

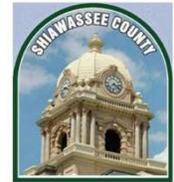


Department of Forensic Pathology
Office of the Medical Examiner

2023 Q3 (July 1 – September 30) Drug Report

Published December 12, 2023





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 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 overdose occurred.

New information occasionally becomes available after a “final” cause and manner of death was determined, which sometimes, albeit rarely, results in a change to the “final” cause or manner 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

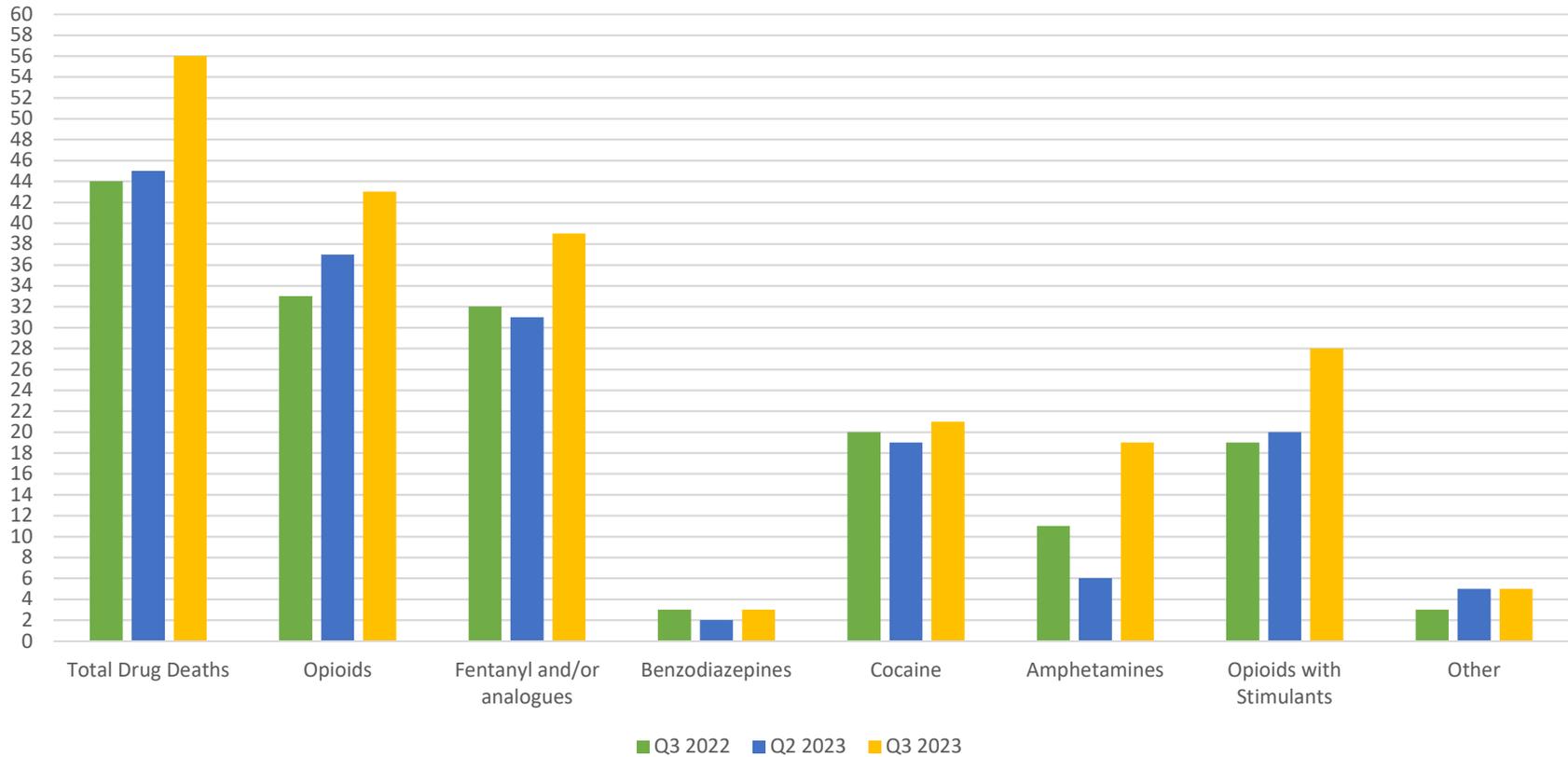
¹ If you have questions about what drugs we are currently capable of detecting, please visit www.axisfortox.com or email michelle.fox@sparrow.org

Disclosure

On Sept. 20, 2022, Livingston County entered into an agreement with Sparrow Forensic Pathology for Medical Examiner services. On Oct. 1, 2022, Clinton County also selected Sparrow Forensic Pathology to serve as the county's Medical Examiner. Below are abbreviated statistics for these two counties based on the three months that we served as their Medical Examiner in 2022. Full statistics for these counties will be included in the 2023 Annual Drug Report.

Combined County Drug Class Occurrences in Drug-Related Deaths Excluding Clinton and Livingston Counties

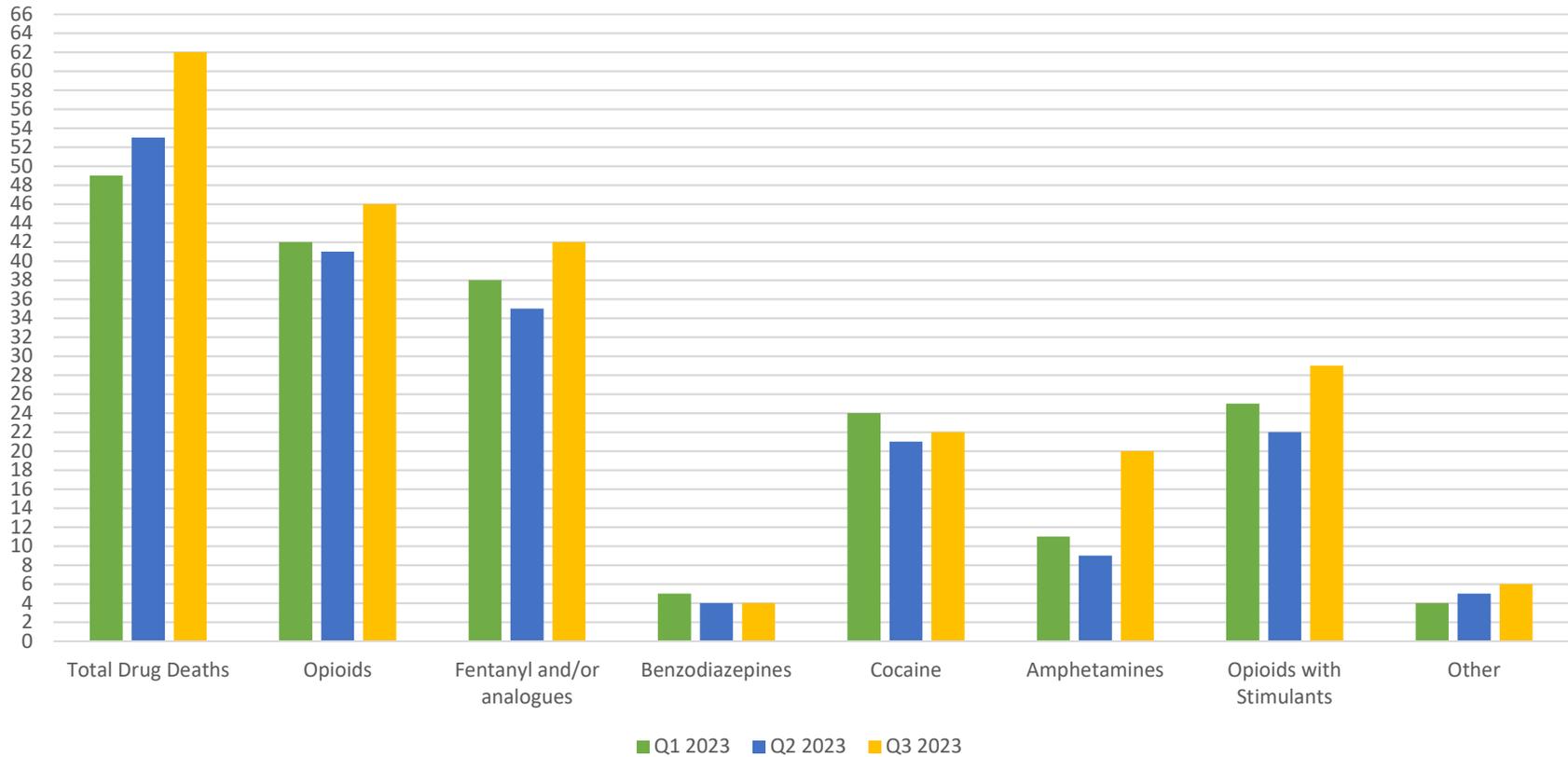
Q3 2023 compared with Q2 2023 and Q3 2022



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 and alprazolam intoxication falls into the opioids, benzodiazepines, fentanyl and/or analogues, and opioids with 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 heroin 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.

Combined County Drug Class Occurrences in Drug-Related Deaths Including Clinton and Livingston Counties

Q3 2023 compared with Q2 2023 and Q1 2023



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Clinton County

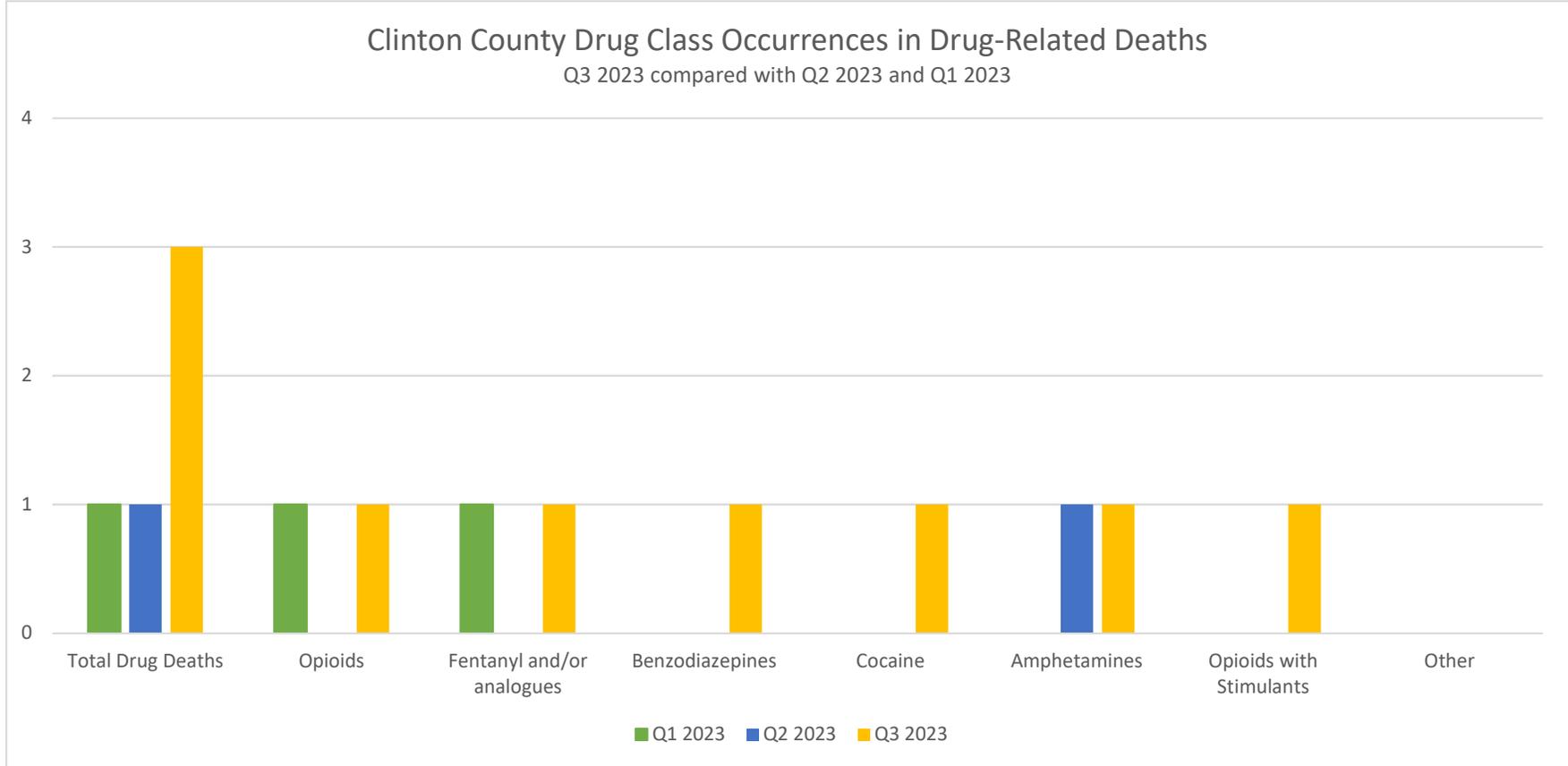
Drug-Related Deaths

2023 Q3 Clinton County Drug-Related Deaths

Sex	Age	Substance(s) Causing Death	Manner of Death
Male	24	bromazolam, ethanol	Accident
Male	39	cocaine, fentanyl	Accident
Female	62	methamphetamine	Accident

Clinton 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 and alprazolam intoxication falls into the opioids, benzodiazepines, fentanyl and/or analogues, and opioids with 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 heroin 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.

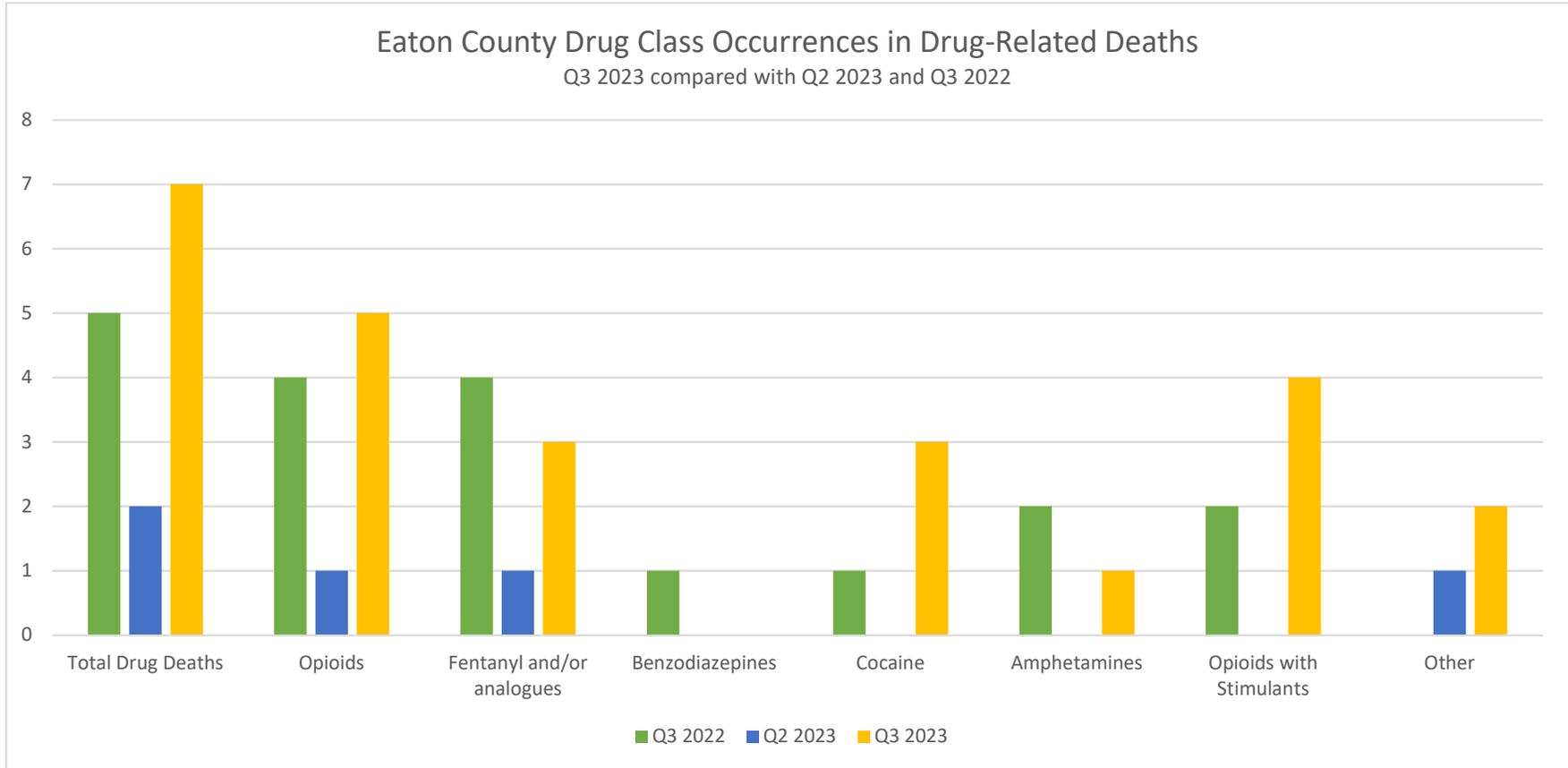
Eaton County

Drug-Related Deaths

2023 Q3 Eaton County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of Death
Male	24	bupropion	Suicide
Female	48	fentanyl	Accident
Male	54	cocaine, fentanyl	Accident
Male	58	cocaine, ethanol, hydrocodone	Accident
Female	58	bupropion, cocaine, ethanol, hydrocodone, sertraline	Accident
Male	62	fentanyl, methamphetamine	Accident
Male	64	venlafaxine	Suicide

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 and alprazolam intoxication falls into the opioids, benzodiazepines, fentanyl and/or analogues, and opioids with 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 heroin 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

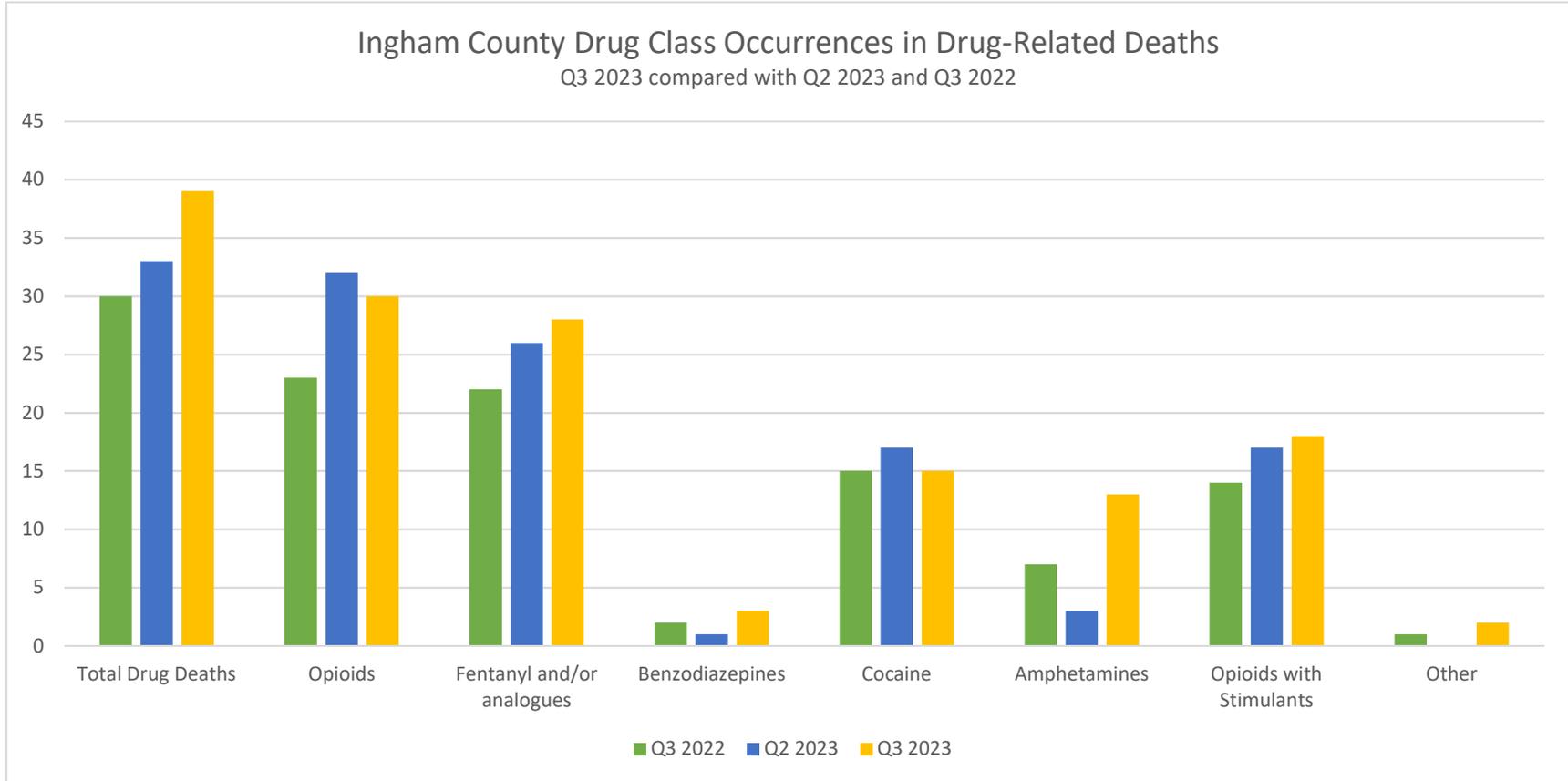
Drug-Related Deaths

2023 Q3 Ingham County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of Death
Male	20	cocaine, fentanyl, methamphetamine	Accident
Male	22	ethanol, fentanyl	Accident
Female	26	fentanyl, methamphetamine	Accident
Male	30	fentanyl	Accident
Female	30	alprazolam, cocaine, fentanyl	Accident
Female	32	desalkylflurazepam, fentanyl, flubromazepam, fluorofentanyl, methamphetamine	Accident
Male	33	cyclobenzaprine, diphenhydramine, fentanyl, trazodone	Accident
Female	34	methamphetamine	Accident
Male	34	fentanyl	Accident
Male	35	cocaine, ethanol, fentanyl	Accident
Female	36	ethanol, fentanyl, gabapentin	Accident
Female	37	fluoxetine	Indeterminate
Male	37	fentanyl, methamphetamine	Accident
Male	38	cocaine, fentanyl, mitragynine	Accident
Female	39	methamphetamine	Accident
Male	40	cocaine	Accident
Female	40	fentanyl, methamphetamine	Accident
Male	41	cocaine, ethanol, fentanyl	Accident
Male	41	fentanyl, methamphetamine	Accident
Female	49	cocaine, fentanyl, fluorofentanyl, methamphetamine	Accident
Female	49	cocaine, fentanyl	Accident
Male	50	fentanyl, methamphetamine	Accident
Male	50	cocaine, fentanyl, methamphetamine	Accident

Female	52	fentanyl	Accident
Female	53	cocaine, fentanyl, hydroxyzine, sertraline	Accident
Male	55	acetylfentanyl, cocaine, ethanol, fentanyl	Accident
Male	55	fentanyl	Accident
Male	56	cocaine, ethanol, fentanyl	Accident
Male	56	methamphetamine	Indeterminate
Male	57	amlodipine	Indeterminate
Male	59	cocaine, ethanol	Accident
Male	61	alprazolam, methadone	Accident
Female	63	cocaine, fentanyl	Accident
Male	64	fentanyl, hydrocodone	Accident
Male	64	cocaine	Accident
Male	65	methamphetamine	Accident
Male	68	fentanyl	Accident
Male	71	fluoxetine, gabapentin, hydrocodone, oxycodone	Accident
Male	75	gabapentin, fentanyl, methadone, xylazine	Accident

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 and alprazolam intoxication falls into the opioids, benzodiazepines, fentanyl and/or analogues, and opioids with 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 heroin 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

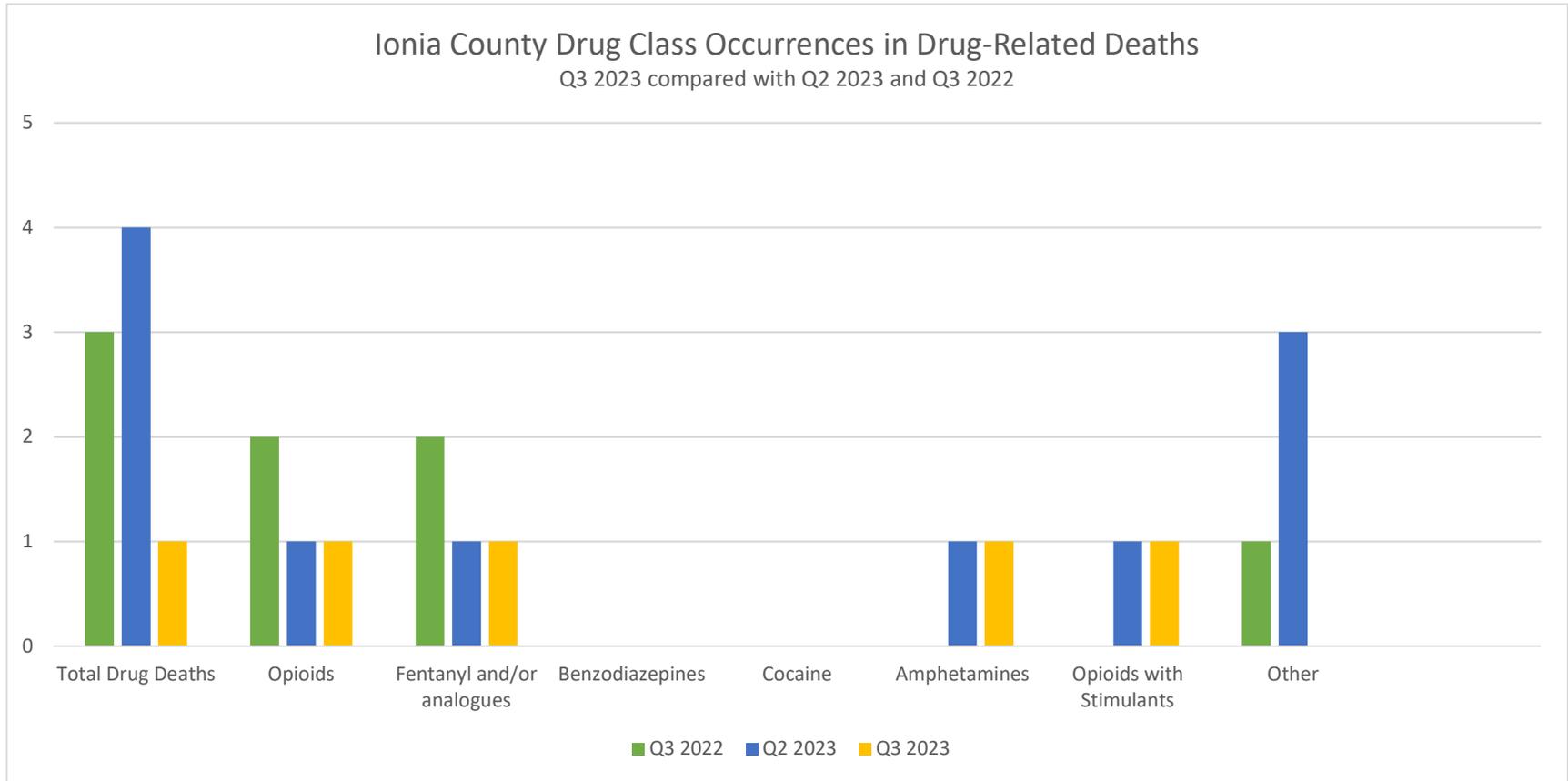
Drug-Related Deaths

2023 Q3 Ionia County Drug-Related Deaths

Sex	Age	Substance(s) Causing Death	Manner of Death
Female	45	fentanyl, methamphetamine	Accident

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 and alprazolam intoxication falls into the opioids, benzodiazepines, fentanyl and/or analogues, and opioids with 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 heroin 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.

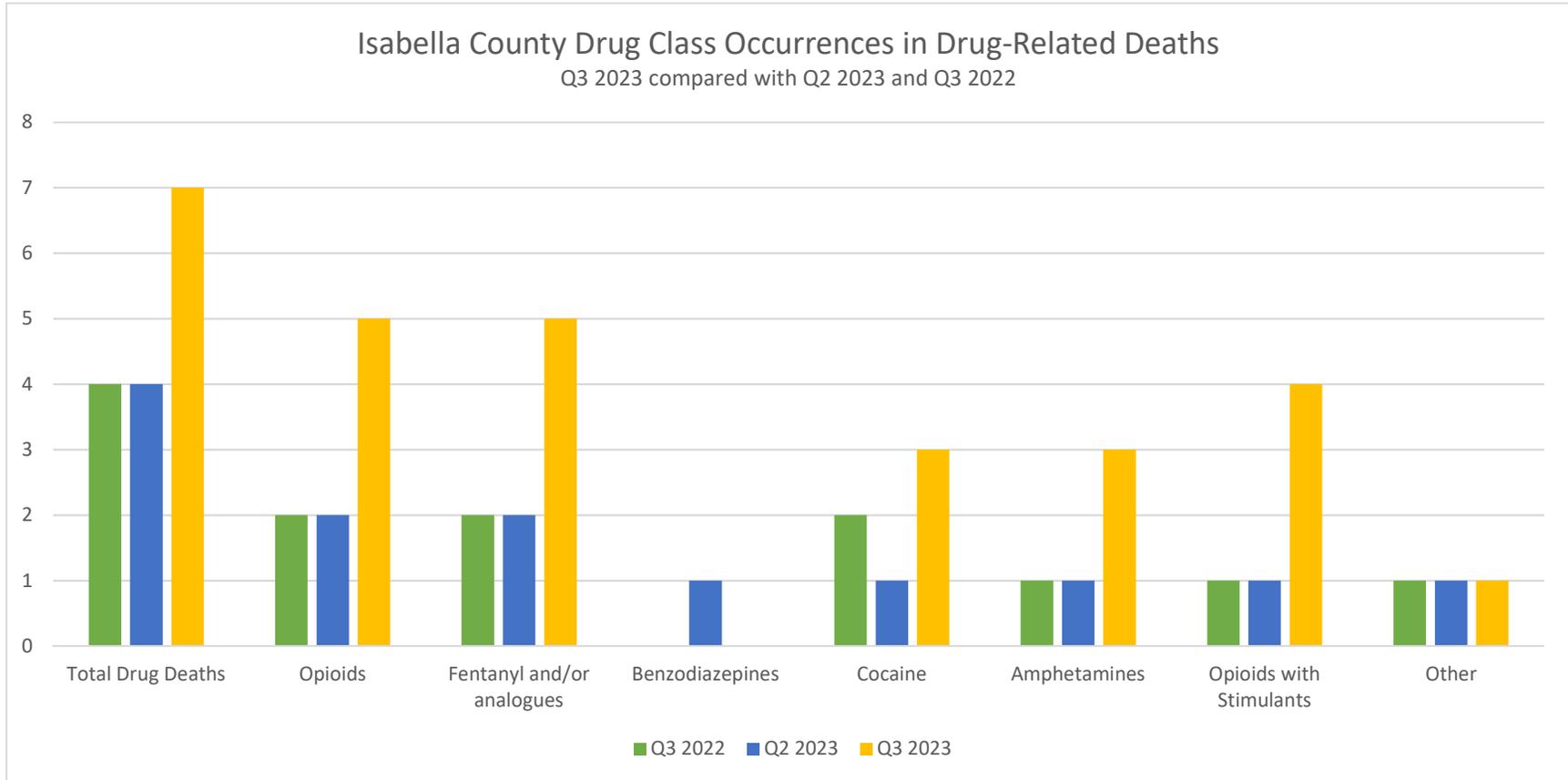
Isabella County

Drug-Related Deaths

2023 Q3 Isabella County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of Death
Female	22	cocaine, fentanyl	Accident
Female	25	fentanyl, methamphetamine	Accident
Male	30	cocaine, fentanyl, methamphetamine	Accident
Male	33	methamphetamine/amphetamine	Accident
Female	49	gabapentin	Accident
Female	52	fentanyl, gabapentin	Accident
Male	64	cocaine, fentanyl	Accident

Isabella County

Drug-Related Deaths



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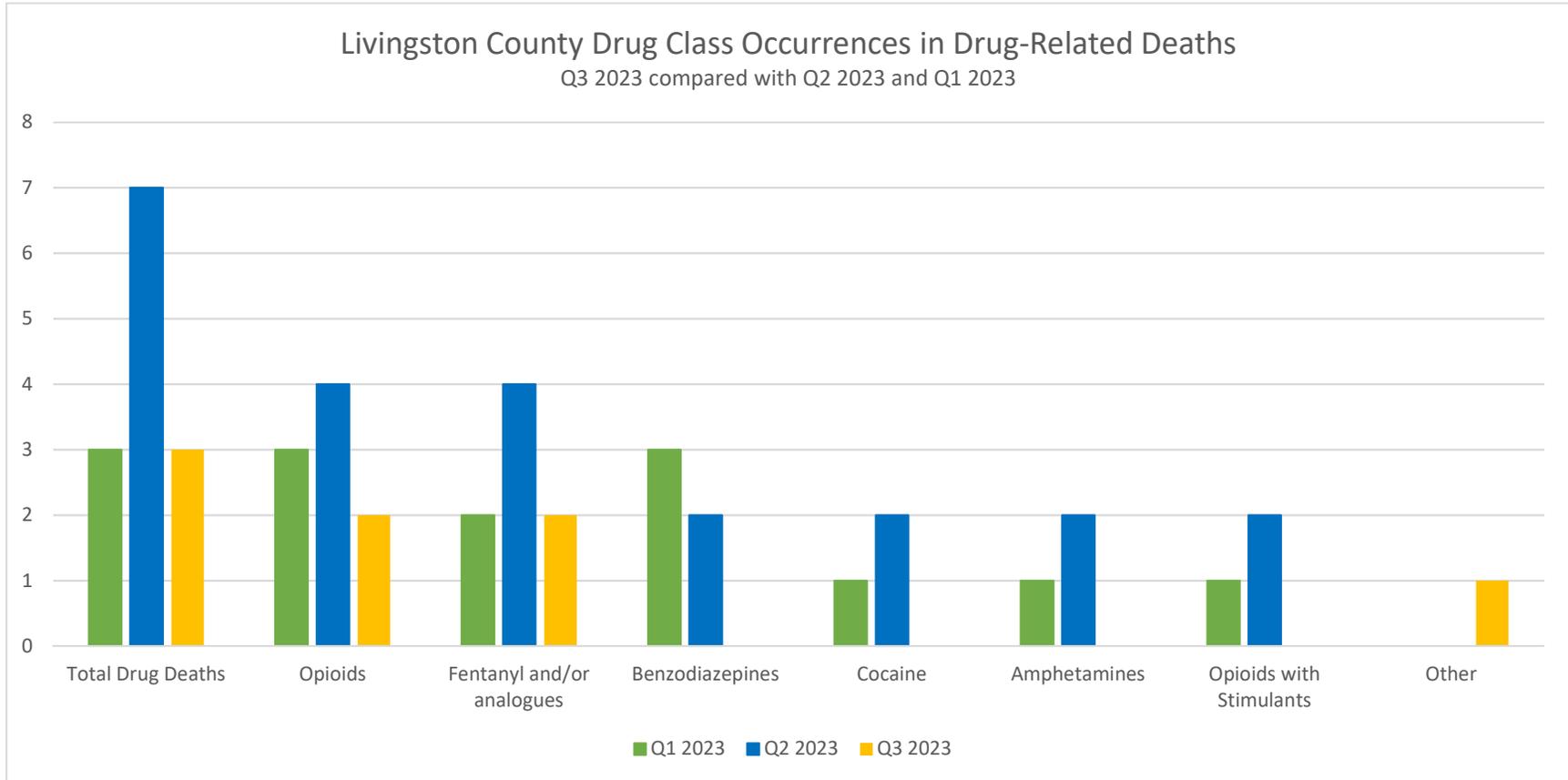
Livingston County

Drug-Related Deaths

2023 Q3 Livingston County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of Death
Male	33	ethanol, fentanyl	Accident
Male	49	acetylfentanyl, cyclobenzaprine, fentanyl, fluorofentanyl	Accident
Male	60	amlodipine, ethanol, etodolac	Suicide

Livingston County

Drug-Related Deaths



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Shiawassee County

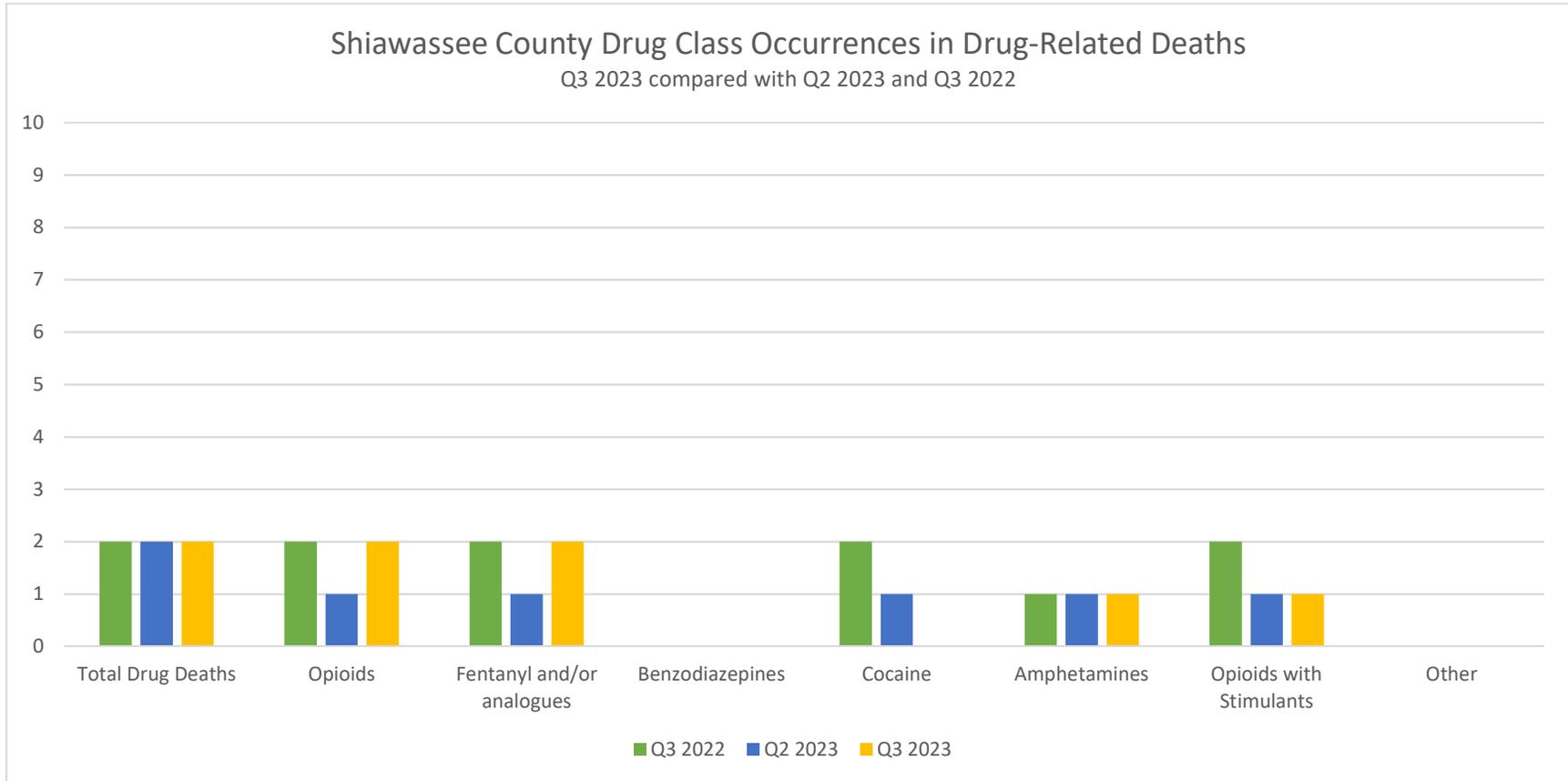
Drug-Related Deaths

2023 Q3 Shiawassee County Drug-Related Deaths

Sex	Age	Substance(s) Causing Death	Manner of Death
Male	37	fentanyl, methamphetamine	Accident
Male	54	fentanyl	Accident

Shiawassee County

Drug-Related Deaths



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Historical Data

