

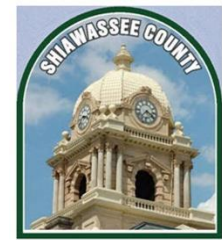


Department of Forensic Pathology  
Office of the Medical Examiner

2020 Q1 (January 1 – March 31) Drug Report

Published August 28, 2020





## 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>

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<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)

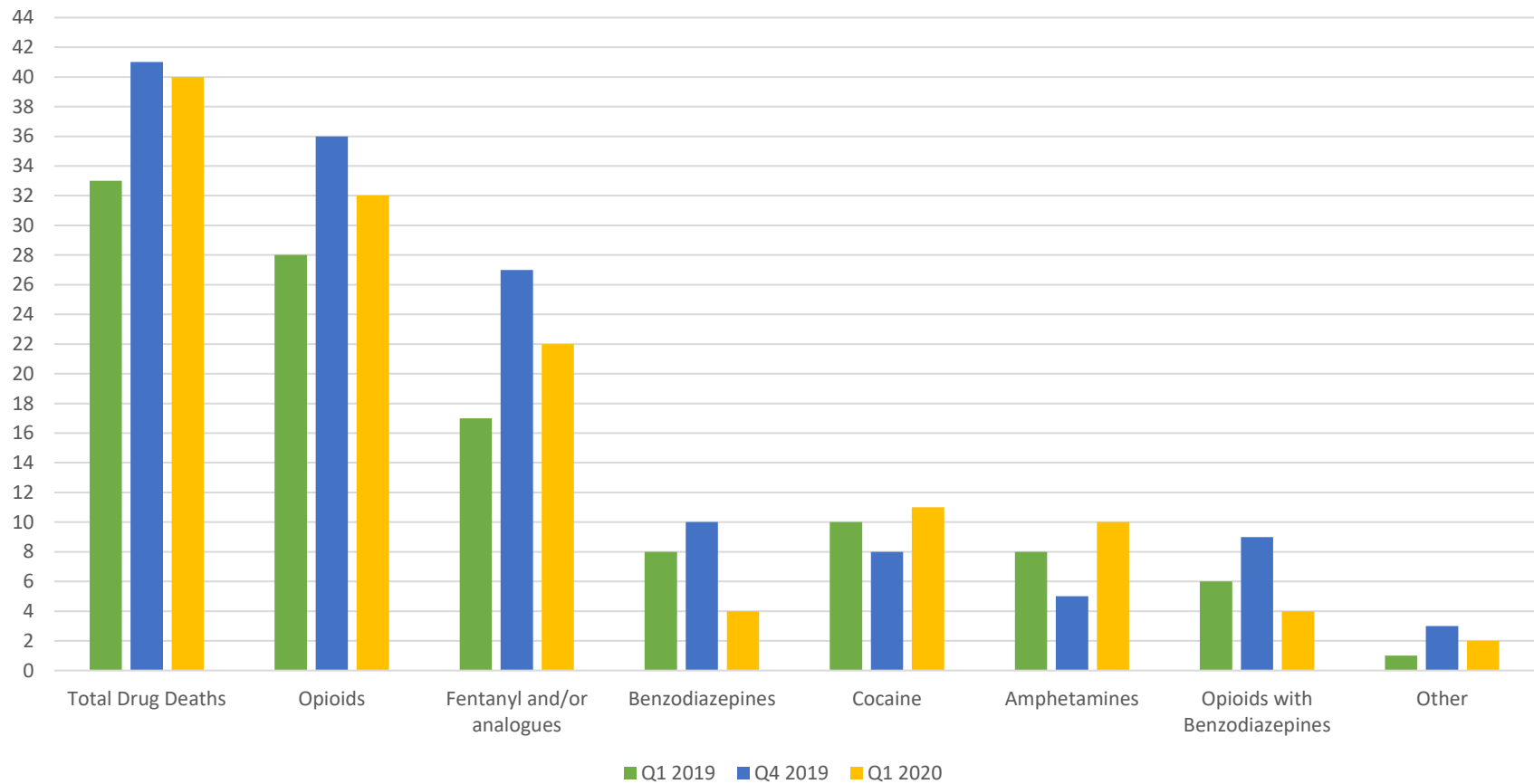
## Highlights

All comparisons on the Highlights page are made to the data from Q1 (January 1-March 31) of 2019. 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 21.2% (7 more)
- Opioid-related deaths **increased** by 14.3% (4 more)
- Fentanyl-related deaths **increased** by 29.4% (5 more)
- Cocaine-related deaths **increased** by 10% (1 more)
- Amphetamine/Methamphetamine-related deaths **increased** by 25% (2 more)
- Benzodiazepine-related deaths **decreased** by 50% (4 less)
- Fentanyl analogues identified as having caused or contributed to death in Q1 2020 included: acetylfentanyl only
- **75%** of all drug-related deaths in Q1 2020 were due to two or more substances
- **12.5%** of all opioid-related deaths in Q1 2020 also involved at least one benzodiazepine
- 12.5% of all opioid-related deaths in Q1 2020 also involved ethanol (alcohol)
- **12.5%** of all drug related deaths in Q1 2020 involved ethanol (alcohol)

## All-County Drug Class Occurrences in Drug-Related Deaths

Q1 2020 compared with Q1 2019 and Q4 2019



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.

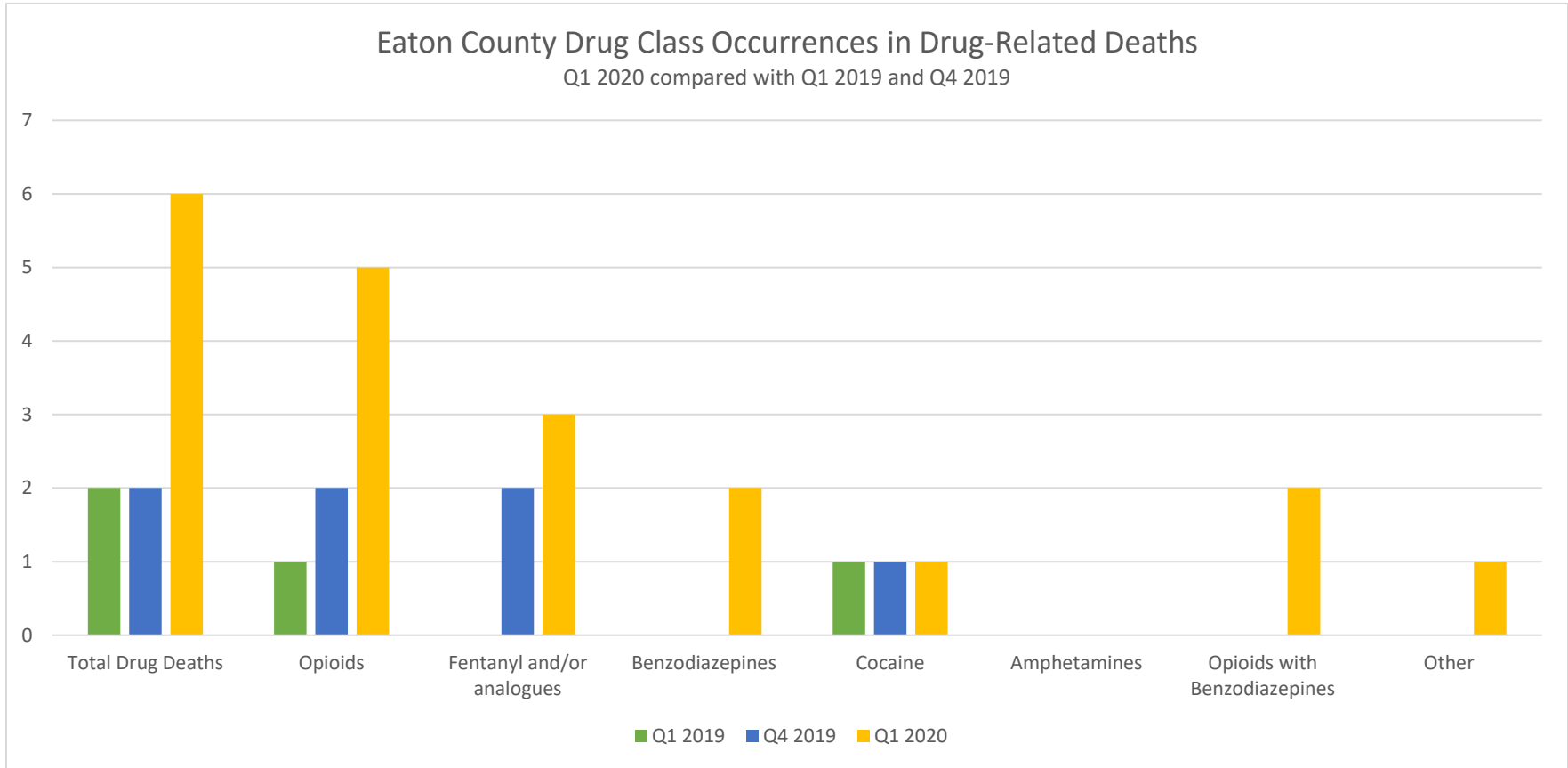
# Eaton County

## Drug-Related Deaths

2020 Eaton County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of death
Female	22	fentanyl	Accident
Male	25	fentanyl, heroin, cocaine, alprazolam, clonazepam, cyclobenzaprine, ethanol	Accident
Male	26	1,1-difluoroethane	Accident
Female	38	dextromethorphan, methadone	Accident
Male	39	methadone, clonazepam, amitriptyline, pregabalin, haloperidol	Accident
Female	51	heroin, fentanyl, doxylamine	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

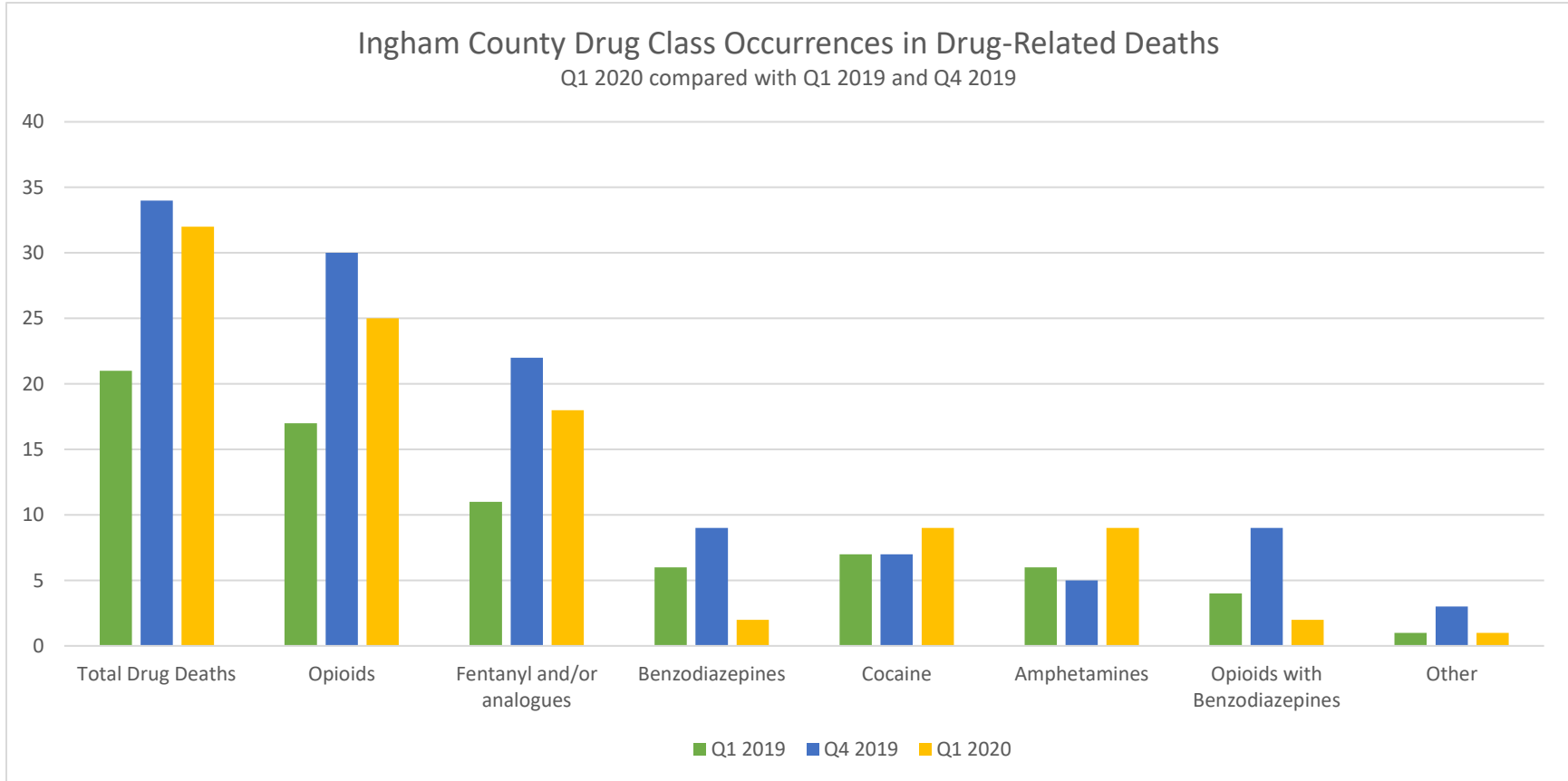
2020 Q1 Ingham County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of death
Female	23	cocaine, fentanyl	Accident
Female	24	diphenhydramine, fentanyl	Accident
Female	25	methadone	Indeterminate
Male	29	hydrocodone, oxycodone	Accident
Male	29	methamphetamine, fentanyl	Accident
Male	30	methamphetamine, cocaine	Accident
Male	30	morphine	Accident
Female	30	fentanyl, cocaine, ethanol	Accident
Male	34	fentanyl, heroin, hydrocodone	Accident
Male	34	fentanyl, cocaine, clonazepam, alprazolam, cyclobenzaprine	Accident
Male	35	fentanyl, morphine, xylazine, loperamide, alprazolam, clonazepam, diphenhydramine	Accident
Female	35	fentanyl	Accident
Female	36	amlodipine, cyclobenzaprine, diphenhydramine, duloxetine, metoprolol	Suicide
Male	37	cocaine, diphenhydramine, ethanol	Indeterminate
Male	37	fentanyl, ethanol	Accident
Male	38	acetylfentanyl, fentanyl, methamphetamine	Accident
Male	38	methamphetamine, codeine, morphine	Accident
Male	39	cocaine, methamphetamine	Accident
Female	39	methamphetamine, fentanyl	Accident
Male	40	fentanyl, oxycodone	Accident
Female	45	amphetamine, diphenhydramine, fentanyl	Accident
Male	46	fentanyl	Accident
Male	50	cocaine	Accident

Female	53	cocaine, cyclobenzaprine, hydrocodone	Accident
Male	56	fentanyl, heroin, methamphetamine	Accident
Female	60	methamphetamine	Accident
Male	63	diphenhydramine, methadone	Accident
Male	64	fentanyl, heroin	Accident
Male	67	fentanyl, hydrocodone, morphine	Accident
Male	68	cocaine	Accident
Male	70	morphine	Accident
Male	70	fentanyl, morphine, xylazine, ethanol	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

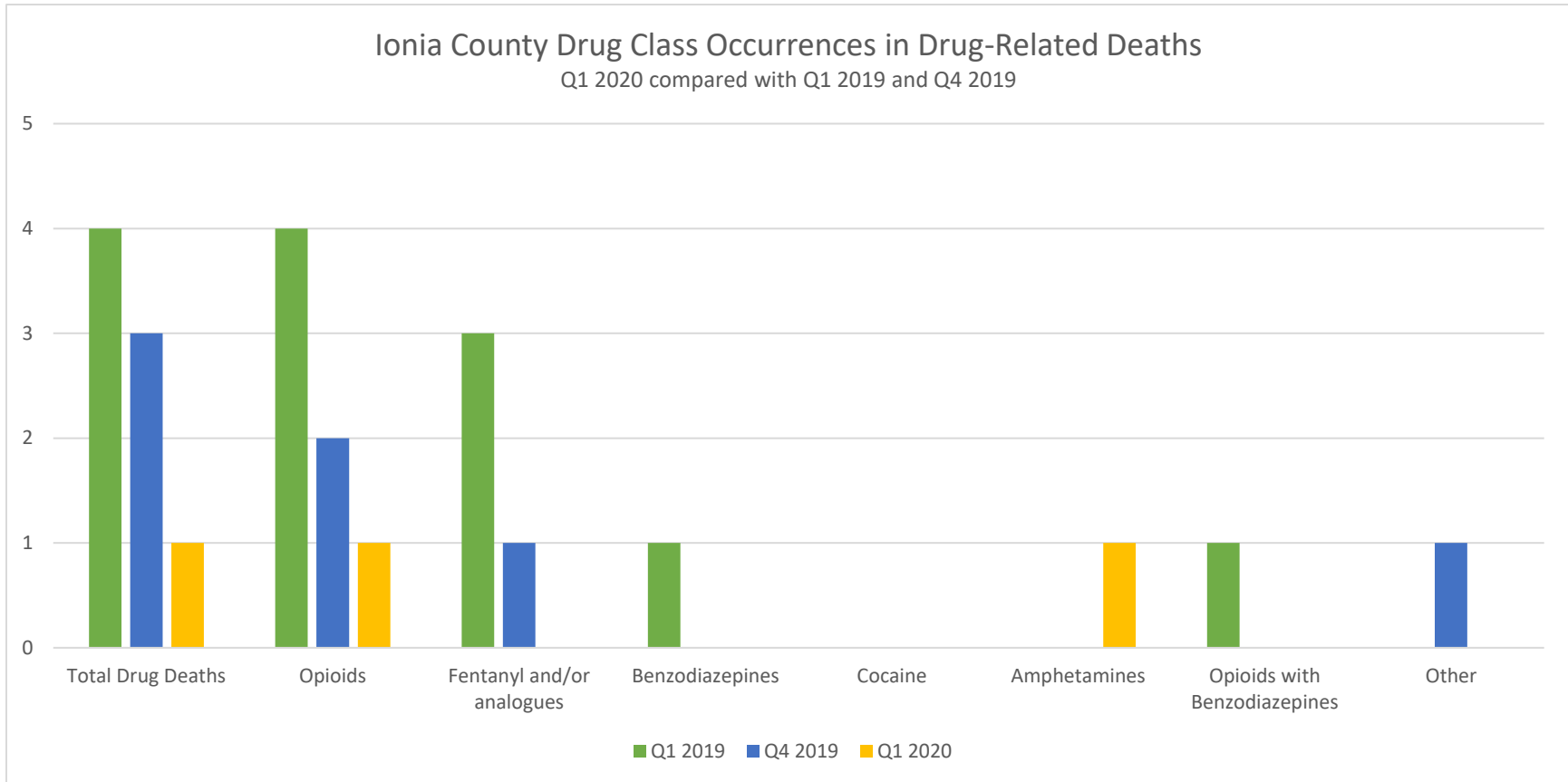
## Drug-Related Deaths

### 2020 Ionia County Drug-Related Deaths

Sex	Age	Substance(s) Causing Death	Manner of death
Male	55	methamphetamine, oxycodone	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.

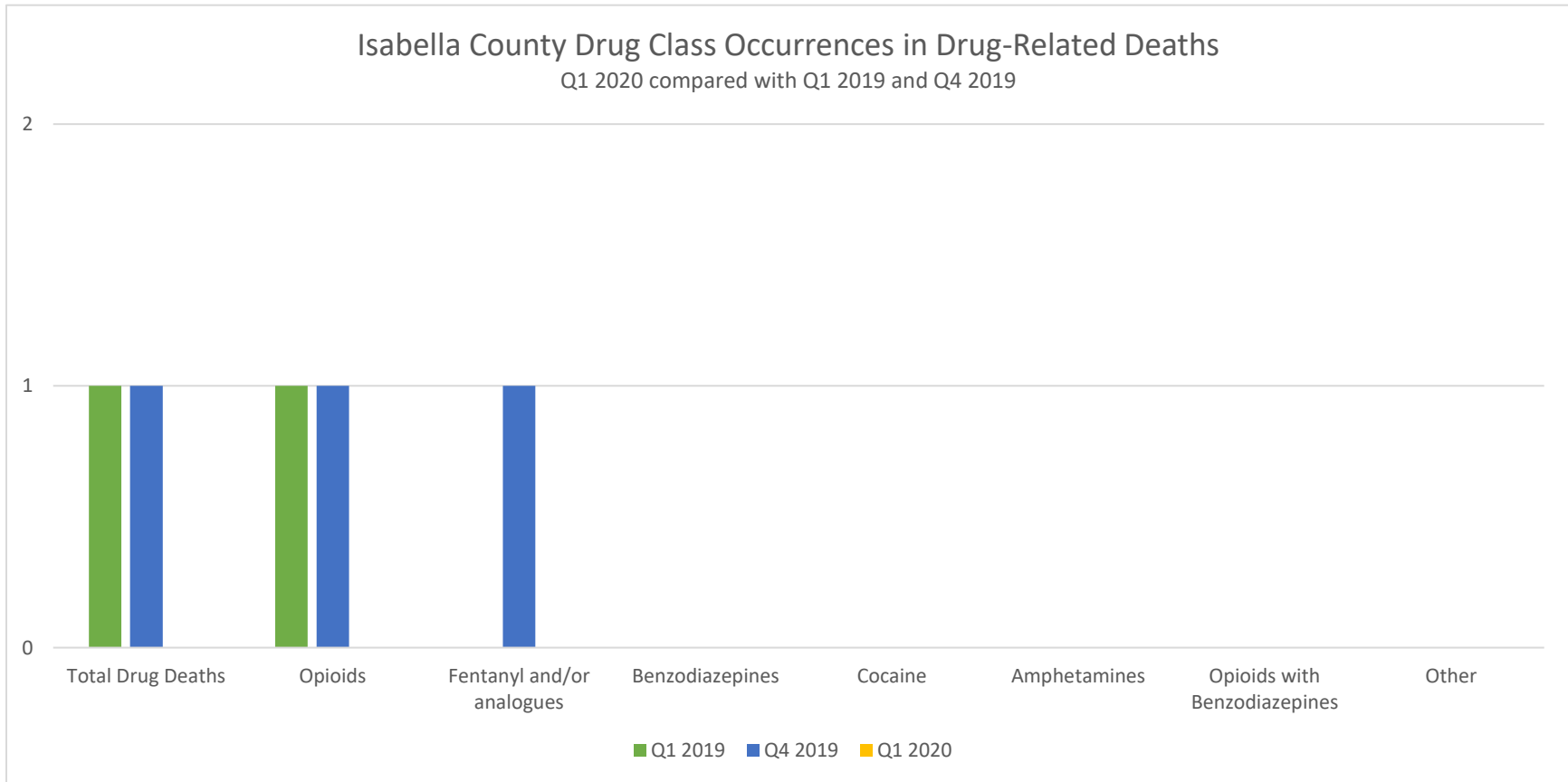
# Isabella County

## Drug-Related Deaths

2020 Isabella County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of death
No drug related deaths reported			

# 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.

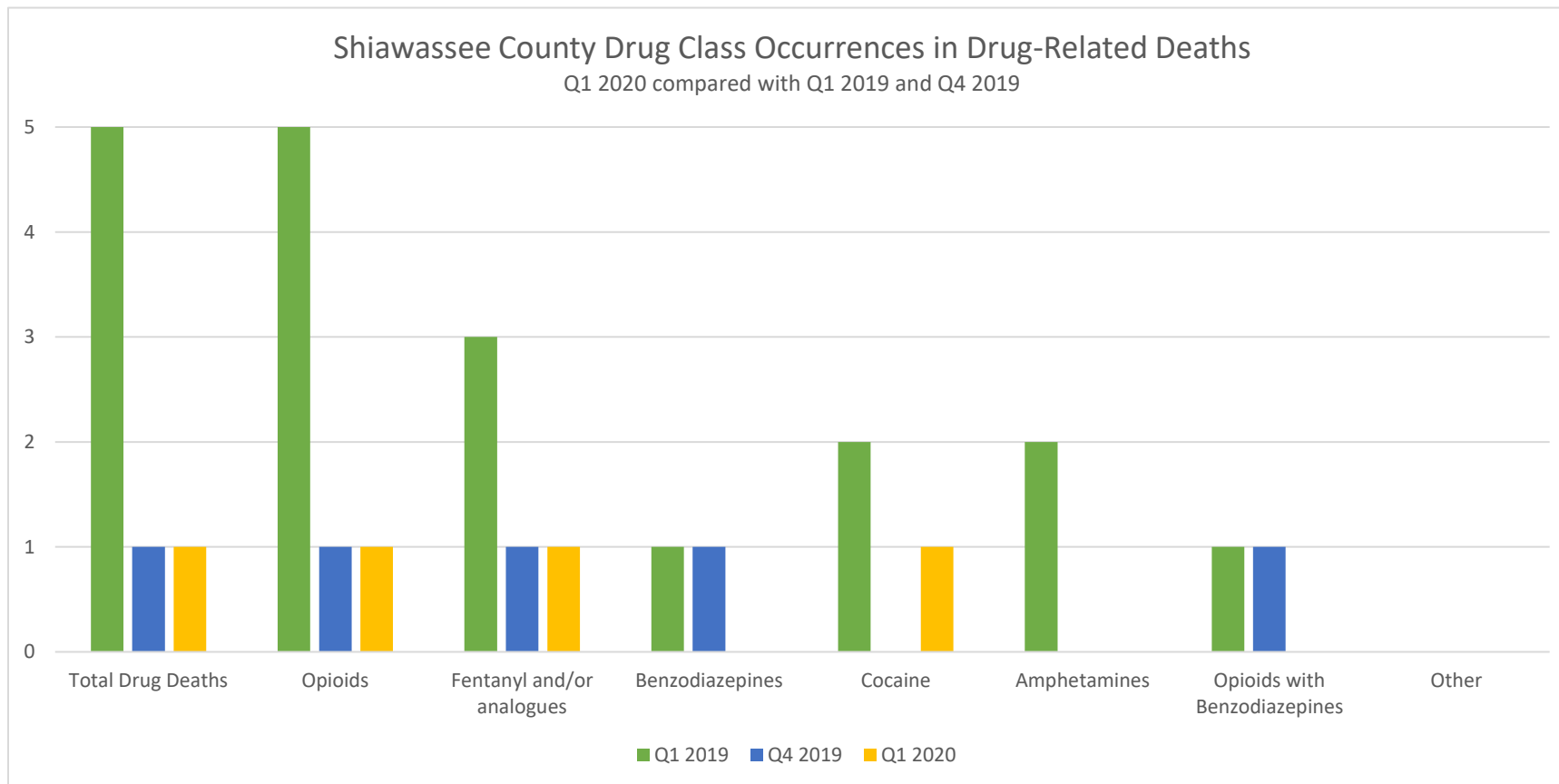
# Shiawassee County

## Drug-Related Deaths

2020 Shiawassee County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of death
Male	33	cocaine, fentanyl	Accident

# Shiawassee County

## Drug-Related Deaths



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