

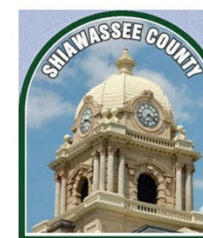


Department of Forensic Pathology
Office of the Medical Examiner

2022 Q3 (July 1 – September 30) Drug Report

Published December 6, 2022





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

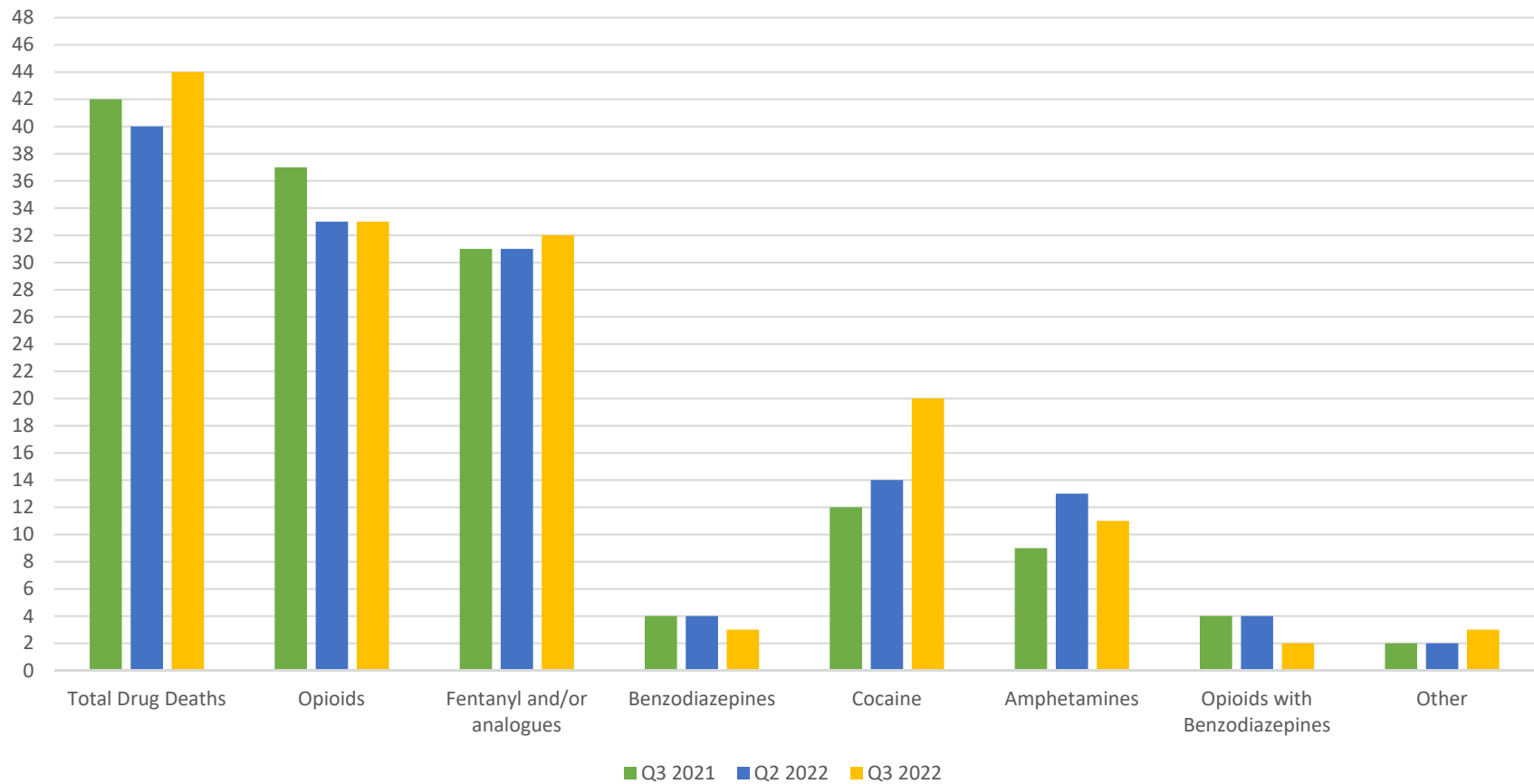
¹ If you have questions about what drugs we are currently capable of detecting, please visit www.axisfortox.com or email michelle.fox@sparrow.org

Highlights

All comparisons on the Highlights page are made to the data from Q3 (July 1 to September 30) of 2021. 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 **increased** by 5% (2 more)
- Opioid-related deaths **decreased** by 11% (4 fewer)
- Fentanyl and/or fentanyl analogue-related deaths **increased** by 3% (1 more)
- Cocaine-related deaths **increased** by 67% (8 more)
- Amphetamine/Methamphetamine-related deaths **increased** by 22% (2 more)
- Benzodiazepine-related deaths **decreased** by 25% (1 fewer)
- 6% of all opioid-related deaths in Q3 2022 also involved at least one benzodiazepine
- 77% of all drug-related deaths in Q3 2022 were due to two or more substances
- 15% of all opioid-related deaths in Q2 2022 also involved ethanol (all deaths involving ethanol also have an opioid)
- 16% of all drug related deaths in Q3 2022 involved ethanol
- 7% of all drug related deaths (3 deaths) involved mitragynine (all in combination with at least one additional drug)
- 23% of all drug related deaths (10 deaths) involved a fentanyl analogue (9 fluorofentanyl and 1 acetylfentanyl); fentanyl was also present in all 10 deaths

All-County Drug Class Occurrences in Drug-Related Deaths Q3 2022 compared with Q2 2022 and Q3 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.

Eaton County

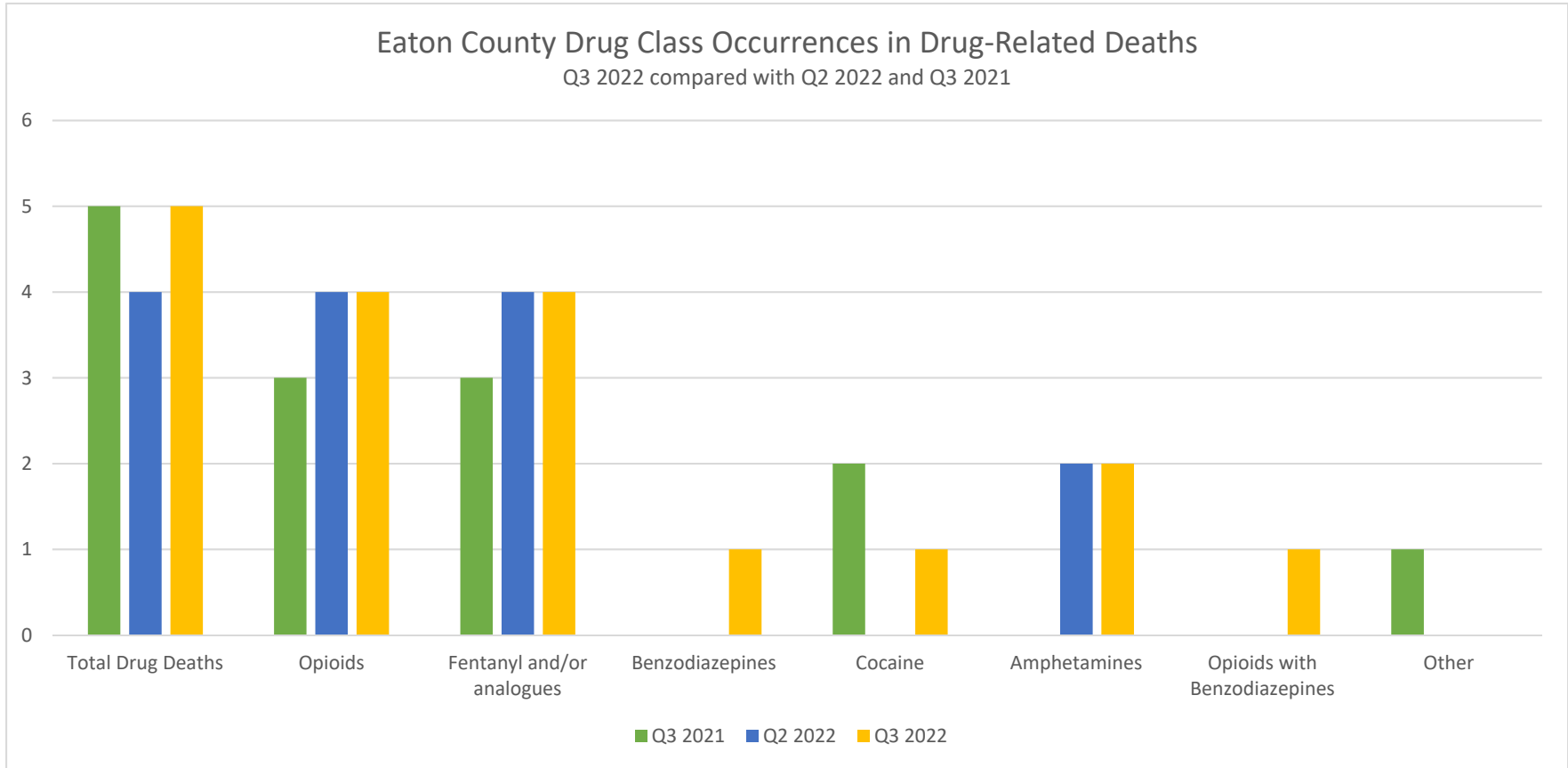
Drug-Related Deaths

2022 Q3 Eaton County Drug-Related Deaths

Sex	Age	Substance(s) Causing Death	Manner of Death
Male	22	fentanyl	Accident
Female	28	fentanyl	Accident
Male	40	acetylfentanyl, alprazolam, fentanyl, fluorofentanyl, gabapentin, methamphetamine	Accident
Male	53	methamphetamine	Accident
Male	67	cocaine, fentanyl	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

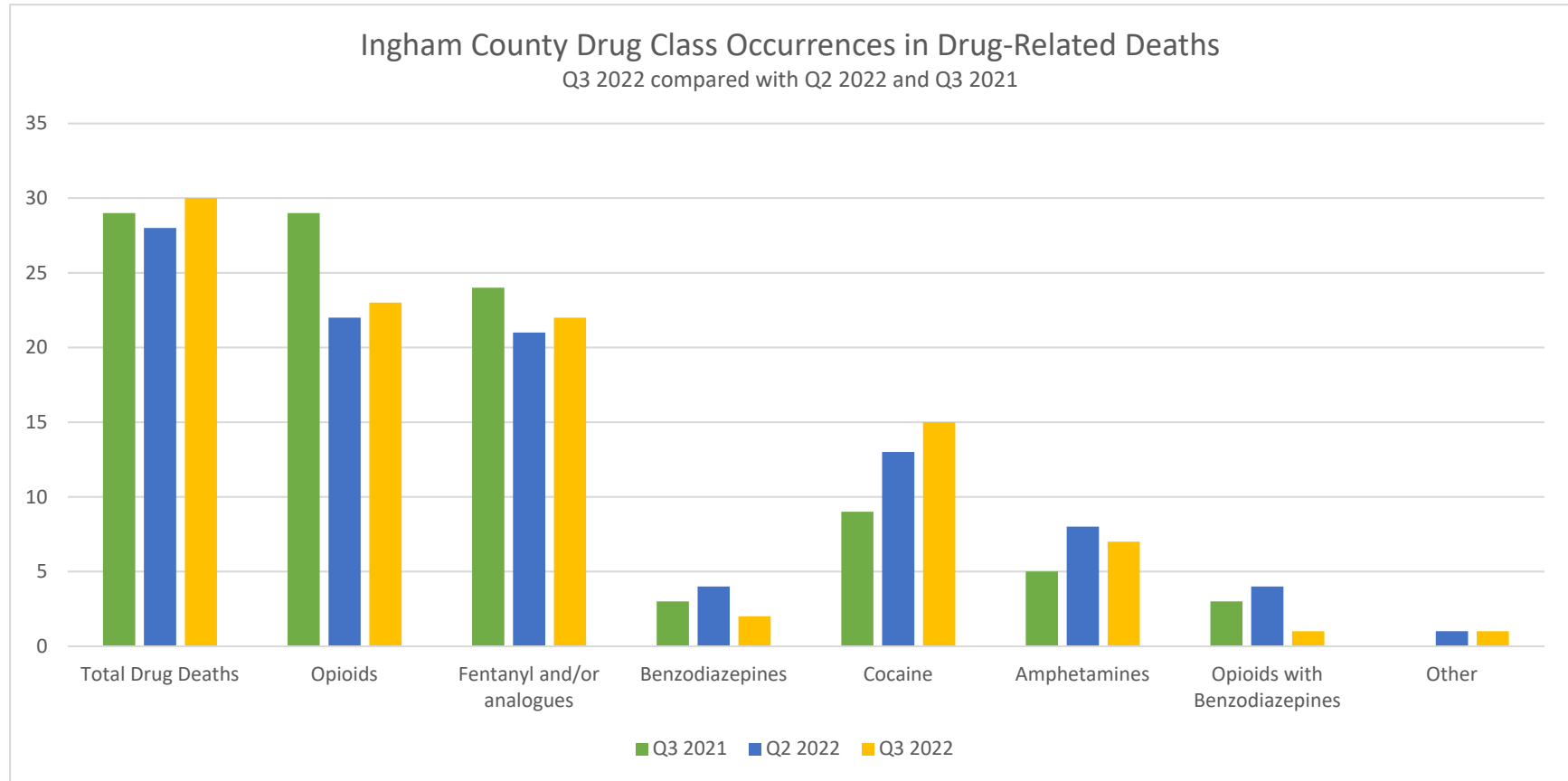
Drug-Related Deaths

2022 Q3 Ingham County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of Death
Female	25	diphenhydramine, salicylate	Suicide
Male	28	fentanyl, methamphetamine	Accident
Female	28	cocaine, ethanol, fentanyl, fluorofentanyl, methamphetamine	Accident
Male	32	clonazepam, cocaine, fentanyl, mitragynine	Accident
Female	32	cocaine, fentanyl	Accident
Male	34	hydromorphone	Accident
Male	34	fentanyl, hydrocodone	Accident
Male	37	cocaine, fentanyl, fluorofentanyl	Accident
Male	37	cocaine, mitragynine	Accident
Male	37	fentanyl	Accident
Male	39	cocaine, fentanyl	Accident
Male	42	fentanyl, fluorofentanyl, heroin, methamphetamine	Accident
Male	43	ethanol, fentanyl, xylazine	Accident
Male	45	cocaine	Accident
Male	48	cocaine, fentanyl	Accident
Male	48	aripiprazole, diphenhydramine, fentanyl, hydroxyzine, meta-chlorophenylpiperazine, mirtazapine, quetiapine, sertraline, trazadone	Accident
Male	48	methamphetamine	Accident
Male	50	fentanyl, gabapentin	Accident
Male	51	fentanyl, methamphetamine	Accident
Male	52	fentanyl, fluorofentanyl	Accident
Male	53	cocaine, ethanol, fentanyl, methamphetamine	Accident
Female	53	fentanyl, fluorofentanyl, methadone	Accident

Female	55	cocaine, fentanyl, methamphetamine	Accident
Male	56	cocaine, fentanyl	Accident
Male	56	cocaine, ethanol, fentanyl	Accident
Female	61	cocaine	Accident
Female	63	cocaine	Accident
Male	70	cocaine, fentanyl	Accident
Male	71	fentanyl, fluorofentanyl	Accident
Female	73	alprazolam, amitriptyline, diphenhydramine, doxylamine, ethanol, paroxetine, zolpidem	Suicide

Ingham County

Drug-Related Deaths



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Ionia County

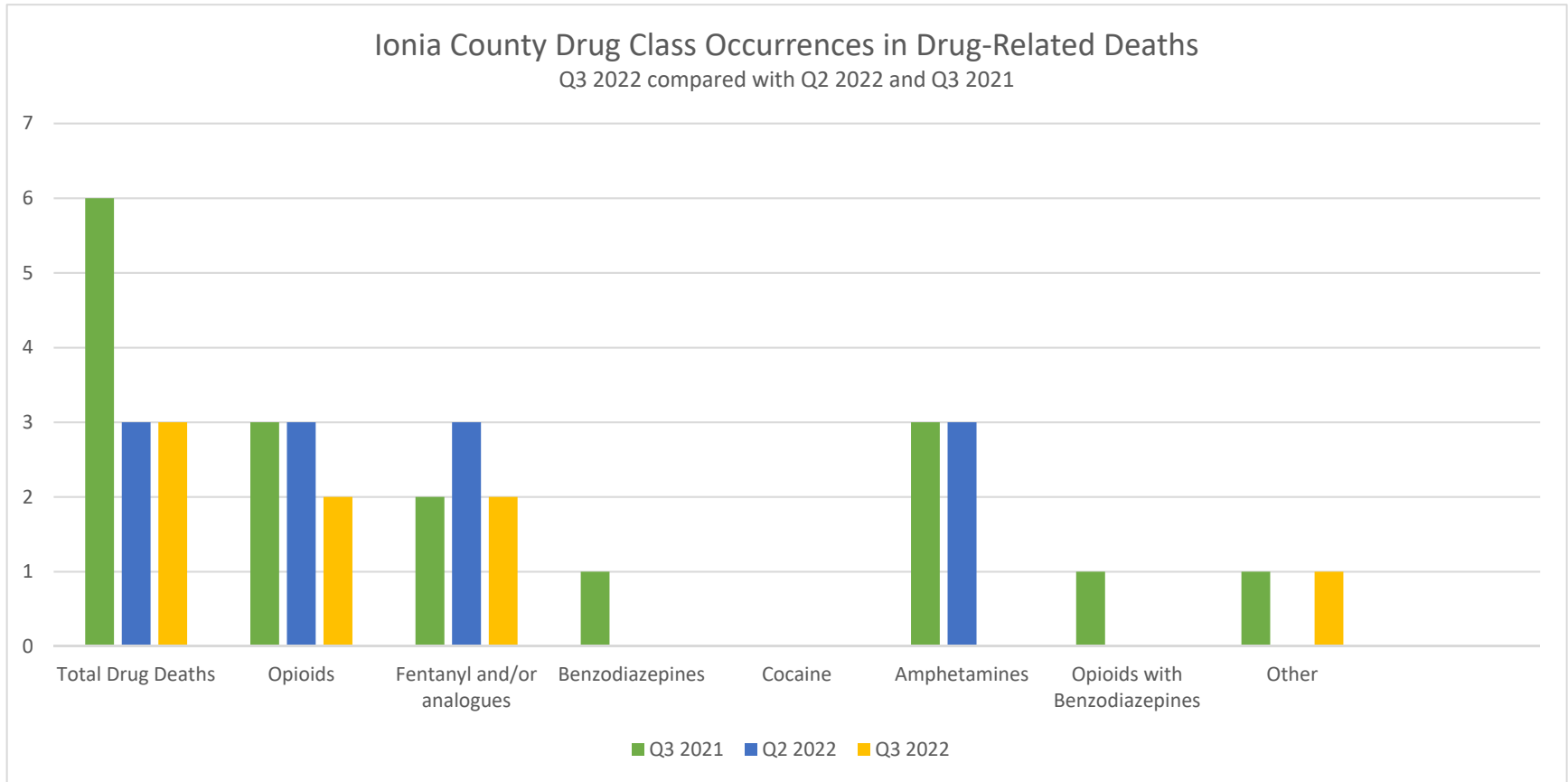
Drug-Related Deaths

2022 Q3 Ionia County Drug-Related Deaths

Sex	Age	Substance(s) Causing Death	Manner of Death
Male	42	fentanyl, mitragynine	Accident
Male	54	nifedipine	Suicide
Male	62	fentanyl, fluorofentanyl	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.

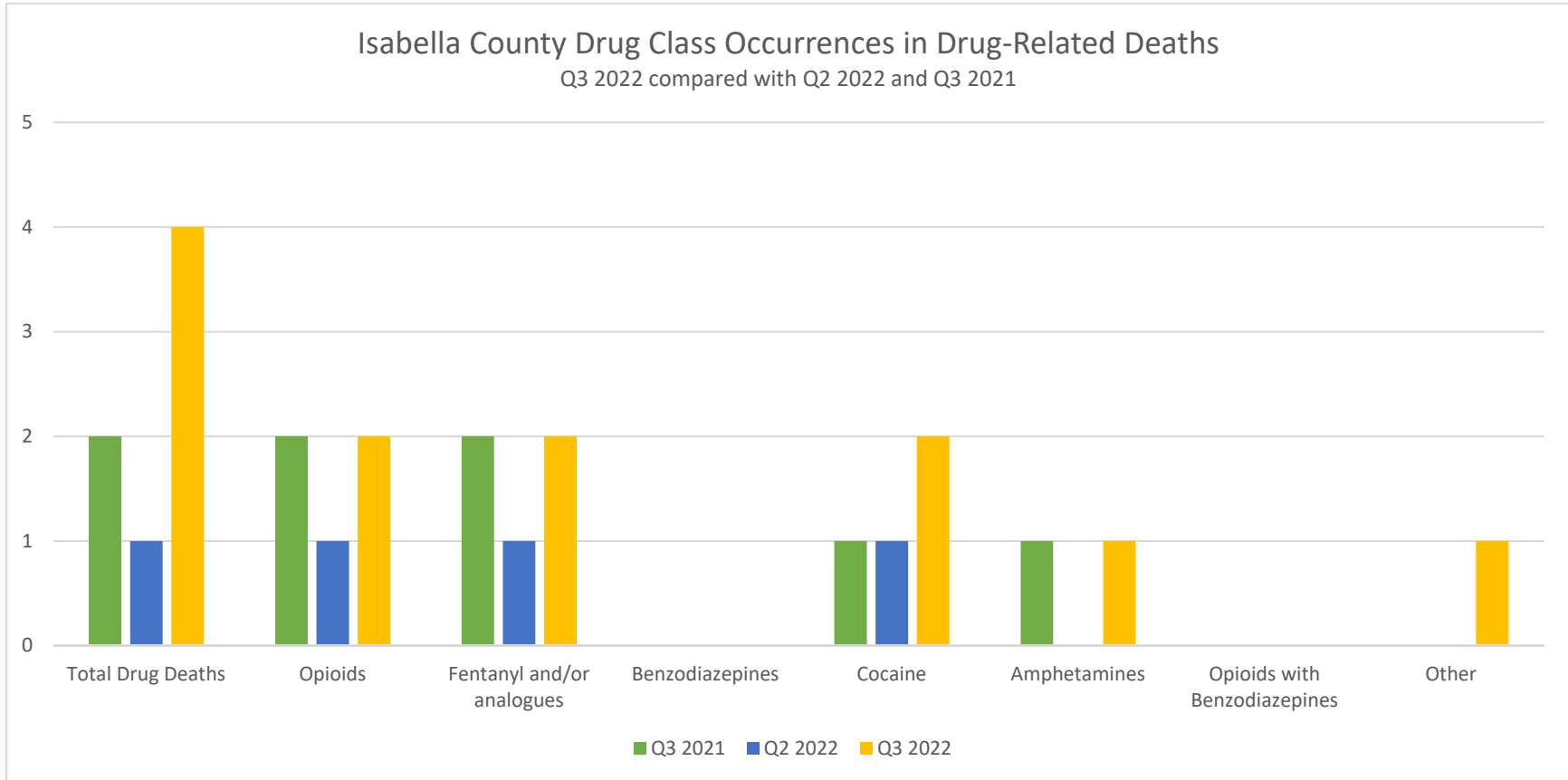
Isabella County

Drug-Related Deaths

2022 Q3 Isabella County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of Death
Male	32	ethanol, fentanyl, fluorofentanyl	Accident
Male	36	amphetamine, cocaine, dextromethorphan, ethanol	Accident
Female	46	bupropion	Suicide
Female	51	cocaine, fentanyl	Accident

Isabella County

Drug-Related Deaths



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Shiawassee County

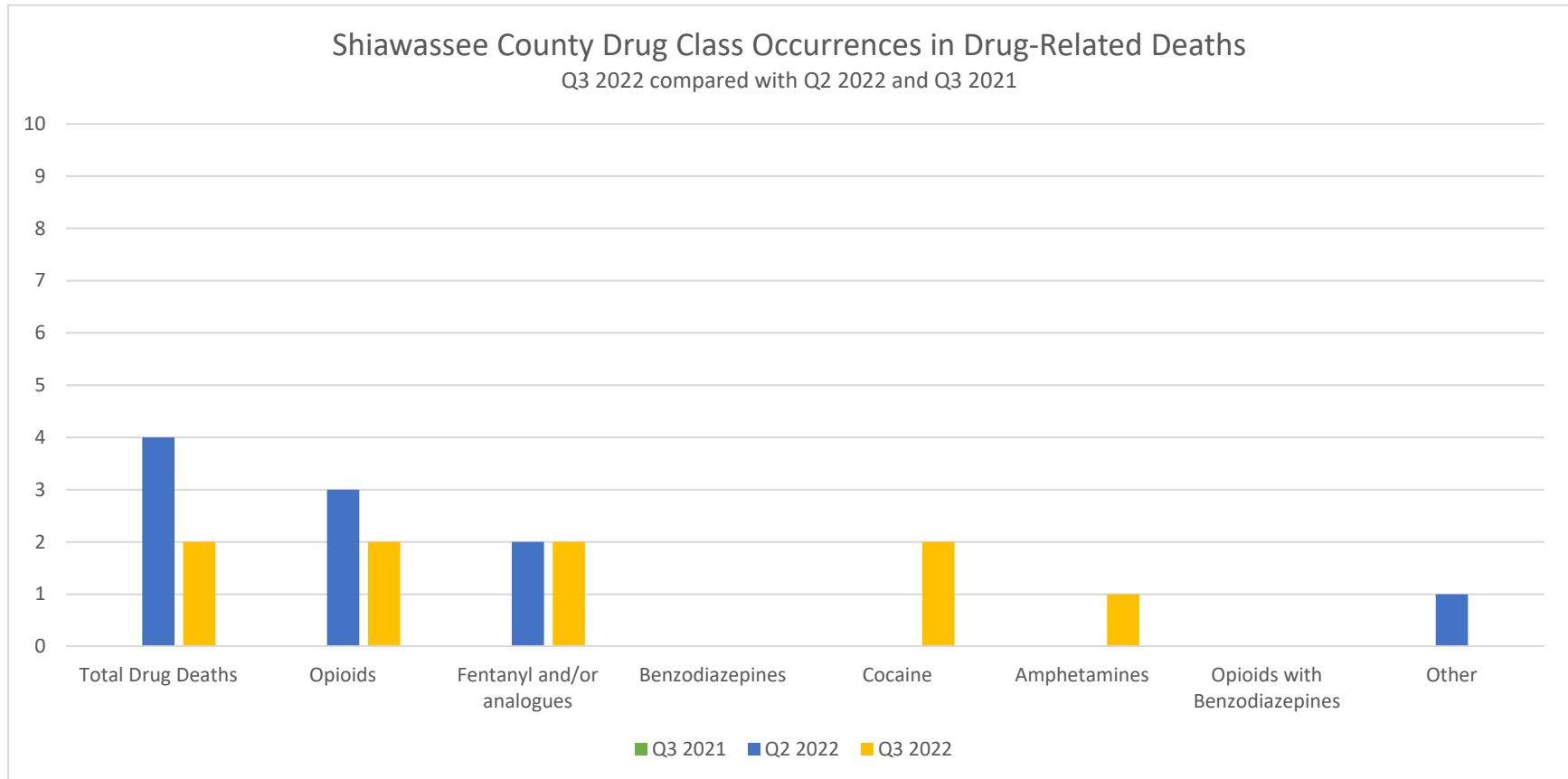
Drug-Related Deaths

2022 Q3 Shiawassee County Drug-Related Deaths

Sex	Age	Substance(s) Causing Death	Manner of Death
Male	32	cocaine, fentanyl, methamphetamine, MDMA	Accident
Male	50	cocaine, fentanyl	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

