

# Bay County

## Medical Examiner's Office

### Bay City, Michigan



Annual Report

**2022**

Dr. William Morrone MPH, MS

# 2021-2022 Bay County Medical Examiner Annual Report

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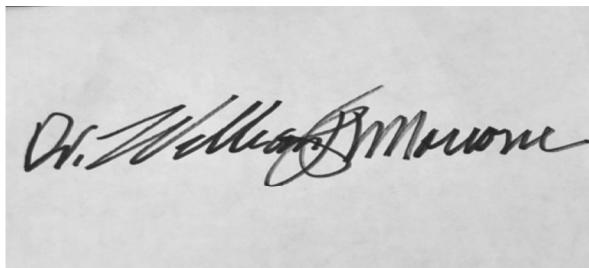
To the Bay County Board of Commissioners and to the citizens of Bay County:

In accordance with Public Act 181 of 1953 commonly referred to as the Medical Examiners Act, the Bay County Medical Examiner's Office is charged with determining the cause and manner of death in any violent, sudden, unexpected, suspicious, or otherwise unexplained death, inclusive of all child deaths, jail deaths and deaths in police custody occurring in Bay County. This doesn't guarantee autopsies.

The 2022 Bay County Medical Examiner's Office is performing at a new level and provides reasonable assurances that the office well serves its jurisdiction. For 4 years we have provided more scene investigations, more forensic support, more autopsy attendance and more medical chart review in the hospital. The 2020 annual report was delayed due to the pandemic and lock down. The 2022 report is combined herewith today for comparison as the quasi-2020-2021-2022 Annual Report.

I hope you find this report informative. It is my pleasure to present to you the combined 2022 Annual Report for the Bay County Medical Examiner's Office.

Respectfully submitted,

A rectangular image containing a handwritten signature in black ink. The signature appears to read "Dr. William R. Morrone".

William R. Morrone, D.O., M.P.H., M.S., FACOP, FASAM, FAOAAM, NBPAS  
Chief Medical Examiner

**“Show me the manner in which a nation or a  
community cares for its dead and I will measure  
with mathematical exactness the tender mercies  
of its people, their respect for the laws of the land  
and their loyalty to high ideals”**

William E. Gladstone  
1809-1898  
British Statesman  
Liberal Politician

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# 2021-2022 Bay County Medical Examiner Annual Report

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## INTRODUCTION

This report includes statistical data from the Bay County Medical Examiner's Office (BCMEO) for the years 2016 to 2022. The total number of cases reported in 2021 (1,672) decreased in 2022 (1,524) 9% while the number of autopsies and inspections (96) decreased 5% compared to 2021. The BCMEO experienced an increase in the number of homicides (3). The number of drug overdose cases decreased 31.54%, while the number of suicide cases increased 30%. The number of unclaimed decedents increased in 2021 and 2022. Unclaimed bodies continue to increase.

Every reported case requires preliminary screening by BCMEO. We determine if the case falls under BCMEO jurisdiction. Cases that are released occur when the circumstances of the death are known, there is documented medical history, or the primary care physician is willing and able to sign the death certificate. In 2022, this represented many of our cases. Cases that are accepted use one of two approaches to complete the death certificate. The **first** approach is a medical examiner certification case. The decedent is not transported to the BCMEO and the medical examiner reviews medical records and other pertinent reports to complete the death certificate. In 2022 there were 1,502 EDRS medical examiner certifications. The **second** approach is when the medical examiner orders the decedent into the BCMEO morgue schedule for a physical examination. The physical examination can include a full autopsy, a partial autopsy (cranial only), or an inspection (external examination only). In 2022, this represented zero cases. In addition to the 96 medical examiner cases, the BCMEO completed zero private autopsies.

Cremations in Bay County require the approval of the BCMEO. Cremation permits continue to rise in America and Michigan. Unexpectedly this year (2022) these decreased in Bay County 10%

The BCMEO engages several multi-jurisdictional meetings to discuss specific types of cases where deaths may have been preventable. A prime example is the Bay-Arenac Behavioral Health (BABH) death review meeting for BABH patients (persistent and severe mentally ill). Also, any death involving a child under the age of 18 may be reviewed by the forensic pathologists, Obstetricians, law enforcement, protective services, area pediatricians, State Department of Public Health, a Consumer Product Safety Commission representative, and any other appropriate specialty depending on the circumstances unique to that case. The Child Death Review Team restarted review of cases in 2022-2023. BCMEO is a 24 hour - 7 day a week agency.

The Medical Examiner's Office continues to partner with educational as well as government organizations for instruction and training. Presentations on cause and manner of death are conducted for: EMT, medical and nursing students, basic police academies, advanced police crime scene training, detective schools, the Michigan State Police academy and high school students. BCMEO teaches ACCME residents how to complete death certificates.

# Medical Examiner Annual Report 2020-2022\*

## Dr. William Morrone

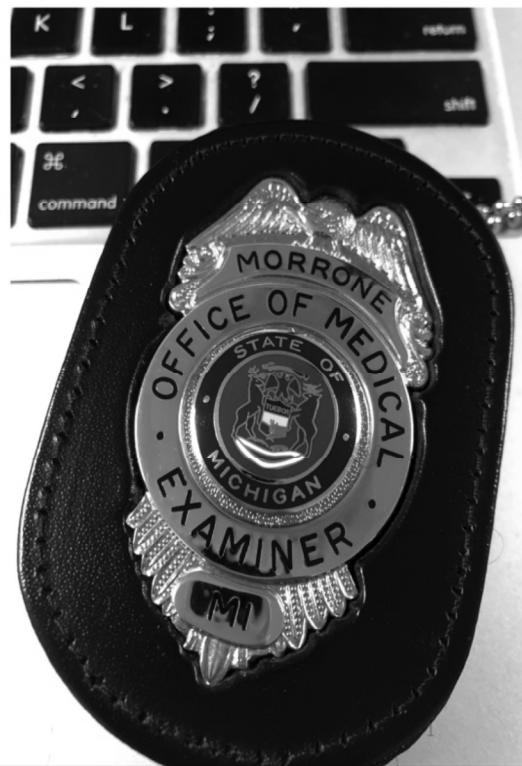
Chief Medical Examiner

Arenac, **Bay**, Iosco & Tuscola

National Association of Medical Examiners  
(NAME)  
member

\*data is provisional & subject to change

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## DISCLAIMER

Every attempt has been made to locate and verify information contained in this report. All information is subject to change. We are not responsible for errors or numbers and data may change. Provisional population statistics from the federal government is always updated and it is not unusual for government agencies to revise or change numbers next year in trending without any notice of update this year.

The CDC, MDHHS, The Detroit Free Press, CNN, our universities, local news services and USA TODAY should all be reporting the same numbers but they are not. Likewise our numbers may be different. This 2022 Annual Report from BCMEO is an accurate reflection of vibrant, evolving life and death in Bay County. We want to thank the Bay County Sheriff Department & Bay City Public Safety for the special role they play as partner and customer in BCMEO services. We could not do our job without them.

# 2021-2022 Bay County Medical Examiner Annual Report

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<b>Chief Medical Examiner</b>	William R. Morrone, D.O., MPH, MS
<b>Forensic Pathologist</b>	Patrick Cho, M.D.

<b>Office of Medical Examiner Executive Administrator</b>	Karen Mika
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<b>Chief Medical Examiner Investigator</b> <b>Consulting Investigator</b>  MESI MESI MESI	William R. Morrone, DO, MPH, MS  Kimber Debelak  Joe Duncan Nate Dicks Cristina Pazak
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<b>Sr. Autopsy Attendant Supervisor</b>	Randy Mudd
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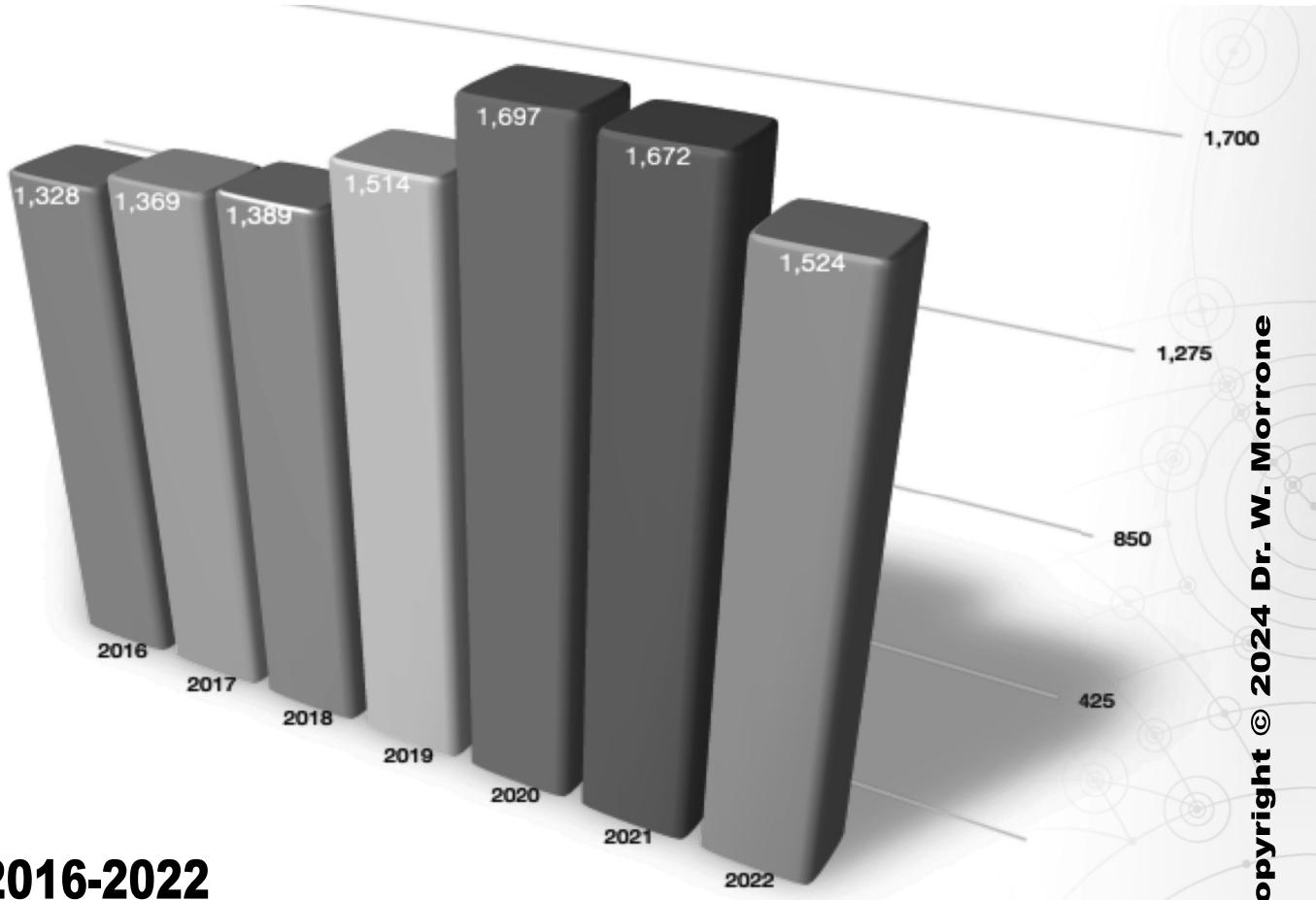
<b>Pharmaceutical Toxicology</b>	William R. Morrone, DO, MPH, MS
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**No information about COVID-19 infections, pneumonia or COVID-19 testing in the deceased will be discussed in this report. The National Association of Medical Examiners and the Center for Disease Control (CDC) do not support autopsy in the diagnosis of COVID-19.**

## GENERAL STATISTICS

<b>GENERAL STATISTICS – 2022</b>	
Total number of cases reported (in the county and in the hospital)	1,524
Cases Accepted for autopsy	96
Death Scenes Investigated and Autopsy Scheduled	96
BAY COUNTY CASE REFERRALS	
ME Certifications Signed (Death Certificate Only no autopsy)	1,428
Examinations	
Full Autopsy	96
Partial Autopsy	0
External Only	0
MISC INFORMATION	
Unidentified Bodies (after case completion)	0
Exhumations	0
Bodies Transported to Morgue	n/a
Toxicology Cases	96
Cremation Permits Approved	1015
Microscopic Slides Created	96

## 7 YEARS: TREND in DEATH CERTIFICATES



**2016-2022**

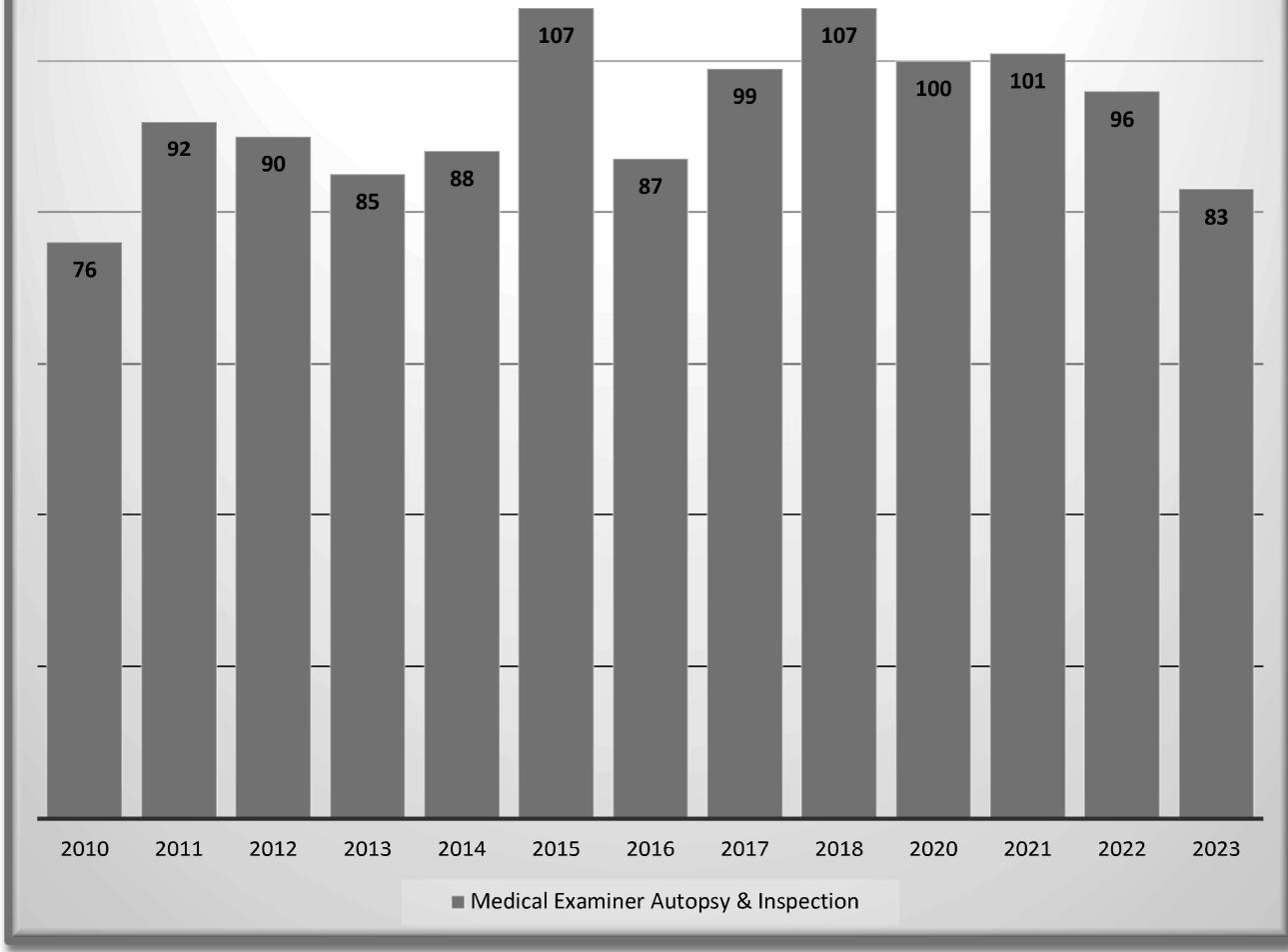
**Bay County Death Certificates by Year**



People Come to McLaren Bay Region hospital and die in Bay County from many different other counties. McLaren Bay region ICU and Emergency Room serve Isabella, Arenac losco, Ogemaw, Huron and Tuscola counties. Therefore, Bay County death certificates cannot always be directly linked to the death of Bay County resident when there is an increase. With an aging population and a higher than average chronic medical disease index there are certain assumptions that we make. Overtime death certificates commonly increased as we navigate the tail end of the baby boomers. 2022 Death Certificates Bay County decreased to 1,524.

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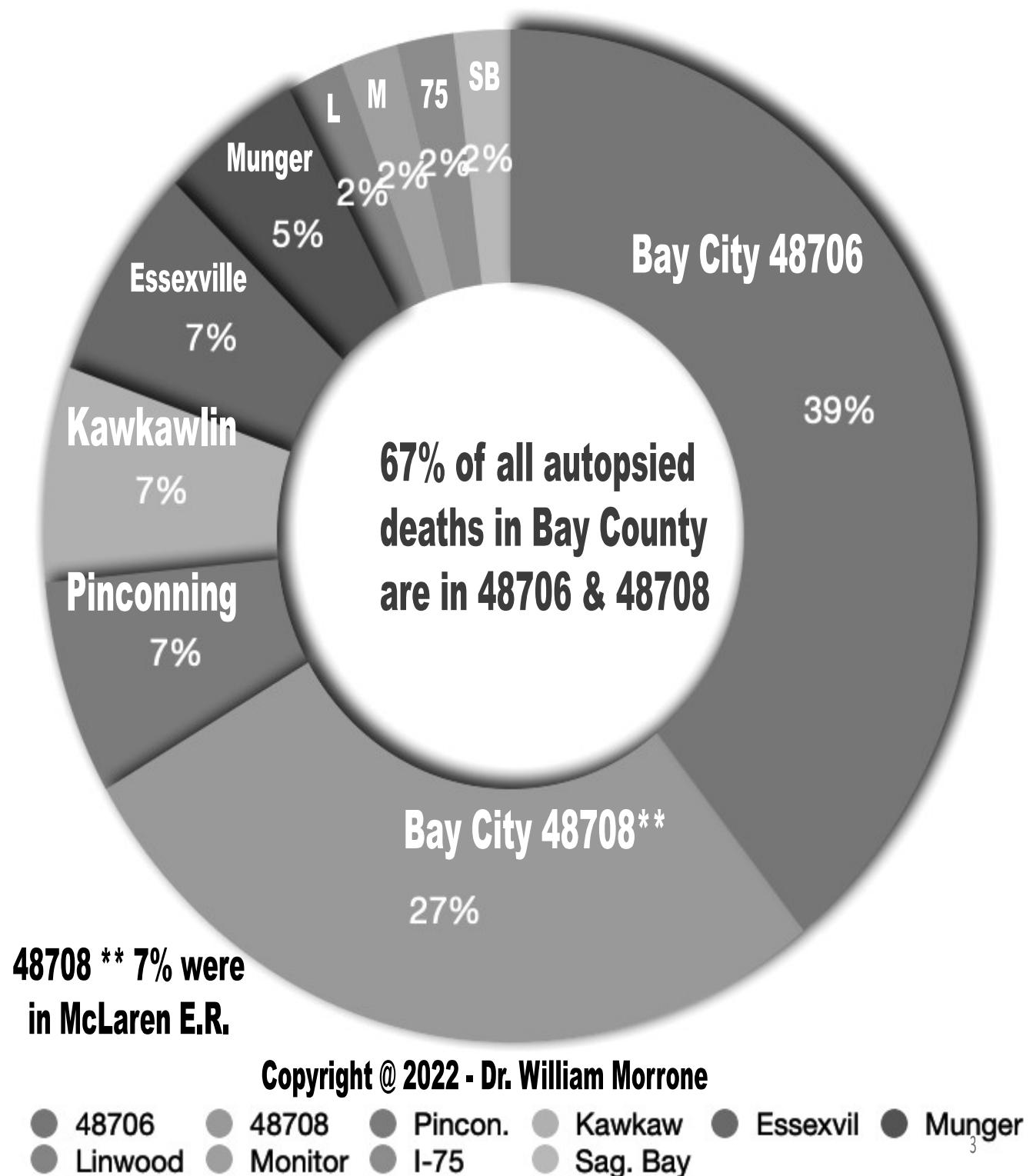
## Medical Examiner Cases 2010 - 2023\*

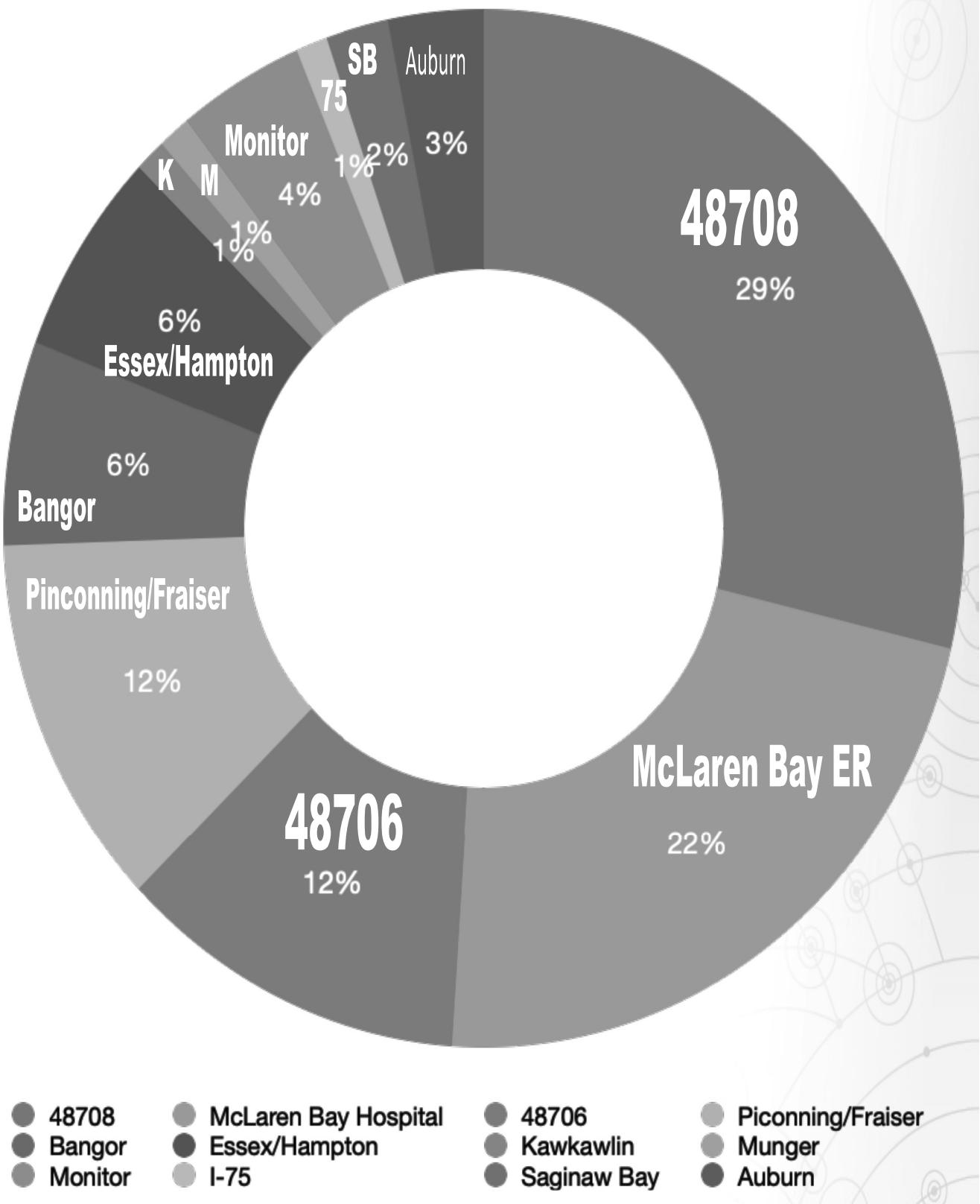


Medical Examiner cases and the BCMEO in general 2021-2023 are more likely to involve:

- face to face BCMEO scene investigation,
- 2023\* increased and improved record review at the hospital,
- face to face BCMEO autopsy attendance and
- real-time discussion with law-enforcement and first responders.

## LOCATION OF DEATH MEDICAL EXAMINER CASES 2021

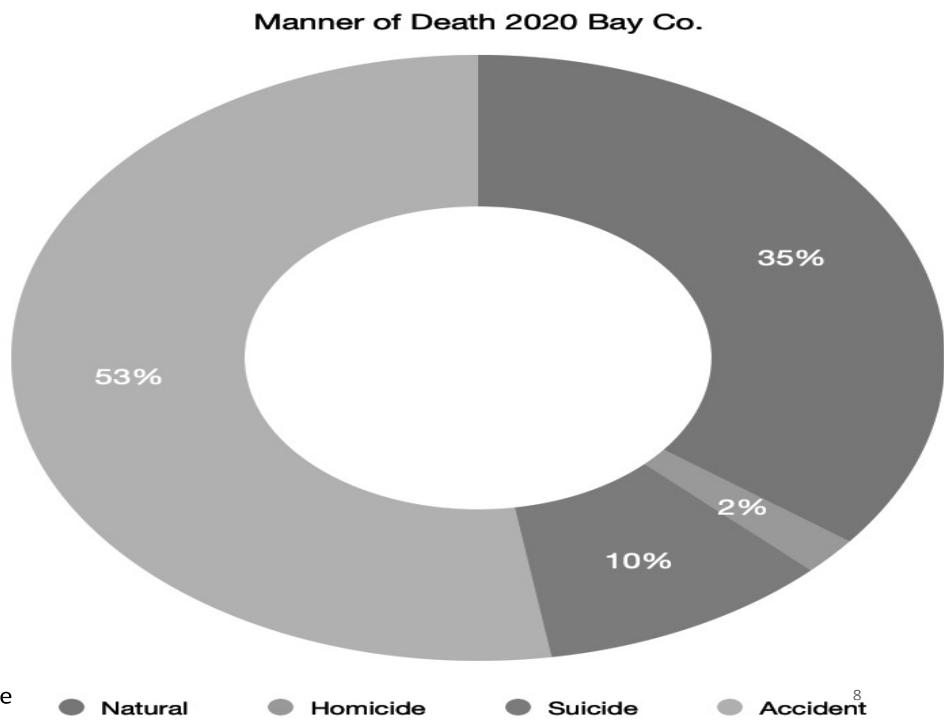




## Location of Death Medical Examiner Cases 2022

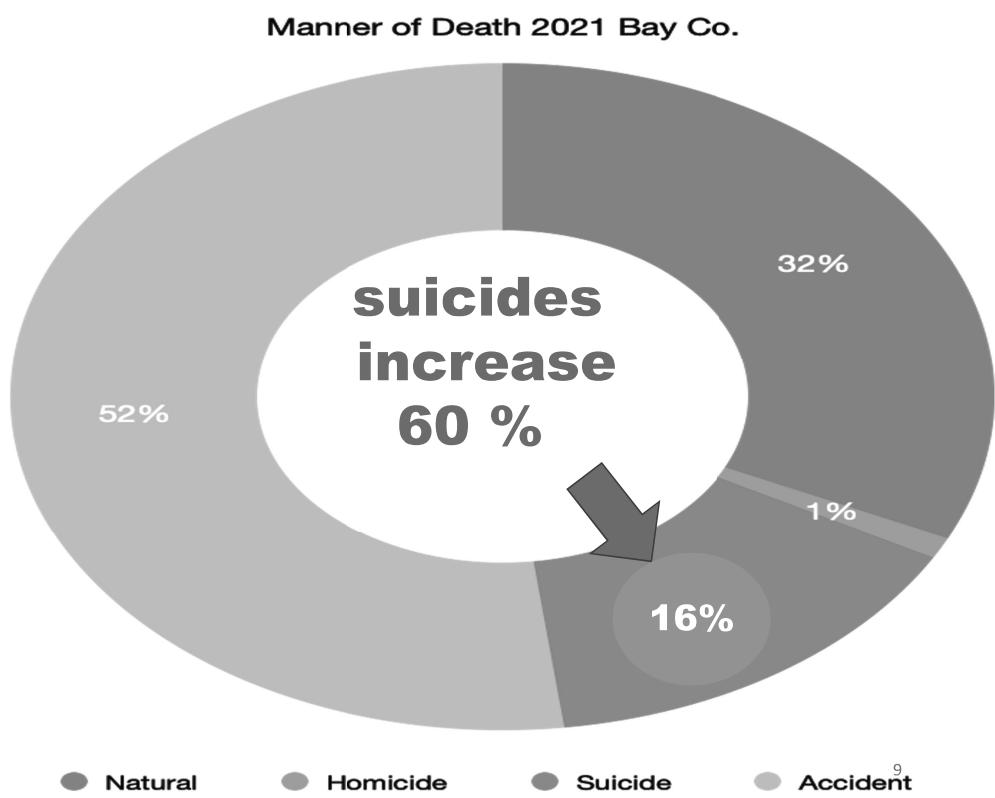
## MANNER OF DEATH MEDICAL EXAMINER CASES 2020-2

2020 Bay Co  
**Autopsy  
Manner  
of  
Death**  
**natural  
homicide  
suicide  
accident**



2021 Bay Co.  
**Autopsy  
Manner  
of  
Death**  
**natural  
homicide  
suicide  
accident**

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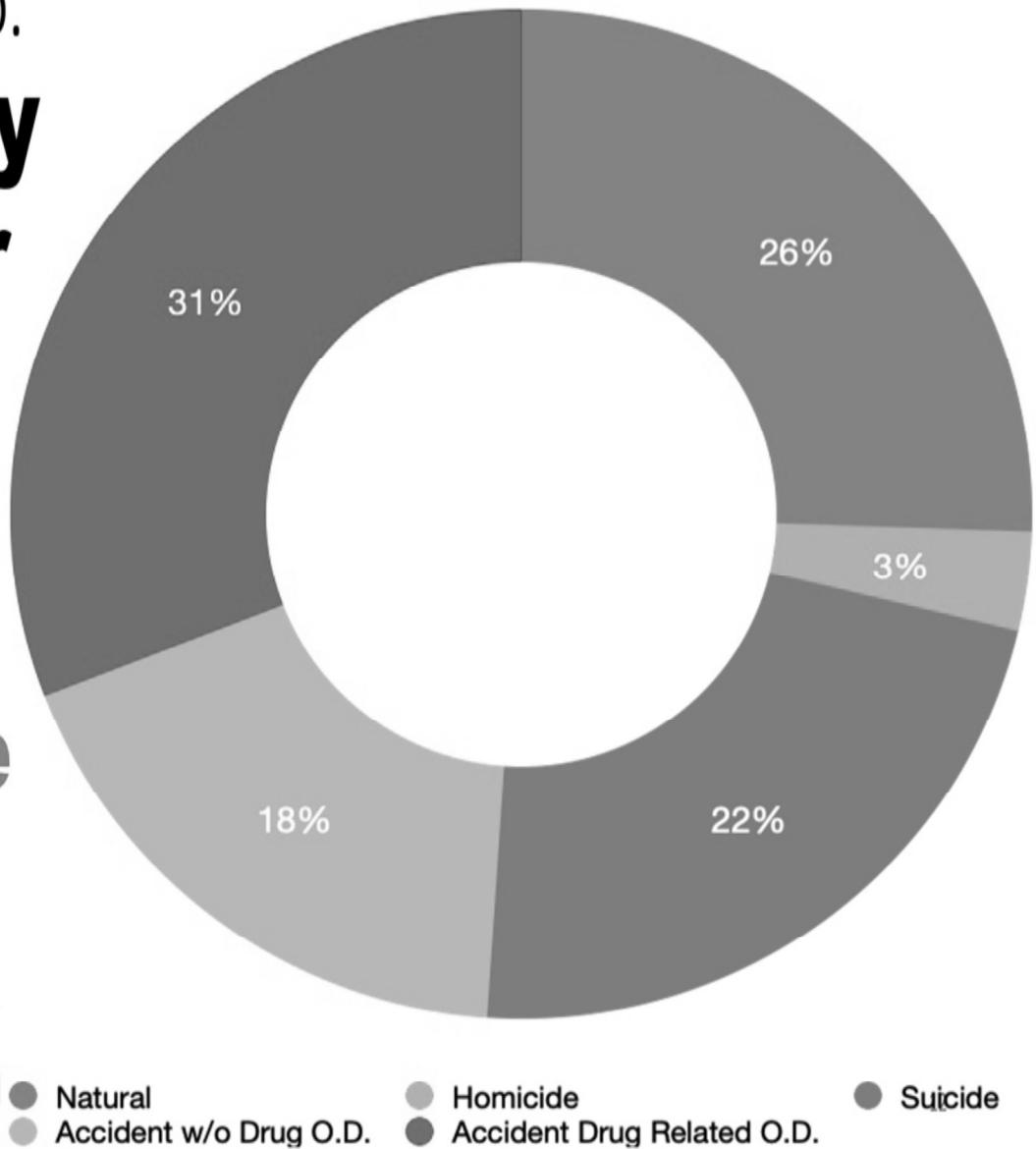
2022 Bay Co.

# Autopsy Manner of Death

natural  
homicide  
suicide  
accident  
O.D. death

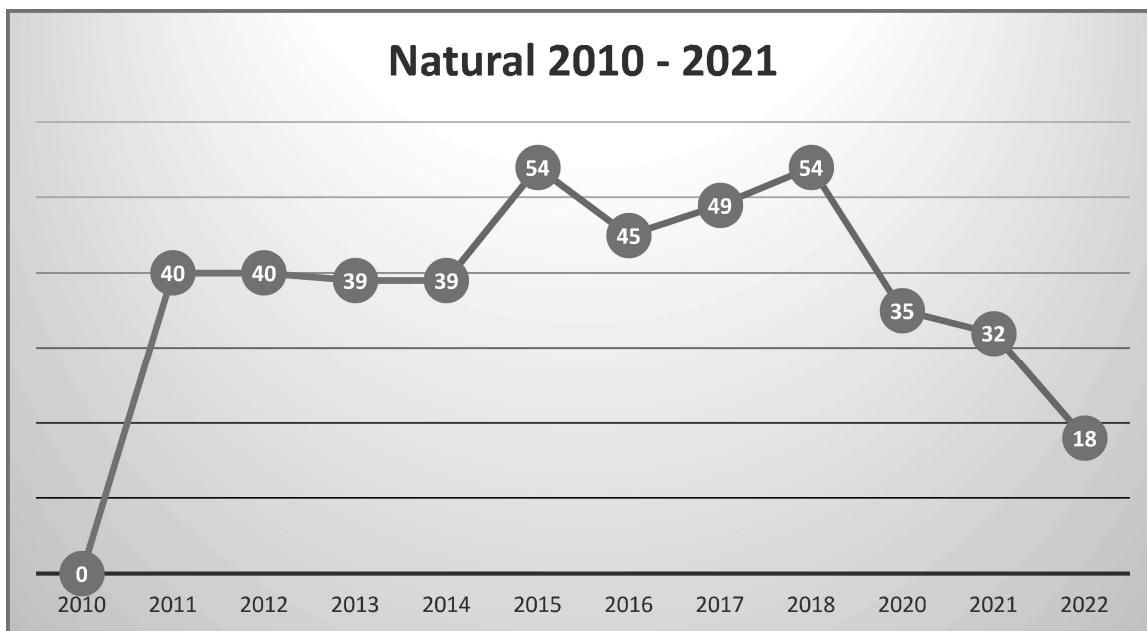
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Manner of Death 2022 Bay Co.



Natural deaths were 26%. Homicides were 3%. Suicides were 22%. Nondrug Related Accident deaths 18% (YELLOW) and all Drug overdose related deaths 31% are global accident deaths (as defined by the CDC). While drug overdose deaths **decreased** by 30-31 % they are still the largest part of accidental deaths, 41%. This year we unblinded the (RED) segment of accident that was related to drugs, 31%.

## NATURAL



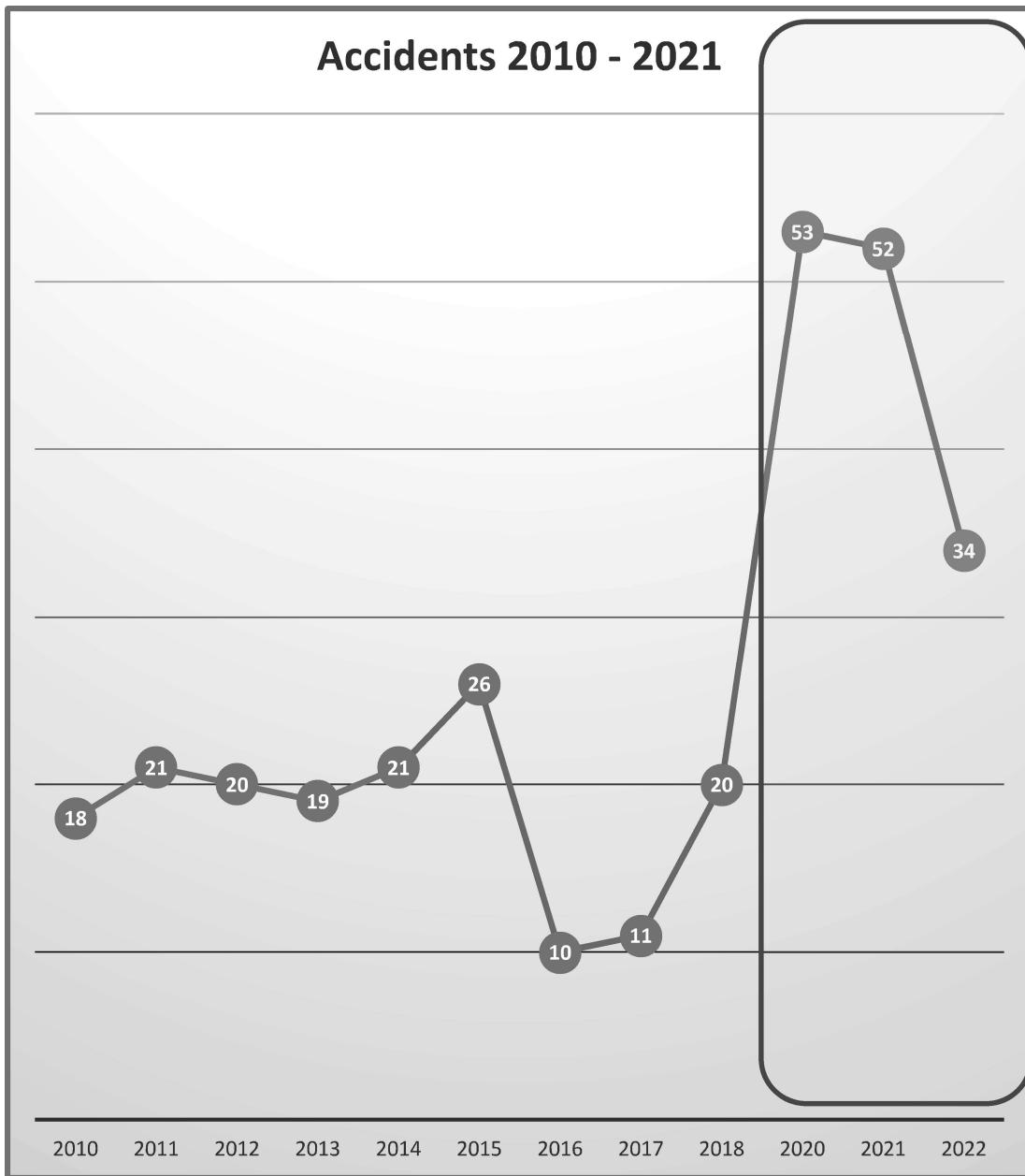
More Natural Deaths were chart research not autopsy.

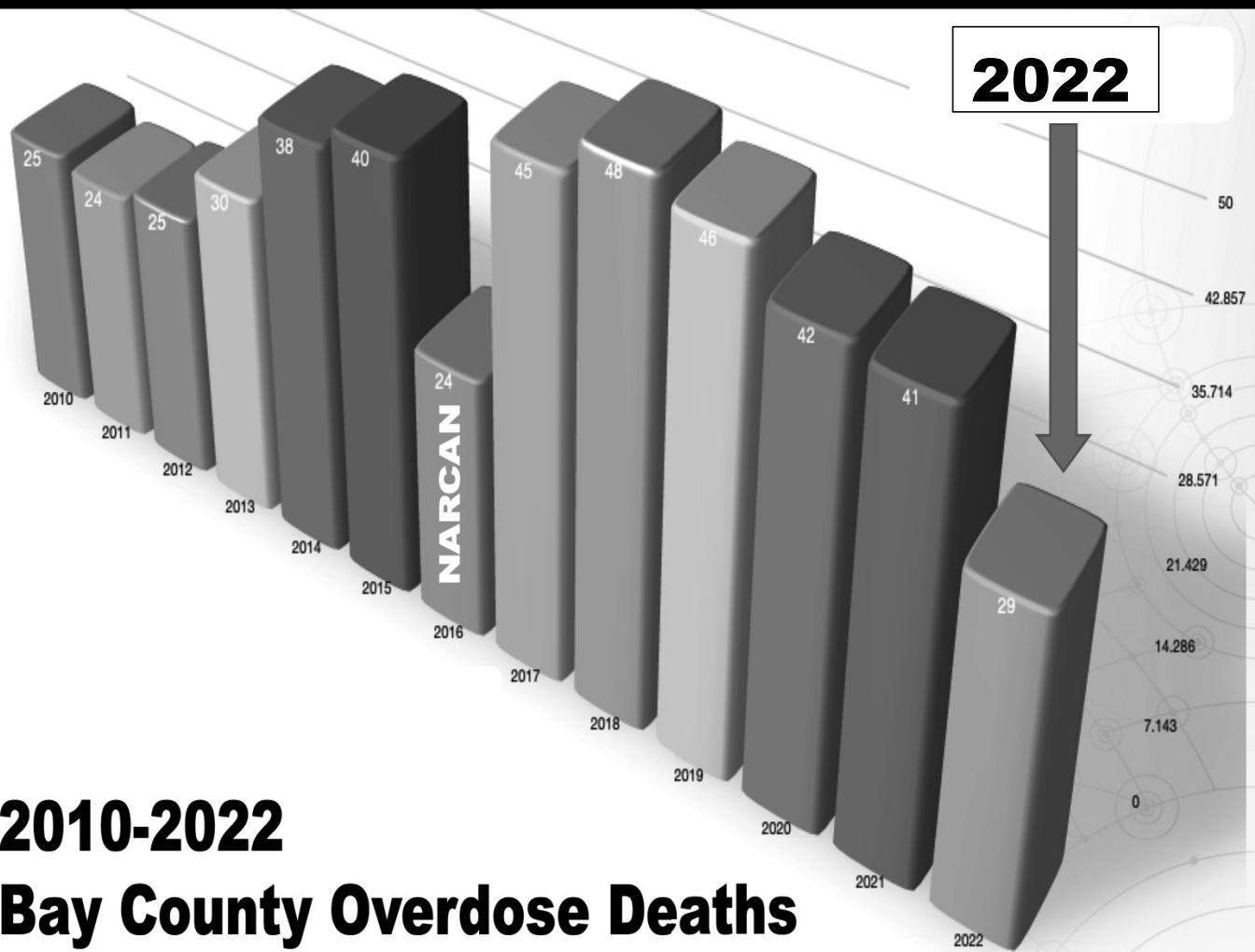
### 2020-2021 Natural Deaths & Chronic Disease outcomes Bay County autopsies

2020	Atherosclerotic heart disease	Essential HTN heart disease	COPD	Alcoholic liver disease	Pneumonia Pulmonary	Valvular	Hashimoto's	CHF
	<b>34 %</b>	<b>30 %</b>	<b>7.4 %</b>	<b>12 %</b>	<b>7.4 %</b>	<b>3 %</b>	<b>3 %</b>	<b>3 %</b>
2021	Atherosclerotic heart disease	Essential HTN heart disease	COPD Pulmo pneumo	Alcoholic liver disease	Cerebral Abscess	Diabetes	Perfor ulcer	pancreas
	8	8	3	2	1	1	1	1
	<b>33 %</b>	<b>33 %</b>	<b>13 %</b>	<b>7 %</b>	<b>4 %</b>	<b>4 %</b>	<b>4 %</b>	<b>4 %</b>

## Accident:

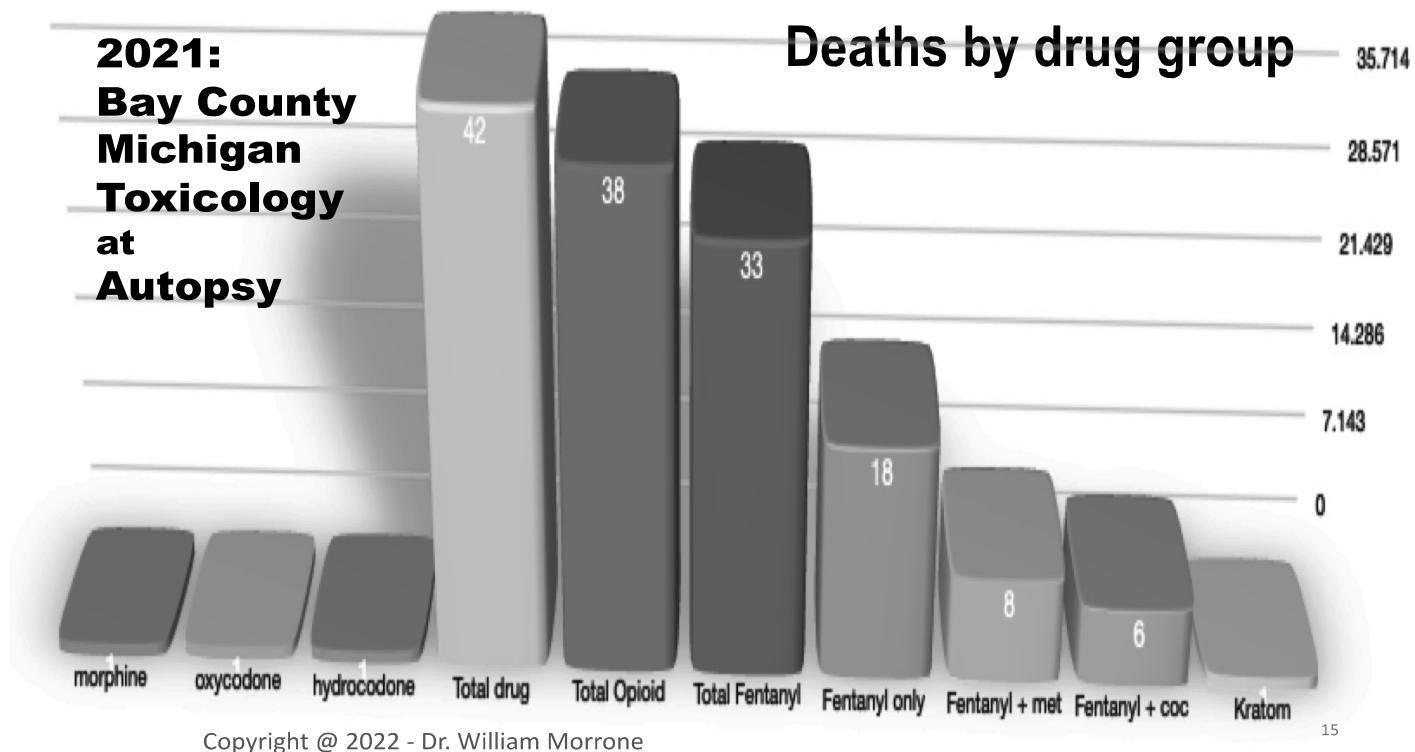
The yellow box represents the new “classification” of drug overdose or intoxication death as an “accidental death” under CDC guidelines. Previously this was called “indeterminate” death. Less overdose deaths = less accidents.





2022 Illustrates a 31 % decrease in overdose drug deaths. This may be due to increased treatment in Bay County. McLaren Bay Hospital, BCHD & Bay Arenac Behavioral Health do not offer evidence-based Addiction Treatment.

2016 was a notable year because during 2015, the previous year, an executive order introduced Narcan for prescription use into people's homes. This Public Health initiative was to combat the increase in opioid overdose deaths. Police departments and Sheriffs began putting nasal Narcan in road patrol. 2017 was worthy of attention because it was the introduction of illicit fentanyl into the drug pipeline in our state. Eventually fentanyl replaced heroin. 2022 was significant because of a 31 % decrease in overdose drug deaths in Bay County during the time of fentanyl.



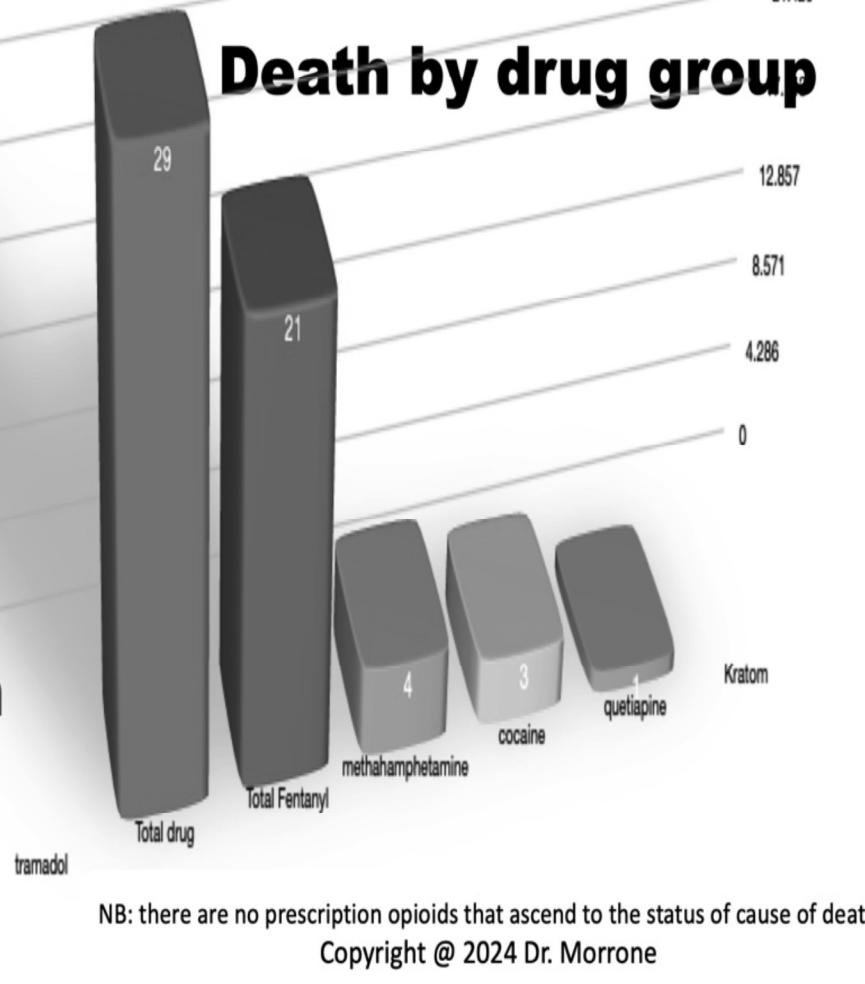
**Bay County 2022: Cause of Death Overdose Autopsies by Age (y) & Gender (M/F)**

2022	11-20 y	21-30 y	31-40 y	41-50 y	51-60 y	61-70 y
	1 11	19	21	28	32	37
<b>M</b>	<b>1</b>	<b>2</b>	<b>6</b>	<b>9</b>	<b>2</b>	<b>0</b>
<b>F</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>1</b>
<b>T</b>	<b>2</b> <b>6.9%</b>	<b>3</b> <b>10.3%</b>	<b>9</b> <b>31%</b>	<b>10</b> <b>34.5%</b>	<b>4</b> <b>13.8%</b>	<b>1</b> <b>3.4%</b>

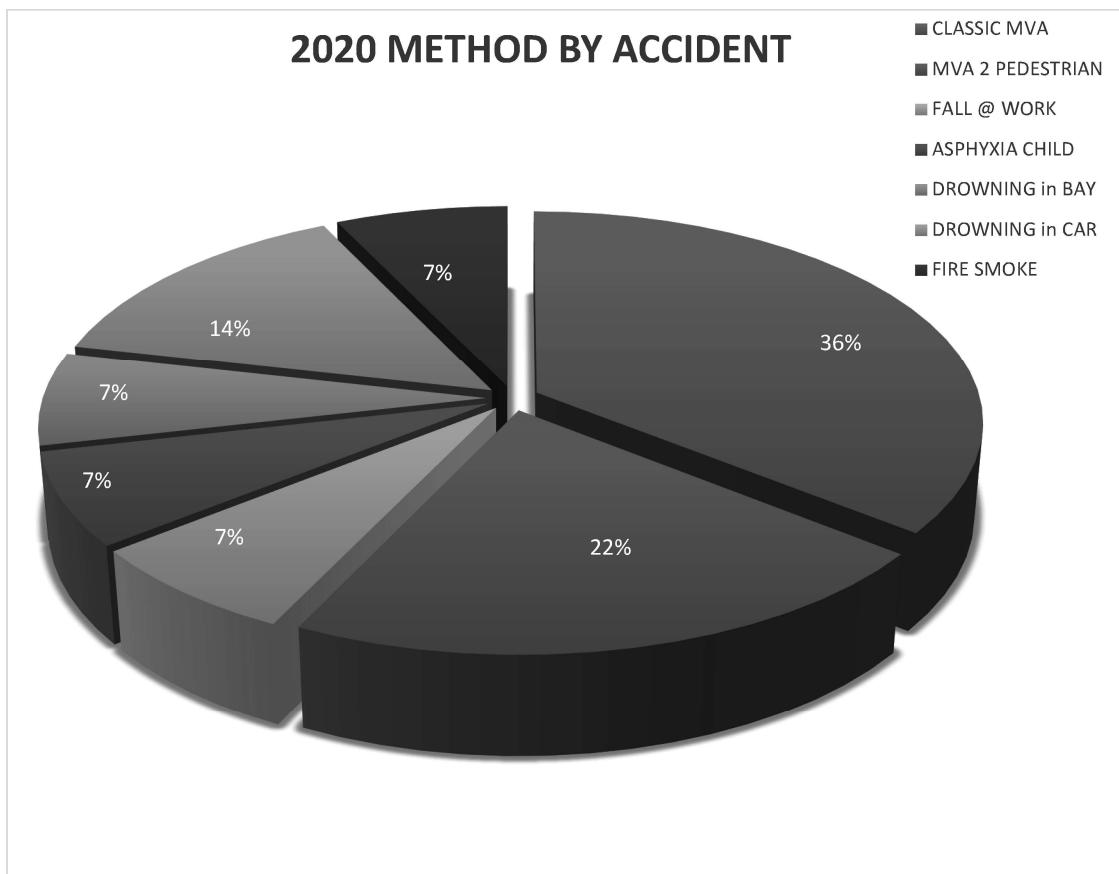


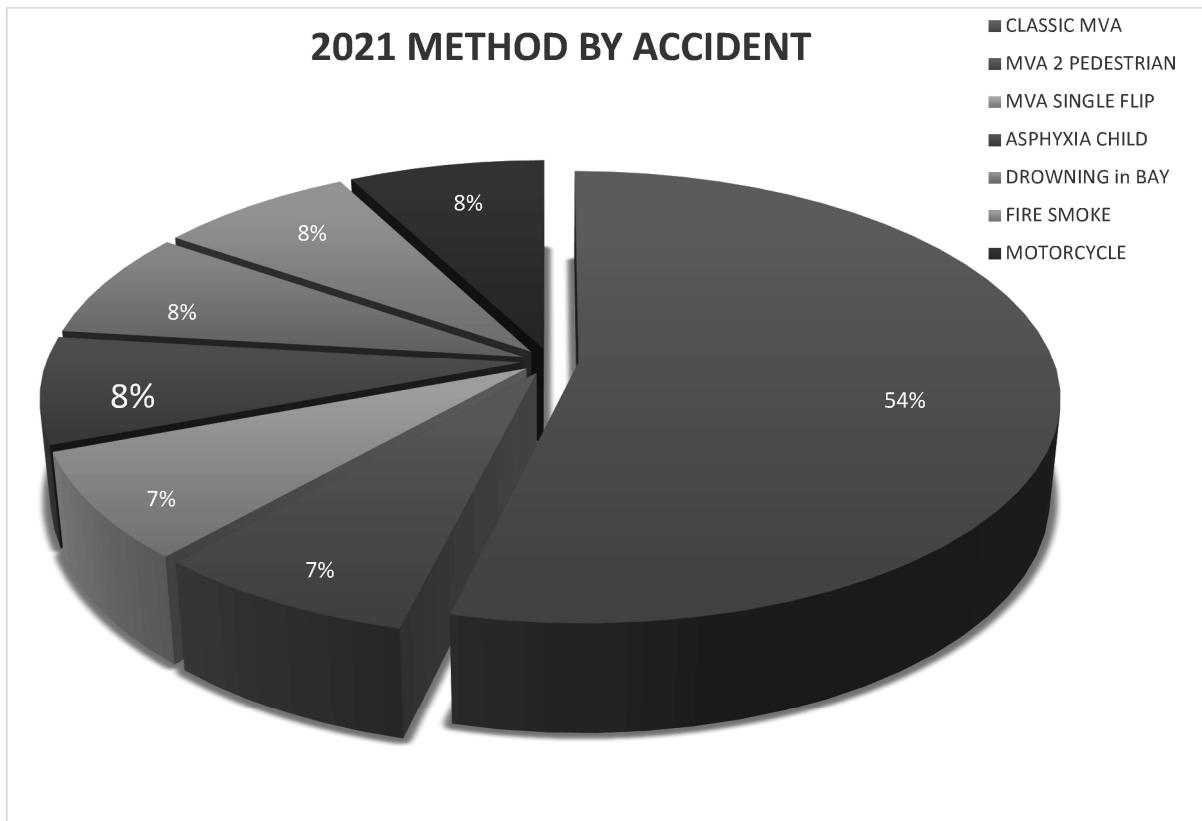
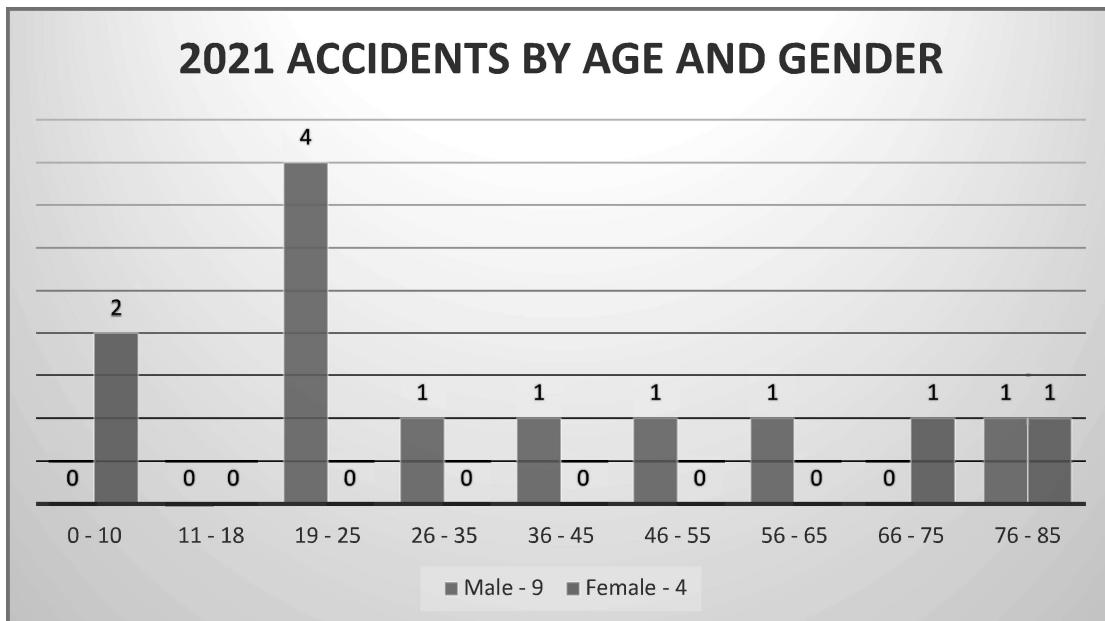
65% of all drug death were 31-50 years old and 69% Drug overdose deaths were male. 17% were younger than 31 years old. Fifteen years ago it was punishing to find overdose deaths in the teens and 20's. We are in a Fentanyl epidemic. Rx opioid deaths are absent from germane toxicology. Opioid deaths are cumbersome due to naïve hospice and intensivist documentation.

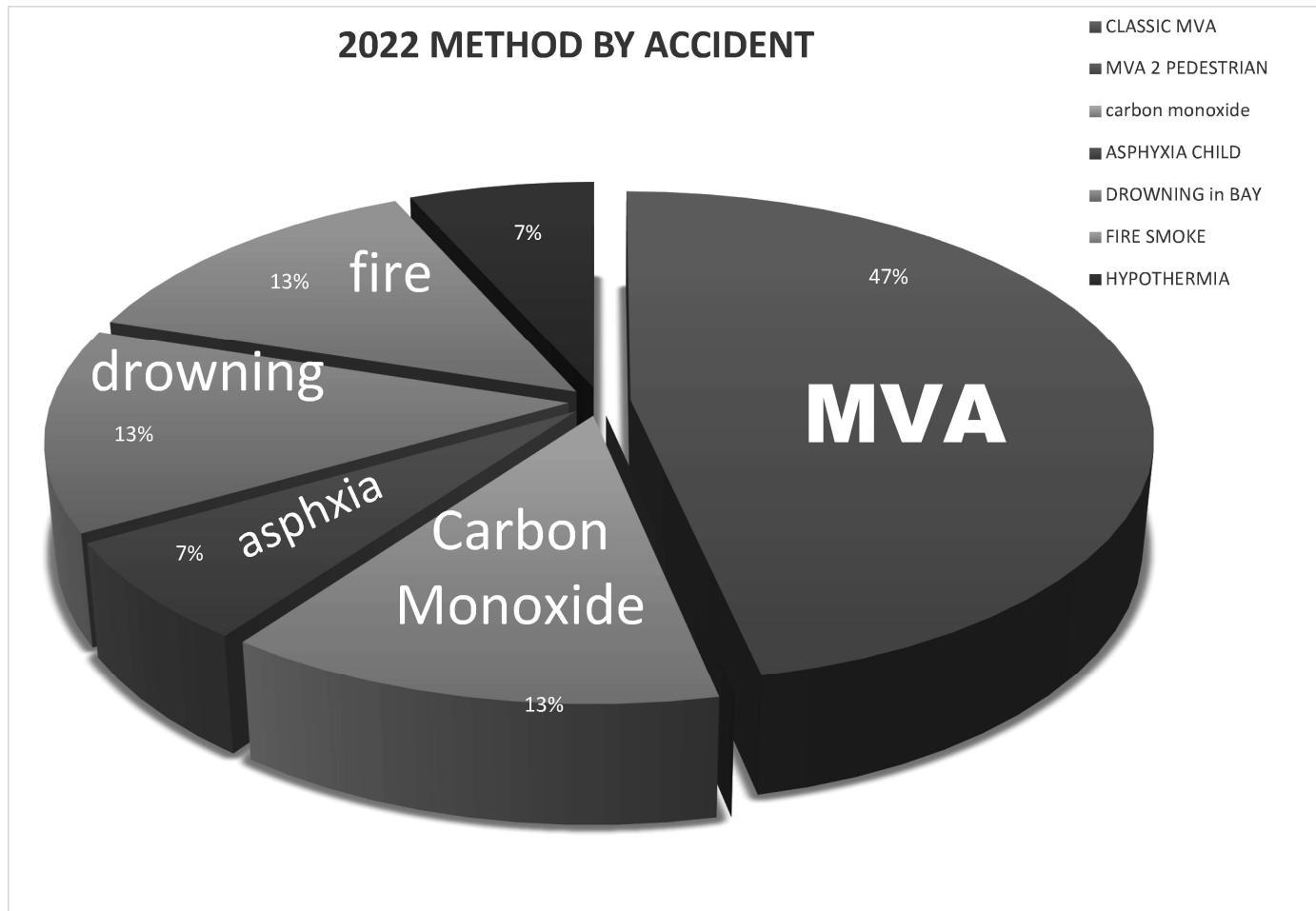
**2022:  
Bay County  
Michigan  
Toxicology  
at  
Autopsy  
Cause of Death**



In 2022 Fentanyl, as cause of death, accounts for 72% of all drug overdose deaths for Bay County in 2022. Previously fentanyl accounted for slightly less than half of overdose deaths in the composition of drugs causing death. There are less total overdose deaths but a greater percentage of them are fentanyl related deaths. There were 2 fentanyl deaths that included xylazine. There are no prescription opioids involved in 2022 deaths. There was no record of active substance use disorder treatment in the 2022 fentanyl deaths in Bay County. Alcohol related liver cirrhosis is found in natural disease data not drug related overdose data.

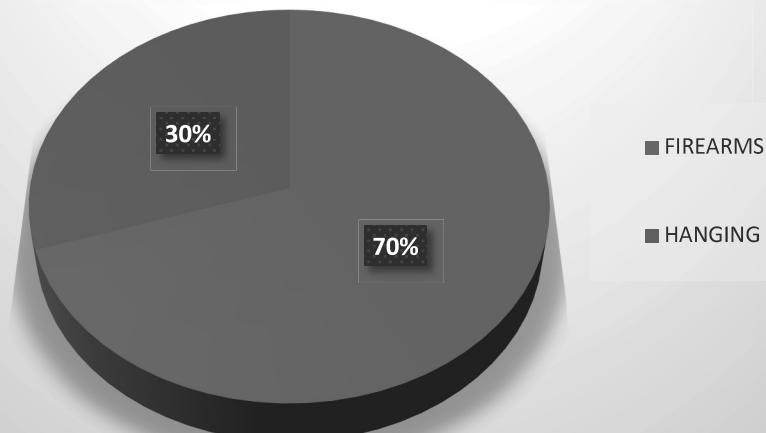




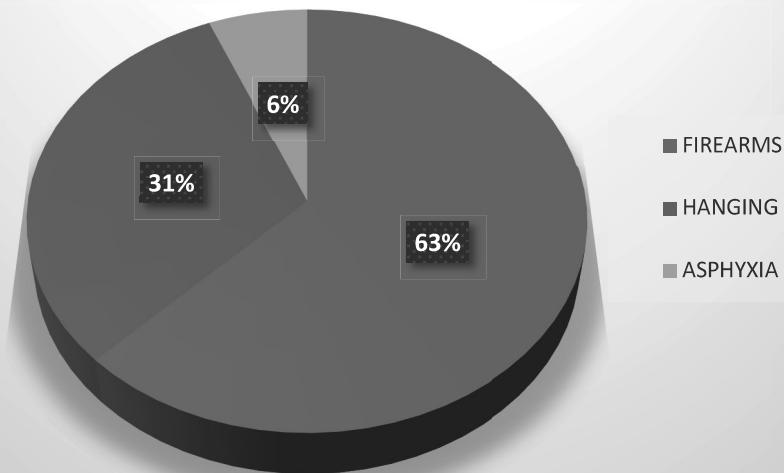


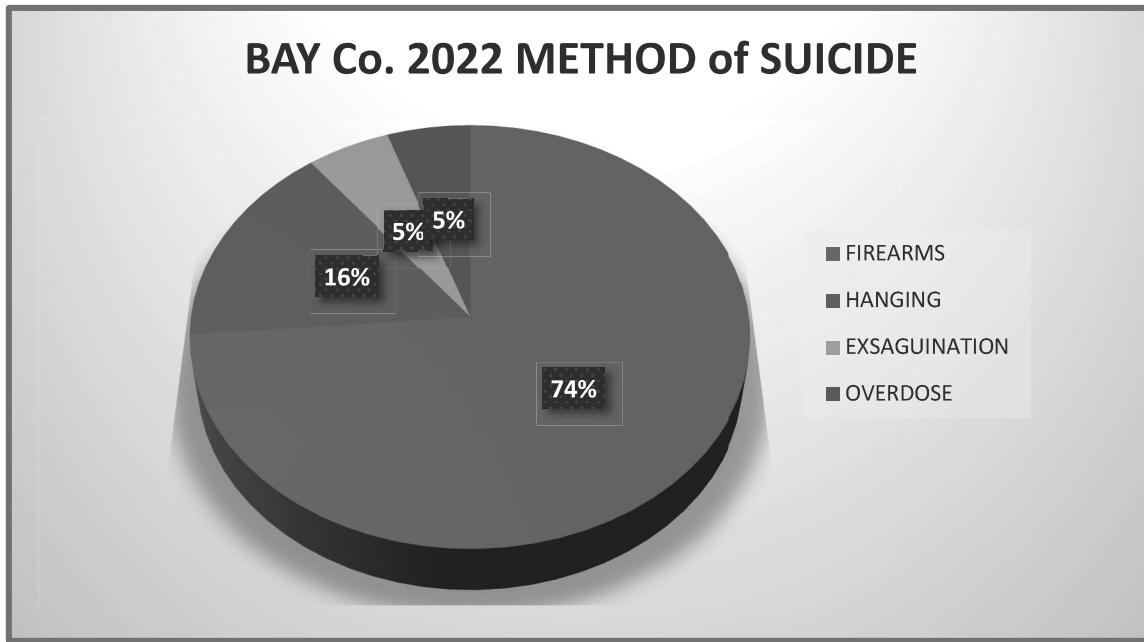
## Suicide

**BAY Co. 2020 METHOD of SUICIDE**

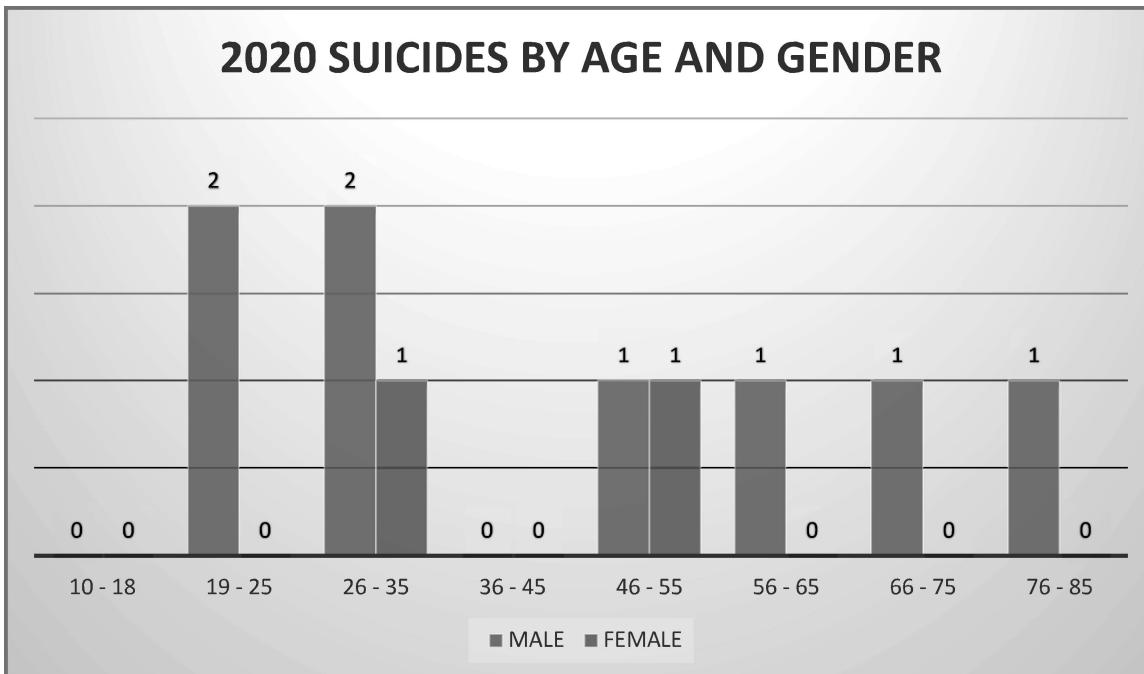


**BAY Co. 2021 METHOD of SUICIDE**

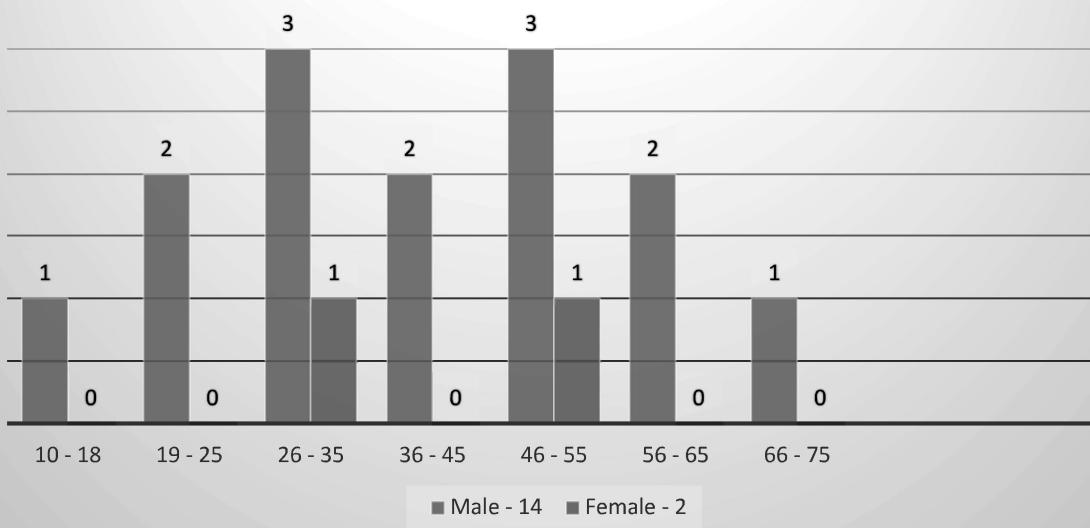




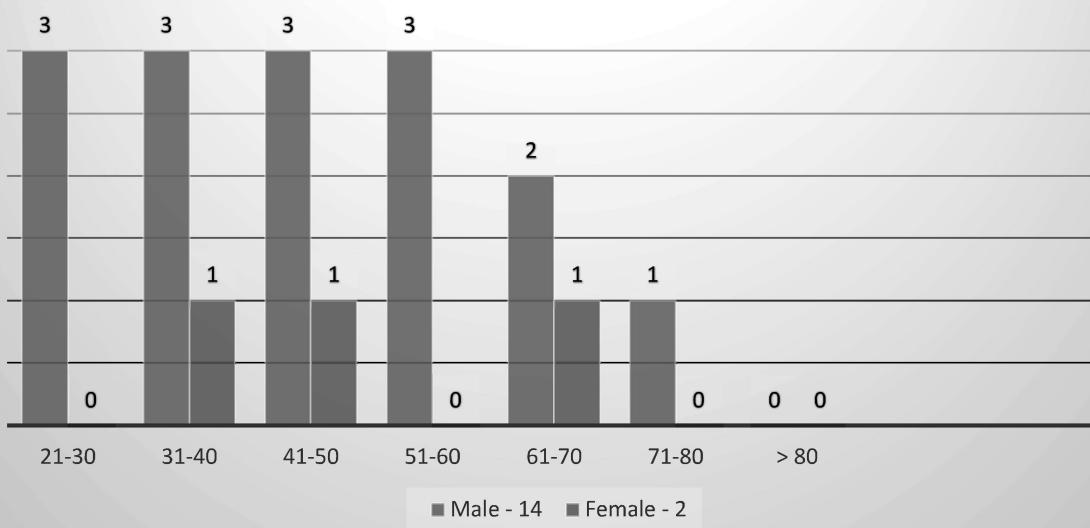
In 2022, the exsanguination was a male self administration of a laceration to the carotid artery with a fixed blade. The suicide overdose was a female using her Rx quetiapine (Seroquel). There were no adult suicide asphyxia deaths in 2022. Suicides increased from 16% to 22%.



## 2021 SUICIDES BY AGE AND GENDER



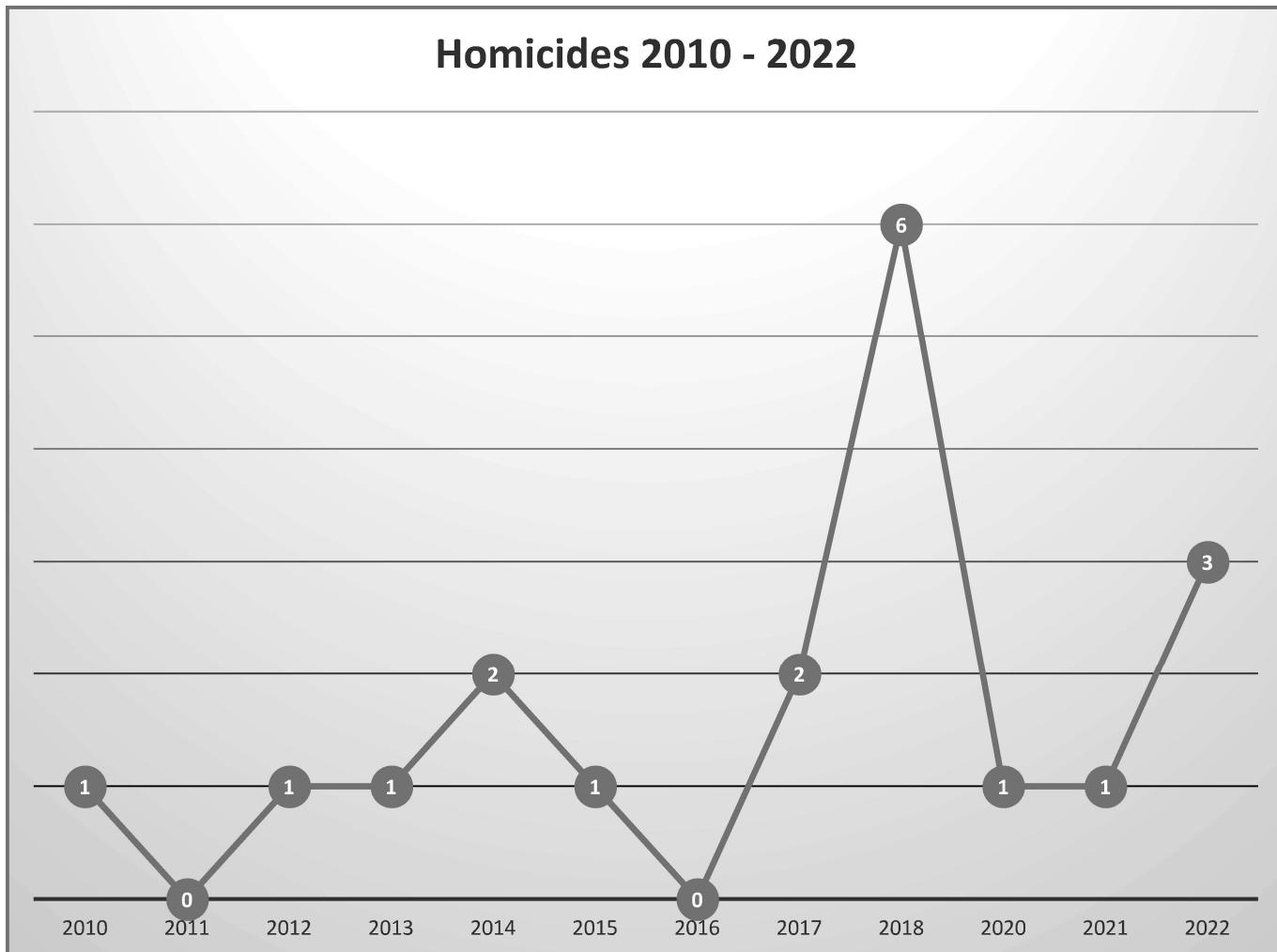
## 2022 SUICIDES BY AGE AND GENDER



## Homicide

# 2021-2022 Bay County Medical Examiner Annual Report

There was an increase in rate of homicides from 2021 to 2022. The homicide victims (2\*) were male in 2022. The homicide victim (one) was male in 2021. The homicide victim (one) was female in 2020. In 100% percent of the 2020-2022 homicides the method used was firearm.



In 2020 the Bay County Sheriff's Department investigated 1 female homicide in a 48613 northern rural wooded area. The victim was identified as a 36 year old resident of Pinconning and next of kin were notified.

In 2021 Bay City Public Safety / Police investigated 1 male homicide in a 48708 parking lot. The time of death was very late and it was at a local party store.

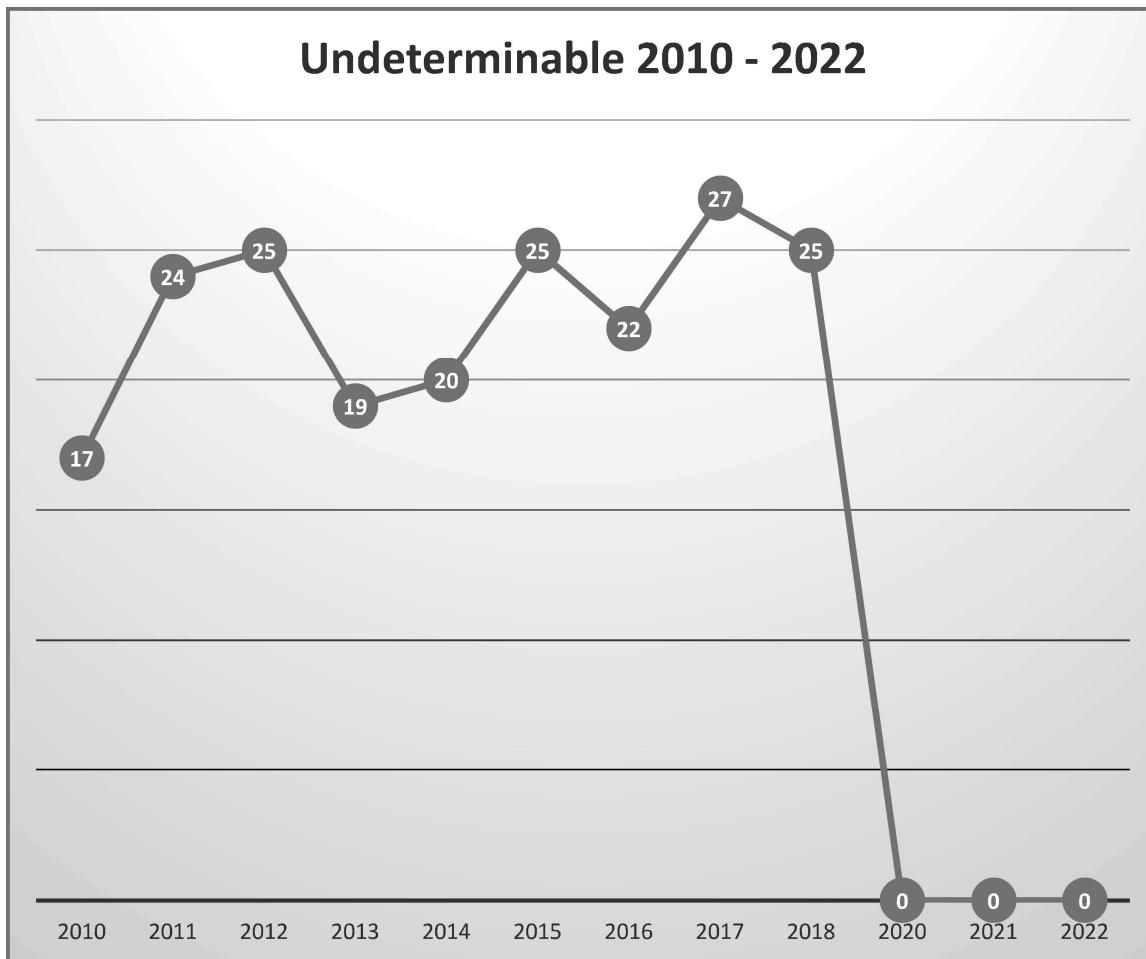
There were no unidentified victims in Bay County. Both victims produced BCMEO toxicology suggestive of drug use disorder. In 2022 Bay County homicides were related to toxic relationships going fatal, de facto Saginaw spill over gang violence or law enforcement threat mitigation.

**Undeterminable = Indeterminate**

# 2021-2022 Bay County Medical Examiner Annual Report

In 2020 the BCOME began to follow guidelines from the Center for Disease Control (CDC).

Drug overdose deaths and intoxications are more useful metrics when classified as accidents because we know there is an offending agent. Hence forth the BCOME and Medical Examiner data will classify drug overdose deaths and intoxication deaths as **accidents** unless they are accompanied by a suicide note, suicide evidence or previous documented suicide attempts.



Undeterminable or Indeterminate deaths have been an ambiguous collection of data that leads to a lack of action and clouding issues. It is a designation that should be avoided and reserved for **“rare”** unresolved medical data that is multifaceted and academically frustrated. We feel it was used as a template too often. This re-inforced changing drug deaths to accident.

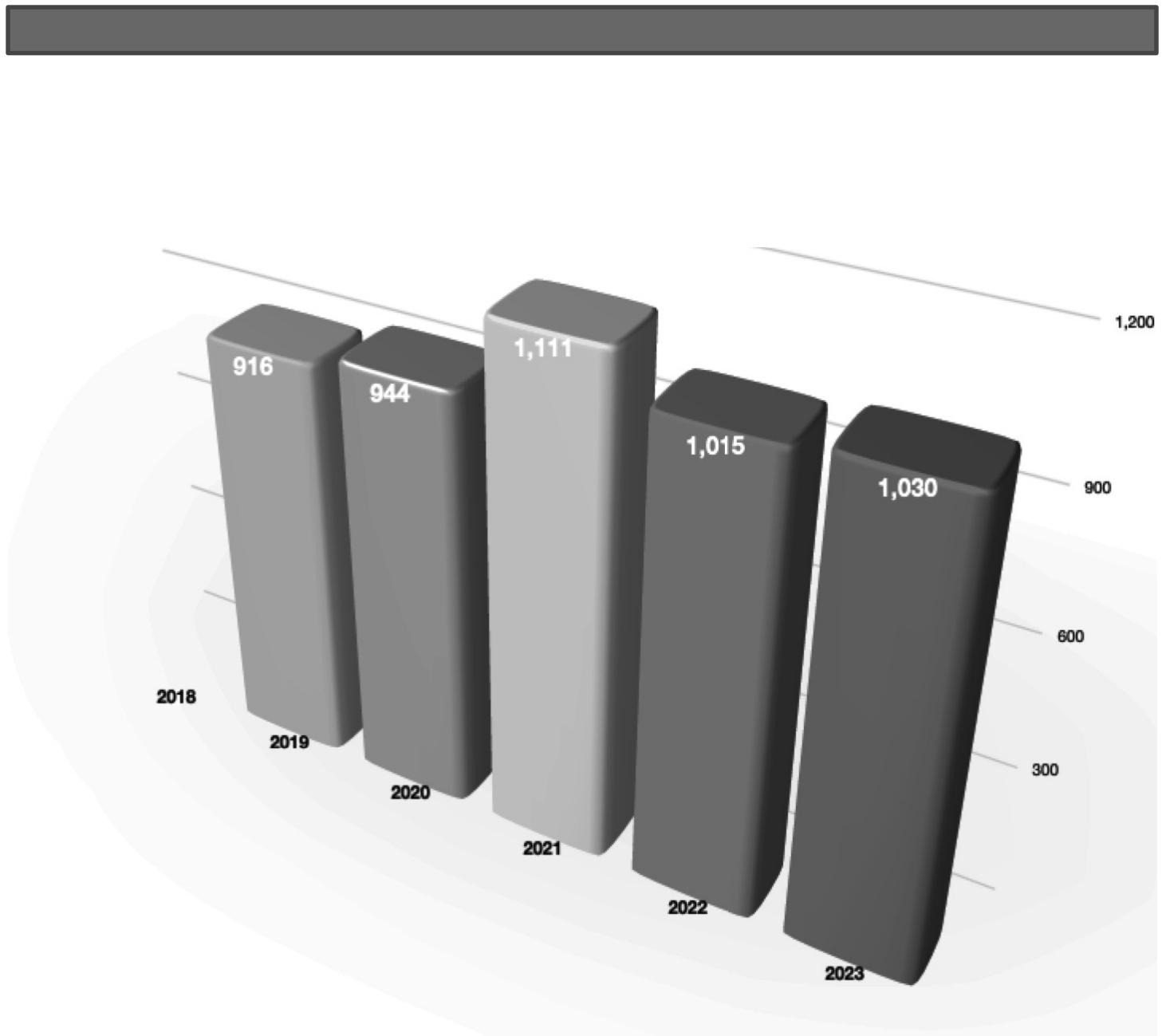
# 2021-2022 Bay County Medical Examiner Annual Report

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## MISCELLANEOUS INFORMATION

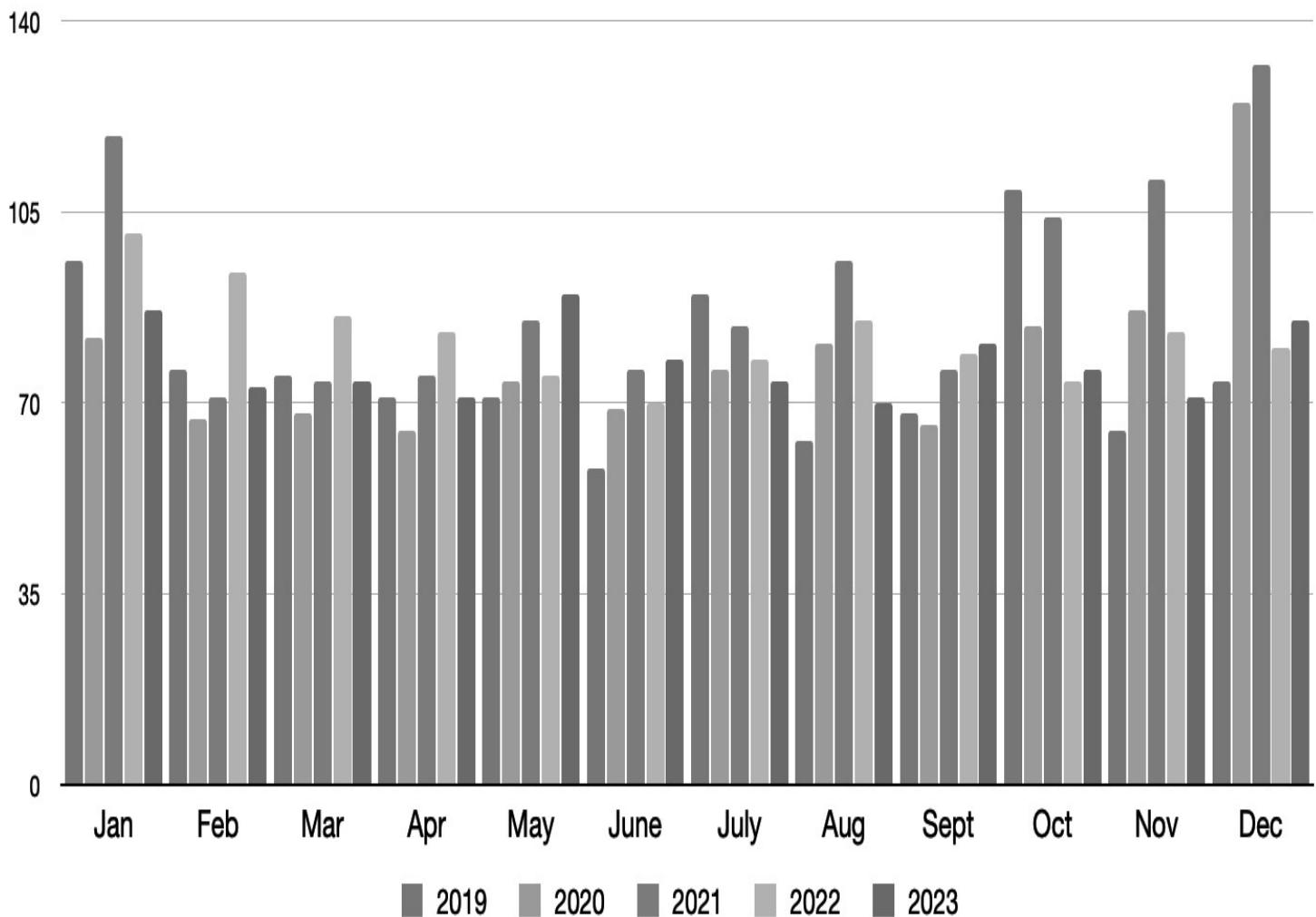
### CREMATION AUTHORIZATION

Pursuant to Michigan Complied Laws § 333.2848(3), if final disposition is by cremation, the medical examiner of the county in which death occurred shall sign the authorization for final disposition. The Bay County Medical Examiner's Office reviews each cremation permit and respective death certificate before authorizing cremation. Cremation permit requests remained steady for 2017-2019. There was an increase from 2019 to 2020 and increase from 2020 to 2021.



**2016 – 2023 Bay Co. Cremation Permits** (not measured before 2019)

## Bay County Medical Examiner Cremation Permits 2019-2023



## UNCLAIMED BODIES

The Estates and Protected Individuals Code, Public Act 386 of 1998, MCL 700.3206 establishes the rights and powers to make decisions about funeral arrangements and handling, disposition, or disinterment of a decedent's body.

**When there is no next of kin or the next of kin refuses to handle the arraignments the Medical Examiner's Office applies for state assistance through the Department of Health and Human Services to fund the cremation of the decedent.** Since 2018-2019 there has been a significant increase in the number of cases handled by the Bay County Medical Examiner's Office. In 2020-2023 BCMEO processed 61 unclaimed bodies and the MDHHS documentation is onerous and not user friendly. Based on current inflation & poverty index creepage unclaimed bodies will likely increase. The processing of unclaimed bodies is an unfunded mandate, time consuming, desolate and bothersome. Unclaimed bodies overfill the McLaren Bay morgue on a regular basis and make morgue management dismal. I am the medical examiner in Arenac, Bay, Iosco, Midland & Tuscola. Unclaimed bodies are only remarkably problematic in Bay County. We need a better system.