

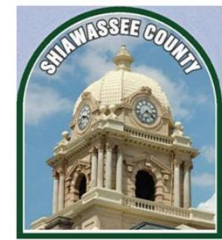


Department of Forensic Pathology  
Office of the Medical Examiner

2021 Q3 (July 1 – September 30) Drug Report

Published December 29, 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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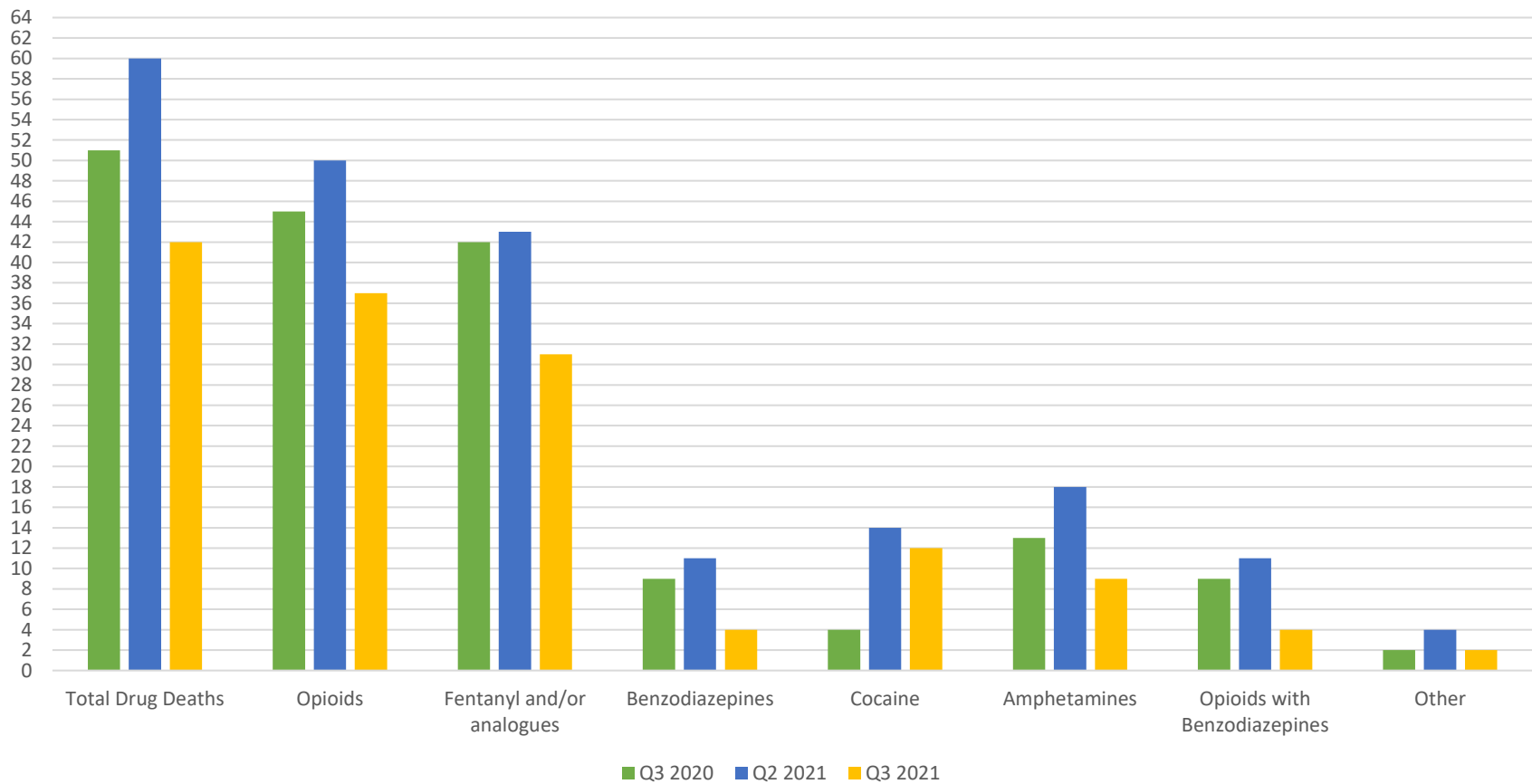
<sup>1</sup> If you have questions about what drugs we are currently capable of detecting, please visit [www.axisfortox.com](http://www.axisfortox.com) or email [michelle.fox@sparrow.org](mailto:michelle.fox@sparrow.org)

## Highlights

All comparisons on the Highlights page are made to the data from Q3 (July 1 to September 30) 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).

- Total drug-related deaths **decreased** by 17.6% (9 less)
- Opioid-related deaths **decreased** by 17.8% (8 less)
- Fentanyl and/or fentanyl analogue-related deaths **decreased** by 26.2% (11 less)
- Cocaine-related deaths **increased** by 200% (8 more)
- Amphetamine/Methamphetamine-related deaths **decreased** by 30.8% (4 less)
- Benzodiazepine-related deaths **decreased** by 55.6% (5 less)
- 10.8% of all opioid-related deaths in Q3 2021 also involved at least one benzodiazepine
- 71.4% of all drug-related deaths in Q3 2021 were due to two or more substances
- 27.0% of all opioid-related deaths in Q3 2021 also involved ethanol (alcohol)
- 26.2% of all drug related deaths in Q3 2021 involved ethanol (alcohol)

### All-County Drug Class Occurrences in Drug-Related Deaths Q3 2021 compared with Q2 2021 and Q3 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.

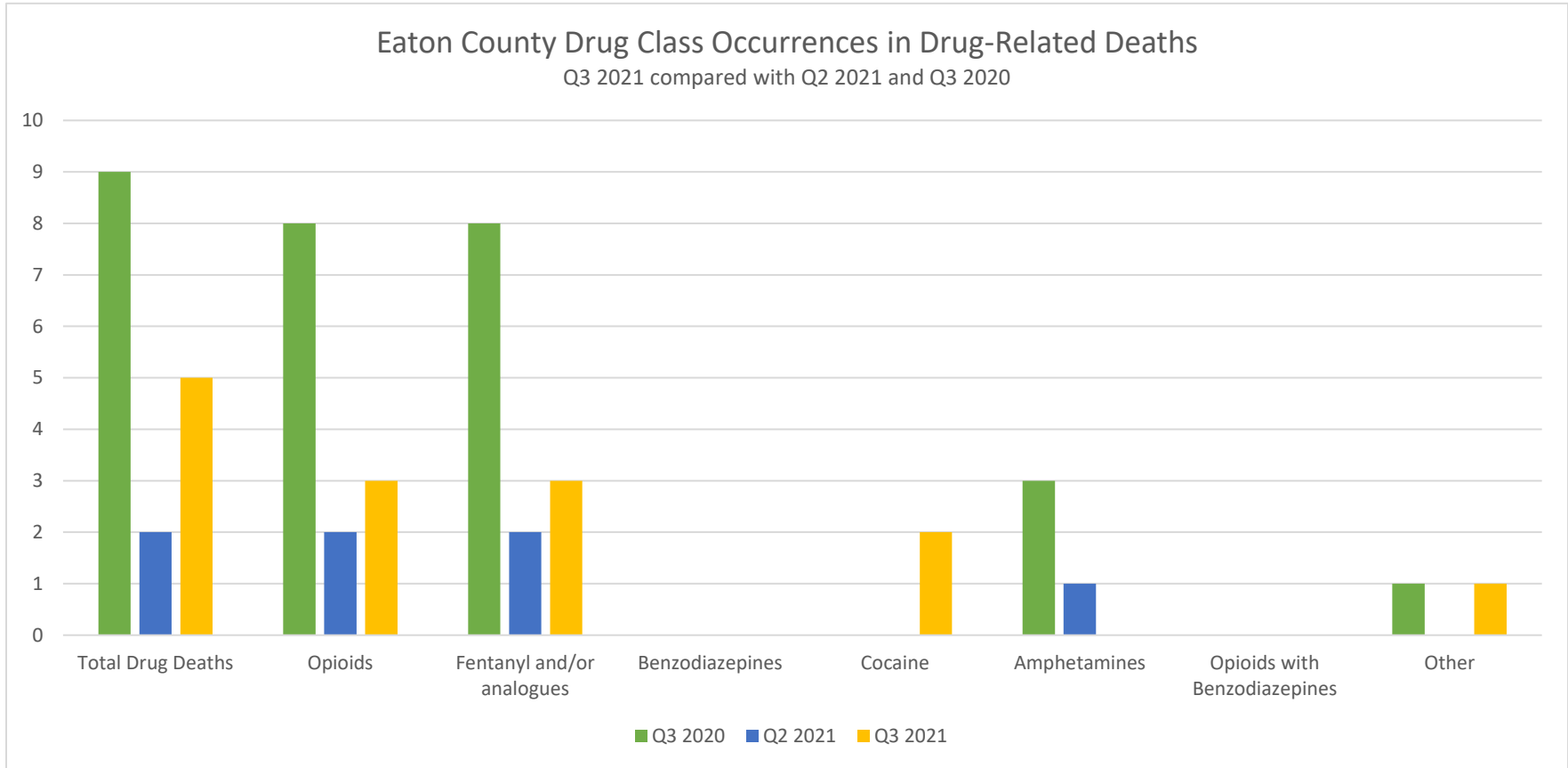
# Eaton County

## Drug-Related Deaths

2021 Q3 Eaton County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of death
Male	20	diphenhydramine, ethanol	Suicide
Female	26	fentanyl	Accident
Male	31	fentanyl	Accident
Male	47	cocaine, ethanol, fentanyl	Accident
Female	65	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

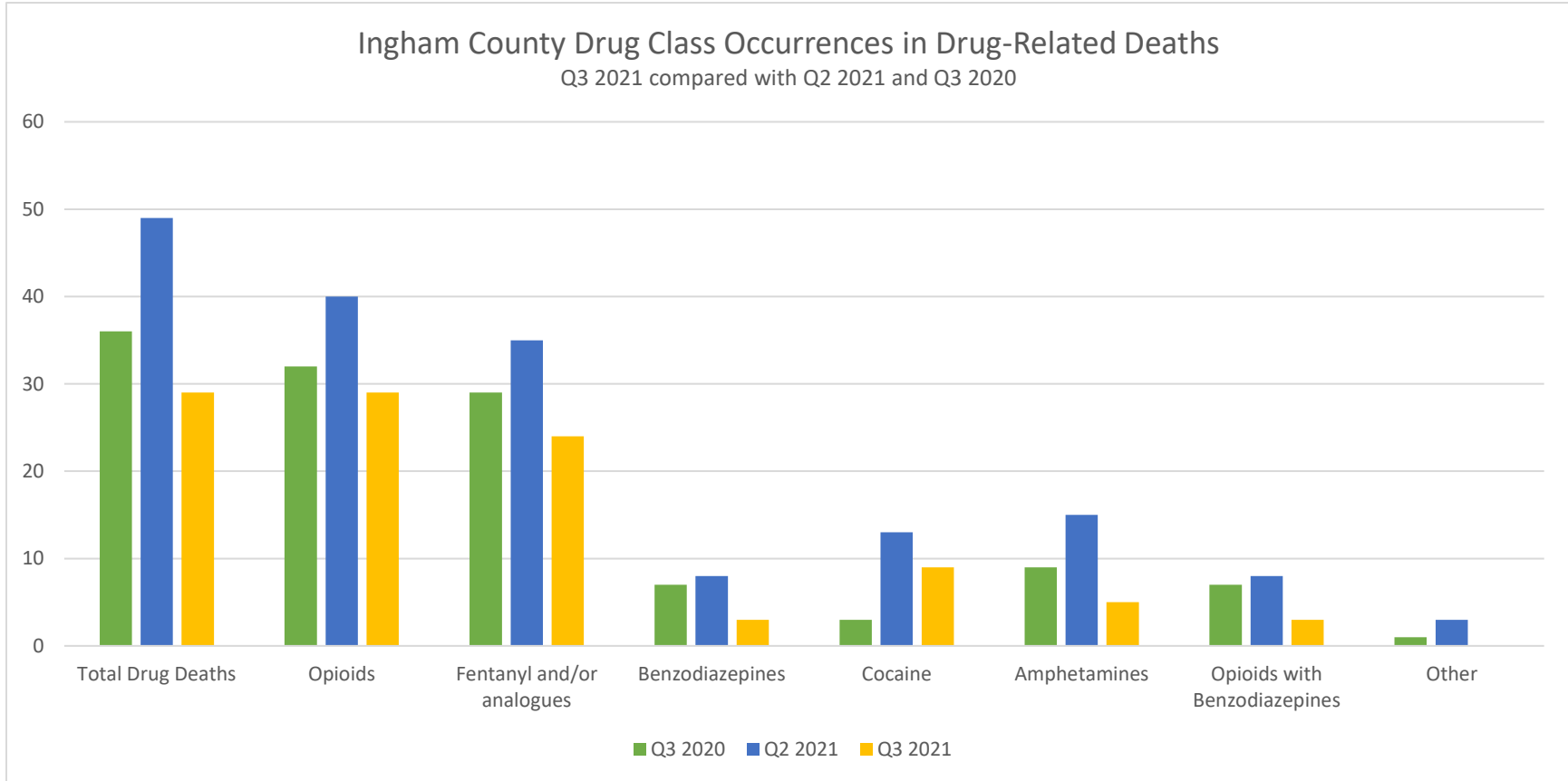
2021 Q3 Ingham County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of death
Male	19	alprazolam, fentanyl, mitragynine, oxycodone	Accident
Female	25	methamphetamine, memantine, metonitazene	Accident
Male	27	cocaine, fentanyl	Accident
Male	30	metonitazene	Accident
Male	33	alprazolam, cocaine, codeine, oxycodone	Accident
Male	34	fentanyl, mitragynine	Accident
Male	34	ethanol, fentanyl	Accident
Female	35	cocaine, fentanyl	Accident
Male	36	cocaine, fentanyl	Accident
Male	36	ethanol, fentanyl	Accident
Female	37	fentanyl, methamphetamine	Accident
Male	37	fentanyl, methamphetamine, cocaine, clonazepam	Accident
Female	38	ethanol, fentanyl	Accident
Male	38	fentanyl, methamphetamine	Accident
Female	40	cocaine, fentanyl, morphine	Accident
Male	42	fentanyl, methamphetamine	Accident
Female	49	cocaine, ethanol, fentanyl	Accident
Male	49	cyclobenzaprine, methadone	Accident
Male	52	cyclobenzaprine, ethanol, fentanyl	Accident
Male	55	fentanyl, hydrocodone, methadone	Accident
Female	56	ethanol, fentanyl	Accident
Male	56	fentanyl	Accident
Male	57	fentanyl	Accident

Male	59	fentanyl	Accident
Male	59	ethanol, fentanyl, hydrocodone	Accident
Female	60	cocaine, fentanyl	Accident
Male	63	methadone	Accident
Male	67	fentanyl, hydrocodone, metonitazene	Accident
Male	68	cocaine, fentanyl	Accident



# Ingham County

## Drug-Related Deaths



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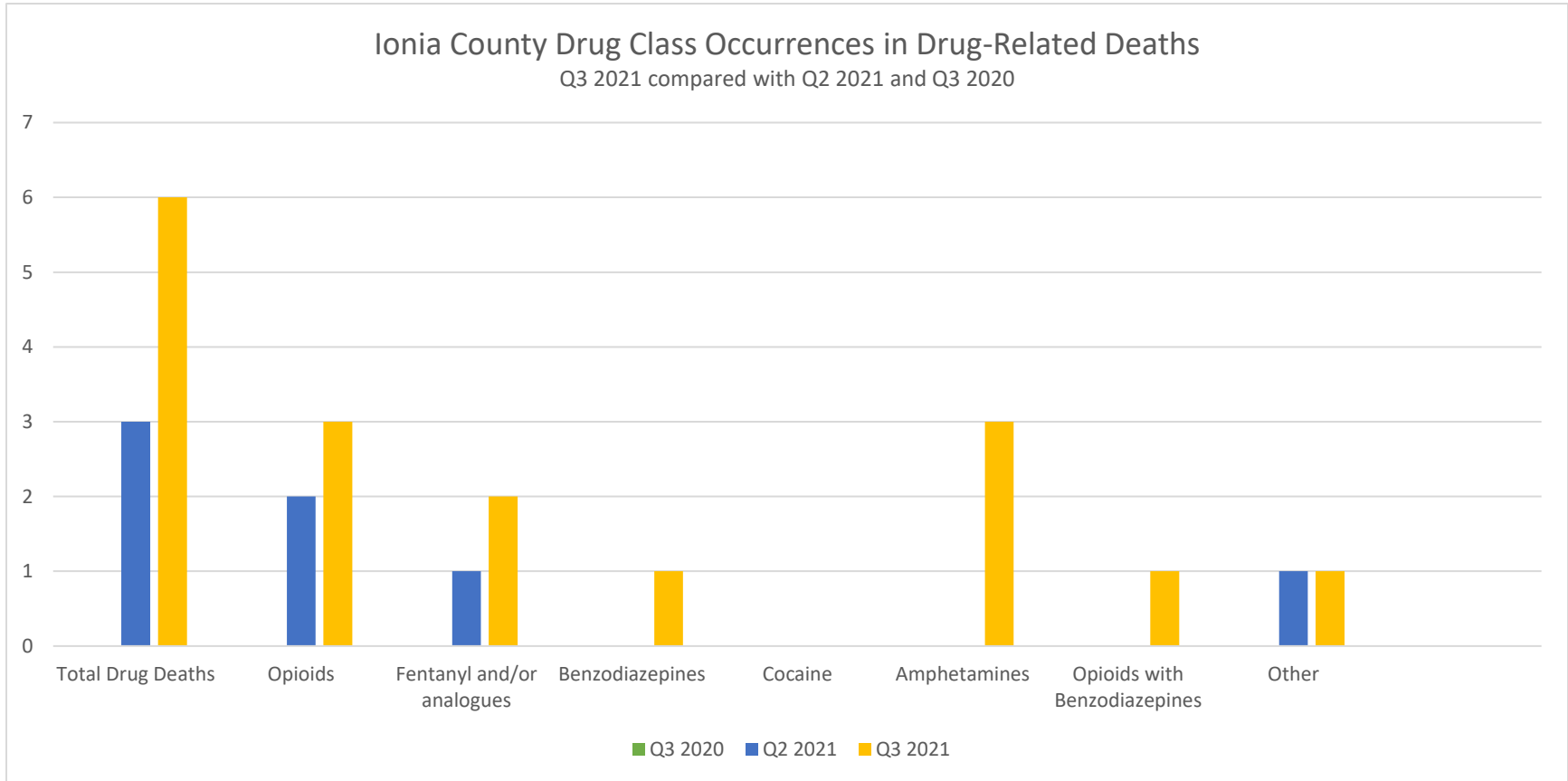
# Ionia County

## Drug-Related Deaths

2021 Q3 Ionia County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of death
Female	27	methamphetamine	Accident
Female	37	methamphetamine	Accident
Female	47	ethanol, hydromorphone, lorazepam	Suicide
Male	50	fentanyl, methamphetamine	Accident
Female	60	insulin	Suicide
Male	62	fentanyl	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.

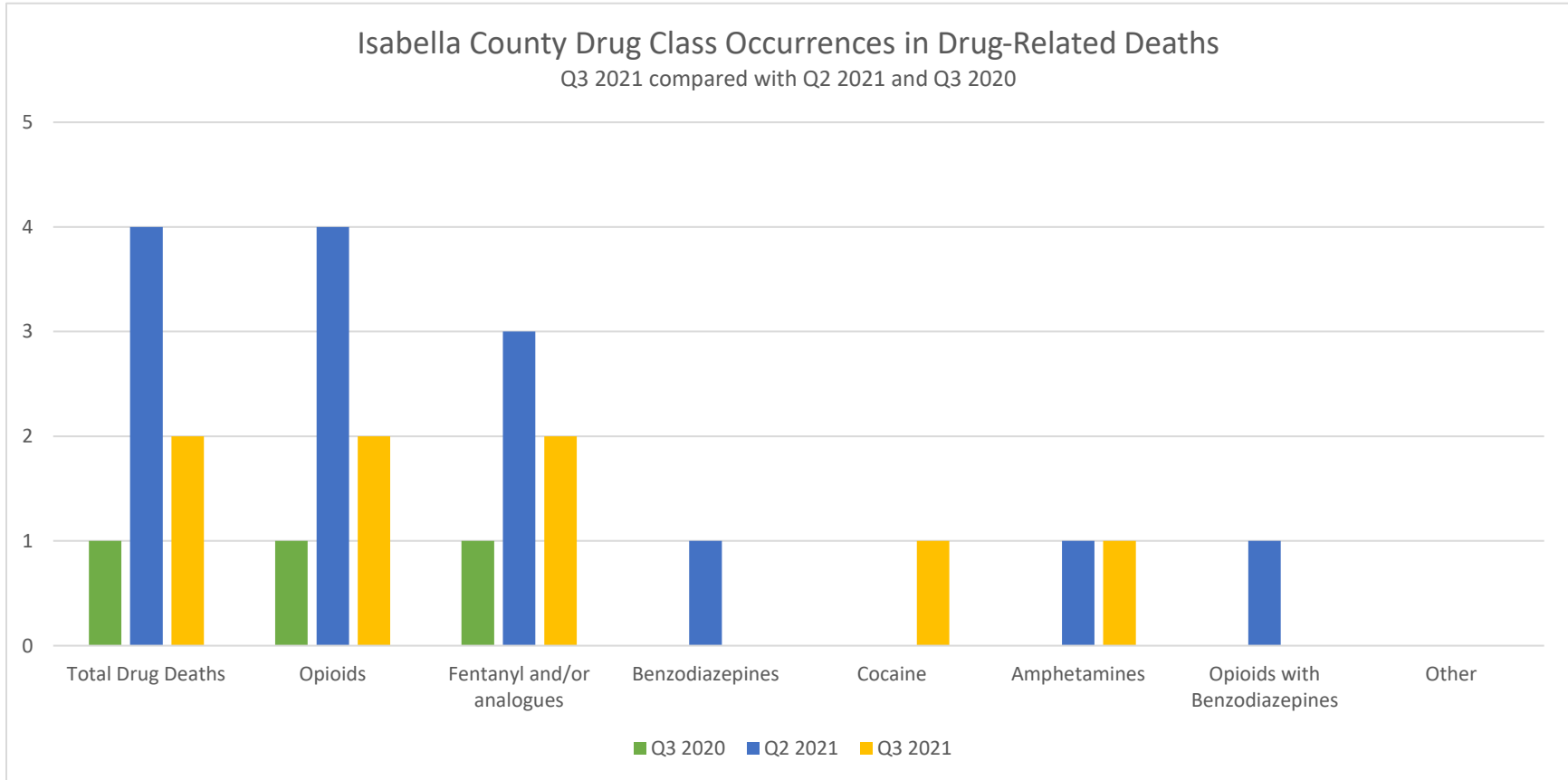
# Isabella County

## Drug-Related Deaths

2021 Q3 Isabella County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of death
Male	30	cocaine, ethanol, fentanyl	Accident
Male	54	fentanyl, methamphetamine	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.

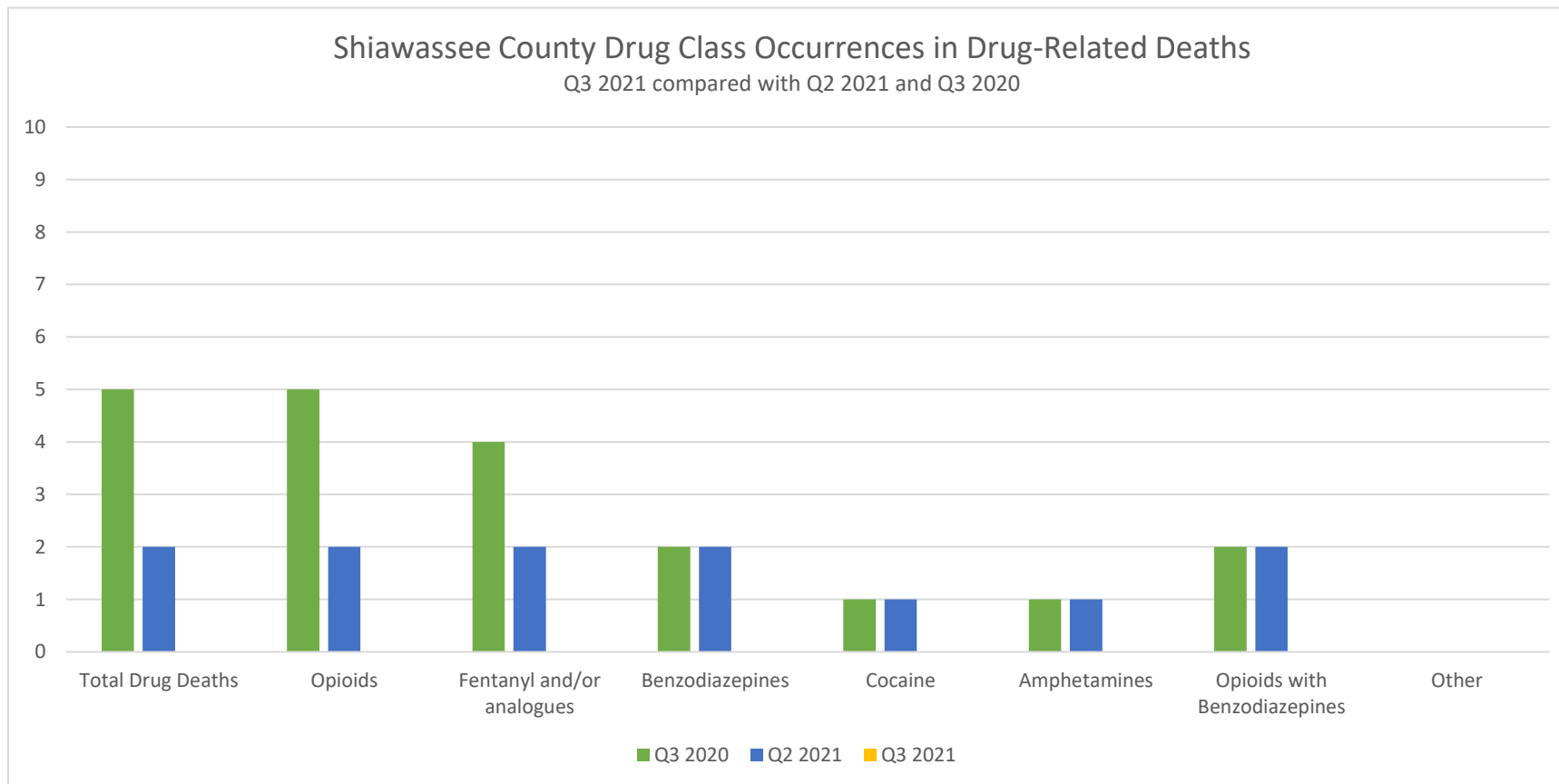
# Shiawassee County

## Drug-Related Deaths

2021 Q3 Shiawassee County Drug-Related Deaths			
Sex	Age	Substance(s) Causing Death	Manner of death
No drug related deaths in 2021 Q3			

# Shiawassee County

## Drug-Related Deaths



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# Historical Data

