

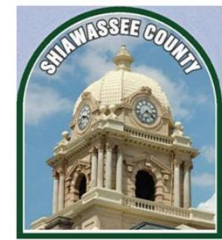


Department of Forensic Pathology
Office of the Medical Examiner

2021 Q1 (January 1 – March 31) Drug Report

Published June 15, 2021





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

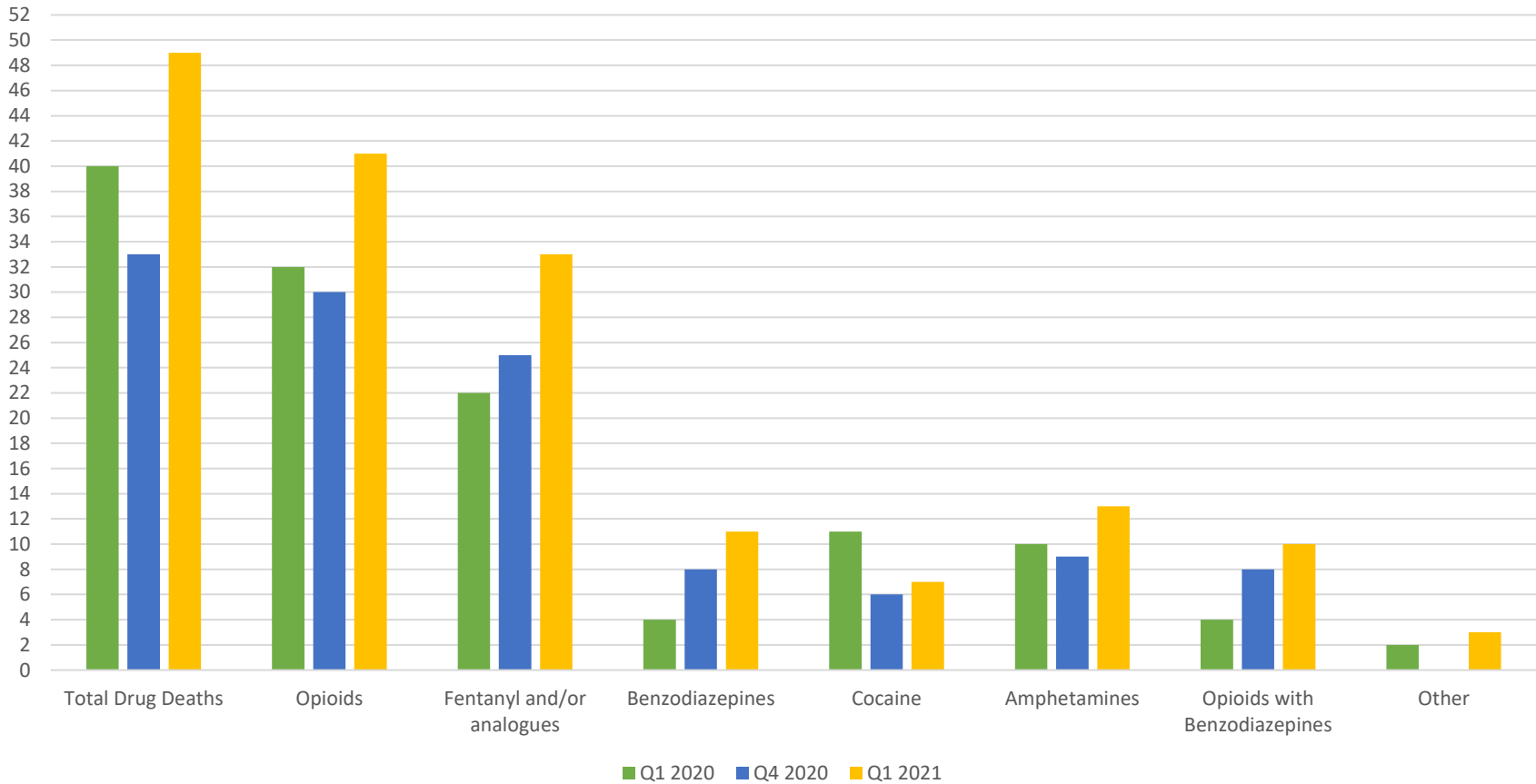
Highlights

All comparisons on the Highlights page are made to the data from Q1 (January 1-March 31) of 2020. 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, and many deaths involved both heroin and fentanyl, and are included in both specific categories).

- Total drug-related deaths **increased** by 22.5% (9 more)
- Opioid-related deaths **increased** by 28.1% (9 more)
- Fentanyl-related deaths **increased** by 50% (11 more)
- Cocaine-related deaths **decreased** by 36.3% (4 less)
- Amphetamine/Methamphetamine-related deaths **increased** by 30% (3 more)
- Benzodiazepine-related deaths **increased** by 175% (7 more)
- MDMA (Ecstasy) contributed to 2 deaths in two counties in Q1 2021.
- **71.4%** of all drug-related deaths in Q1 2021 were due to two or more substances
- **24.4%** of all opioid-related deaths in Q1 2021 also involved at least one benzodiazepine which is a 95.2% increase from Q1 2020.
- 19.5% of all opioid-related deaths in Q1 2021 also involved ethanol (alcohol)
- **18.4%** of all drug related deaths in Q1 2021 involved ethanol (alcohol)

All-County Drug Class Occurrences in Drug-Related Deaths

Q1 2021 compared with Q1 2020 and Q4 2020



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.

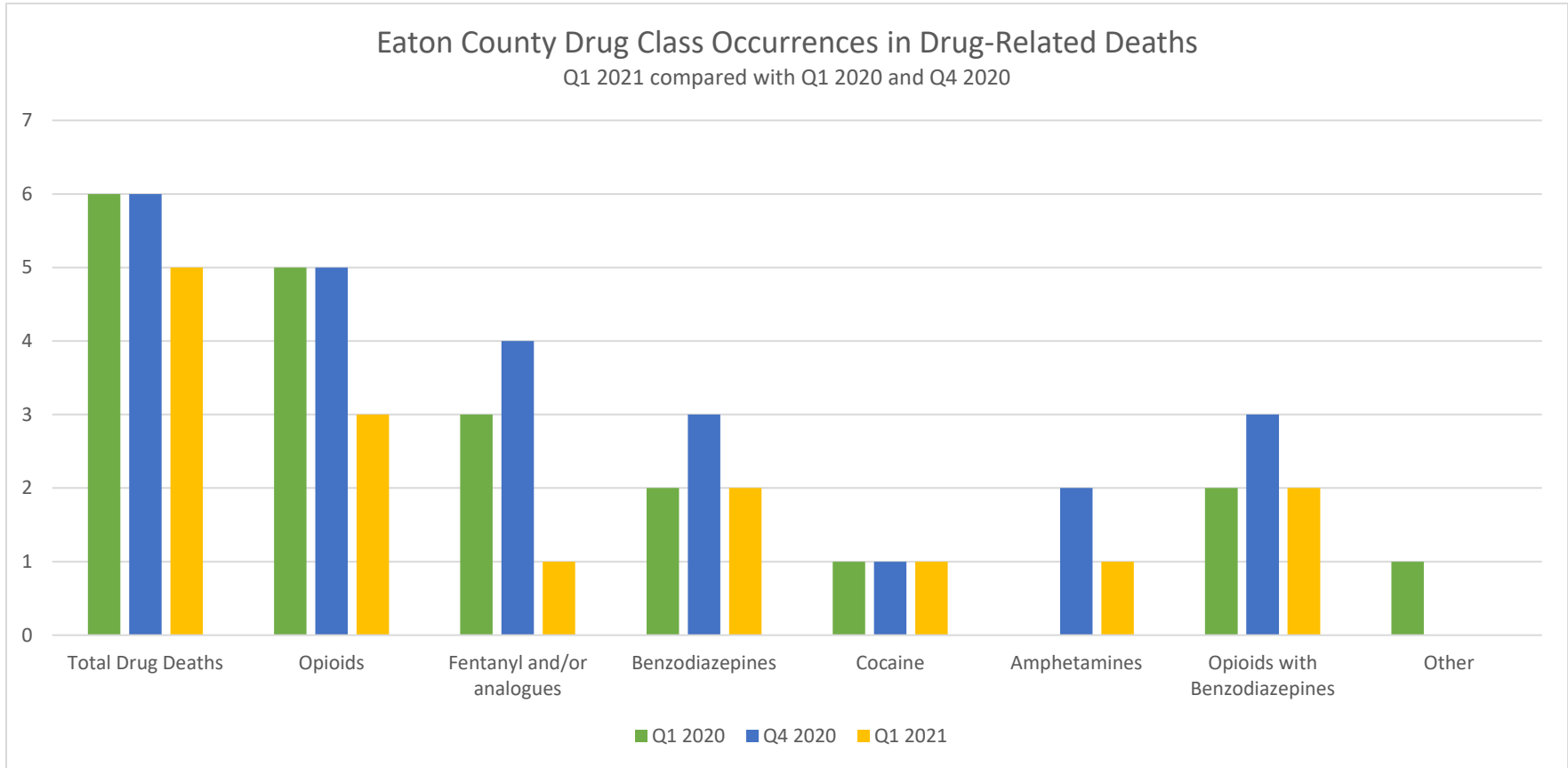
Eaton County

Drug-Related Deaths

2021 Q1 Eaton County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of death
Male	29	ethanol, diazepam, mitragynine, methadone	Accident
Male	34	methamphetamine	Accident
Female	37	fentanyl, morphine	Accident
Male	38	alprazolam, oxycodone	Accident
Male	46	MDMA, 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

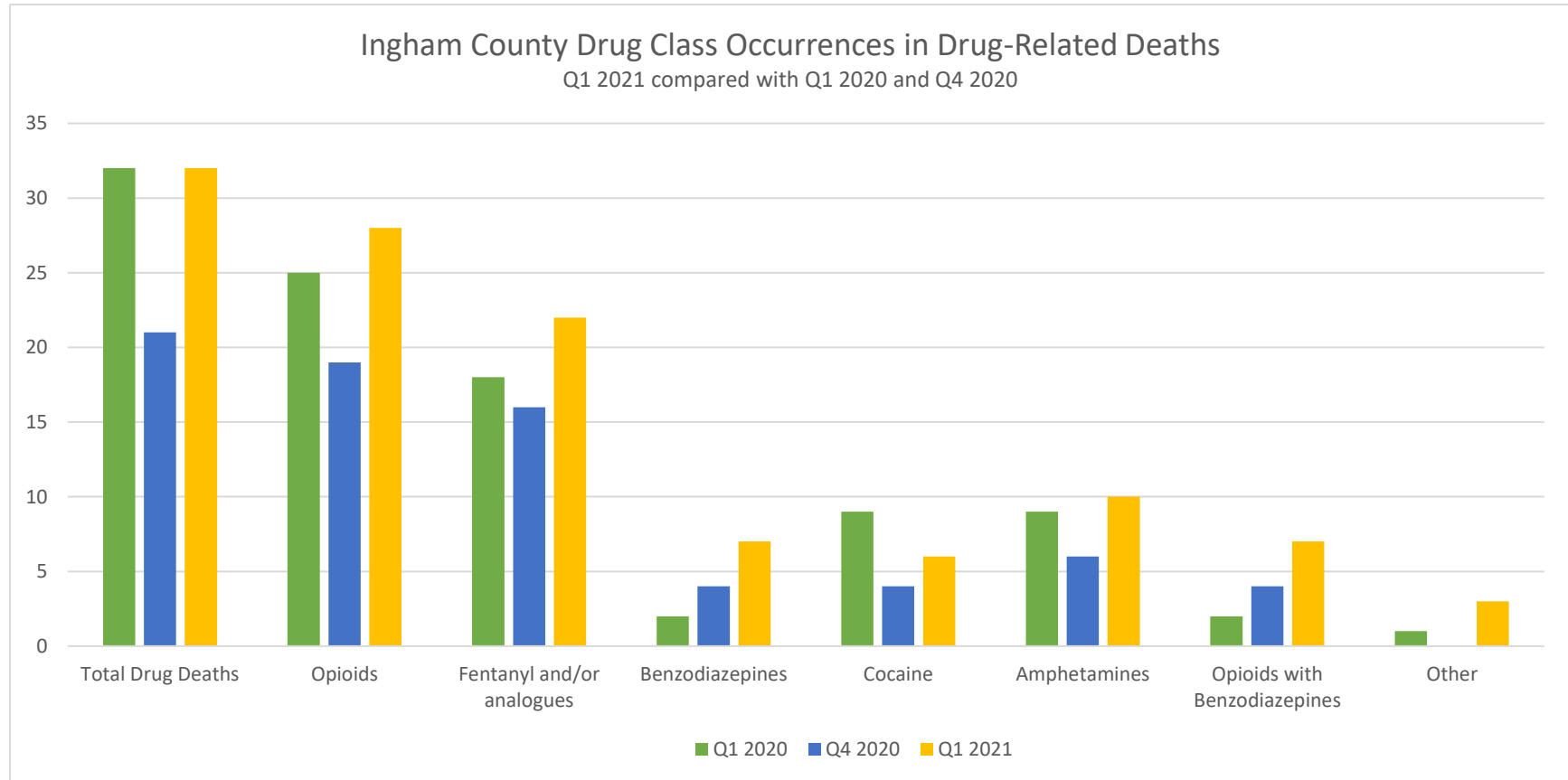
Drug-Related Deaths

2021 Q1 Ingham County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of death
Female	23	fentanyl	Accident
Female	24	fentanyl, methamphetamine	Accident
Female	24	fentanyl, morphine, methamphetamine	Accident
Female	27	fentanyl, methamphetamine	Accident
Male	28	alprazolam, fentanyl, mitragynine	Accident
Female	34	fentanyl, acetylfentanyl, cocaine	Accident
Male	34	Propranolol	Suicide
Male	35	heroin, oxycodone, hydrocodone, codeine, alprazolam	Accident
Female	36	cocaine, fentanyl, MDMA	Accident
Male	36	methamphetamine	Accident
Male	36	fentanyl, methamphetamine, clonazepam	Accident
Female	36	fentanyl, cocaine	Accident
Female	37	diphenhydramine, ethanol, fentanyl, xylazine	Accident
Female	37	fentanyl, methamphetamine	Accident
Female	37	fentanyl, methamphetamine	Accident
Female	38	acetaminophen	Accident
Male	39	fentanyl, alprazolam, hydroxyzine, cocaine	Accident
Male	39	fentanyl	Accident
Male	42	amphetamine, diazepam, ethanol, fentanyl, hydrocodone	Accident
Male	44	fentanyl, cocaine, ethanol	Accident
Male	49	pregabalin, mirtazapine, paroxetine, quetiapine, codeine, oxycodone	Accident
Male	51	fentanyl, methamphetamine	Accident
Female	52	bupropion, dextromethorphan, diazepam, morphine, nortriptyline, venlafaxine	Indeterminate
Male	53	ethanol, fentanyl, heroin, methamphetamine	Accident

Male	54	fentanyl, cocaine, oxycodone	Accident
Male	55	fentanyl, ethanol	Accident
Female	59	hydrocodone, methadone	Accident
Male	60	fentanyl	Accident
Male	63	fentanyl, mitragynine, gabapentin, diphenhydramine, doxylamine	Accident
Female	65	oxycodone	Accident
Male	65	methadone, clonazepam	Accident
Female	73	amlodipine	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.

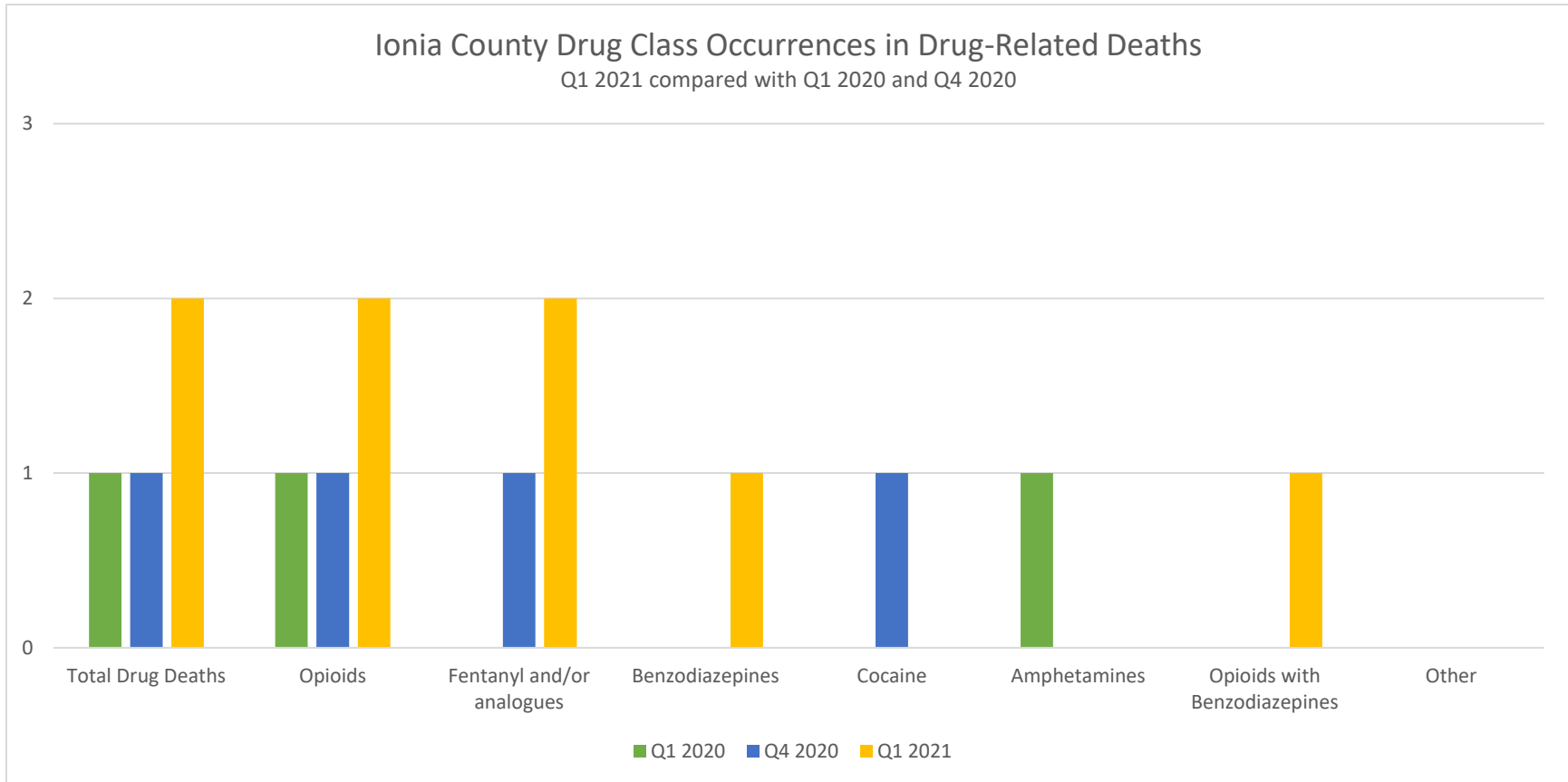
Ionia County

Drug-Related Deaths

2021 Q1 Ionia County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of death
Male	29	fentanyl, flualprazolam	Accident
Female	53	fentanyl, morphine	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.

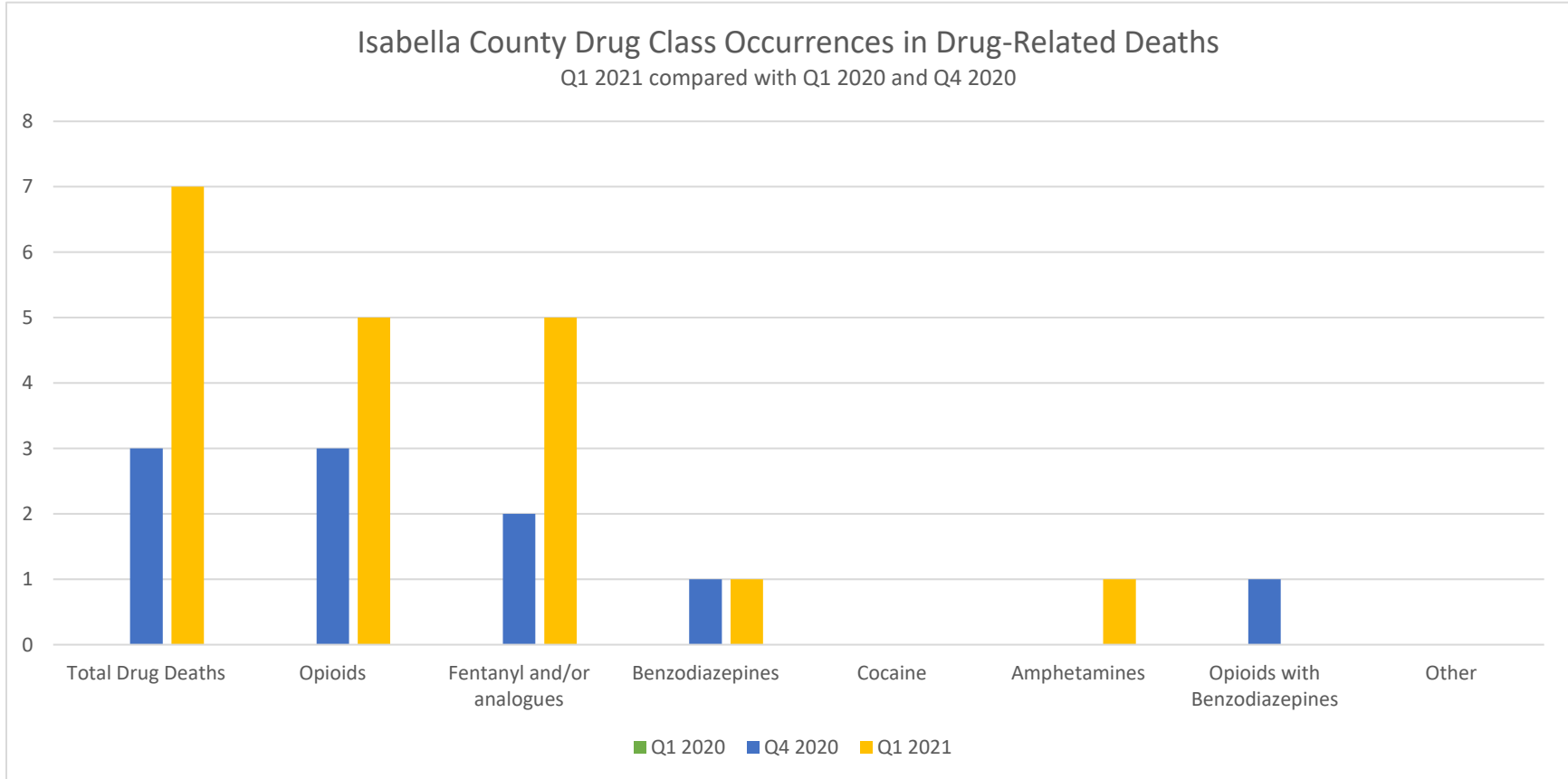
Isabella County

Drug-Related Deaths

2021 Q1 Isabella County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of death
Male	22	fentanyl	Accident
Male	22	fentanyl	Accident
Male	30	fentanyl, heroin	Accident
Male	32	fentanyl, oxycodone, mitragynine, ethanol	Accident
Male	53	methamphetamine	Accident
Male	58	fentanyl, ethanol	Accident
Female	64	ethanol, diazepam, sertraline	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.

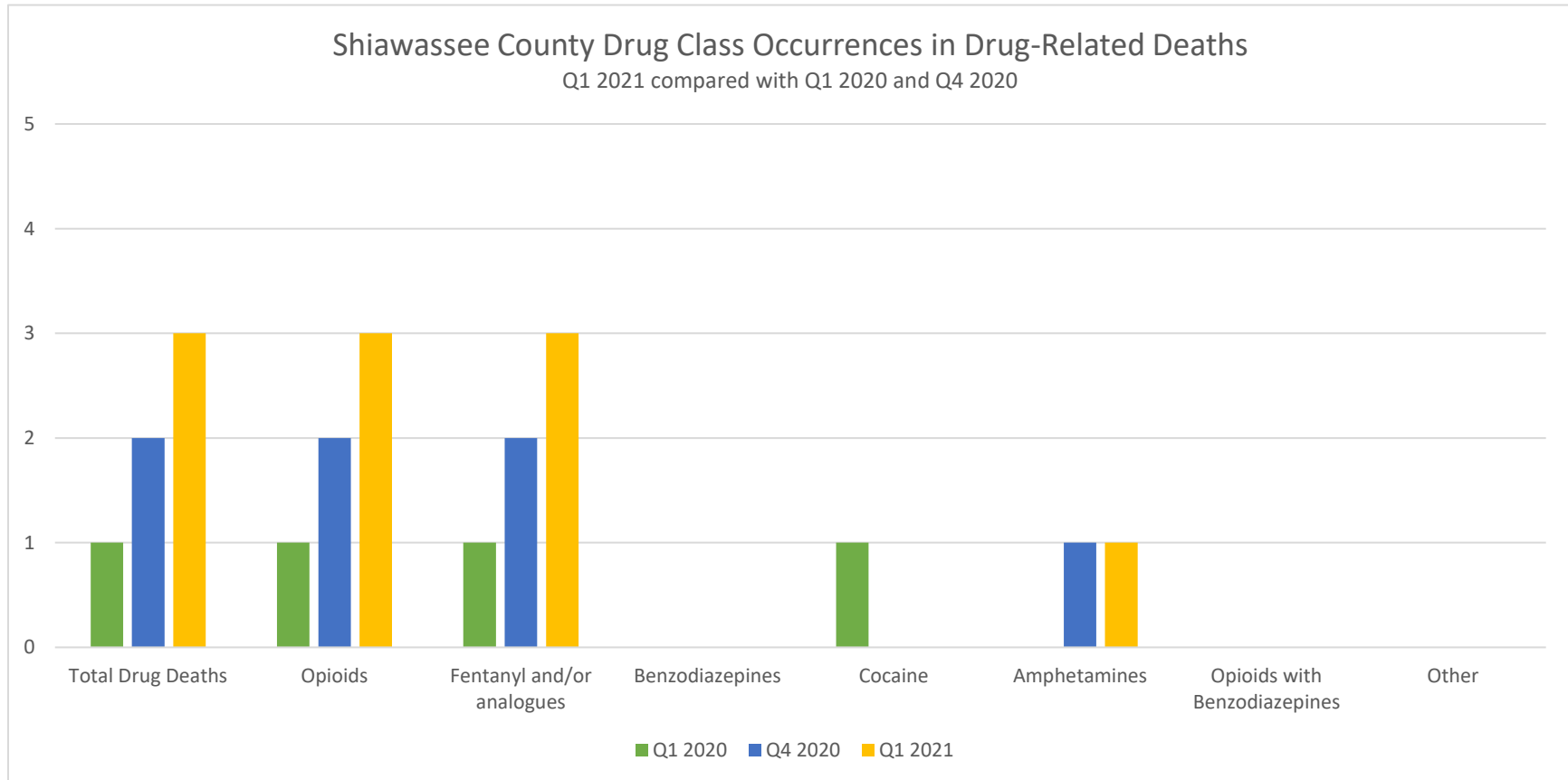
Shiawassee County

Drug-Related Deaths

2021 Q1 Shiawassee County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of death
Male	33	fentanyl	Accident
Male	35	fentanyl	Accident
Male	65	fentanyl, methamphetamine	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

