



Department of Forensic Pathology  
Office of the Medical Examiner

2023 Q1 (January 1 – March 31) Drug Report

Published June 19, 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.

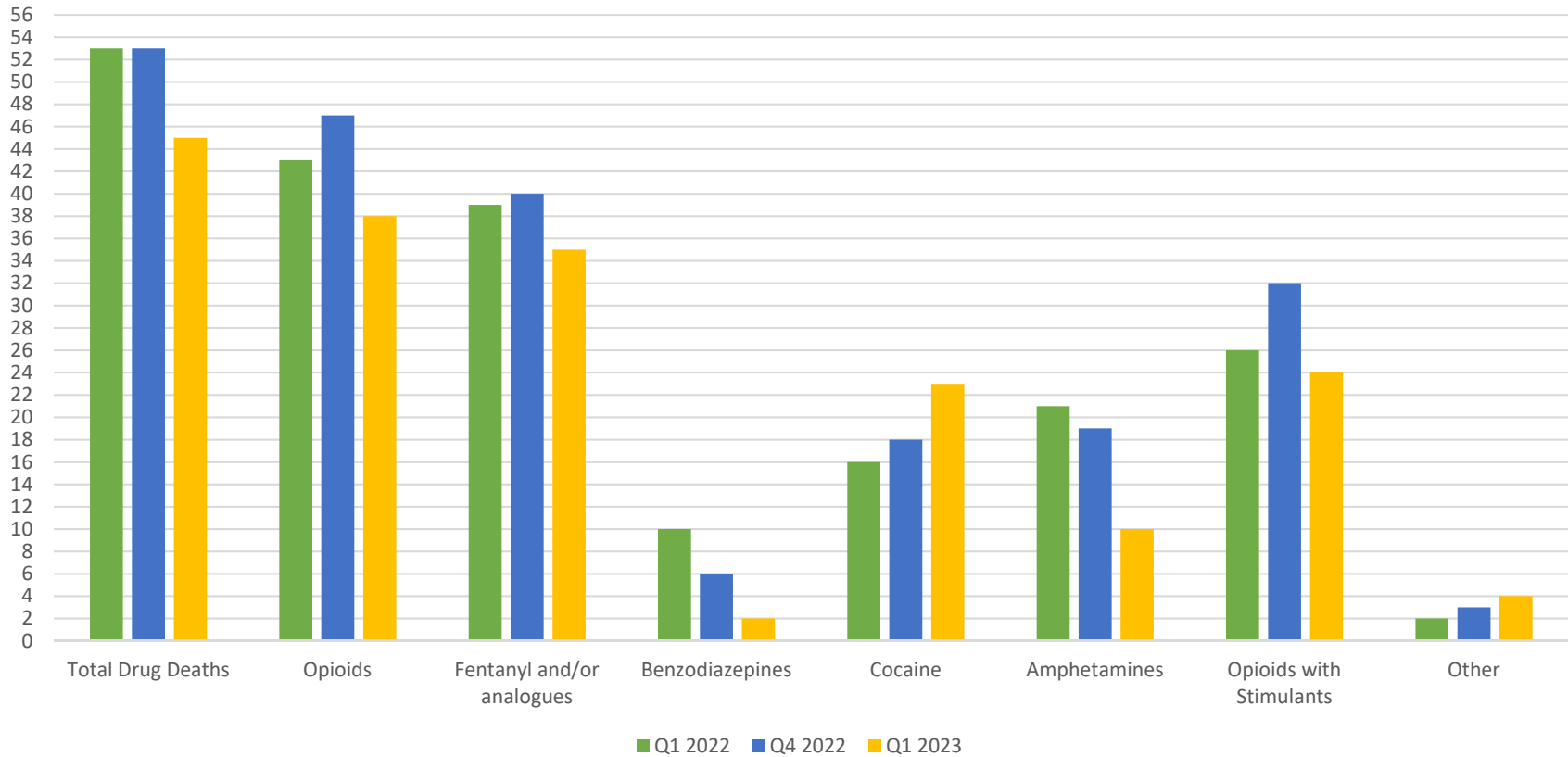
The extent of toxicology testing is determined by the medical examiner assigned to the case, based upon the circumstances of death. During the period reported, our office used Axis Forensic Toxicology for toxicology testing.<sup>1</sup>

---

<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)

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

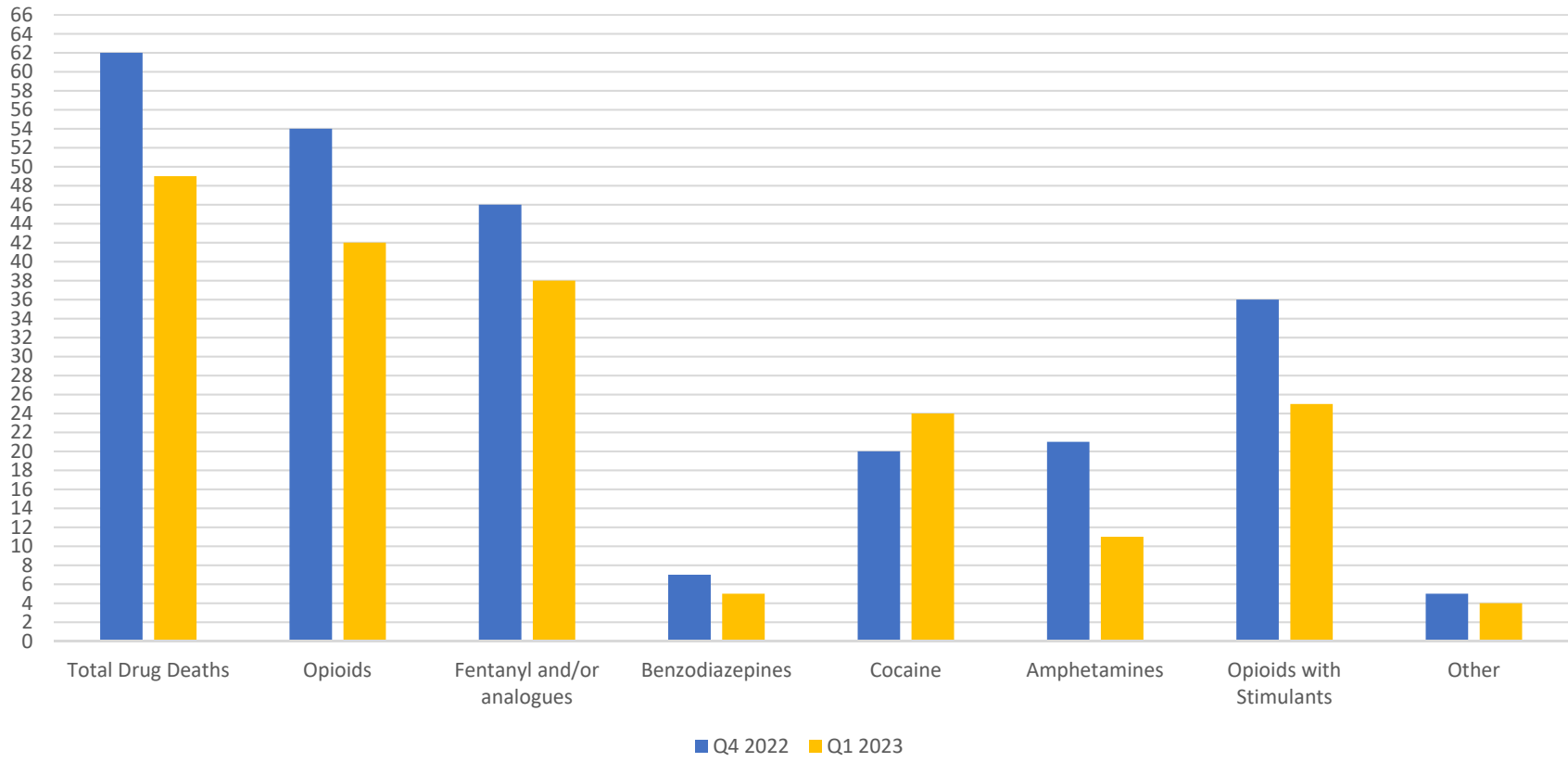
Q1 2023 compared with Q4 2022 and Q1 2022



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

Q1 2023 compared with Q4 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.

# Clinton County

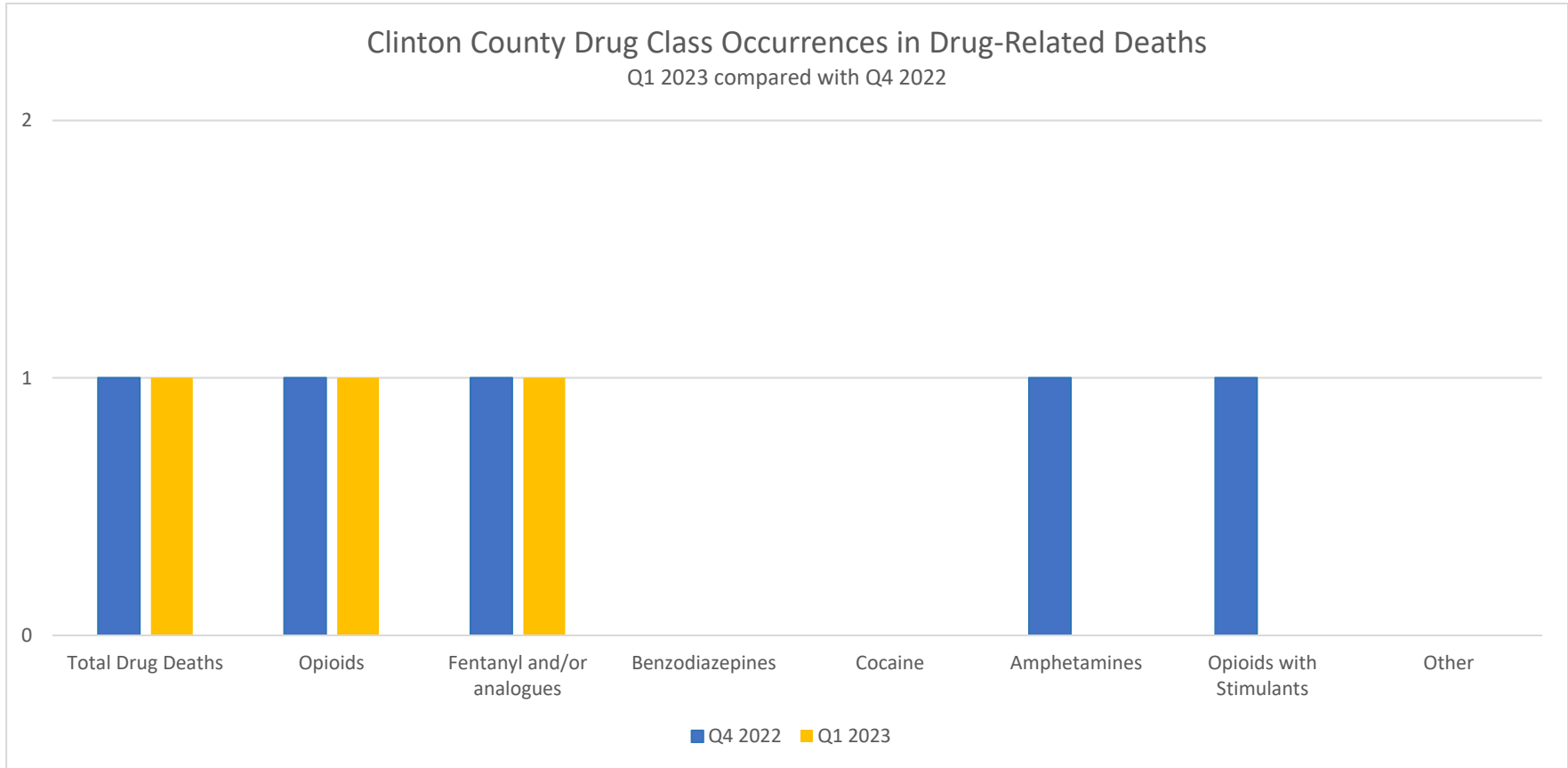
## Drug-Related Deaths

### 2023 Q1 Clinton County Drug-Related Deaths

Sex	Age	Substance(s) Causing Death	Manner of Death
Male	37	fentanyl, fluorofentanyl	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.

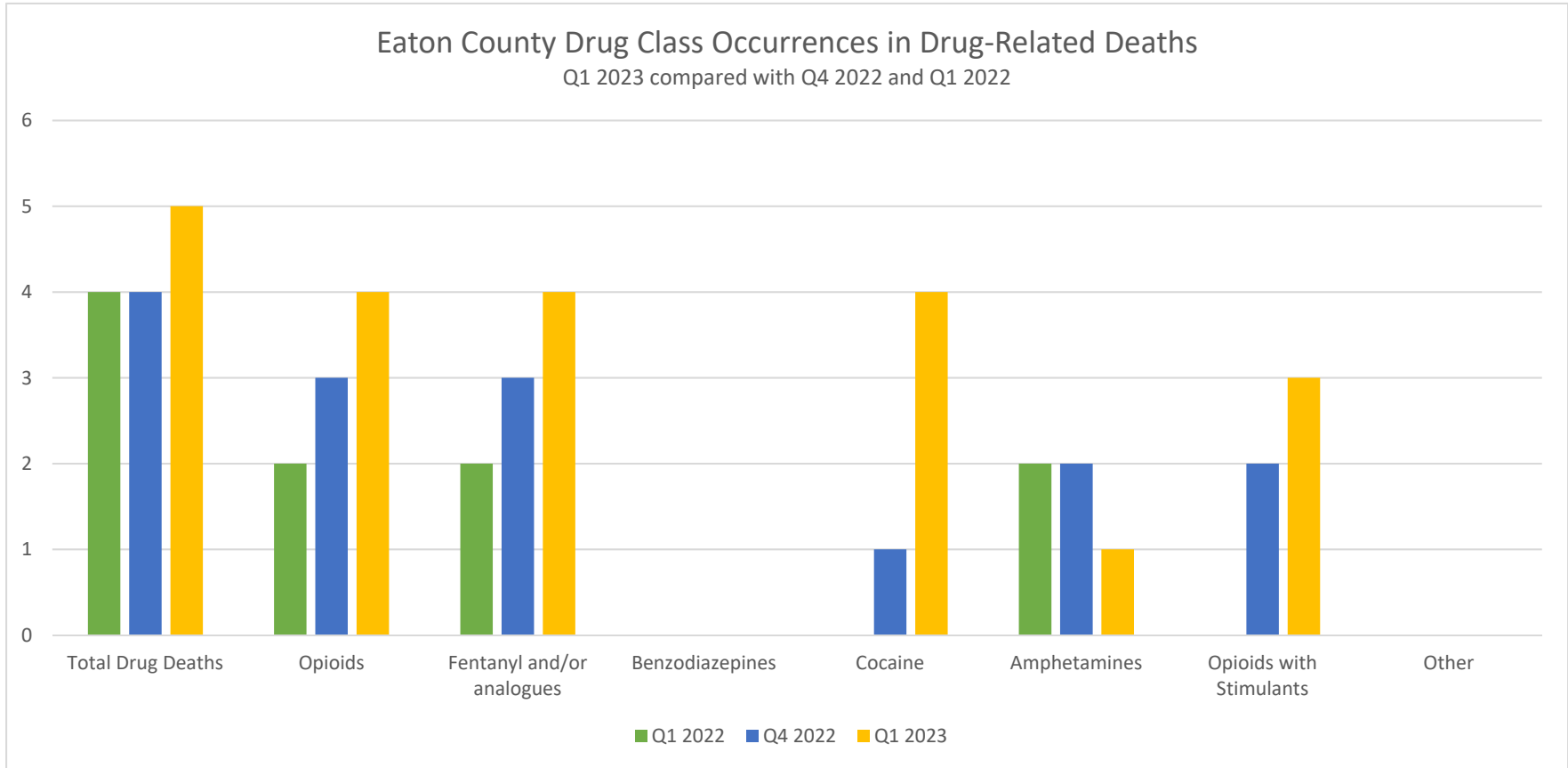
# Eaton County

## Drug-Related Deaths

2023 Q1 Eaton County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of Death
Male	33	cocaine, fentanyl	Accident
Male	36	cocaine, fentanyl	Accident
Female	37	cocaine, fentanyl, methamphetamine	Accident
Female	43	fentanyl	Accident
Male	68	cocaine	Accident

# 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

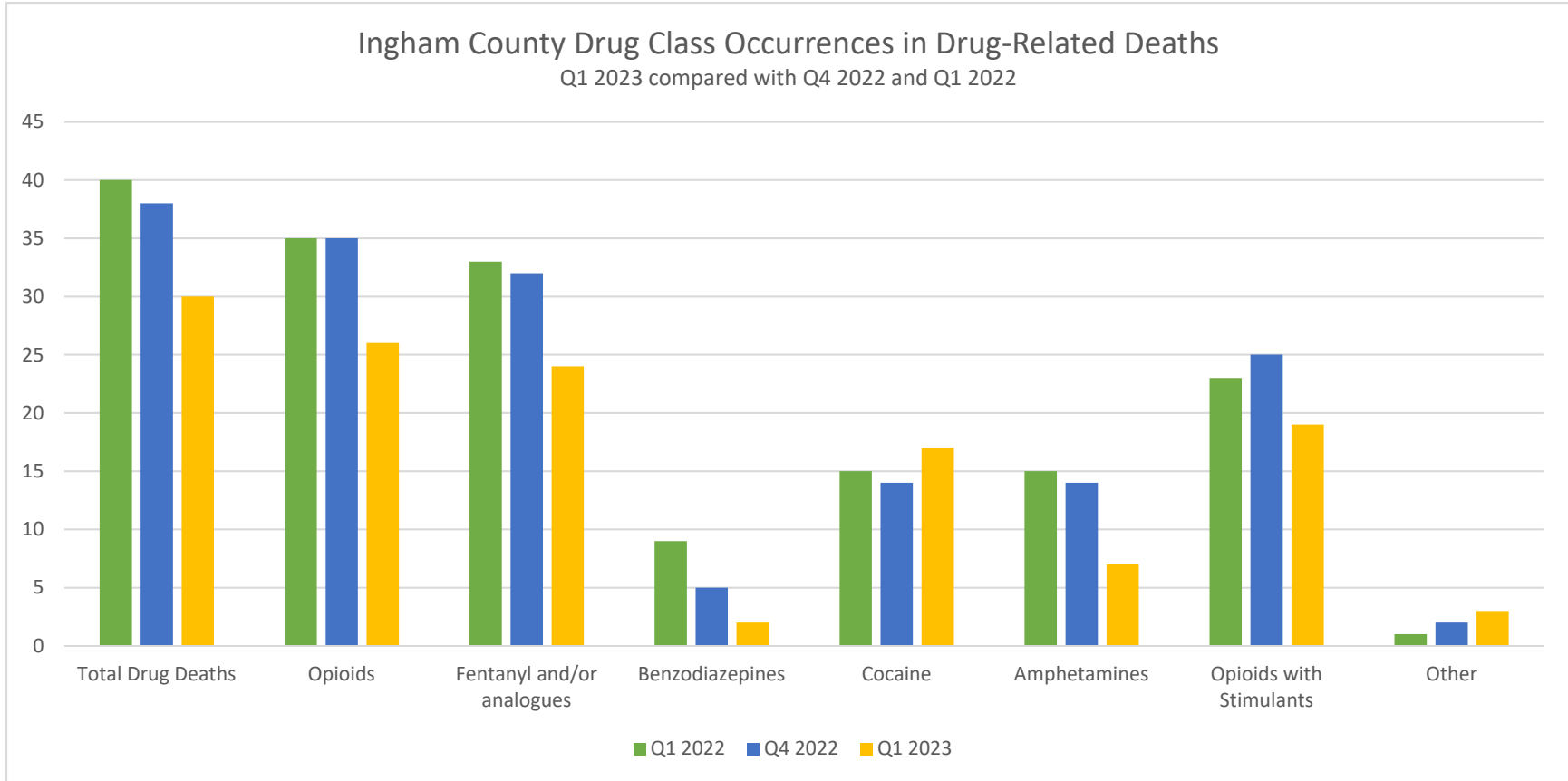
## Drug-Related Deaths

2023 Q1 Ingham County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of Death
Female	23	fentanyl, methamphetamine	Accident
Female	26	cocaine, eutylone, fentanyl, methamphetamine	Accident
Male	28	cocaine, opioid	Accident
Male	32	cocaine, fentanyl	Accident
Female	33	fentanyl	Accident
Male	35	cocaine, fentanyl	Accident
Female	37	cocaine, fentanyl, fluorofentanyl, methamphetamine	Accident
Female	37	cocaine, haloperidol, fentanyl, methadone	Indeterminate
Male	38	ethanol, fentanyl	Accident
Male	39	cocaine, fentanyl	Accident
Male	43	alprazolam, amphetamine, clonazepam, fentanyl, methamphetamine	Accident
Female	45	cocaine, fentanyl	Accident
Female	47	fentanyl, methamphetamine	Accident
Male	49	cocaine, fentanyl	Accident
Male	51	cocaine, fentanyl	Accident
Male	53	fentanyl, gabapentin	Accident
Male	54	cyclobenzaprine, fentanyl, gabapentin, hydroxyzine	Accident
Male	55	cocaine, fentanyl	Accident
Male	56	metoprolol, naproxen, quetiapine	Suicide
Male	58	cocaine	Accident
Male	60	cocaine, fentanyl, methamphetamine	Accident
Male	60	cocaine, fentanyl	Accident
Male	61	cocaine, fentanyl, methamphetamine	Accident

Male	61	ethanol, fentanyl	Accident
Female	61	cocaine, fentanyl	Accident
Male	61	ethanol, fentanyl, mitragynine	Accident
Male	63	ethanol	Accident
Male	64	ethanol	Accident
Male	67	cocaine, fentanyl	Accident
Male	70	oxycodone, temazepam	Suicide

# 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.

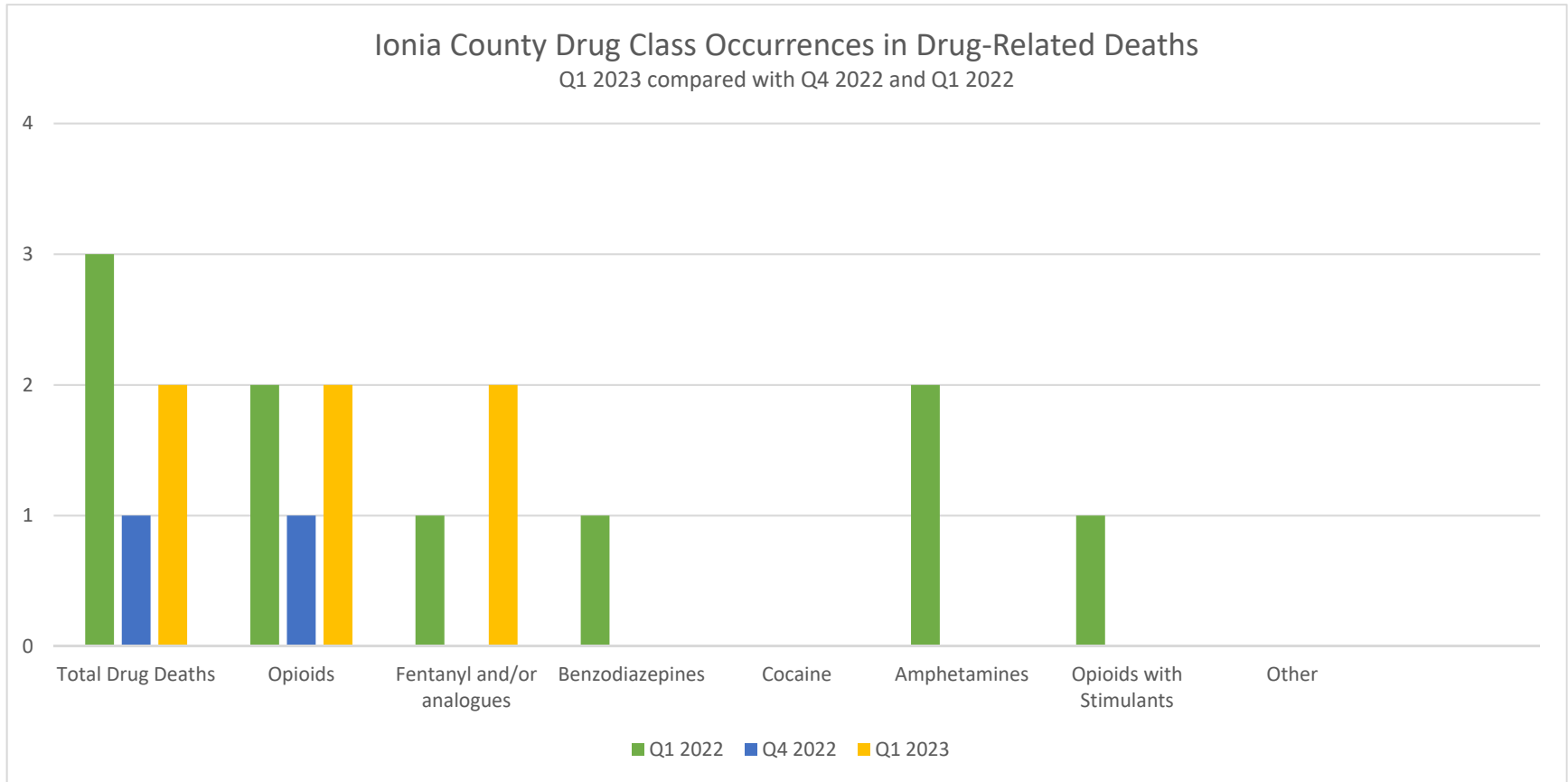
# Ionia County

## Drug-Related Deaths

2023 Q1 Ionia County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of Death
Male	33	fentanyl	Accident
Male	50	fentanyl, heroin, tramadol	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.

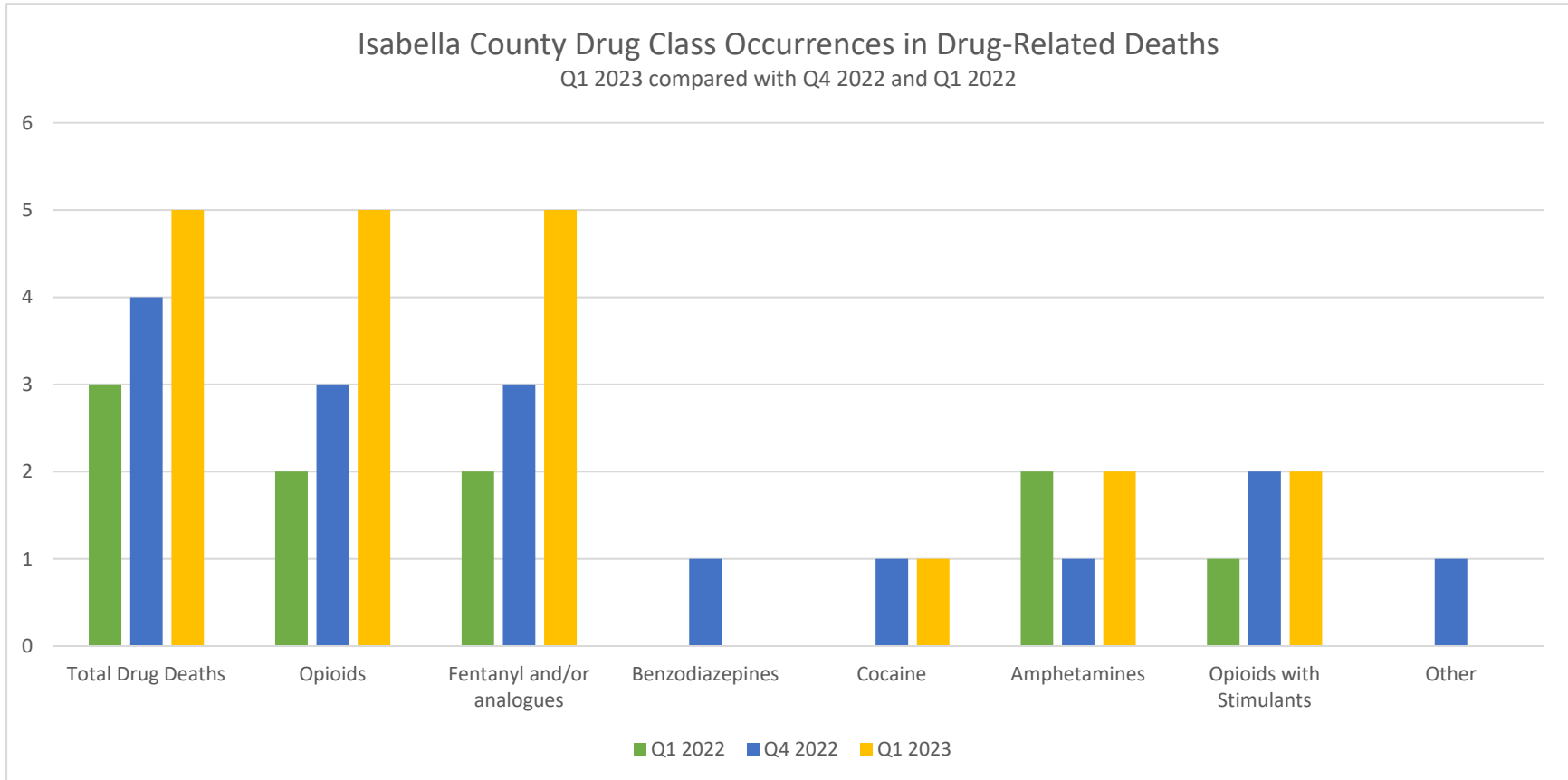
# Isabella County

## Drug-Related Deaths

2023 Q1 Isabella County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of Death
Male	18	fentanyl	Accident
Female	22	cocaine, fentanyl, methamphetamine	Accident
Male	27	fentanyl	Accident
Female	32	fentanyl, methamphetamine	Accident
Male	33	ethanol, fentanyl	Accident

# 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 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.

# Livingston County

## Drug-Related Deaths

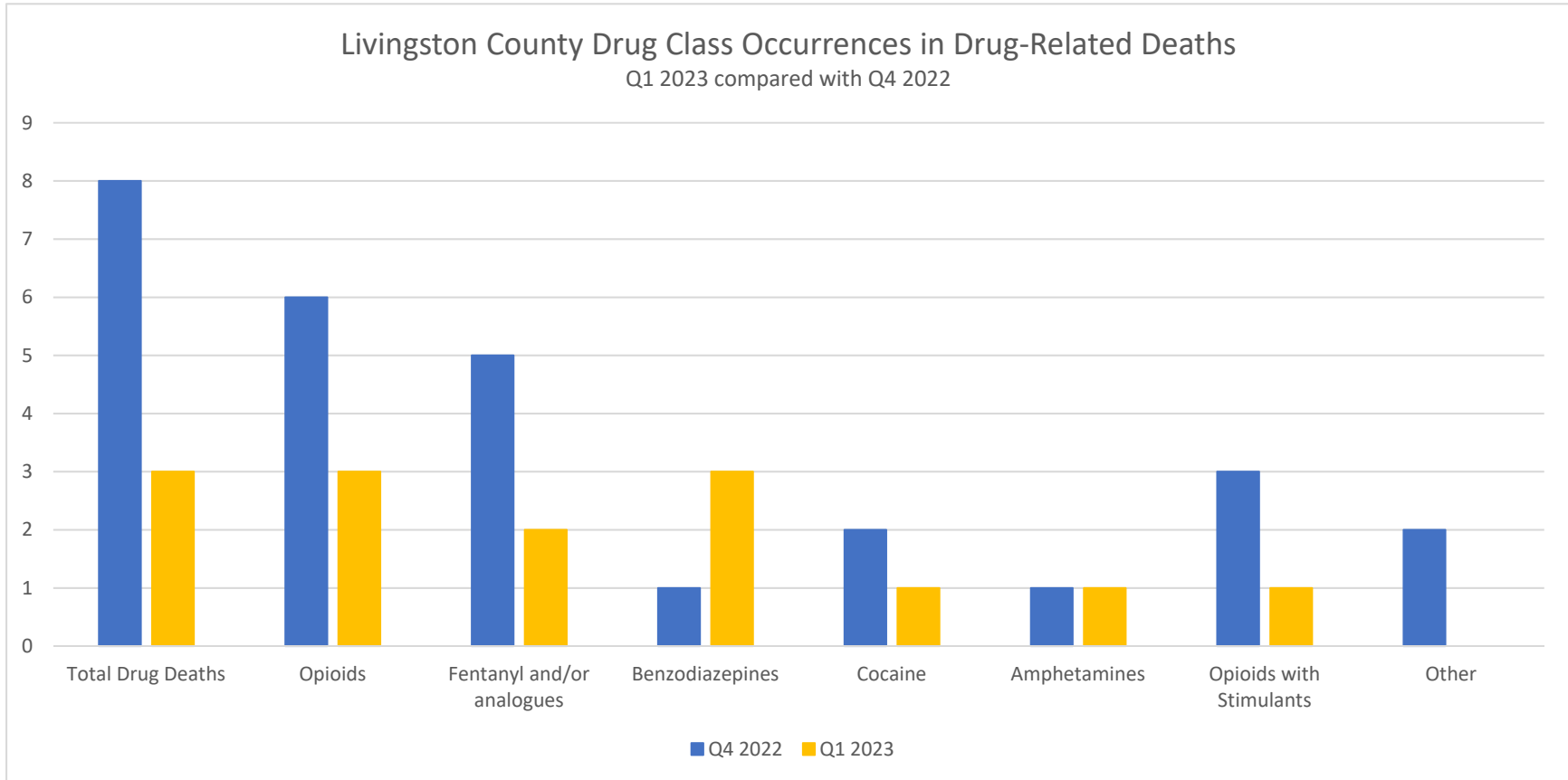
### 2023 Q1 Livingston County Drug-Related Deaths

Sex	Age	Substance(s) Causing Death	Manner of Death
Female	35	hydromorphone, nordiazepam, quetiapine	Suicide
Male	35	amphetamine, cocaine, clonazepam, diazepam, fentanyl	Accident
Male	35	alprazolam, fentanyl, heroin, tramadol	Accident



# Livingston 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.

# Shiawassee County

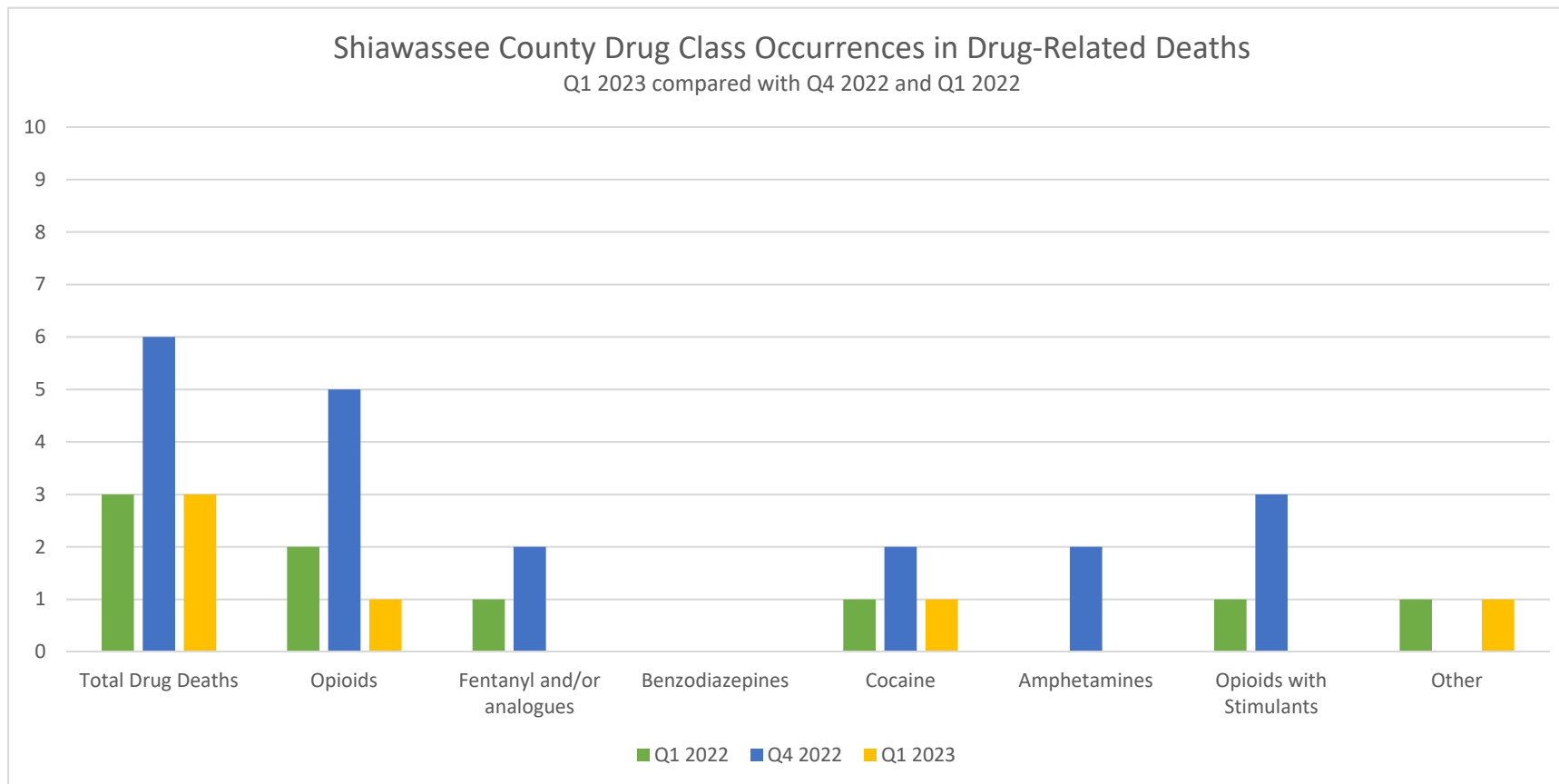
## Drug-Related Deaths

### 2023 Q1 Shiawassee County Drug-Related Deaths

Sex	Age	Substance(s) Causing Death	Manner of Death
Male	47	cocaine	Accident
Female	51	diphenhydramine	Indeterminate
Female	75	hydrocodone	Accident

# 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 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

# Historical Data

