

# Department of Forensic Pathology Office of the Medical Examiner

2024 Drug Report April 18, 2025





#### 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.

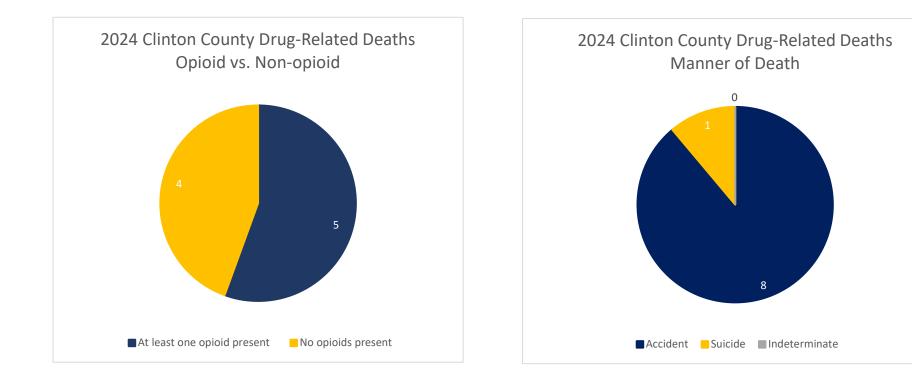
The extent of toxicology testing is determined by the medical examiner assigned to the case, based upon the circumstances of death. During the period reported, our office used AXIS Forensic Toxicology for toxicology testing.<sup>1</sup>

#### Manner Determination

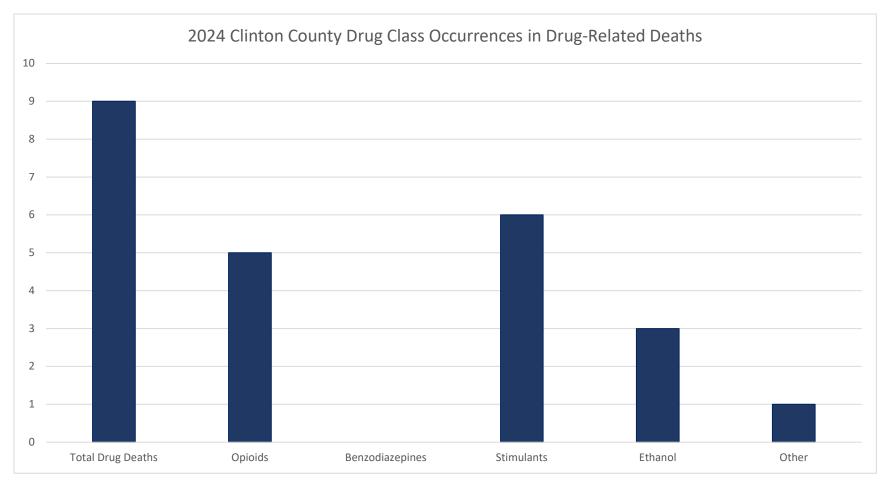
Drug-related deaths are conventionally certified as accidents (unless otherwise indicated by investigation on a case by case basis). A decedent's intentions in the interval immediately preceding death may be impossible to ascertain. A common example is a person who has a well-documented history of suicidal 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.

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

		2024 Clinton County Drug-Related Deaths	
Sex	Age	Substance(s) Causing Death	Manner of Death
Male	35	fentanyl, mitragynine	Accident
Male	43	cocaine, ethanol	Accident
Female	46	cocaine, cyclobenzaprine, fentanyl, fluoxetine, hydroxyzine, pregabalin, trazodone	Accident
Female	46	fentanyl, methamphetamine	Accident
Male	48	ethanol, methamphetamine	Accident
Male	53	cocaine, fentanyl	Accident
Female	58	amitriptyline, citalopram/escitalopram, cyclobenzaprine	Suicide
Male	59	methamphetamine	Accident
Male	60	ethanol, fentanyl, hydrocodone	Accident

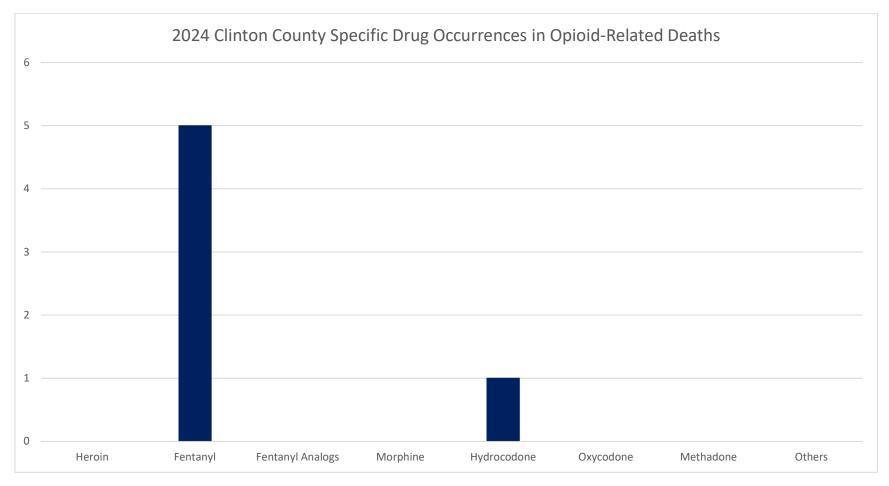


**Drug-Related Deaths** 



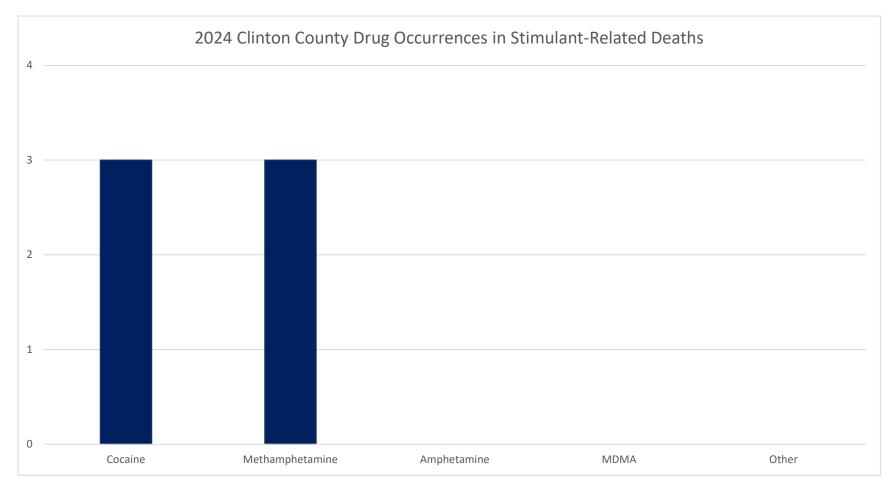
This chart describes occurrences in one death of a given class of drug. As most drug-related deaths are due to two or more substances, the same death may fall into multiple categories (e.g. death due to fentanyl, cocaine, and alprazolam intoxication falls into the opioids, stimulants, and benzodiazepines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

**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.

**Drug-Related Deaths** 



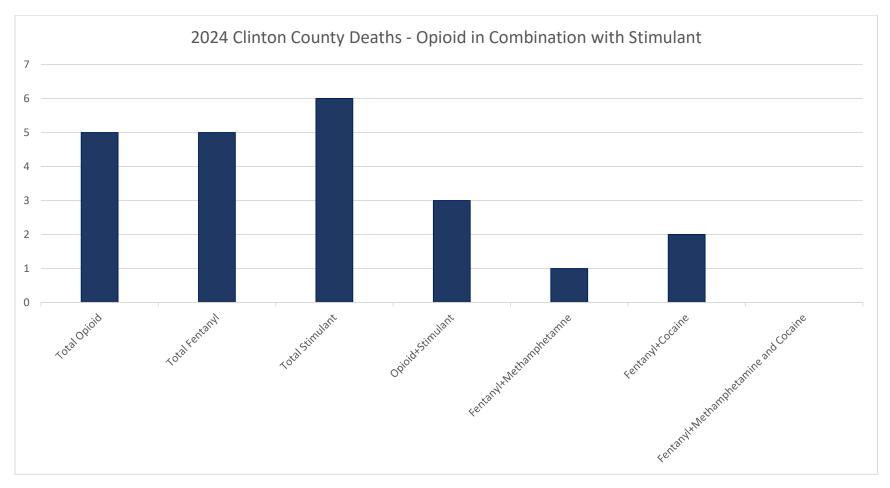
This chart describes occurrences in one death of a specific stimulant drug. As some stimulant drug-related deaths are due to more than one stimulant, the same death may fall into multiple categories (e.g. death due to cocaine and methamphetamine intoxication falls into both categories). The "other" category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

**Drug-Related Deaths** 

1	2024	2024 Clinton County Drug Occurrences in Benzodiazepine-Related Deaths						
1								
0	Alprazolam	Clonazepam	Diazepam	Lorazepam	Other			

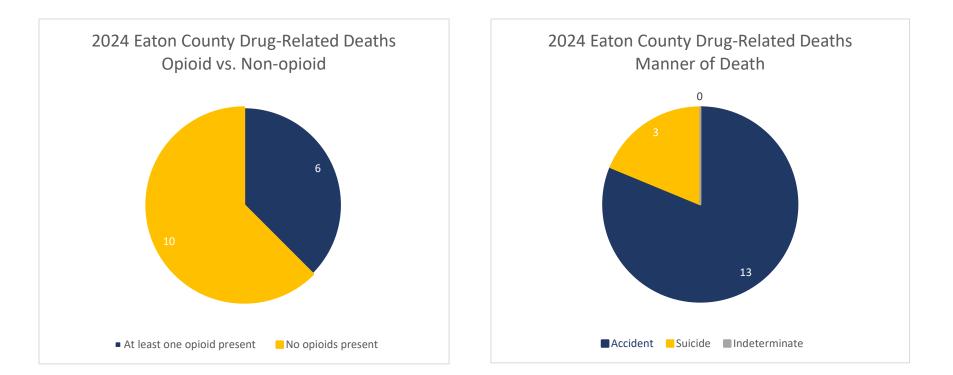
This chart describes occurrences in one death of a specific benzodiazepine drug. As some benzodiazepine drug-related deaths are due to more than one benzodiazepine, the same death may fall into multiple categories (e.g. death due to alprazolam and diazepam intoxication falls into both categories). The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

**Drug-Related Deaths** 

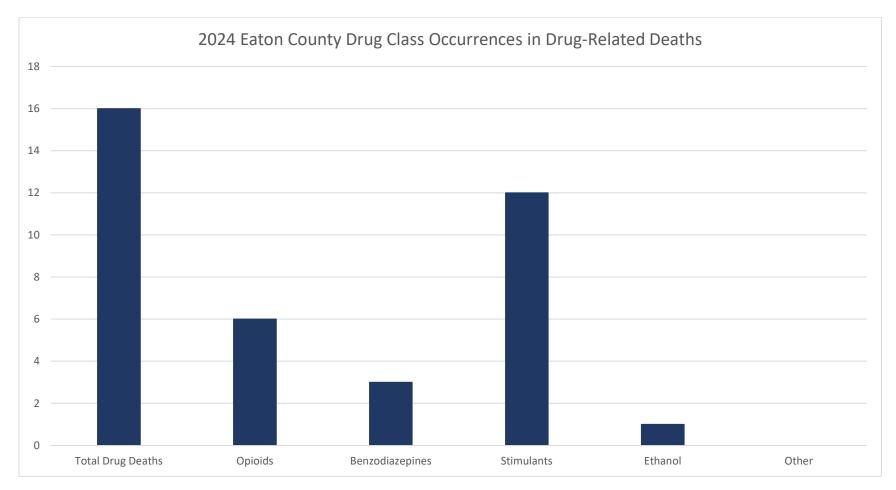


This chart describes occurrences in one death of both an opioid and a stimulant drug. In most of the cases fentanyl is the (or at least one of) opioid present. In most of the cases the stimulant is either methamphetamine or cocaine.

		2024 Eaton County Drug-Related Deaths	
Sex	Age	Substance(s) Causing Death	Manner of Death
Male	24	fentanyl, xylazine	Accident
Female	34	alprazolam, doxepin, fluoxetine, lamotrigine, quetiapine	Suicide
Male	34	cocaine	Accident
Male	36	cocaine, methamphetamine	Accident
Male	37	bromazolam, cocaine, fentanyl, oxycodone	Accident
Female	39	methamphetamine	Accident
Male	39	fentanyl, methadone, methamphetamine	Accident
Female	39	cocaine, fentanyl, fluorofentanyl	Accident
Male	40	methamphetamine	Accident
Male	41	cocaine, fentanyl, methamphetamine	Accident
Male	46	acetylfentanyl, fentanyl, fluorofentanyl	Suicide
Female	54	ethanol, lorazepam, and mirtazapine	Suicide
Female	56	cocaine, methamphetamine	Accident
Female	60	amphetamine	Accident
Male	62	cocaine	Accident
Male	64	cocaine	Accident

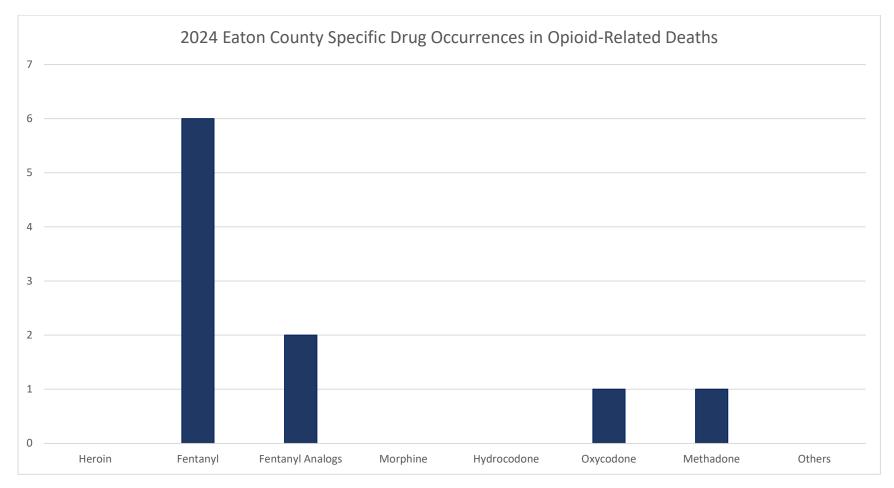


**Drug-Related Deaths** 



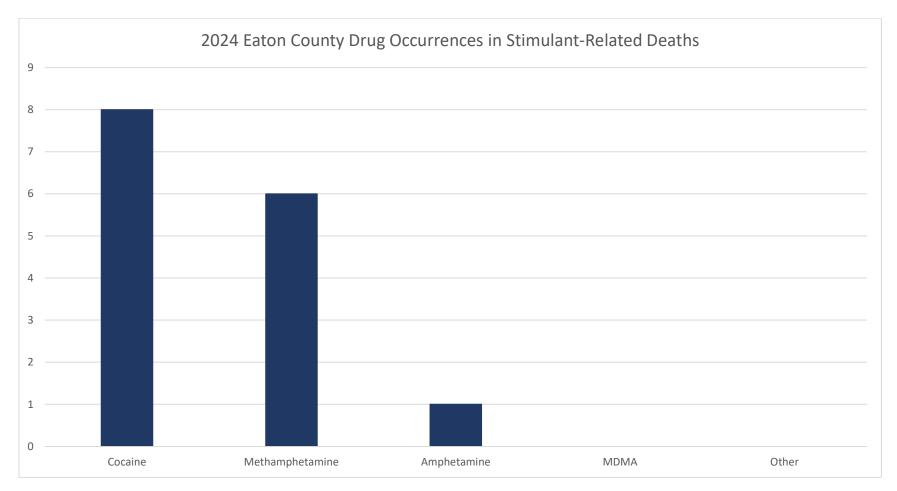
This chart describes occurrences in one death of a given class of drug. As most drug-related deaths are due to two or more substances, the same death may fall into multiple categories (e.g. death due to fentanyl, cocaine, and alprazolam intoxication falls into the opioids, stimulants, and benzodiazepines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

**Drug-Related Deaths** 



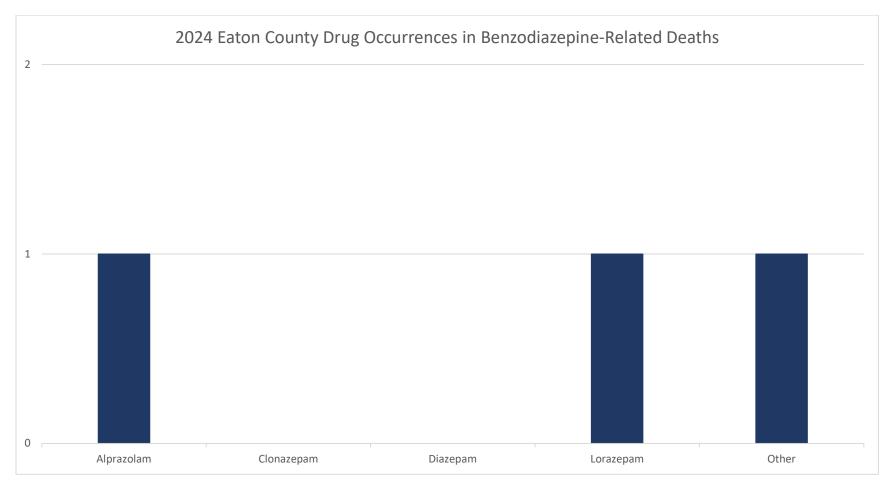
This chart describes occurrences in one death of a specific opioid drug. As some opioid-related deaths are due to two or more opioids, the same death may fall into multiple categories (e.g. death due to fentanyl and heroin intoxication falls into both the fentanyl and heroin categories). The "other" 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.

**Drug-Related Deaths** 

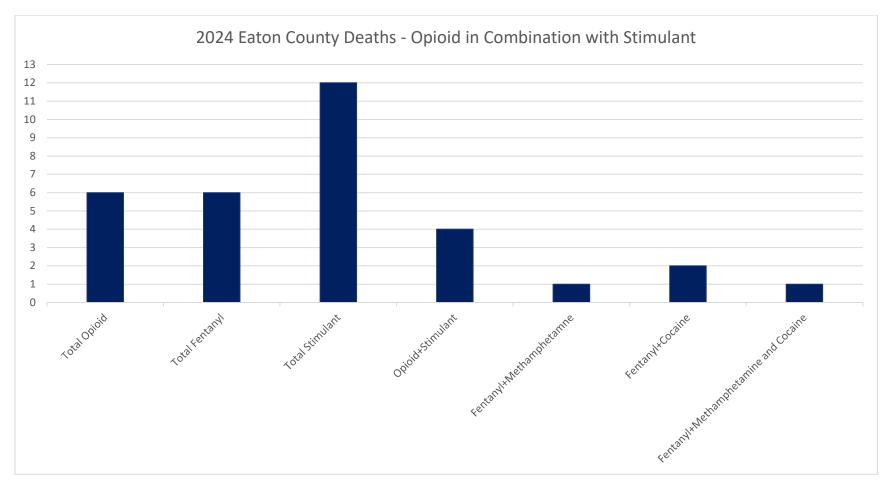


This chart describes occurrences in one death of a specific stimulant drug. As some stimulant drug-related deaths are due to more than one stimulant, the same death may fall into multiple categories (e.g. death due to cocaine and methamphetamine intoxication falls into both categories). The "other" category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

**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) bromazolam, desalkylflurazepam, flubromazepam, temazepam, etizolam, chlordiazepoxide, and flualprazolam).

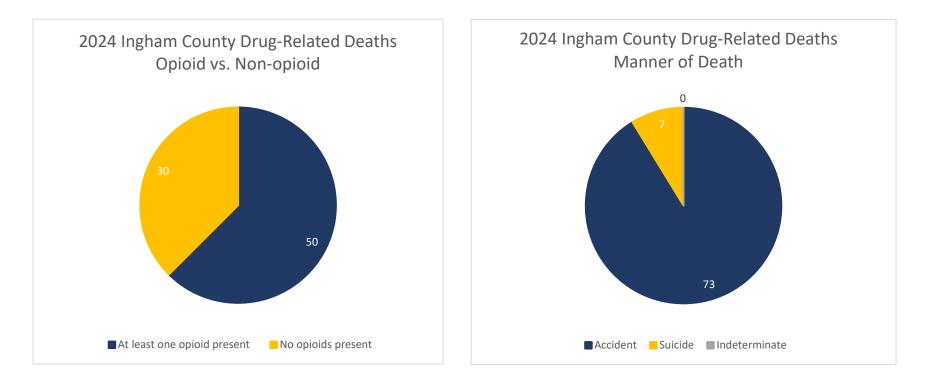


This chart describes occurrences in one death of both an opioid and a stimulant drug. In most of the cases fentanyl is the (or at least one of) opioid present. In most of the cases the stimulant is either methamphetamine or cocaine.

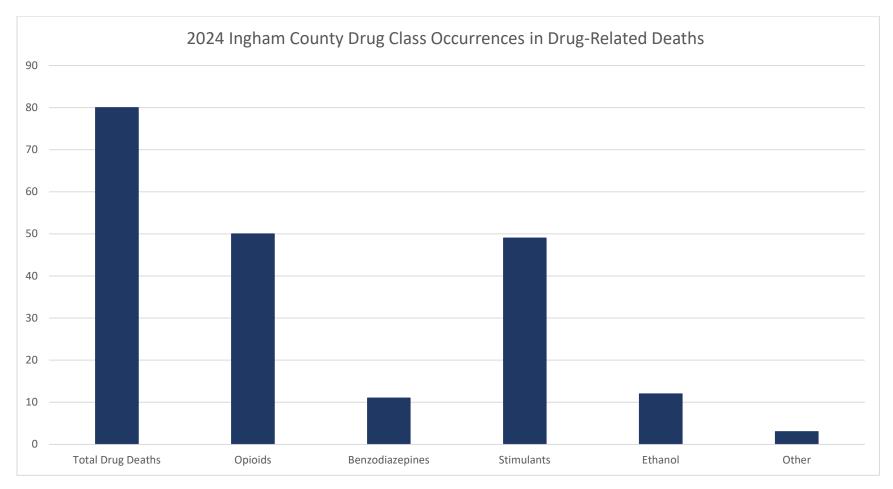
		2024 Ingham County Drug-Related Deaths	
Sex	Age	Substance(s) Causing Death	Manner of Death
Female	20	cocaine, fentanyl	Accident
Female	22	amitriptyline, amphetamine, diphenhydramine, hydroxyzine, trazodone	Suicide
Male	24	fentanyl, methamphetamine	Accident
Female	25	amphetamine, clonazepam, cocaine, ethanol, fentanyl, fluorfentanyl	Accident
Male	26	acetyl fentanyl, alprazolam, cocaine, diazepam, fentanyl, fluorofentanyl, methamphetamine, xylazine	Accident
Female	28	diphenhydramine, mirtazapine, promethazine, propranolol	Suicide
Male	30	ethanol, fentanyl	Accident
Female	31	clonazepam, diazepam, fentanyl, gabapentin, mitragynine	Accident
Male	31	fentanyl, methamphetamine	Accident
Male	32	cocaine, fentanyl, morphine	Accident
Male	32	alprazolam, fentanyl, heroin, mitragynine	Accident
Female	33	bupropion, methamphetamine	Suicide
Male	33	cocaine, fentanyl, methamphetamine	Accident
Male	33	ethanol, gabapentin, oxycodone, sertraline, trazodone	Accident
Male	34	methamphetamine	Accident
Female	34	fentanyl	Accident
Female	37	fentanyl	Accident
Female	37	fentanyl	Accident
Female	37	methamphetamine	Accident
Male	38	cocaine, ethanol, fentanyl	Accident
Male	39	cocaine, fentanyl, methamphetamine	Accident
Female	39	methamphetamine	Accident
Male	39	fentanyl	Accident
Male	39	cocaine	Accident
Female	39	acetylfentanyl, cocaine, fentanyl, fluorofentanyl	Accident

Male	40	fentanyl, methamphetamine	Accident
Female	41	fentanyl, methamphetamine	Accident
Male	41	fentanyl	Accident
Male	41	ethanol, fentanyl	Accident
Male	43	methadone	Accident
Female	43	cocaine, fentanyl	Accident
Male	43	cocaine	Accident
Male	43	fentanyl	Accident
Male	44	clonazepam, fentanyl, gabapentin	Accident
Female	44	clonazepam, fentanyl, heroin, methadone	Accident
Female	44	mitragynine	Accident
Female	44	cyclobenzaprine, duloxetine, ethanol, pregabalin, quetiapine	Accident
Male	45	cocaine, ethanol	Accident
Male	45	cocaine, ethanol	Accident
Male	45	fentanyl, methamphetamine	Accident
Male	45	bromazolam, cocaine, fentanyl	Accident
Female	45	acetyl fentanyl, cocaine, fentanyl	Accident
Male	46	fentanyl, fluorofentanyl, morphine	Accident
Male	46	acetyl fentanyl, fentanyl, fluorofentanyl	Accident
Male	46	cocaine, fentanyl	Accident
Male	46	methamphetamine	Accident
Female	47	acetaminophen, alprazolam, gabapentin, hydrocodone, topiramate	Accident
Female	47	clonazepam, fentanyl	Accident
Male	47	fentanyl	Accident
Female	49	methamphetamine	Accident
Male	49	cocaine	Accident
Male	50	bupropion, cyclobenzaprine, dextro/levo methorphan, hydrocodone, paroxetine, trazodone	Suicide
Male	52	fentanyl	Accident
Male	52	cocaine	Accident
Male	54	cocaine	Accident
Male	55	cocaine	Accident
Male	55	ethanol, gabapentin, hydroxyzine, metoprolol	Suicide

Female	55	chlordiazepoxide, demoxepam, ethanol, hydroxyzine, nordiazepam, trazodone	Suicide
Male	56	cocaine	Accident
Male	56	fentanyl, methamphetamine, venlafaxine	Accident
Male	58	cocaine, dihydrocodeine, fentanyl, hydrocodone	Accident
Male	58	methamphetamine	Accident
Male	58	cocaine, fentanyl	Accident
Male	58	cocaine	Accident
Male	59	cocaine , fentanyl, methamphetamine	Accident
Male	59	cocaine	Accident
Female	59	cyclobenzaprine, methamphetamine	Accident
Female	60	cocaine, fentanyl, methadone, methamphetamine	Accident
Male	60	cocaine, fentanyl	Accident
Female	60	cocaine, fentanyl, ethanol	Accident
Male	60	acetylfentanyl, cyclobenzaprine, fentanyl, fluorofentanyl, phenobarbital	Accident
Female	60	fluoxetine, gabapentin, oxycodone, trazodone	Accident
Male	61	cocaine	Accident
Female	62	methamphetamine	Accident
Male	65	cocaine, ethanol	Accident
Male	69	clonazepam, oxycodone	Accident
Male	69	cocaine	Accident
Male	73	cocaine, fentanyl	Accident
Male	81	fentanyl	Accident
Female	87	acetaminophen	Suicide

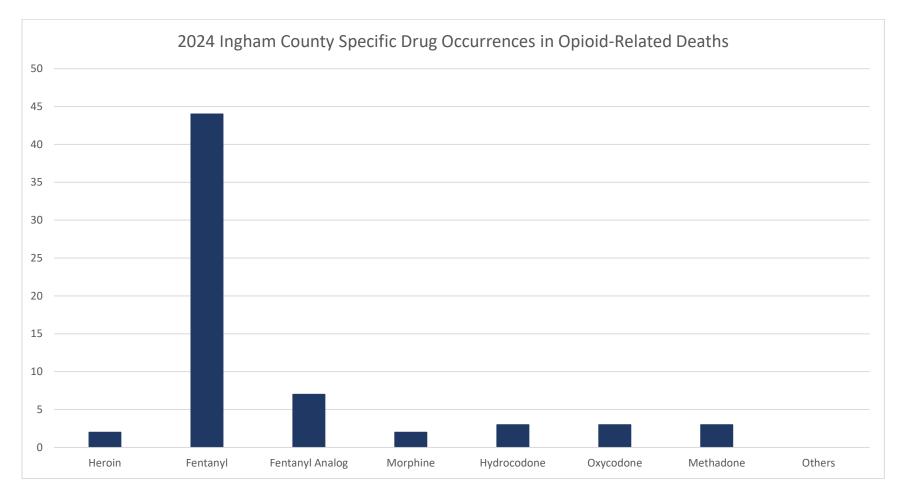


**Drug-Related Deaths** 



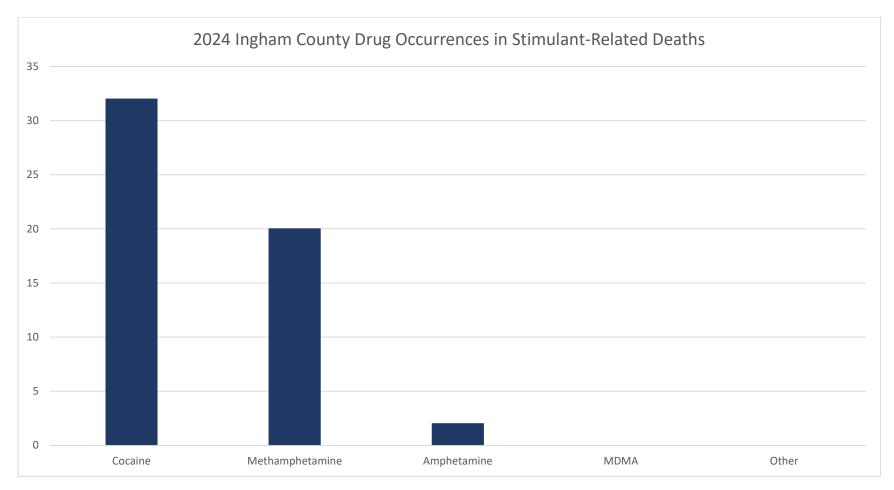
This chart describes occurrences in one death of a given class of drug. As most drug-related deaths are due to two or more substances, the same death may fall into multiple categories (e.g. death due to fentanyl, cocaine, and alprazolam intoxication falls into the opioids, stimulants, and benzodiazepines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

**Drug-Related Deaths** 



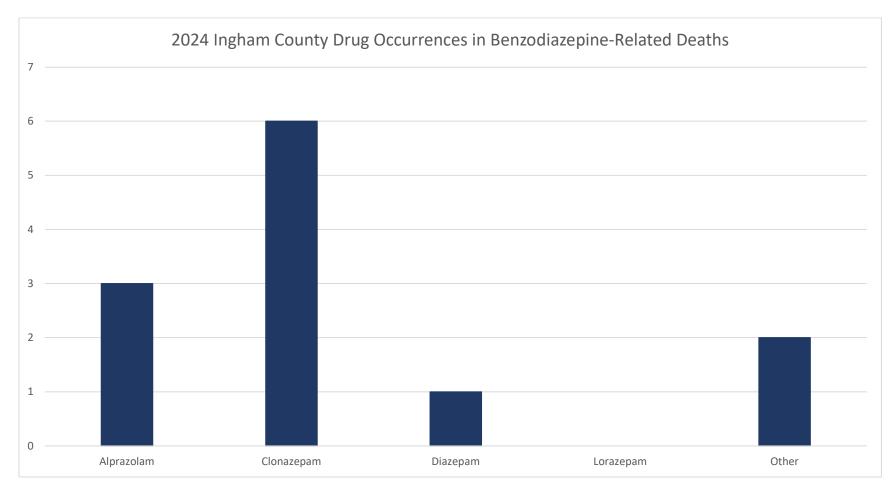
This chart describes occurrences in one death of a specific opioid drug. As some opioid-related deaths are due to two or more opioids, the same death may fall into multiple categories (e.g. death due to fentanyl and heroin intoxication falls into both the fentanyl and heroin categories). The "other" 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.

**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 and eutylone (bath salt).

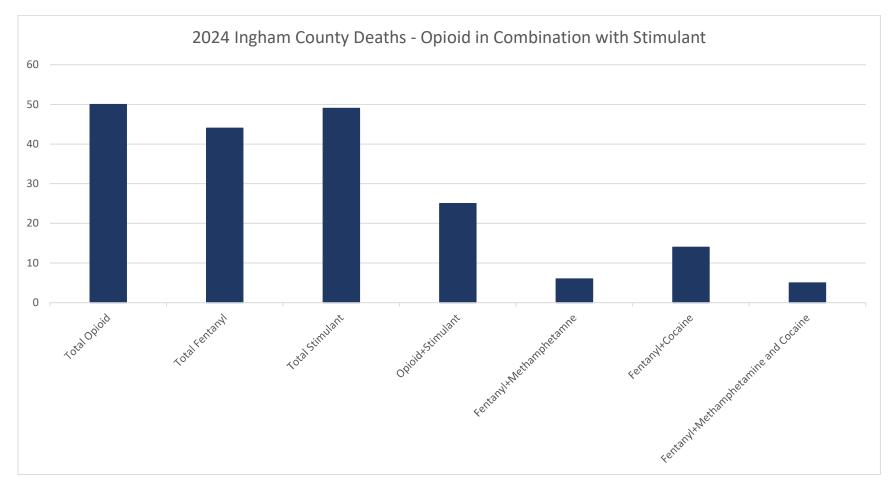
**Drug-Related Deaths** 



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) bromazolam, desalkylflurazepam, flubromazepam, temazepam, etizolam, chlordiazepoxide, and flualprazolam).

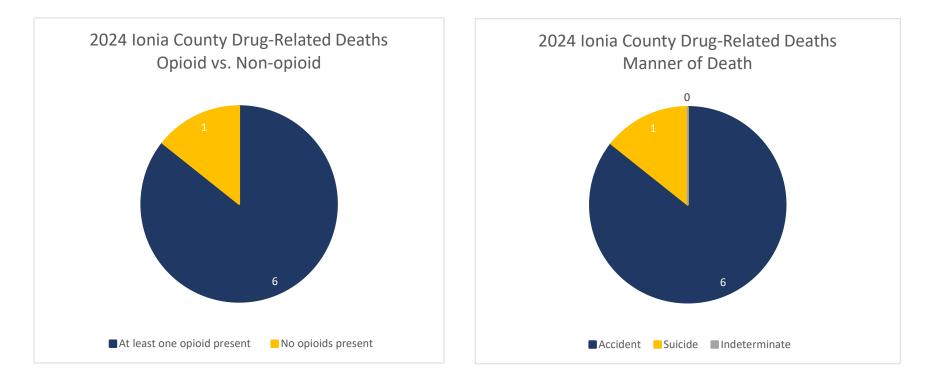


**Drug-Related Deaths** 

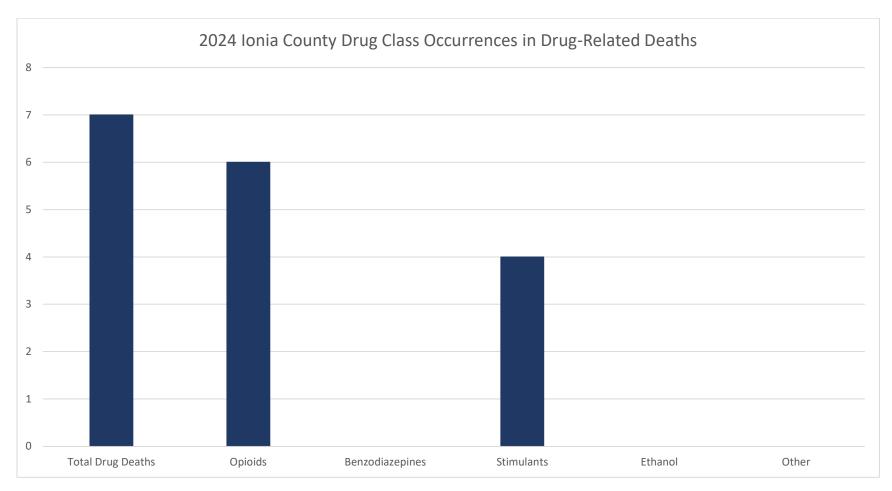


This chart describes occurrences in one death of both an opioid and a stimulant drug. In most of the cases fentanyl is the (or at least one of) opioid present. In most of the cases the stimulant is either methamphetamine or cocaine.

2024 Ionia County Drug-Related Deaths					
Sex	Age	Substance(s) Causing Death	Manner of Death		
Male	27	cocaine, methamphetamine	Accident		
Male	35	fentanyl, methamphetamine	Accident		
Male	37	acetyl fentanyl, fentanyl	Accident		
Male	37	fentanyl, methamphetamine	Accident		
Male	43	cocaine, fentanyl	Accident		
		acetaminophen, butalbital, citalopram/escitalopram, diphenhydramine, gabapentin, methadone, metoprolol,			
Female	50	phentermine	Suicide		
Male	53	fentanyl, fluorofentanyl	Accident		

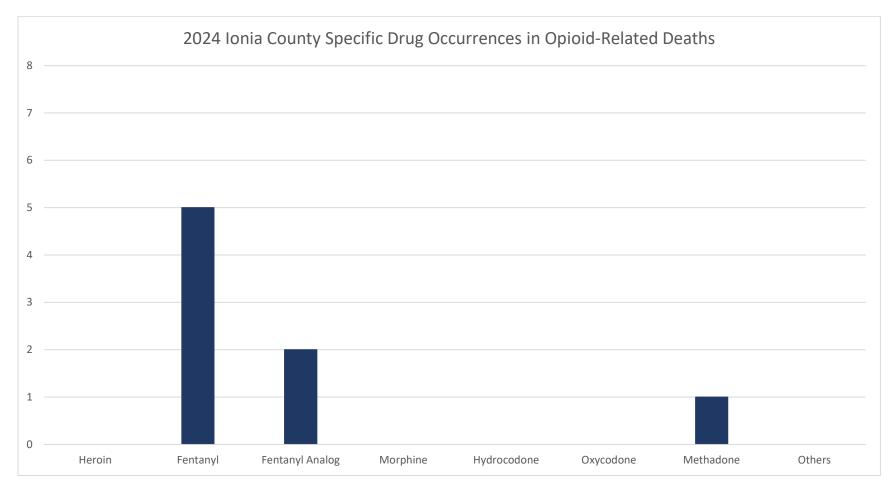


**Drug-Related Deaths** 



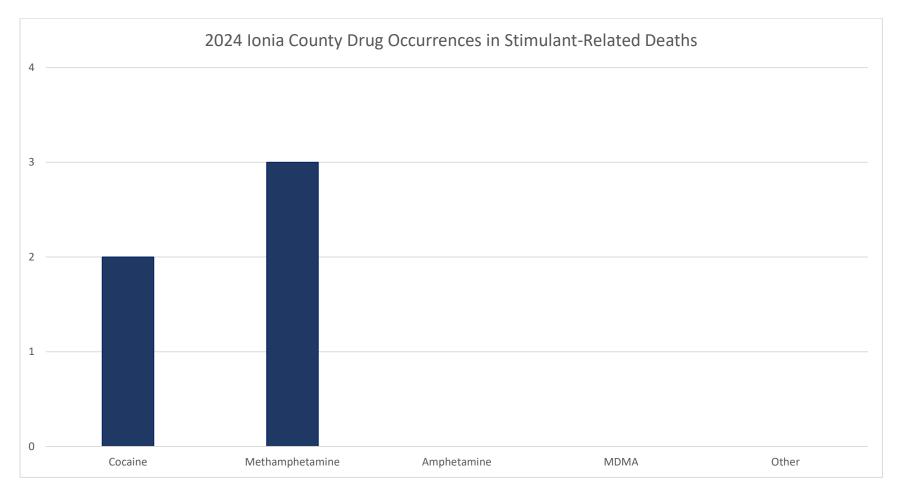
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**Drug-Related Deaths** 



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.

**Drug-Related Deaths** 

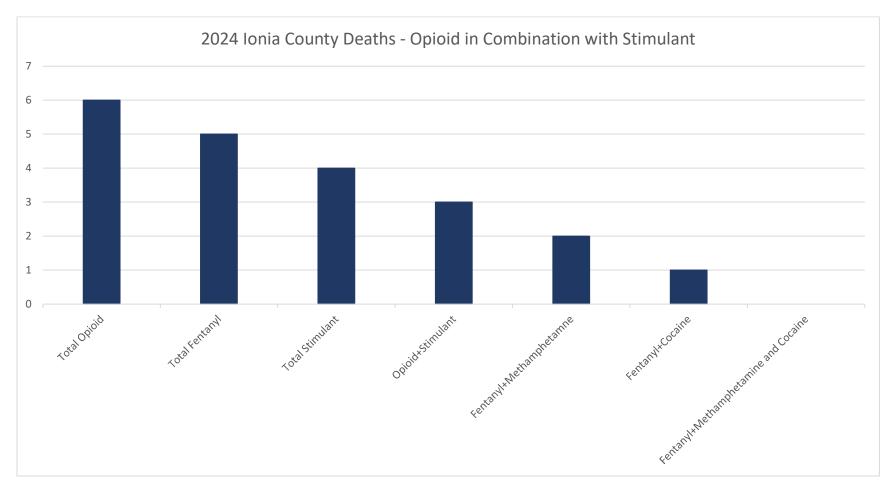


This chart describes occurrences in one death of a specific stimulant drug. As some stimulant drug-related deaths are due to more than one stimulant, the same death may fall into multiple categories (e.g. death due to cocaine and methamphetamine intoxication falls into both categories). The "other" category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

**Drug-Related Deaths** 

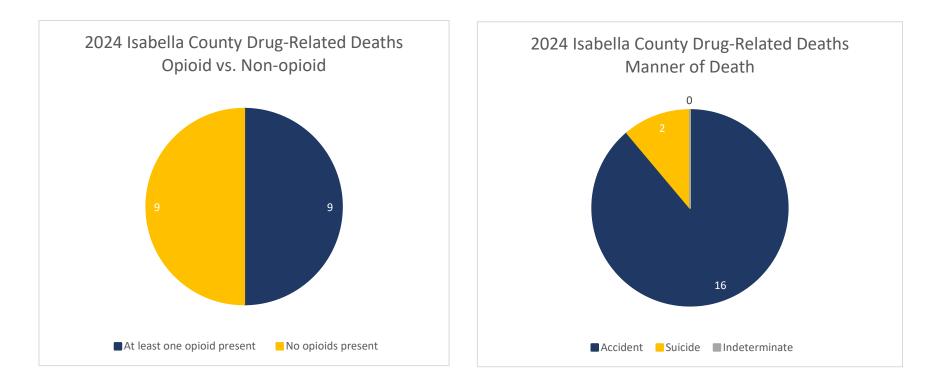
1	2024 Ioni	2024 Ionia County Drug Occurrences in Benzodiazepine-Related Deaths					
1							
0	Alprazolam	Clonazepam	Diazepam	Lorazepam	Other		

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) bromazolam, desalkylflurazepam, flubromazepam, temazepam, etizolam, chlordiazepoxide, and flualprazolam).

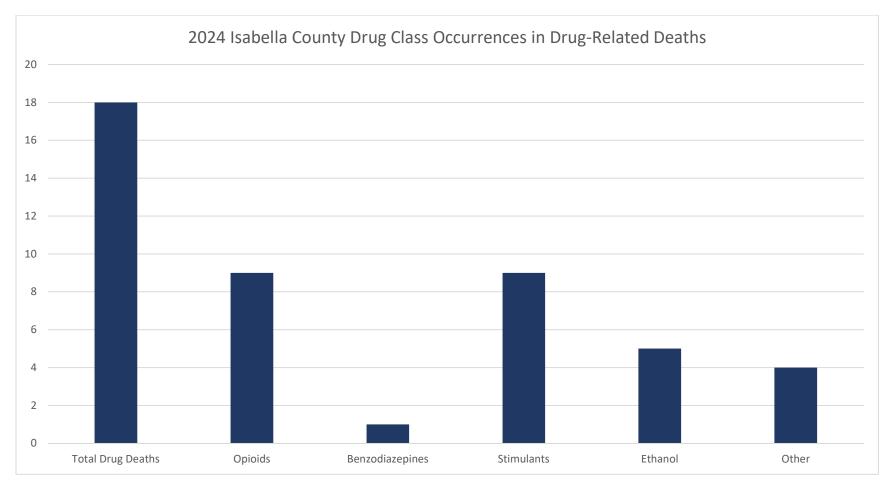


This chart describes occurrences in one death of both an opioid and a stimulant drug. In most of the cases fentanyl is the (or at least one of) opioid present. In most of the cases the stimulant is either methamphetamine or cocaine.

		2024 Isabella County Drug-Related Deaths	
Sex	Age	Substance(s) Causing Death	Manner of Death
Male	15	dextromethorphan, diphenhydramine	Accident
Male	22	ethanol, methadone	Accident
Male	25	amphetamine, ethanol	Accident
Male	26	ethanol, fentanyl, gabapentin, methamphetamine, pseudoephedrine, trazodone	Accident
Female	28	alprazolam, cocaine, cyclobenzaprine, fentanyl, methadone, mitragynine, morphine	Accident
Male	33	hydrocodone, methamphetamine	Accident
Male	34	fentanyl	Accident
Male	43	cocaine, fentanyl	Accident
Male	44	cocaine, fentanyl	Accident
Male	49	fentanyl	Accident
Female	53	cocaine	Accident
Male	54	hydroxyzine, nortriptyline, sertraline	Accident
Male	59	methamphetamine	Accident
Male	59	gabapentin	Suicide
Male	65	cyclobenzaprine, ethanol, gabapentin, hydrocodone	Accident
Male	66	methamphetamine	Accident
Female	67	ethanol, isopropanol	Accident
Female	70	gabapentin, mirtazapine, quetiapine, zolpidem	Suicide

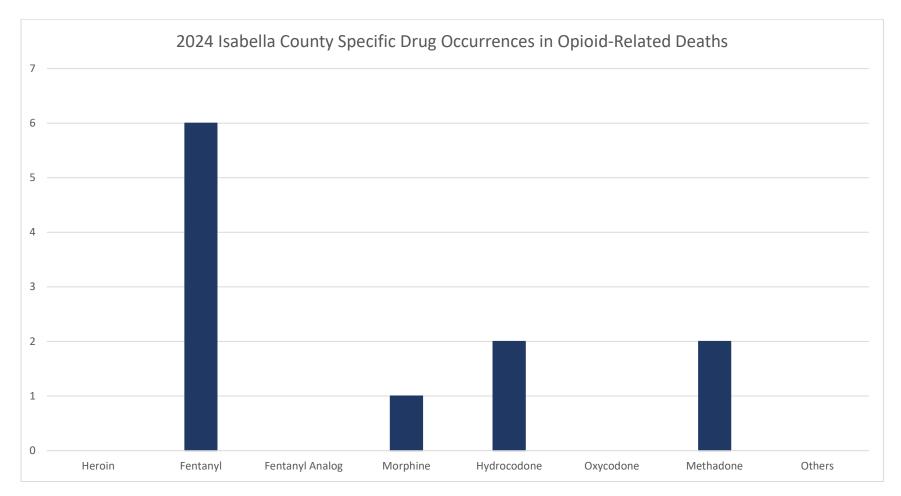


**Drug-Related Deaths** 



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.

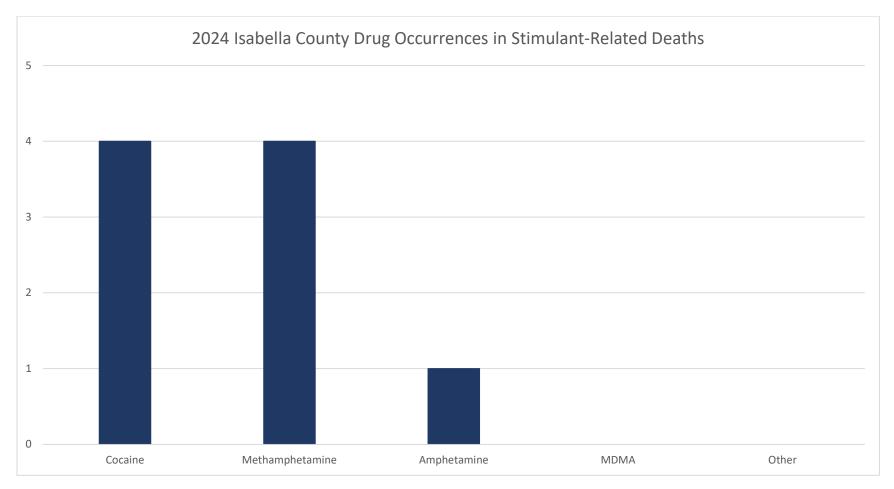
**Drug-Related Deaths** 



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### Isabella County

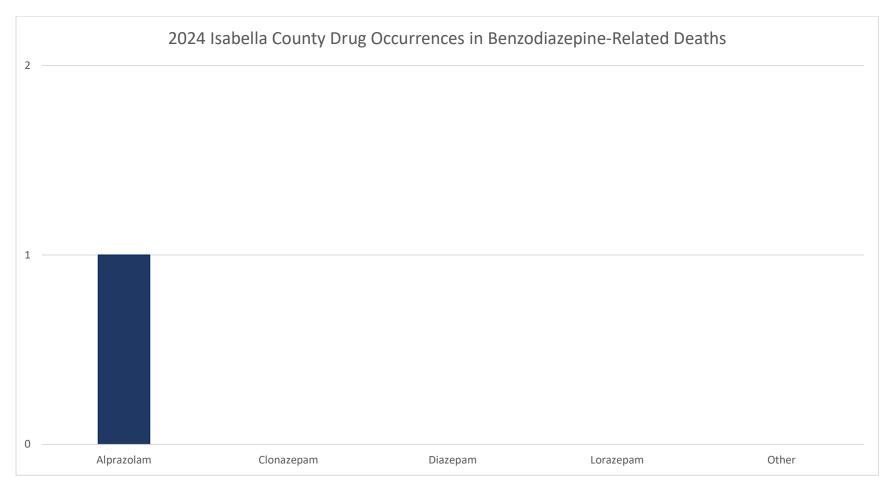
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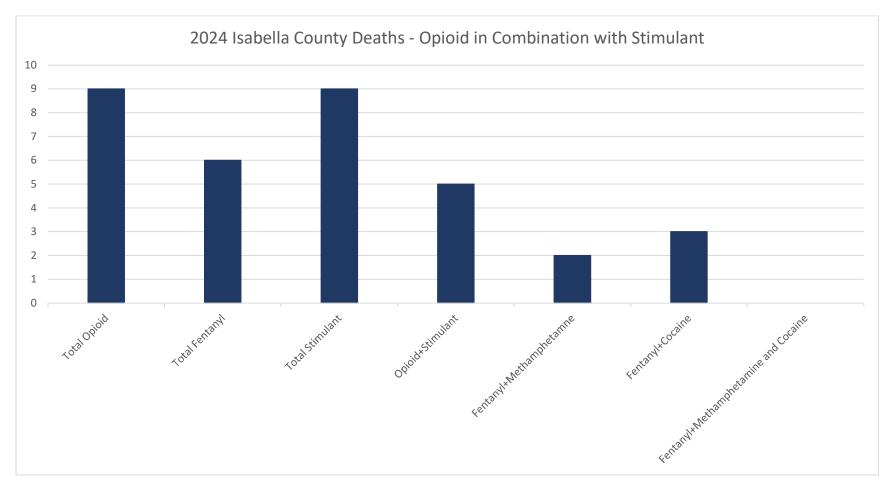
### Isabella County

**Drug-Related Deaths** 



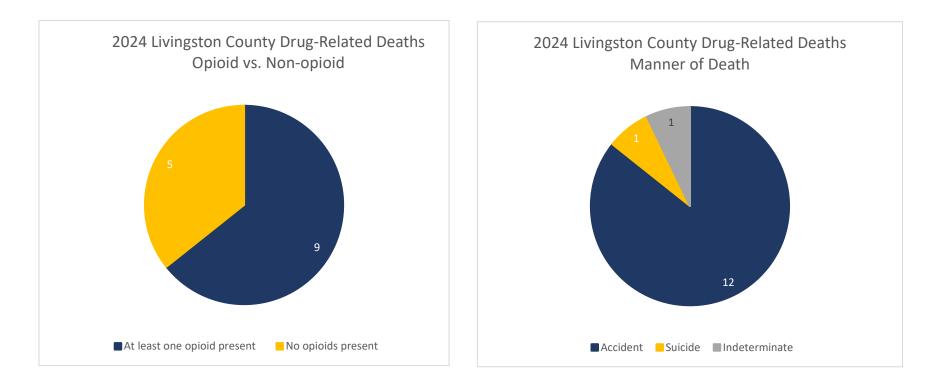
This chart describes occurrences in one death of a specific benzodiazepine drug. As some benzodiazepine drug-related deaths are due to more than one benzodiazepine, the same death may fall into multiple categories (e.g. death due to alprazolam and diazepam intoxication falls into both categories). The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

# Isabella County

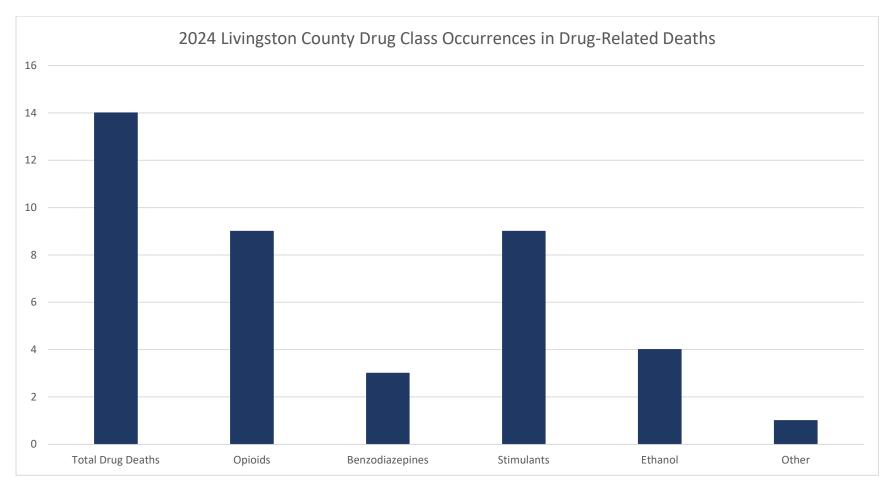


This chart describes occurrences in one death of both an opioid and a stimulant drug. In most of the cases fentanyl is the (or at least one of) opioid present. In most of the cases the stimulant is either methamphetamine or cocaine.

2024 Livingston County Drug-Related Deaths								
Sex	Age	Substance(s) Causing Death	Manner of Death					
Male	25	clonazepam, cocaine, diphenhydramine, doxylamine, fentanyl, hydroxyzine, mitragynine	Accident					
Male	30	cocaine, fentanyl, methamphetamine	Accident					
Male	33	cocaine, fentanyl	Accident					
Male	33	cocaine, ethanol, fentanyl, mitragynine	Accident					
Male	38	acetylfentanyl, alprazolam, fentanyl, fluorofentanyl, methamphetamine	Accident					
Female	49	sertraline	Indetermined					
Female	50	bupropion, ethanol	Suicide					
Female	51	cocaine, methamphetamine	Accident					
Female	51	bupropion, duloxetine, gabapentin, hydrocodone, mitragynine, methylphenidate, topiramate	Accident					
Male	55	cocaine, fentanyl, methamphetamine	Accident					
Male	56	fentanyl, methamphetamine	Accident					
Female	57	methamphetamine	Accident					
Male	61	ethanol	Accident					
Male	65	bromazolam, ethanol, fentanyl, hydrocodone	Accident					

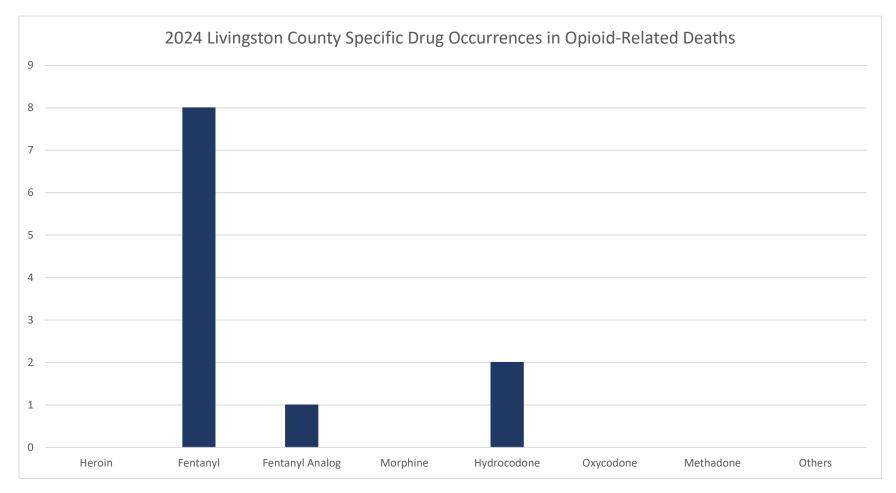


Drug-Related Deaths



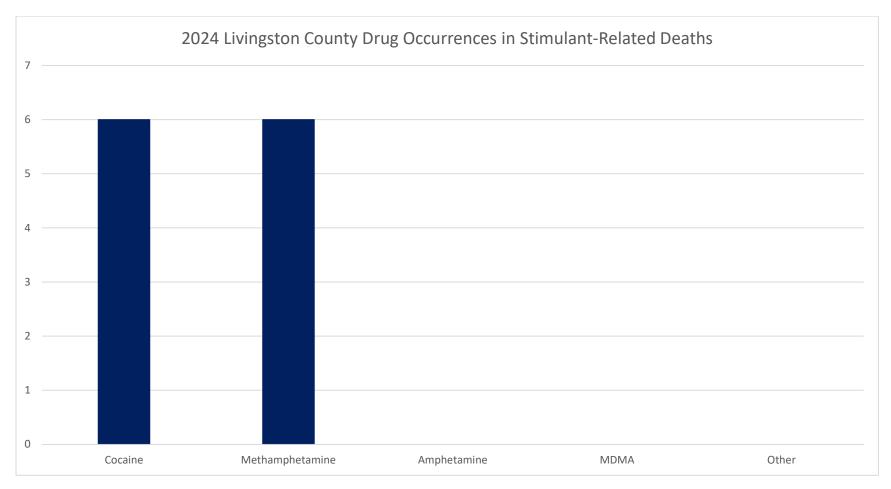
This chart describes occurrences in one death of a given class of drug. As most drug-related deaths are due to two or more substances, the same death may fall into multiple categories (e.g. death due to fentanyl, cocaine, and alprazolam intoxication falls into the opioids, stimulants, and benzodiazepines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

Drug-Related Deaths



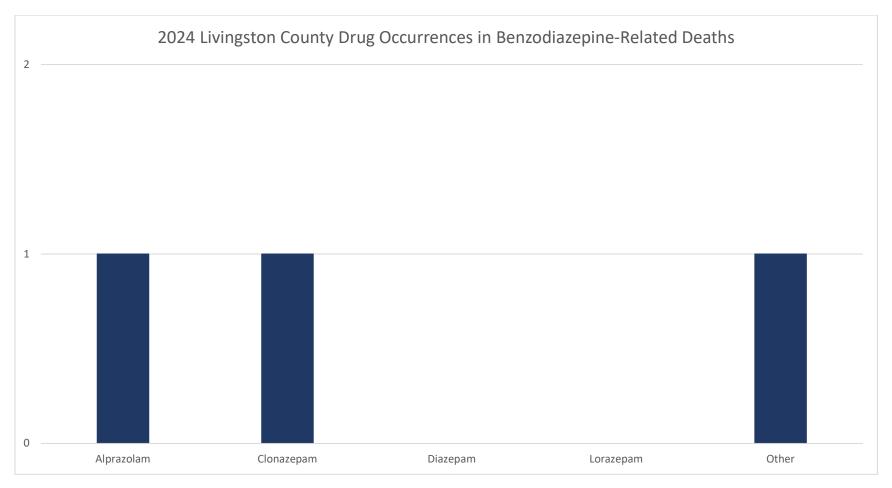
This chart describes occurrences in one death of a specific opioid drug. As some opioid-related deaths are due to two or more opioids, the same death may fall into multiple categories (e.g. death due to fentanyl and heroin intoxication falls into both the fentanyl and heroin categories). The "other"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

Drug-Related Deaths

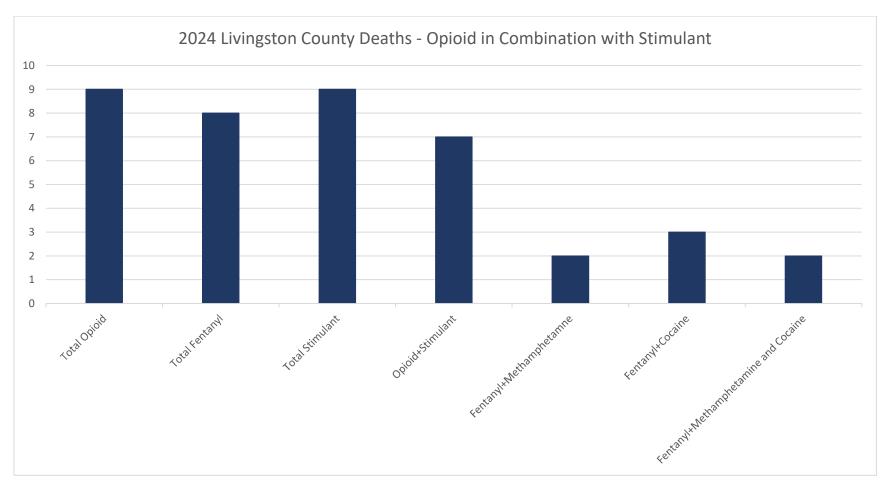


This chart describes occurrences in one death of a specific stimulant drug. As some stimulant drug-related deaths are due to more than one stimulant, the same death may fall into multiple categories (e.g. death due to cocaine and methamphetamine intoxication falls into both categories). The "other" category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

Drug-Related Deaths

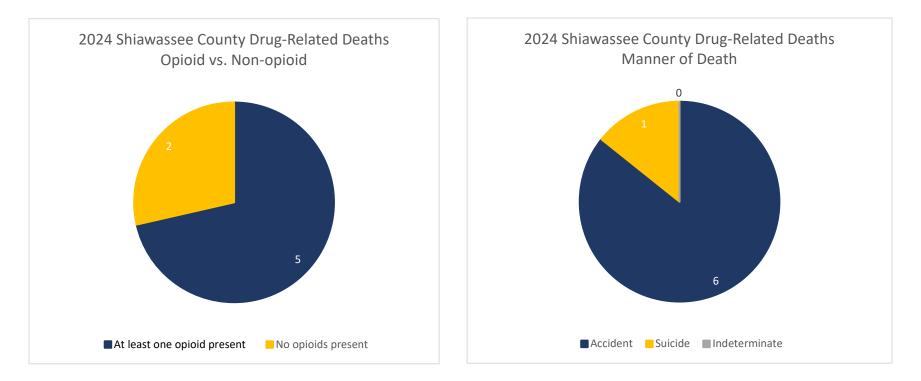


This chart describes occurrences in one death of a specific benzodiazepine drug. As some benzodiazepine drug-related deaths are due to more than one benzodiazepine, the same death may fall into multiple categories (e.g. death due to alprazolam and diazepam intoxication falls into both categories). The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

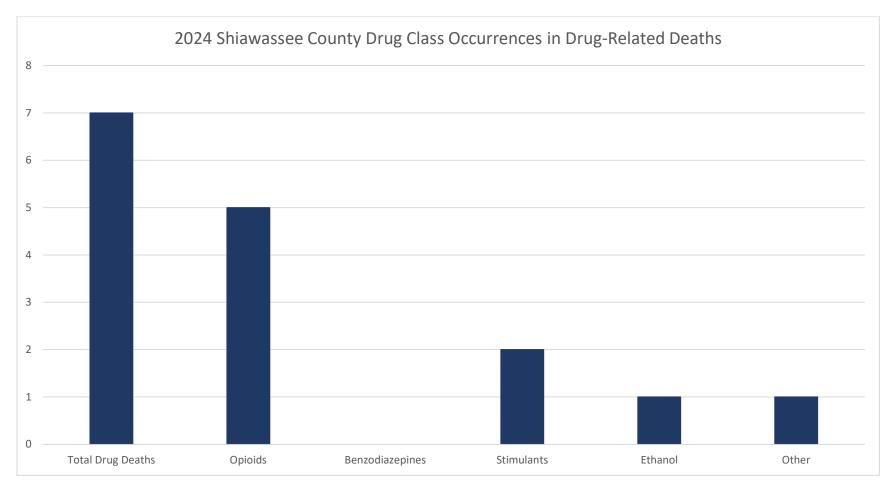


This chart describes occurrences in one death of both an opioid and a stimulant drug. In most of the cases fentanyl is the (or at least one of) opioid present. In most of the cases the stimulant is either methamphetamine or cocaine.

2024 Shiawassee County Drug-Related Deaths								
Sex	Age	Substance(s) Causing Death	Manner of Death					
Female	12	bupropion	Suicide					
Female	24	fentanyl, methamphetamine	Accident					
Male	33	cocaine	Accident					
Male	35	acetylfentanyl, fentanyl, gabapentin, xylazine	Accident					
Male	37	fentanyl, mitragynine	Accident					
Female	43	diphenhydramine, hydrocodone, mitragynine, quetiapine	Accident					
Male	50	carfentanil, ethanol, fentanyl	Accident					

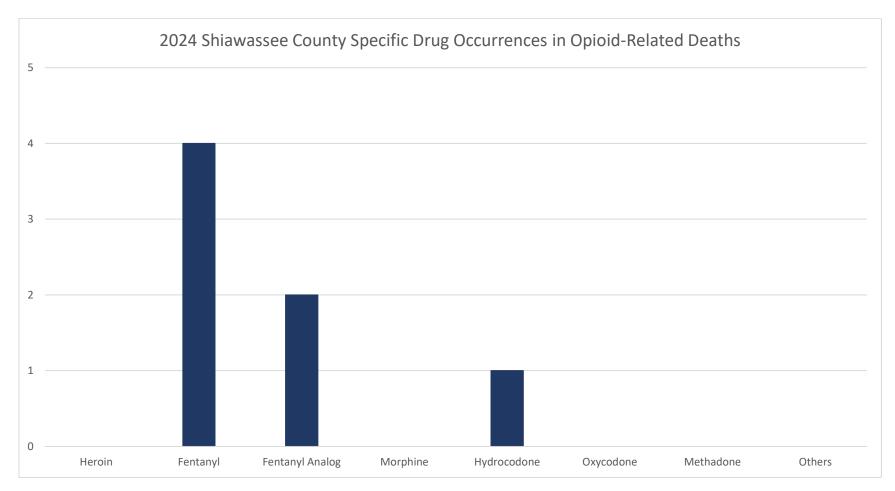


**Drug-Related Deaths** 



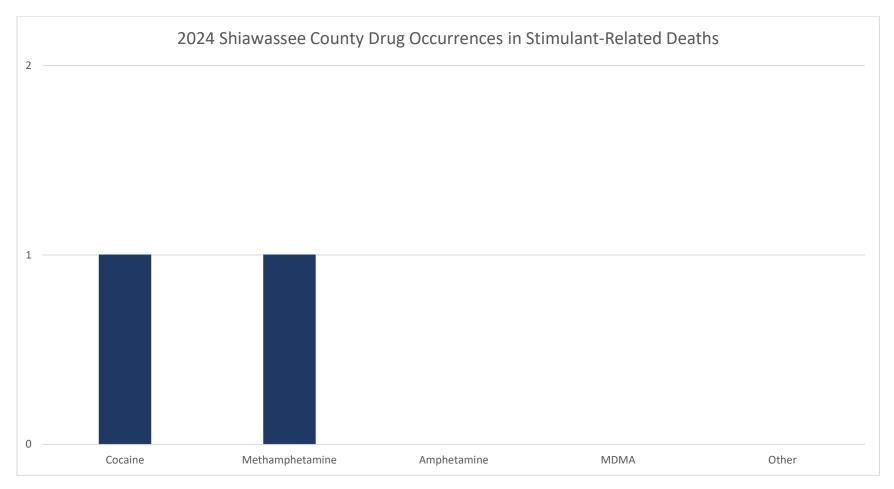
This chart describes occurrences in one death of a given class of drug. As most drug-related deaths are due to two or more substances, the same death may fall into multiple categories (e.g. death due to fentanyl, cocaine, and alprazolam intoxication falls into the opioids, stimulants, and benzodiazepines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

**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.

Drug-Related Deaths

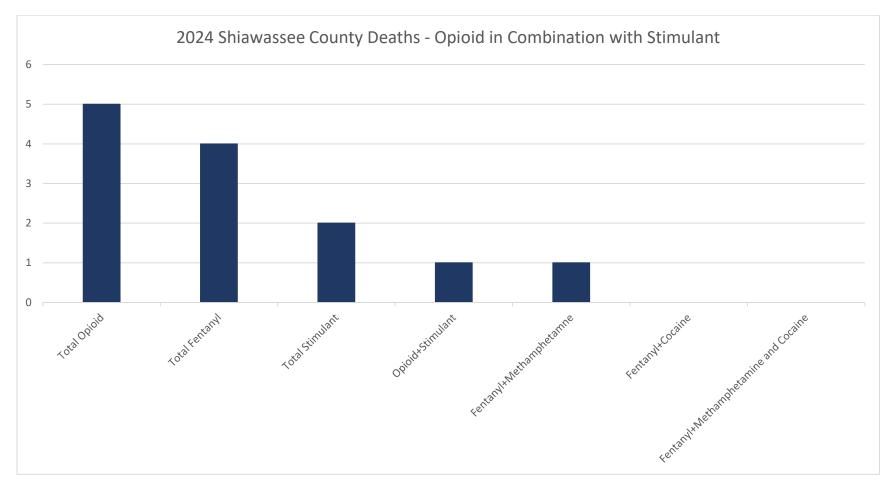


This chart describes occurrences in one death of a specific stimulant drug. As some stimulant drug-related deaths are due to more than one stimulant, the same death may fall into multiple categories (e.g. death due to cocaine and methamphetamine intoxication falls into both categories). The "other" category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

Drug-Related Deaths

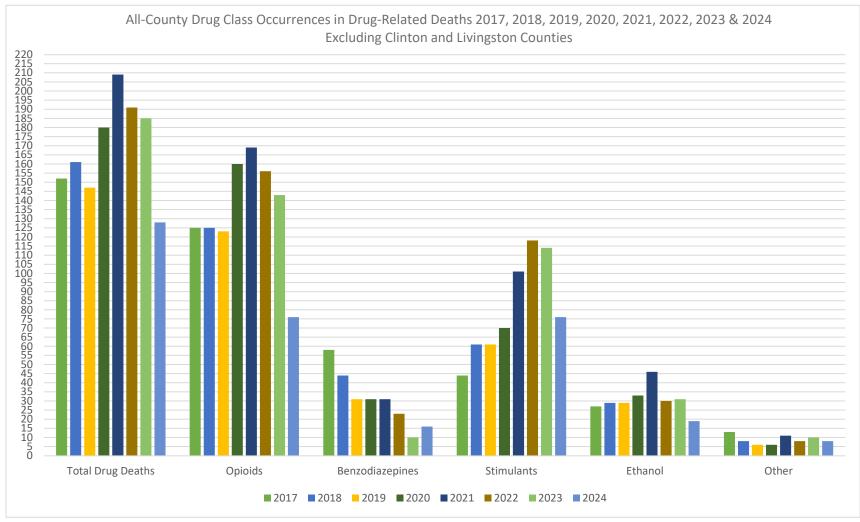
1	2024 Shiawassee County Drug Occurrences in Benzodiazepine-Related Deaths						
1							
۵	Iprazolam	Clonazepam	Diazepam	Lorazepam	Other		

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) bromazolam, desalkylflurazepam, flubromazepam, temazepam, etizolam, chlordiazepoxide, and flualprazolam).



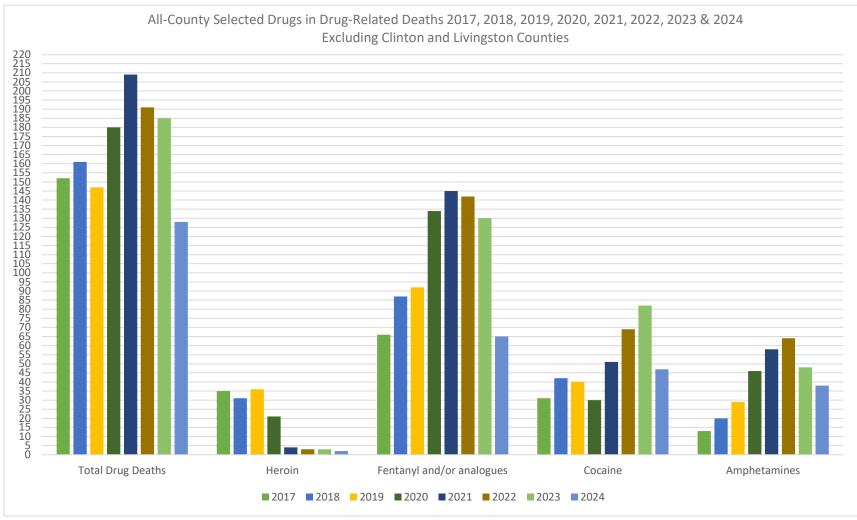
This chart describes occurrences in one death of both an opioid and a stimulant drug. In most of the cases fentanyl is the (or at least one of) opioid present. In most of the cases the stimulant is either methamphetamine or cocaine.

#### **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).