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Marion County Coroner's Office

Annual Report

22



Coroner: Leeandrea J.M. Sloan, M.D.

521 W. McCarty Street
Indianapolis, IN 46225

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Marion County Coroner's Office

**Annual Report
2022**

Mission Statement:

The mission of the Marion County Coroner's Office (MCCO) is to provide competent, quality, and efficient service in determining the cause and manner of death in unusual circumstances.

The MCCO serves all those who die in Marion County, their families, and other associated agencies in the investigation of unusual and unexplained deaths.

The office provides accurate completion of the Coroner's verdict and death certificates.

The MCCO is committed to providing public education, support, compassion, and confidentiality in all matters.



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AGENCY LEADERSHIP



LEEANDREA J.M. SLOAN, M.D.
Marion County Coroner



ALFARENA MCGINTY, MBA
Chief Deputy Coroner



MARCHELE HALL
Deputy Administrator



CHRISTOPHER POULOS, M.D.
Chief Forensic Pathologist



DOMINIQUE BATTLES
Autopsy Supervisor



MICHELE KRATZ
Senior Deputy Coroner



MALLORY L. MALCZEWSKI, M.S.
CFO and IT Coordinator



JENNIFER SUAREZ
Quality Assurance Deputy

Annual Report Executive Summary

Data presented in this report resulted from the **4,493** deaths that were reported and/or investigated during the calendar year (CY) 2022.

The annual report presents key agency information including agency accomplishments, agency annual budget information, death trend analysis and upcoming annual initiatives.

<p>Accepted Cases</p> <p>2,794</p> <p>Jurisdiction was accepted for further investigation</p>	<p>Annual Budget</p> <p>\$4.83m</p> <p>Increase of \$855k from prior fiscal year.</p>
<p>Autopsies</p> <p>1,797</p> <p>Total performed include full, partial and external exams</p>	<p>Grant Funds</p> <p>\$2.19m</p> <p>Comprised of federal awarded grants and ARPA funds.</p>

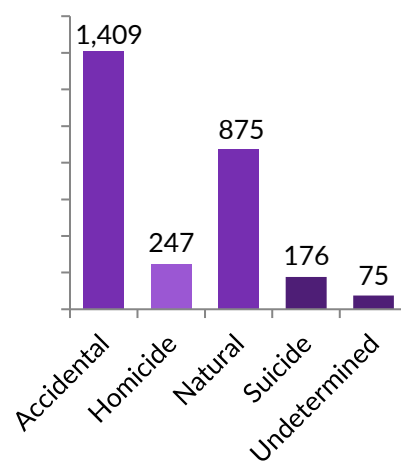
Change % YoY

-4% decrease

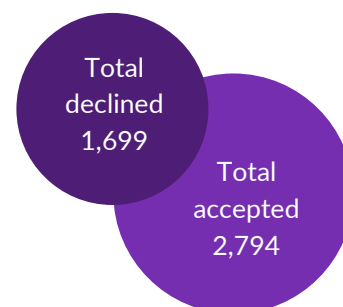


Decrease in total accepted cases compared to prior calendar year.

Totals in all Manners of Death in 2022



Accepted vs. Declined



62% of the total reported were accepted for investigation in 2022.

A Message from The Coroner



Leeandrea J.M. Sloan, M.D.

Leeandrea J.M. Sloan, M.D.
Marion County Coroner

I am pleased to present to you the 2022 Annual Report for the Marion County Coroner's Office. This report encapsulates our achievements, challenges, and contributions as we fulfill our critical role in upholding public health and safety. It is with great pride that we share with you the highlights and key statistical data of another impactful year.

The past year has been a testament to our unwavering dedication to the pursuit of truth, justice, and compassion. Despite the complex and sensitive nature of our work, we have remained steadfast in our mission to provide accurate and thorough forensic investigations. With close to 3,000 death investigations, my staff have done a remarkable job of caring for families who have lost loved ones.

We take pride in conducting investigations to determine an accurate cause and manner of death.

We have diligently conducted post-mortem examinations and rendered expert opinions in countless cases. Our commitment to scientific rigor, integrity, and impartiality has not only brought closure to families but has also contributed to the administration of justice.

Our collaboration with law enforcement agencies, healthcare providers, and community organizations has been instrumental in our success. By fostering strong partnerships, we have improved coordination, enhanced communication, and optimized the exchange of critical information. These collaborative relationships have facilitated prompt investigations, and expedited case resolutions.



Every life tells a story, and it is our duty as coroners to unravel its final chapter with compassion, diligence, and unwavering commitment to justice.



In addition to working in our core mission, the agency has achieved some initiatives to provide support for our community. In 2022, we successfully built the framework for a mental health assistance voucher program to help families dealing with grief and trauma following the loss of their loved one.

We recognize that our success hinges on the expertise and dedication of our talented staff. We have invested in the professional development, well-being, and safety of our team, ensuring they have the necessary resources to perform their duties with excellence and compassion. By fostering a supportive and inclusive work environment, we have nurtured a team of highly skilled professionals who are passionate about their work and unwavering in their commitment to public service.

As we look to the future, we remain mindful of the evolving landscape of forensic science and the challenges that lie ahead. We are committed to ongoing improvements, strengthening our capabilities, and staying on top of emerging trends. Our dedication to accuracy, professionalism, and ethical practices will continue to guide us as we navigate the complex and ever-changing nature of our field.

We extend our sincere appreciation to our colleagues, partners, and community members for ongoing collaboration efforts. Together, we will continue to strive for excellence and make a meaningful impact in our community. We especially extend our deepest sympathy to the families that we serve, for their unwavering trust in our office and staff. We remain committed to serving you with the utmost integrity and professionalism.

First elected to office in 2018, Dr. Sloan is currently serving her final term as the Marion County Coroner.

Dr. Sloan has been a practicing physician in Indianapolis, with more than 26 years of diverse experience.

Dr. Sloan is also the first African American female Coroner for Marion County.

Over \$1mil from the Indiana Opioid Settlement funds approved to be distributed to the MCCO to fund initiatives aimed at addressing substance use disorder and mental health issues impacting the residents of Marion County.

-2022

Our goal is to provide **Competent, Quality, and Efficient** investigations.

As the leading experts in forensic post-mortem investigation in the county, the Marion County Coroner's Office works diligently to follow national standards and continuously improve forensic investigation techniques through continuing education for all staff.

Administrative Staff
10

Investigation Staff
20

Pathology Staff
20

Transportation Staff
5

The MCCO is governed under Indiana Code § 36-2-14 and is charged with investigating deaths when/of: (1) sudden death of a healthy child, (2) physician is unable to state a cause of death, after careful review of the medical chart, or the deceased does not have a physician, (3) known or suspected homicide, (4) known or suspected suicide, (5) related to or following known suspected self-induced or criminal abortion, (6) following an accident or injury primary or contributory, either old or recent, (7) accidental poisoning (food, chemical, drug, therapeutic agents), (8) occupational disease or hazard, (9) all deaths of unidentified persons, (10) person in the custody of the state (incarcerated, foster care, adult protective services), (11) has died by casualty.

The MCCO is comprised of three divisions dedicated to serving the Marion County community: (1) Investigations, (2) Administration, and (3) Forensic Pathology.

During a death investigation, a medicolegal death investigator, also known as a Deputy Coroner, promptly responds to the scene. Their primary responsibilities include gathering relevant medical and social information, conducting a meticulous examination of the decedent, and arranging for the body's removal if a forensic examination is required to determine the precise cause and manner of death.

For the post-mortem physical examination, a certified forensic pathologist conducts a thorough analysis. In cases where additional testing is necessary, such as toxicology or histology, fluids and tissues may be sent to external laboratories for analysis. It is important to note that the MCCO does not have the capability to perform toxicology or histology on site. Therefore, samples are sent to the Indiana State Police lab or to a contracted laboratory for comprehensive testing.

Autopsies, or forensic exams, primarily serve the purpose of determining the medical cause of death and gathering evidentiary material for potential court proceedings. The forensic pathologist diligently conducts the autopsy and subsequently prepares a comprehensive report that identifies the precise cause and manner of death.

Located in Indianapolis, IN
521 W. McCarty Street
Indianapolis, IN 46225
P. 317-327-4744
F. 317-327-4563
Email: coroner@indy.gov

Our Values

- **Integrity.**

The MCCO focuses on an office culture founded on pride and peer accountability, where staff will maintain and demonstrate the highest ethical standards.

- **Compassion.**

We are committed to building an effective team to serve the local community as the advocate for the deceased and their families in times of need and sorrow.

- **Excellence.**

Our office is a proud, professional organization with an emphasis on continuous personal and professional improvement.



Our Vision Statement

It is our **duty** to find the facts, regardless of color or creed, **without prejudice**, and to let no power or authority deter us from **presenting the truth**.



Unclaimed internment ceremony, 2022

Services and Collaborations

- **Organ and Tissue Donation**
The MCCO works diligently with all organ and tissue donation organizations to ensure that donations can occur.
- **Forensic Fellowship**
We offer one ACGME-accredited Forensic Pathology fellowship in partnership with IU School of Medicine's Pathology Dept. where the training physician receives training in a variety of forensic investigations.
- **Medical Education**
We have agreements with the IU School of Medicine to allow students to participate in a rotation to observe forensic pathology exams to determine the cause and manner of death.
- **Internships**
We value the furthering of education and partner with multiple secondary education institutions throughout Indiana to help current undergraduate and graduate students pursue their education in forensic science.
- **Community Education/Presentations**
We value bringing educational opportunities to students of all ages from local high schools to universities on the field of forensic science.

Office Overview »

As both a **public health and public safety agency**, the MCCO provides information on the state of health of the residents of Marion County and identifies any threats impacting our community. As a result, we conduct death investigations in an independent manner and without bias. The MCCO routinely performs epidemiological research and partners with multiple agencies for detecting, investigating, and notification of novel illnesses and predicting trends to better support at-risk populations.



Public health



Public safety



Community partnerships



Education and continual training

Budget Overview

The MCCO was awarded \$1.7mil in ARPA funds in 2022

The ARPA funds were awarded to address all expenses associated with the increase in opioid overdoses and gun related homicides. Year over year, overdoses in Marion County have contributed to an increased strain on the MCCO budget.

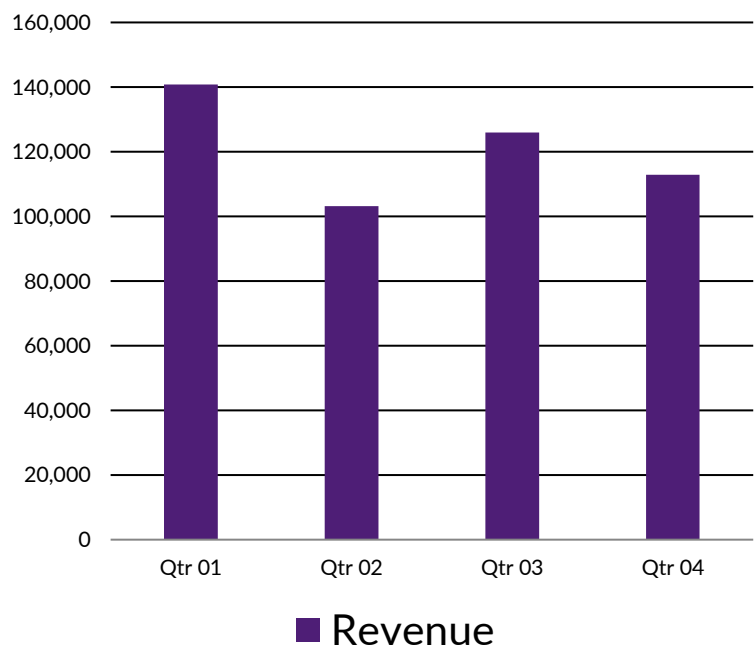


\$2.19mil in total grant funds awarded in 2022

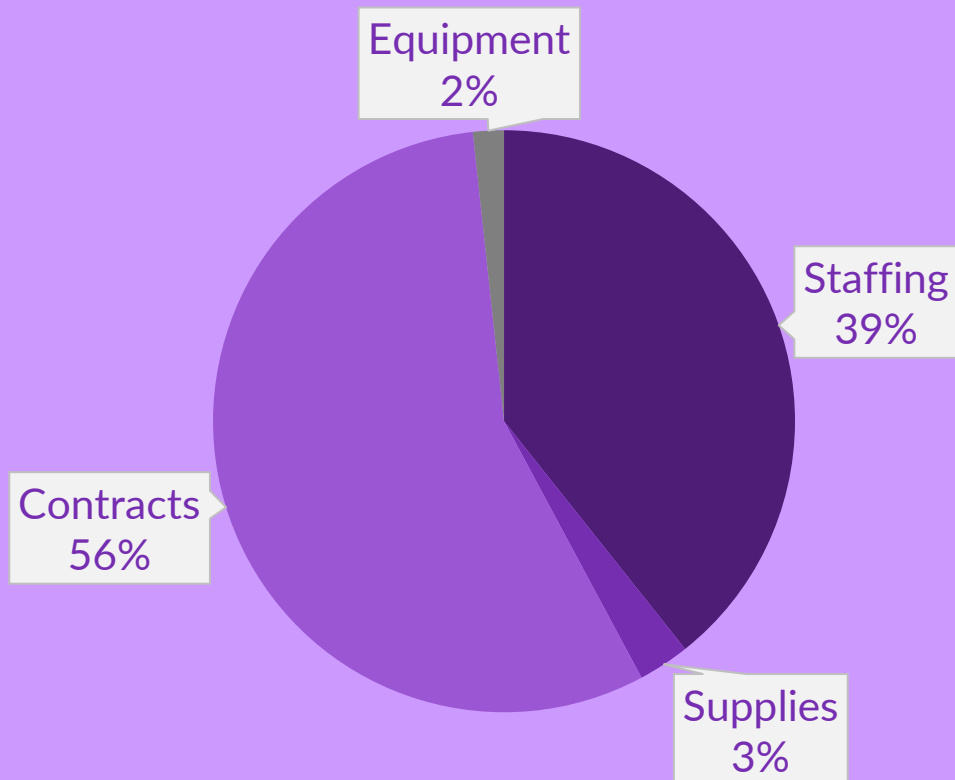
Fiscal year 2022

The MCCO generates revenue for the county through various methods. The most common associated revenue sources are autopsy reports and cremation authorizations.

In 2022, the MCCO executed two large agreements which accounted for over 50% of the generated revenue. As part of our mission towards public health, the MCCO works alongside the Marion County Public Health Dept in certifying death certificates on natural deaths which do not typically require coroner's certification.



2022 Approved Budget



The 2022 budget was increased by 22% over the prior year to address: staffing and wages, supplies, professional contracts, and necessary equipment upgrades.

2023 Initiatives

The Marion County community continues to experience traumatic loss from gun-related violence and opioid overdoses. The MCCO worked through 2022 to build and fund programs to address these ongoing issues.

In 2022, the MCCO became an approved recipient of opioid lawsuit settlement funds from the state of Indiana as part of the \$26 billion national settlement involving Johnson & Johnson, AmerisourceBergen, Cardinal Health, and McKesson. The distribution of these funds commenced in Q4 of 2022. Throughout the year, we diligently established program frameworks to aid families affected by opiate-related overdoses. Our efforts included the addition of social workers to our staff, facilitating family access to community resources, and implementing a voucher program for mental health and substances use disorder treatment.

For more information on the mental health voucher, text "MENTAL" to 317-435-5281.

Furthermore, the MCCO focused on enhancing its capabilities in trauma-informed care to better support families coping with the loss of a loved one due to violent or traumatic circumstances. We have developed and continue to provide training to the public, particularly those who we serve in the community, ensuring that care is delivered within a safe and trusted environment.

01. Community Outreach

Implementing community outreach and education programs to raise awareness about the role of the Coroner's office, death investigation process and public health and safety.

02. Mental Health Support Services

Establish a dedicated long-term mental health support program for families who have experienced the loss of a loved one under the jurisdiction of the Coroner's Office.

03. Enhance Investigation Capabilities

Continue investments into advanced technology, equipment, and training through the construction of a state-of-the-art facility to enhance the accuracy, efficiency and quality of death investigations conducted by the MCCO.

2022 Cases:

Data Analysis

The next section of the report shows the trends in deaths investigated by the Marion County Coroner's Office. The data contained in the annual report only represents the cases where we accepted jurisdiction and further investigation was required to determine the cause and manner of death. This report does not contain data on all deaths which may have occurred within Marion County during CY22.

Any use (in-part or total) or recreation of the data presented within the MCCO annual report requires approval from the Marion County Coroner.

During CY22, 4,493 deaths were reported to and investigated by the MCCO.

The number of deaths reported to MCCO decreased by 6% from the prior calendar year.

2,794

Accepted cases for further investigation. A 4% decrease from the prior year.

1,797

64% of accepted cases received a forensic exam.

1,699

Reported deaths which were declined for further investigation.

165

The number of decedents who were transported to MCCO for storage only due to no family present on scene, a 6% decrease from the prior year.

82

Unclaimed decedents where legal next-of-kin could not be identified or located, 1% increase over the prior year.

2,160

The number of scenes visited by investigation staff (13% decrease from prior year), resulting in 1,962 decedents transported to MCCO for storage or exam (2% decrease from prior year).

2022 Cases by Manner of Death

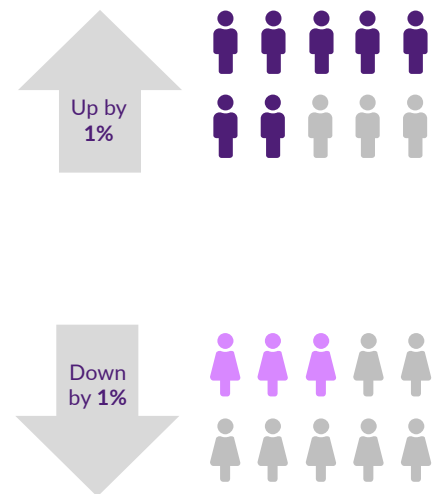
While the overall total number of cases decreased from the prior year, accidental deaths increased by **2%** which can be directly contributed to an increase in overdose or illicit substance related deaths. Undetermined deaths also increased by **27%** from the prior year. The total number of full autopsy exams increased by **16%** from the prior year, indicating the types of cases being brought in for investigation require more forensic resources.

Manner	Full Autopsy	Partial Autopsy	External Autopsy	Medical Record Review	Total
Accident	546	11	409	443	1,409
Homicide	244	0	1	2	247
Natural	188	12	153	522	875
Suicide	43	22	91	20	176
Undetermined	62	0	5	8	75
Pending	9	0	1	2	12
Total	1,092	45	660	997	2,794

2022 Cases Gender and Age Distribution

In CY22, the top three most impacted age groups are: (1) 50 to 59, (2) 60 to 69, & (3) 40 to 49, indicating an aging population among decedents from prior years. Gender distribution showed no significant change with males remaining the most impacted group at 69% of all decedents in CY22.

Age Group	Male	Female	Total	Percent of Age
< 1	33	20	53	2%
1 to 12	21	14	35	1%
13 to 19	65	14	79	3%
20 to 29	209	96	305	11%
30 to 39	296	118	414	15%
40 to 49	310	118	428	15%
50 to 59	348	153	501	18%
60 to 69	340	128	468	17%
70 to 79	168	97	265	9%
80 to 89	107	81	188	7%
90 +	22	36	58	2%
Total	1,919	875	2,794	
Percent	69%	31%		100%



Most Prevalent Cause of Death

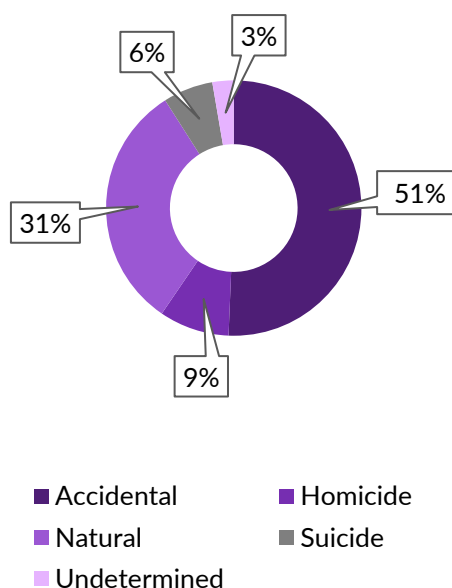
In CY22, Drug Intoxication deaths remained as the most prevalent cause of death for the third year in a row. Deaths either as a direct result of drug intoxication OR where drug intoxication played a role in the death increased by 3% from the prior year. Drug intoxication deaths increased accounted for 31% of the total number of death investigations for the entire calendar year. The total count includes both intentional and unintentional drug overdoses.

Cardiovascular deaths decreased by 2% and has continued to decline year over year for the last three years.

Firearm related deaths decreased in all manners by 16%.

All Manners of Death

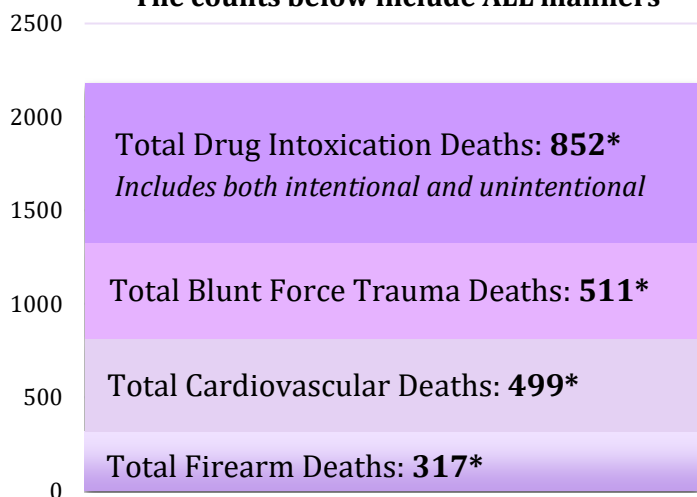
All deaths are classified into one of five categories: Accidental, Homicide, Natural, Suicide and Undetermined.



Accidental and undetermined deaths both increased in their prevalence from the prior year. However, all other manners remained at a similar distribution when compared to prior years.

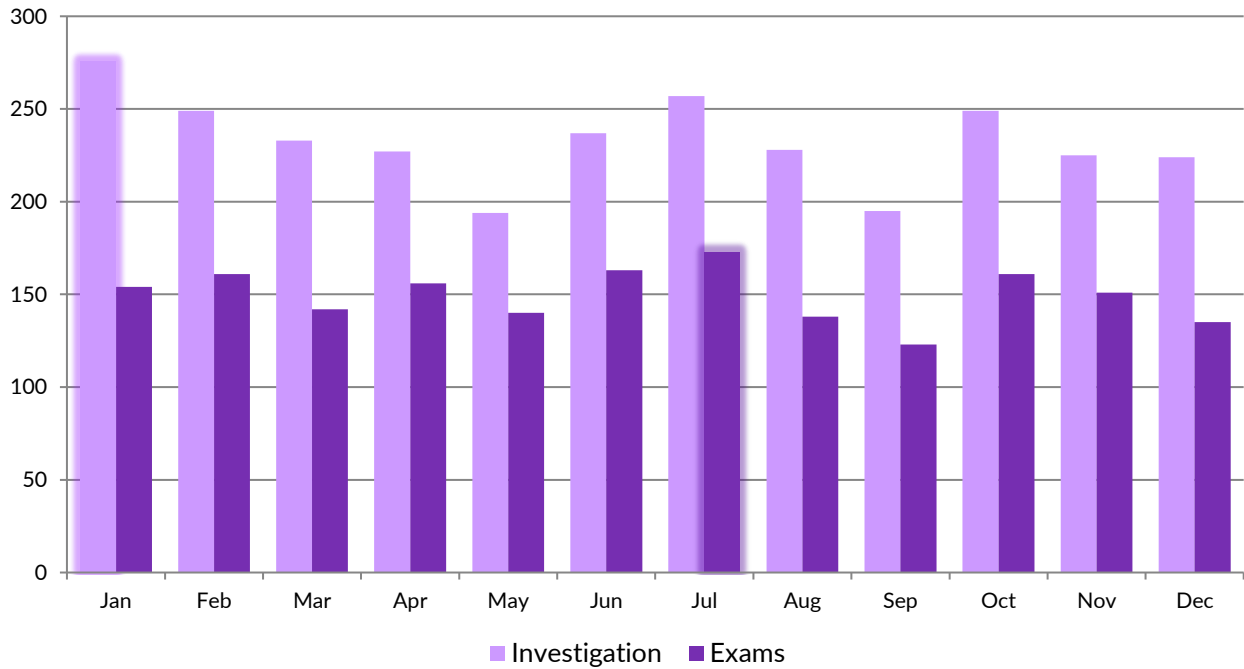
*The above percentages do not account for the remaining pending cases of CY22 which equal less than 1% of the total.

***The counts below include ALL manners**



Distribution of Cases and Exams by Month

Accepted cases were highest during the month of January but the highest number of exams were performed in July. In the prior year the highest number of accepted cases was in September and exams was in April.

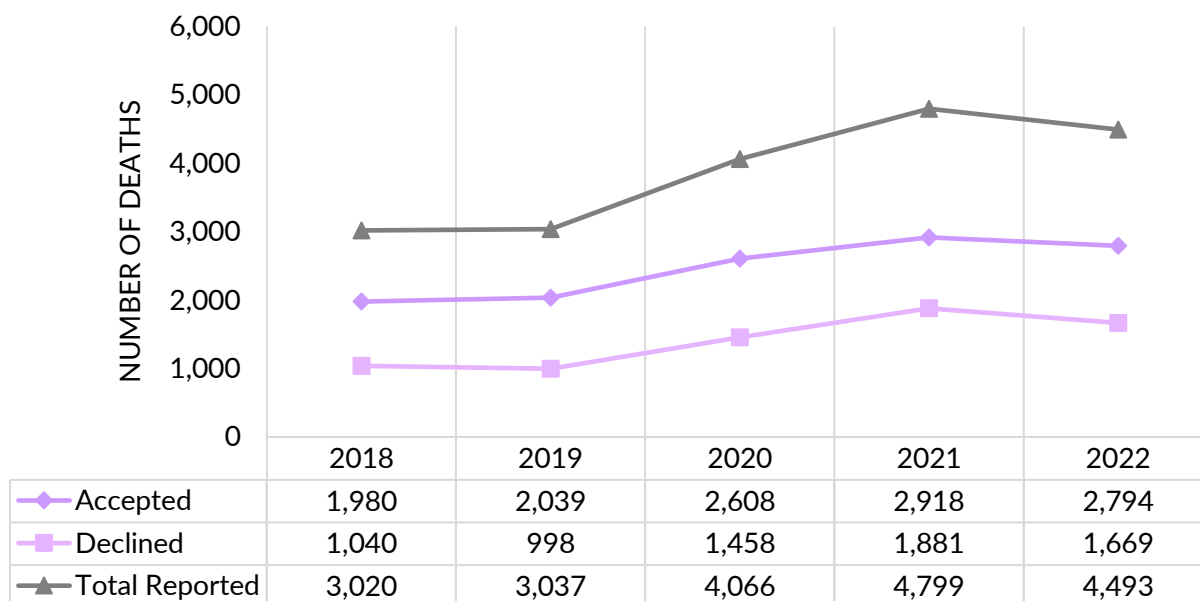


Distribution of Case Manner by Race

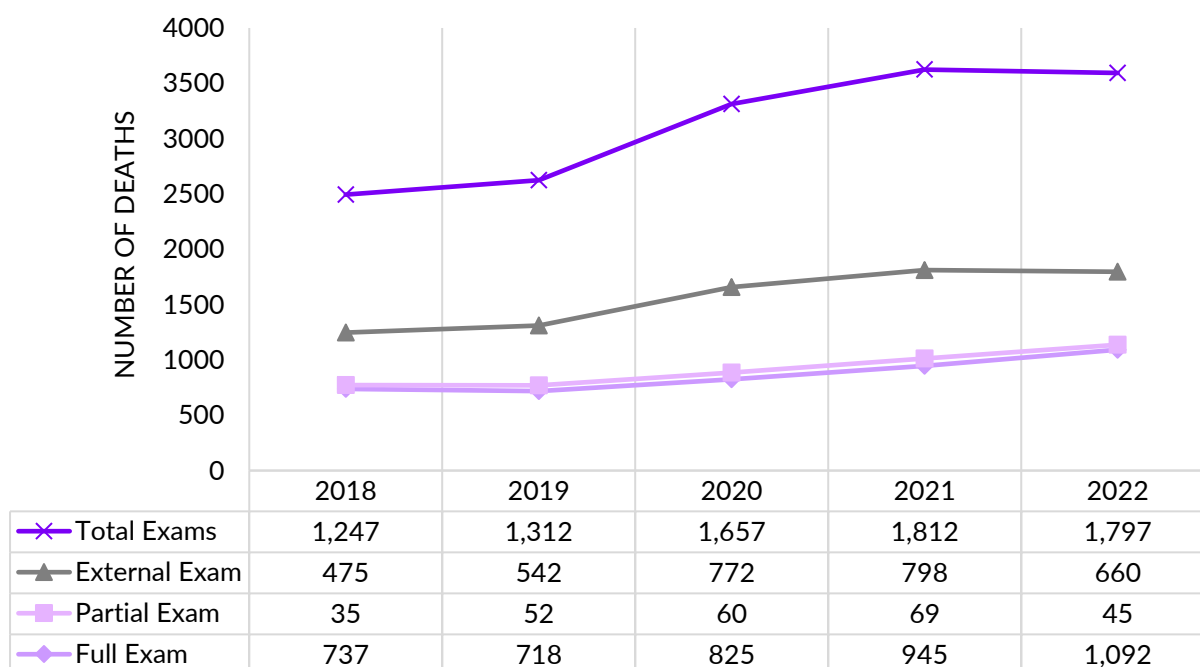
Trends in race distribution among the manners of death remained consistent from the prior year.

	Asian	Asian Indian	Black	Other	Unknown	White	Total
Accident	7	5	393	3	-	1,001	1,409
Homicide	3	1	184	1	-	58	247
Natural	12	1	273	1	-	588	875
Suicide	3	2	32	-	-	139	176
Undetermined	2	-	34	-	1	38	75
Pending	-	1	4	-	-	7	12
Total	27	10	920	5	1	1,831	2,794

TRENDS IN DEATHS REPORTED TO MCCO



TRENDS IN DEATHS INVESTIGATED BY EXAM TYPE



2022 MANNER OF DEATH BY RACE WITH 2020 CENSUS DATA					BY MANNER OF DEATH						
Race	2020 Census: Marion County Residents	% per 2020 Census	MCCO Cases: Marion County Residents	% of Marion Co. Residents	Total MCCO Cases	Acc.	Hom	Nat.	Sui.	Und.	Pend
White	625,410	64%	1,378	60.8%	1,831	63%	22%	66%*	78%*	46%	55%
Black	283,389	29%	853	37.6%*	920	36%*	76%*	33%*	19%	50%	36%
Asian	37,134	3.8%	31	1.37%	37	1%	1%	1%	3%	4%*	9%
American Indian	3,909	.4%	0	0%	0	0%	0%	0%	0%	0%	0%
Hawaiian Pacific	977	.1%	0	0%	0	0%	0%	0%	0%	0%	0%
Other	29,316	2.9%	5	.22%	6	0%	0%	0%	0%	0%	0%
Total	977,203	100%	2,267	100%	2,794	100%	100%	100%	100%	100%	100%

Census Data vs. Case Demographics

The above table compares the most recent U.S. Census data for Marion County residents and the race distribution of accepted cases. The MCCO separates those individuals who were confirmed residents of Marion County to the total accepted case count. The figures above indicate a concern where the percentage by manner is higher than the distribution in the county population.

Disproportionate Racial Distribution In 2022

>8%

Black decedents are overly represented in the total case count for CY22 among decedents who are residents within the county.

3/5

Three out of the five manners of death showed disproportionate representation when compared to the total accepted case counts.

Reporting Limitations

The MCCO continues to work to improve demographic data collection and reporting. In CY23, we will strive to make improvements to provide reliable data to the community.

Hispanic / Latin Demographics

3%

Of the total accepted cases in CY22, three percent were identified as being of Hispanic or latin ethnicity. This fell below the reported county distribution of 13% Hispanic/Latino.

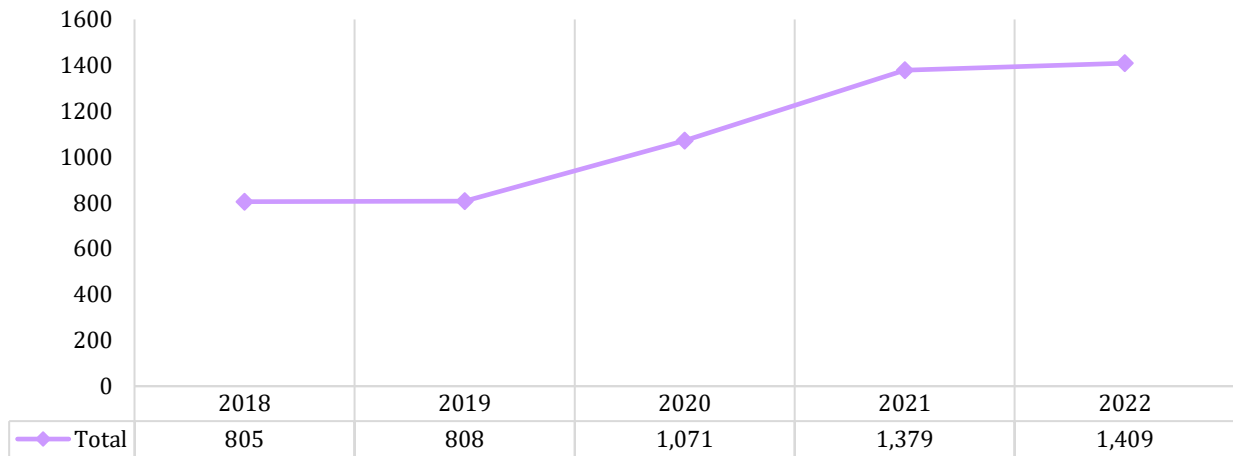
2022:

Accidental Deaths

Summary

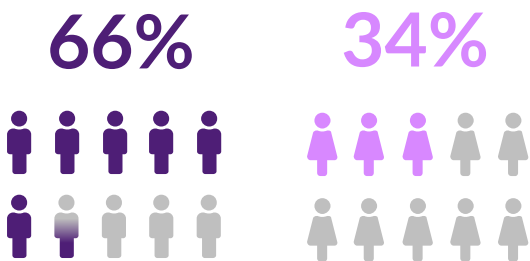
In CY22, the MCCO investigated **1,409** accidental deaths, representing a 2% increase compared to the previous year. Accidental deaths account for the highest category of deaths investigated and exhibited a significant 75% increase over a five-year-period. Among the 1,409 cases, the primary causes of death were: accidental drug intoxication (801 cases), blunt force injuries (483 cases), thermal/fire-related injuries (27 cases), accidental asphyxiation (19 cases), accidental drowning (17 cases), and choking (12 cases). Accidental deaths encompass various circumstances, including falls, motor vehicle accidents, drug intoxication, and other unintentional incidents. Further details on the specific methods of injury can be found in the dedicated data section of the report. Consistently, the most affected age and race group for accidental deaths were White males aged 30-39, which remained consistent from CY21 to CY22. Peak incidents for accidental deaths were observed in July, closely followed by March.

YEARLY TRENDS OF ACCIDENTAL DEATHS 2018 - 2022



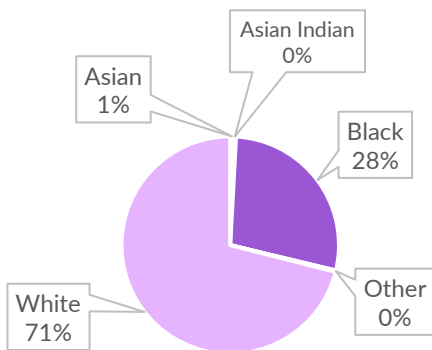
Gender Distribution

Decline of 2% for Males from prior year but a 2% increase in Females in CY22.

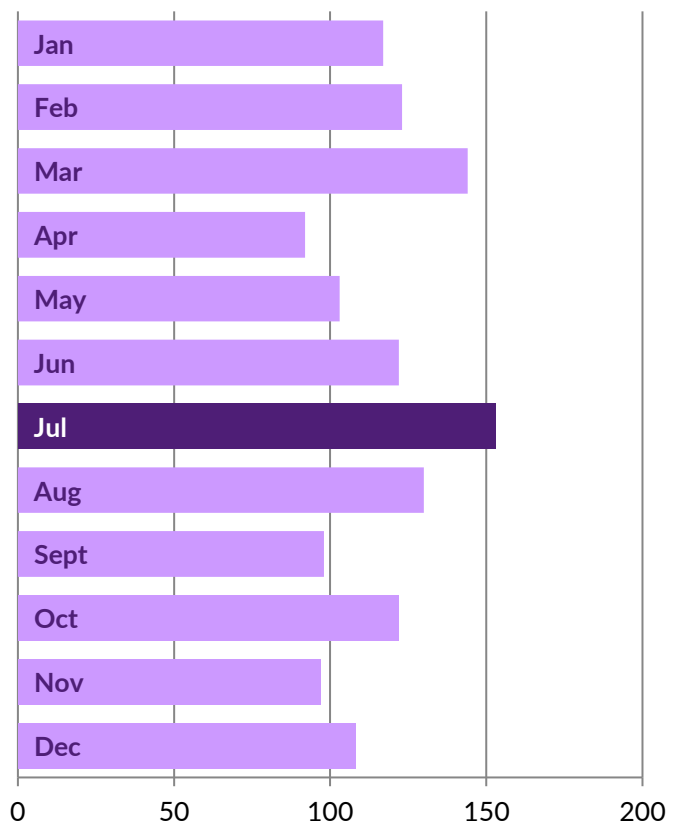


Race Distribution

No significant change in racial distribution from prior year.



Accidental Deaths by Month



Accidental Deaths

Accidental Deaths by Cause

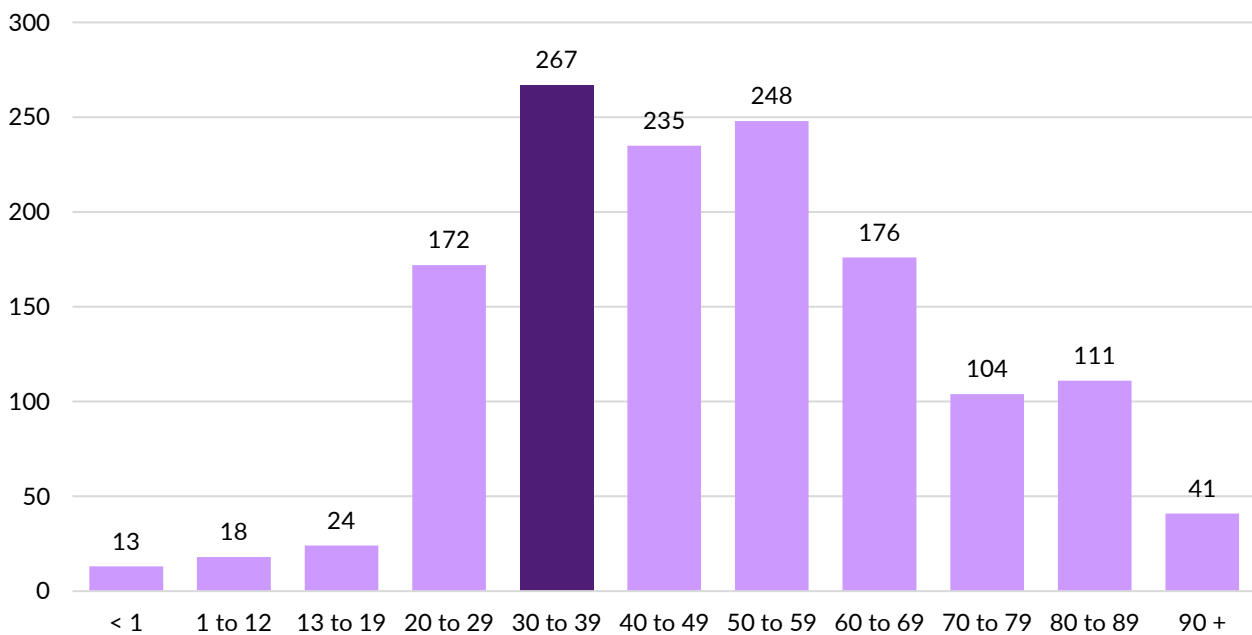
Cause of Death	Total	%
Drug Intoxication	801	57%
Blunt Force	483	34%
Fire/Thermal	27	2%
**Drug Use Contrib	21	1%
Asphyxiation	19	1%
Drowning	17	1%
Choking	12	1%
Environmental	11	1%
Other	7	0.5%
Carbon Monoxide	5	0.4%
Anaphylaxis (Allergic Reaction)	4	0.3%
Gunshot Wound	2	0.1%
Total	1,409	100%

Drug intoxication remained as the primary cause of death in CY22. The total count in this section **only** includes unintentional drug intoxication deaths.

**Drug use also was found to contribute to the cause of death in approx. 1% additional cases.

Accidental Deaths by Age

The age group 30 to 39 remained the highest like prior years. However, multiple age groups increased significantly over prior years: 80 to 89 (+37%), 60 to 69 (+17%), and 50 yo 59 (+15%).



Motor Vehicle Deaths

Summary

Of the total accidental deaths in CY22, 237 were the result of motor vehicle related incidents, a 12% decrease from the prior year. However, there was a 20% increase in fatal hit-and-run incidents.

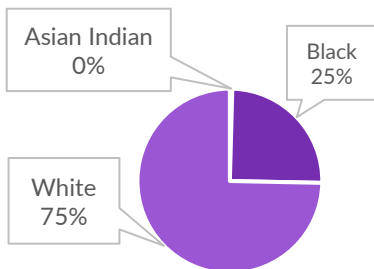
Gender Distribution

Decline of 4% for Males from prior year but a 4% increase in Females in CY22.

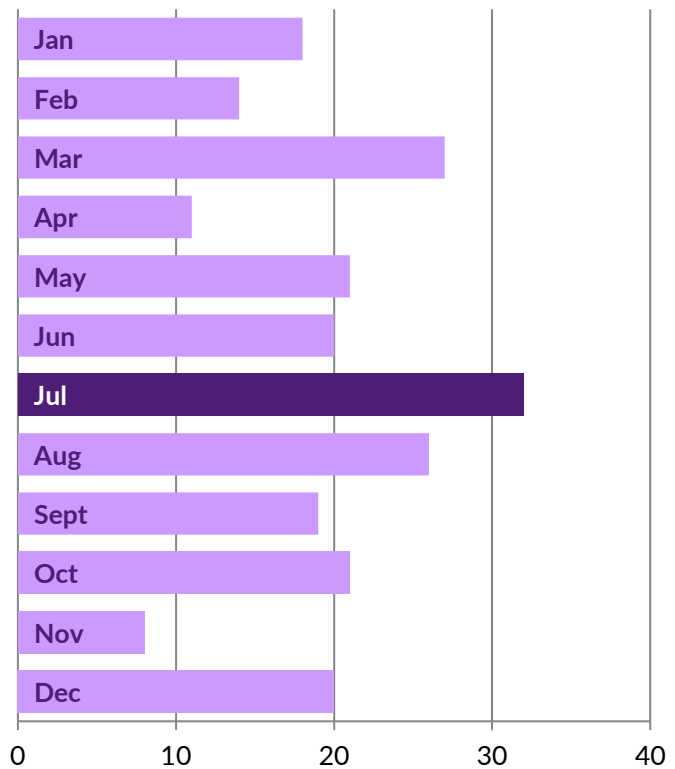


Race Distribution

No significant change in racial distribution from prior year.



Motor Vehicle Deaths by Month

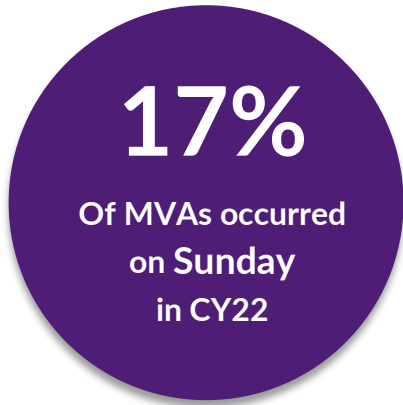


Motor Vehicle Deaths by Decedent Location

Pedestrians increased by 4% over the prior year, while drivers (operators) decreased by 7%.

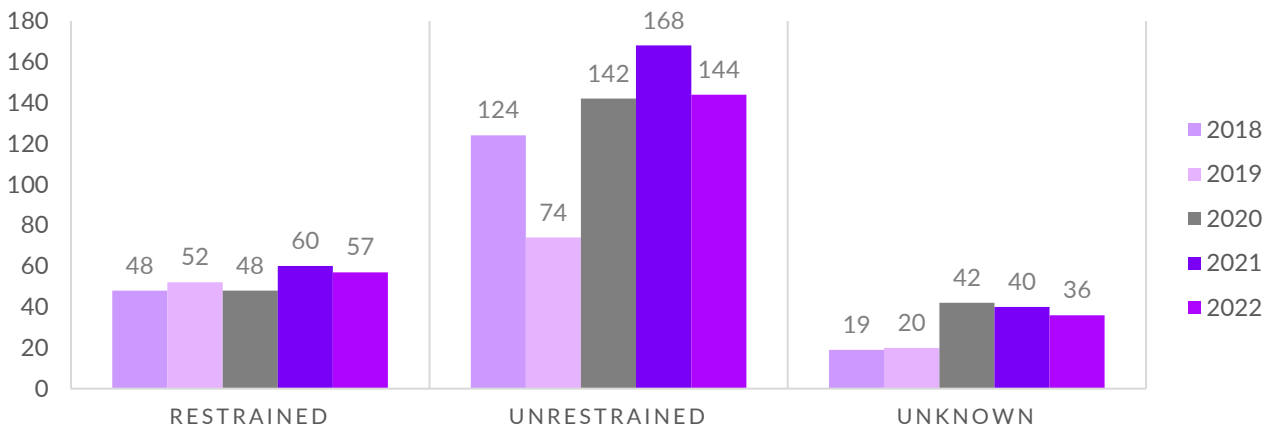
Decedent Location	Total	%
Driver	136	57%
Passenger	33	14%
Pedestrian	53	22%
Other	12	5%
Unknown	3	1%
Total	237	100%

Motor Vehicle Deaths by Day



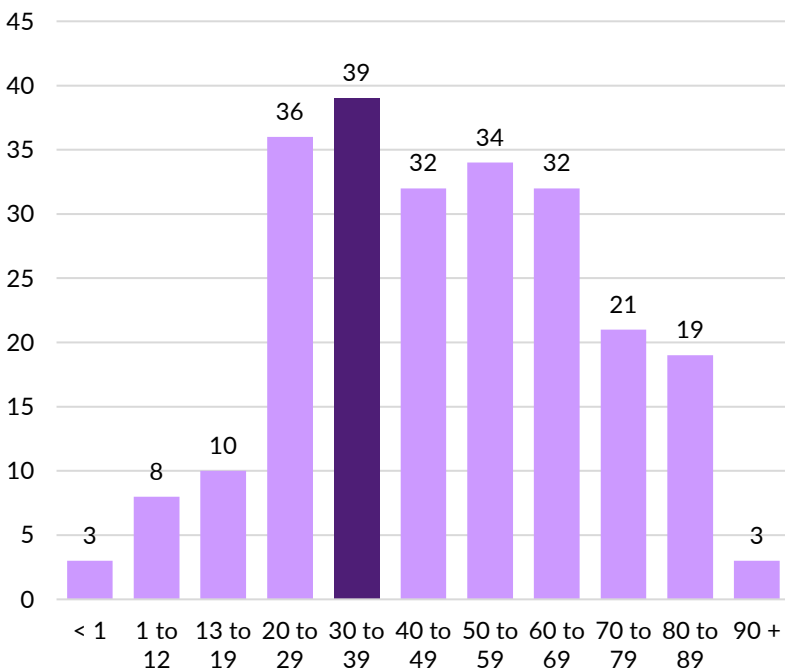
Motor Vehicle Deaths

Motor Vehicle Deaths: Restrained vs. Unrestrained



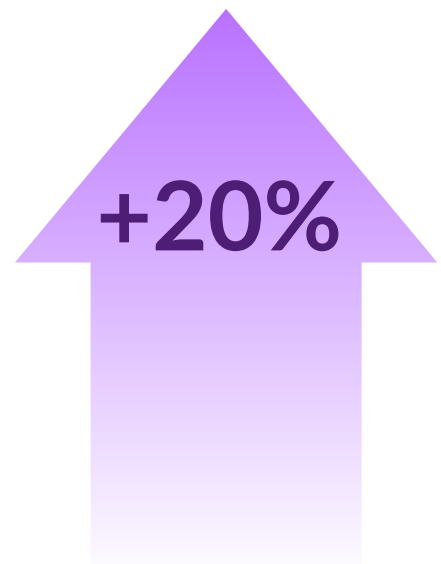
Motor Vehicle Deaths by Age

Increase among age groups: 50 to 59 (+31%), 60 to 69 (+19%), and 80 to 89 (+171%).



Motor Vehicle Deaths by Hit-and-Run

Hit-and-Run cases increased from a total of 20 in CY21 to 24 in CY22.



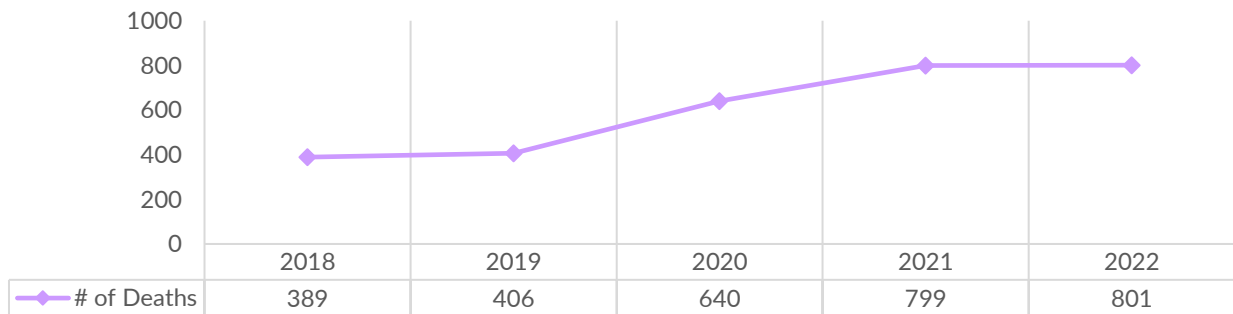
Drug Intoxication Deaths

Summary

Of the total accidental deaths in CY22, 801 were attributed to unintentional drug intoxication. Age and gender remained the same as prior year but there was a shift in the racial distribution of decedents.

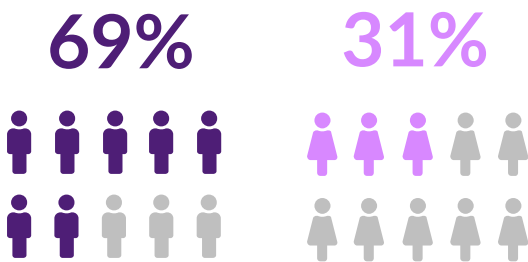
**There were 21 additional deaths where drug intoxication contributed to the death. These are not included in this section. These are discussed in detail in the special report section at the end of the report.*

**ACCIDENTAL DRUG INTOXICATION TREND
2018-2022**



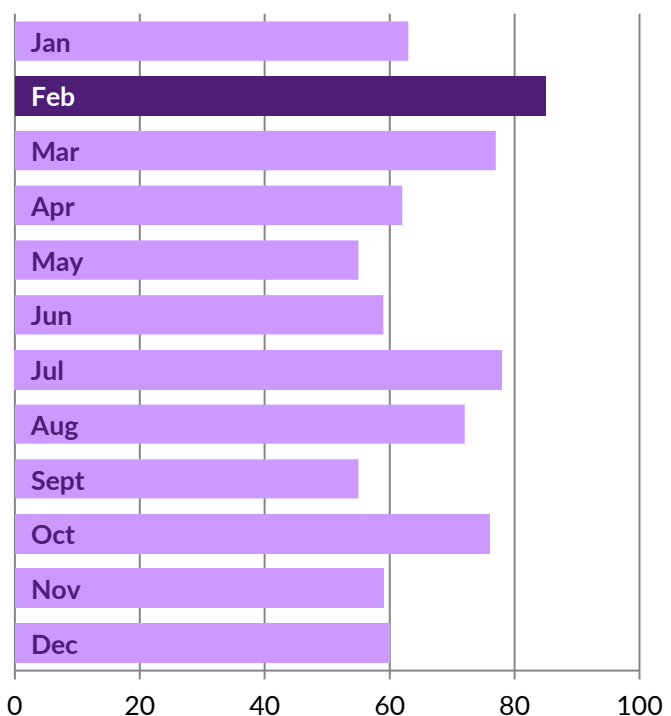
Gender Distribution

Decline by 1% for Males from prior year but a 1% increase in Females in CY22.



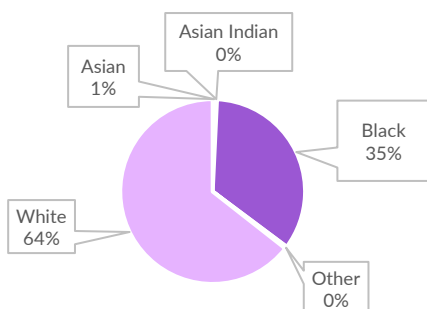
Drug Intoxication Deaths by Month

The highest number of cases occurred in February in CY22, which is a shift from prior years. In prior years, the highest number of overdoses was commonly seen during the month of May.



Race Distribution

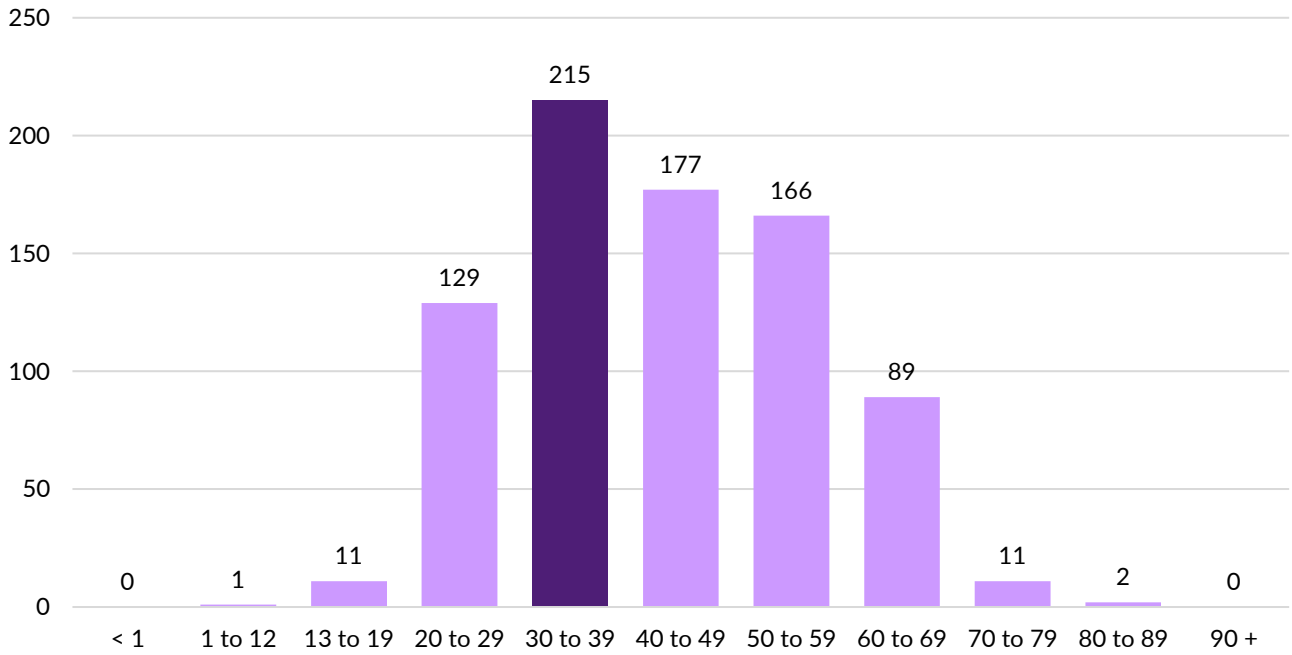
Black decedents increased by 6% from the prior year.



Drug Intoxication Deaths

Drug Intoxication Deaths by Age

Distribution of age among unintentional drug intoxication deaths remained consistent with prior years. However, CY22 showed a similar trend in a rising number of deaths among the 50 to 59, 60 to 69 and 70 to 79 age groups. This shows a continued concern regarding an aging population and higher prevalence of illicit substance abuse in elder residents.

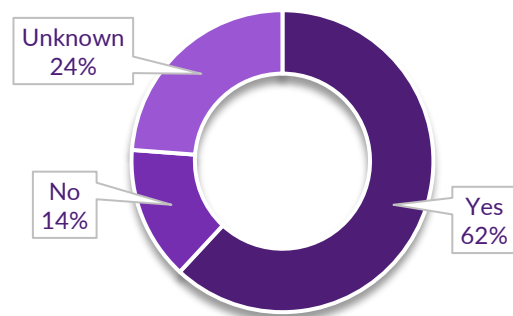


Drug Intoxication Contributed to Death

For the second year in a row, the MCCO identified an increasing number of deaths where illicit drug use or a positive drug screen directly contributed to the death but was not the immediate significant cause of the death. In CY22, there were 21 confirmed cases in this category. This finding is discussed in further detail in the drug overdose special report section of this report.

Primary Cause	Total
Cardiac	12
Pulmonary	3
Infection	2
Neurological	1
Other	3
Total	21

History of Illicit Substance Abuse?



Drug Intoxication Death Investigations

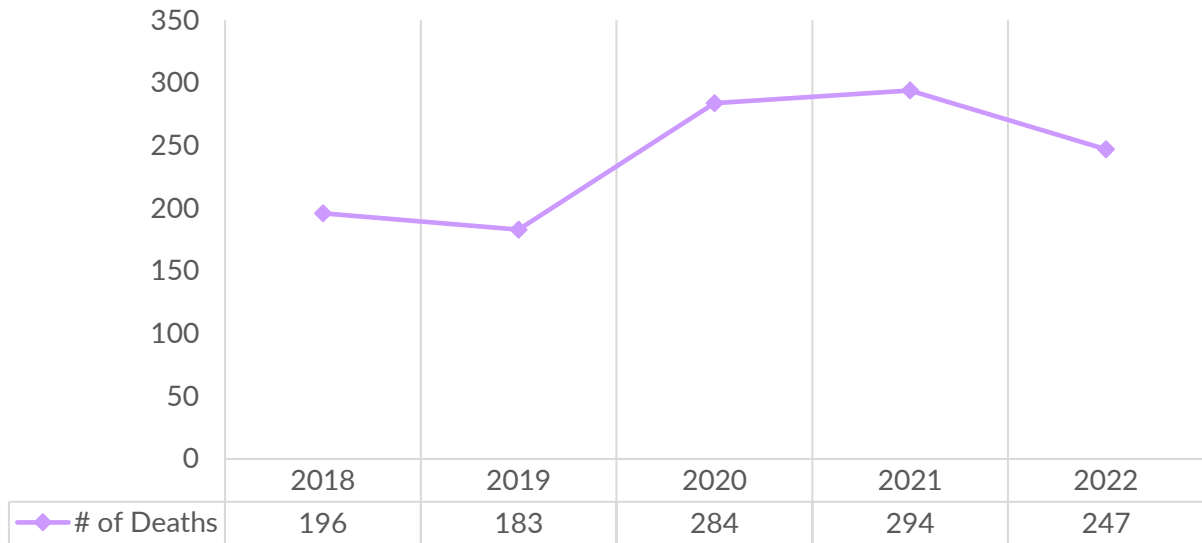
In 2022, the MCCO worked tirelessly to improve investigation methods and reporting capabilities in drug intoxication death investigations. This included developing higher investigation standards to assist local, state, and federal law enforcement agencies in criminal investigations.

2022: Homicide Deaths

Summary

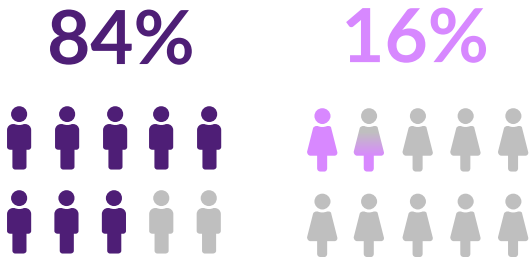
In CY22, the MCCO investigated **247** deaths that were classified as homicides, reflecting a 16% decrease from the previous year. Gunshot wounds were the leading cause of death, accounting for 87% of all homicides. This has remained consistent for over five years, although there was a slight decline from the prior year. The most affected age and race group for homicide deaths, Black males aged 20 to 29, remained consistent from CY21 to CY22. Concerningly, the MCCO has identified a significant disparity in race demographics among homicide victims. Black decedents have been disproportionately represented as homicide victims, exceeding their county population representation by over 20% for two consecutive years. This highlights the extreme risk of violent crime victimization within communities of color, particularly impacting the 20 to 29 age group. Peak incidents for homicide deaths were observed in October, closely followed by April.

YEARLY TRENDS IN HOMICIDE DEATHS 2018 - 2022



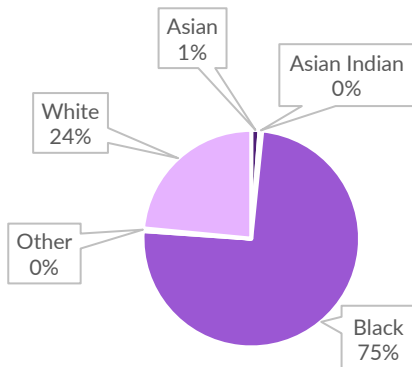
Gender Distribution

Increase of 5% for Males from prior year but a corresponding 5% decrease in Females.

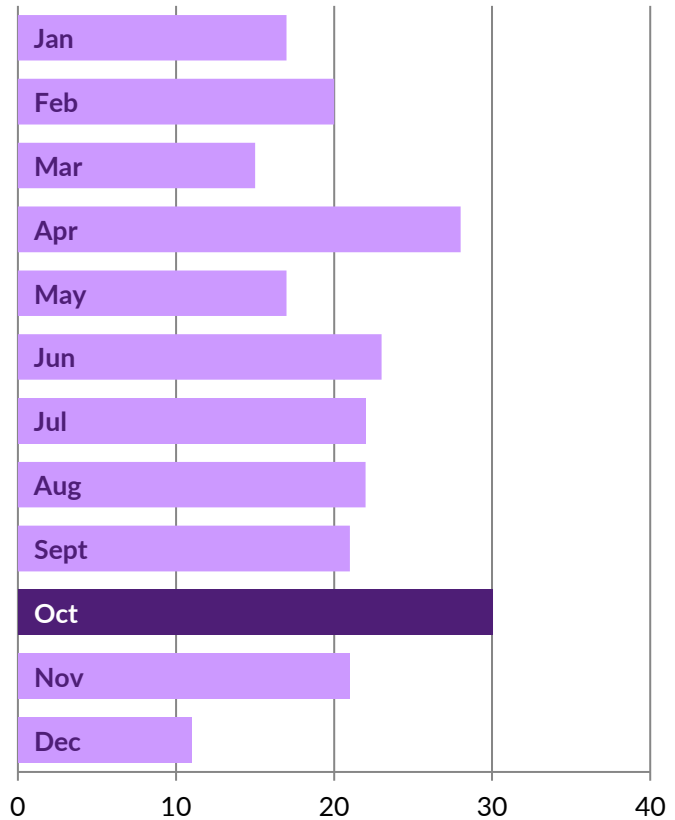


Race Distribution

Increase of 5% among Black decedents and a decrease of 3% among White decedents.



Homicide Deaths by Month



Homicide Deaths

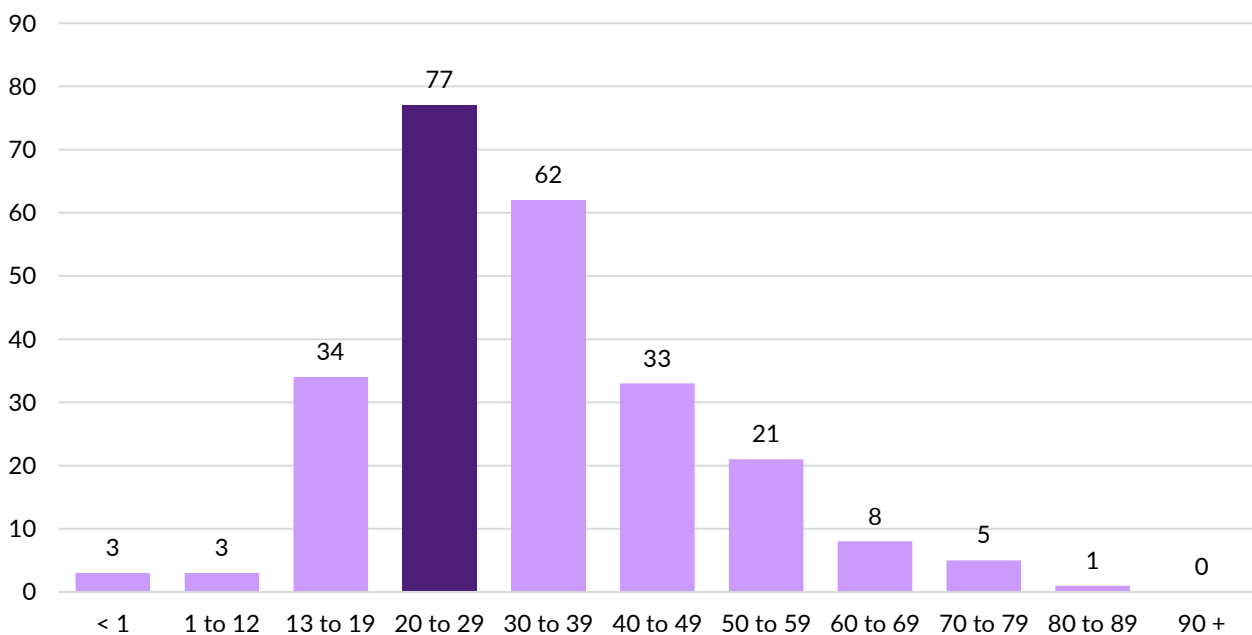
Homicide Deaths by Cause

Gunshot wound remained the top cause of death among homicides in CY22, which is similar when compared to prior years. Blunt force trauma increased by 2% over the prior year and sharp force trauma increased by 1%.

Cause of Death	Total	%
Gunshot Wound	214	87%
Blunt Force Trauma	16	6%
Share Force Trauma	9	4%
Strangulation/Asphyxiation	4	2%
Mixed Modality	2	1%
Other	2	1%
Total	247	100%

Homicide Deaths by Age

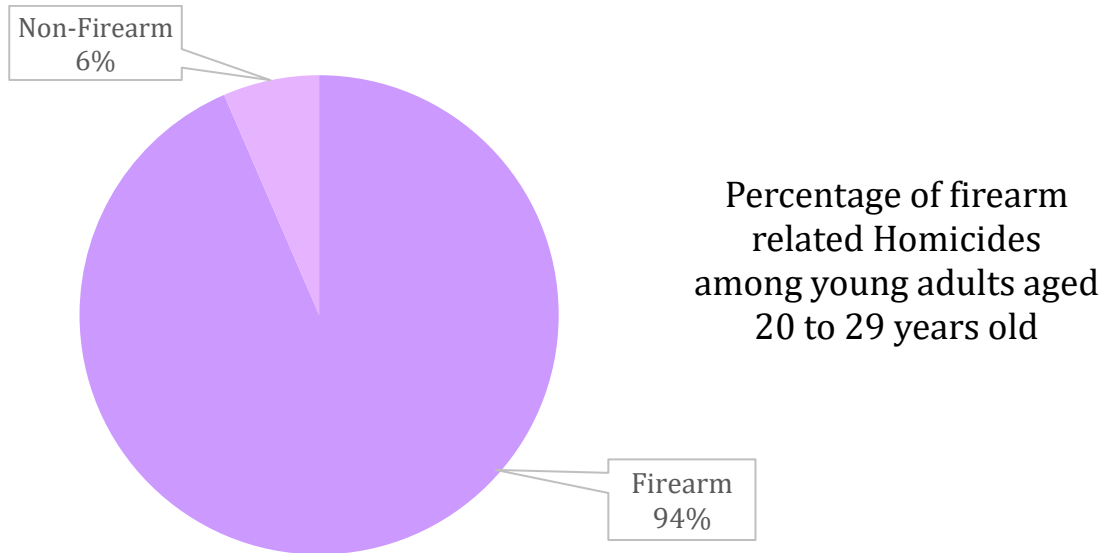
The age group 20 to 29 remained the highest impacted like prior years. The only other significant change occurred among the 30 to 39 age group which increased by 9% from the prior year.



Homicide Deaths

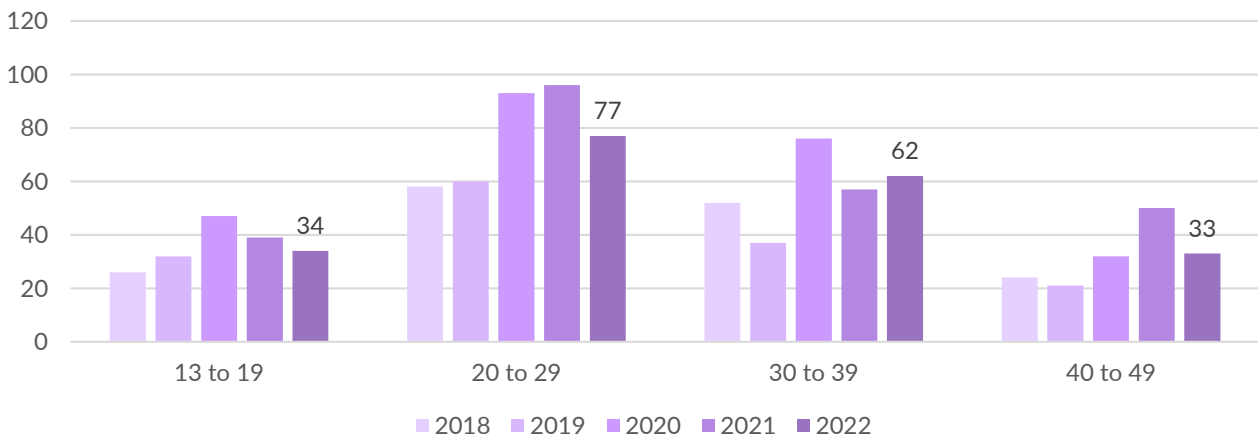
Homicide Deaths by Age: 20 to 29

The age group 20 to 29 has been the highest impacted age group for six (6) years in a row. This age group accounted for 31% of all homicide victims in CY22. This is concerning when compared to their county population representation of approx. 15%. The most prevalent cause of death for this age group for the same time frame remains gunshot wound(s) accounting for 94% of homicide victims aged 20 to 29.



Accidental Deaths by Age

Homicides in the Top 4 Age Groups 2018 - 2022

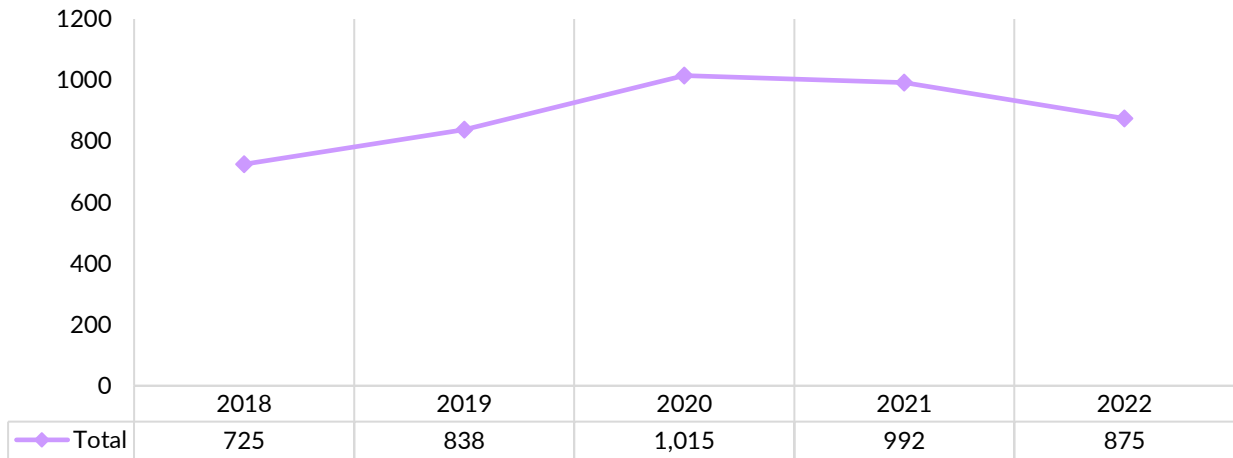


2022: Natural Deaths

Summary

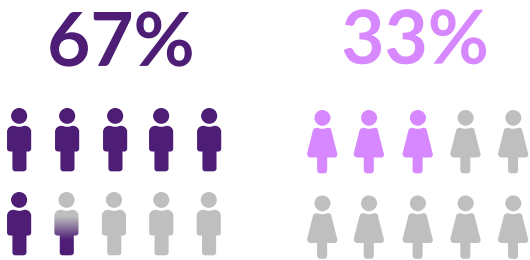
In CY22, the MCCO investigated **875** natural deaths, marking a 12% decline from the previous year. This continues the trend of decreasing natural death investigations; however, the number of such deaths has not yet returned to pre-pandemic (CY20) levels. To optimize resources, the MCCO entered into an agreement with the local public health officer to collaborate with local physicians who sign death certificates for individuals who pass away due to undisputed natural causes. This partnership allows the MCCO to prioritize finite resources for forensic cases that legally require a full investigation. Additionally, there was a significant 58% decrease in COVID-related deaths compared to the prior year. The leading cause of death among natural cases was cardiovascular-related illness, accounting for 499 deaths. The most affected age and race group for natural deaths remained consistent from CY21 to CY22, with White males aged 60 to 69 being the most impacted. Peak incidents for natural death investigations were observed in January.

YEARLY TRENDS OF NATURAL DEATHS 2018 - 2022



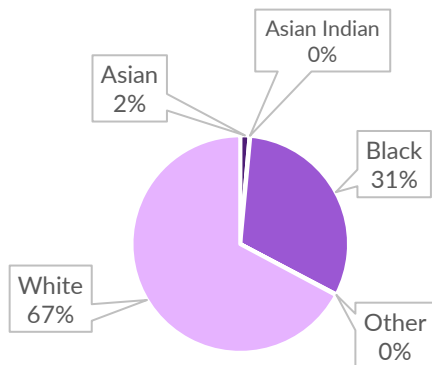
Gender Distribution

Increase of 3% for Males from prior year but a 3% decrease in Females in CY22.

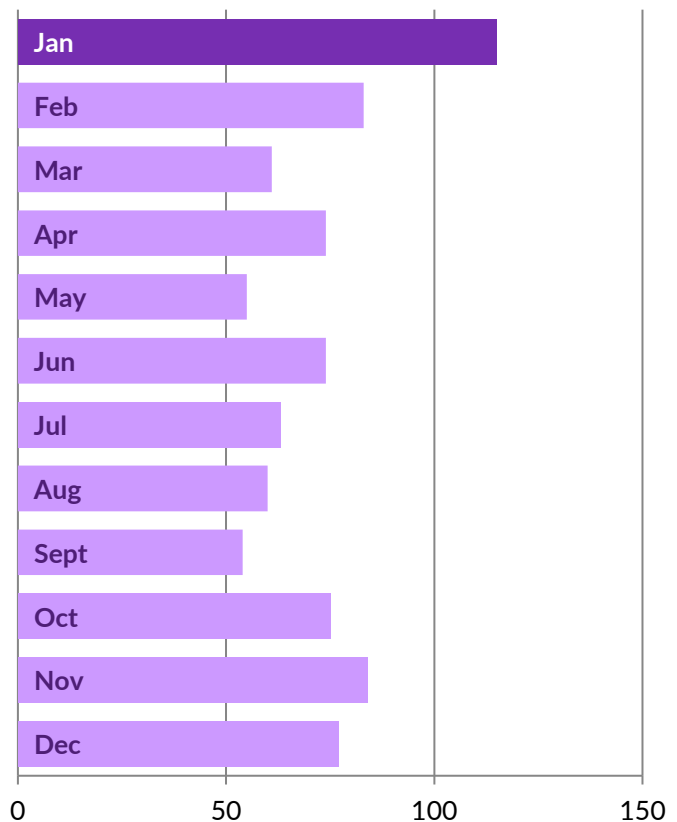


Race Distribution

Decrease of 5% among Black decedents, increase of 4% among White decedents, and a 1% increase among Asian decedents from the prior year.



Natural Deaths by Month



Natural Deaths

Natural Deaths by Cause

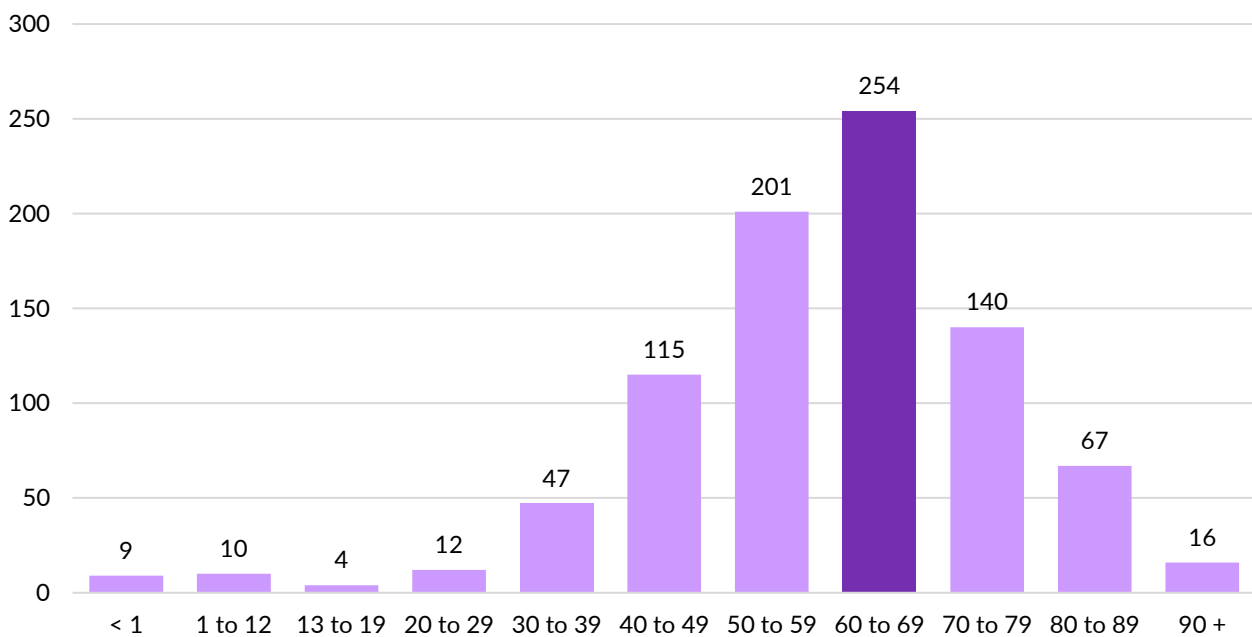
Cause of Death	Total	%
Cardiovascular Disease	499	57%
Alcohol-Related	82	9%
Diabetes	59	7%
Respiratory Disease	54	6%
COVID-19	34	4%
Cancer	32	4%
Renal/Hepatic	23	3%
Infection	22	2.5%
Neurological (Brain)	19	2%
Vascular	14	1.6%
Gastrointestinal	11	1%
Pregnancy/Neo-Natal Complications	8	0.9%
Congenital/Autoimmune	5	0.6%
Obesity	3	0.3%
HIV/AIDS	1	0.1%
Other	9	1%
Total	875	100%

The top two causes of death remained stable from the prior year. Cardiovascular increased by 3%, alcohol-related increased by 2% and diabetes increased by 1%. However, COVID-19 related deaths decreased by 58% from the prior year.

Pregnancy and Neo-Natal related complications increased by 1% from the prior year.

Natural Deaths by Age

No significant change in age distribution from prior year. The gap between the age groups decreased slightly.

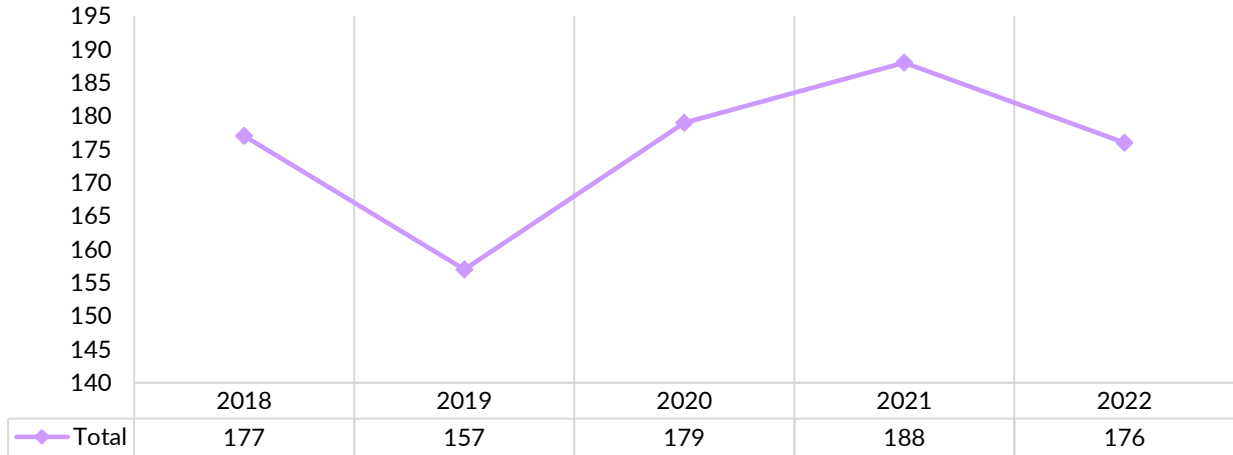


2022: Suicide Deaths

Summary

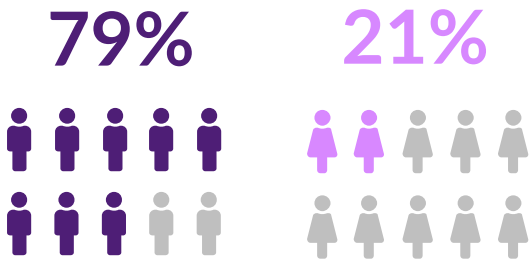
In CY22, the MCCO investigated **176** suicides, representing a 6% decrease from the previous year. Among the 176 cases, the leading causes of death were as follows: gunshot wounds (100 cases), hanging/ligature (41 cases), and intentional drug intoxication, including both illicit and over-the-counter substances, (20 cases). When comparing data over a five-year period, firearm/gunshot-related deaths remained the most prevalent method. The most affected age and race group for suicide deaths remained consistent from CY21 to CY22, with White males aged 20 to 29 being the most impacted. Peak incidents for suicides were observed in April.

YEARLY TRENDS OF SUICIDE DEATHS 2018 - 2022



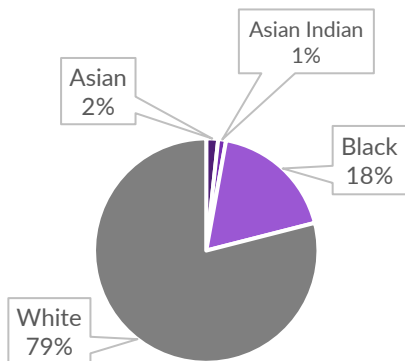
Gender Distribution

Increase of 2% for Males from prior year but a 2% decrease in Females in CY22.

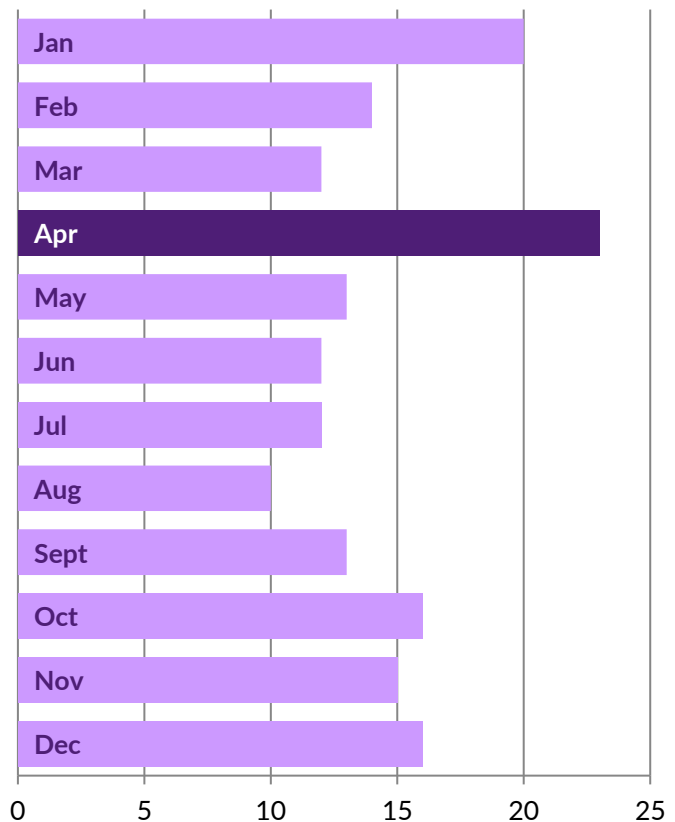


Race Distribution

Decrease of 4% among White decedents and 1% among Asian decedents but an increase of 5% among Black decedents and .5% among Asian Indian decedents.



Suicide Deaths by Month



Suicide Deaths

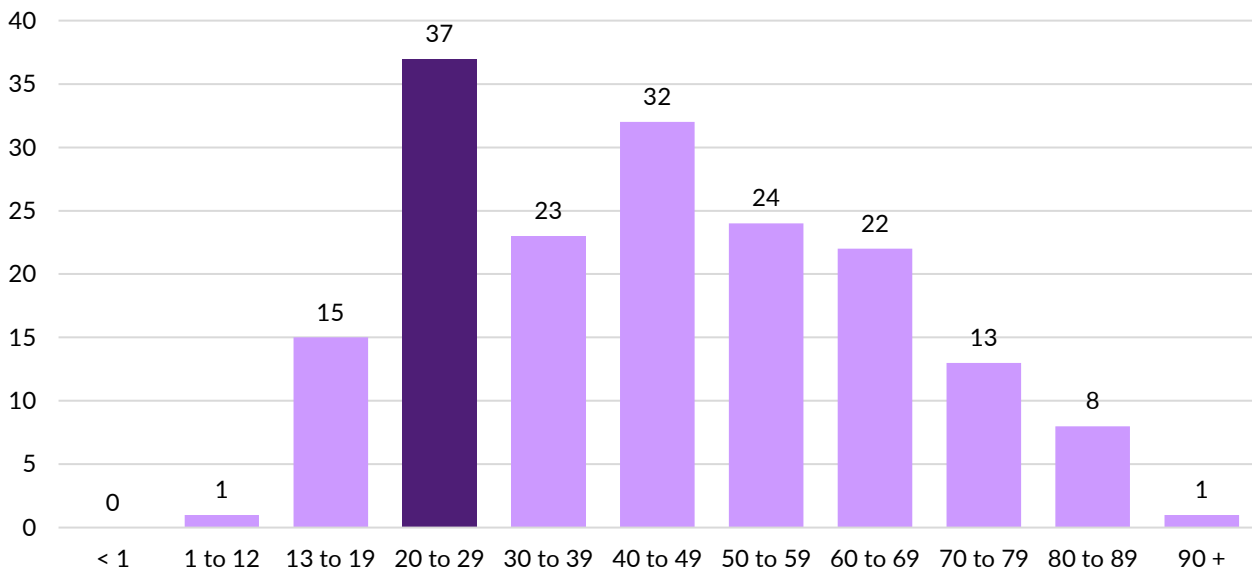
Suicide Deaths by Cause

Cause of Death	Total	%
Firearm	100	57%
Hanging/Ligature	41	23%
Intoxication (OTC/Illicit)	20	11%
Inhalation/Thermal	6	3%
Blunt Trauma	4	2%
Ingestion of Non-Medication Substance	2	1%
Drowning	2	1%
Sharp Force Trauma	1	1%
Total	176	100%

No significant shift in the most prevalent cause of death among suicides in CY22. Firearm/Gunshot remained the majority among cases at 57%. However, Hanging/Ligature increased slightly by 1% and Intentional Drug Intoxication also increased by 1% from the prior year.

Suicide Deaths by Age

The age group 20 to 29 remained the highest impacted group like prior years. However, multiple age groups increased significantly over prior years: 1 to 12 (+100%), 40 to 49 (+39%), and 70 to 79 (+160%).



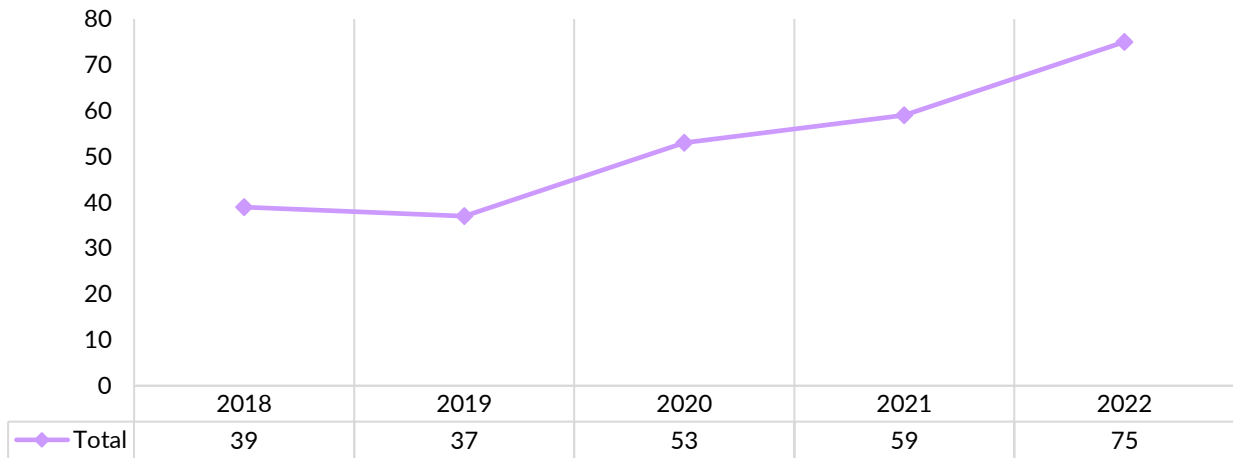
2022:

Undetermined Deaths

Summary

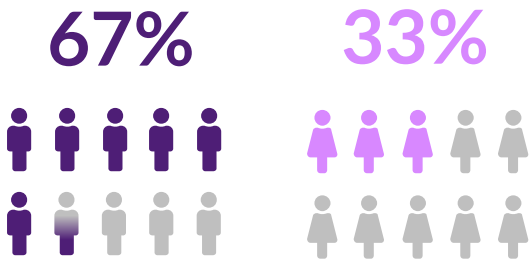
In CY22, the MCCO investigated **75** deaths classified as undetermined, reflecting a 21% increase from the previous year. Undetermined deaths occur when there is insufficient medical or social history to establish a definitive cause of death. The primary causes of these deaths were as follows: undeterminable (24 cases), sudden unexplained infant death (23 cases), and drug intoxication (10 cases). The most affected age and race group for undetermined deaths remained consistent from CY21 to CY22, involving White males under 1 year of age. Peak incidents for undetermined deaths were observed in April.

YEARLY TRENDS OF UNDETERMINED DEATHS 2018 - 2022



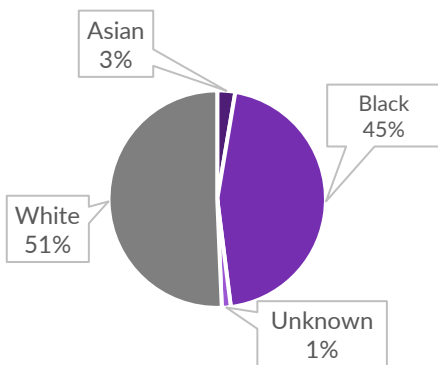
Gender Distribution

Increase of 4% for Males from prior year but a 4% decrease in Females in CY22.

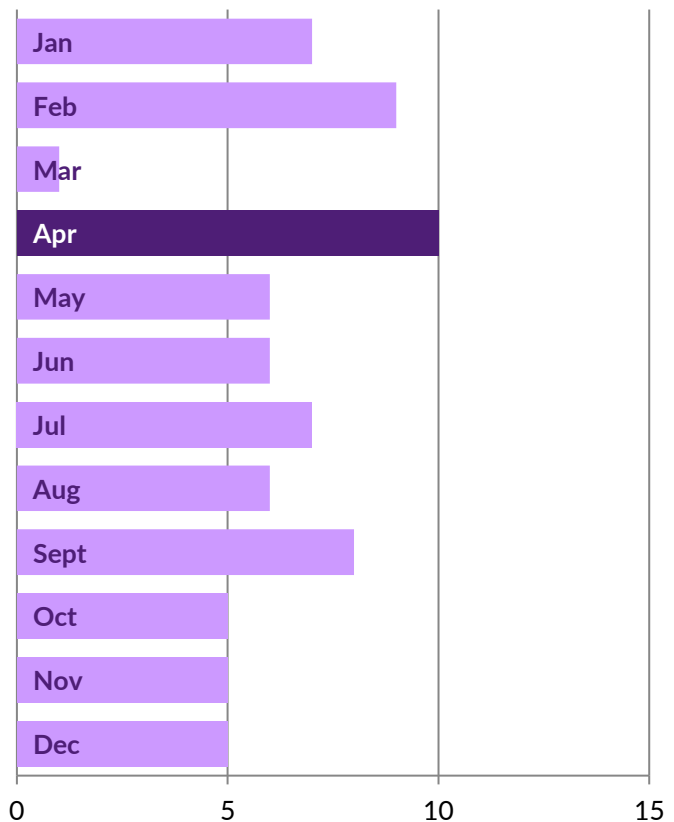


Race Distribution

Increase of 8% among White decedents, 1% among Asian decedents, 8% among Black decedents and a decline of 1% in race unknown decedents.



Undetermined Deaths by Month



Undetermined Deaths

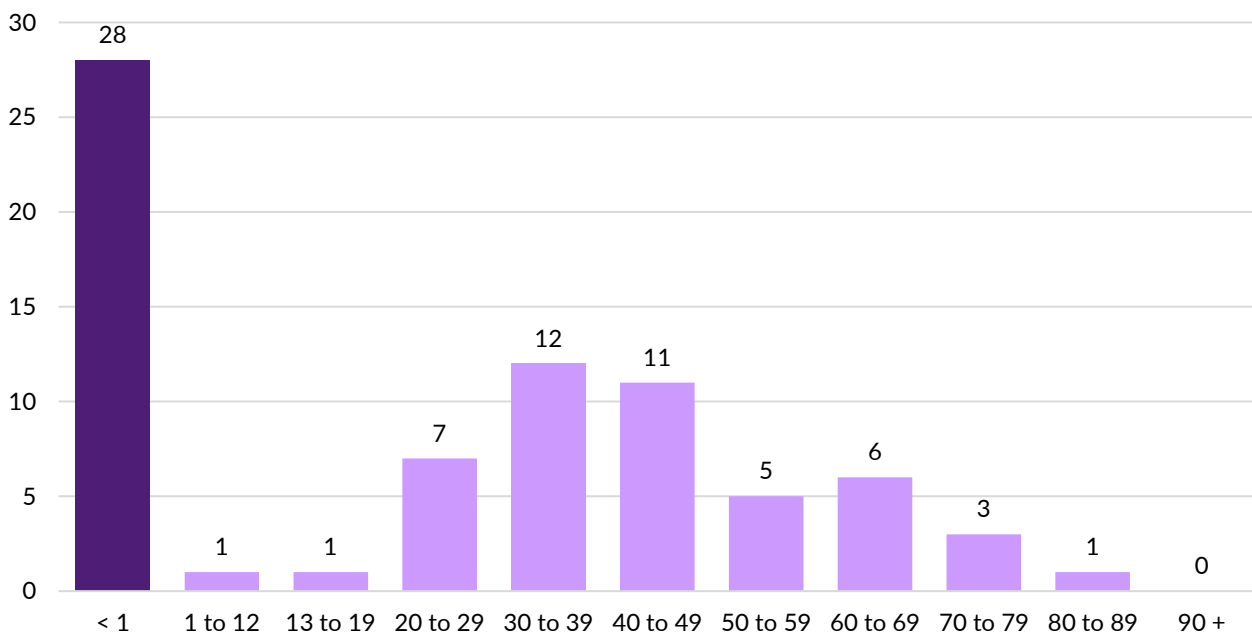
Undetermined Deaths by Cause

Cause of Death	Total	%
Undetermined	24	32%
SUID	23	31%
Drug Intoxication	10	13%
Blunt Force Trauma	8	11%
Other	5	7%
Fire/Thermal	2	3%
Gunshot Wound	1	1%
Drowning	1	1%
Anoxic Brain Injury	1	1%
Total	75	100%

The MCCO aims to have as few undetermined deaths as possible per year. However, there are an increasing number of cases with a lack of either medical or social evidence which would help to determine a more exact manner of death. The two main causes of death for CY22 were undeterminable and Sudden and Unexplained Infant death (SUID). Infants who die in the circumstances of an unsafe sleeping environment can be ruled as undetermined and SUID. Drug intoxication deaths due to unknown circumstances increase from the prior year by 25%.

Undetermined Deaths by Age

The age group shift from the CY21 to CY22 brought undetermined deaths back to the consistent age group from prior years. Infants (under 12 months) are the majority age group again in CY22 due to co-sleeping and SUID investigations.



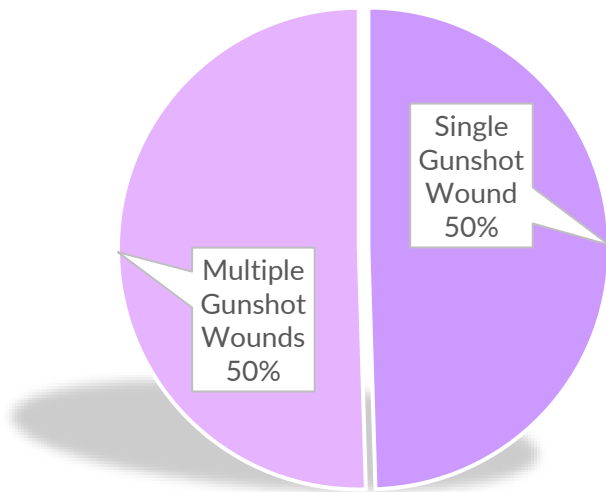
2022: Special Reports

The MCCO prepares special reports regarding deaths which are a community concern, or when a significant change occurred during the calendar year. The special reports present focused data to help the community and county leaders to address direct concerns/issues causing a significant number of deaths.

Special Report:

Homicides involving Firearms

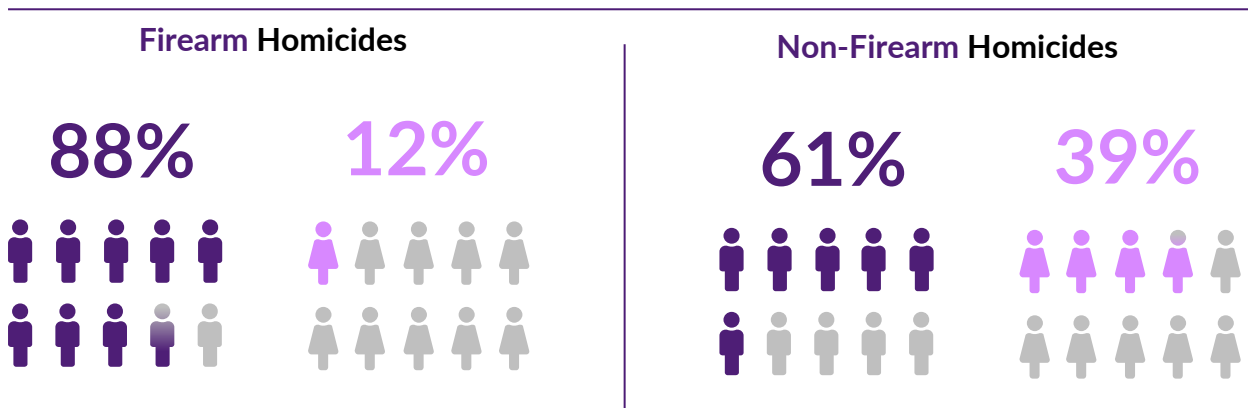
In CY22, the MCCO investigated 247 homicides, of which **87%** (214) involved firearms.



Number of Gunshot Wounds per Incident

The disparity between single and multiple gunshot wounds narrowed compared to the previous year. Multiple gunshot wound incidents decreased by 7% while single gunshot wound incidents increased by 7%.

Firearm vs. Non-Firearm Homicides by Gender



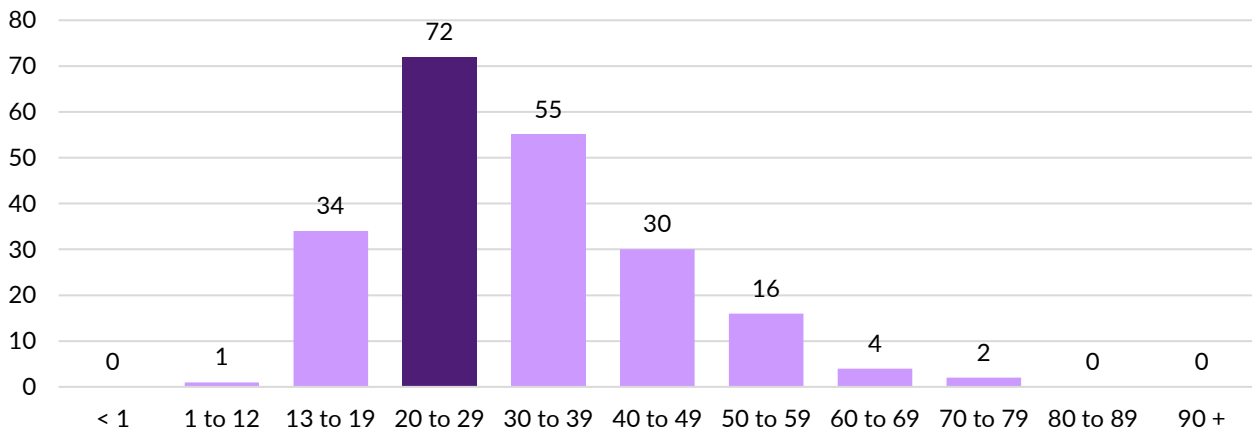
In CY22, Males had a higher likelihood to be the victim of firearm related homicides versus females. Females had a 27% higher prevalence among non-firearm related homicides.

Special Report:

Homicides involving Firearms

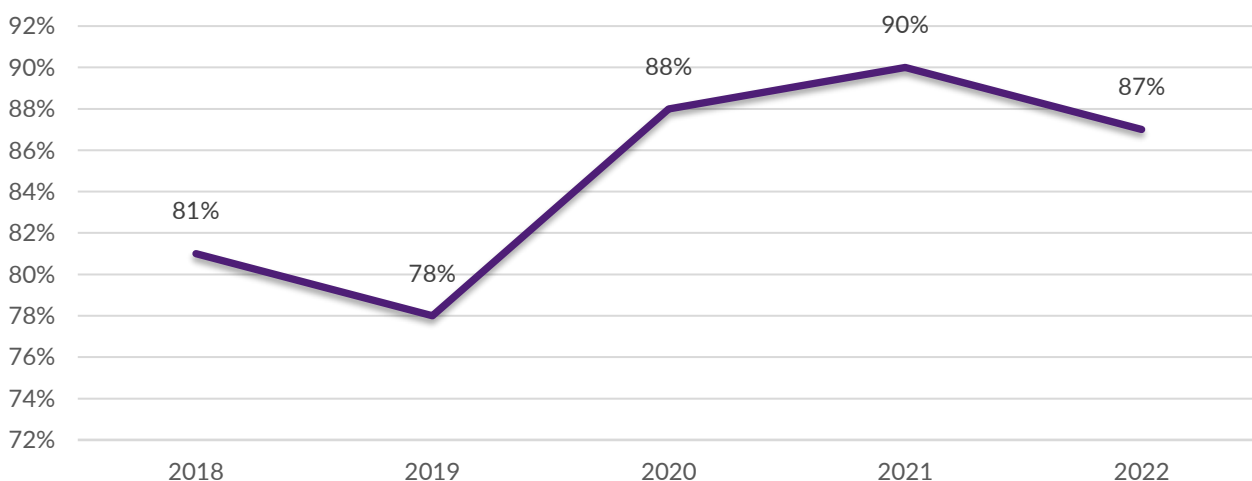
Firearm Related Homicide Deaths by Age

The distribution among age groups for firearm related homicides remained consistent in CY22 from the prior year. The 20 to 29 age group has the highest prevalence of all firearm homicide victims in CY22. The 30 to 39 age group increased by 10% from the prior year.

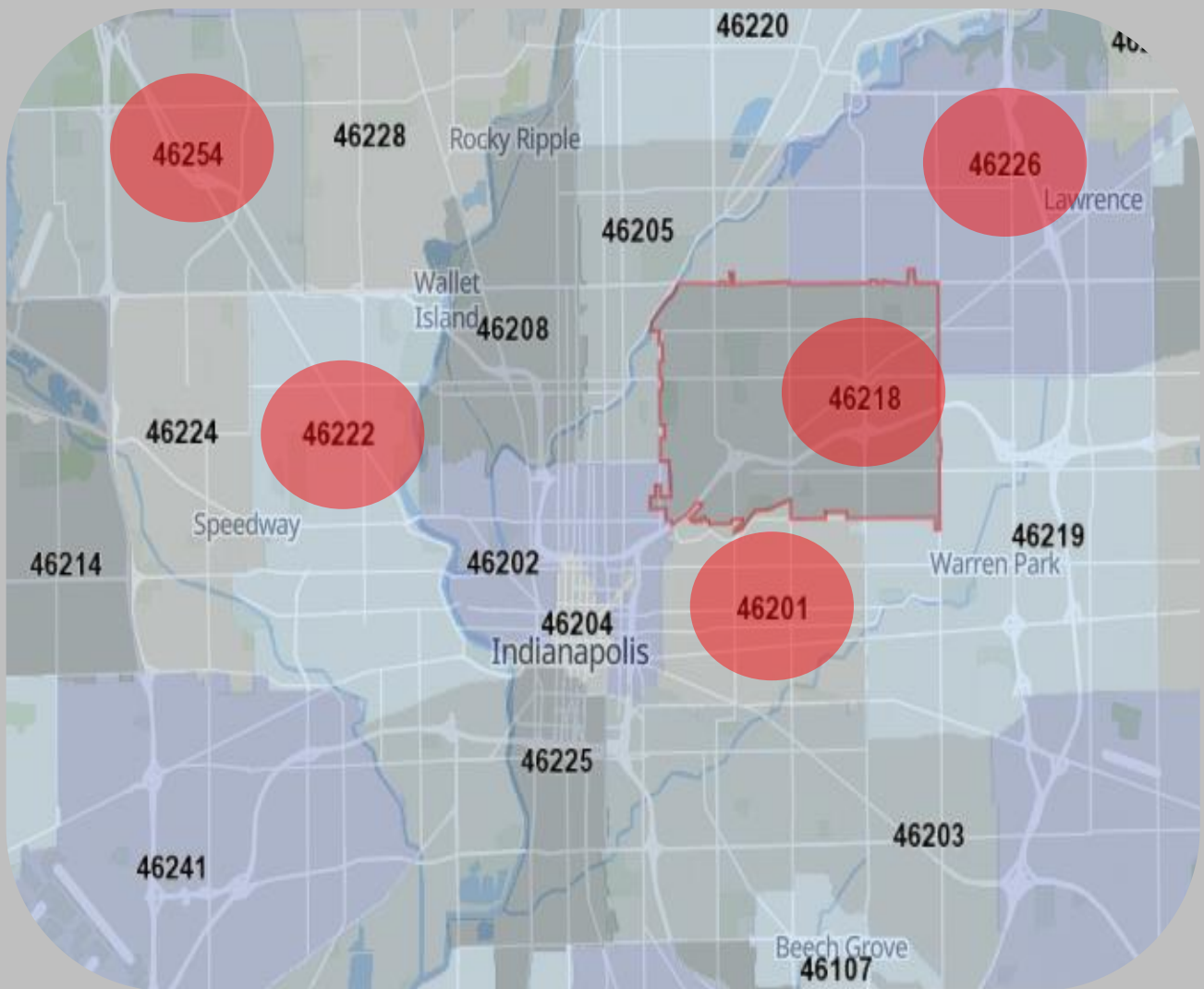


Percent of Firearm Homicides per Year

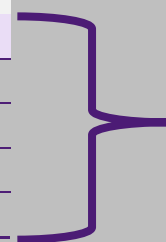
The percentage of firearm related homicides decreased by 3% from the prior year; however, has not fallen to levels seen before CY20.



Firearm Homicide Deaths Most Impacted Zip Codes in 2022



Top 5 Impacted Zip Codes	Total
46218	42
46201	14
46226	14
46222	12
46254	11
Total	93

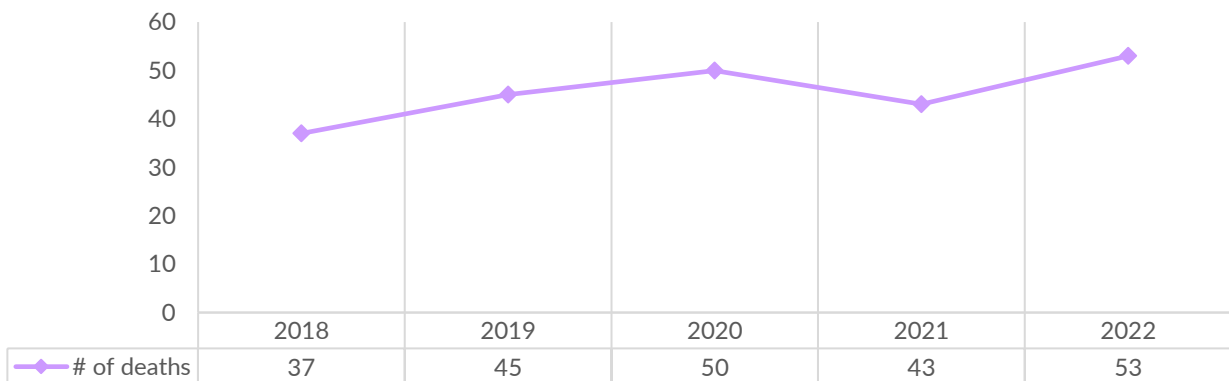


43%
Of firearm
homicides in
CY22

Special Report: Infant Deaths

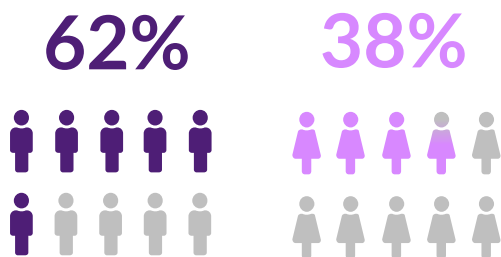
In CY22, the MCCO investigated 53 infant deaths, a **23%** increase from the prior year

YEARLY TRENDS IN INFANT DEATHS
2018-2022



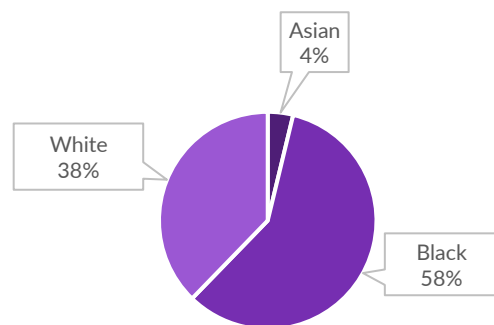
Gender Distribution

Increase of 9% for Males from prior year but a 9% decrease in Females in CY22.



Race Distribution

Increase of 5% among White decedents, 2% among Asian decedents, and a decline of 7% among Black decedents from the prior year.



Special Report: Infant Deaths

Infant Deaths by Cause

Cause of Death	Total	%
SUID	22	42%
Positional Asphyxiation	8	15%
Blunt Force Trauma	5	9%
Fetal	4	8%
Undetermined	3	6%
Gastrointestinal	3	6%
Prematurity	3	6%
Unsafe Sleep	2	4%
Infection	2	4%
Drowning	1	2%
Total	53	100%

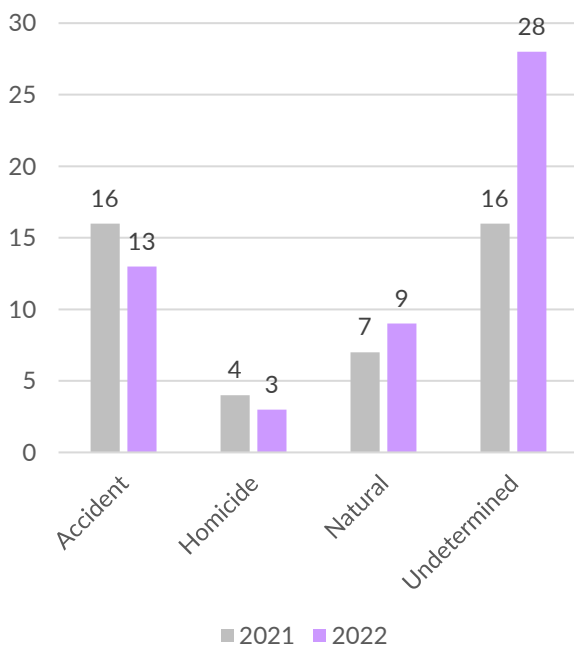
Fetal Deaths by Cause

Cause of Death	Total	%
Assault on Mother	1	25%
Maternal Drug Use	1	25%
MVA	1	25%
Maternal Natural Death	1	25%
Total	4	100%

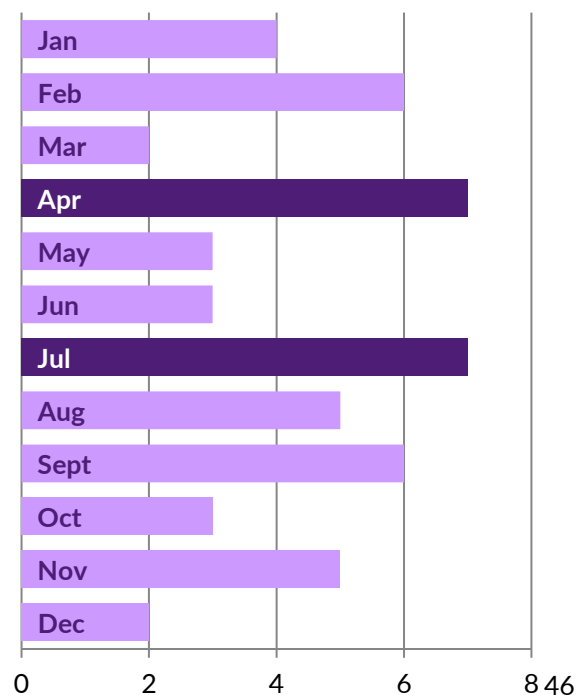
Increase of 5% in fetal deaths from prior year.

Increase of 33% in rulings of Sudden Unexplained Infant Death (SUID) with a corresponding decline in unsafe sleep rulings due to updated guidance on infant deaths in CY22.

Trends Infant Deaths by Manner



Infant Deaths by Month

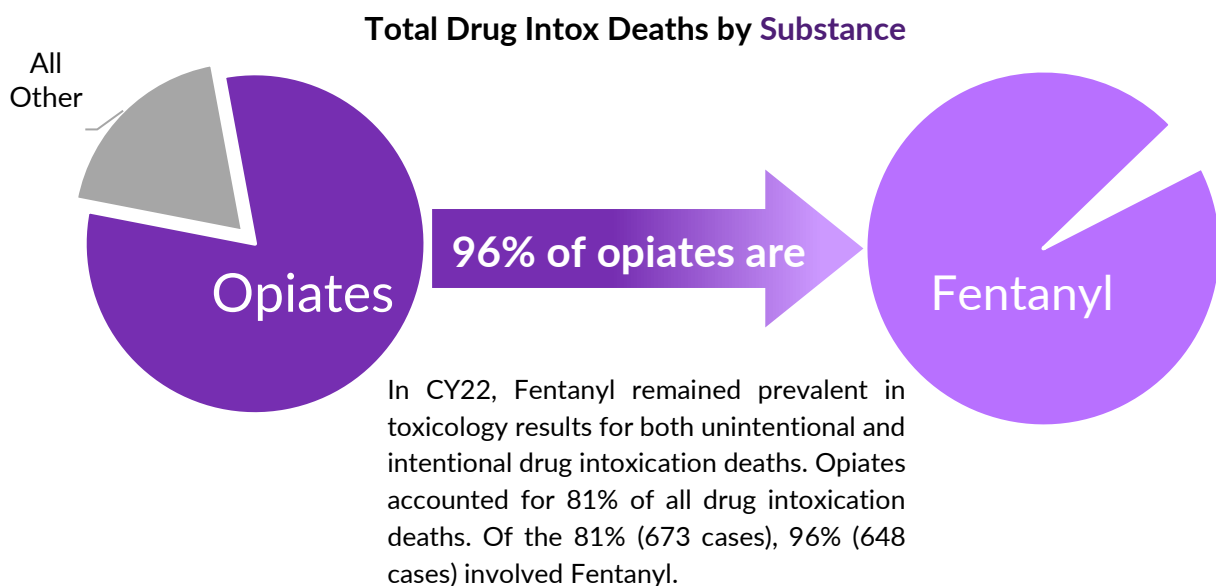


Child Fatality Review

The MCCO regularly participates in the local and state child fatality review team. This is a special work group comprised of physicians, prosecutors, social workers, child abuse investigators, law enforcement and the coroner's office to present case information. The purpose of the case reviews is to better understand how and why children die, take action to prevent other deaths, and to improve the health and safety for the children in Marion County and across the state.

Special Report: Drug Intoxication Deaths

In CY22, the MCCO investigated a total of **852** deaths where drug intoxication played a role, either as a direct cause or contributing factor, **across all manners** of death. This represents a **3% increase** from the prior year. The total number encompasses both intentional and unintentional drug intoxication deaths.

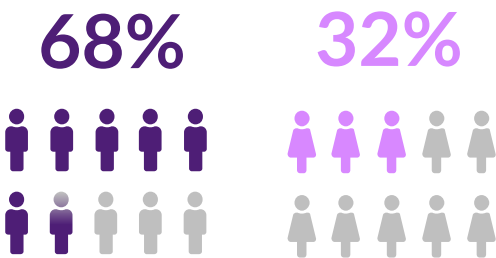


Fatal Drug Intoxication
deaths **per day** for the
2nd straight year in Marion
County

Special Report: Drug Intoxication Deaths

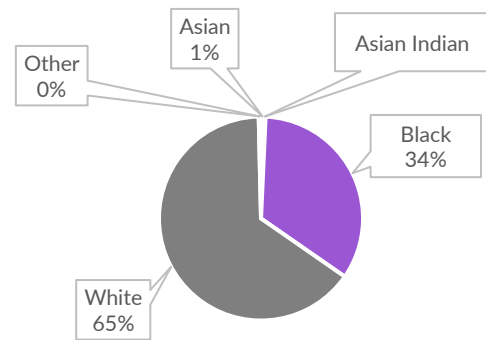
Gender Distribution

Decrease of 1% for Males from prior year but a 1% increase in Females in CY22.



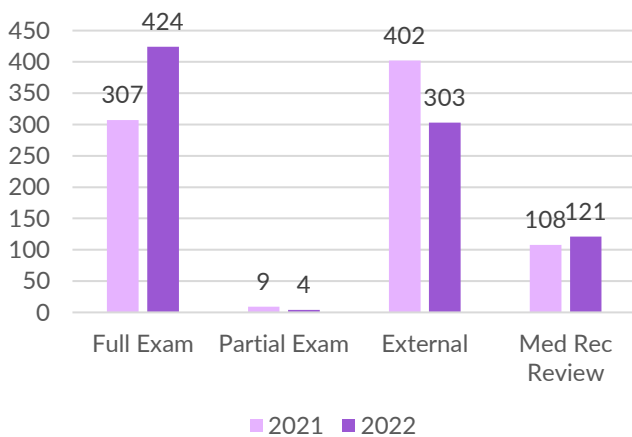
Race Distribution

Increase of 5% among Black decedents, but a decline of 5% among White decedents from the prior year. There has been a significant increase among minority decedents with a steady decline among White decedents year over year.



Total Drug Intox Deaths by Exam Type

Increase of 38% in full exams compared to a 25% decline in external only exams. Medical record review cases increased marginally by 12% from the prior year.



*Medical record review are cases where the body is not available, or a forensic exam is not necessary, to determine the cause and manner of death. This only occurs when an individual dies in a hospital setting and medical records and/or toxicology is available.

Total Drug Intox Deaths by Manner

Manner	Total
Accident	822*
Suicide	20
Undetermined	10
Total	852

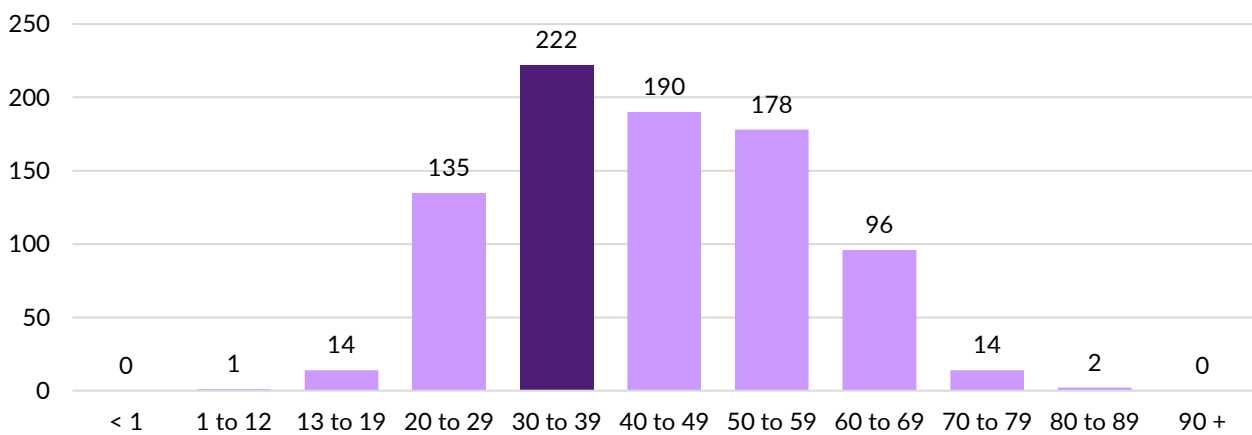
*The above total count includes the 21 additional accidental deaths where drug intoxication was found to contribute to the death but was not the direct, primary cause. In these cases, there was a positive toxicology result and the substance found was determined to have created or exacerbated a natural disease process.

Special Report:

Drug Intoxication Deaths

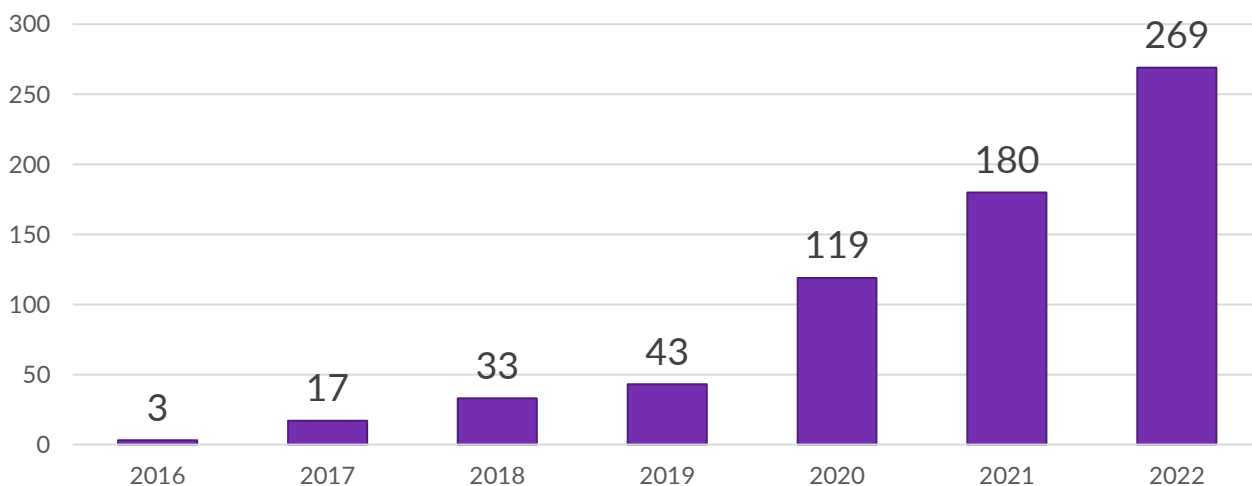
Drug Intoxication Deaths by Age

The distribution among age groups for drug intoxication deaths remained consistent in CY22 from the prior year. The 30 to 39 age group has the highest prevalence accounting for 26% of all drug intoxication victims in CY22. In CY22, the 60 to 69 age group had a 9% increase and the 70 to 79 age group had a 250% increase. This is a similar trend from the prior year of increasing number of drug intoxication deaths among our aging population.



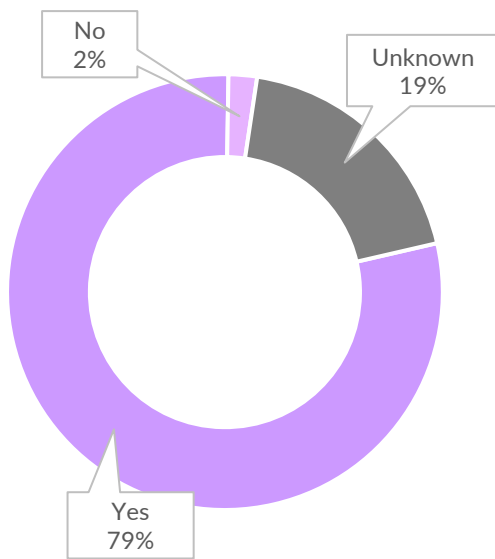
Prevalence of Fentanyl Analogs among all Drug Intoxication Deaths: 2016 to 2022

Fentanyl analogs increased again for the seventh consecutive year in CY22. There was an increase of 49% over the prior year. The full list of detected analogs is contained in the toxicology list at the end of the special report section.



Special Report: Drug Intoxication Deaths

Reported History of Illicit Drug Use



As part of the investigation process, Deputy Coroners gather data from various sources to improve data collection and reporting on drug intoxication deaths. Our goal is to enhance our database to record and calculate essential data for preventing these deaths.

In CY22, for the first time, the MCCO was able to collect and calculate crucial social history data for drug intoxication deaths. Among both unintentional and intentional drug intoxication deaths, 79% had a reported history of substance use disorder.

73%

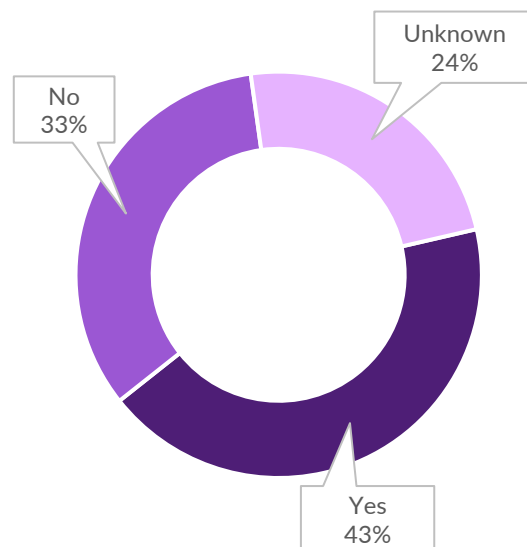
The percent of cases where the initial investigation was determined to be, found evidence of, or reported as a suspected drug intoxication death upon investigator arrival to the scene.

Number of Scenes where illicit substance(s) were Found and Collected

273

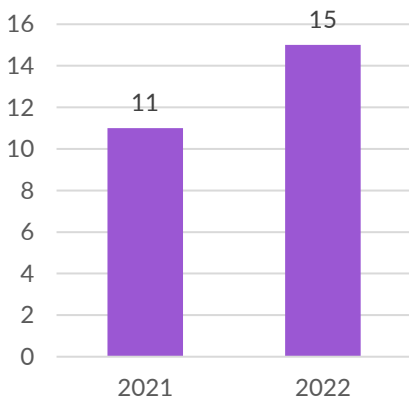
Paraphernalia found on Scene

Paraphernalia is defined as item(s) found on scene that are known to be used to produce, conceal, and/or consume illicit substances.



Special Report:

Drug Intoxication Deaths



36% increase in
Nitazenes found in toxicology
samples from 2021 to 2022.

DANGEROUS TRENDS IN DRUG COMBINATIONS

Benzimidazole-Opioids: Nitazenes

In CY22, the DEA identified a rise in the use or combination of synthetic opioids since 2019, leading to fatal outcomes. These potent substances, whether used alone or in combination with other opioids, increase the risks of a deadly overdose.

Toxicology reports on fatal drug intoxication deaths in CY22 revealed the presence of Metonitazene, Protonitazene, and Isonitazene. Out of the 15 cases detected, 14 involved a combination of these substances with other forms of opiates such as Fentanyl and Fentanyl analogs, while one case involved only these substances. Additionally, one case showed the presence of both Metonitazene and Isonitazene.

Emerging Threat in the United States: Xylazine

Xylazine, an animal tranquilizer, has been detected in toxicology findings alongside opioids, despite not being approved for human use. Unlike opioids, Naloxone cannot reverse the effects of Xylazine. Commonly referred to as “Tranq,” when combined with opioids, this substance increases the risk of a fatal overdose.

In CY22, Xylazine was found in combination with various illicit substances known for causing fatal overdoses, including Fentanyl, Cocaine, Methamphetamine, Fentanyl analogs, and Benzodiazepines.

16

Number of
cases in 2022
were Xylazine
was detected

Toxicology Results

Drug Intoxication Deaths

Substance	QTY
1-difluoroethane	1
4-ANPP	12 *~
7-Aminoclonazepam	7
Acetaminophen	14
Acetylfentanyl	193 *~
Acrylfentanyl	1 *~
Alcohol	129
Alprazolam	34
Amiodarone	1
Amitriptyline	8
Amphetamine/ Methamphetamine	309
Aripiprazole	1
Baclofen	1
Benzodiazepine	10
Benzoylcgonine	2
Beta-adrenergic blockers	1
Brorphine	1 *
Buprenorphine	5 *
Bupropion	4
Butalbital	1
Butyrylfentanyl	1 *~
Carfentanil	3 *
Carisoprodol	1
Chlordiazepoxide	2
Chlorpheniramine	1
Citalopram	6
Clonazepam	13
Cocaethylene	18
Cocaine	227
Codeine	2 *
Cyclobenzaprine	9
Demoxepam	1
Desmethyldoxepin	2
Dextromethorphan	6 *
Diazepam	4
Dicyclomine	1

Substance	QTY
Dihydrocodeine	6 *
Diphenhydramine	28
Diphenoxylate	1
Doxepin	4
Doxylamine	4
Duloxetine	5
Ephedrine	1
Ethylene	2
Etizolam	2
Fentanyl	648 *
Flualprazolam	2
Flubromazolam	6
Flunitazene	1 +
Fluorofentanyl	110 *~
Fluoxetine	7
Gabapentin	66
Glycol	2
Heroin	9 *
Hydrochlorothiazide	1
Hydrocodone	18 *
Hydromorphone	3 *
Hydroxybutyrate	1
Hydroxyzine	16
Isonitazene	1 +
Ketamine	3
Lithium	1
Loperamide	2 *
Lorazepam	3
MDMA	2
Meprobamate	2
Meta- chlorophenylpiperazine	1
Metformin	1
Methadone	19 *
Methocarbamol	2
Metonitazene	15 +
Metoprolol	2
Midazolam	1

Substance	QTY
Mitragynine	3
Mirtazapine	3
Morphine	20 *
Naloxone	1
Naproxen	1
Nordiazepam	3
Norfentanyl	24 *~
Norketamine	3
Nortriptyline	3
Olanzapine	1
Opiate	5 *
Opioid	4 *
Oxycodone	33 *
Oxymorphone	2 *
Paroxetine	1
Phencyclidine	3
Phenobarbital	2
Phenylpropanolamine	3
Pregabalin	7
Promethazine	5
Protonitazene	1 +
Quetiapine	3
Salicylic acid	1
Sertraline	3
Temazepam	1
Tetrahydrozoline	1
THC	1
Tramadol	5 *
Trazadone	8
Tricyclic antidepressants	1
Venlafaxine	1
Xylazine	16 ++
Zopiclone	1

Substance Coding

- *Opiate
- *~Fentanyl Analog
- +Nitazene(s)
- ++Emerging

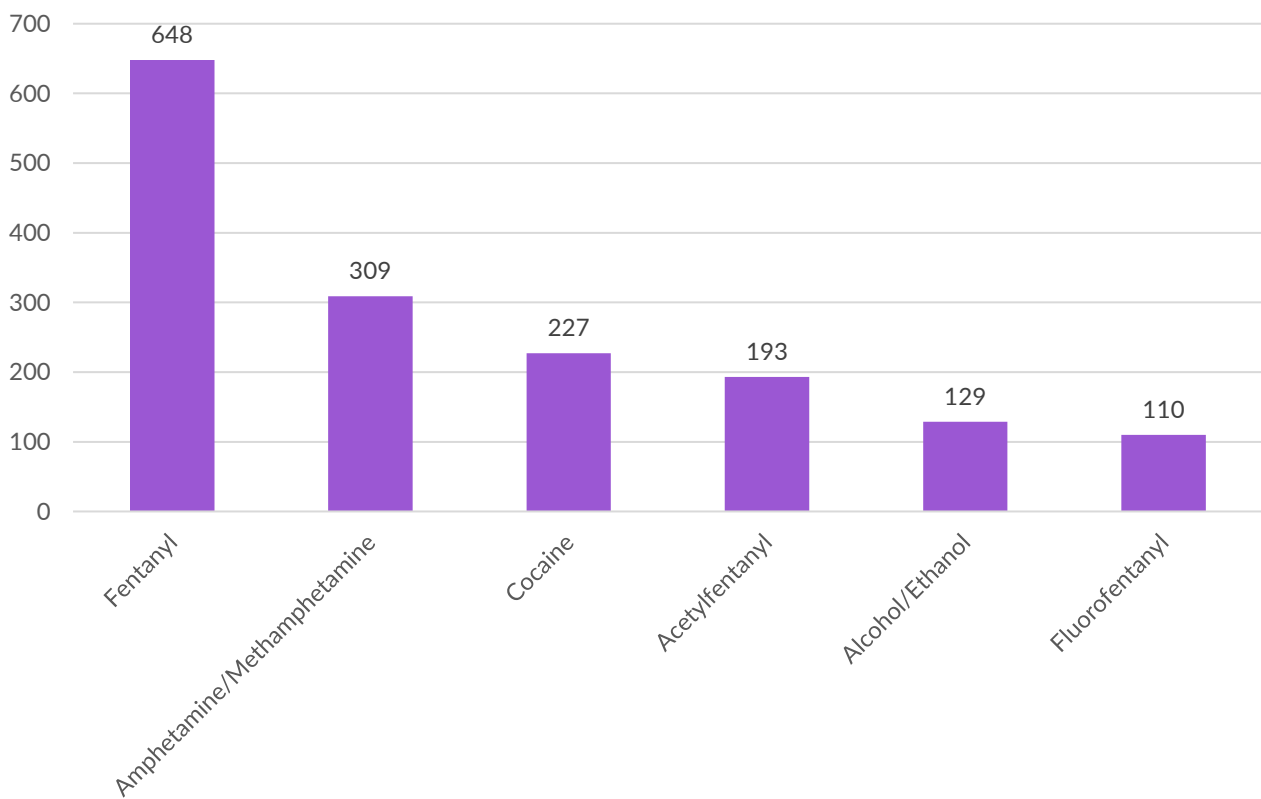
Toxicology Results

Drug Intoxication Deaths

In CY22, a total of 2,200 substances were detected in drug intoxication deaths, showing consistent trends compared to the previous year. The MCCO collaborated with the DEA and local law enforcement to monitor Nitazenes and Xylazine trends throughout CY22. The presence of these substances increased compared to CY21, with Nitazenes experiencing a 55% increase.

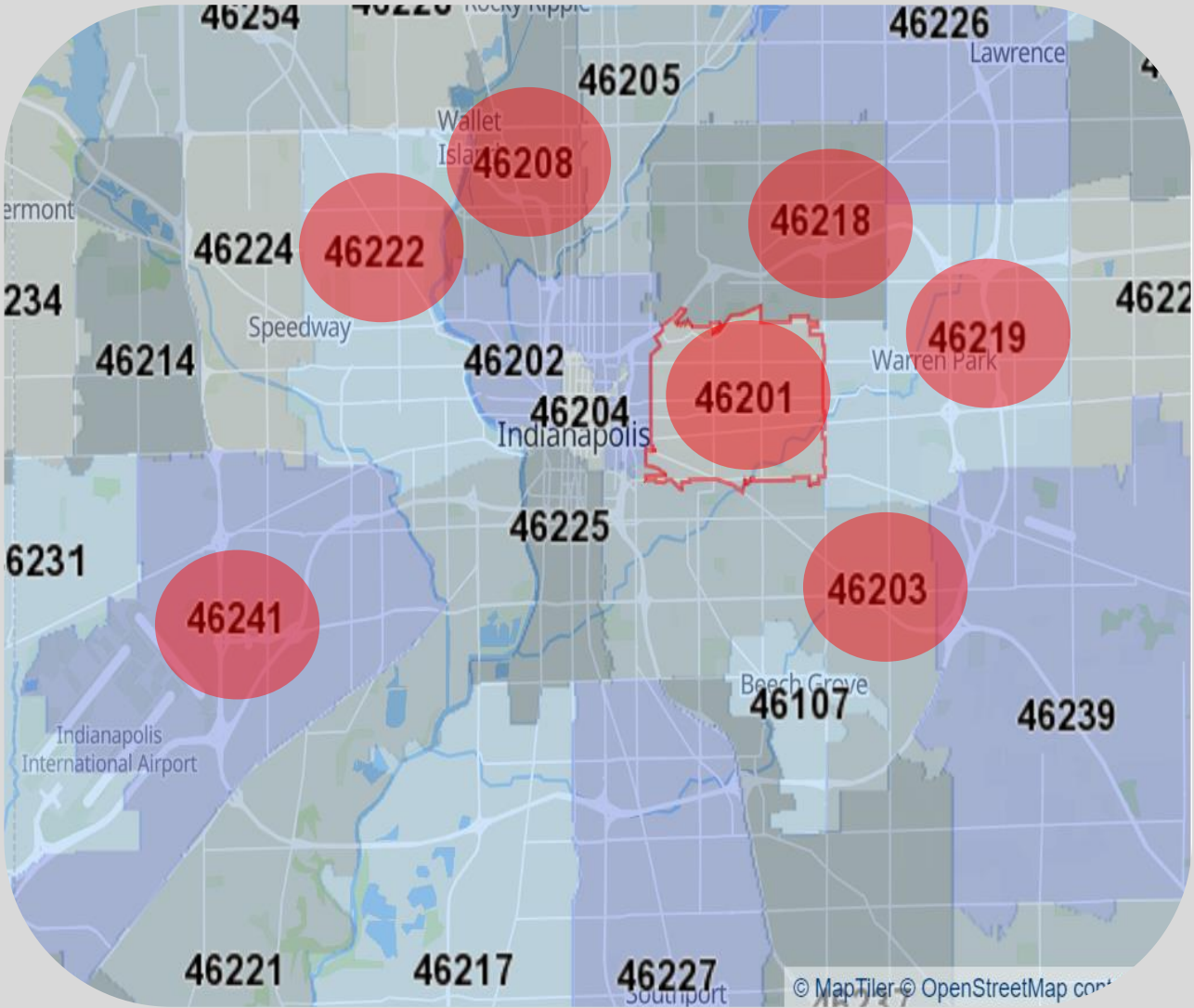
Significant increases were observed in two types of Fentanyl analogs compared to the previous year: Acetylfentanyl rose by 42% and Fluorofentanyl rose by 588%. Cocaine showed a 20% increase, Gabapentine increased by 32%, while Amphetamine/Methamphetamine decreased by 20% from the previous year.

Top Six Toxicology Findings in 2022



The top six substances found
accounted for **74%** of the total
quantity of substances found.

Drug Intoxication Deaths Most Impacted Zip Codes in 2022



Top 7 Impacted Zip Codes	Total
46201	79
46218	58
46219	57
46203	55
46241	54
46222	53
46208	42
Total	398

50%
Of
Overdose
deaths in CY22

Years of Service Recognition

The MCCO would like to thank the following staff members for their dedication, commitment, and hard work for the agency over the years.

40
Years

Marchele Hall - Deputy Administrator (45 Years)

30
Years

Connie Fulp - Administrative Clerk (33 Years)

25
Years

Alfarena McGinty - Chief Deputy (26 years)
Dave Grannan - Deputy Coroner (27 Years)

20
Years

Michele Kratz - Senior Deputy Coroner (23 Years)

15
Years

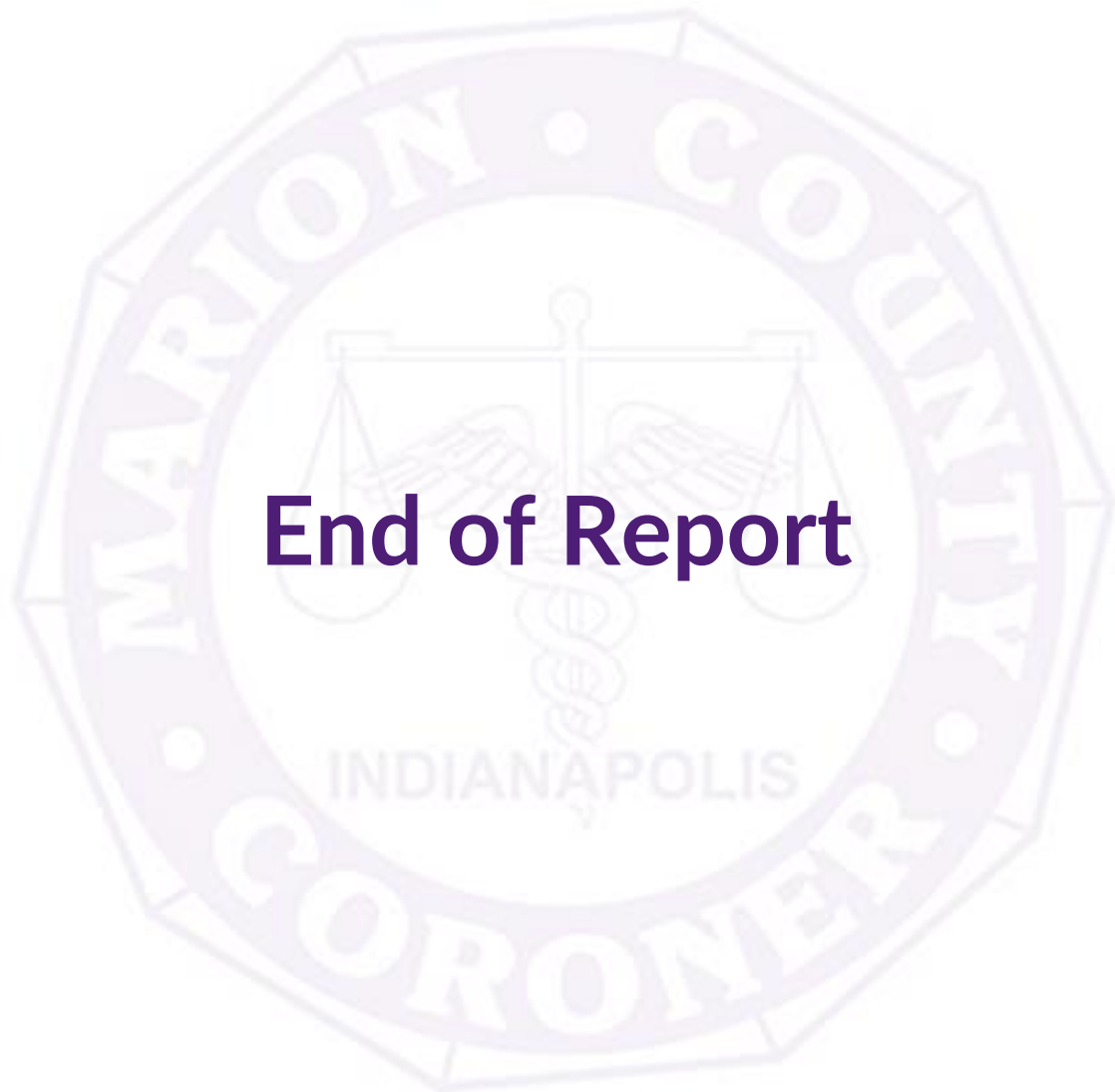
Dominique Battles - Autopsy Supervisor (17 Years)
Wilma Owens-Lacefield - Senior Medical Transcriptionist (17 Years)
Amanda Wells - Deputy Coroner (17 Years)

10
Years

Michael Battee - Autopsy Technician (12 Years)
Mallory Malczewski - Chief Financial Officer (11 Years)

5
Years

Jennifer Suarez - Quality Assurance Analyst (7 years)
Ted Veirs - Deputy Coroner (7 Years)
Rebecca Rico - Deputy Coroner/FTO (5 years)



End of Report