

Bay County  
Medical Examiner's Office  
Bay City, Michigan



Annual Report

2020-2021

Dr. William Morrone

## 2020-2021 Bay County Medical Examiner Annual Report

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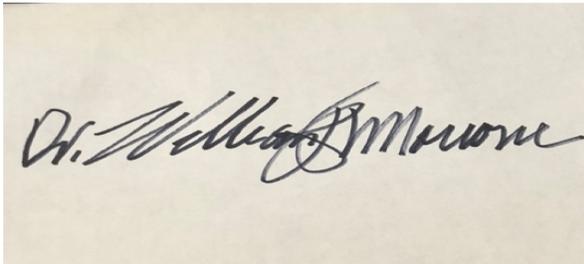
To the Bay County Board of Commissioners and to the citizens of Bay County:

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.

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 2 ½ 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 2020 report is combined herewith today as the 2020-2021 Annual Report.

I hope you find this report informative. It is my pleasure to present to you the combined 2020-2021 Annual Report for the Bay County Medical Examiner's Office.

Respectfully submitted,

A photograph of a handwritten signature in black ink on a light-colored background. The signature is written in a cursive style and reads "Dr. William R. Morrone".

William R. Morrone, D.O., M.P.H., M.S., FACOP, FASAM, FAOAAM, DABAM  
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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# 2020-2021 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 2021. The total number of cases reported in 2021 (1058) decreased 4% while the number of autopsies and inspections (101) increased 1% compared to 2020. The BCMEO experienced a zero increase in the number of homicides (1). The number of drug overdose cases increased 12.54%, while the number of suicide cases increased 60%. The number of unclaimed decedents increased in 2020 and 2021.

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 2021, this represented roughly 50 % of 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 2021 there were 1,101 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 2021, this represented three cases. In addition to the 101 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, Michigan & Bay County with a 4 % increase in 2020 and 14.6 % increase in 2021.

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 restarts review of cases in 2022. 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 2020-2021\*

**Dr. William Morrone**  
Chief Medical Examiner  
Arenac, **Bay** & 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 2020-2021 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.

## 2020-2021 Bay County Medical Examiner Annual Report

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

Office of Medical Examiner Executive Administrator	Karen Mika
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Chief Medical Examiner Investigator Consulting Investigator MESI MESI MESI	William R. Morrone, DO, MPH, MS Edward J. Smith, Pharm. D Nicole Byron Nate Dicks Christina Pazak
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Sr. Autopsy Attendant Supervisor	Randy Mudd
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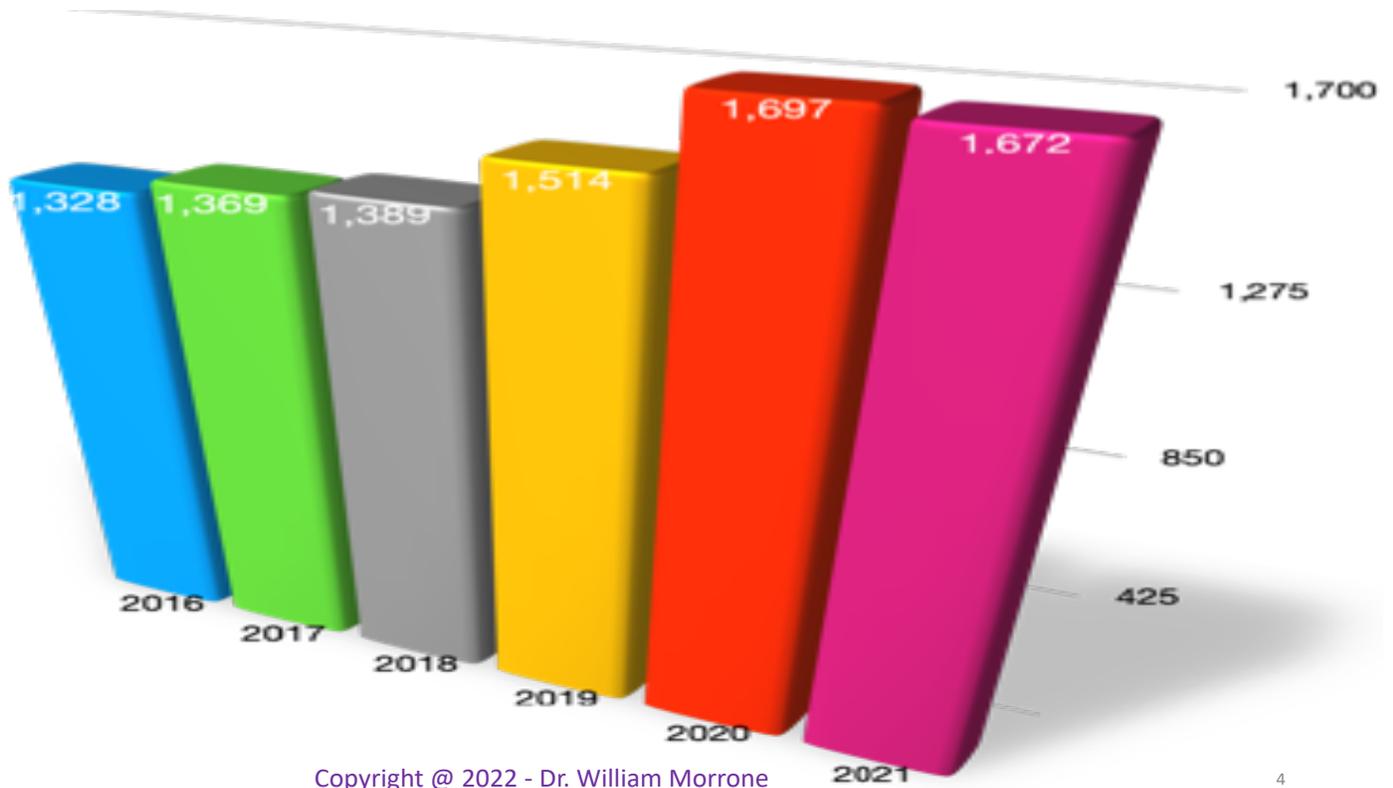
Pharmaceutical Toxicology	William R. Morrone, DO, MPH, MS
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**No information about COVID-19 infections, pneumonia or COVID-19 testing in the deceased will be discussed in this report. The National Association of Medical Examiners and the Center for Disease Control (CDC) do not support autopsy in the diagnosis of COVID-19.**

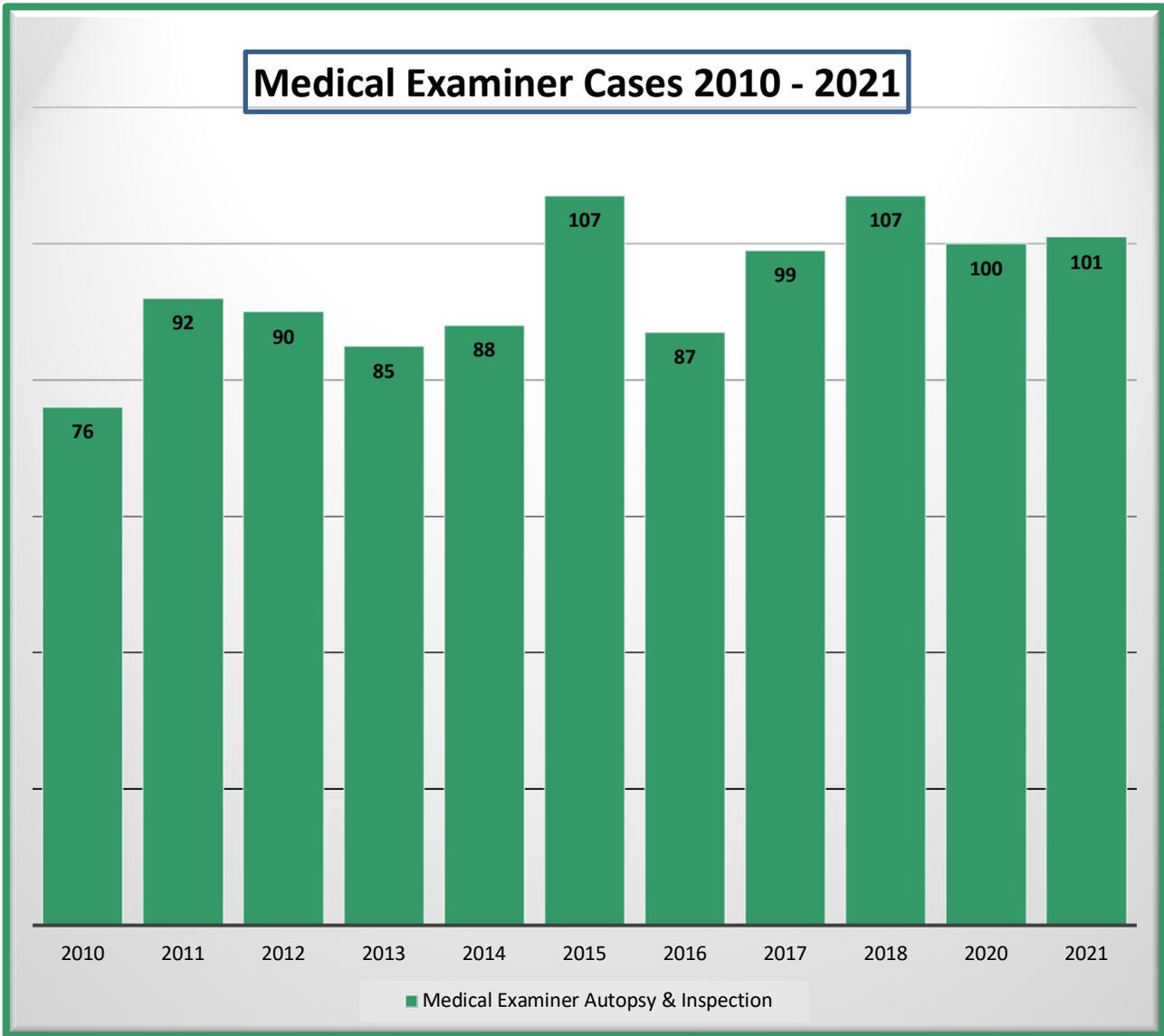
## GENERAL STATISTICS

GENERAL STATISTICS – 2021	
Total number of cases reported (in the county and in the hospital)	868
Cases Accepted	101
Scenes Investigated	209
BAY COUNTY CASE REFERRALS	
ME Certifications (Death Certificate Only)	1101
Examinations	
Full Autopsy	101
Partial Autopsy	0
External Only	3
NON-BAY COUNTY CASES	
Examinations	
Full Autopsy (Midland County Medical Examiner’s Office after the flood) Mutual Aid	44
Partial Autopsy	0
External Only	0
TOTAL CASES	
	915
Medical Examiner Certification (Death Certificate Only)	810
Examinations	
Full Autopsy	101
Partial Autopsy	0
External Only	3
MISC INFORMATION	
Unidentified Bodies (after case completion)	0
Exhumations	1
Bodies Transported to Morgue	251
Toxicology Cases	103
Cremation Permits Approved	1111
Microscopic Slides Created	101

## SIX YEARS: TREND in DEATH CERTIFICATES



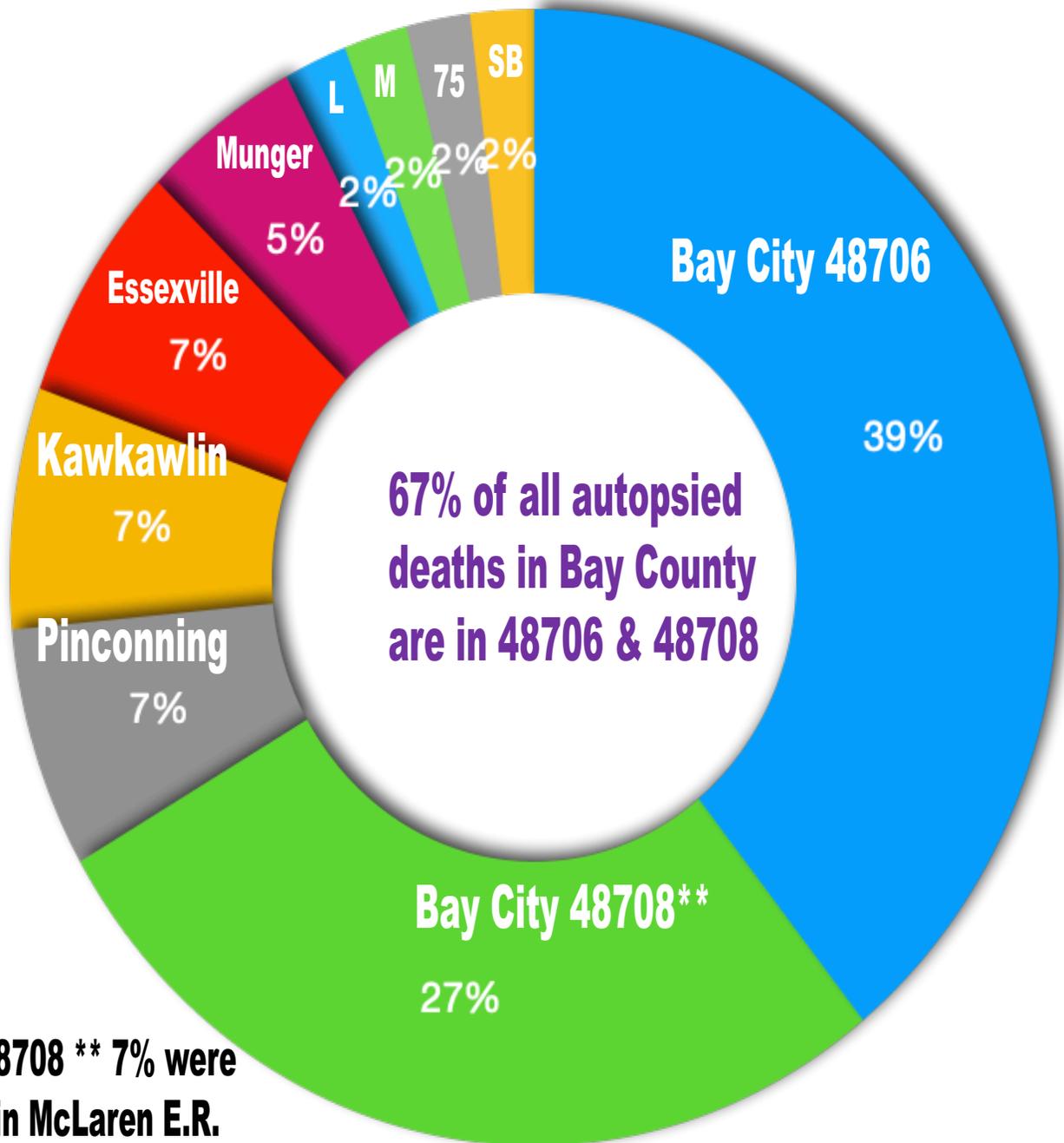
People Come to McLaren Bay Region hospital and die in Bay County from many different other counties. McLaren Bay region ICU and Emergency Room serve Isabella, Arenac Iosco, Ogemaw, Huron and Tuscola counties. Therefore, Bay County death certificates cannot always be directly linked to the death of Bay 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 will increase as we navigate the tail end of the baby boomers.



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

- face to face BCMEO scene investigation,
- 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



**48708 \*\* 7% were in McLaren E.R.**

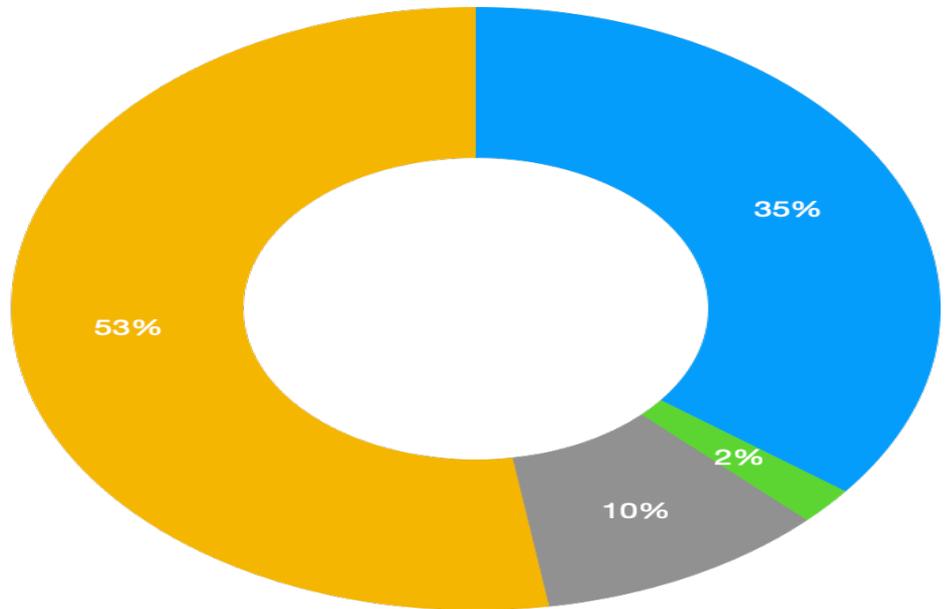
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- 48706
- 48708
- Pincon.
- Kawkaw
- Essexvil
- Munger
- Linwood
- Monitor
- I-75
- Sag. Bay

# MANNER OF DEATH MEDICAL EXAMINER CASES 2020-1

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

Manner of Death 2020 Bay Co.

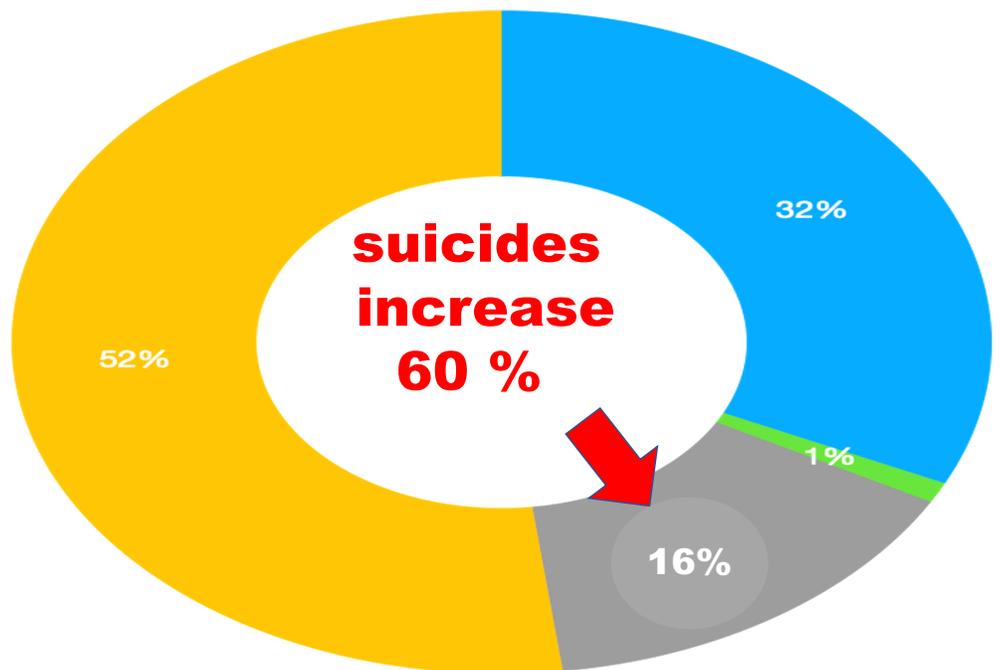


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● Natural ● Homicide ● Suicide ● Accident<sup>8</sup>

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

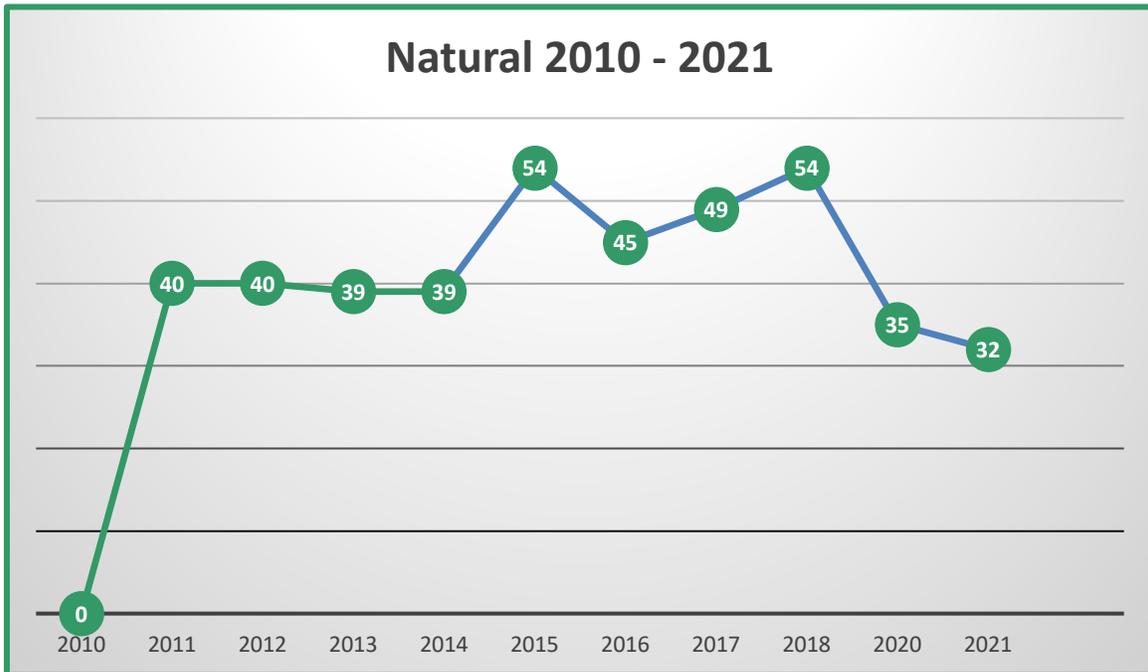
Manner of Death 2021 Bay Co.



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● Natural ● Homicide ● Suicide ● Accident<sup>9</sup>

# NATURAL

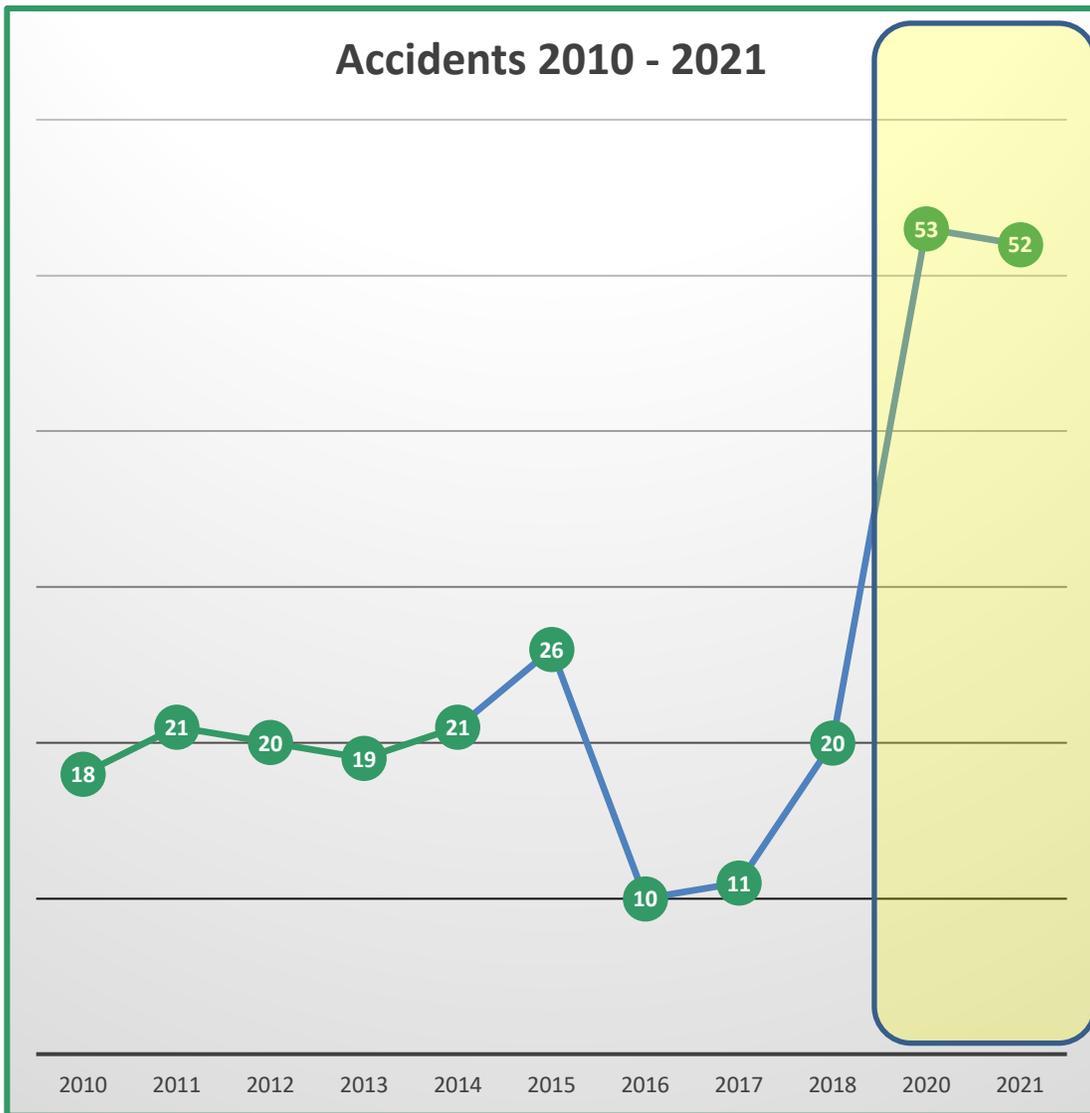


## 2020-2021 Natural Deaths & Chronic Disease outcomes Bay County autopsies

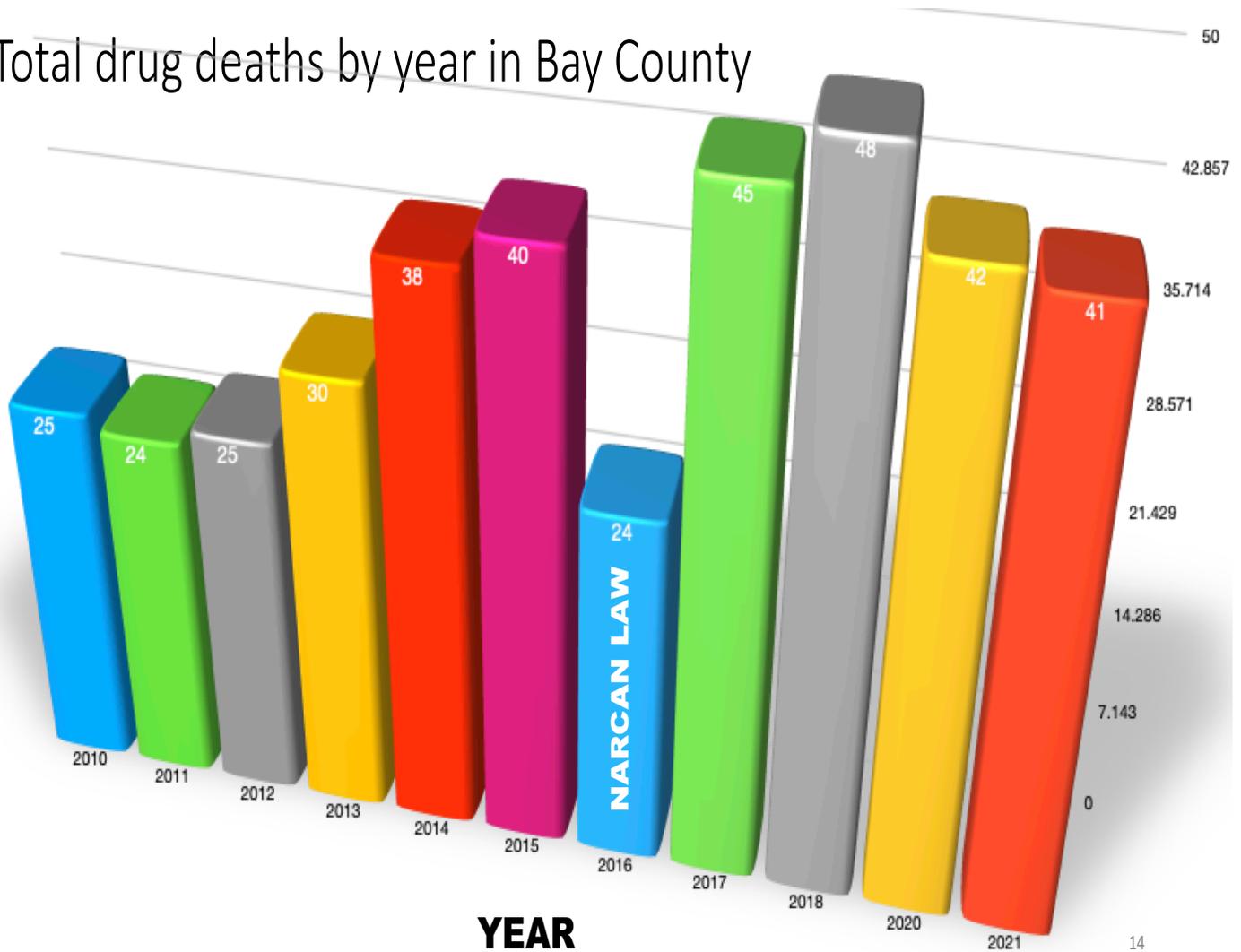
2020	Atherosclerotic heart disease	Essential HTN heart disease	COPD	Alcoholic liver disease	Pneumonia Pulmonary	Valvular	Hashimoto's	CHF
	<b>34 %</b>	<b>30 %</b> 8	<b>7.4 %</b>	<b>12 %</b>	<b>7.4 %</b>	<b>3 %</b>	<b>3 %</b>	<b>3 %</b>
2021	Atherosclerotic heart disease	Essential HTN heart disease	COPD 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:

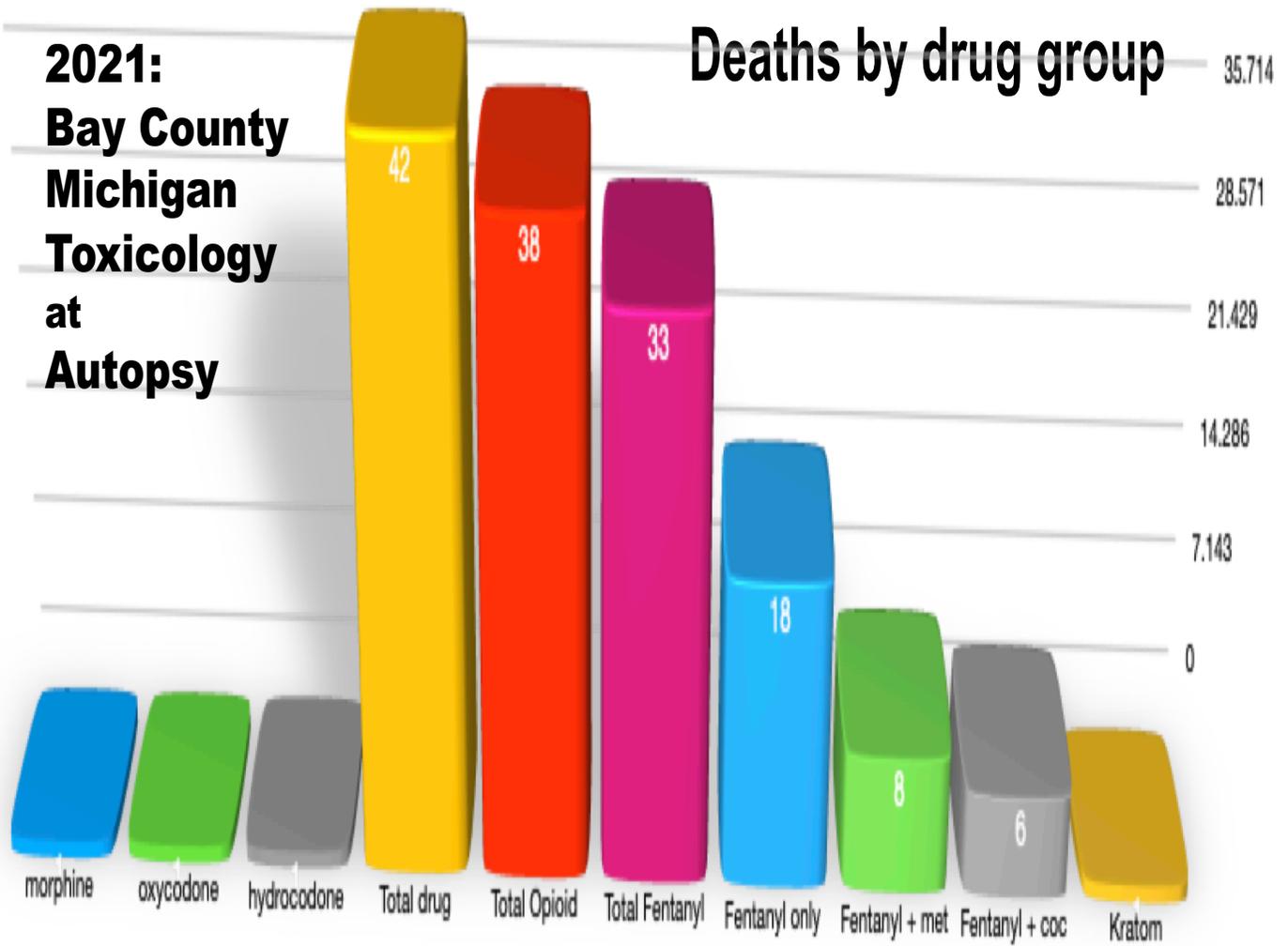
The yellow box represents the new “classification” of drug overdose or intoxication death as an “accidental death” under CDC guidelines. Previously this was called “indeterminate” death.



## Total drug deaths by year in Bay County



2016 was a significant 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 significant because it was the introduction of illicit fentanyl into the drug pipeline in our state. Eventually fentanyl replaced heroin.



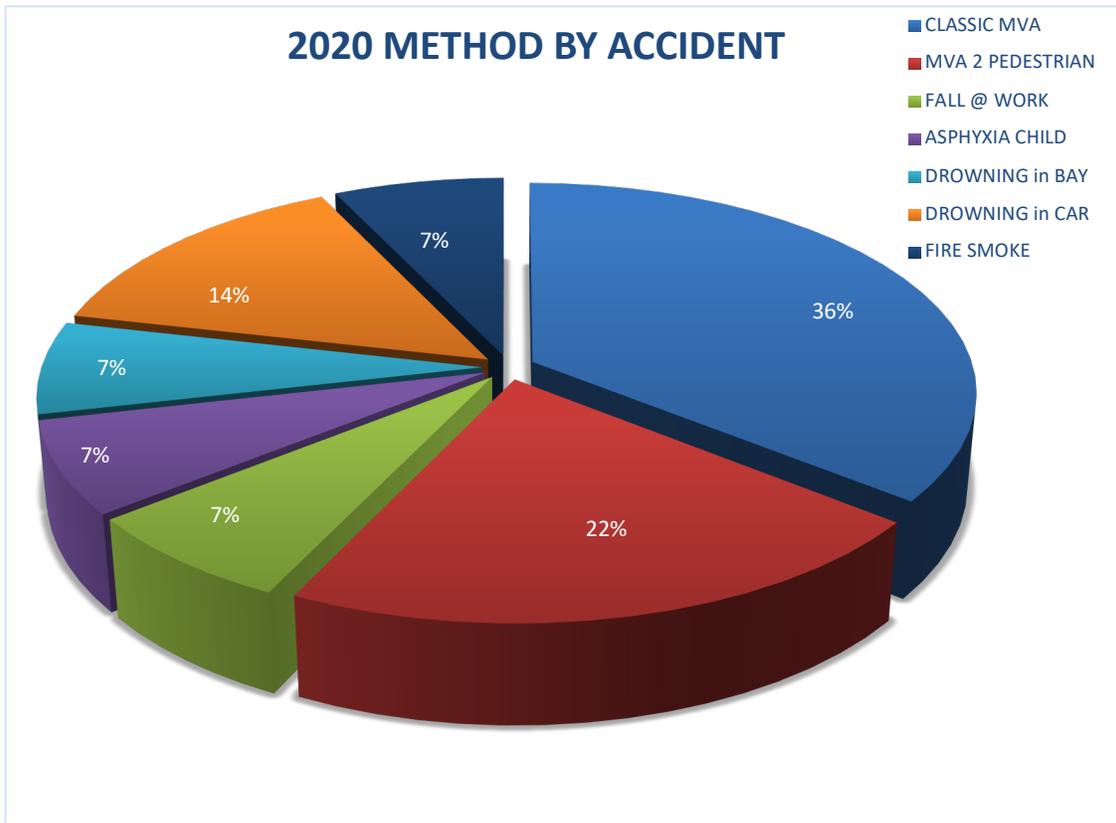
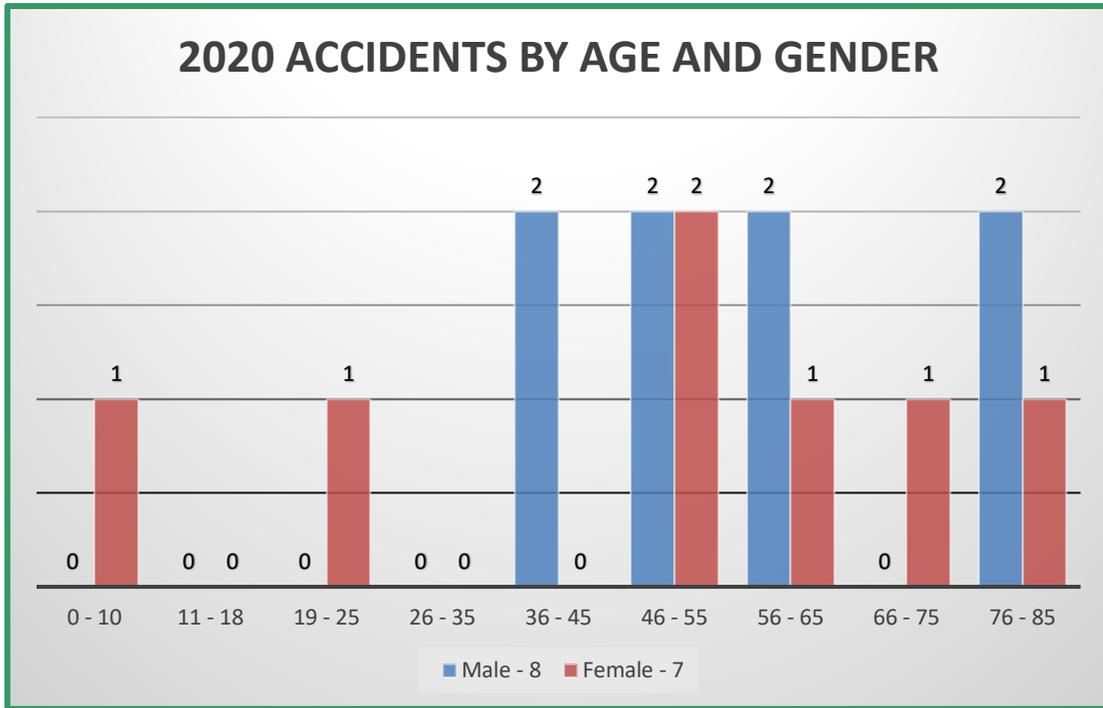
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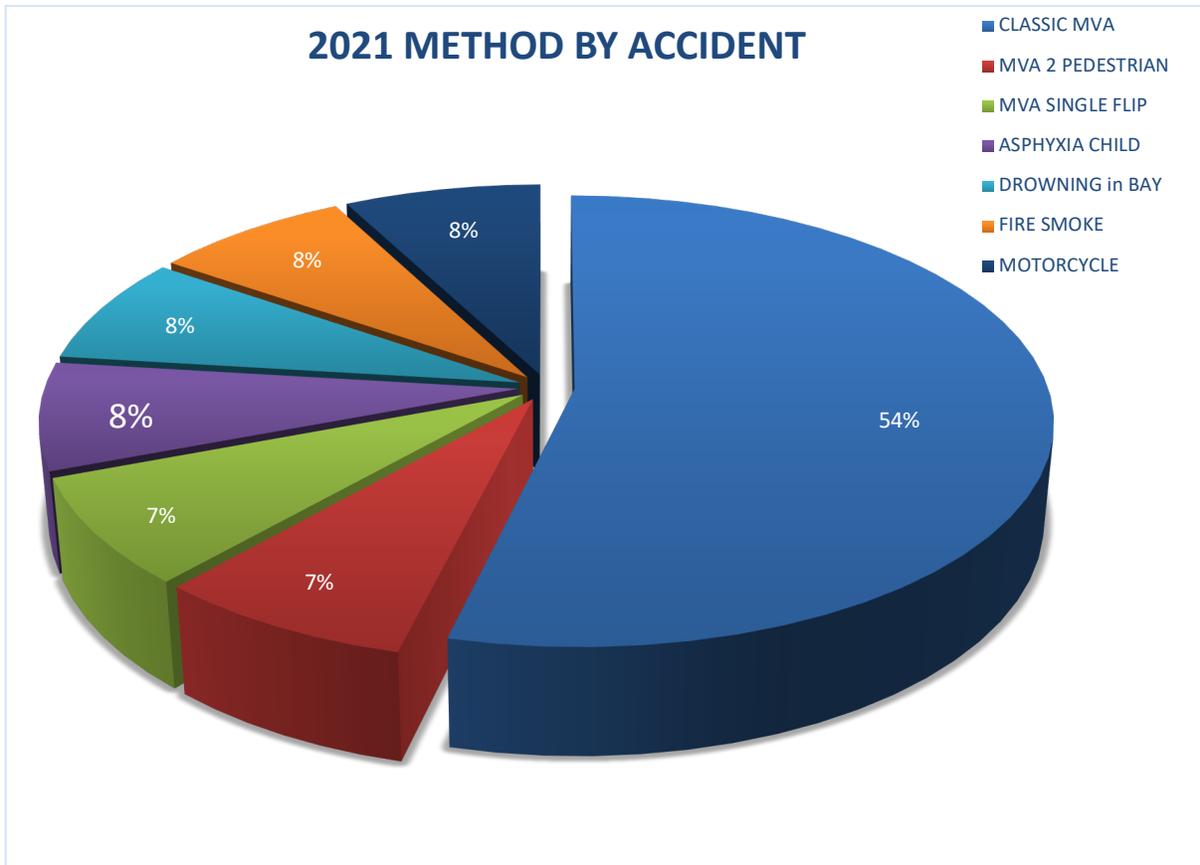
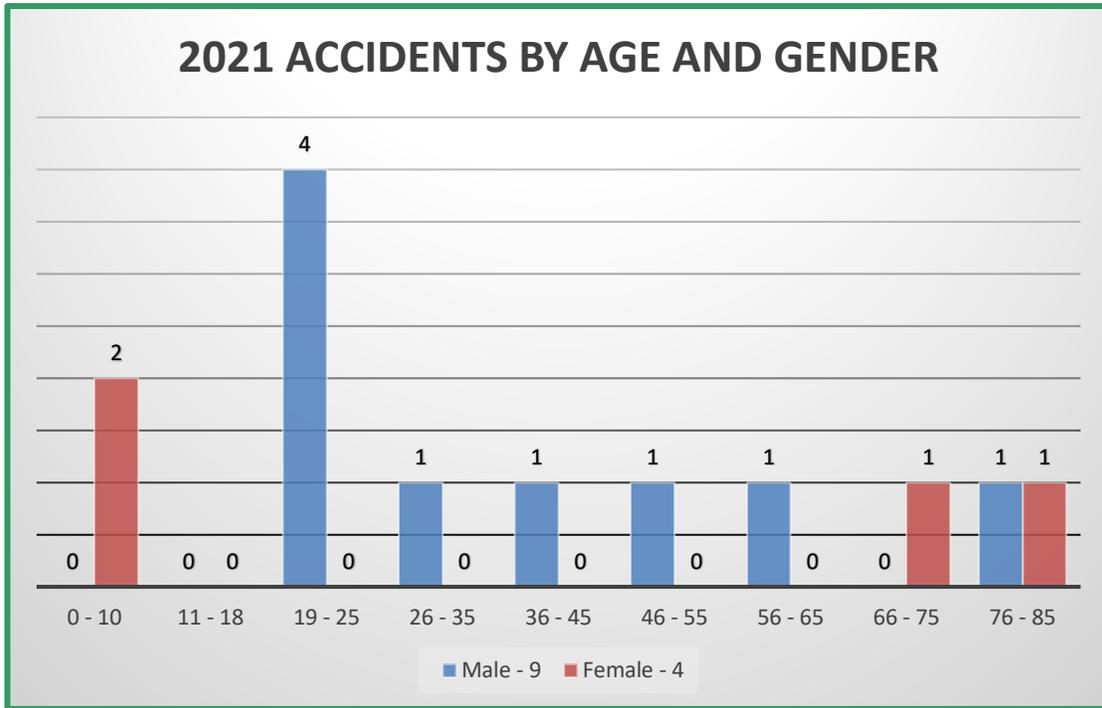
Bay County 2021: Drug related autopsies by Age

2021	16 -20	21-30	31-35	36-40	41-45	46-50	51-60	61-70
1	11	19	21	28	32	37	38	
<b>1</b>	<b>10</b>	<b>8</b>	<b>6</b>	<b>7</b>	<b>4</b>	<b>5</b>	<b>1</b>	
<b>2.6%</b>	<b>26%</b>	<b>20.8%</b>	<b>15.6%</b>	<b>18.2%</b>	<b>10.4%</b>	<b>13%</b>	<b>2.6%</b>	

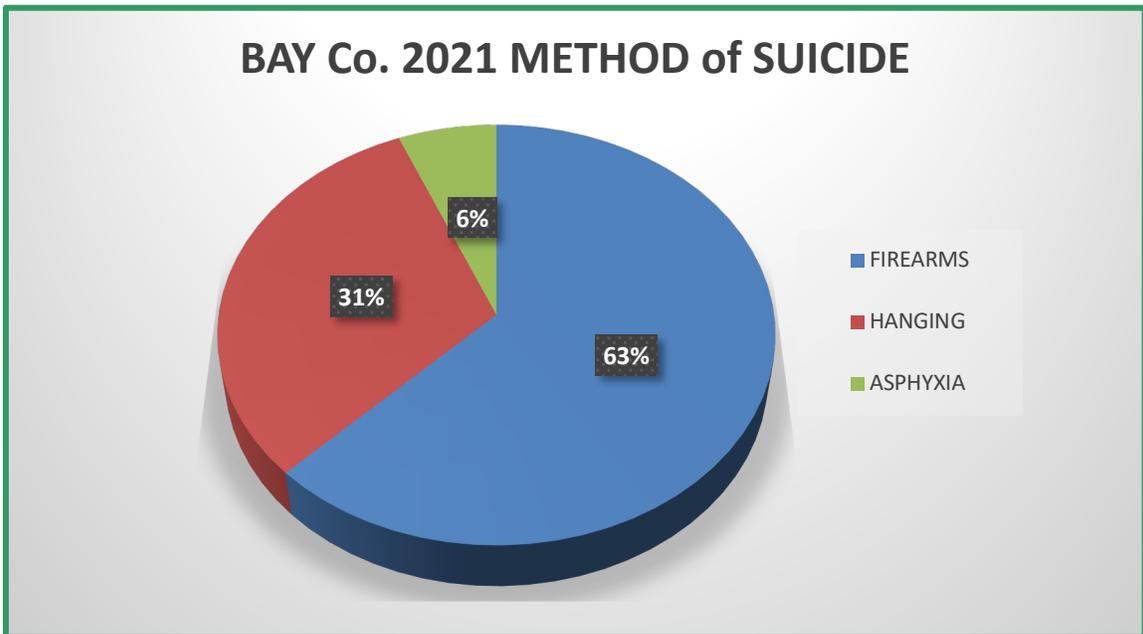
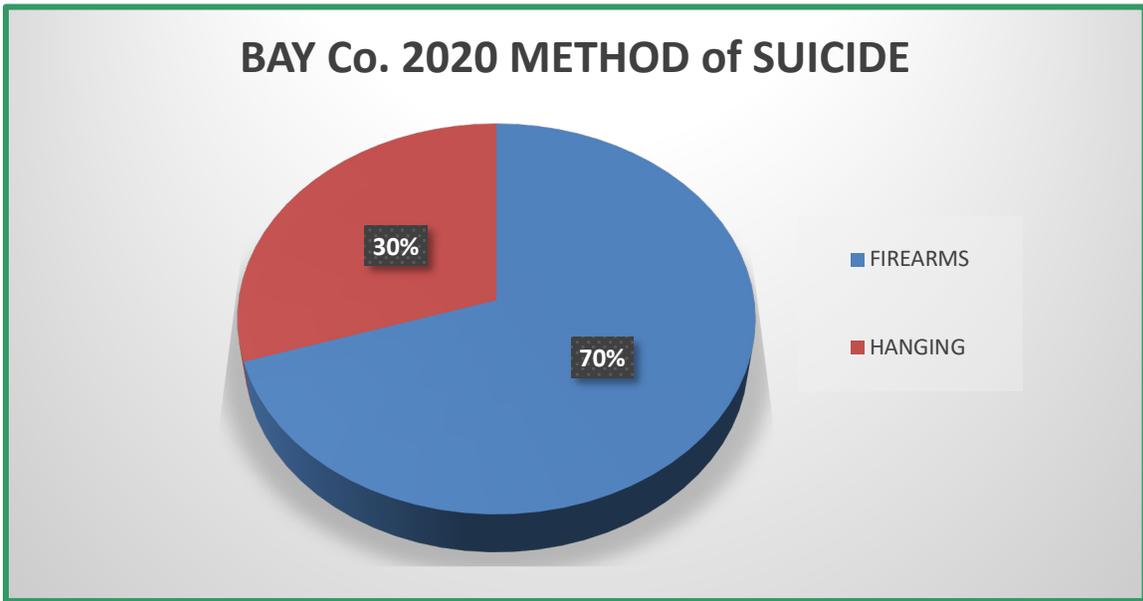
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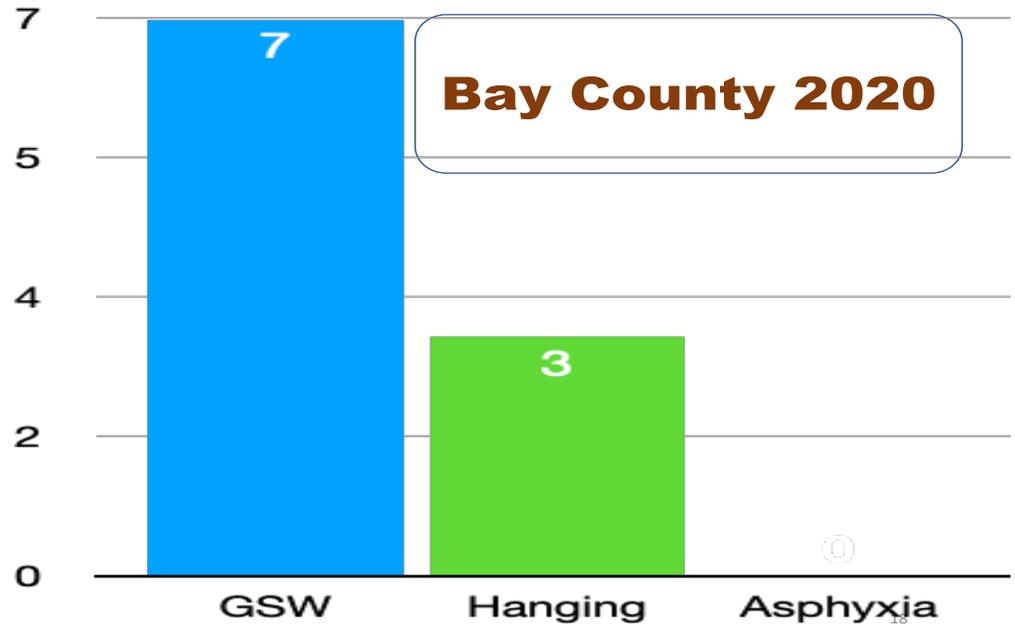




# Suicide

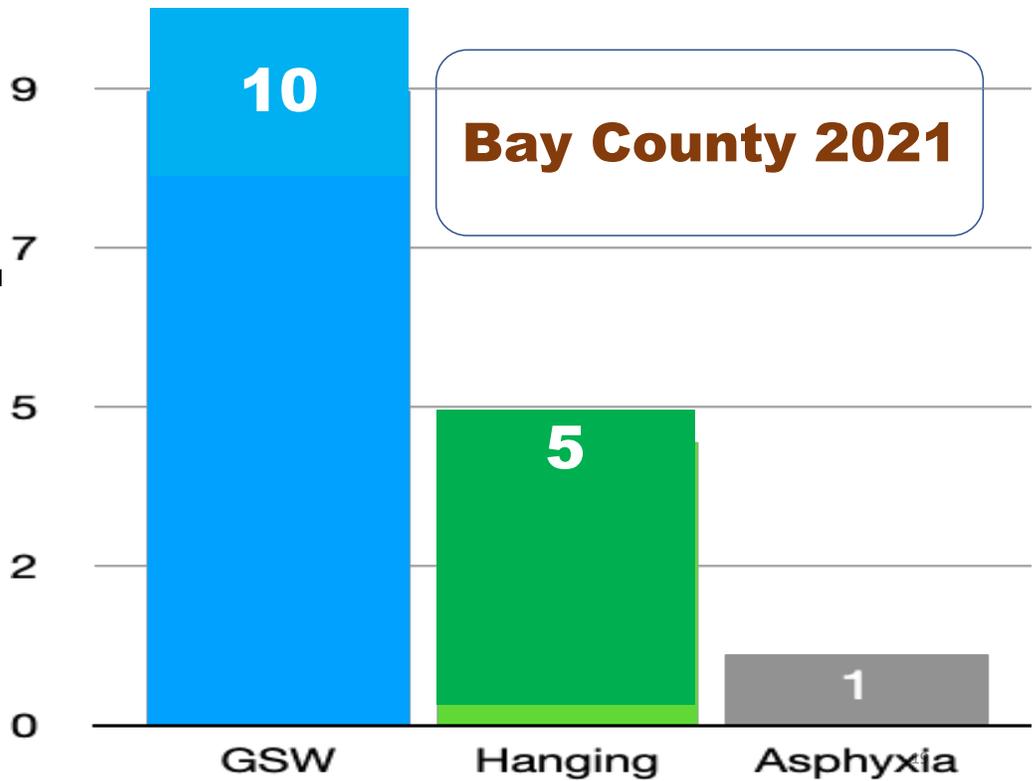


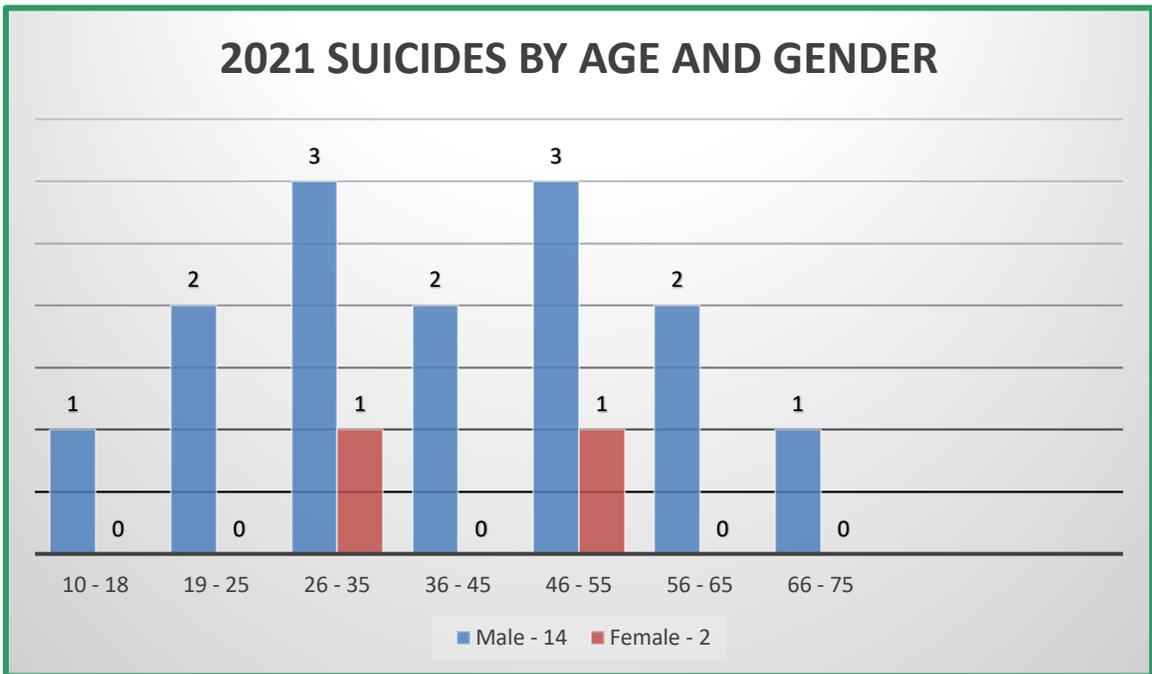
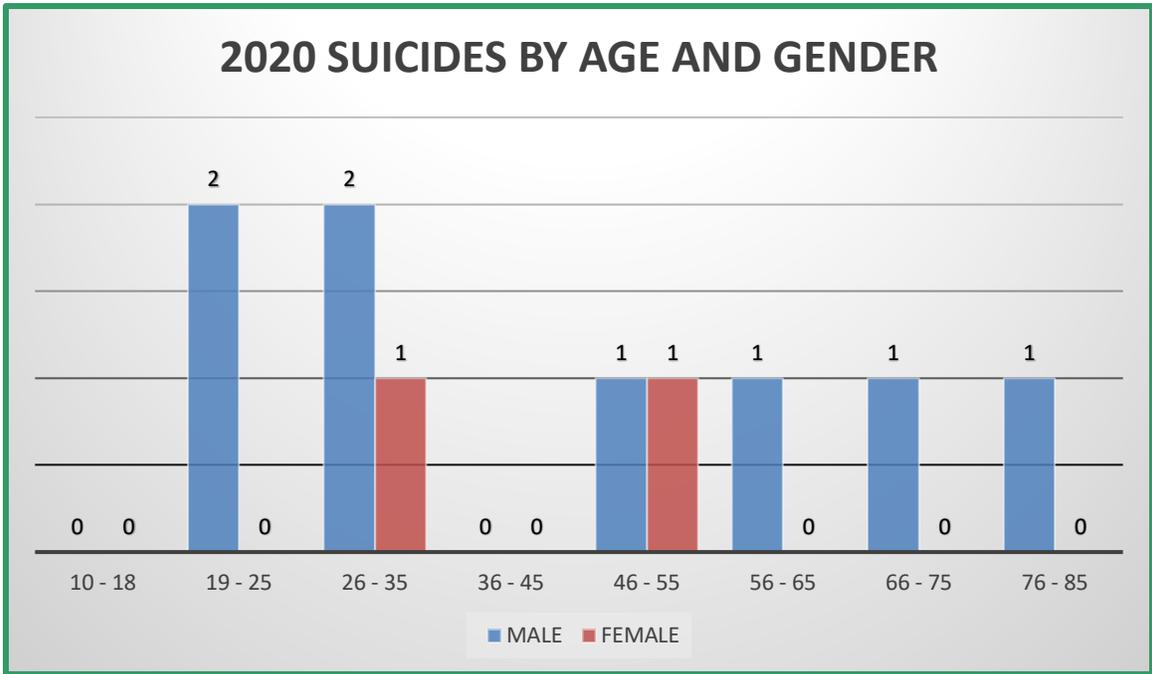
# 2020 Bay Co. Death by Suicide



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# 2021 Bay Co. Death by Suicide





## Homicide

There was no increase in rate of homicides from 2020 to 2021. The homicide victim (one) was male in 2021. The homicide victim (one) was female in 2020. In 100% percent of the 2020-2021 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.

## Undeterminable

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.



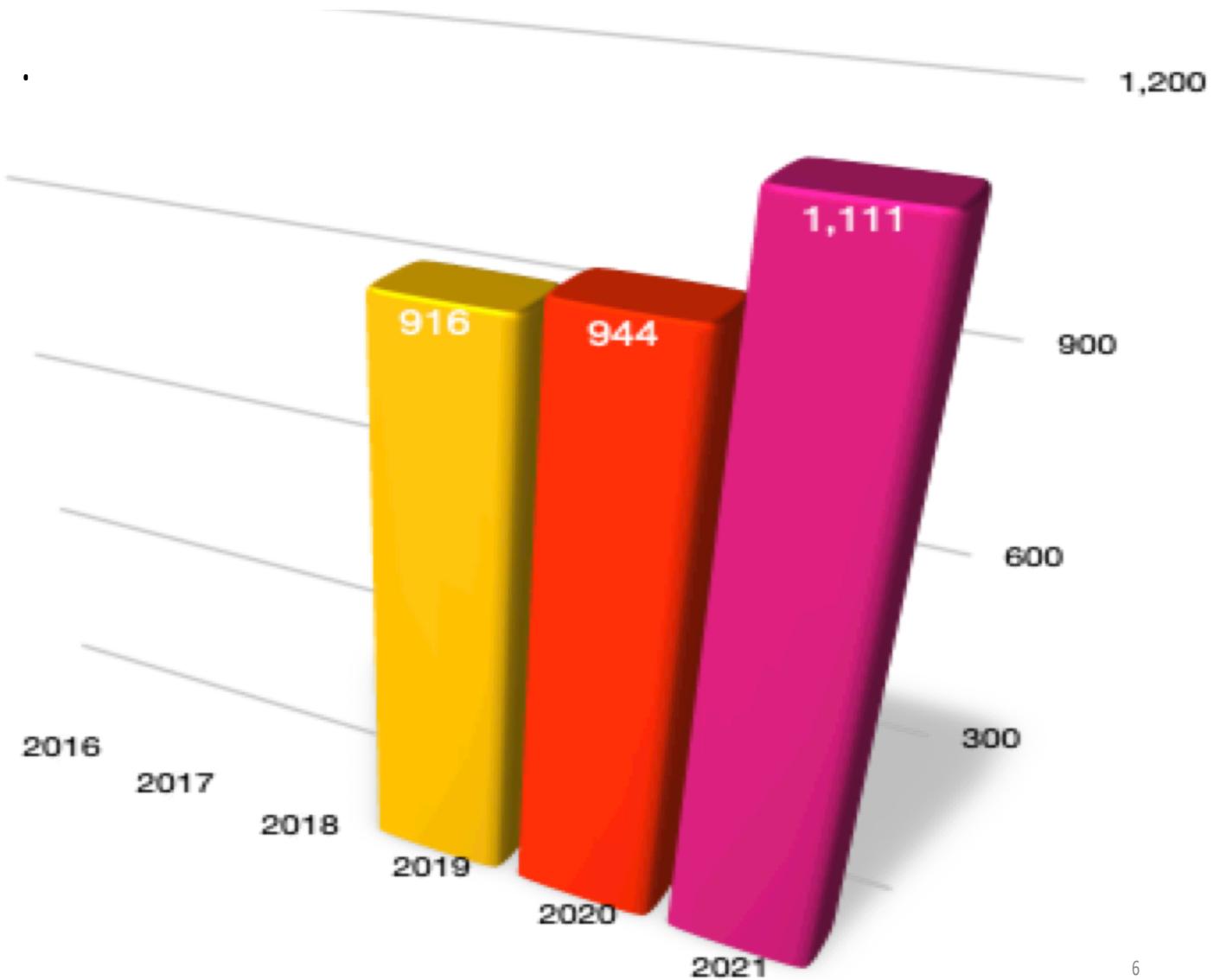
Undeterminable or Indeterminate deaths have been an ambiguous collection of data that leads to a lack of action and clouding issues. It is a designation that should be avoided and reserved for **“rare”** unresolved medical data that is multifaceted and academically frustrated. We feel it was used as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

## MISCELLANEOUS INFORMATION

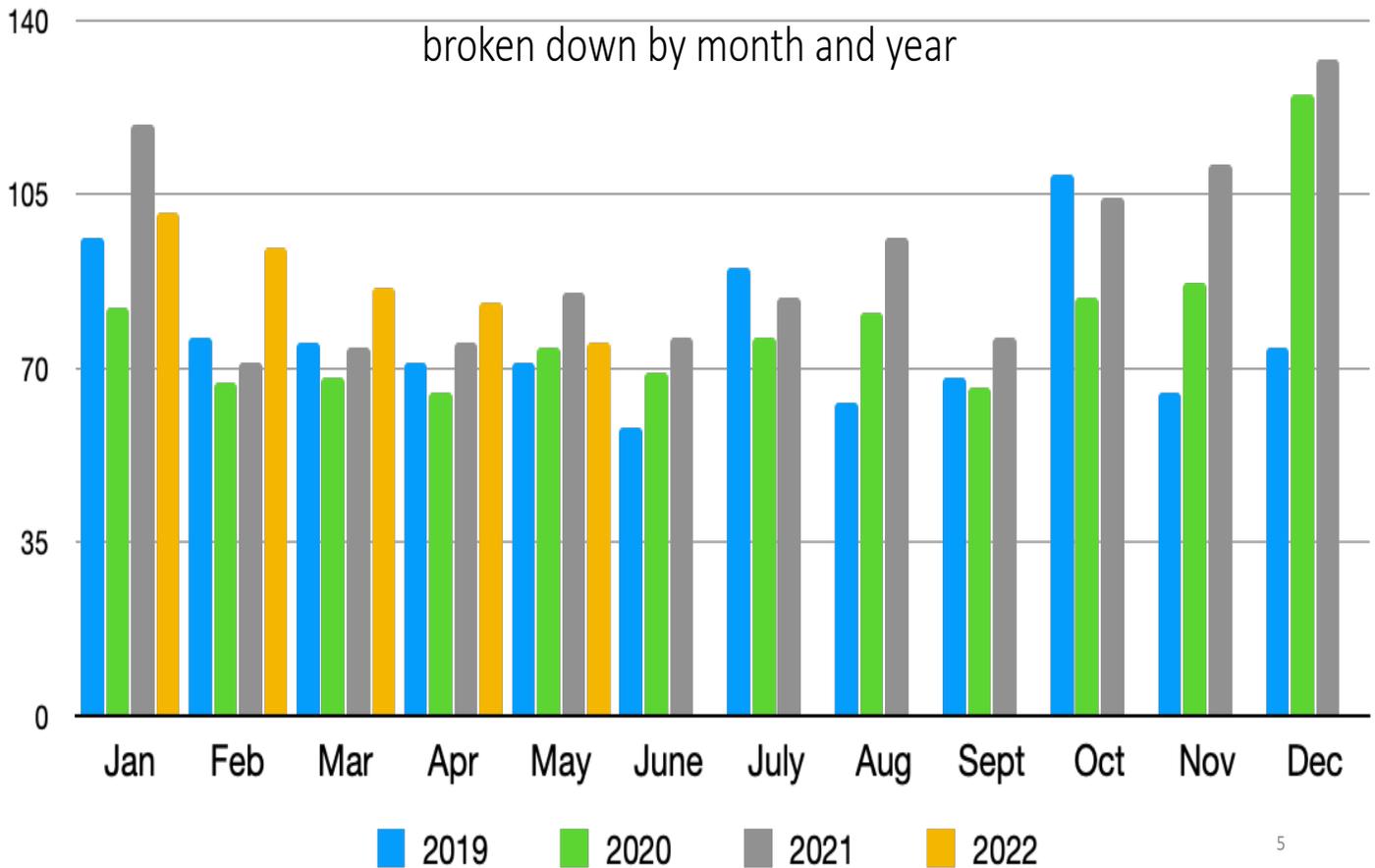
### CREMATION AUTHORIZATION

Pursuant to Michigan Compiled 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 – 2021 Bay Co. Cremation Permits** (not measured before 2019)



**Bay County Medical Examiner Cremation Permits 2019-2022**



**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 arraignment 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 2020-2021 BCMEO processed 31 unclaimed bodies and the MDHHS documentation is onerous and not user friendly. Based on current inflation & poverty index creepage unclaimed bodies may likely increase.

<END>