

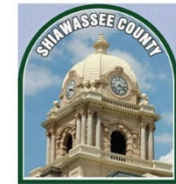


Department of Forensic Pathology
Office of the Medical Examiner

2022 Q4 (October 1 – December 31) Drug Report

Published March 15, 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

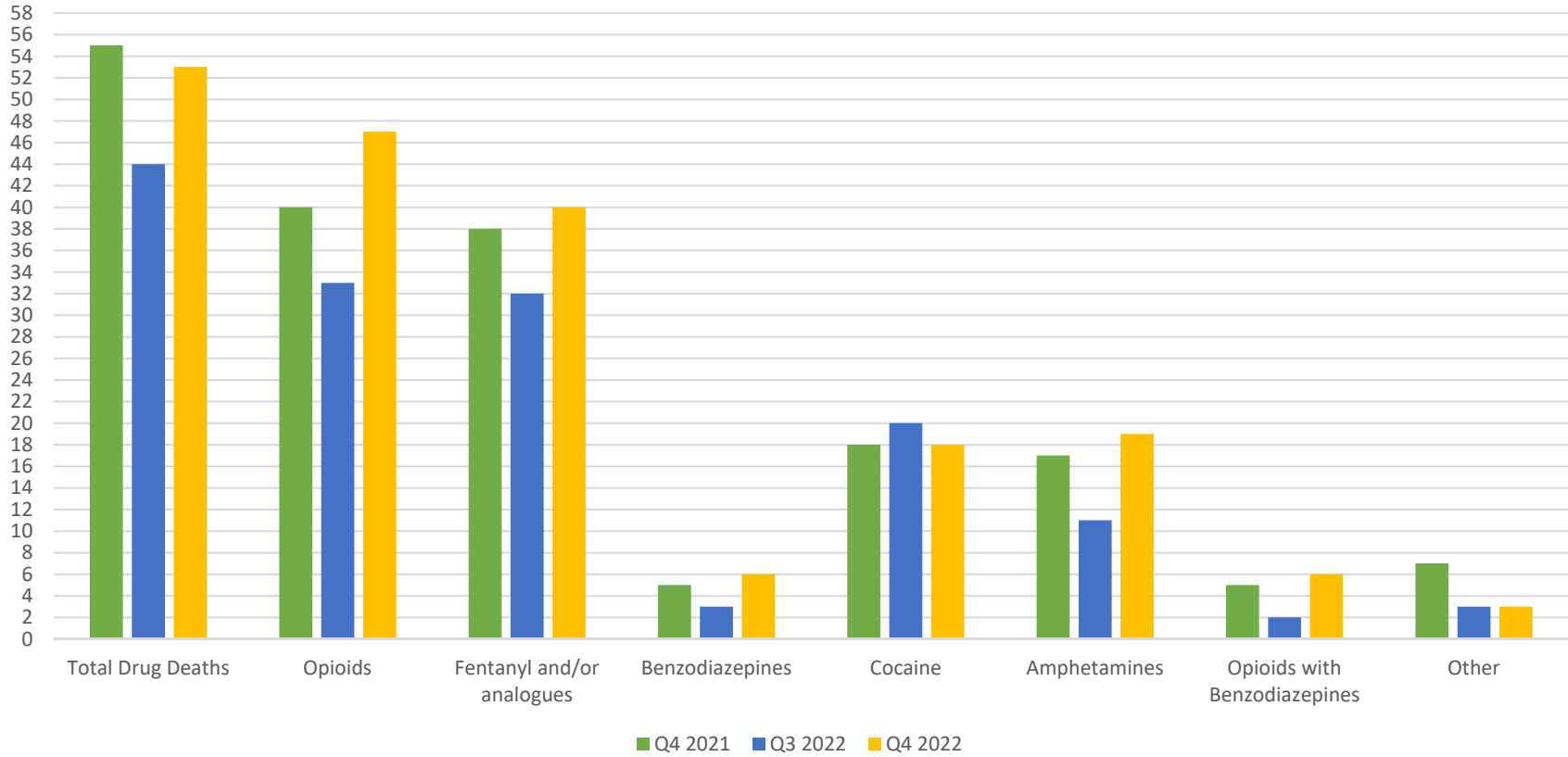
Highlights

All comparisons on the Highlights page are made to the data from Q4 (October 1 to December 31) of 2021, from only Eaton, Ingham, Ionia, Isabella, and Shiawassee Counties. As stated above, most drug-related deaths are due to a combination of more than one substance. As such, numerous deaths fall into multiple of the below statistical categories (i.e. *all* heroin, fentanyl, methadone, and fentanyl analogue-related deaths are included in the opioid-related deaths category).

- Total drug-related deaths **decreased** by 4% (2 fewer)
- Opioid-related deaths **increased** by 18% (7 more)
- Fentanyl and/or fentanyl analogue-related deaths **increased** by 5% (2 more)
- Cocaine-related deaths **remained the same (unchanged)**
- Amphetamine/Methamphetamine-related deaths **increased** by 12% (2 more)
- Benzodiazepine-related deaths **increased** by 20% (1 more)
- 13% of all opioid-related deaths in Q4 2022 also involved at least one benzodiazepine
- 83% of all drug-related deaths in Q4 2022 were due to two or more substances
- 21% of all opioid-related deaths in Q4 2022 also involved ethanol
- 23% of all drug related deaths in Q4 2022 involved ethanol

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

Q4 2022 compared with Q3 2022 and Q4 2021



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

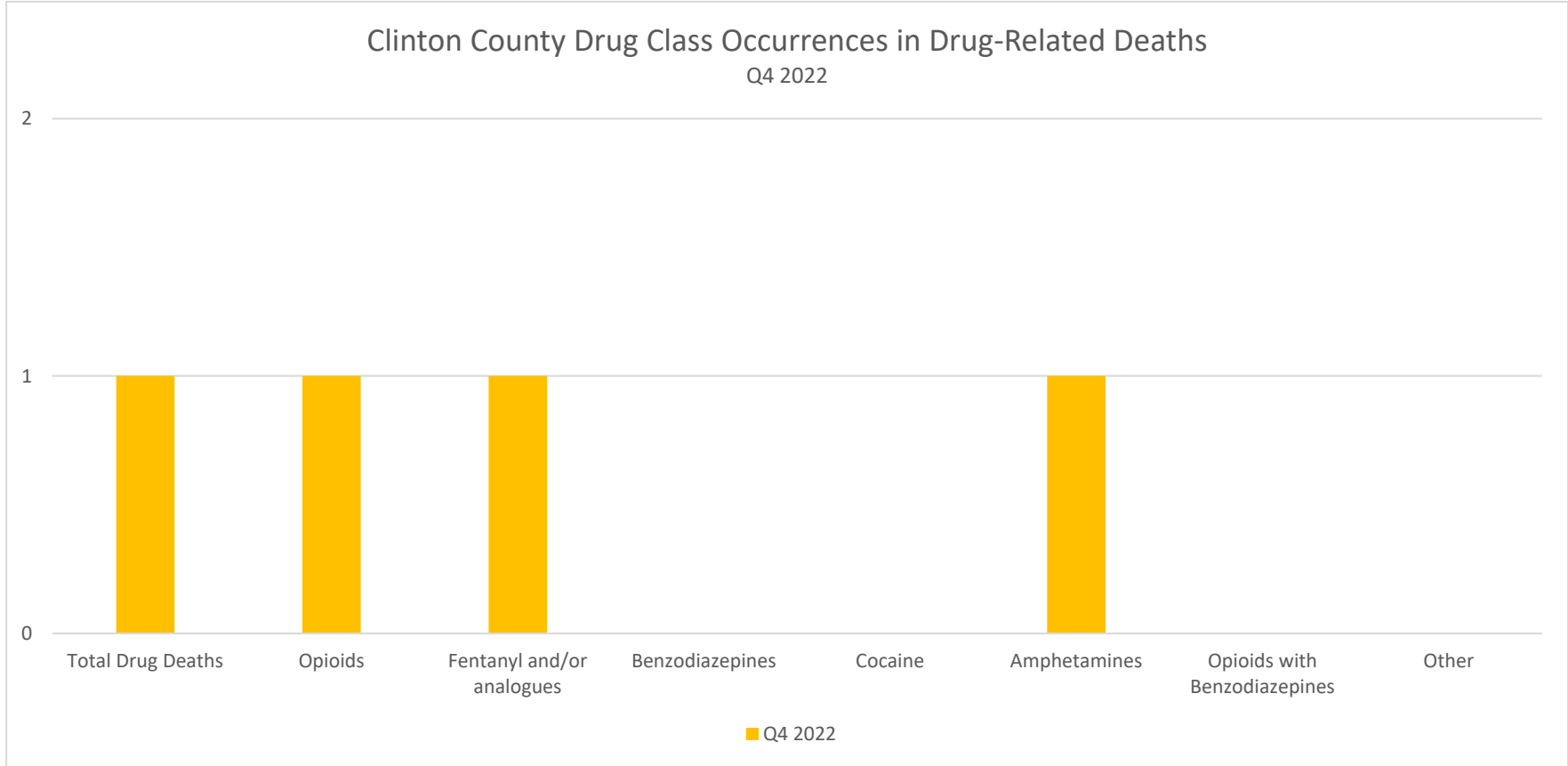
Drug-Related Deaths

2022 Q4 Clinton County Drug-Related Deaths

Sex	Age	Substance(s) Causing Death	Manner of Death
Male	29	fentanyl, 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

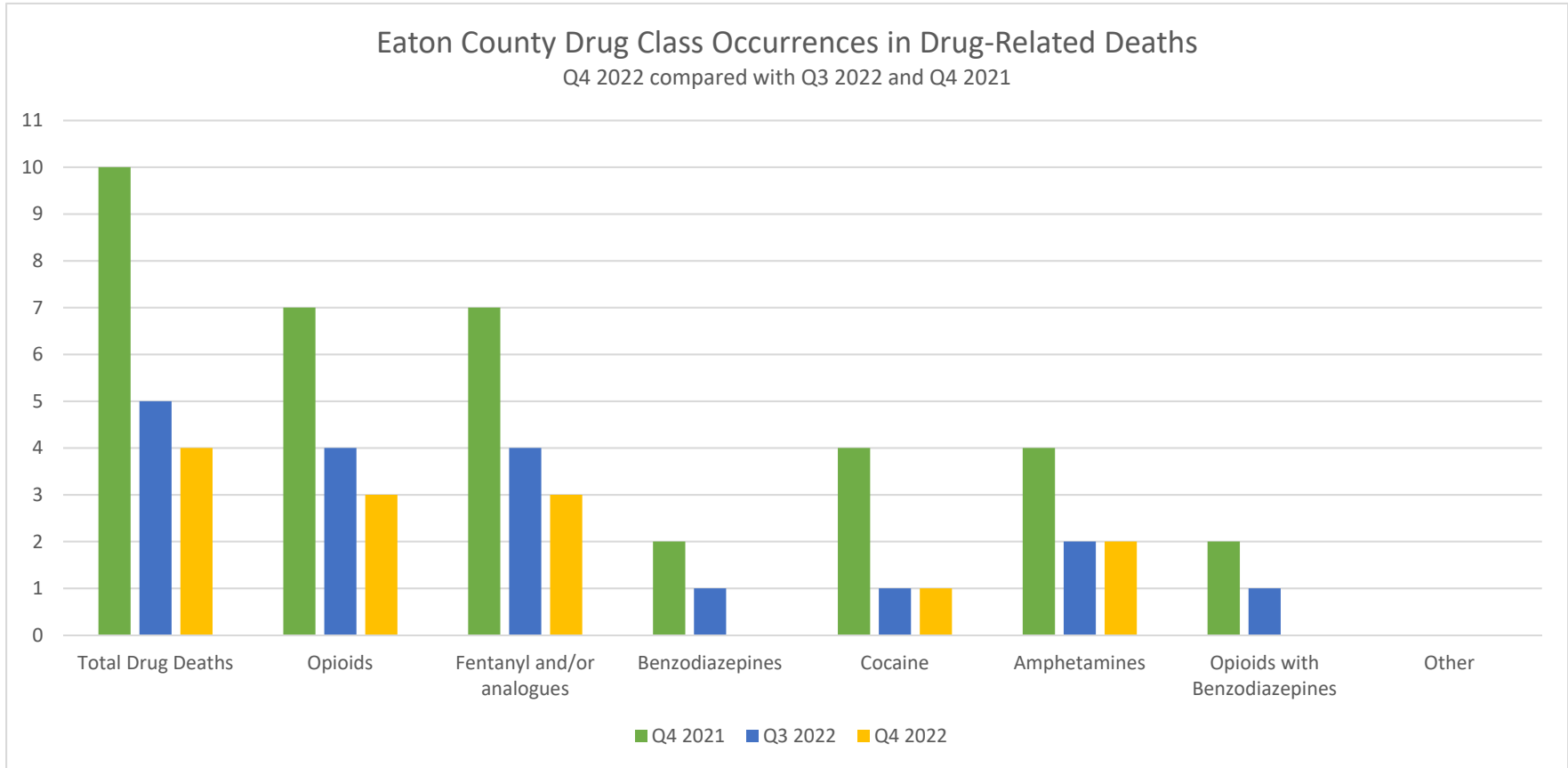
Drug-Related Deaths

2022 Q4 Eaton County Drug-Related Deaths

Sex	Age	Substance(s) Causing Death	Manner of Death
Male	25	acetylfentanyl, fentanyl	Accident
Male	47	fentanyl, methamphetamine	Accident
Male	51	cocaine	Accident
Female	55	fentanyl, fluorofentanyl, methamphetamine	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

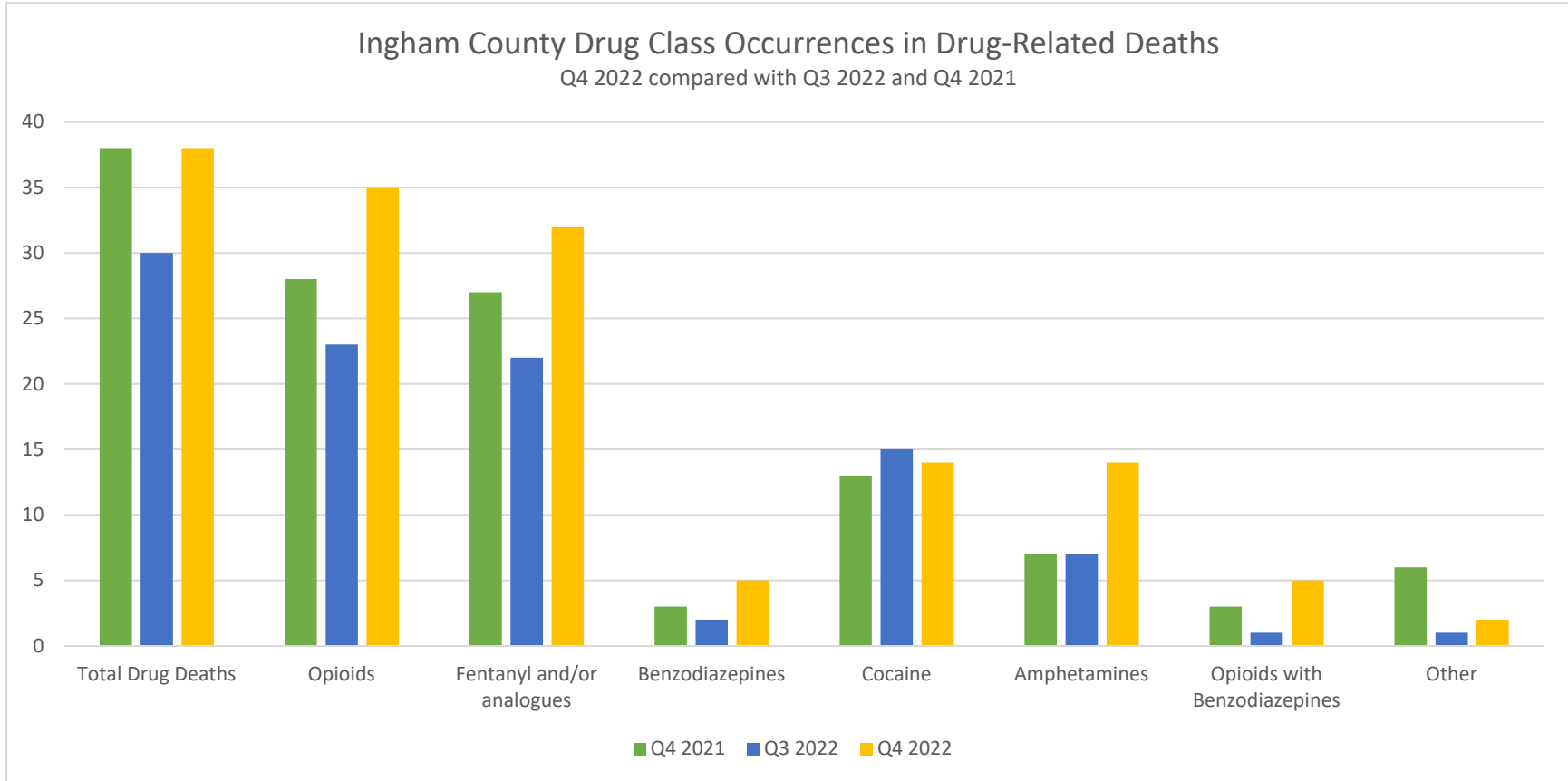
Drug-Related Deaths

2022 Q4 Ingham County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of Death
Male	26	bupropion, ethanol	Suicide
Male	28	acetylfentanyl, aripiprazole, diphenhydramine, fentanyl, methamphetamine	Accident
Male	30	cocaine, fentanyl, methamphetamine	Accident
Male	30	fentanyl, methamphetamine	Accident
Female	30	fentanyl, methamphetamine	Accident
Male	31	fentanyl	Accident
Female	33	acetylfentanyl, alprazolam, ethanol, fentanyl, fluorofentanyl	Accident
Male	34	cocaine, ethanol, fentanyl	Accident
Female	34	bupropion, duloxetine, fentanyl, lamotrigine, methamphetamine, metoclopramide, topiramate	Suicide
Male	34	acetylfentanyl, fentanyl, methamphetamine	Accident
Female	35	fentanyl, methamphetamine	Accident
Female	37	cocaine, ethanol, fentanyl	Accident
Female	38	fentanyl, methamphetamine	Accident
Female	38	clonazepam, cocaine, fentanyl, fluorofentanyl, xylazine	Accident
Male	40	fentanyl	Accident
Female	42	fentanyl	Accident
Male	42	cocaine, cyclobenzaprine, fentanyl	Accident
Female	43	mitragynine, morphine, pregabalin	Accident
Male	43	cocaine, fentanyl	Accident
Male	44	fentanyl, fluorofentanyl, methamphetamine	Accident
Female	45	cocaine, methadone	Accident
Male	45	cocaine, fentanyl, fluorofentanyl, methamphetamine	Accident
Female	49	cocaine, clonazepam, fentanyl, mirtazapine	Accident

Male	51	ethanol, fentanyl	Accident
Female	52	cocaine, diazepam, ethanol, fentanyl	Accident
Male	52	fentanyl, methamphetamine	Accident
Male	52	cocaine, fentanyl	Accident
Female	53	acetaminophen, dextromethorphan, doxylamine, duloxetine, oxycodone, pregabalin	Accident
Female	54	fentanyl, methamphetamine	Accident
Female	56	alprazolam, cocaine, ethanol, fentanyl, methadone, morphine	Accident
Male	58	cocaine, ethanol, fentanyl	Accident
Male	58	acetylfentanyl, fentanyl, fluorofentanyl	Accident
Male	58	ethanol	Accident
Male	58	fentanyl, methamphetamine	Accident
Male	60	fentanyl, hydrocodone, morphine, orphenadrine	Accident
Male	62	fentanyl	Accident
Male	62	cocaine, methamphetamine	Accident
Male	66	ethanol, fentanyl	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

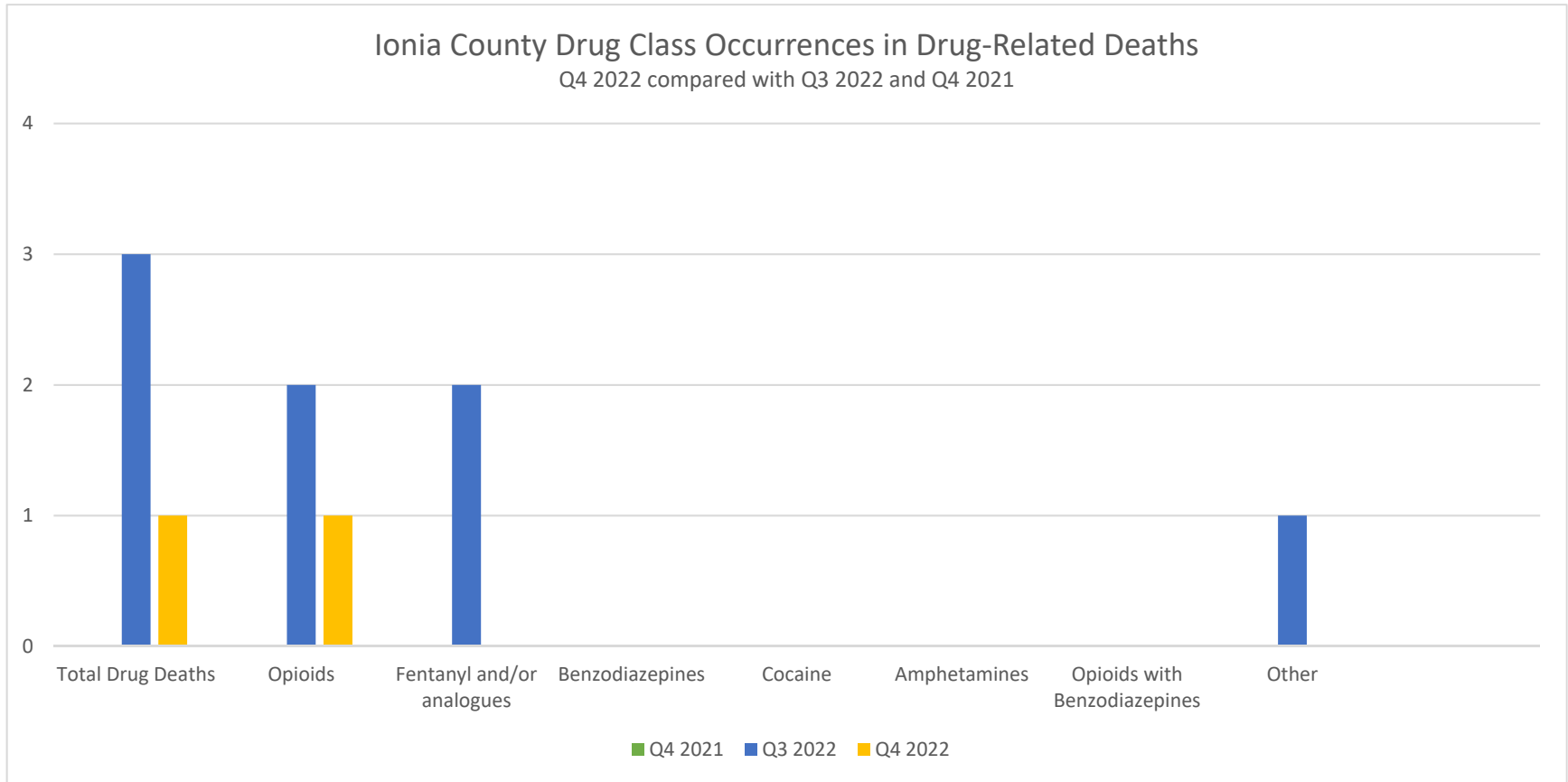
Drug-Related Deaths

2022 Q4 Ionia County Drug-Related Deaths

Sex	Age	Substance(s) Causing Death	Manner of Death
Male	44	methadone	Accident

Ionia County

Drug-Related Deaths



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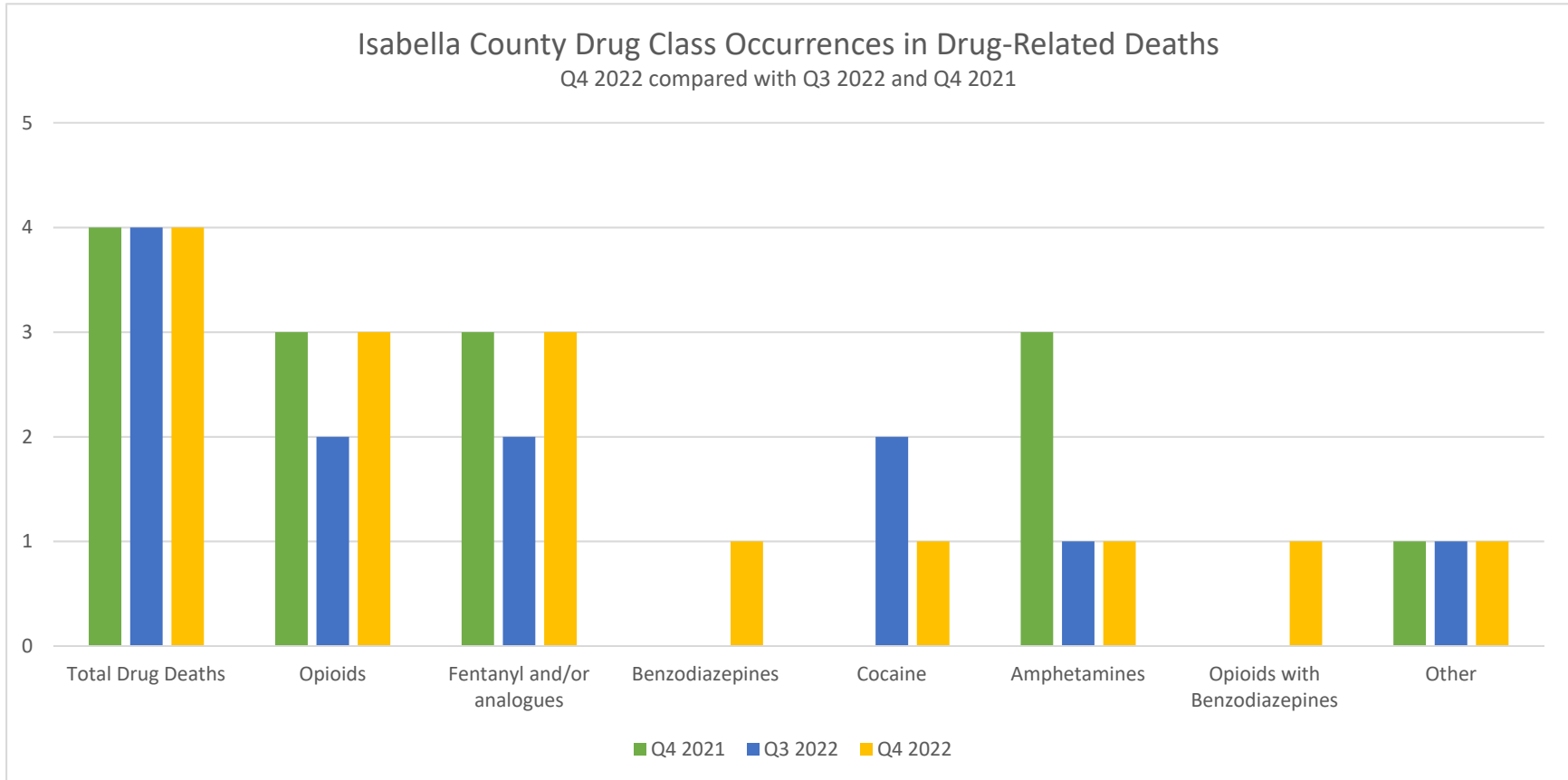
Isabella County

Drug-Related Deaths

2022 Q4 Isabella County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of Death
Female	23	alprazolam, fentanyl	Accident
Female	26	acetylfentanyl, cocaine, fentanyl, gabapentin	Accident
Female	48	fentanyl, methamphetamine	Accident
Female	75	duloxetine	Suicide

Isabella County

Drug-Related Deaths



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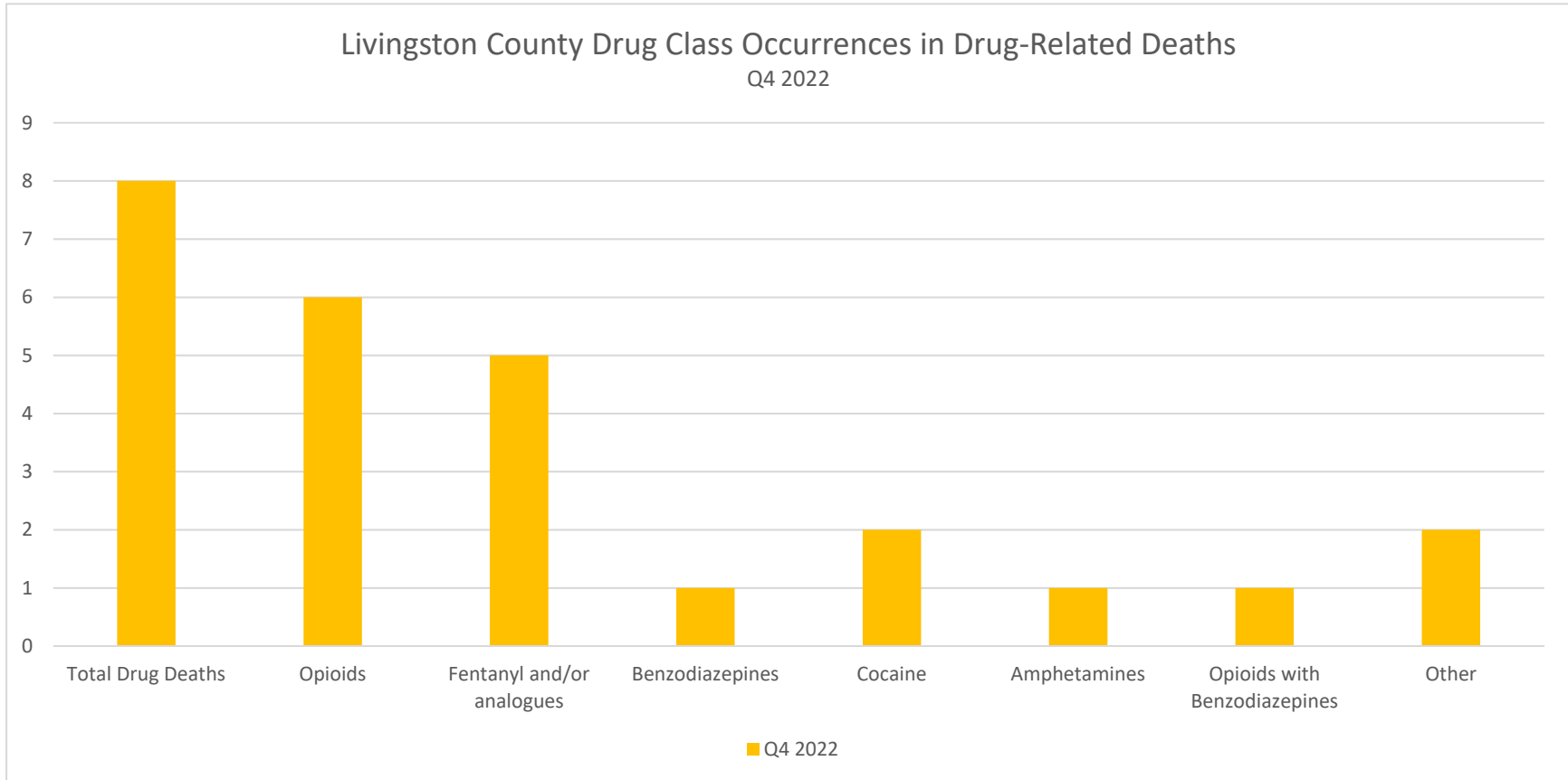
Livingston County

Drug-Related Deaths

2022 Q4 Livingston County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of Death
Female	31	fentanyl, methamphetamine	Accident
Male	34	fentanyl, fluorofentanyl	Accident
Male	38	cocaine, fentanyl, oxycodone	Accident
Male	47	methanol	Accident
Male	52	cocaine, fentanyl, gabapentin	Accident
Male	57	fentanyl	Accident
Male	67	alprazolam, ethanol, loperamide, oxycodone, prochlorperazine, trazodone, zolpidem	Accident
Female	75	amlodipine	Suicide

Livingston County

Drug-Related Deaths



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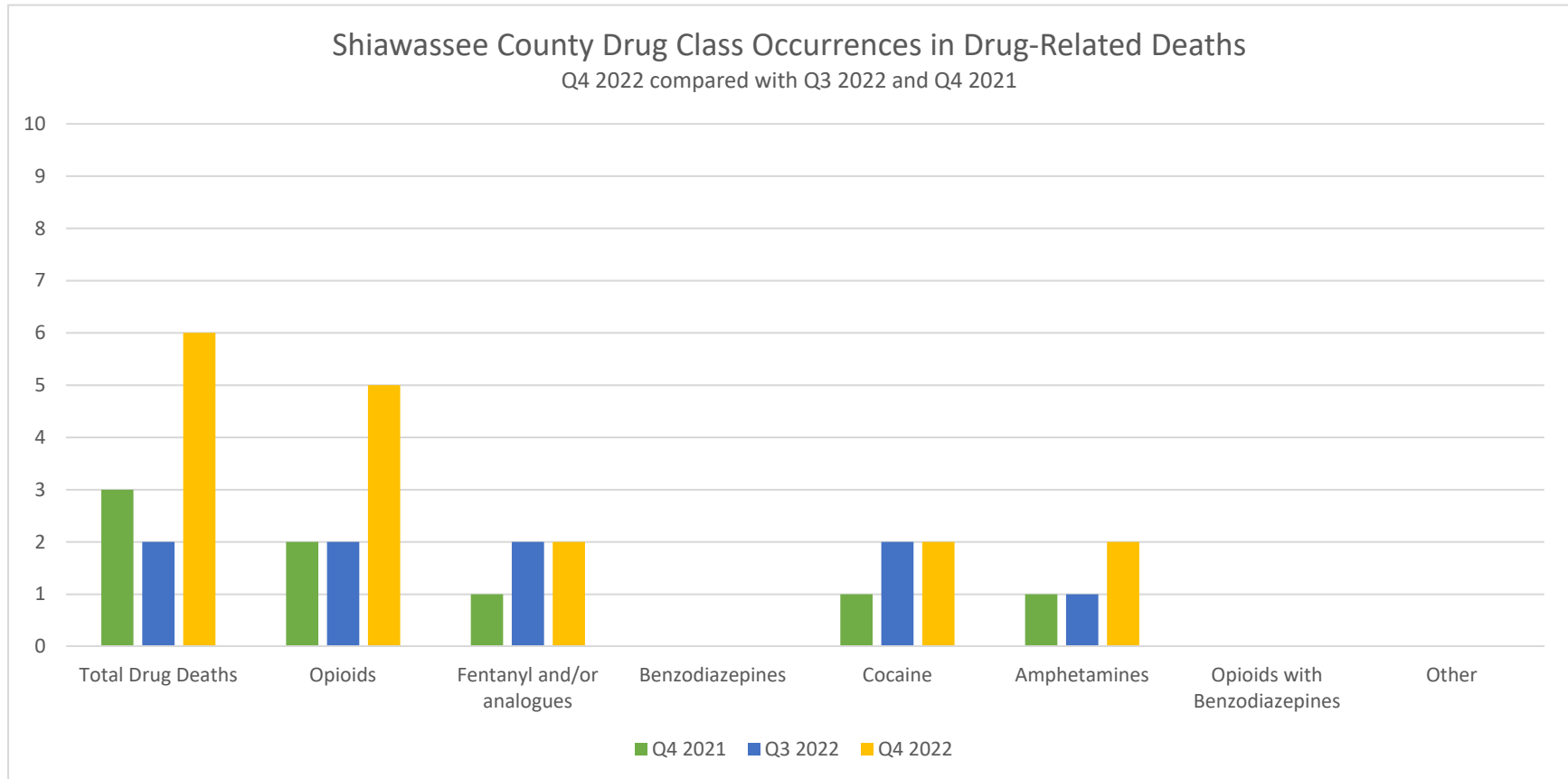
Shiawassee County

Drug-Related Deaths

2022 Q4 Shiawassee County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of Death
Male	35	ethanol, methadone	Accident
Male	44	fentanyl, methamphetamine	Accident
Male	46	cocaine	Accident
Male	56	cocaine, ethanol, fentanyl	Accident
Male	58	methadone, methamphetamine	Accident
Male	67	diphenhydramine, gabapentin, methadone	Accident

Shiawassee County

Drug-Related Deaths



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Historical Data

