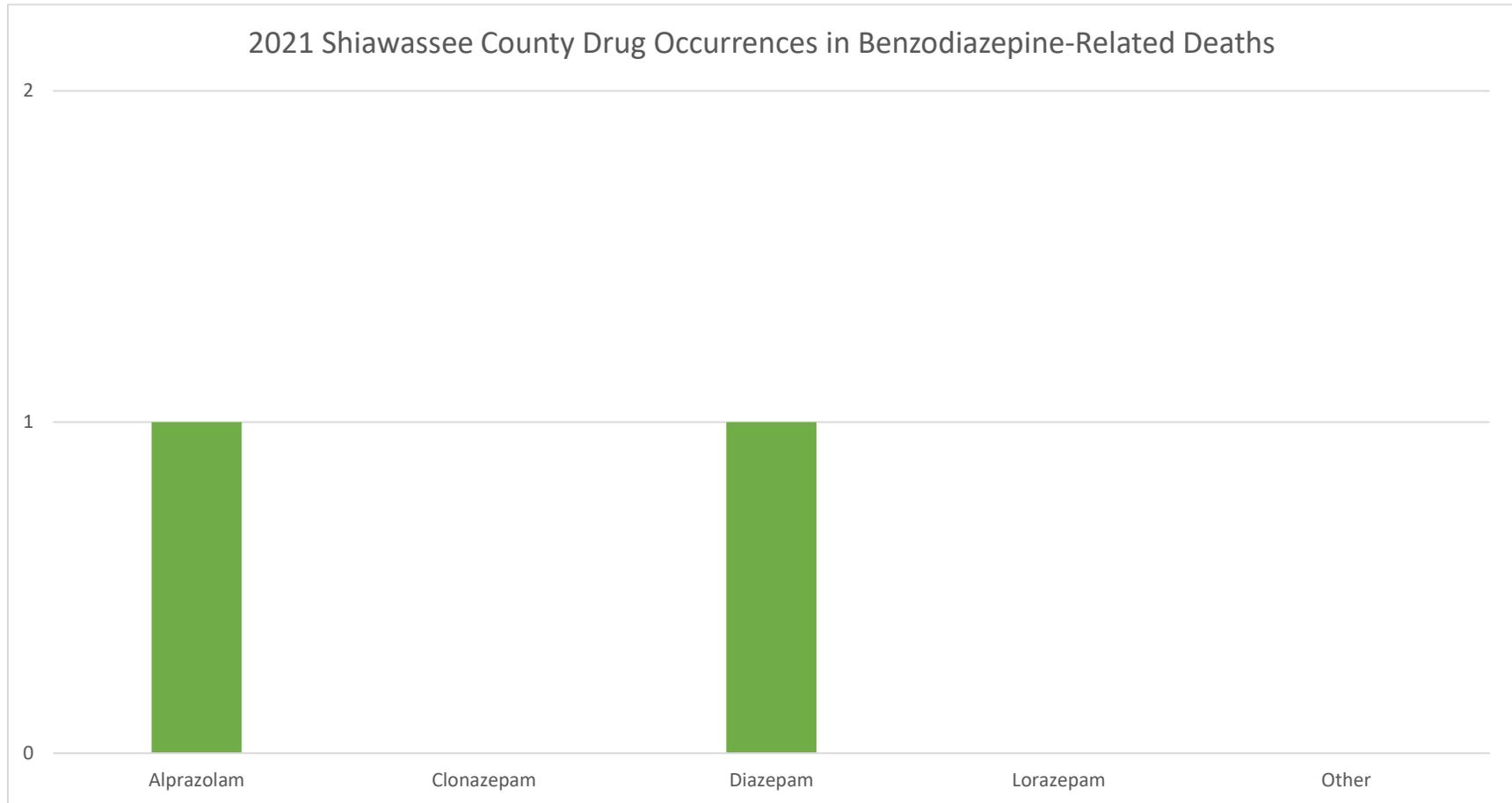
Drug-Related Deaths



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.

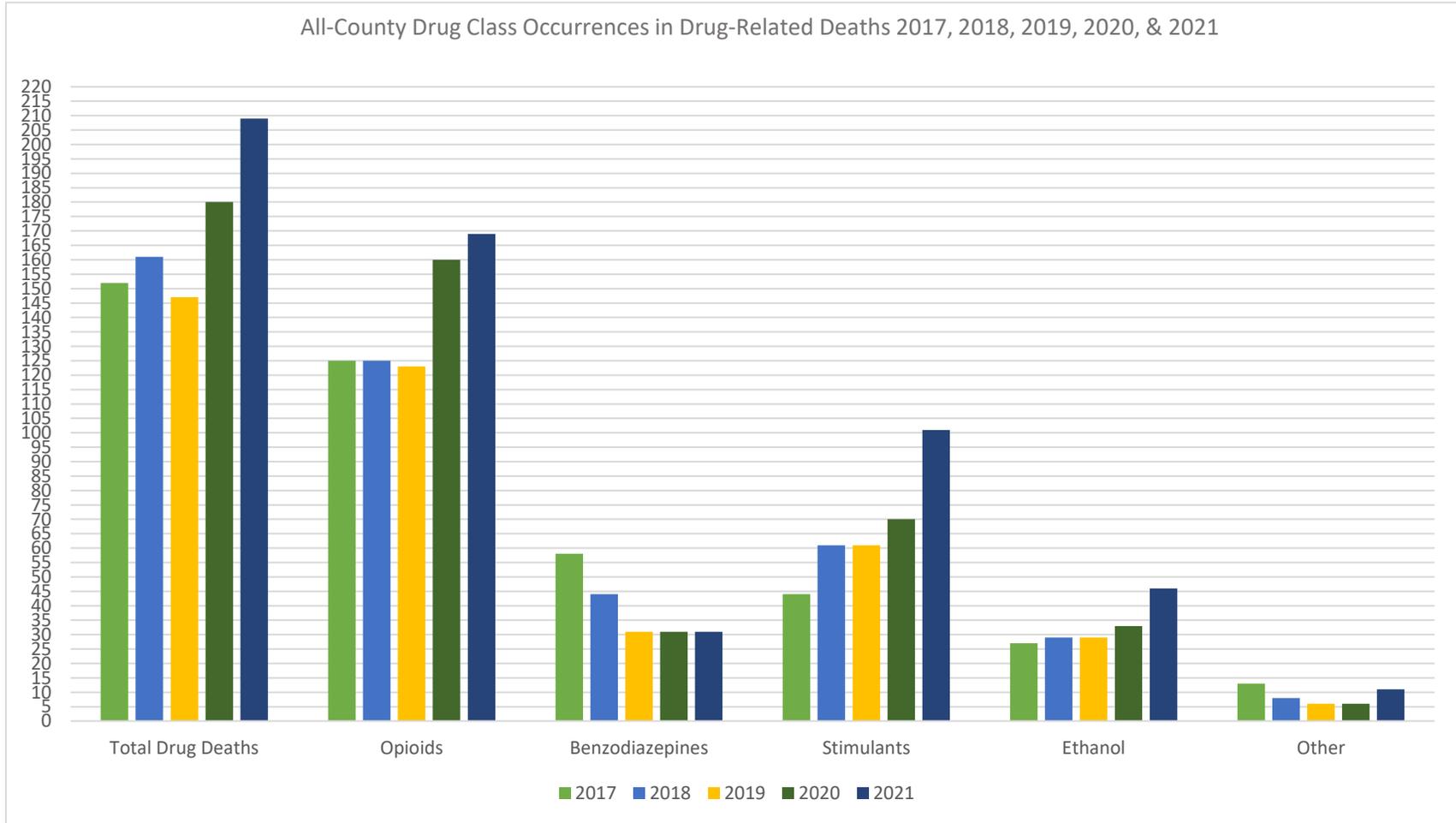
Shiawassee County

Drug-Related Deaths



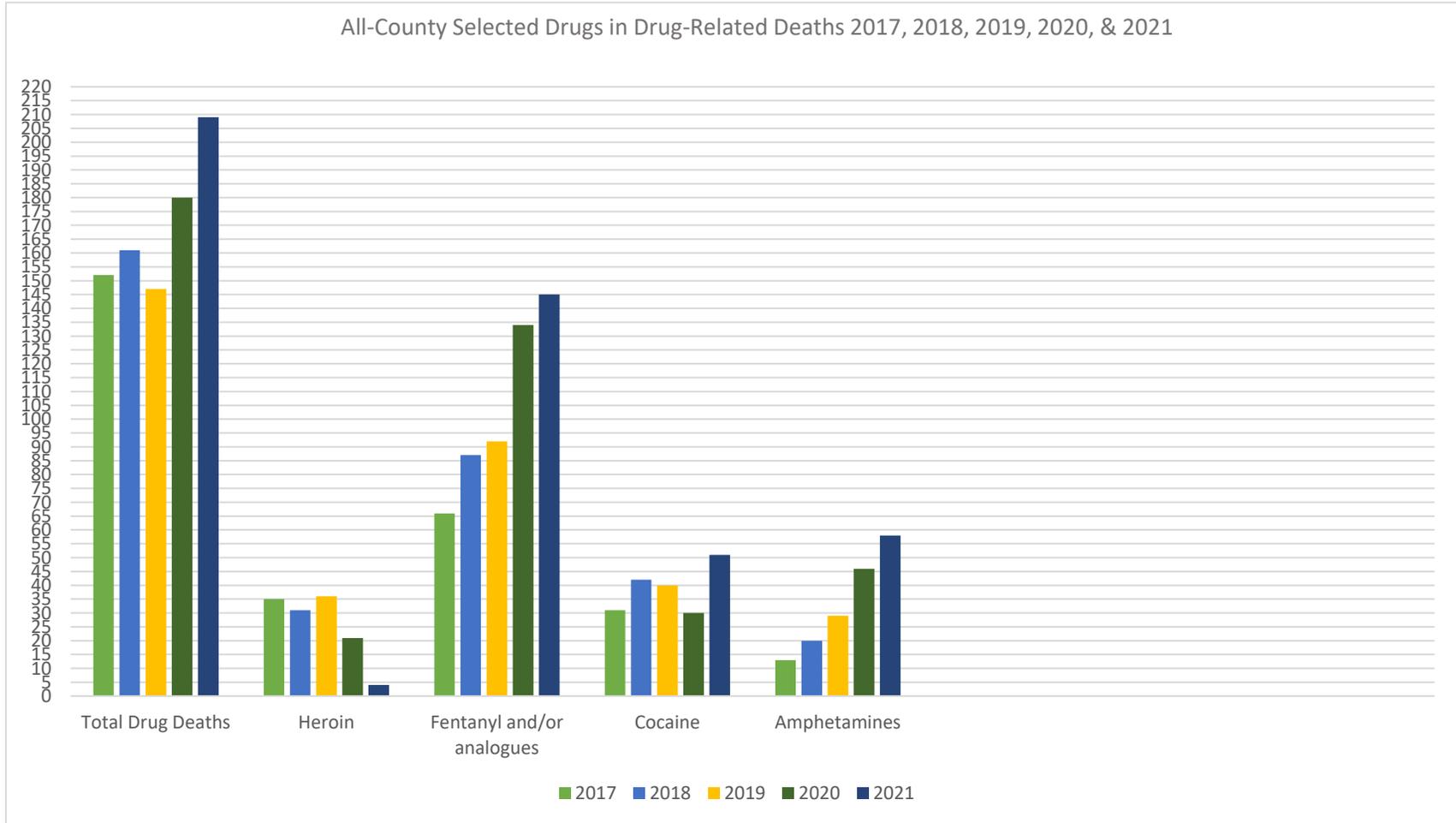
This chart describes occurrences in one death of a specific benzodiazepine drug. As some benzodiazepine drug-related deaths are due to more than one benzodiazepine, the same death may fall into multiple categories (e.g. death due to alprazolam and diazepam intoxication falls into both categories). The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

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).

Historical Data

2017-2021 Total Drug Deaths for Eaton, Ingham, Ionia, Isabella, and Shiawassee Counties

- The total drug death trend has continued on an upward trajectory from 2017 (152) to 2021 (212); the lowest total in the five year span was in 2019 (147) suggesting the beginning of a downward trend, however the number rose steeply in 2020 (180) and again in 2021 (206)
- Opioid drug deaths had been relatively stable over the years 2017 to 2019 (125, 125, 123) with a steep increase in 2020 (160) that continued in 2021 (169).
- Drug deaths involving fentanyl have continued to increase over the five years 2017 to 2021, increasing ~120% from 2017 (66) to 2021 (145) with a significant increase in the last two years (2020 and 2021).
- Drug deaths involving heroin dramatically decreased in 2021 (only 4) continuing a decrease that was noted in 2020
- Drug deaths involving benzodiazepines significantly decreased from 2017 to 2019 and have remained stable the last three years (2019 to 2021).
- Drug deaths involving stimulants continued an upward trend, but with a rather large increase in 2021 (44% increase over 2020).
- Drug deaths involving amphetamines (primarily methamphetamine) have steadily increased from 2017 to 2021 – with an over 300% increase from 2017 (13) to 2021 (61).
- Cocaine related deaths reached a high point in 2021 (51) marking the steepest one year increase over the last 5 years (70% increase from 2020 to 2021); the cocaine related deaths from 2017 to 2020 ranged from a low of 30 in 2020 to a high of 42 in 2018.