

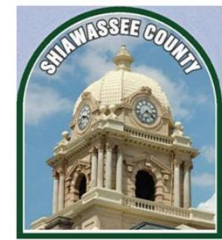


Department of Forensic Pathology
Office of the Medical Examiner

2019 Q3 (July 1 – September 30) Drug Report

Published December 4, 2019





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

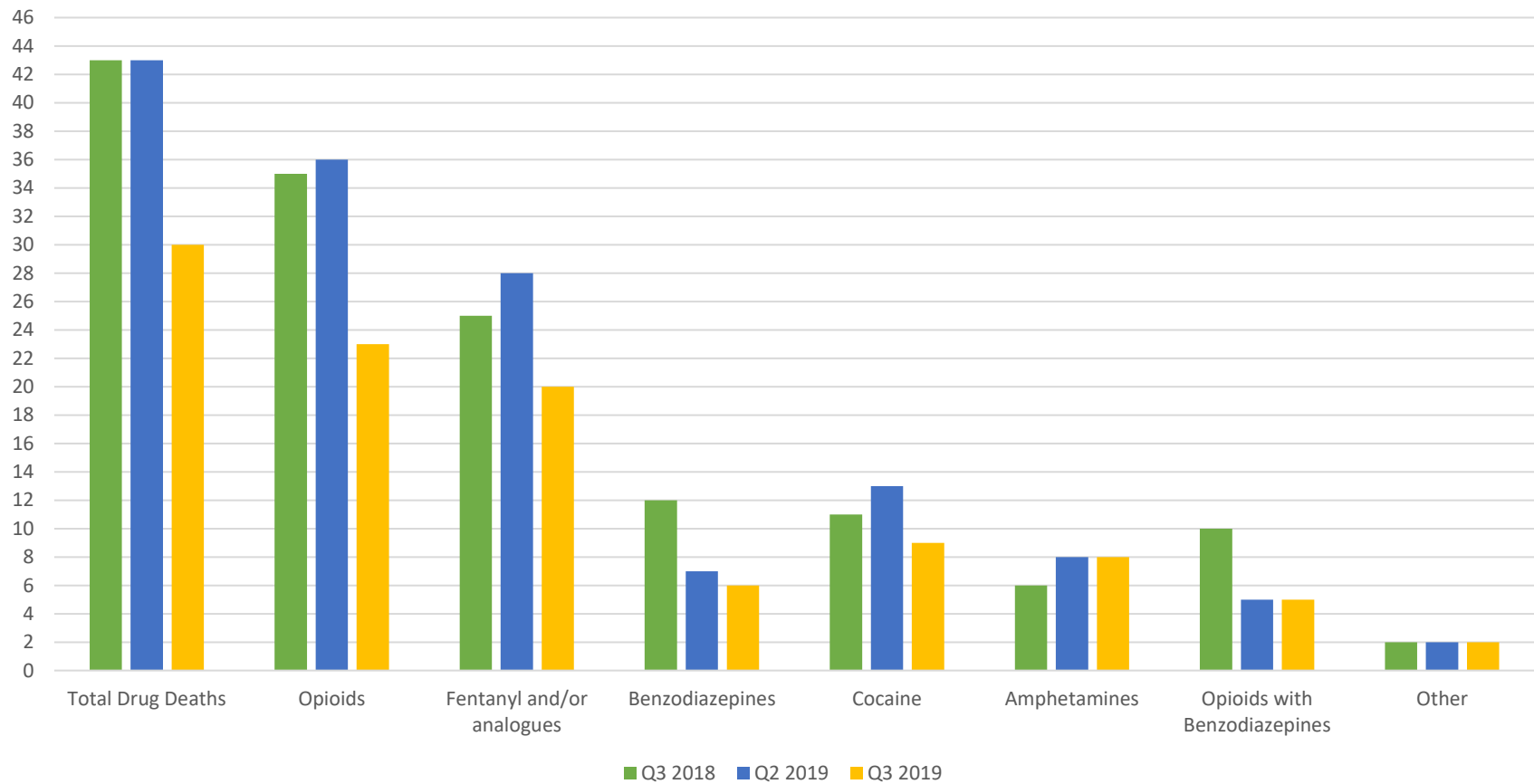
¹ If you have questions about what drugs we are currently capable of detecting, please visit www.axisfortox.com or email michelle.fox@sparrow.org

Highlights

All comparisons on the Highlights page are made to the data from Q3 (July 1 to September 30) of 2018. 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 30% (13 fewer)
- Opioid-related deaths **decreased** by 34% (12 fewer)
- Fentanyl and/or fentanyl analogue-related deaths **decreased** by 20% (5 fewer)
- Fentanyl and/or fentanyl analogues were involved in 20 of the 30 drug-related deaths (**67%**) in Q3 2019
- Cocaine-related deaths **decreased** by 18% (2 fewer)
- Amphetamine/Methamphetamine-related deaths **increased** by 33% (2 more)
- Benzodiazepine-related deaths **decreased** by 50% (6 fewer) and opioid-related deaths with benzodiazepines **decreased** by 50% (5 fewer)
- **73%** of all drug-related deaths in Q3 2019 were due to two or more substances
- **22%** of all opioid-related deaths in Q3 2019 also involved at least one benzodiazepine
- **13%** of all drug related deaths in Q3 2019 involved ethanol (alcohol)

All-County Drug Class Occurrences in Drug-Related Deaths Q3 2019 compared with Q2 2019 and Q3 2018



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.

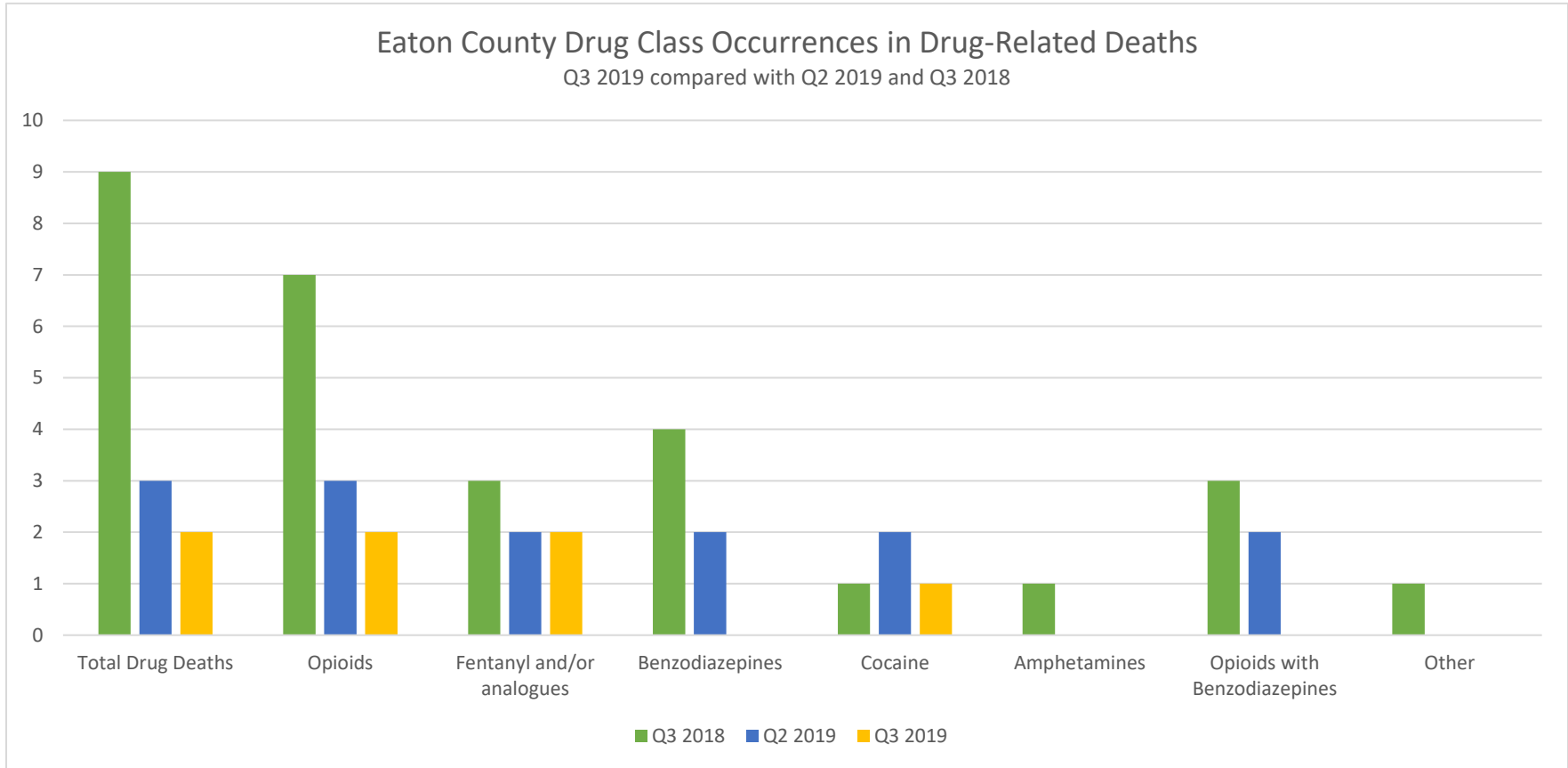
Eaton County

Drug-Related Deaths

2019 Q3 Eaton County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of death
Male	27	fentanyl	Accident
Male	59	acetylfentanyl, fentanyl, 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.

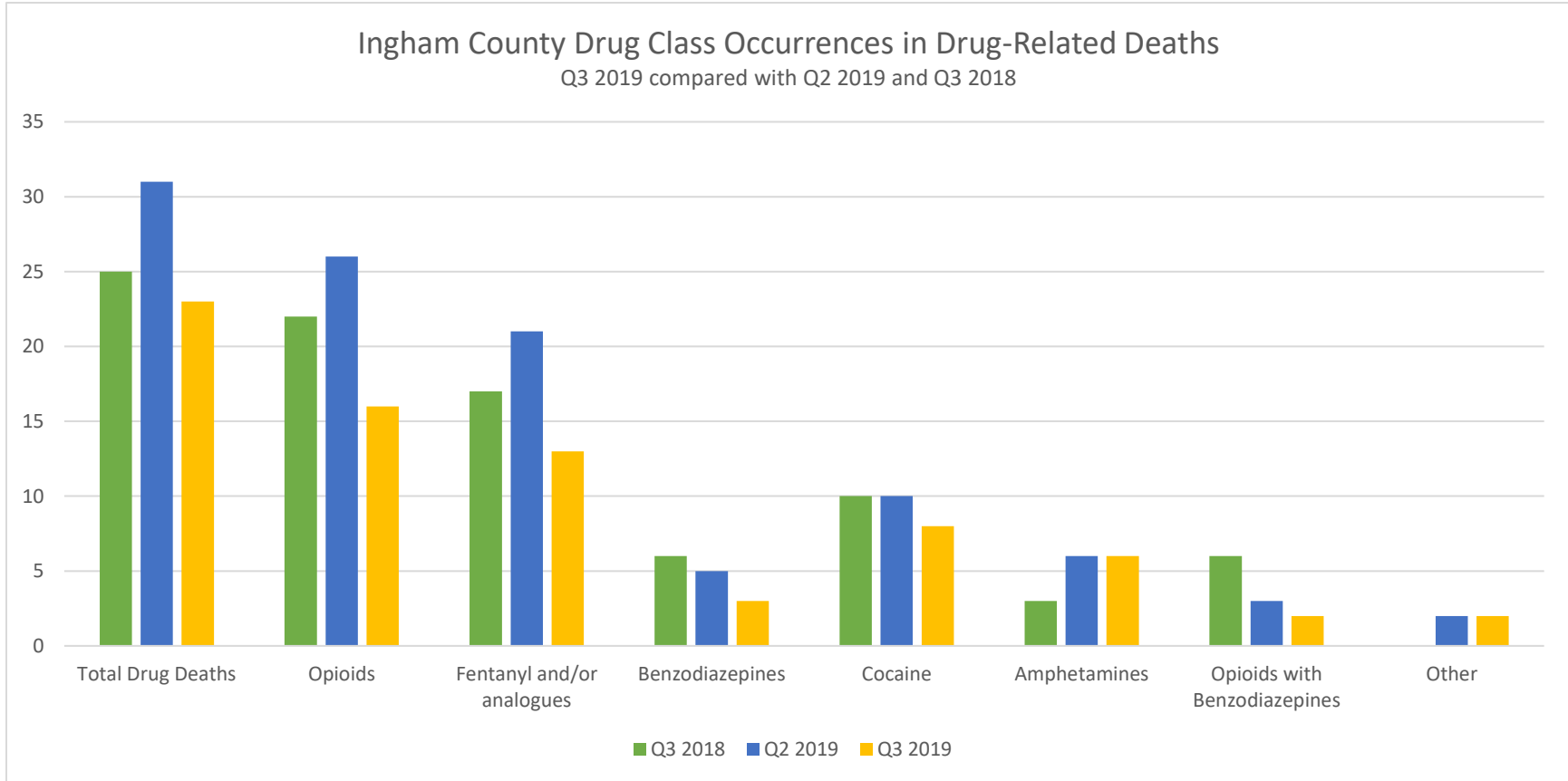
Ingham County

Drug-Related Deaths

2019 Q3 Ingham County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of death
Female	21	lithium	Accident
Male	22	fentanyl	Accident
Male	25	fentanyl	Accident
Male	26	fentanyl, ethanol	Accident
Female	31	alprazolam, diphenhydramine, hydrocodone, oxycodone, promethazine	Accident
Female	33	fentanyl, morphine, ethanol	Accident
Female	34	fentanyl, acetylfentanyl, methamphetamine	Accident
Male	34	ethanol, fentanyl, heroin, hydrocodone, methamphetamine, oxycodone, tramadol	Accident
Male	35	methamphetamine	Accident
Male	35	fentanyl, morphine	Accident
Female	38	lorazepam, methamphetamine, quetiapine	Accident
Female	43	methamphetamine	Accident
Male	46	fentanyl, cocaine	Accident
Female	48	alprazolam, cocaine, methadone	Accident
Male	50	cocaine, fentanyl	Accident
Male	50	cyclobenzaprine, gabapentin	Accident
Male	51	fentanyl	Accident
Female	51	cocaine, fentanyl	Accident
Female	57	cocaine, ethanol	Accident
Male	59	heroin, cocaine	Accident
Male	59	acetylfentanyl, cocaine	Accident
Male	60	methamphetamine	Accident
Male	64	cocaine, fentanyl, heroin	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

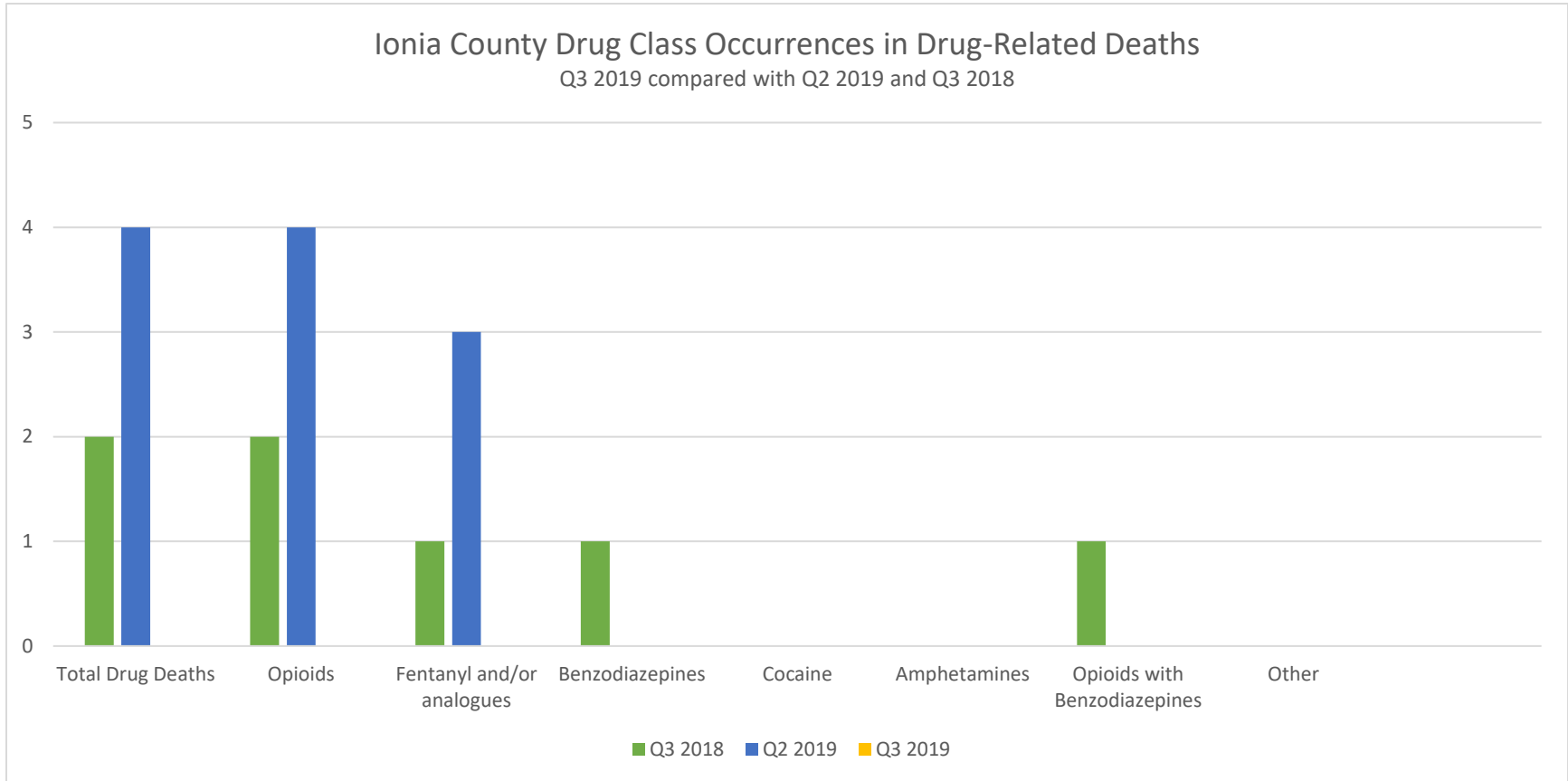
2019 Q3 Ionia County Drug-Related Deaths

Sex	Age	Substance(s) Causing Death	Manner of death
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No drug-related deaths in Q3 2019

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

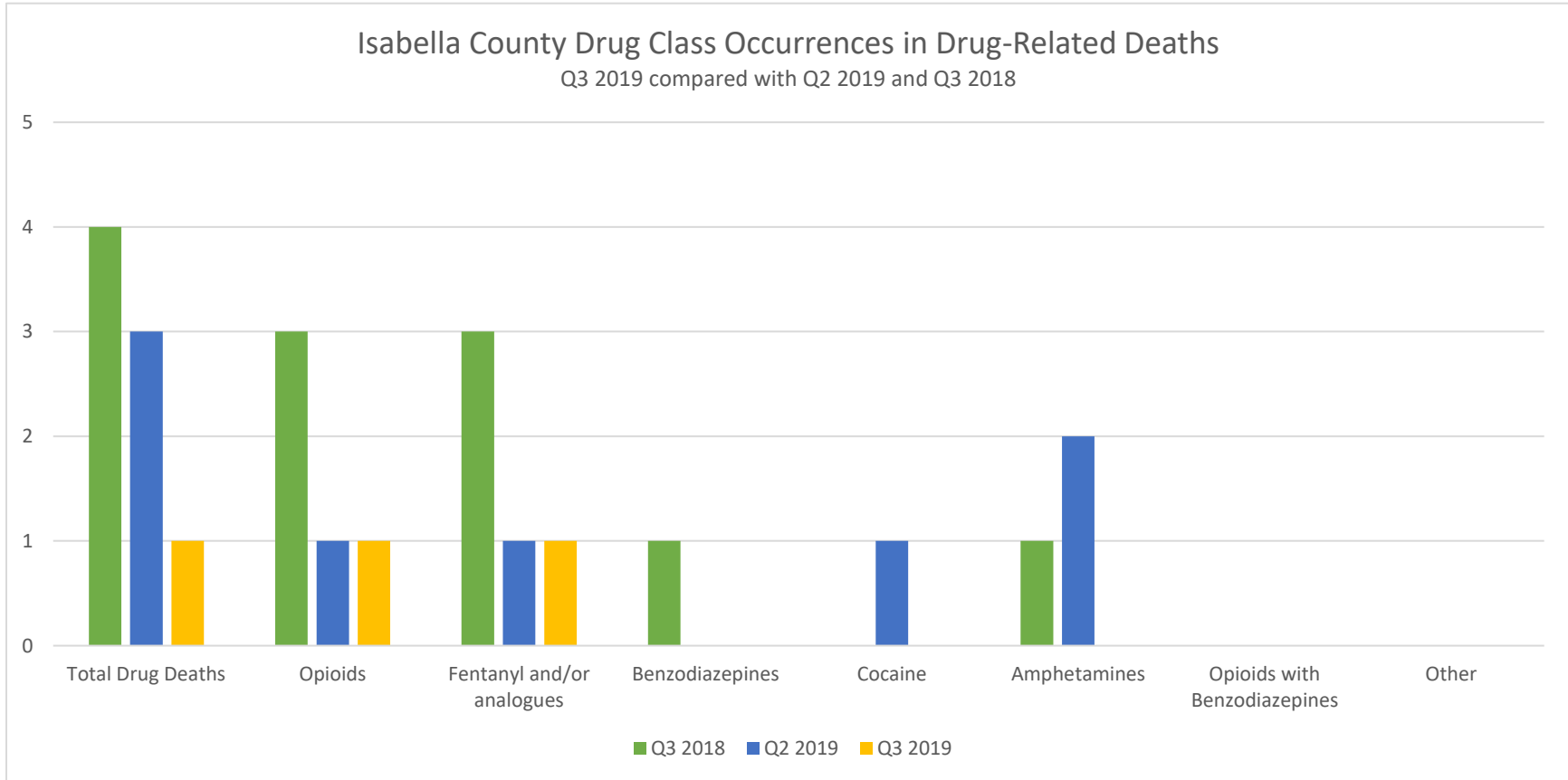
Drug-Related Deaths

2019 Q3 Isabella County Drug-Related Deaths

Sex	Age	Substance(s) Causing Death	Manner of death
Female	24	fentanyl, heroin	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.

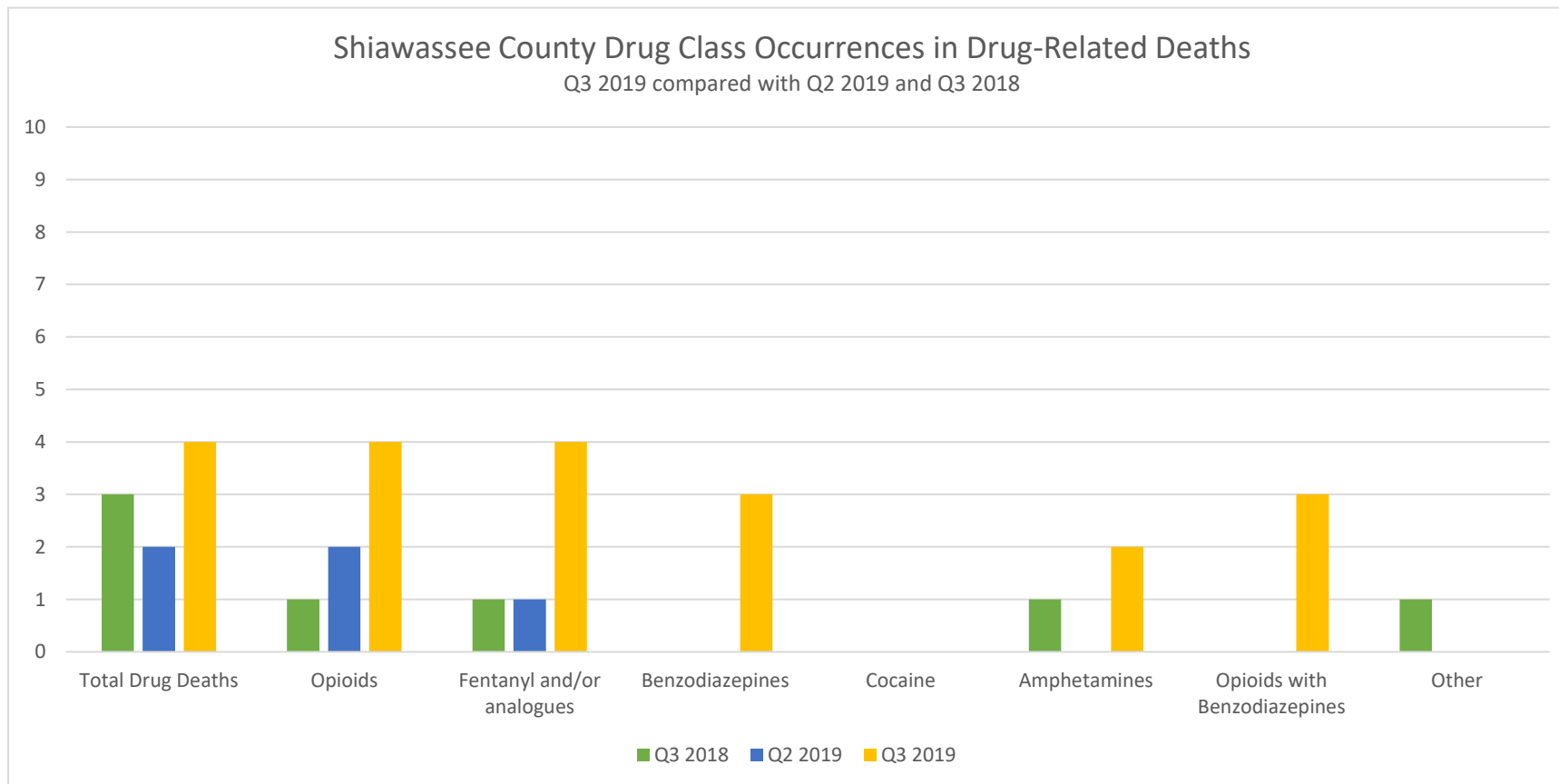
Shiawassee County

Drug-Related Deaths

2019 Q3 Ingham County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of death
Male	21	fentanyl, methamphetamine	Accident
Male	28	fentanyl, alprazolam	Accident
Female	30	fentanyl, clonazepam, gabapentin	Suicide
Male	45	acetylfentanyl, fentanyl, alprazolam, 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.