

# Allegan County Board of Commissioners



County Services Building  
3283 – 122<sup>nd</sup> Avenue  
Allegan, MI 49010  
269-673-0203 Main Office  
269-686-5331 Main Fax  
<http://www.allegancounty.org>

**Gale Dugan, Chair**  
**Scott Beltman, Vice Chair**

---

## **BOARD OF COMMISSIONERS MEETING – AGENDA**

Thursday, August 28, 2025 – 9 AM

County Services Building – Board Room

Virtual Connectivity Options Attached

### **DISTRICT 1**

Craig Van Beek  
616-299-6668  
cvanbeek@  
allegancounty.org

*Meetings of the Board of Commissioners held in the Board Room are streamed live and recorded in accordance with the County's Live Stream & Publishing Recordings of Meetings [Policy](#), which can be viewed on the County's website. Your attendance constitutes your consent to audio/visual streaming and/or recording and to permit the County to broadcast your name/voice/image/content to a broader audience.*

### **DISTRICT 2**

Mark DeYoung  
616-318-9612  
mdeyoung@  
allegancounty.org

9 AM

#### **CALL TO ORDER:**

#### **ROLL CALL:**

**OPENING PRAYER:** Commissioner Mark DeYoung

#### **PLEDGE OF ALLEGIANCE:**

#### **PUBLIC HEARING:**

**COMMUNICATIONS:** None

**APPROVAL OF MINUTES:** August 14, 2025

#### **PUBLIC PARTICIPATION:**

#### **CHANGES TO THE AGENDA:**

#### **APPROVAL OF AGENDA:**

#### **PRESENTATIONS:**

Employee Recognition: Scott Szekely, Courthouse Security

#### **PROCLAMATIONS:**

#### **INFORMATIONAL SESSION:**

1. Department of Health & Human Services—Noelle Blair, Director

2. Medical Examiner—Dr. Patrick Hansma

#### **ADMINISTRATIVE REPORTS:**

### **DISTRICT 3**

Brad Lubbers  
616-218-5069  
blubbers@  
allegancounty.org

### **DISTRICT 4**

Scott Beltman  
616-292-1414  
sbeltman@  
allegancounty.org

#### **CONSENT ITEMS:**

1. Motion to approve of claims paid and to incorporate into proceedings of the Board (8/22/25 & 8/29/25)
- 

### **DISTRICT 5**

Gale Dugan  
269-694-5276  
gdugan@  
allegancounty.org

#### **DISCUSSION ITEMS:**

1. None
- 

#### **ACTION ITEMS:**

1. None
- 

#### **Mission Statement**

“The Allegan County Board of Commissioners shall plan, develop, and evaluate the necessary policies and resources to ensure our county continues to progress and prosper”

**PLANNING ITEMS:**

1. Board Strategic Plan
    - a. Development
    - b. Parks and Recreation Plan
  2. Draft 2026 Budget
- 

**NOTICE OF APPOINTMENTS & ELECTIONS:** None

**ELECTIONS:**

1. Economic Development Commission
  - a. Arts & Culture Representative—term expired 12/31/24

**APPOINTMENTS:**

1. Local Emergency Planning Committee
  - a. Educational Representative—term expires 12/31/25
2. Material Management Planning Committee
  - a. One Compost Facility Representative—term expires 8/1/29
  - b. Representative of Environmental Interest—term expires 8/1/29
  - c. Elected Official of a Township Representative—term expires 8/1/29
  - d. Elected Official of a City or Village Representative—term expires 8/1/29
3. Tourist Council
  - a. One Representatives—terms expire 12/31/26
  - b. One Representative—term expires 12/31/25
  - c. One Representative—term expires 12/31/27

**PUBLIC PARTICIPATION:**

**FUTURE AGENDA ITEMS:**

3. OPENING PRAYER: Commissioner Brad Lubbers
4. INFORMATIONAL SESSION: Treasurer's Office
5. CONSENT: Motion to approve of claims paid and to incorporate into proceedings of the Board (9/5/25 & 9/12/25)
6. DISCUSSION: Draft 2026 Budget

**REQUEST FOR MILEAGE:**

**BOARDS AND COMMISSIONS REPORTS:**

**ROUND TABLE:**

**CLOSED SESSION:**

**ADJOURNMENT:** Next Meeting – Thursday, September 11, 2025, 9 AM @ **BOARD ROOM – COUNTY SERVICES BUILDING, COUNTY SERVICES COMPLEX.**



# Allegan County Board of Commissioners

# STEP 1: Connect to the Meeting

- OPTION 1: Zoom over Telephone

- Call (929) 205-6099 -or- (312) 626-6799 -or- (253) 215-8782
- Type in Meeting ID: 891 6032 7098, then #, then # again
- Type in Meeting Password: **471420**, then #

- To raise your hand to speak, press \*9

- To Mute and Unmute, press 6\*

<STOP here>

You do not have to continue reading the rest of the instructions.

- OPTION 2: Youtube

- Open Internet Explorer or Chrome
- Navigate to <https://www.youtube.com/channel/UCQliZQstN2Pa57QAItAWdKA>
- Click on image of “Live” video

<STOP here>

You do not have to continue reading the rest of the instructions.

- OPTION 3: Zoom over Web browser

- Open Internet Explorer or Chrome
- Navigate to <https://zoom.us/j/89160327098>
- Meeting Password: **Board**

<Continue with the rest of the instructions>

# STEP 2: Enter registration information

Webinar Registration - Zoom

zoom.us/webinar/register/WN\_YneHxuk\_SjqfnMwchbtUEg

## Webinar Registration

Topic: BOC Meeting - 4/9/2020

Time: Apr 9, 2020 01:00 PM in Eastern Time (US and Canada)

\* Required information

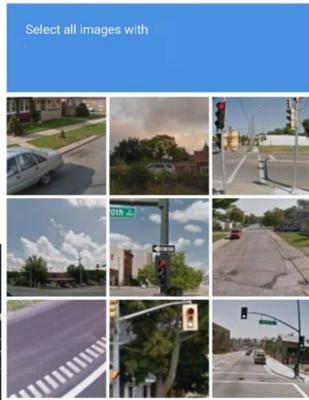
First Name \*

Last Name \*

Email Address \*

Confirm Email Address \*

I'm not a robot  reCAPTCHA Privacy - Terms

Select all images with 

Lang:

Er:

Cur:

US Dollars

Footer:

- About: Zoom Blog, Customers, Our Team, Why Zoom, Features, Careers, Integrations, Partners, Investors
- Download: Meetings Client, Zoom Rooms Client, Browser Extension, Outlook Plug-in, Lync Plug-in, iPhone/iPad App, Android App
- Sales: 1.888.799.9666, Contact Sales, Plans & Pricing, Request a Demo, Webinars and Events
- Support: Test Zoom, Account, Support Center, Live Training, Feedback, Contact Us, Accessibility

1. Enter name and email

2. Click this box

4. Click when done.

3. Answer challenge question

STEP 3: This Window will appear when connected.



# STEP 4: Adjust audio settings (if needed)

The screenshot shows a meeting interface with a 'Settings' window open. The 'Audio' section is selected in the left sidebar. A context menu is open, showing options for speaker and microphone settings. Blue arrows labeled '1' and '2' indicate the steps to adjust audio settings.

**Settings**

- General
- Video
- Audio**
- Share Screen
- Virtual Background
- Recording
- Statistics
- Feedback
- Keyboard Shortcuts
- Accessibility

**Speaker**

Test Speaker Remote Audio

Output Level: \_\_\_\_\_

Volume:

**Microphone**

Test Mic \_\_\_\_\_

Input Level: \_\_\_\_\_

Volume:

Automatically adjust volume

Use separate audio device to play ringtone simultaneously

Automatically join audio by computer when joining a meeting

Mute my microphone when joining a meeting

Press and hold SPACE key to temporarily unmute yourself

Sync buttons on headset

Advanced

**Context Menu:**

- Select a Speaker
- Remote Audio
- Same as System
- Test Speaker & Microphone...
- Leave Computer Audio
- Audio Settings...

**Meeting Content:**

269-673-4514  
mthiele@allegancounty.org

**Economic Development — Greg King, Director**  
**ADMINISTRATIVE REPORTS:**

**DISTRICT 4**  
Mark DeYoung  
616-318-9612  
mdeyoung@allegancounty.org

**CONSENT ITEMS:**

1. Motion to approve of claims paid and to incorporate into proceedings of the Board (3/20/20 & 3/27/20)

Audio Settings ^

Chat Raise Hand Q&A

# STEP 5: Raise hand to be recognized to speak.

- Once “Raise Hand” is clicked, the Board Chairperson will receive notice and may UNMUTE your microphone when ready and verbally recognize you to speak.

On bottom of screen.

1. Click **Raise Hand** in the Webinar Controls.



2. The host will be notified that you've raised your hand.
3. Click **Lower Hand** to lower it if needed.



# STEP 6: To leave the meeting

The screenshot shows a Zoom meeting interface. At the top, a green banner reads "You are viewing Allegan County Administration's screen" with a "View Options" dropdown. In the top right corner, there is an "Enter Full Screen" button. The main content is a document viewer displaying a Microsoft Word document titled "BOC20200409\_agenda [Compatibility Mode] - Word". The document header includes the "Allegan County Board of Commissioners" logo and contact information for County Services Building, including address, phone, fax, and website. Below the header, the document is titled "BOARD OF COMMISSIONERS MEETING – AGENDA" and lists items for District 1, 2, 3, and 4, along with a central agenda list including "CALL TO ORDER", "ROLL CALL", "OPENING PRAYER", "PLEDGE OF ALLEGIANCE", "COMMUNICATIONS", "APPROVAL OF MINUTES", "PUBLIC PARTICIPATION", "ADDITIONAL AGENDA ITEMS", "PRESENTATIONS", "PROCLAMATIONS", "INFORMATIONAL SESSION", and "ADMINISTRATIVE REPORTS". At the bottom of the document viewer, it shows "PAGE 1 OF 2" and "251 WORDS".

At the bottom of the Zoom window, there is a control bar with the following elements from left to right: "Audio Settings" with an upward arrow, "Chat" with a speech bubble icon, "Raise Hand" with a hand icon, "Q&A" with a speech bubble icon, and a red "Leave Meeting" button. A large blue arrow points from the right side of the screen towards the "Leave Meeting" button.

## ALLEGAN COUNTY BOARD OF COMMISSIONERS

## INDEX

## AUGUST 14, 2025 SESSION

<u>JOURNAL 73</u> PAGE	ITEM	SUBJECT MATTER
97	1	<b>AUGUST 14, 2025 SESSION – PLEDGE OF ALLEGIANCE, ROLL CALL</b>
97	2	<b>JULY 24, 2025 SESSION MINUTES – ADOPTED AS PRESENTED</b>
97	3	<b>PUBLIC PARTICIPATION – COMMENTS</b>
97	4	<b>AGENDA ADDITIONS</b>
97	5	<b>AGENDA – ADOPTED AS AMENDED</b>
97	6	<b>ADMINISTRATIVE UPDATE</b>
97	7	<b>INFORMATIONAL SESSION: MEDICAL CARE COMMUNITY – KIMBERLY TURCOTT, DIRECTOR</b>
97-100	8	<b>CONSENT ITEMS: FINANCE COMMITTEE – CLAIMS &amp; INTERFUND TRANSFERS</b>
100	9	<b>ACTION ITEMS: FACILITIES MANAGEMENT – REPLACE SHERIFF'S OFFICE BOILERS</b>
100	10	<b>BREAK – 10:52 A.M.</b>
100	11	<b>PLANNING ITEMS: BOARD STRATEGIC PLAN, PARKS AND RECREATION PLAN</b>
100	12	<b>APPOINTMENTS: JURY BOARD</b>
100	13	<b>APPOINTMENTS: TOURIST COUNCIL</b>
101	14	<b>PUBLIC PARTICIPATION – NO COMMENTS</b>
101	15	<b>ADJOURNMENT UNTIL AUGUST 28, 2025 AT 9:00 A.M.</b>

**AUGUST 14, 2025 SESSION – PLEDGE OF ALLEGIANCE, ROLL CALL**

1/ The Board of Commissioners of the County of Allegan, State of Michigan, met in the Board Room of the County Services Building in the Township of Allegan on August 14, 2025 at 9:00 A.M. in accordance with the motion for adjournment of July 24, 2025, and rules of this board; Chair Dugan presiding.

The invocation was offered by District #1 Commissioner Van Beek.

The Deputy Clerk led the Board in the Pledge of Allegiance to the flag.

Upon roll call the following members answered as Commissioners for the respective Districts:

DIST #1	CRAIG VAN BEEK
DIST #2	MARK DEYOUNG
DIST #3	BRAD LUBBERS
DIST #4	SCOTT BELTMAN
DIST #5	GALE DUGAN

**JULY 24, 2025 SESSION MINUTES – ADOPTED AS PRESENTED**

2/ Moved by Commissioner DeYoung, seconded by Commissioner Van Beek to approve the minutes for the July 24, 2025 session as distributed. Motion carried by voice vote. Yeas: 5 votes. Nays: 0 votes.

**PUBLIC PARTICIPATION – COMMENTS**

3/ Chair Dugan opened the meeting to public participation and the following individuals offered comments:  
1. Honorable Judge Zuzich Bakker and Sheriff Baker presented the Board with invitations to the annual ACLAC event where they will be awarded the Access to Justice Award.

**AGENDA ADDITIONS**

4/ Chair Dugan asked if there were any additions or changes to the agenda. Commissioner Dugan asked to have the resolution for the Sheriff's office boiler replacement to be added to the Action Items on the agenda.

Moved by Commissioner Dugan, seconded by Commissioner Beltman to adopt the changes to the meeting agenda as requested. Motion carried by roll call/voice vote. Yeas: 5 votes. Nays: 0 votes.

**AGENDA – ADOPTED AS AMENDED**

5/ Moved by Commissioner Lubbers, seconded by Commissioner Van Beek to adopt the meeting agenda as amended. Motion carried by voice vote. Yeas: 5 votes. Nays: 0 votes.

**ADMINISTRATIVE UPDATE**

6/ Administrator Sarro noted his written report was submitted to Commissioners. Highlights included new County flags in the Board room and the Court rooms; work was done with a contractor to digitally refresh the County Seal; tire take backs happening within the county have been very successful.

**INFORMATIONAL SESSION:****MEDICAL CARE COMMUNITY – KIMBERLY TURCOTT, DIRECTOR**

7/ Kimberley Turcott presented the Medical Care Community Annual update.

**CONSENT ITEMS:****FINANCE COMMITTEE – CLAIMS & INTERFUND TRANSFERS**

8/ **WHEREAS**, Administration has compiled the following claims for 8/1/25, 8/8/25 and 8/15/25; and  
**WHEREAS**, the following claims, which are chargeable against the County, were audited in accordance with Section 46.61 to 46.63, inclusive, M.C.L. 1970 as amended and resolutions of the Board; and  
**WHEREAS**, said claims are listed in the 2025 Claims folder of the Commissioners' Record of Claims.

August 1, 2025

	TOTAL AMOUNT CLAIMED	AMOUNT ALLOWED	AMOUNT DISALLOWED
General Fund – 101	214,636.21	214,636.21	
Parks/Recreation Fund – 208	703.27	703.27	
Health Department Fund – 221	943.00	943.00	
Solid Waste/Recycling – 226	10,676.97	10,676.97	
Animal Shelter – 254	4,901.81	4,901.81	
Palisades Fund – 257	43,660.99	43,660.99	
Law ENF Training Fund PA302 – 266	200.00	200.00	
Grants – 279	10,212.95	10,212.95	
Crime Victims Rights Grant – 280	42.39	42.39	
Sheriffs Contracts – 287	108,728.68	108,728.68	
Transportation Fund – 288	2,510.35	2,510.35	
Child Care Fund – 292	3,066.89	3,066.89	
Veterans Relief Fund - 293	29.07	29.07	
Senior Services Fund – 298	3,929.36	3,929.36	
American Rescue Plan Act – 299	80.00	80.00	
Capital Improvement Fund – 401	212,173.21	212,173.21	
Central Dispatch CIP – 496	7,229.00	7,229.00	
Tax Reversion – 620	20,337.00	20,337.00	
Revolving Drain/Maintenance Fund - 639	43,646.42	43,646.42	
Fleet Management/Motor Pool – 661	325.39	325.39	
Self-Insurance Fund - 677	198,203.50	198,203.50	
Drain Fund – 801	61,896.63	61,896.63	
<b>TOTAL AMOUNT OF CLAIMS</b>	<b>\$948,133.09</b>	<b>\$948,133.09</b>	

August 8, 2025

	TOTAL AMOUNT CLAIMED	AMOUNT ALLOWED	AMOUNT DISALLOWED
General Fund – 101	205,910.74	205,910.74	
Parks/Recreation Fund – 208	524.17	524.17	
Friend of the Court – Cooperative Reimb. – 215	681.85	681.85	
MCOLES – CPE – 217	405.00	405.00	
Health Department Fund – 221	8,319.90	8,319.90	
Animal Shelter – 254	8,870.36	8,870.36	
Palisades Fund – 257	2,483.39	2,483.39	
Indigent Defense Fund – 260	2,255.20	2,255.20	
Central Dispatch Fund – 261	1,469.34	1,469.34	
Law Enforcement Training Fund – 266	750.00	750.00	
Law Library Fund – 269	3,674.66	3,674.66	
Grants – 279	418.53	418.53	

Sheriffs Contracts – 287	214.94	214.94	
Transportation Fund – 288	23,761.22	23,761.22	
Child Care Fund – 292	11,092.18	11,092.18	
Senior Services Fund – 298	1,679.64	1,679.64	
Capital Improvement Fund – 401	1,120.21	1,120.21	
Medical Care Facility Fund – 512	11.69	11.69	
Property Tax Adjustments - 516	1,381.10	1,381.10	
Fleet Management/Motor Pool – 661	1,963.58	1,963.58	
Self-Insurance Fund - 677	489,683.39	489,683.39	
Drain Fund – 801	31,742.35	31,742.35	
<b>TOTAL AMOUNT OF CLAIMS</b>	<b>\$798,413.44</b>	<b>\$798,413.44</b>	

August 15, 2025

	TOTAL AMOUNT CLAIMED	AMOUNT ALLOWED	AMOUNT DISALLOWED
General Fund – 101	136,020.68	136,020.68	
Parks/Recreation Fund – 208	8,033.73	8,033.73	
Friend of the Court – Cooperative Reimb. – 215	2,623.95	2,623.95	
Friend of the Court – Other – 216	372.00	372.00	
Health Department Fund – 221	6,801.07	6,801.07	
Solid Waste/Recycling – 226	73,971.25	73,971.25	
Animal Shelter – 254	6,035.10	6,035.10	
Register of Deeds Automation Fund – 256	284.48	284.48	
Indigent Defense Fund – 260	11,200.00	11,200.00	
Central Dispatch Fund – 261	4,913.91	4,913.91	
CDBG Program Income Fund – 277	30.00	30.00	
Grants – 279	20.36	20.36	
Transportation Fund – 288	153,724.23	153,724.23	
Child Care Fund – 292	13,940.42	13,940.42	
Veterans Relief Fund – 293	628.12	628.12	
Senior Services Fund – 298	13,017.00	13,017.00	
American Rescue Plan Act – ARPA – 299	11,939.20	11,939.20	
Capital Improvement Fund – 401	212,675.71	212,675.71	
Central Dispatch CIP – 496	8,771.28	8,771.28	
Property Tax Adjustments - 516	48,035.58	48,035.58	
Tax Reversions 2023 – 624	37.46	37.46	
Revolving Drain Maintenance Fund – 639	321.69	321.69	
Fleet Management/Motor Pool – 661	13,724.80	13,724.80	
Self-Insurance Fund – 677	3,237.92	3,237.92	
Drain Fund – 801	36,665.69	36,665.69	
<b>TOTAL AMOUNT OF CLAIMS</b>	<b>\$767,025.63</b>	<b>\$767,025.63</b>	

**THEREFORE BE IT RESOLVED** that the Board of Commissioners adopts the report of claims for 8/1/25, 8/8/25, 8/15/25, and interfund transfers.

Moved by Commissioner Beltman, seconded by Commissioner Lubbers to adopt the report of claims for 8/1/25, 8/8/25, 8/15/25, and interfund transfers. Motion carried by roll call vote. Yeas: 5 votes. Nays: 0 votes.

**ACTION ITEMS:**

**FACILITIES MANAGEMENT – REPLACE SHERIFF’S OFFICE BOILERS**

**9/ WHEREAS**, three domestic hot water boilers at the Sheriff’s Office are planned for near future replacement, two recently failed, and the third is of the same type and has no redundancy; and

**WHEREAS**, Allied Mechanical was recently the least cost, most qualified bidder for similar equipment in another building and has proposed a cost to replace all three units for approximately \$275,000.

**THEREFORE, BE IT RESOLVED** that the Board of Commissioners (Board) authorizes a reallocation of capital funds within the #401 Capital Improvement Fund of up to \$280,000 to establish funding for the immediate repair (if financially advantageous) or replacement of three boilers; and

**BE IT FINALLY RESOLVED** that the County Administrator is authorized to make the necessary budget adjustments, and any necessary documents to complete this action are authorized to be signed.

Moved by Commissioner Beltman, seconded by Commissioner Lubbers to adopt the resolution as presented.

Moved by Commissioner Beltman, seconded by Commissioner Van Beek to amend the resolution to replace only 2 boilers and reduce the reallocation of funds by 1/3. Motion failed by roll call vote. Yeas: 1 (Beltman) vote. Nays: 4 (Van Beek, DeYoung, Lubbers, Dugan) votes.

Moved by Commissioner Beltman, to set a repair limit of \$30,000 before replacing the boiler. Motion withdrawn by Commissioner Beltman.

The chair called for a vote on the original motion. Motion carried by roll call vote. Yeas: 5 votes. Nays: 0 votes.

**BREAK – 10:52 A.M.**

**10/** Upon reconvening at 11:02 A.M., the following Commissioners were present: Commissioner Van Beek, DeYoung, Lubbers, Beltman and Dugan. Absent: None.

**PLANNING ITEMS:**

**BOARD STRATEGIC PLAN, PARKS AND RECREATION PLAN**

**11/** Dan Wedge introduced Brandy Gildea who presented the Parks and Recreation Plan.

**APPOINTMENTS**

**12/ JURY BOARD**

Chair Dugan announced the appointment of the following individual(s) to the Jury Board to fill a 6-year term; term to expire 8/1/31.

Corlyn Oetman, 3250 Lakeview Dr., Allegan, MI 49010

Kenny Clevenger, 375 BlueStar Hwy., South Haven, MI 49040

Moved by Commissioner Beltman, seconded by Commissioner Lubbers to approve the appointment(s) as made. Motion carried by voice vote. Yeas: 5 votes. Nays: 0 votes.

**13/ TOURIST COUNCIL**

Chair Dugan announced the appointment of the following individual(s) to the Tourist Council to fill an existing term; term to expire 12/31/26.

Janet Burgoyne, 3602 Allegan Dam Rd., Allegan, MI 49010.

Moved by Commissioner Beltman, seconded by Commissioner Van Beek to approve the appointment(s) as made. Motion carried by voice vote. Yeas: 5 votes. Nays: 0 votes.

**PUBLIC PARTICIPATION – NO COMMENTS**

**14/** Chair Dugan opened the meeting to public participation and as there were no comments from the public, he closed the meeting to public participation.

**ADJOURNMENT UNTIL AUGUST 28, 2025 AT 9:00 A.M.**

**15/** Moved by Commissioner Lubbers, seconded by Commissioner Beltman to adjourn until August 28, 2025 at 9:00 A.M. The motion carried by voice vote and the meeting was adjourned at 12:00 P.M. Yeas: 5 votes. Nays: 0 votes.



---

Deputy Clerk

---

Board Chair

Minutes approved during the 8/28/2025 Session

DRAFT

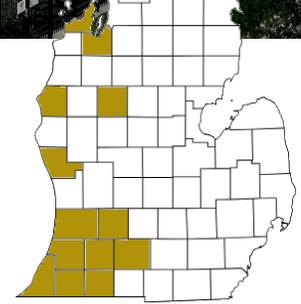


WESTERN MICHIGAN UNIVERSITY  
Homer Stryker M.D.  
SCHOOL OF MEDICINE

MEDICAL EXAMINER AND  
FORENSIC SERVICES



# ANNUAL REPORT 2024



## Office of the Medical Examiner

**Allegan**

**Barry**

**Berrien**

**Calhoun**

**Cass**

**Grand Traverse**

**Kalamazoo**

**Leelanau**

**Mason**

**Muskegon**

**St. Joseph**

**Van Buren**

**Physical Address:**

300 Portage Street  
Kalamazoo, MI 49007  
Phone: (269) 337-6173  
After Hours: (844) 337-6001

**Mailing Address:**

1000 Oakland Drive  
Kalamazoo, MI 49008

**Hours of Operation:**

Our office operates 24 hours per day, 7 days per week, 365 days per year.

Our administrative office is open from 8:00 a.m. to 5:00 p.m. Monday through Friday, with holiday exceptions.

**Contact Information:**

If you have any questions or would like to schedule a meeting, please contact us at [pathology@wmed.edu](mailto:pathology@wmed.edu).



**TABLE OF CONTENTS**

Department of Pathology \_\_\_\_\_ 7

Letter from the Medical Examiner \_\_\_\_\_ 8

    Which deaths do we investigate? \_\_\_\_\_ 9

    Identification of Decedent \_\_\_\_\_ 9

    Indications for Complete Autopsy \_\_\_\_\_ 10

    What is the difference between Cause of Death & Manner of Death? \_\_\_\_\_ 10

    The Death Investigation Process \_\_\_\_\_ 11

    Cremation Permit Authorizations \_\_\_\_\_ 11

    Public Health & Safety \_\_\_\_\_ 12

    Unclaimed Investigations \_\_\_\_\_ 12

    Terms \_\_\_\_\_ 13

    Important note regarding the data in this report: \_\_\_\_\_ 13

Allegan County \_\_\_\_\_ 14

    Summary of All Allegan County Cases \_\_\_\_\_ 14

    Cremation Permit Authorizations, Allegan County \_\_\_\_\_ 14

    Manners of Death Reported, Allegan County \_\_\_\_\_ 15

    Deaths Reported by Age (in years), Allegan County \_\_\_\_\_ 15

    Pediatric Deaths, Allegan County \_\_\_\_\_ 16

    Accidental Deaths by Mechanism, Allegan County \_\_\_\_\_ 16

    Drug-Related Deaths by Manner, Allegan County \_\_\_\_\_ 17

    Suicides by Age, Allegan County \_\_\_\_\_ 17

    Suicides by Mechanism, Allegan County \_\_\_\_\_ 18

    Homicides by Mechanism, Allegan County \_\_\_\_\_ 18

Barry County \_\_\_\_\_ 19

    Summary of All Barry County Cases \_\_\_\_\_ 19

    Cremation Permit Authorizations, Barry County \_\_\_\_\_ 19

    Manners of Death Reported, Barry County \_\_\_\_\_ 20

    Deaths Reported by Age (in years), Barry County \_\_\_\_\_ 20

    Pediatric Deaths, Barry County \_\_\_\_\_ 21

    Accidental Deaths by Mechanism, Barry County \_\_\_\_\_ 21

    Drug-Related Deaths by Manner, Barry County \_\_\_\_\_ 21

    Suicides by Age, Barry County \_\_\_\_\_ 22

    Suicides by Mechanism, Barry County \_\_\_\_\_ 22

    Homicides by Mechanism, Barry County \_\_\_\_\_ 23

Berrien County \_\_\_\_\_ 24

    Summary of All Berrien County Cases \_\_\_\_\_ 24

    Cremation Permit Authorizations, Berrien County \_\_\_\_\_ 24

    Manners of Death Reported, Berrien County \_\_\_\_\_ 25

Deaths Reported by Age (in years), Berrien County	25
Pediatric Deaths, Berrien County	26
Accidental Deaths by Mechanism, Berrien County	26
Drug-Related Deaths by Manner, Berrien County	27
Suicides by Age, Berrien County	27
Suicides by Mechanism, Berrien County	28
Homicides by Mechanism, Berrien County	28
Calhoun County	29
Summary of All Calhoun County Cases	29
Cremation Permit Authorizations, Calhoun County	29
Manners of Death Reported, Calhoun County	30
Deaths Reported by Age (in years), Calhoun County	30
Pediatric Deaths, Calhoun County	31
Accidental Deaths by Mechanism, Calhoun County	31
Drug-Related Deaths by Manner, Calhoun County	32
Suicides by Age, Calhoun County	32
Suicides by Mechanism, Calhoun County	33
Homicides by Mechanism, Calhoun County	33
Cass County	34
Summary of All Cass County Cases	34
Cremation Permit Authorizations, Cass County	34
Manners of Death Reported, Cass County	35
Deaths Reported by Age (in years), Cass County	35
Pediatric Deaths, Cass County	35
Accidental Deaths by Mechanism, Cass County	36
Drug-Related Deaths by Manner, Cass County	36
Suicides by Age, Cass County	37
Suicides by Mechanism, Cass County	37
Grand Traverse County	38
Summary of All Grand Traverse County Cases	38
Cremation Permit Authorizations, Grand Traverse County	38
Manners of Death Reported, Grand Traverse County	39
Deaths Reported by Age (in years), Grand Traverse County	39
Pediatric Deaths, Grand Traverse County	40
Accidental Deaths by Mechanism, Grand Traverse County	40
Drug-Related Deaths by Manner, Grand Traverse County	41
Suicides by Age, Grand Traverse County	41
Suicides by Mechanism, Grand Traverse County	42
Homicides by Mechanism, Grand Traverse County	42

Kalamazoo County \_\_\_\_\_ 43

- Summary of All Kalamazoo County Cases \_\_\_\_\_ 43
- Cremation Permit Authorizations, Kalamazoo County \_\_\_\_\_ 43
- Manners of Death Reported, Kalamazoo County \_\_\_\_\_ 44
- Deaths Reported by Age (in years), Kalamazoo County \_\_\_\_\_ 44
- Pediatric Deaths, Kalamazoo County \_\_\_\_\_ 45
- Accidental Deaths by Mechanism, Kalamazoo County \_\_\_\_\_ 46
- Drug-Related Deaths by Manner, Kalamazoo County \_\_\_\_\_ 46
- Suicides by Age, Kalamazoo County \_\_\_\_\_ 47
- Suicides by Mechanism, Kalamazoo County \_\_\_\_\_ 48
- Homicides by Mechanism, Kalamazoo County \_\_\_\_\_ 48

Leelanau County \_\_\_\_\_ 49

- Summary of All Leelanau County Cases \_\_\_\_\_ 49
- Cremation Permit Authorizations, Leelanau County \_\_\_\_\_ 49
- Manners of Death Reported, Leelanau County \_\_\_\_\_ 50
- Deaths Reported by Age (in years), Leelanau County \_\_\_\_\_ 50
- Pediatric Deaths, Leelanau County \_\_\_\_\_ 51
- Accidental Deaths by Mechanism, Leelanau County \_\_\_\_\_ 51
- Drug-Related Deaths by Manner, Leelanau County \_\_\_\_\_ 51
- Suicides by Age, Leelanau County \_\_\_\_\_ 52
- Suicides by Mechanism, Leelanau County \_\_\_\_\_ 52

Mason County \_\_\_\_\_ 53

- Summary of All Mason County Cases \_\_\_\_\_ 53
- Cremation Permit Authorizations, Mason County \_\_\_\_\_ 53
- Manners of Death Reported, Mason County \_\_\_\_\_ 54
- Deaths Reported by Age (in years), Mason County \_\_\_\_\_ 54
- Pediatric Deaths, Mason County \_\_\_\_\_ 55
- Accidental Deaths by Mechanism, Mason County \_\_\_\_\_ 55
- Drug-Related Deaths by Manner, Mason County \_\_\_\_\_ 55
- Suicides by Age, Mason County \_\_\_\_\_ 56
- Suicides by Mechanism, Mason County \_\_\_\_\_ 56

Muskegon County \_\_\_\_\_ 57

- Summary of All Muskegon County Cases \_\_\_\_\_ 57
- Cremation Permit Authorizations, Muskegon County \_\_\_\_\_ 57
- Manners of Death Reported, Muskegon County \_\_\_\_\_ 58
- Deaths Reported by Age (in years), Muskegon County \_\_\_\_\_ 58
- Pediatric Deaths, Muskegon County \_\_\_\_\_ 59
- Homicides by Mechanism, Muskegon County \_\_\_\_\_ 59
- Accidental Deaths by Mechanism, Muskegon County \_\_\_\_\_ 60

Drug-Related Deaths by Manner, Muskegon County _____	60
Suicides by Age, Muskegon County _____	61
Suicides by Mechanism, Muskegon County _____	61
St. Joseph County _____	62
Summary of All St. Joseph County Cases _____	62
Cremation Permit Authorizations, St. Joseph County _____	62
Manners of Death Reported, St. Joseph County _____	63
Deaths Reported by Age (in years), St. Joseph County _____	63
Pediatric Deaths, St. Joseph County _____	64
Accidental Deaths by Mechanism, St. Joseph County _____	64
Drug-Related Deaths by Manner, St. Joseph County _____	65
Suicides by Age, St. Joseph County _____	65
Suicides by Mechanism, St. Joseph County _____	66
Homicides by Mechanism, St. Joseph County _____	66
Van Buren County _____	67
Summary of All Van Buren County Cases _____	67
Cremation Permit Authorizations, Van Buren County _____	67
Manners of Death Reported, Van Buren County _____	68
Deaths Reported by Age (in years), Van Buren County _____	68
Pediatric Deaths, Van Buren County _____	69
Accidental Deaths by Mechanism, Van Buren County _____	69
Drug-Related Deaths by Manner, Van Buren County _____	70
Suicides by Age, Van Buren County _____	70
Suicides by Mechanism, Van Buren County _____	71
Homicides by Mechanism, Van Buren County _____	71
Additional Services & STATs _____	72
Division of Neuropathology _____	72
Forensic Anthropology _____	73
Hospital/Private/Consultant Postmortem Examinations _____	74
Referrals & Donations to Organ Procurement Organizations (OPO), 2024 _____	74
Comparison of All Medical Examiner Counties, 2024 _____	75
Forensic Postmortem Examinations, 2024 _____	76
Manners of Death Reported, All Medical Examiner Counties, 2024 _____	77
Significant Death Statistics, 2024 _____	78

# DEPARTMENT OF PATHOLOGY

## FORENSIC PATHOLOGISTS

### **Patrick A. Hansma, DO**

Assistant Professor  
Program Director, Forensic Pathology  
Fellowship  
Medical Examiner

### **Amanda O. Fisher-Hubbard, MD**

Vice Chair & Associate Professor  
Chief, Division of Neuropathology  
Director, Research Histology Laboratory  
Deputy Medical Examiner

### **Edmund R. Donoghue, MD**

Professor  
Deputy Medical Examiner

### **Thomas J. Koster, DO**

Assistant Professor  
Deputy Medical Examiner

### **Christine R. James, DO**

Assistant Professor  
Associate Program Director, Forensic  
Pathology Fellowship  
Deputy Medical Examiner

### **Jared K. Brooks, MD**

Assistant Professor  
Deputy Medical Examiner

### **Anna K. Tart, MD**

Assistant Professor  
Deputy Medical Examiner

## CONSULTING EXPERTS

### **Prentiss Jones, Jr., PhD**

Interim Chair & Professor  
Forensic Toxicologist

### **Jered B. Cornelison, PhD, D-ABFA**

Associate Professor  
Forensic Anthropologist

### **Christine M. Pink, PhD, D-ABFA**

Assistant Professor  
Forensic Anthropologist

## TRAINEES

### **Nicolas A. Kostecky, MD**

Forensic Pathology Fellow  
July 2024 – June 2025

### **B E. Charles, PhD**

Forensic Anthropology Fellow  
July 2024 – June 2026

## EXECUTIVE STAFF

### **Abigail J. Grande, MPH**

Senior Manager, Research & Autopsy  
Operations

### **John D. Storer, MSIR, MASS, D-ABMDI**

Chief Investigator

# LETTER FROM THE MEDICAL EXAMINER

The Medical Examiner's Office is a public health office, and the purpose of forensic pathology is preventive medicine. Though we cannot intervene for those who have already died, the numbers aggregated in this report not only represent deaths which occurred but opportunities to recognize threats to public health, and efforts to intervene at the population level within each county WMed serves.

WMed is pleased to provide these data, and hope that opportunities are not lost to enact meaningful changes which directly affect public health. We believe board certified forensic pathologists and offices accredited by the National Association of Medical Examiners are the gold standard for answering the public need for a Medical Examiner's Office. We also believe WMed is a leader within the state of Michigan in practicing forensic pathology at that gold standard. It is our pleasure and honor to serve each of our counties with the highest quality of medicolegal death investigation available. Everyone in the state deserves to be served equally at this standard, by board-certified experts at an accredited facility.

Respectfully,



Patrick Hansma, DO  
Medical Examiner



## Which deaths do we investigate?

The Michigan Compiled Laws (MCL) [52.202](#) require the county medical examiner or deputy medical examiner to investigate the cause and manner of death of an individual under each of the following circumstances:

- The individual dies by violence.
- The individual's death is unexpected.
- The individual dies without medical attendance by a physician, or the individual dies while under home hospice care without medical attendance by a physician or a registered nurse during the 48 hours immediately preceding the time of death, unless the attending physician, if any, is able to determine accurately the cause of death.
- The individual dies as the result of an abortion, whether self-induced or otherwise.
- If a prisoner in a county or city jail dies while imprisoned, the county medical examiner or deputy county medical examiner, upon notification of the death of the prisoner, shall examine the body of the deceased prisoner.

We also consider the National Association of Medical Examiners (NAME) standards in deciding which deaths to investigate, which include:

- Deaths due to violence.
- Known or suspected non-natural deaths.
- Unexpected or unexplained deaths when in apparent good health.
- Unexpected or unexplained deaths of infants and children.
- Deaths occurring under unusual or suspicious circumstances.
- Deaths of persons in custody.
- Deaths known or suspected to be caused by diseases constituting a threat to
- Deaths of persons not under the care of a physician.



In 2024, our office underwent routine NAME site inspection and was accredited for another four-year term! To learn more about NAME standards or NAME-accredited facilities, visit: [www.thename.org](http://www.thename.org).

## Identification of Decedent

In Michigan, MCL [52.205](#) requires a scientific identification in cases where visual identification of a decedent is impossible as a result of burns, decomposition, or other disfiguring injuries, or the death is the result of an accident that involved two or more individuals who were approximately the same age, sex, height, weight, hair color, eye color and race. In these cases, the county medical examiner is required to verify the identity of the decedent through fingerprints, dental records, DNA or another definitive identification procedure.

## Indications for Complete Autopsy

The decision regarding whether a complete autopsy should be performed is based on the NAME Autopsy Performance Standards. Consequently, an autopsy is performed when the:

1. Death is known or suspected to have been caused by apparent criminal violence.
2. Death is unexpected and unexplained in an infant or child.
3. Death is associated with police action.
4. Death is apparently non-natural and in custody of a local, state, or federal institution.
5. Death is due to acute workplace injury.
6. Death is caused by apparent electrocution.
7. Death is by apparent intoxication by alcohol, drugs, or poison, unless a significant interval has passed, and the medical findings and absence of trauma are well documented.
8. Death is caused by unwitnessed or suspected drowning.
9. Body is unidentified and the autopsy may aid in identification.
10. Body is skeletonized.
11. Body is charred.
12. Forensic pathologist deems a forensic autopsy is necessary to determine cause or manner of death, or document injuries/disease, or collect evidence.
13. Deceased is involved in a motor vehicle incident and an autopsy is necessary to document injuries and/or determine the cause of death.

## What is the difference between Cause of Death & Manner of Death?

The cause of death is (a) the disease or injury that initiated the train of morbid events leading directly to death, or (b) the circumstances of the accident or violence that produced fatal injury.

Manner of death determination is something that originated in the United States. Unlike the cause of death, with thousands of possibilities, in Michigan, manner of death is limited to: *Natural*, *Suicide*, *Accident*, *Homicide* and *Indeterminate*. The fundamental purpose for determining the manner of death is for public health surveillance and vital statistics.

- **Natural** deaths are due solely or nearly totally to disease and/or the aging process.
- **Accident** applies when an injury or poisoning (such as a drug overdose) causes death and there is little or no evidence that the injury or poisoning occurred with intent to harm or cause death. In essence, the fatal outcome was unintentional.
- **Suicide** results from an injury or poisoning as a result of an intentional, self-inflicted act.
- **Homicide** occurs when the death results from a volitional act committed by another person to cause fear, harm, or death. Intent to cause death is a common element but is not required for classification as a homicide. It has to be emphasized that the classification of homicide for the purpose of death certification is a "neutral" term and neither indicates nor implies criminal intent, which remains a determination within the province of legal processes.
- **Indeterminate** is a classification used when the information pointing to one manner of death is no more compelling than one or more other competing manners of death, in thorough consideration of all available information.

In general, when death involves a combination of natural processes and external factors, such as injury or poisoning, preference is given to the non-natural manner of death.

## The Death Investigation Process

A medical examiner investigator (MEI) responds to nearly all of the death scenes. The MEI is trained to recognize the vast majority of the deaths requiring postmortem examinations and, in those cases, immediately arranges for transport to WMed for a postmortem examination. Homicides, infant deaths, and drug overdoses are examples of the deaths that are immediately sent.

If the death does not appear to meet the requirements for a postmortem examination, the MEI contacts the on-call medical examiner to discuss the case before releasing the body to a funeral home. The MEI writes a report documenting their findings and uploads images obtained at the investigation. These reports and photos are reviewed by the medical examiner or deputy medical examiner.

The medical examiner or a deputy medical examiner is assigned to each case and generally uses one of the following approaches in each of the deaths for which our office is responsible:

- **Declined Jurisdiction:** A reported death classified as an attended natural death should be documented as a Declined Jurisdiction case. Jurisdiction is declined when the death does not meet the required reporting criteria per Michigan statutes.
- **Release to Funeral Home:** The body is released directly from the scene to the funeral home. The MEI at the scene views the body and collects information on the scene, medical history, and social history. This information is provided to the on-call medical examiner who may decide to release a body directly to the funeral home chosen by the family.
- **Storage:** The body will be taken to WMed for temporary storage until a funeral home has been chosen. If family cannot be found or if the family does not take responsibility for the disposition of the decedent, the unclaimed investigation process ensues.
- **External Examination:** An external examination includes a careful evaluation of the circumstances of the death and an examination of the external surfaces of the body, with possible laboratory/toxicology testing.
- **Limited Examination:** A limited examination generally is within an anatomic boundary (such as a brain only examination) to recover a foreign body or to answer specific questions. This type of examination may also include toxicology testing. This type of exam is rare and used in only special circumstances.
- **Complete Autopsy:** A complete examination includes external and internal examination, with possible toxicology.

## Cremation Permit Authorizations

MCL [52.210](#) requires funeral directors and embalmers to obtain a signed permit from the medical examiner for the county in which the death occurred. Our office reviews thousands of cremation permit requests each year. The requests for authorization to cremate involve reviewing the death certificate provided by the funeral director to ascertain that the deaths that should have been reported to our office were, in fact, reported. Deaths that were not properly reported are investigated before cremation is authorized. We provide monthly detailed reports to the counties that charge for cremation permits to allow them to send invoices, as needed.

## **Public Health & Safety**

The major purpose of the Medical Examiner's Office is to conduct death investigations. The information obtained from individual death investigations may also be studied collectively to gather information that could be used to address public health and safety issues. Our office participates with the Child Death Review Team in all 13 counties, providing significant information regarding how children died with the goal of preventing future deaths.

With funding from the Michigan Department of Health and Human Services (MDHHS), our team grew in 2020 to include a Drug Fatality and Surveillance Analyst specifically to assist with tackling the evolving opioid epidemic. This has involved increased surveillance of all drug-related deaths and more detailed death certification in these types of cases across each county we serve. Our team worked with MDHHS, the Michigan Public Health Institute (MPHI), and multiple counties to progress legislation for the creation and confidentiality protections for Overdose Fatality Review Teams across the state. This bill was signed by the Governor and went into effect in early 2024 with the support of several staff and faculty members from within our team.

With continued funding from MDHHS, our office has established multiple Elder Death Review Teams (EDRTs) throughout the counties that we serve. Currently, there are nine active EDRTs that cover eleven out of the thirteen counties served by WMed. The Elder Death Review Project Coordinator coordinates with outside agencies, including the Michigan Department of Licensing and Regulatory Affairs (LARA), to systematically review elder and vulnerable adult deaths to identify gaps in reporting, communication, and improve death investigations in this population. These teams also identify trends and opportunities for the prevention of premature death.

## **Unclaimed Investigations**

When a death occurs, there is not always someone available who is willing and able to claim the decedent and arrange for final disposition with a funeral director. If the decedent did not make prior arrangements to cover the cost of final disposition, our staff members work with the State of Michigan DHHS and area funeral directors to have the decedent cremated. As this process results in an accumulation of unclaimed cremains, WMed partnered with St. Martin of Tours Episcopal Church in Kalamazoo, Michigan in 2019 to honor the decedents and bury their cremains. Each year a memorial service is held, where dedicated WMed staff volunteer to read the decedents' names, dates of birth and death, and place a cross on the cremains, located in small coffins on the grounds of the church. Plaques on the outer wall of the church also display the names of each decedent.

## Terms

- “MEI Scene Investigations” are those reported deaths for which an MEI went to the death scene.
- “Deaths Investigated” include MEI Scene Investigations as well as reported deaths that, while may not allow for a scene investigation, involved an investigation beyond the initial report of the death, usually in the form of a records review in response to information provided as part of a cremation request.
- The category “Referrals to Gift of Life” does not include in-hospital deaths reported to the Medical Examiner’s Office, which are referred to Gift of Life by hospital staff rather than the Medical Examiner’s Office.
- For “Accidental Deaths,” the subcategory “Vehicle” consists of deaths that were classified as transportation-related fatalities and includes all forms of transport; drivers/operators, passengers and pedestrians; and types of death that might otherwise fall into a different sub-classification, such as vehicle fires and traumatic asphyxia.
- Drug-related deaths specifically refer to deaths that are directly caused by an acute or mixed drug intoxication or in situations where drug intoxications directly cause or exacerbate existing medical conditions causing death.

### **Important note regarding the data in this report:**

The data reflects the county where the individual was pronounced dead rather than the county of residence or the county in which the incident leading to death might have occurred. If a motor vehicle collision occurs in County A, and an individual injured in the collision is transported to and eventually reported dead in County B, the death is reported to the Medical Examiner of County B. Consequently, counties with major medical centers typically have a much higher number of deaths with injuries that may have occurred in another county.

In April of 2024, the Medical Examiner’s Office at WMed began providing services to Osceola County. Given that there are significant limitations to the data we have access to from 2024, this report does not include overall annual statistics for the county. Inclusion of Osceola County annual data will resume in 2025.

Additionally, there are limitations to the data presented in this report. For more specific information regarding decedent demographics and/or case circumstances, formal data inquiry requests can be made by contacting our office via phone or email. Our office continues to work diligently to provide the most accurate information about and to the communities that we serve.

## Summary of All Allegan County Cases

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total Deaths in the County	753	745	788	772	819	974	958	987	867 <sup>1</sup>	916 <sup>2</sup>
Deaths Reported to the ME	176	203	188	197	219	291	279	279	225	229
Deaths Investigated	170	192	164	191	199	278	264	272	217	219
MEI Scene Investigations	152	174	158	185	179	250	228	240	194	202
Death Certificates by ME	77	85	76	88	88	120	108	122	107	94
Bodies Transported to WMed	66	62	69	72	69	90	80	100	95	76
Complete Autopsy	32	36	45	41	37	54	51	54	37	32
Limited Autopsy	2	5	2	2	3	6	3	3	8	7
External Examination	18	17	13	24	21	23	19	24	38	27
Storage Only at WMed	14	4	9	5	8	7	7	19	12	10
Total Cases with Toxicology	47	52	54	59	55	79	69	75	60	61
Unidentified Remains After Exam	1	0	0	1	2	0	0	0	1	0
Referrals to Gift of Life	64	63	73	61	55	97	103	138	98	123
Tissue Donations	8	5	6	4	11	9	8	12	9	14
Cornea Donations	7	4	7	4	5	5	2	5	4	9
Unclaimed Investigations	3	1	2	2	8	9	10	10	11	6
Exhumations	0	0	0	0	0	0	0	0	0	0

## Cremation Permit Authorizations, Allegan County

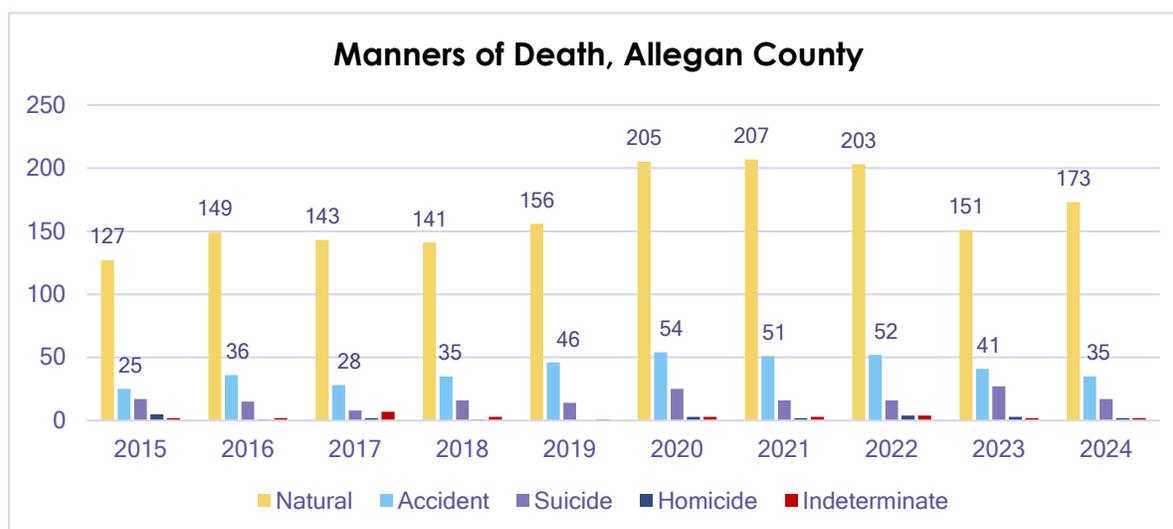
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Cremation Permits	404	442	469	487	519	650	644	665	618	659
% of Total Deaths with Cremation	54%	60%	60%	63%	63%	67%	67%	68%	71%	72%

<sup>1</sup> Updated total number of deaths occurring in the county

<sup>2</sup> Provisional total number of deaths occurring in the county

## Manners of Death Reported, Allegan County

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Natural	127	149	143	141	156	205	207	203	151	173
Accident	25	36	28	35	46	54	51	52	41	35
Suicide	17	15	8	16	14	25	16	16	27	17
Homicide	5	1	2	1	0	3	2	4	3	2
Indeterminate	2	2	7	3	1	3	3	4	2	2 <sup>3</sup>
<b>Total</b>	<b>176</b>	<b>203</b>	<b>188</b>	<b>196</b>	<b>217</b>	<b>290</b>	<b>279</b>	<b>279</b>	<b>224</b>	<b>229</b>



## Deaths Reported by Age (in years), Allegan County<sup>4</sup>

	< 1	1 - 5	6 - 10	11 - 17	18 - 25	26 - 44	45 - 64	65 +
2015	0	1	1	5	7	15	59	87
2016	0	1	0	0	5	26	58	112
2017	3	1	0	2	3	17	54	106
2018	1	3	0	2	4	29	55	102
2019	1	0	0	0	6	22	57	131
2020	0	0	0	4	7	33	99	147
2021	0	0	0	1	3	30	89	156
2022	1	0	0	0	7	28	78	165
2023	0	0	2	3	8	28	64	119
2024	1	1	0	3	3	23	61	137

<sup>3</sup> (1) Declared deceased legally, no body found; (1) Unexpected sudden death associated with unsafe sleep

<sup>4</sup> All stillbirths and spontaneous abortions (miscarriages) investigated but not requiring an examination have been removed from this table for a more accurate representation of deaths reported under the age of one year

## Pediatric Deaths, Allegan County

The five deaths of individuals under 18 years of age include:

1. <1 year old
  - a. (1) Unexpected sudden death associated with unsafe sleep; indeterminate
2. 1 – 5 years old
  - a. (1) Influenza A associated with febrile seizures; natural
3. 11 – 17 years old
  - a. (1) Blunt force injuries due to motor vehicle crash, passenger; accident
  - b. (1) Blunt force injuries due to motor vehicle crash, driver; accident
  - c. (1) Blunt force injuries due to intentional fall from height; suicide

Infant Deaths (Live Birth to 1 Year)	ME-Certified with Autopsy	ME-Certified without Autopsy	Total Certified by ME
2023	0	0	0
2024	1	0	1

## Accidental Deaths by Mechanism, Allegan County

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Vehicle	10	9	12	12	9	18	8	18	13	15
Drug-Related	7	11	10	8 <sup>5</sup>	17	14	13	15	11	5
Drowning	0	1	3	3	1	3	6	0	0	4 <sup>6</sup>
Fall	5	10	3	10	12	15	21	16	15	7
Fire	0	0	0	0	1	0	2	1	1	0
Environmental Exposure	2	1	0	0	1	2	0	0	0	1
Asphyxia	0	2	0	2	3	2	0	1	1	2 <sup>7</sup>
Other	1	2	0	0	2	0	1	1	0	1
<b>Total</b>	<b>25</b>	<b>36</b>	<b>28</b>	<b>35</b>	<b>46</b>	<b>54</b>	<b>51</b>	<b>52</b>	<b>41</b>	<b>35</b>

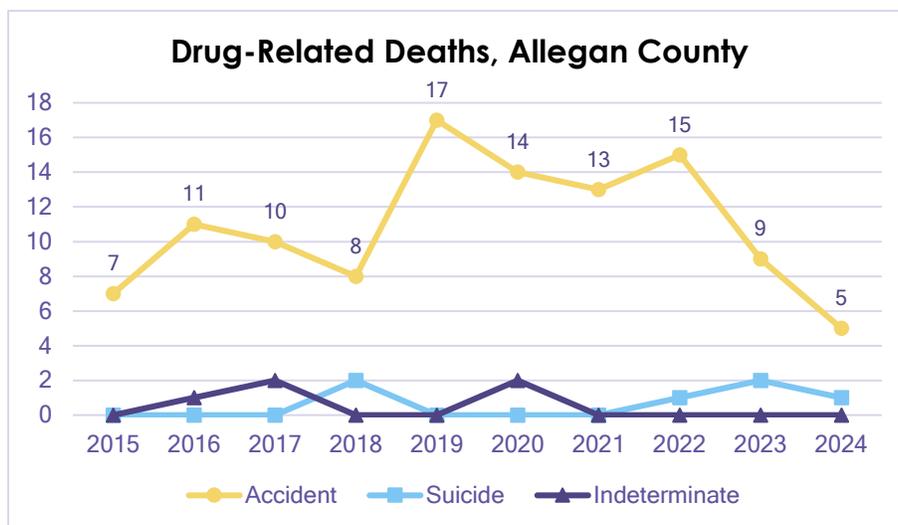
<sup>5</sup> Updated to remove a previously duplicated categorization

<sup>6</sup> Includes (1) Drowning associated with acute alcohol intoxication; (1) Drowning associated with mixed drug intoxication; (1) Submerged beneath overturned lawnmower

<sup>7</sup> Includes (1) Hanging associated with mixed drug intoxication; (1) Positional asphyxia associated with acute alcohol intoxication

## Drug-Related Deaths by Manner, Allegan County<sup>8</sup>

	2015	2016	2017	2018 <sup>9</sup>	2019	2020	2021	2022	2023	2024
Accident	7	11	10	8	17	14	13	15	9	5
Suicide	0	0	0	2	0	0	0	1	2	1
Indeterminate	0	1	2	0	0	2	0	0	0	0
<b>Total</b>	<b>7</b>	<b>12</b>	<b>12</b>	<b>10</b>	<b>17</b>	<b>16</b>	<b>13</b>	<b>16</b>	<b>11</b>	<b>6</b>
Total involving opioid(s)	6	8	6	7	13	11	9	9	6	2



## Suicides by Age, Allegan County

	Total	0-17	18-25	26-44	45-64	65+
2015	17	2	4	1	5	5
2016	15	0	3	6	3	3
2017	8	0	2	0	3	3
2018	16	0	0	7	7	2
2019	14	0	3	4	3	4
2020	25	2	1	5	14	3
2021	16	0	1	5	7	3
2022	16	0	2	6	5	3
2023	27	2	2	11	9	3
2024	17	1	0	5	6	5

<sup>8</sup> Acute alcohol intoxications are considered drug-related deaths and are included in this data

<sup>9</sup> Data updated following recategorization of case with previously duplicated categorization

## Suicides by Mechanism, Allegan County

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Firearm	11	10	7	8	6	15	12	8	14	9
Hanging	4	4	0	5	6	7	3	5	10	5
Carbon Monoxide	0	1	1	0	0	1	0	2	0	0
Drug Intoxication	0	0	0	1	0	0	0	1	2	1
Motor Vehicle	0	0	0	1	0	1	0	0	1	0
Sharp Force Trauma	0	0	0	0	1	0	1	0	0	0
Asphyxia/Suffocation	2	0	0	0	0	0	0	0	0	0
Other	0	0	0	1	1	1	0	0	0	2 <sup>10</sup>
<b>Total</b>	<b>17</b>	<b>15</b>	<b>8</b>	<b>16</b>	<b>14</b>	<b>25</b>	<b>16</b>	<b>16</b>	<b>27</b>	<b>17</b>

## Homicides by Mechanism, Allegan County

2024	
Firearm	0
Blunt Force Trauma	0
Sharp Force Trauma	2
Motor Vehicle	0
Asphyxia/Suffocation	0
Other	0
<b>Total</b>	<b>2</b>

<sup>10</sup> (1) Intentional drowning; (1) Blunt force injuries due to jump from height

# BARRY COUNTY

## Summary of All Barry County Cases<sup>11</sup>

	2015	2016 <sup>12</sup>	2018	2019	2020	2021	2022	2023	2024
Total Deaths in the County	416	399	390	399	453	530	442	440 <sup>13</sup>	465 <sup>14</sup>
Deaths Reported to the ME	125	130	146	121	161	155	135	132	158
Deaths Investigated	118	124	131	108	147	143	123	120	140
MEI Scene Investigations	112	120	128	103	132	135	116	112	129
Death Certificates by ME	53	57	52	54	52	53	64	57	57
Bodies Transported to WMed	43	47	41	38	35	41	55	42	46
Complete Autopsy	35	37	25	28	22	23	32	23	26
Limited Autopsy	1	0	1	2	2	1	1	1	4
External Examination	6	8	12	8	7	13	19	15	14
Storage Only at WMed	1	2	3	0	4	4	3	3	2
Total cases with Toxicology	N/A	N/A	35	37	28	35	44	32	39
Unidentified Remains After Exam	N/A	N/A	0	0	0	0	0	0	0
Referrals to Gift of Life	40	48	44	22	44	54	72	53	68
Tissue Donations <sup>15</sup>	6	17	3	3	2	6	9	2	4
Cornea Donations	N/A	N/A	0	1	1	4	5	3	7
Unclaimed Investigations	1	0	1	0	4	2	4	1	3
Exhumations	N/A	N/A	0	0	0	0	0	0	0

## Cremation Permit Authorizations, Barry County

	2018	2019	2020	2021	2022	2023	2024
Cremation Permits	262	251	303	354	293	313	325
% of Total Deaths with Cremation	67%	63%	67%	67%	66%	71%	70%

<sup>11</sup> Data for 2017 is not available at the time this report is authored

<sup>12</sup> Data from years 2015-2016 obtained from Sparrow Hospital

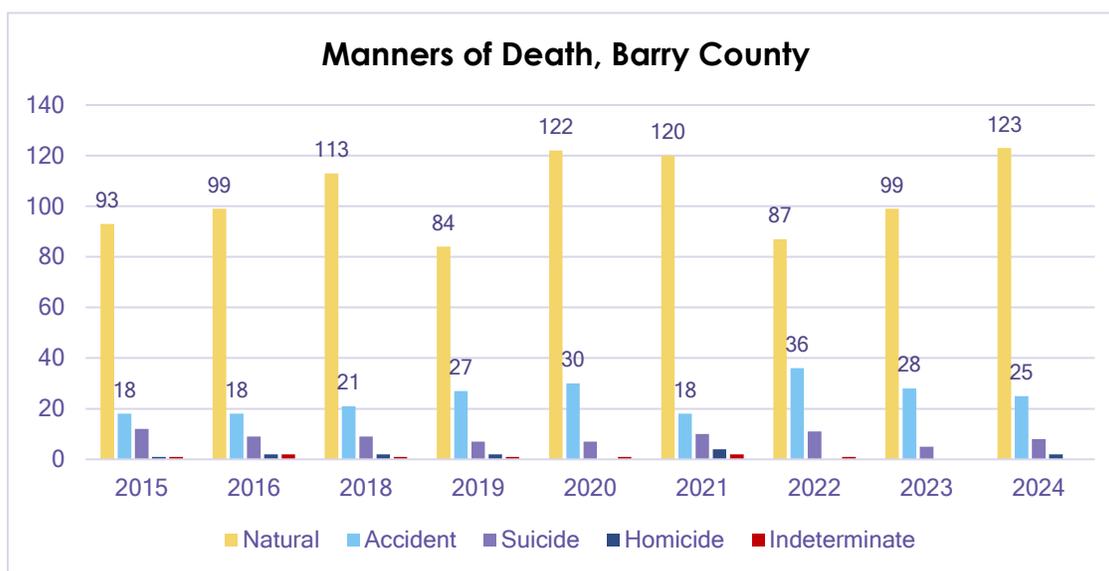
<sup>13</sup> Updated total number of deaths occurring in the county

<sup>14</sup> Provisional total number of deaths occurring in the county

<sup>15</sup> 2015 and 2016 data include both tissue and cornea donations combined

## Manners of Death Reported, Barry County<sup>16</sup>

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Natural	93	99	N/A	113	84	122	120	87	99	123
Accident	18	18	N/A	21	27	30	18	36	28	25
Suicide	12	9	N/A	9	7	7	10	11	5	8
Homicide	1	2	N/A	2	2	0	4	0	0	2
Indeterminate	1	2	N/A	1	1	1	2	1	0	0
<b>Total</b>	<b>125</b>	<b>130</b>	<b>N/A</b>	<b>146</b>	<b>121</b>	<b>160</b>	<b>154</b>	<b>135</b>	<b>132</b>	<b>158</b>



## Deaths Reported by Age (in years), Barry County<sup>17</sup>

	< 1	1 - 5	6 - 10	11 - 17	18 - 25	26 - 44	45 - 64	65 +
2018	0	0	0	1	0	8	46	89
2019	1	0	0	2	5	12	30	71
2020	3	0	0	0	4	13	42	98
2021	0	0	0	2	3	13	33	103
2022	0	0	1	2	3	17	30	82
2023	0	0	0	1	2	10	36	83
2024	0	0	0	2	7	12	39	98

<sup>16</sup> Data from years 2015-2016 obtained from Sparrow Hospital

<sup>17</sup> All stillbirths and spontaneous abortions (miscarriages) investigated but not requiring an examination have been removed from this table for a more accurate representation of deaths reported under the age of one year

## Pediatric Deaths, Barry County

The two deaths of individuals under 18 years of age include:

1. 11-17 years old
  - a. (1) Smoke inhalation (residential fire); accident
  - b. (1) Multiple blunt force injuries due to motor vehicle collision, driver; accident

Infant Deaths (Live Birth to 1 Year)	ME-Certified with Autopsy	ME-Certified without Autopsy	Total Certified by ME
2023	0	0	0
2024	0	0	0

## Accidental Deaths by Mechanism, Barry County

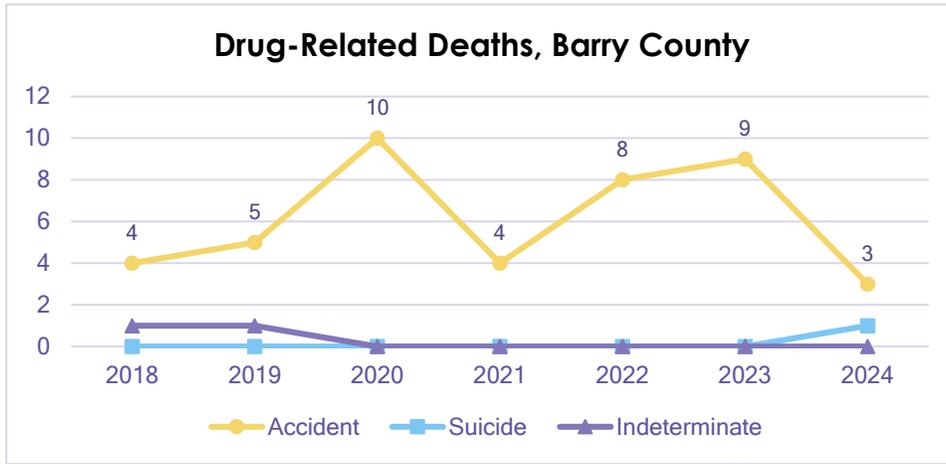
	2018	2019	2020	2021	2022	2023	2024
Vehicle	7	11	6	4	13	7	7
Drug-Related	4	5	10	4	8	9	3
Drowning	0	3	1	2	1	0	0
Fall	8	4	10	7	3	10	12
Fire	0	1	0	0	1	0	1
Environmental Exposure	0	1	0	0	3	0	2 <sup>18</sup>
Asphyxia	1	2	1	0	3	0	0
Other	1	0	2	1	4	2	0
<b>Total</b>	<b>21</b>	<b>27</b>	<b>30</b>	<b>18</b>	<b>36</b>	<b>28</b>	<b>25</b>

## Drug-Related Deaths by Manner, Barry County<sup>19</sup>

	2018	2019	2020	2021	2022	2023	2024
Accident	4	5	10	4	8	9	3
Suicide	0	0	0	0	0	0	1
Indeterminate	1	1	0	0	0	0	0
<b>Total</b>	<b>5</b>	<b>6</b>	<b>10</b>	<b>4</b>	<b>8</b>	<b>9</b>	<b>4</b>
Total involving opioid(s)	2	4	8	4	7	7	2

<sup>18</sup> Includes (1) Cold exposure associated with acute drug intoxication

<sup>19</sup> Acute alcohol intoxications are considered drug-related deaths and are included in this data



**Suicides by Age, Barry County**

	Total	0 - 17	18 - 25	26 - 44	45 - 64	65 +
2015	12	1	0	7	4	0
2016	9	1	0	1	5	2
2018	9	1	0	1	4	3
2019	7	1	1	0	3	2
2020	7	0	1	2	3	1
2021	10	1	1	1	3	4
2022	11	0	0	6	2	3
2023	5	0	2	1	2	0
2024	8	0	3	1	3	1

**Suicides by Mechanism, Barry County**

	2015	2016	2018	2019	2020	2021	2022	2023	2024
Firearm	7	7	7	4	4	9	5	3	5
Hanging	3	1	1	3	2	1	3	1	2
Carbon Monoxide	0	0	0	0	1	0	2	1	0
Drug Intoxication	2	1	0	0	0	0	0	0	1
Motor Vehicle	0	0	0	0	0	0	0	0	0
Sharp Force Trauma	0	0	0	0	0	0	1	0	0
Asphyxia/Suffocation	0	0	0	0	0	0	0	0	0
Other	0	0	1	0	0	0	0	0	0
<b>Total</b>	<b>12</b>	<b>9</b>	<b>9</b>	<b>7</b>	<b>7</b>	<b>10</b>	<b>11</b>	<b>5</b>	<b>8</b>

## Homicides by Mechanism, Barry County

2024

Firearm	1
Blunt Force Trauma	0
Sharp Force Trauma	0
Motor Vehicle	1
Asphyxia/Suffocation	0
Other	0
<b>Total</b>	<b>2</b>

## Summary of All Berrien County Cases

	2019	2020	2021	2022	2023	2024
Total Deaths in the County	1,622	1,873	1,916	1,899	1,700 <sup>20</sup>	1,736 <sup>21</sup>
Deaths Reported to the ME	430	596	604	631	626	610
Deaths Investigated	399	540	548	563	520	525
MEI Scene Investigations	353	461	484	498	466	456
Death Certificates by ME	152	207	215	271	271	233
Bodies Transported to WMed	132	152	159	191	202	172
Complete Autopsy	90	103	116	138	130	105
Limited Autopsy	5	4	3	5	6	5
External Examination	26	25	26	32	49	43
Storage Only at WMed	11	20	14	16	17	19
Total Cases with Toxicology	110	126	134	156	165	137
Unidentified Remains After Exam	1	3	1	1	0	0
Referrals to Gift of Life	80	137	156	182	216	232
Tissue Donations	7	8	7	8	24	15
Cornea Donations	4	7	4	4	12	18
Unclaimed Investigations	10	19	17	18	15	18
Exhumations	1	0	2	0	0	0

## Cremation Permit Authorizations, Berrien County

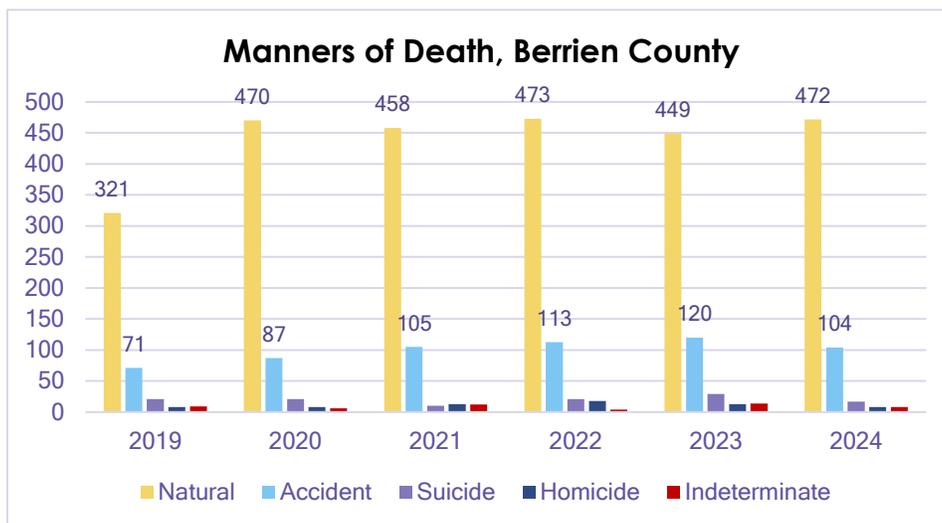
	2019	2020	2021	2022	2023	2024
Cremation Permits	1,045	1,218	1,219	1,263	1,193	1,207
% of Total Deaths with Cremation	64%	65%	64%	67%	70%	70%

<sup>20</sup> Updated total number of deaths occurring in the county

<sup>21</sup> Provisional total number of deaths occurring in the county

### Manners of Death Reported, Berrien County

	2019	2020	2021	2022	2023	2024
Natural	321	470	458	473	449	472
Accident	71	87	105	113	120	104
Suicide	21	21	10	21	29	17
Homicide	8	8	13	18	13	8
Indeterminate	9	6	12	4	14	8 <sup>22</sup>
<b>Total</b>	<b>430</b>	<b>592</b>	<b>598</b>	<b>629</b>	<b>625</b>	<b>609<sup>23</sup></b>



### Deaths Reported by Age (in years), Berrien County<sup>24</sup>

	< 1	1 - 5	6 - 10	11 - 17	18 - 25	26 - 44	45 - 64	65 +
2019	6	1	1	2	6	58	108	246
2020	2	2	0	5	16	55	172	340
2021	5	0	0	4	12	60	152	367
2022	1	2	2	7	14	66	181	356
2023	9	2	1	5	10	66	165	367
2024 <sup>25</sup>	6	0	0	2	7	42	154	398

<sup>22</sup> (1) Mixed drug intoxication; (2) Sudden unexpected death associated with unsafe sleep; (1) Acute drug intoxication associated with acute infection; (1) Complications of suspected mixed drug intoxication; (1) Found decomposed in residence, cause and manner of death could not be determined; (1) Found decomposed in shed with drug paraphernalia nearby, cause and manner of death could not be determined; (1) Blunt force injuries of unknown etiology, chronic alcohol use and cardiovascular disease

<sup>23</sup> Does not include (1) premature death investigation (patient was expected to die, but transferred out of county prior to death)

<sup>24</sup> All stillbirths and spontaneous abortions (miscarriages) investigated but not requiring an examination have been removed from this table for a more accurate representation of deaths reported under the age of one year

<sup>25</sup> Does not include (1) premature death investigation (patient was expected to die, but transferred out of county prior to death)

## Pediatric Deaths, Berrien County

The eight deaths of individuals under 18 years of age include:

1. <1 year old
  - a. (2) Unexpected sudden death associated with unsafe sleep; indeterminate
  - b. (2) Positional asphyxia (unsafe sleep); accident
  - c. (1) Probable asphyxia (unsafe sleep); accident
  - d. (1) Prematurity; natural
2. 11-17 years old
  - a. (1) Drowning; suicide
  - b. (1) Acute drug intoxication associated with acute infection; indeterminate

Infant Deaths (Live Birth to 1 Year)	ME-Certified with Autopsy	ME-Certified without Autopsy	Total Certified by ME
2023	6	0	6
2024	5	0	5

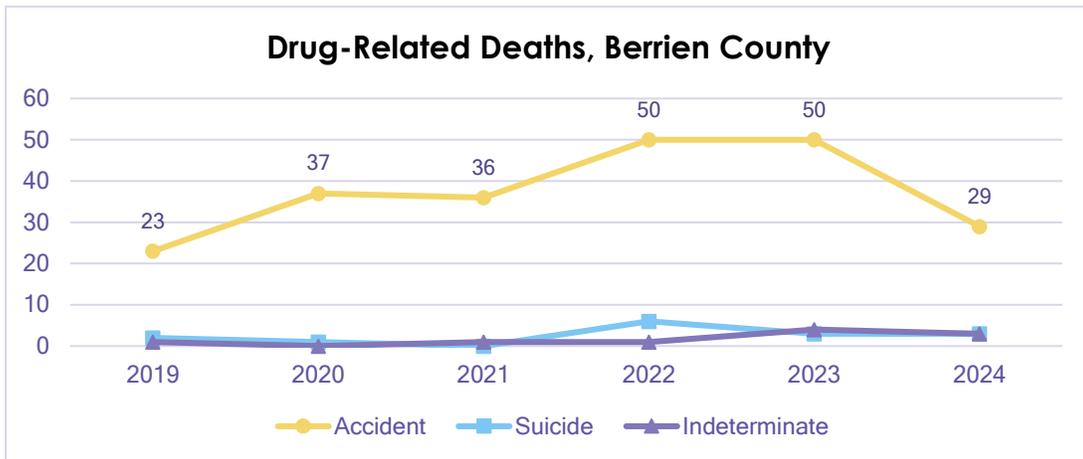
## Accidental Deaths by Mechanism, Berrien County

	2019	2020	2021	2022	2023	2024
Vehicle	21	15	24	9	16	18
Drug-Related	23	37	36	50	50	29
Drowning	4	9	3	5	6	3
Fall	12	15	34	39	38	37
Fire	2	2	1	0	4	1
Environmental Exposure	3	4	2	4	1	4
Asphyxia	3	4	3	2	3	8
Other	3	1	2	4	2	4 <sup>26</sup>
<b>Total</b>	<b>71</b>	<b>87</b>	<b>105</b>	<b>113</b>	<b>120</b>	<b>104</b>

<sup>26</sup> (2) Blunt force trauma, struck by falling tree; (1) Anaphylactic shock, stung by insect(s); (1) Cardiovascular disease associated with obesity and acute carbon monoxide poisoning

### Drug-Related Deaths by Manner, Berrien County<sup>27</sup>

	2019	2020	2021	2022	2023	2024
Accident	23	37	36	50	50	29
Suicide	2	1	0	6	3	3
Indeterminate	1	0	1	1	4	3
<b>Total</b>	<b>26</b>	<b>38</b>	<b>37</b>	<b>57</b>	<b>57</b>	<b>35</b>
Total involving opioid(s)	22	29	28	46	38	22



### Suicides by Age, Berrien County

	Total	0 - 17	18 - 25	26 - 44	45 - 64	65 +
2019	21	1	0	9	4	7
2020	21	1	2	4	8	6
2021	10	1	2	3	0	4
2022	21	1	1	6	10	3
2023	29	3	5	12	6	3
2024	17	1	2	4	6	4

<sup>27</sup> Acute alcohol intoxications are considered drug-related deaths and are included in this data

## Suicides by Mechanism, Berrien County

	2019	2020	2021	2022	2023	2024
Firearm	16	14	7	7	19	7
Hanging	3	5	3	4	6	3
Carbon Monoxide	0	0	0	0	0	0
Drug Intoxication	2	1	0	6	3	3
Motor Vehicle	0	0	0	1	1	1
Sharp Force Trauma	0	0	0	1	0	1
Asphyxia/Suffocation	0	0	0	0	0	0
Other	0	1	0	2	0	2 <sup>28</sup>
<b>Total</b>	<b>21</b>	<b>21</b>	<b>10</b>	<b>21</b>	<b>29</b>	<b>17</b>

## Homicides by Mechanism, Berrien County

	2024
Firearm	6
Blunt Force Trauma	1
Sharp Force Trauma	0
Motor Vehicle	0
Asphyxia/Suffocation	0
Other	1 <sup>29</sup>
<b>Total</b>	<b>8</b>

<sup>28</sup> (2) Drowning

<sup>29</sup> (1) Multiple chop wounds associated with blunt force trauma

## Summary of All Calhoun County Cases

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total Deaths in the County	1,378	1,427	1,396	1,495	1,521	1,786	1,799	1,714	1,451 <sup>30</sup>	1,432 <sup>31</sup>
Deaths Reported to the ME	429	411	443	475	508	585	582	544	509	530
Deaths Investigated	392	361	400	415	442	518	534	473	459	482
MEI Scene Investigations	311	307	352	387	381	450	444	408	407	401
Death Certificates by ME	180	186	191	200	176	194	244	225	209	204
Bodies Transported to WMed	164	165	176	170	146	172	188	193	190	173
Complete Autopsy	109	103	102	103	81	112	112	121	106	85
Limited Autopsy	5	4	3	8	8	6	3	3	7	7
External Examination	28	36	46	38	32	27	45	41	38	53
Storage Only at WMed	20	22	25	21	25	27	27	28	39	28
Total Cases with Toxicology	131	113	141	139	112	136	156	145	126	126
Unidentified Remains After Exam	0	0	0	0	0	0	0	0	1	0
Referrals to Gift of Life	115	118	146	107	72	102	135	186	200	198
Tissue Donations	3	11	10	11	6	11	9	13	24	16
Cornea Donations	8	11	8	9	3	5	10	9	15	24
Unclaimed Investigations	8	11	23	24	29	40	32	32	32	29
Exhumations	0	0	0	0	0	0	0	0	0	0

## Cremation Permit Authorizations, Calhoun County

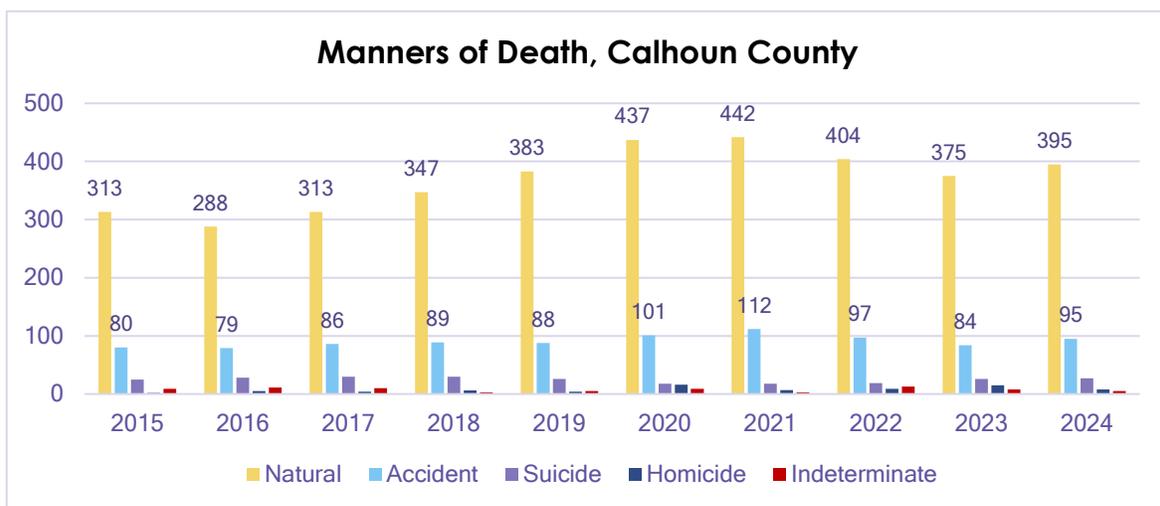
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Cremation Permits	742	811	857	901	997	1,176	1,224	1,171	1,074	1,040
% of Total Deaths with Cremation	54%	57%	61%	60%	66%	66%	68%	68%	74%	73%

<sup>30</sup> Updated total number of deaths occurring in the county

<sup>31</sup> Provisional total number of deaths occurring in the county

### Manners of Death Reported, Calhoun County

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Natural	313	288	313	347	383	437	442	404	375	395
Accident	80	79	86	89	88	101	112	97	84	95
Suicide	25	28	30	30	26	18	18	19	26	27
Homicide	2	5	4	6	4	16	7	9	15	8
Indeterminate	9	11	10	3	5	9	3	13	8	5 <sup>32</sup>
<b>Total</b>	<b>429</b>	<b>411</b>	<b>443</b>	<b>475</b>	<b>506</b>	<b>581</b>	<b>582</b>	<b>542</b>	<b>508</b>	<b>530</b>



### Deaths Reported by Age (in years), Calhoun County<sup>33</sup>

	< 1	1 - 5	6 - 10	11 - 17	18 - 25	26 - 44	45 - 64	65 +
2015	4	0	1	6	11	59	128	215
2016	4	0	2	2	9	53	122	208
2017	3	1	1	1	14	65	140	206
2018	1	0	2	2	9	45	164	241
2019	0	0	1	0	12	53	157	283
2020	6	2	0	0	12	63	184	314
2021	3	0	0	0	10	67	173	329
2022	4	2	1	3	11	50	147	324
2023	3	1	2	1	15	55	135	296
2024	4	0	1	1	13	49	163	299

<sup>32</sup> (1) Unexpected sudden death associated with unsafe sleep and possible infection; (1) Unexpected sudden death associated with unsafe sleep; (1) Found unresponsive in possible unsafe sleep situation, cause and manner of death could not be determined; (1) Sudden cardiac death of unknown etiology; (1) Thermal injuries and inhalation of products of combustion, residential fire

<sup>33</sup> All stillbirths and spontaneous abortions (miscarriages) investigated but not requiring an examination have been removed from this table for a more accurate representation of deaths reported under the age of one year

## Pediatric Deaths, Calhoun County

The six deaths of individuals under 18 years of age include:

1. <1 year old
  - a. (1) Unexpected sudden death associated with unsafe sleep and possible infection; indeterminate
  - b. (1) Unexpected sudden death associated with unsafe sleep; indeterminate
  - c. (1) Cause of death could not be determined (Found unresponsive in possible unsafe sleep situation); indeterminate
  - d. (1) Prematurity; natural
2. 6-10 years old
  - a. (1) Complications of Alagille Syndrome, traumatic brain injury due to fall; accident
3. 11-17 years old
  - a. (1) Sudden cardiac death of unknown etiology; indeterminate

Infant Deaths (Live Birth to 1 Year)	ME-Certified with Autopsy	ME-Certified without Autopsy	Total Certified by ME
2023	3	0	3
2024	3	0	3

## Accidental Deaths by Mechanism, Calhoun County

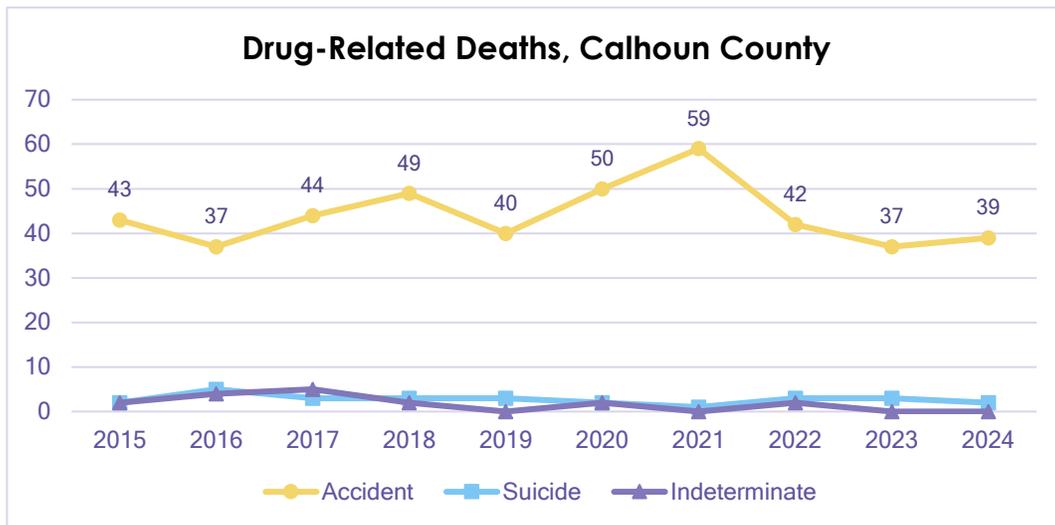
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Vehicle	21	20	14	15	15	20	17	23	19	20
Drug-Related	43 <sup>34</sup>	38	44	49	40	50	59	42	37	39
Drowning	2	2	3	1	4	2	1	1	1	2
Fall	11	14	19	19	20	19	28	27	18	26
Fire	0	1	0	1	1	0	0	1	1	0
Environmental Exposure	0	0	0	0	3	5	2	1	2	1
Asphyxia	2	2	5	3	2	4	1	2	0	4
Other	1	2	1	1	3	1	4	0	6	3 <sup>35</sup>
<b>Total</b>	<b>80</b>	<b>79</b>	<b>86</b>	<b>89</b>	<b>88</b>	<b>101</b>	<b>112</b>	<b>97</b>	<b>84</b>	<b>95</b>

<sup>34</sup> Data updated to remove a previously duplicated categorization

<sup>35</sup> (1) Electrocution; (1) Head trauma associated with supratherapeutic prescription medication; (1) Carbon monoxide poisoning, occupant of vehicle with exhaust leak

### Drug-Related Deaths by Manner, Calhoun County<sup>36</sup>

	2015 <sup>37</sup>	2016	2017	2018	2019	2020	2021	2022	2023	2024
Accident	43	37	44	49	40	50	59	42	37	39
Suicide	2	5	3	3	3	2	1	3	3	2
Homicide	0	0	0	0	0	0	0	0	1	0
Indeterminate	2	4	5	2	0	2	0	2	0	0
<b>Total</b>	<b>47</b>	<b>46</b>	<b>52</b>	<b>54</b>	<b>43</b>	<b>54</b>	<b>60</b>	<b>47</b>	<b>41</b>	<b>41</b>
Total involving opioid(s)	41	40	48	48	36	46	49	38	30	20



### Suicides by Age, Calhoun County

	Total	0 - 17	18 - 25	26 - 44	45 - 64	65 +
2015	25	2	2	7	7	7
2016	28	1	2	8	12	5
2017	30	0	4	12	7	7
2018	30	1	2	5	15	7
2019	26	0	4	9	9	4
2020	18	0	2	9	7	0
2021	18	0	1	6	5	6
2022	19	1	0	5	7	6
2023	26	0	5	11	3	7
2024	27	0	2	8	11	6

<sup>36</sup> Acute alcohol intoxications are considered drug-related deaths and are included in this data

<sup>37</sup> Data updated following recategorization of case with previously duplicated categorization

## Suicides by Mechanism, Calhoun County

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Firearm	14	14	12	17	16	11	11	11	15	15
Hanging	5	6	10	10	5	4	6	5	6	7
Carbon Monoxide	0	2	0	0	0	0	0	0	2	0
Drug Intoxication	2	5	3	3	3	2	1	3	3	2
Motor Vehicle	0	1	2	0	1	1	0	0	0	1
Sharp Force Trauma	0	0	1	0	0	0	0	0	0	0
Asphyxia/Suffocation	2	0	1	0	0	0	0	0	0	1
Other	2	0	1	0	1	0	0	0	0	1 <sup>38</sup>
<b>Total</b>	<b>25</b>	<b>28</b>	<b>30</b>	<b>30</b>	<b>26</b>	<b>18</b>	<b>18</b>	<b>19</b>	<b>26</b>	<b>27</b>

## Homicides by Mechanism, Calhoun County

2024

Firearm	6
Blunt Force Trauma	1
Sharp Force Trauma	1
Motor Vehicle	0
Asphyxia/Suffocation	0
Other	0
<b>Total</b>	<b>8</b>

<sup>38</sup> (1) Drowning associated with mixed drug intoxication

## Summary of All Cass County Cases

	2021 <sup>39</sup>	2022	2023	2024
Total Deaths in the County	420	399	373 <sup>40</sup>	359 <sup>41</sup>
Deaths Reported to the ME	147	157	157	128
Deaths Investigated	143	149	150	124
MEI Scene Investigations	140	140	145	110
Death Certificates by ME	66	75	70	60
Bodies Transported to WMed	46	56	59	53
Complete Autopsy	28	39	35	26
Limited Autopsy	1	2	1	3
External Examination	13	13	16	18
Storage Only at WMed	4	2	7	6
Total Cases with Toxicology	42	50	46	43
Unidentified Remains After Exam	0	0	2	0
Referrals to Gift of Life	56	66	69	54
Tissue Donations	4	7	12	10
Cornea Donations	2	2	6	10
Unclaimed Investigations	4	4	5	1
Exhumations	0	0	0	0

## Cremation Permit Authorizations, Cass County

	2021 <sup>42</sup>	2022	2023	2024
Cremation Permits	262	266	285	282
% of Total Deaths with Cremation	63%	67%	76%	79%

<sup>39</sup> Data provided includes January 1 to December 31, 2021, but WMed served as ME for only February 1 to December 31, 2021

<sup>40</sup> Updated total number of deaths occurring in the county

<sup>41</sup> Provisional total number of deaths occurring in the county

<sup>42</sup> Data provided includes February 1 to December 31, 2021

## Manners of Death Reported, Cass County

	2021 <sup>43</sup>	2022	2023	2024
Natural	105	112	114	95
Accident	30	35	24	26
Suicide	7	7	10	6
Homicide	3	2	1	0
Indeterminate	1	1	6	1 <sup>44</sup>
<b>Total</b>	<b>146</b>	<b>157</b>	<b>155</b>	<b>128</b>

## Deaths Reported by Age (in years), Cass County<sup>46</sup>

	< 1	1 - 5	6 - 10	11 - 17	18 – 25	26 - 44	45 - 64	65 +
2021 <sup>45</sup>	0	1	0	1	8	20	43	73
2022	1	0	0	2	4	24	44	82
2023	2	2	0	1	4	17	45	84
2024	0	0	0	1	5	13	38	71

## Pediatric Deaths, Cass County

The one death of an individual under 18 years of age includes:

1. 11-17 years old
  - a. (1) Hanging; suicide

Infant Deaths (Live Birth to 1 Year)	ME-Certified with Autopsy	ME-Certified without Autopsy	Total Certified by ME
2023	2	0	2
2024	0	0	0

<sup>43</sup> Data provided includes January 1 to December 31, 2021, but WMed served as ME for only February 1 to December 31, 2021

<sup>44</sup> (1) Thermal injuries and inhalation of products of combustion, oil tank explosion and subsequent fire

<sup>45</sup> Data provided includes January 1 to December 31, 2021, but WMed served as ME for only February 1 to December 31, 2021

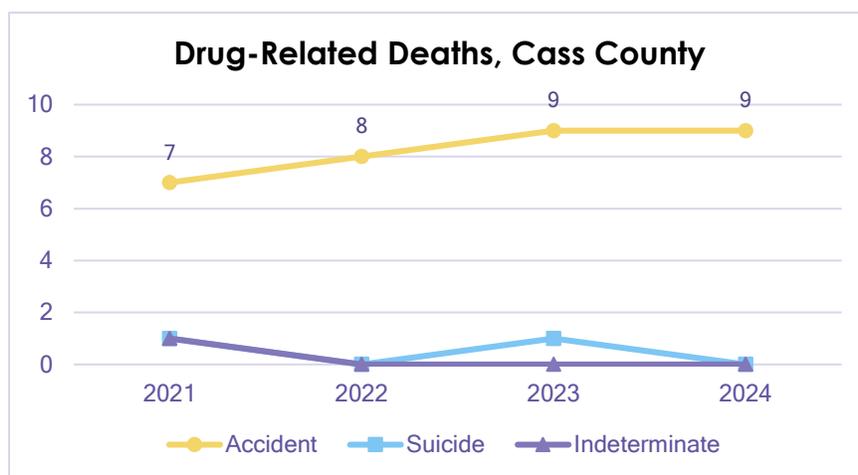
<sup>46</sup> All stillbirths and spontaneous abortions (miscarriages) investigated but not requiring an examination have been removed from this table for a more accurate representation of deaths reported under the age of one year

### Accidental Deaths by Mechanism, Cass County

	2021 <sup>47</sup>	2022	2023	2024
Vehicle	17	13	8	8
Drug-Related	7	8	9	9
Drowning	0	2	1	2
Fall	1	6	3	4
Fire	3	0	1	0
Environmental Exposure	1	0	1	1
Asphyxia	0	1	1	1 <sup>48</sup>
Other	1	5	0	1 <sup>49</sup>
<b>Total</b>	<b>30</b>	<b>35</b>	<b>24</b>	<b>26</b>

### Drug-Related Deaths by Manner, Cass County<sup>50</sup>

	2021 <sup>51</sup>	2022	2023	2024
Accident	7	8	9	9
Suicide	1	0	1	0
Indeterminate	1	0	0	0
<b>Total</b>	<b>9</b>	<b>8</b>	<b>10</b>	<b>9</b>
Total involving opioid(s)	8	6	8	2



<sup>47</sup> Data provided includes January 1 to December 31, 2021, but WMed served as ME for only February 1 to December 31, 2021

<sup>48</sup> (1) Mixed drug intoxication associated with positional asphyxia

<sup>49</sup> (1) Complications of remote head trauma

<sup>50</sup> Acute alcohol intoxications are considered drug-related deaths and are included in this data

<sup>51</sup> Data provided includes January 1 to December 31, 2021, but WMed served as ME for only February 1 to December 31, 2021

## Suicides by Age, Cass County

	Total	0 - 17	18 - 25	26 - 44	45 - 64	65 +
2021 <sup>52</sup>	7	0	0	3	2	2
2022	7	1	0	2	2	3
2023	10	0	1	2	6	1
2024	6	1	0	0	2	3

## Suicides by Mechanism, Cass County

	2021 <sup>53</sup>	2022	2023	2024
Firearm	4	6	5	2
Hanging	1	1	1	4
Carbon Monoxide	0	0	0	0
Drug Intoxication	1	0	1	0
Motor Vehicle	0	0	1	0
Sharp Force Trauma	1	0	0	0
Asphyxia/Suffocation	0	0	0	0
Other	0	0	2	0
<b>Total</b>	<b>7</b>	<b>7</b>	<b>10</b>	<b>6</b>

<sup>52</sup> Data provided includes January 1 to December 31, 2021, but WMed served as ME for only February 1 to December 31, 2021

<sup>53</sup> Data provided includes January 1 to December 31, 2021, but WMed served as ME for only February 1 to December 31, 2021

## Summary of All Grand Traverse County Cases

	2017	2018	2019	2020	2021	2022	2023	2024
Total Deaths in the County	1,306	1,413	1,345	1,572	1,782	1,669	1,620 <sup>54</sup>	1,598 <sup>55</sup>
Deaths Reported to the ME	380	350	384	495	579	532	515	461
Deaths Investigated	249	252	278	375	396	397	411	380
MEI Scene Investigations	122	206	212	211	246	247	308	231
Death Certificates by ME	153	126	131	158	159	179	228	182
Bodies Transported to WMed	77	58	65	69	80	80	114	89
Complete Autopsy	56	45	52	53	60	54	75	58
Limited Autopsy	2	0	2	3	2	6	7	2
External Examination	19	13	12	13	17	20	31	28
Storage Only at WMed	0	0	0	0	1	0	1	1
Total Cases with Toxicology	73	53	61	64	75	77	93	72
Unidentified Remains After Exam	1	2	0	1	0	0	0	2 <sup>56</sup>
Referrals to Gift of Life	44	37	43	49	75	99	92	82
Tissue Donations	4	3	1	7	4	2	5	2
Cornea Donations	4	2	0	2	0	2	0	35
Unclaimed Investigations	5	7	10	12	13	9	11	12
Exhumations	0	0	0	0	0	0	0	0

## Cremation Permit Authorizations, Grand Traverse County

	2017	2018	2019	2020	2021	2022	2023	2024
Cremation Permits	1,005	1,108	1,077	1,283	1,426	1,370	1,379	1,355
% of Total Deaths with Cremation	76%	78%	80%	82%	80%	82%	85%	85%

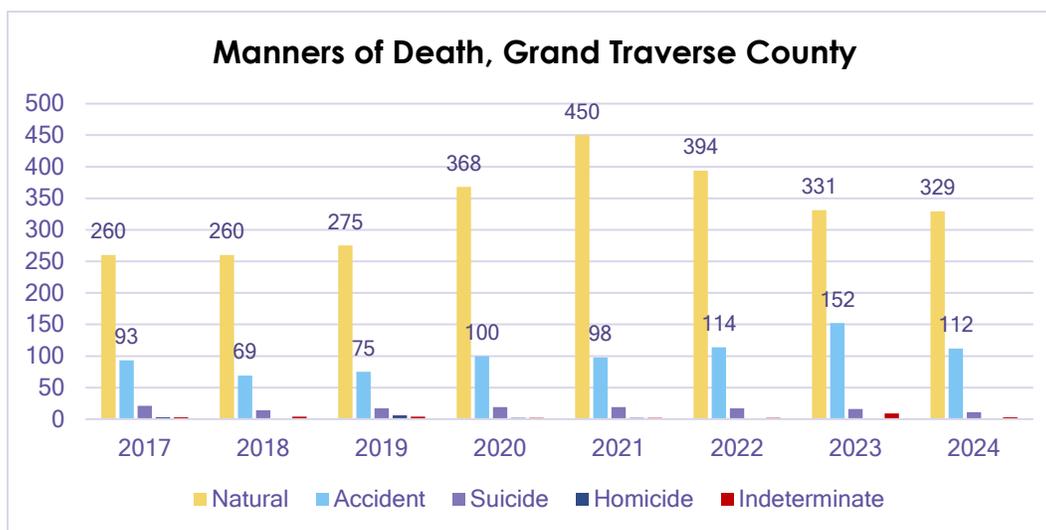
<sup>54</sup> Updated total number of deaths occurring in the county

<sup>55</sup> Provisional total number of deaths occurring in the county

<sup>56</sup> (2) Unidentified skeletal remains (likely historic) unearthed during road construction (same location, 2 different dates of excavation, minimum number of individuals: 3)

## Manners of Death Reported, Grand Traverse County

	2017	2018	2019	2020	2021	2022	2023	2024
Natural	260	260	275	368	450	394	331	329
Accident	93	69	75	100	98	114	152	111
Suicide	21	14	17	19	19	17	16	11
Homicide	3	1	6	2	2	0	1	1
Indeterminate	3	4	4	2	2	2	9	3 <sup>57</sup>
<b>Total</b>	<b>380</b>	<b>348</b>	<b>377</b>	<b>491</b>	<b>571</b>	<b>528</b>	<b>509</b>	<b>456<sup>58</sup></b>



## Deaths Reported by Age (in years), Grand Traverse County<sup>59</sup>

	< 1	1 - 5	6 - 10	11 - 17	18 - 25	26 - 44	45 - 64	65 +
2017	0	0	0	0	7	32	94	229
2018	5	0	0	2	7	22	85	216
2019	4	0	0	4	3	34	94	238
2020	7	0	0	1	10	37	122	314
2021	0	2	0	3	6	45	115	400
2022	7	0	0	0	8	42	115	355
2023	3	1	1	1	7	52	126	318
2024	0	2	2	1	9	39	83	318

<sup>57</sup> (1) Blunt force head trauma of unknown etiology, possible fall while intoxicated; (1) Thermal injuries and inhalation of products of combustion, structural fire; (1) Blunt force injuries, fall down stairs

<sup>58</sup> Does not include (4) stillbirth investigations; (2) Unidentified skeletal remains (likely historic) unearthed during road construction (same location, 2 different dates of excavation, minimum number of individuals: 3)

<sup>59</sup> All stillbirths and spontaneous abortions (miscarriages) investigated but not requiring an examination have been removed from this table for a more accurate representation of deaths reported under the age of one year

## Pediatric Deaths, Grand Traverse County

The five deaths of individuals under 18 years of age include:

1. 1 – 5 years old
  - a. (1) Complications of streptococcus pneumoniae septicemia associated with hydrocephalus and cerebral palsy; natural
  - b. (1) Multiple blunt force injuries, pedestrian versus motor vehicle; accident
2. 6 – 10 years old
  - a. (1) Multiple blunt force injuries, pedestrian versus motor vehicle; accident
  - b. (1) Sudden death in epilepsy; natural
3. 11 – 17 years old
  - a. (1) Multiple blunt force injuries, restrained backseat passenger in motor vehicle collision; accident

Infant Deaths (Live Birth to 1 Year)	ME-Certified with Autopsy	ME-Certified without Autopsy	Total Certified by ME
2023	1	0	1
2024	0	0	0

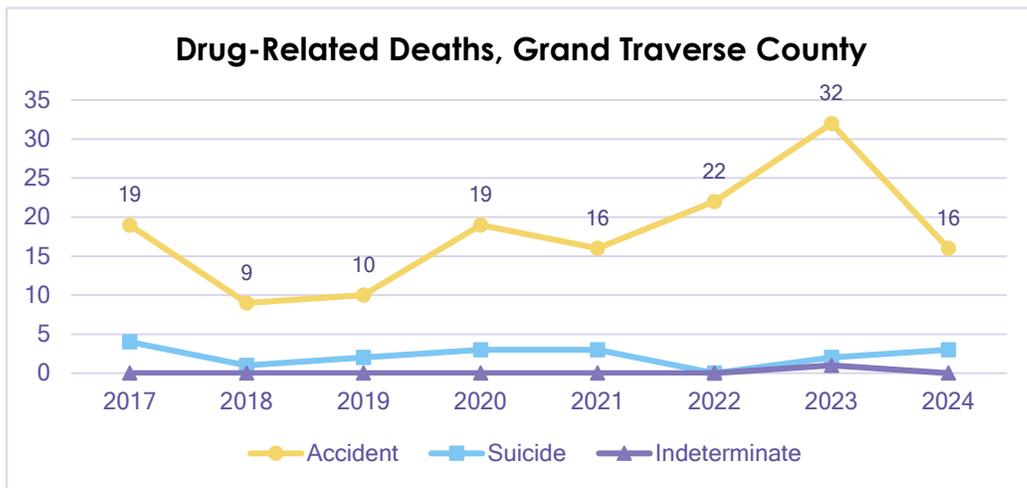
## Accidental Deaths by Mechanism, Grand Traverse County

	2017	2018	2019	2020	2021	2022	2023	2024
Vehicle	23	15	22	18	23	24	43	25
Drug-Related	19	9	10	19	16	22	32	16
Drowning	2	2	2	6	3	2	3	4
Fall	44	35	34	47	46	52	65	60
Fire	2	1	1	1	1	1	0	0
Environmental Exposure	0	1	0	4	2	4	1	0
Asphyxia	1	3	4	3	3	4	5	3
Other	2	3	2	2	4	5	3	3 <sup>60</sup>
<b>Total</b>	<b>93</b>	<b>69</b>	<b>75</b>	<b>100</b>	<b>98</b>	<b>114</b>	<b>152</b>	<b>111</b>

<sup>60</sup> (1) Blunt force injuries, struck by cattle; (1) Complications of insect bite; (1) Blunt force injuries, struck tree while sledding

### Drug-Related Deaths by Manner, Grand Traverse County<sup>61</sup>

	2017	2018	2019	2020	2021	2022	2023	2024
Accident	19	9	10	19	16	22	32	16
Suicide	4	1	2	3	3	0	2	3
Indeterminate	0	0	0	0	0	0	1	0
<b>Total</b>	<b>23</b>	<b>10</b>	<b>12</b>	<b>22</b>	<b>19</b>	<b>22</b>	<b>35</b>	<b>19</b>
Total involving opioid(s)	18	8	8	15	16	20	22	8



### Suicides by Age, Grand Traverse County

	Total	0 - 17	18 - 25	26 - 44	45 - 64	65 +
2017	21	0	3	3	9	6
2018	14	2	1	6	5	0
2019	17	3	0	9	3	2
2020	19	0	3	8	7	1
2021	19	2	1	5	4	7
2022	17	0	2	8	3	4
2023	16	0	1	5	6	4
2024	11	0	2	3	2	4

<sup>61</sup> Acute alcohol intoxications are considered drug-related deaths and are included in this data

## Suicides by Mechanism, Grand Traverse County

	2017	2018	2019	2020	2021	2022	2023	2024
Firearm	11	5	9	7	7	9	6	4
Hanging	4	5	4	5	6	6	6	0
Carbon Monoxide	0	0	1	0	2	0	1	1
Drug Intoxication	4	1	2	3	3	0	2	3 <sup>62</sup>
Motor Vehicle	1	1	0	1	0	0	0	0
Sharp Force Trauma	1	1	0	3	0	1	0	2
Asphyxia/Suffocation	0	0	0	0	0	0	0	0
Other	0	1	1	0	1	1	1	1 <sup>63</sup>
<b>Total</b>	<b>21</b>	<b>14</b>	<b>17</b>	<b>19</b>	<b>19</b>	<b>17</b>	<b>16</b>	<b>11</b>

## Homicides by Mechanism, Grand Traverse County

2024

Firearm	0
Blunt Force Trauma	1
Sharp Force Trauma	0
Motor Vehicle	0
Asphyxia/Suffocation	0
Other	0
<b>Total</b>	<b>1</b>

<sup>62</sup> Includes (1) Ingestion of household cleaning solution

<sup>63</sup> (1) Multiple injuries, jump from height

## Summary of All Kalamazoo County Cases

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total Deaths in the County	2,733	2,879	2,840	2,977	2,921	3,446	3,587	3,261	3,260 <sup>64</sup>	3,176 <sup>65</sup>
Deaths Reported to the ME	810	975	991	1,068	1,060	1,242	1,283	1,132	1,083	1,086
Deaths Investigated	646	745	733	782	781	931	1,002	893	850	880
MEI Scene Investigations	434	560	627	677	650	746	821	780	751	741
Death Certificates by ME	306	390	406	405	401	449	496	499	475	450
Bodies Transported to WMed	247	318	307	330	290	302	366	347	361	343
Complete Autopsy	142	192	189	187	180	188	222	201	193	173
Limited Autopsy	7	7	4	9	7	6	5	15	14	17
External Examination	52	60	64	68	62	60	82	82	100	86
Storage Only at WMed	46	59	50	62	41	44	55	49	54	67
Total Cases with Toxicology	174	222	238	238	224	236	292	265	261	241
Unidentified Remains After Exam	0	0	0	1	0	1	0	0	0	1 <sup>66</sup>
Referrals to Gift of Life	113	161	156	129	136	161	226	311	267	302
Tissue Donations	9	22	16	16	17	17	19	20	23	25
Cornea Donations	9	20	10	7	7	10	12	9	15	42
Unclaimed Investigations	10	10	13	41	40	48	51	67	39	63
Exhumations	0	1	0	0	0	0	0	0	0	0

## Cremation Permit Authorizations, Kalamazoo County

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Cremation Permits	1,672	1,856	1,920	2,101	2,028	2,492	2,594	2,436	2,458	2,449
% of Total Deaths with Cremation	61%	64%	68%	71%	70%	72%	72%	75%	75%	77%

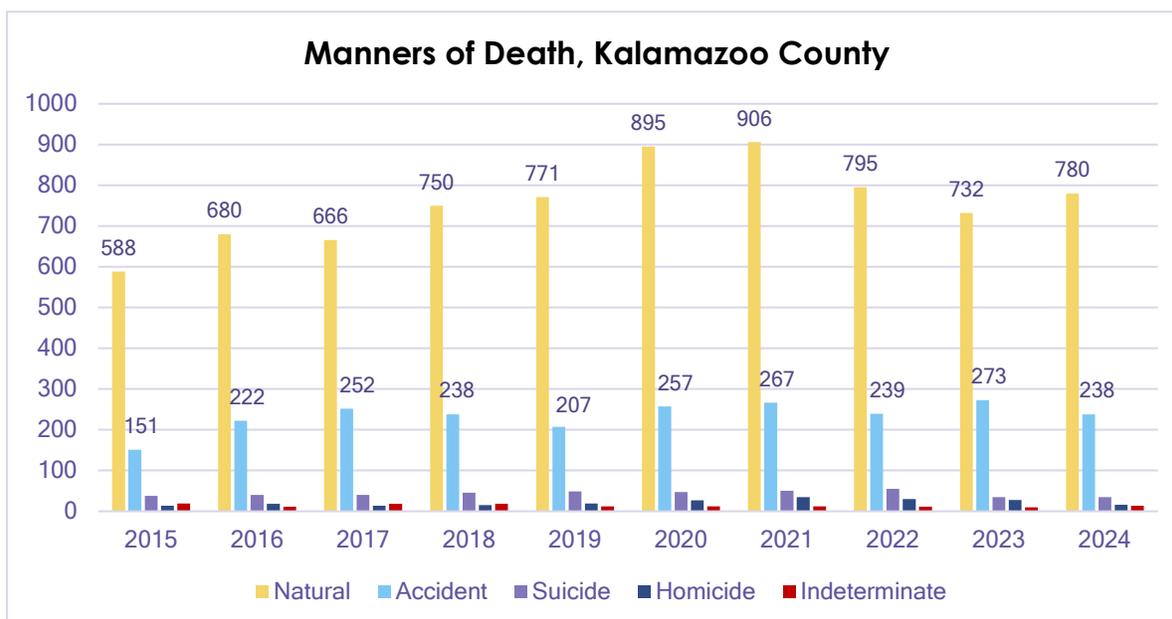
<sup>64</sup> Updated total number of deaths occurring in the county

<sup>65</sup> Provisional total number of deaths occurring in the county

<sup>66</sup> (1) Historic skeletal remains unearthed during construction

## Manners of Death Reported, Kalamazoo County

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Natural	588	680	666	750	771	895	906	795	732	780
Accident	151	222	252	238	207	257	267	239	273	238
Suicide	38	40	40	46	49	47	50	55	35	35
Homicide	14	18	14	15	19	27	35	30	28	16
Indeterminate	19	11	18	17	12	12	12	11	10	14 <sup>67</sup>
<b>Total</b>	<b>810</b>	<b>971</b>	<b>990</b>	<b>1,066</b>	<b>1,058</b>	<b>1,238</b>	<b>1,270</b>	<b>1,130</b>	<b>1,078</b>	<b>1,083<sup>68</sup></b>



## Deaths Reported by Age (in years), Kalamazoo County<sup>69</sup>

	< 1	1 - 5	6 - 10	11 - 17	18 - 25	26 - 44	45 - 64	65 +
2015	14	5	3	7	21	82	220	441
2016	5	5	3	12	37	95	269	494
2017	15	6	3	10	35	103	259	513
2018	13	5	1	9	23	97	297	571
2019	6	6	3	5	37	98	293	610

<sup>67</sup> (1) Sudden unexpected death associated with unsafe sleep and infection; (1) Sudden unexpected death associated with unsafe sleep; (1) Sudden unexpected death associated with unsafe sleep, prematurity, infection and congenital abnormality; (2) Found unresponsive, cause and manner of death could not be determined (infant death associated with potential unsafe sleep/infection); (1) Septicemia associated with remote anoxic brain injury; (1) Found unresponsive, cause and manner of death could not be determined; (1) Found dead in water, cause and manner of death could not be determined; (1) Smoke inhalation and thermal injuries due to structure fire; (1) Found dead in advanced state of decomposition, cause and manner of death could not be determined; (1) Bilateral pneumonia in individual with epilepsy of unknown etiology; (1) Malnutrition; (1) Multiple blunt force injuries, found in road, possibly struck by motor vehicle; (1) Failure to thrive associated with traumatic brain injury history and Parkinsonism

<sup>68</sup> Does not include (2) stillbirth investigations; (1) Unidentified, historical skeletal remains

<sup>69</sup> All stillbirths and spontaneous abortions (miscarriages) investigated but not requiring an examination have been removed from this table for a more accurate representation of deaths reported under the age of one year

	< 1	1 - 5	6 - 10	11 - 17	18 - 25	26 - 44	45 - 64	65 +
2020	11	4	4	9	28	130	343	709
2021	5	5	1	5	36	153	371	696
2022	8	4	4	8	25	130	279	672
2023	4	9	3	8	32	121	274	628
2024	5	3	4	12	22	99	231	707

## Pediatric Deaths, Kalamazoo County

The 24 deaths of individuals under 18 years of age include:

1. <1 year old
  - a. (1) Unexpected sudden death associated with unsafe sleep, COVID-19, rhinovirus/enterovirus; indeterminate
  - b. (1) Unexpected sudden death associated with unsafe sleep; indeterminate
  - c. (1) Unexpected sudden death associated with unsafe sleep, prematurity, rhinovirus/enterovirus, congenital cardiac abnormality; indeterminate
  - d. (1) Found unresponsive, cause and manner of death could not be terminated (unexpected sudden death associated with potential unsafe sleep, rhinovirus/enterovirus); indeterminate
  - e. (1) Acute viral hepatitis; natural
2. 1-5 years old
  - a. (1) Klebsiella pneumoniae septicemia; indeterminate
  - b. (1) Exogenous hyperthermia; accident
  - c. (1) Mechanical asphyxia; accident
3. 6-10 years old
  - a. (1) Sepsis due to Streptococcus pyogenes bronchopneumonia associated with viral upper respiratory infection; natural
  - b. (1) Complications of neurofibromatosis type 1; natural
  - c. (1) Drowning (lake); accident
  - d. (1) Blunt force injuries, bicyclist versus motor vehicle; accident
4. 11-17 years old
  - a. (1) Hanging; suicide
  - b. (1) Multiple gunshot wounds; homicide
  - c. (1) Mixed drug intoxication; accident
  - d. (1) Mixed drug intoxication; suicide
  - e. (1) Craniocerebral trauma, struck in head by foreign body; accident
  - f. (1) Drowning (lake); accident
  - g. (1) Multiple blunt force injuries, operator of all-terrain vehicle versus motor vehicle; accident
  - h. (1) Gunshot wound of head; suicide
  - i. (1) Acute hemorrhagic pancreatitis associated with T-cell acute lymphoblastic leukemia; natural
  - j. (1) Gunshot wound of torso; homicide
  - k. (1) Complications of diabetes mellitus type 1; natural
  - l. (1) Complications of neuromuscular scoliosis; natural

Infant Deaths (Live Birth to 1 Year)	ME-Certified with Autopsy	ME-Certified without Autopsy	Total Certified by ME
2023	3	0	3
2024	5	0	5

### Accidental Deaths by Mechanism, Kalamazoo County

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Vehicle	46	58	72	51	45	40	74	52	62	41 <sup>70</sup>
Drug-Related	33	72	61	63	47	69	84	62	86	60
Drowning	1	4	7	8 <sup>71</sup>	5	5	0	2	4	3
Fall	57	80	92	100	85	123	86	106	102	112
Fire	3	4	5	4	5	6	4	1	6	9
Environmental Exposure	1	1	2	3	5	5	2	5	1	4
Asphyxia	7	3	6	6	12	6	7	3	9	4 <sup>72</sup>
Other	3	1	7	3	3	3	10	8	3	5 <sup>73</sup>
<b>Total</b>	<b>151</b>	<b>223</b>	<b>252</b>	<b>238</b>	<b>207</b>	<b>257</b>	<b>267</b>	<b>239</b>	<b>273</b>	<b>238</b>

### Drug-Related Deaths by Manner, Kalamazoo County<sup>74</sup>

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Accident	33	72	61	63	47	69	84	62	86	60
Suicide	8	3	12	5	11	4	6	8	3	6
Homicide	0	0	1	0	0	0	0	0	0	0
Indeterminate	3	5	5	7	3	1	2	3	1	0
<b>Total</b>	<b>44</b>	<b>80</b>	<b>79</b>	<b>75</b>	<b>61</b>	<b>74</b>	<b>92</b>	<b>73</b>	<b>90</b>	<b>66</b>
Total involving opioid(s)	30	64	59	51	32	56	63	43	67	32

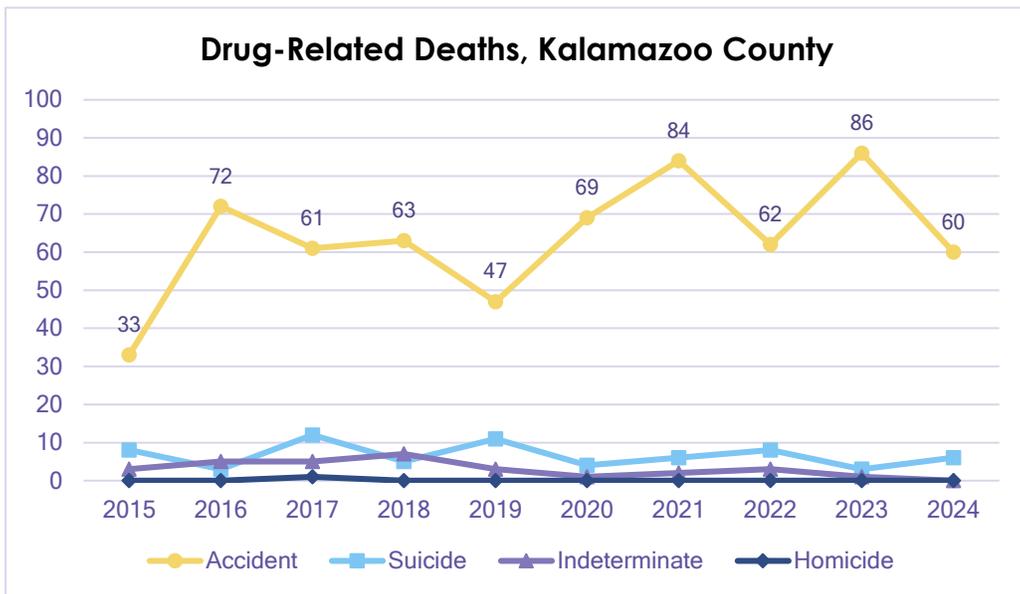
<sup>70</sup> Includes (1) blunt force head trauma due to fall out of the back of a moving motor vehicle; (1) Blunt force injuries due to boat collision

<sup>71</sup> Updated to remove a previously duplicated categorization

<sup>72</sup> Includes (1) Positional asphyxia associated with acute on chronic alcohol use

<sup>73</sup> (1) Anaphylaxis due to contrast dye administration; (1) Carbon monoxide poisoning associated with recent illicit drug use; (1) Craniocerebral trauma, struck by foreign body; (1) Multiple blunt force injuries associated with possible mechanical asphyxia (vehicle fell from jack onto individual); (1) Blunt force head trauma, struck by falling tree branch

<sup>74</sup> Acute alcohol intoxications are considered drug-related deaths and are included in this data



### Suicides by Age, Kalamazoo County

	Total	0 - 17	18 - 25	26 - 44	45 - 64	65 +
2015	38	3	6	8	14	7
2016	40	3	7	13	12	5
2017	40	1	3	14	14	8
2018	46	2	9	11	11	13
2019	49	3	13	14	13	6
2020	47	3	5	15	19	5
2021	50	1	8	20	17	4
2022	55	2	5	17	21	10
2023	35	0	4	13	13	5
2024	35	3	5	12	6	9

## Suicides by Mechanism, Kalamazoo County

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Firearm	19	19	14	26	22	21	22	30	16	18
Hanging	9	13	12	13	12	21	17	12	13	7
Carbon Monoxide	1	2	0	0	0	1	0	0	0	9
Drug Intoxication	8	3	12	5	11	4	6	8	3	6 <sup>75</sup>
Motor Vehicle	1	0	0	0	2	0	2	1	1	1
Sharp Force Trauma	0	2	2	0	0	0	1	2	0	0
Asphyxia/Suffocation	0	0	0	1	1	0	0	1	0	0
Other	0	1	0	1	1	0	2	1	2	3 <sup>76</sup>
<b>Total</b>	<b>38</b>	<b>40</b>	<b>40</b>	<b>46</b>	<b>49</b>	<b>47</b>	<b>50</b>	<b>55</b>	<b>35</b>	<b>35</b>

## Homicides by Mechanism, Kalamazoo County

	2024
Firearm	12
Blunt Force Trauma	2
Sharp Force Trauma	2
Motor Vehicle	0
Asphyxia/Suffocation	0
Other	0
<b>Total</b>	<b>16</b>

<sup>75</sup> Includes (1) Mixed drug intoxication associated with possible self-inflicted suffocation

<sup>76</sup> (1) Self-immolation; (a) Blunt force injuries sustained in fall from height; (1) Blunt force injuries sustained in fall down stairs

## Summary of All Leelanau County Cases

	2017	2018	2019	2020	2021	2022	2023	2024
Total Deaths in the County	148	175	145	187	213	204	187 <sup>77</sup>	202 <sup>78</sup>
Deaths Reported to the ME	39	46	33	45	61	56	38	42
Deaths Investigated	36	45	33	44	60	55	38	42
MEI Scene Investigations	24	41	28	31	43	37	28	28
Death Certificates by ME	21	15	13	11	24	25	12	13
Bodies Transported to WMed	10	9	8	7	12	16	9	7
Complete Autopsy	9	7	6	1	9	11	1	1
Limited Autopsy	1	0	0	0	0	0	1	0
External Examination	0	2	2	6	3	5	7	6
Storage Only	0	0	0	0	0	0	0	0
Total Cases with Toxicology	10	8	8	6	11	15	6	7
Unidentified Remains After Exam	0	0	0	0	0	0	0	0
Referrals to Gift of Life	6	8	6	7	14	21	13	12
Tissue Donations	0	1	1	1	1	2	0	1
Cornea Donations	0	0	0	0	0	1	0	0
Unclaimed Investigations	0	0	0	0	0	0	2	1
Exhumations	0	0	0	0	0	0	0	0

## Cremation Permit Authorizations, Leelanau County

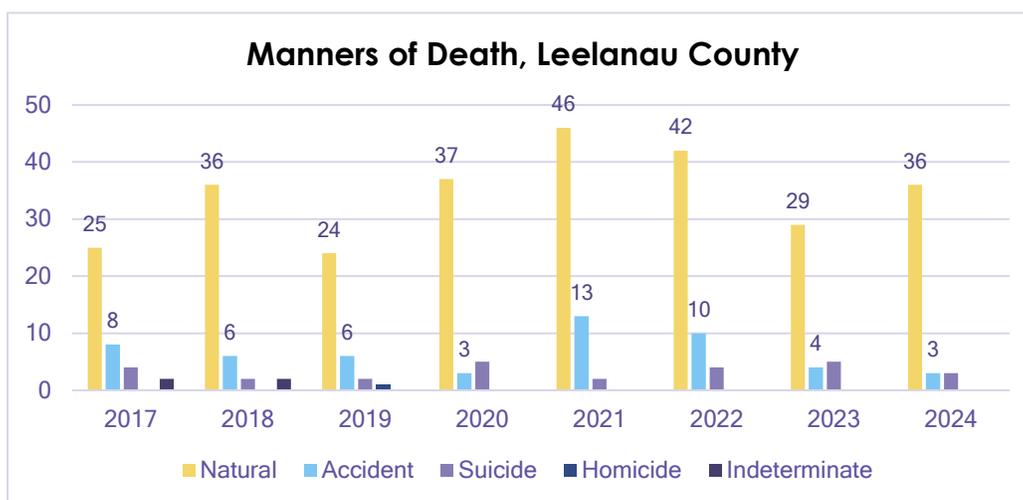
	2017	2018	2019	2020	2021	2022	2023	2024
Cremation Permits	105	130	102	132	164	141	163	172
% of Total Deaths with Cremation	71%	74%	70%	71%	77%	69%	87%	85%

<sup>77</sup> Updated total number of deaths occurring in the county

<sup>78</sup> Provisional total number of deaths occurring in the county

## Manners of Death Reported, Leelanau County

	2017	2018	2019	2020	2021	2022	2023	2024
Natural	25	36	24	37	46	42	29	36
Accident	8	6	6	3	13	10	4	3
Suicide	4	2	2	5	2	4	5	3
Homicide	0	0	1	0	0	0	0	0
Indeterminate	2	2	0	0	0	0	0	0
<b>Total</b>	<b>39</b>	<b>46</b>	<b>33</b>	<b>45</b>	<b>61</b>	<b>56</b>	<b>38</b>	<b>42</b>



## Deaths Reported by Age (in years), Leelanau County<sup>79</sup>

	< 1	1 - 5	6 - 10	11 - 17	18 - 25	26 - 44	45 - 64	65 +
2017	0	0	0	1	3	3	7	25
2018	0	0	1	0	1	3	7	34
2019	0	0	0	0	1	2	5	25
2020	0	0	0	0	0	2	10	33
2021	0	1	0	1	1	7	11	40
2022	0	0	0	0	0	5	12	39
2023	0	0	0	0	0	2	11	25
2024	0	0	0	0	1	3	10	28

<sup>79</sup> All stillbirths and spontaneous abortions (miscarriages) investigated but not requiring an examination have been removed from this table for a more accurate representation of deaths reported under the age of one year

## Pediatric Deaths, Leelanau County

Infant Deaths (Live Birth to 1 Year)	ME-Certified with Autopsy	ME-Certified without Autopsy	Total Certified by ME
2023	0	0	0
2024	0	0	0

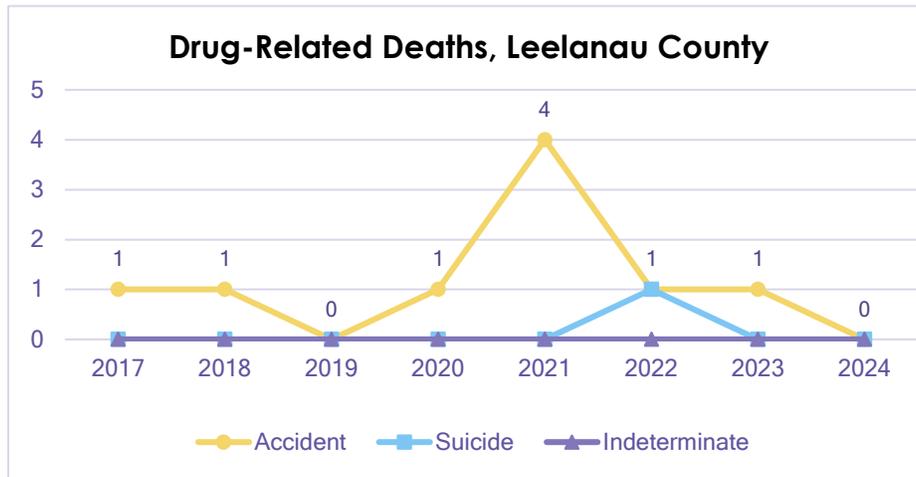
## Accidental Deaths by Mechanism, Leelanau County

	2017	2018	2019	2020	2021	2022	2023	2024
Vehicle	2	1	3	1	1	4	0	0
Drug-Related	1	1	0	1	4	1	1	0
Drowning	0	2	2	0	1	1	2	1
Fall	0	1	1	0	5	2	0	2
Fire	0	0	0	0	0	0	0	0
Environmental Exposure	0	0	0	0	1	2	0	0
Asphyxia	0	1	0	1	0	0	1	0
Other	1	0	0	0	1	0	0	0
<b>Total</b>	<b>4</b>	<b>6</b>	<b>6</b>	<b>3</b>	<b>13</b>	<b>10</b>	<b>4</b>	<b>3</b>

## Drug-Related Deaths by Manner, Leelanau County<sup>80</sup>

	2017	2018	2019	2020	2021	2022	2023	2024
Accident	1	1	0	1	4	1	1	0
Suicide	0	0	0	0	0	1	0	0
Indeterminate	0	0	0	0	0	0	0	0
<b>Total</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>0</b>
Total involving opioid(s)	1	0	0	1	3	2	0	0

<sup>80</sup> Acute alcohol intoxications are considered drug-related deaths and are included in this data



### Suicides by Age, Leelanau County

	Total	0 - 17	18 - 25	26 - 44	45 - 64	65 +
2017	4	1	0	0	1	2
2018	2	0	0	0	0	2
2019	2	0	0	1	1	0
2020	5	0	0	1	1	3
2021	2	1	0	1	0	0
2022	4	0	0	1	2	1
2023	5	0	0	1	1	3
2024	3	0	1	1	1	0

### Suicides by Mechanism, Leelanau County

	2017	2018	2019	2020	2021	2022	2023	2024
Firearm	2	2	2	3	0	1	3	0
Hanging	1	0	0	2	2	1	2	3
Carbon Monoxide	0	0	0	0	0	0	0	0
Drug Intoxication	0	0	0	0	0	1	0	0
Motor Vehicle	0	0	0	0	0	0	0	0
Sharp Force Trauma	0	0	0	0	0	0	0	0
Asphyxia/Suffocation	0	0	0	0	0	0	0	0
Other	1	0	0	0	0	1	0	0
<b>Total</b>	<b>4</b>	<b>2</b>	<b>2</b>	<b>5</b>	<b>2</b>	<b>4</b>	<b>5</b>	<b>3</b>

## Summary of All Mason County Cases

	2018	2019	2020	2021	2022	2023	2024
Total Deaths in the County	311	287	344	373	345	308 <sup>81</sup>	293 <sup>82</sup>
Deaths Reported to the ME	107	110	111	139	115	105	90
Deaths Investigated	92	93	97	124	98	96	84
MEI Scene Investigations	88	84	83	111	88	93	71
Death Certificates by ME	53	52	34	44	39	46	40
Bodies Transported to WMed	37	34	22	32	25	35	32
Complete Autopsy	29	25	12	20	15	22	17
Limited Autopsy	0	0	3	1	0	2	2
External Examination	6	7	7	7	10	11	12
Storage Only	2	2	0	4	0	0	1
Total cases with Toxicology	32	31	21	28	22	32	29
Unidentified Remains After Exam	0	0	1	0	0	0	0
Referrals to Gift of Life	16	10	19	26	26	50	33
Tissue Donations	3	2	0	2	2	3	0
Cornea Donations	0	1	0	1	1	1	0
Unclaimed Investigations	1	0	0	6	1	0	3
Exhumations	0	0	0	0	0	0	0

## Cremation Permit Authorizations, Mason County

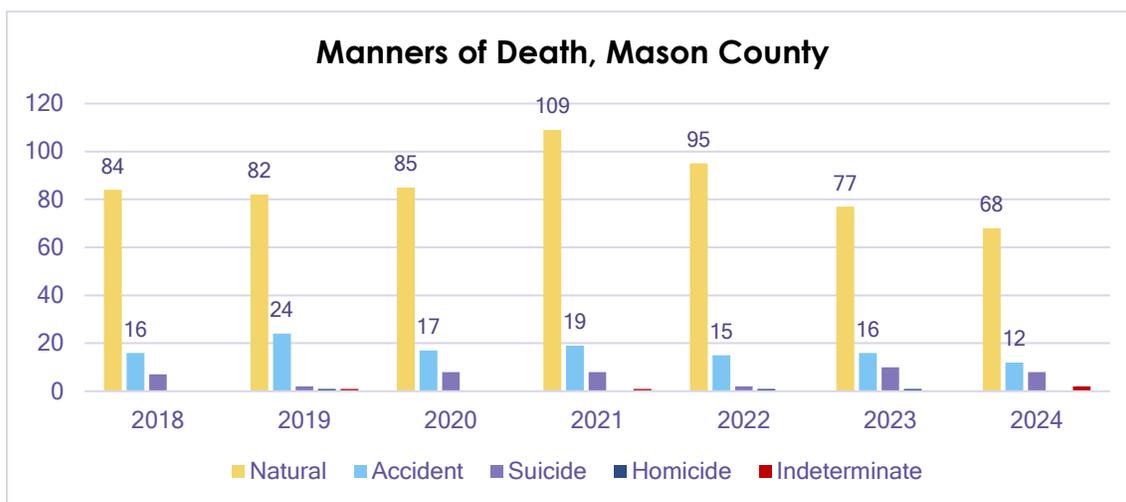
	2018	2019	2020	2021	2022	2023	2024
Cremation Permits	231	224	288	300	255	264	244
% of Total Deaths with Cremation	74%	78%	84%	80%	74%	86%	83%

<sup>81</sup> Updated total number of deaths occurring in the county

<sup>82</sup> Provisional total number of deaths occurring in the county

## Manners of Death Reported, Mason County

	2018	2019	2020	2021	2022	2023	2024
Natural	84	82	85	109	95	77	68
Accident	16	24	17	19	15	16	12
Suicide	7	2	8	8	2	10	8
Homicide	0	1	0	0	1	1	0
Indeterminate	0	1	0	1	0	0	2 <sup>83</sup>
<b>Total</b>	<b>107</b>	<b>110</b>	<b>110</b>	<b>137</b>	<b>113</b>	<b>104</b>	<b>90</b>



## Deaths Reported by Age (in years), Mason County<sup>84</sup>

	<1	1 - 5	6 - 10	11 - 17	18 - 25	26 - 44	45 - 64	65 +
2018	0	0	0	3	2	13	25	63
2019	0	0	0	1	5	7	30	67
2020	0	0	0	0	1	10	28	71
2021	0	0	0	1	2	15	31	88
2022	0	0	0	0	0	12	23	78
2023	1	0	0	0	2	12	26	63
2024	0	0	0	0	0	10	28	52

<sup>83</sup> (1) Found dead in bed, cause and manner of death could not be determined; (1) Cardiovascular disease, found submerged, could not rule out drowning

<sup>84</sup> All stillbirths and spontaneous abortions (miscarriages) investigated but not requiring an examination have been removed from this table for a more accurate representation of deaths reported under the age of one year

## Pediatric Deaths, Mason County

Infant Deaths (Live Birth to 1 Year)	ME-Certified with Autopsy	ME-Certified without Autopsy	Total Certified by ME
2023	0	0	0
2024	0	0	0

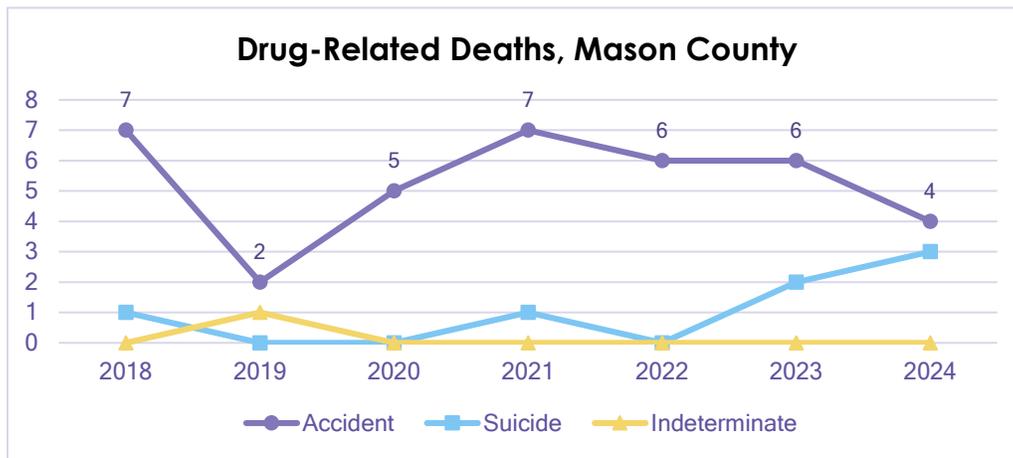
## Accidental Deaths by Mechanism, Mason County

	2018	2019	2020	2021	2022	2023	2024
Vehicle	5	6	4	5	8	3	4
Drug-Related	6	2	5	7	6	6	4
Drowning	1	7	2	2	0	1	1
Fall	3	6	4	4	1	2	2
Fire	0	0	0	0	0	0	1
Environmental Exposure	0	3	0	0	0	0	0
Asphyxia	0	0	1	1	0	0	0
Other	0	0	1	0	0	4	0
<b>Total</b>	<b>16</b>	<b>24</b>	<b>17</b>	<b>19</b>	<b>15</b>	<b>16</b>	<b>12</b>

## Drug-Related Deaths by Manner, Mason County<sup>85</sup>

	2018	2019	2020	2021	2022	2023	2024
Accident	7	2	5	7	6	6	4
Suicide	1	0	0	1	0	2	3
Indeterminate	0	1	0	0	0	0	0
<b>Total</b>	<b>8</b>	<b>3</b>	<b>5</b>	<b>8</b>	<b>6</b>	<b>8</b>	<b>7</b>
Total involving opioid(s)	4	1	5	7	4	7	4

<sup>85</sup> Acute alcohol intoxications are considered drug-related deaths and are included in this data



### Suicides by Age, Mason County

	Total	0 - 17	18 - 25	26 - 44	45 - 64	65 +
2018	7	1	0	3	3	0
2019	2	0	1	1	0	0
2020	8	0	0	2	4	2
2021	8	1	0	3	4	0
2022	2	0	0	2	0	0
2023	10	0	2	3	2	3
2024	8	0	0	3	5	0

### Suicides by Mechanism, Mason County

	2018	2019	2020	2021	2022	2023	2024
Firearm	2	2	6	4	0	4	3
Hanging	4	0	2	2	2	4	2
Carbon Monoxide	0	0	0	0	0	0	0
Drug Intoxication	1	0	0	1	0	2	3
Motor Vehicle	0	0	0	0	0	0	0
Sharp Force Trauma	0	0	0	1	0	0	0
Asphyxia/Suffocation	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
<b>Total</b>	<b>7</b>	<b>2</b>	<b>8</b>	<b>8</b>	<b>2</b>	<b>10</b>	<b>8</b>

## Summary of All Muskegon County Cases

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Total Deaths in the County	1,784	1,759	1,784	1,841	1,846	2,222	2,176	2,078	1,993 <sup>86</sup>	1,902 <sup>87</sup>
Deaths Reported to the ME	605	585	629	662	670	804	842	786	724	678
Deaths Investigated	530	504	468	504	523	628	642	620	549	533
MEI Scene Investigations	501	469	425	463	467	538	537	532	503	466
Death Certificates by ME	251	231	234	235	248	255	292	317	310	261
Bodies Transported to WMed	159	167	159	161	177	167	191	222	225	196
Complete Autopsy	120	114	108	117	134	125	137	162	147	121
Limited Autopsy	4	2	4	4	5	4	4	11	8	10
External Examination	35	41	43	35	30	34	39	45	51	51
Storage Only	0	10	4	4	8	4	11	4	19	14
Total Cases with Toxicology	160	136	140	147	160	158	179	213	186	164
Unidentified Remains After Exam	0	0	0	0	0	0	1	0	0	0
Referrals to Gift of Life	139	109	122	128	104	137	155	176	182	155
Tissue Donations	17	12	9	15	12	9	12	15	9	14
Cornea Donations	20	11	7	8	6	4	8	1	4	24
Unclaimed Investigations	5	7	12	15	14	19	20	21	21	63
Exhumations	0	0	0	0	0	0	2	0	0	0

## Cremation Permit Authorizations, Muskegon County

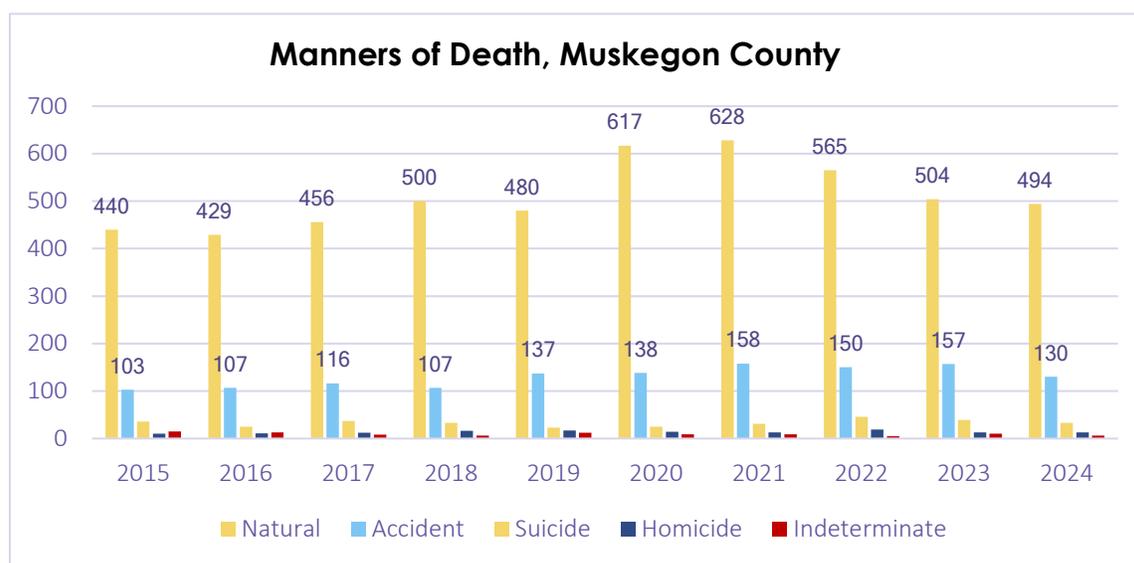
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Cremation Permits	1,116	1,138	1,188	1,264	1,383	1,600	1,637	1,582	1,561	1,491
% of Total Deaths with Cremation	63%	65%	67%	68%	75%	72%	75%	76%	78%	78%

<sup>86</sup> Updated total number of deaths occurring in the county

<sup>87</sup> Provisional total number of deaths occurring in the county

## Manners of Death Reported, Muskegon County

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Natural	440	429	456	500	480	617	628	565	504	494
Accident	103	107	116	107	137	138	158	150	157	130
Suicide	36	25	37	33	23	25	31	46	39	33
Homicide	10	11	12	16	17	14	13	19	13	13
Indeterminate	15	13	8	6	12	9	9	5	10	6 <sup>88</sup>
<b>Total</b>	<b>604</b>	<b>585</b>	<b>629</b>	<b>662</b>	<b>669</b>	<b>803</b>	<b>839</b>	<b>785</b>	<b>723</b>	<b>676<sup>89</sup></b>



## Deaths Reported by Age (in years), Muskegon County<sup>90</sup>

	< 1	1 - 5	6 - 10	11 - 17	18 - 25	26 - 44	45 - 64	65 +
2015	9	1	2	2	24	61	199	304
2016	4	2	1	5	18	55	184	303
2017	3	1	0	8	14	81	168	344
2018	1	2	3	1	16	88	190	344
2019	2	0	0	1	22	74	177	393
2020	6	0	1	6	16	87	199	488
2021	5	0	0	1	20	92	236	485

<sup>88</sup> (1) Unexpected sudden death associated with unsafe sleep, prematurity; (1) Unexpected sudden death associated with unsafe sleep, prematurity, low body weight, cardiomegaly, rhinovirus/enterovirus, genetic variant of uncertain significance; (1) Found dead in bassinet, cause and manner of death could not be determined; (1) Multiple blunt force injuries, fall from height; (1) Found deceased in advanced state of decomposition, cause and manner of death could not be determined; (1) Deceased individual was involved in motor vehicle collision, family objected to autopsy, cause and manner of death could not be determined

<sup>89</sup> Does not include (1) non-human remains; (1) Partial human remains later identified to correlate with pre-existing death investigation

<sup>90</sup> All stillbirths and spontaneous abortions (miscarriages) investigated but not requiring an examination have been removed from this table for a more accurate representation of deaths reported under the age of one year

	< 1	1 - 5	6 - 10	11 - 17	18 - 25	26 - 44	45 - 64	65 +
2022	4	1	0	4	20	98	203	455
2023	4	1	1	5	12	89	193	418
2024	5	1	0	2	17	83	176	393

## Pediatric Deaths, Muskegon County

The eight deaths of individuals under 18 years of age include:

1. <1 year old
  - a. (1) Unexpected sudden death associated with unsafe sleep, prematurity; indeterminate
  - b. (1) Unexpected sudden death associated with unsafe sleep, prematurity, low body weight, cardiomegaly, rhinovirus/enterovirus, genetic variant of uncertain significance; indeterminate
  - c. (1) Found dead in bassinet, cause of death could not be determined; indeterminate
  - d. (1) Asphyxia due to unsafe sleep (co-sleeping) associated with sickle cell disease; accident
  - e. (1) Protein deficiency associated with epilepsy and obstructive sleep apnea; natural
2. 1-5 years old
  - a. (1) Ascending pyelonephritis associated with parainfluenza 4, mycoplasma pneumonia; natural
3. 11-17 years old
  - a. (1) Sudden death due to epilepsy; natural
  - b. (1) Acute asthma exacerbation; natural

Infant Deaths (Live Birth to 1 Year)	ME-Certified with Autopsy	ME-Certified without Autopsy	Total Certified by ME
2023	3	0	3
2024	4	0	4

## Homicides by Mechanism, Muskegon County

2024

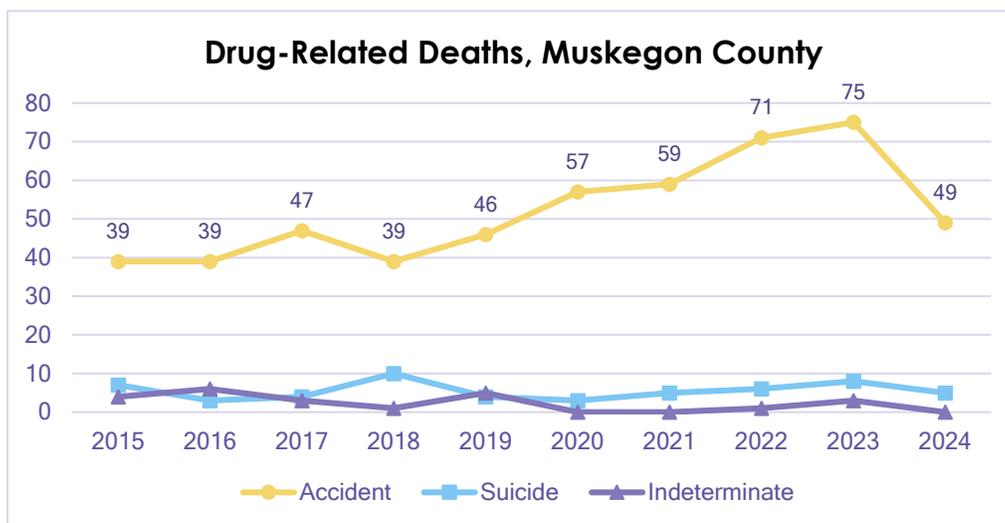
Firearm	12
Blunt Force Trauma	1
Sharp Force Trauma	0
Motor Vehicle	0
Asphyxia/Suffocation	0
Other	0
<b>Total</b>	<b>13</b>

## Accidental Deaths by Mechanism, Muskegon County

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Vehicle	22	22	22	21	33	27	28	21	24	21
Drug-Related	39	40	47	39 <sup>91</sup>	46	57	59	71	75	49
Drowning	4	2	4	2	5	4	6	5	1	5
Fall	29	32	38	37	43	38	51	42	40	42
Fire	3	1	0	0	1	3	1	1	0	2
Environmental Exposure	1	4	0	1	2	4	7	4	5	3 <sup>92</sup>
Asphyxia	3	4	2	5	4	4	3	2	6	7
Other	2	2	3	2	3	1	3	4	5	1 <sup>93</sup>
<b>Total</b>	<b>103</b>	<b>107</b>	<b>116</b>	<b>107</b>	<b>137</b>	<b>138</b>	<b>158</b>	<b>150</b>	<b>157</b>	<b>130</b>

## Drug-Related Deaths by Manner, Muskegon County<sup>94</sup>

	2015	2016	2017	2018 <sup>95</sup>	2019	2020	2021	2022	2023	2024
Accident	39	39	47	39	46	57	59	71	75	49
Suicide	7	3	4	10	4	3	5	6	8	5
Indeterminate	4	6	3	1	5	0	0	1	3	0
<b>Total</b>	<b>50</b>	<b>48</b>	<b>54</b>	<b>50</b>	<b>55</b>	<b>60</b>	<b>64</b>	<b>78</b>	<b>86</b>	<b>54</b>
Total involving opioid(s)	43	41	43	38	43	50	54	64	67	38



<sup>91</sup> Updated to remove a previously duplicated categorization

<sup>92</sup> Includes (1) Cold exposure associated with mixed drug intoxication

<sup>93</sup> (1) Extensive natural disease associated with humerus fracture

<sup>94</sup> Acute alcohol intoxications are considered drug-related deaths and are included in this data

<sup>95</sup> Data updated following recategorization of case with previously duplicated categorization

## Suicides by Age, Muskegon County

	Total	0 - 17	18 - 25	26 - 44	45 - 64	65 +
2015	36	0	7	10	8	11
2016	25	0	2	6	11	6
2017	37	3	4	10	15	5
2018	33	0	6	12	9	6
2019	23	0	3	8	8	4
2020	25	0	3	9	6	7
2021	31	0	3	12	10	6
2022	46	1	7	20	12	6
2023	39	2	6	12	10	9
2024	33	0	6	12	10	5

## Suicides by Mechanism, Muskegon County

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Firearm	11	15	19	14	13	8	10	23	20	17
Hanging	15	5	10	9	5	9	9	13	8	10
Carbon Monoxide	1	1	1	0	0	1	2	2	0	0
Drug Intoxication	7	2	4	7	4	3	5	6	8	5
Motor Vehicle	0	0	0	0	0	0	0	1	0	0
Sharp Force Trauma	2	1	0	0	1	0	1	0	1	0
Asphyxia/Suffocation	0	1	1	0	0	2	1	1	0	0
Other	0	0	2	3	0	2	3	0	2	1 <sup>96</sup>
<b>Total</b>	<b>36</b>	<b>25</b>	<b>37</b>	<b>33</b>	<b>23</b>	<b>25</b>	<b>31</b>	<b>46</b>	<b>39</b>	<b>33</b>

<sup>96</sup> Multiple blunt force injuries due to jump from height

## Summary of All St. Joseph County Cases

	2017	2018	2019	2020	2021	2022	2023	2024
Total Deaths in the County	508	530	507	541	604	562	511 <sup>97</sup>	497 <sup>98</sup>
Deaths Reported to the ME	164	157	150	200	220	198	171	170
Deaths Investigated	155	150	145	196	191	184	165	161
MEI Scene Investigations	147	141	134	172	173	161	152	139
Death Certificates by ME	66	69	70	74	73	80	76	63
Bodies Transported to WMed	56	67	61	64	54	64	57	58
Complete Autopsy	34	39	34	42	30	39	28	34
Limited Autopsy	1	2	3	4	1	4	4	0
External Examination	14	20	17	11	16	11	21	20
Storage Only	7	5	7	7	7	10	4	4
Total Cases with Toxicology	43	55	51	54	45	50	49	49
Unidentified Remains After Exam	2	0	1	0	0	0	0	0
Referrals to Gift of Life	53	45	41	71	70	102	69	76
Tissue Donations	7	6	6	4	7	5	5	7
Cornea Donations	2	3	4	1	5	5	4	6
Unclaimed Investigations	1	4	8	6	4	6	6	5
Exhumations	0	0	0	0	0	0	0	0

## Cremation Permit Authorizations, St. Joseph County

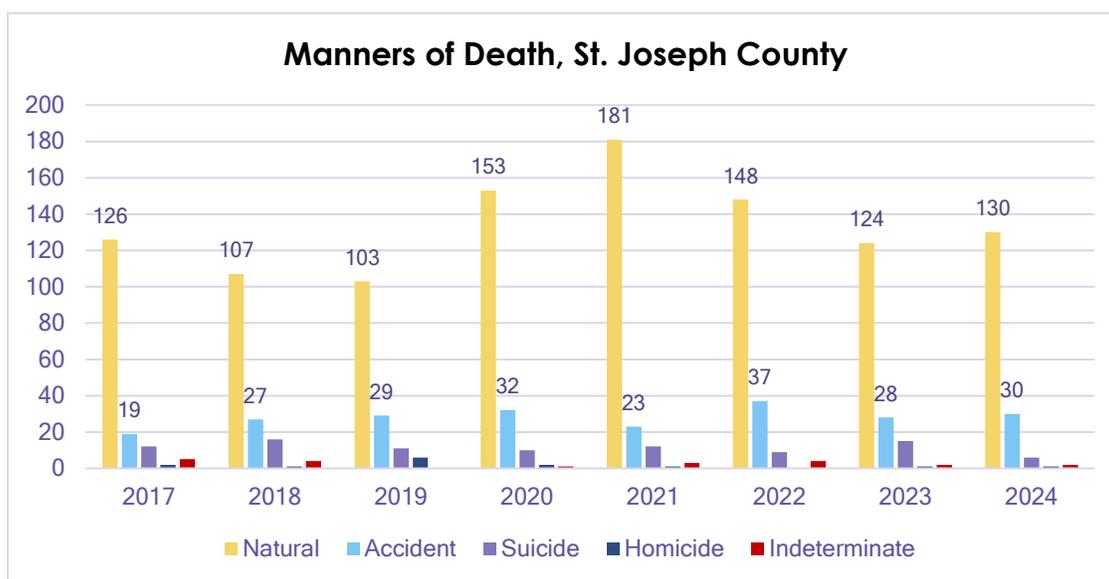
	2017	2018	2019	2020	2021	2022	2023	2024
Cremation Permits	309	306	327	386	424	408	370	371
% of Total Deaths with Cremation	61%	58%	65%	71%	71%	73%	72%	75%

<sup>97</sup> Updated total number of deaths occurring in the county

<sup>98</sup> Provisional total number of deaths occurring in the county

## Manners of Death Reported, St. Joseph County

	2017	2018	2019	2020	2021	2022	2023	2024
Natural	126	107	103	153	181	148	124	130
Accident	19	27	29	32	23	37	28	30
Suicide	12	16	11	10	12	9	15	6
Homicide	2	1	6	2	1	0	1	1
Indeterminate	5	4	0	1	3	4	2	2 <sup>99</sup>
<b>Total</b>	<b>164</b>	<b>155</b>	<b>149</b>	<b>198</b>	<b>220</b>	<b>198</b>	<b>170</b>	<b>169<sup>100</sup></b>



## Deaths Reported by Age (in years), St. Joseph County<sup>101</sup>

	< 1	1 - 5	6 - 10	11 - 17	18 - 25	26 - 44	45 - 64	65 +
2017	1	0	0	1	2	19	60	78
2018	3	2	1	3	9	17	46	70
2019	0	1	0	2	3	23	49	71
2020	2	1	0	1	6	38	66	94
2021	1	0	0	1	3	18	71	126
2022	2	2	0	2	5	15	58	114
2023	1	0	0	3	7	20	46	93
2024	1	1	1	0	2	19	33	112

<sup>99</sup> (1) Unexpected sudden death associated with unsafe sleep, fetal drug/alcohol exposure; (1) Mixed drug intoxication

<sup>100</sup> Does not include (1) stillbirth investigation

<sup>101</sup> All stillbirths and spontaneous abortions (miscarriages) investigated but not requiring an examination have been removed from this table for a more accurate representation of deaths reported under the age of one year

## Pediatric Deaths, St. Joseph County

The three deaths of individuals under 18 years of age include:

1. <1 year old
  - a. (1) Unexpected sudden death associated with unsafe sleep, prematurity, low birth weight, fetal drug and alcohol exposure; indeterminate
2. 1-5 years old
  - a. (1) Mechanical asphyxiation and Smothering; homicide
3. 6 – 10 years old
  - a. (1) Multiple blunt force injuries, bicyclist (without helmet) struck by motor vehicle; accident

Infant Deaths (Live Birth to 1 Year)	ME-Certified with Autopsy	ME-Certified without Autopsy	Total Certified by ME
2023	1	0	1
2024	1	0	1

## Accidental Deaths by Mechanism, St. Joseph County

	2017	2018	2019	2020	2021	2022	2023	2024
Vehicle	8	15	11	13	6	10	10	10
Drug-Related	6	4	10	11	6	11	8	15
Drowning	2	0 <sup>102</sup>	3	2	3	3	1	0
Fall	1	3	4	3	5	7	5	3
Fire	1	4	0	2	0	4	3	0
Environmental Exposure	0	0	1	0	0	1	0	0
Asphyxia	1	1	0	1	1	0	0	1 <sup>103</sup>
Other	0	0	0	0	2	1	1	1 <sup>104</sup>
<b>Total</b>	<b>19</b>	<b>27</b>	<b>29</b>	<b>32</b>	<b>23</b>	<b>37</b>	<b>28</b>	<b>30</b>

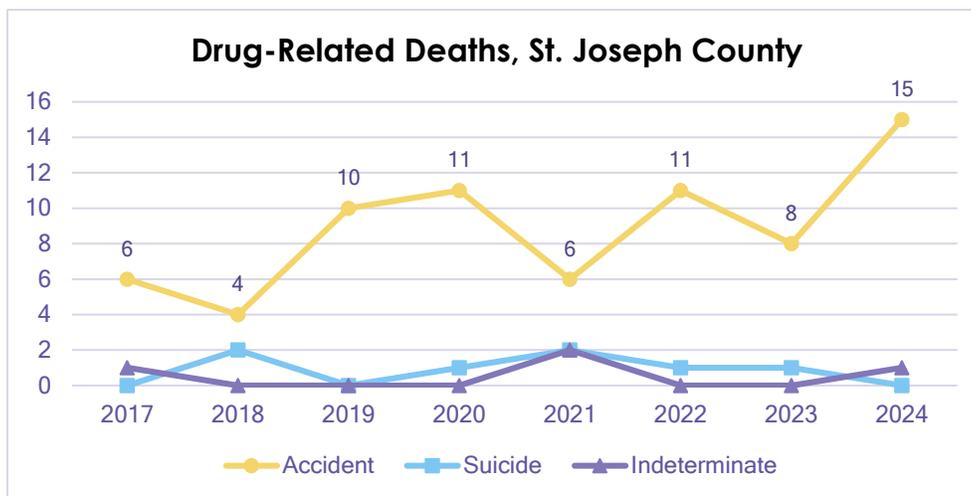
<sup>102</sup> Updated to remove a previously duplicated categorization

<sup>103</sup> (1) Choking associated with acute alcohol intoxication

<sup>104</sup> (1) Electrocution

## Drug-Related Deaths by Manner, St. Joseph County<sup>105</sup>

	2017	2018	2019	2020	2021	2022	2023	2024
Accident	6	4	10	11	6	11	8	15
Suicide	0	2	1	1	2	1	1	0
Indeterminate	1	0	0	0	2	0	0	1
<b>Total</b>	<b>7</b>	<b>6</b>	<b>11</b>	<b>12</b>	<b>10</b>	<b>12</b>	<b>9</b>	<b>16</b>
Total involving opioid(s)	6	4	4	11	7	5	6	6



## Suicides by Age, St. Joseph County

	Total	0 - 17	18 - 25	26 - 44	45 - 64	65 +
2017	12	0	1	6	3	2
2018	16	3	3	4	4	2
2019	11	1	1	5	2	2
2020	10	0	1	3	3	3
2021	12	1	1	4	5	1
2022	9	0	2	0	3	4
2023	15	1	1	6	4	3
2024	6	0	0	3	2	1

<sup>105</sup> Acute alcohol intoxications are considered drug-related deaths and are included in this data

## Suicides by Mechanism, St. Joseph County

	2017	2018	2019	2020	2021	2022	2023	2024
Firearm	4	7	8	7	2	7	7	3
Hanging	5	6	1	0	6	1	6	1
Carbon Monoxide	3	0	1	0	0	0	0	0
Drug Intoxication	0	2	1	1	2	1	1	0
Motor Vehicle	0	0	0	0	0	0	1	0
Sharp Force Trauma	0	0	0	1	1	0	0	1
Asphyxia/Suffocation	0	1	0	1	1	0	0	0
Other	0	0	0	0	0	0	0	1 <sup>106</sup>
<b>Total</b>	<b>12</b>	<b>16</b>	<b>11</b>	<b>10</b>	<b>12</b>	<b>9</b>	<b>15</b>	<b>6</b>

## Homicides by Mechanism, St. Joseph County

	2024
Firearm	0
Blunt Force Trauma	0
Sharp Force Trauma	0
Motor Vehicle	0
Asphyxia/Suffocation	1
Other	0
<b>Total</b>	<b>1</b>

<sup>106</sup> (1) Drowning

## Summary of All Van Buren County Cases

	2018	2019	2020	2021	2022	2023	2024
Total Deaths in the County	514	496	605	612	606	545 <sup>107</sup>	503 <sup>108</sup>
Deaths Reported to the ME	162	180	220	241	250	206	206
Deaths Investigated	146	164	203	229	238	202	201
MEI Scene Investigations	142	158	188	217	229	195	192
Death Certificates by ME	61	74	89	96	95	81	79
Bodies Transported to WMed	56	62	62	86	82	71	73
Complete Autopsy	31	40	37	54	48	39	37
Limited Autopsy	2	2	1	0	1	2	4
External Examination	20	15	17	18	22	21	23
Storage Only	3	5	6	14	11	9	9
Total Cases with Toxicology	44	53	52	69	63	55	54
Unidentified Remains After Exam	0	0	0	1	0	0	0
Referrals to Gift of Life	55	45	39	95	109	113	105
Tissue Donations	8	1	2	7	7	9	10
Cornea Donations	3	1	2	1	4	6	9
Unclaimed Investigations	2	3	4	9	11	8	9
Exhumations	1	0	0	0	0	0	0

## Cremation Permit Authorizations, Van Buren County

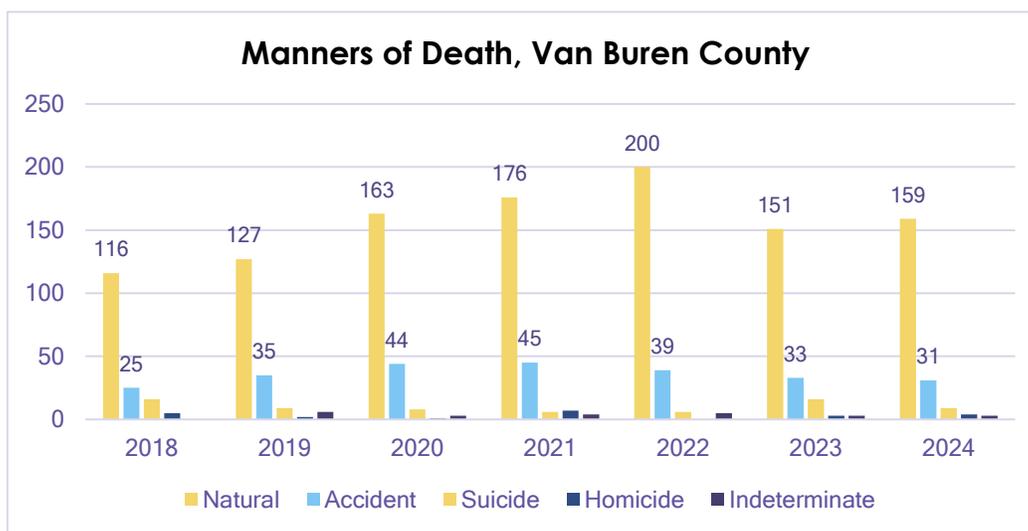
	2018	2019	2020	2021	2022	2023	2024
Cremation Permits	322	327	420	439	440	384	382
% of Total Deaths with Cremation	63%	67%	70%	72%	73%	70%	76%

<sup>107</sup> Updated total number of deaths occurring in the county

<sup>108</sup> Provisional total number of deaths occurring in the county

## Manners of Death Reported, Van Buren County

	2018	2019	2020	2021	2022	2023	2024
Natural	116	127	163	176	200	151	159
Accident	25	35	44	45	39	33	31
Suicide	16	9	8	6	6	16	9
Homicide	5	2	1	7	0	3	4
Indeterminate	0	6	3	4	5	3	3 <sup>109</sup>
<b>Total</b>	<b>162</b>	<b>179</b>	<b>219</b>	<b>238</b>	<b>250</b>	<b>206</b>	<b>206</b>



## Deaths Reported by Age (in years), Van Buren County<sup>110</sup>

	< 1	1 - 5	6 - 10	11 - 17	18 - 25	26 - 44	45 - 64	65 +
2018	0	2	1	0	4	13	47	95
2019	0	1	0	1	6	20	52	99
2020	0	0	1	1	7	28	55	127
2021	0	0	0	0	3	30	83	122
2022	3	0	1	0	6	22	70	148
2023	0	0	0	3	8	16	63	116
2024	2	0	1	0	3	20	56	124

<sup>109</sup> (1) Sudden cardiac death of unknown etiology, associated with genetic mutation; (1) Thermal injuries associated with carbon monoxide poisoning and acute drug toxicity; (1) Mixed drug intoxication

<sup>110</sup> All stillbirths and spontaneous abortions (miscarriages) investigated but not requiring an examination have been removed from this table for a more accurate representation of deaths reported under the age of one year

## Pediatric Deaths, Van Buren County

The three deaths of individuals under 18 years of age include:

1. <1 year old
  - a. (1) Tracheobronchitis due to metapneumovirus; natural
  - b. (1) Prematurity; natural
2. 6-10 years old
  - a. (1) Haemophilus influenza bronchopneumonia due to complications of cerebral palsy and congenital deletion syndrome; natural

Infant Deaths (Live Birth to 1 Year)	ME-Certified with Autopsy	ME-Certified without Autopsy	Total Certified by ME
2023	0	0	0
2024	1	0	1

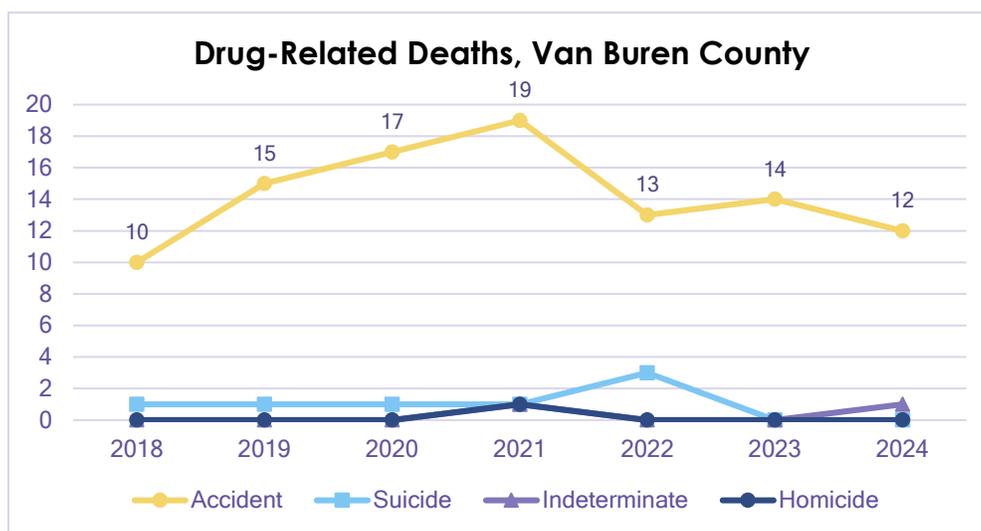
## Accidental Deaths by Mechanism, Van Buren County

	2018	2019	2020	2021	2022	2023	2024
Vehicle	8	9	11	14	11	3	9
Drug-Related	10	15	17	19	13	14	12
Drowning	1	2	4	2	5	1	1
Fall	4	5	11	7	9	8	7
Fire	0	0	0	1	1	0	0
Environmental Exposure	1	2	0	1	0	0	0
Asphyxia	1	1	1	1	0	0	1
Other	0	1	0	0	0	2	1 <sup>111</sup>
<b>Total</b>	<b>25</b>	<b>35</b>	<b>44</b>	<b>45</b>	<b>39</b>	<b>33</b>	<b>31</b>

<sup>111</sup> (1) Carbon monoxide poisoning

## Drug-Related Deaths by Manner, Van Buren County<sup>112</sup>

	2018	2019	2020	2021	2022	2023	2024
Accident	10	15	17	19	13	14	12
Suicide	1	1	1	1	3	0	0
Indeterminate	0	0	0	1	0	0	1
Homicide	0	0	0	1	0	0	0
<b>Total</b>	<b>11</b>	<b>16</b>	<b>18</b>	<b>22</b>	<b>16</b>	<b>14</b>	<b>13</b>
Total involving opioid(s)	9	12	11	14	10	9	5



## Suicides by Age, Van Buren County

	Total	0 - 17	18 - 25	26 - 44	45 - 64	65 +
2018	16	0	1	2	7	6
2019	9	0	0	4	1	4
2020	8	0	1	2	1	4
2021	6	0	1	1	4	0
2022	6	0	0	1	3	2
2023	16	3	1	5	3	4
2024	9	0	1	3	2	3

<sup>112</sup> Acute alcohol intoxications are considered drug-related deaths and are included in this data

## Suicides by Mechanism, Van Buren County

	2018	2019	2020	2021	2022	2023	2024
Firearm	11	5	4	2	1	14	7
Hanging	3	2	2	3	1	2	2
Carbon Monoxide	0	0	1	0	0	0	0
Drug Intoxication	1	1	1	1	3	0	0
Motor Vehicle	0	0	0	0	0	0	0
Sharp Force Trauma	0	1	0	0	0	0	0
Asphyxia/Suffocation	1	0	0	0	0	0	0
Other	0	0	0	0	1	0	0
<b>Total</b>	<b>16</b>	<b>9</b>	<b>8</b>	<b>6</b>	<b>6</b>	<b>16</b>	<b>9</b>

## Homicides by Mechanism, Van Buren County

2024

Firearm	3
Blunt Force Trauma	0
Sharp Force Trauma	0
Motor Vehicle	0
Asphyxia/Suffocation	0
Other	1 <sup>113</sup>
<b>Total</b>	<b>4</b>

<sup>113</sup> (1) Multiple blunt and sharp force injuries

## Division of Neuropathology

The Division of Neuropathology, led by Division Chief, Dr. Amanda Fisher-Hubbard, performs a wide range of examinations, including those of forensic cases from WMed and outside institutions/medical examiner offices, private examinations for concerned families, hospital consultations, and is involved in several research projects. Since 2016, the Division of Neuropathology at WMed has partnered with the Lieber Institute for Brain Development in Baltimore, Maryland.

	WMed Forensic Cases	Consulting Forensic Cases	Hospital Specimens	Research Specimens	Private Neuropathological Examinations	Total
2016	43	84	11	276	4	418
2017	79	83	3	404	9	578
2018	63	99	2	492	3	659
2019	41	59	2	530	2	634
2020	53	73	2	380	3	511
2021	57	99	1	460	2	619
2022	51	91	0	697	3	842
2023	29	108	0	607	1	745
2024	22	111	0	391	2	526

## Forensic Anthropology

Forensic Anthropology services are provided to all WMed Medical Examiner counties led by forensic anthropologists, Drs. Jered Cornelison and Christine Pink. These services include human versus non-human bone identification; search and recovery of remains; comparative medical and dental radiography for the positive identification of remains; complete skeletal analyses, including trauma reconstruction and analysis and determination of biological sex, age, ancestry, stature; and input and case management of unidentified individuals in the National Missing and Unidentified Persons System (NamUs). The team of forensic anthropologists at WMed assists in the coordination of all scientific identifications performed via fingerprint or DNA analysis. As necessary, they also contribute to the determination of identification via multiple corresponding factors. In 2022, our team grew with the addition of a two-year post-doctoral fellowship program, currently filled with Dr. B Charles.

	Comparative Medical Radiography	Comparative Dental Radiography	Fingerprint Analysis	Multiple Corresponding Factors	DNA Analysis	Recoveries	Non-human <sup>114</sup>	Skeletal Analysis
2016	38	12	24	2	0	2	6	14
2017	65	16	29	2	4	11	8	11
2018	55	27	48	5	4	9	17	18
2019	60	18	49	3	4	8	20	14
2020	83	10	52	5	4	7	17	15
2021	116	9	42	4	5	13	7	22
2022	135	16	27	7	4	3	14	15
2023	125	13	20	10	3	3	10	13
2024	128	19	28	8	3	2	4	11

<sup>114</sup> This is likely a significant undercount of the total number of non-human cases evaluated by our anthropologists, as many of these cases are confirmed to be non-human, thus non-forensically relevant and not further logged/documentated.

## Hospital/Private/Consultant Postmortem Examinations

Our office provides autopsy services to Bronson Healthcare Group and Spectrum Health Lakeland, private examinations to families searching for answers, and forensic autopsies to various counties in Michigan, including the Upper Peninsula, and northern Indiana.

	Hospital	Private	Consultant (Forensic)	Total
2016	10	4	257	271
2017	7	16	201	224
2018	8	9	161	178
2019	10	3	104	117
2020	9	15	198	222
2021	11	12	310	333
2022	10	17	316	343
2023	14	11	300	325
2024	9	20	263	292

## Referrals & Donations to Organ Procurement Organizations (OPO), 2024

	Referrals to OPO	Tissue Donations	Cornea Donations
Allegan	123	14	9
Barry	68	4	7
Berrien	232	15	18
Calhoun	198	16	24
Cass	54	10	10
Grand Traverse	82	2	35
Kalamazoo	302	25	42
Leelanau	12	1	0
Mason	33	0	0
Muskegon	155	14	24
St. Joseph	76	7	6
Van Buren	105	10	9
<b>Total</b>	<b>1440</b>	<b>118</b>	<b>184</b>

## Comparison of All Medical Examiner Counties, 2024

	Total Population <sup>115</sup>	Total Sq. Miles	Deaths in the County <sup>116</sup>	Deaths Reported	Deaths Investigated	MEI Scene Investigations	DCs by ME	Cremation Permits	Unclaimed Investigations
Allegan	120,502	1,833	916	229	219	202	94	659	6
Barry	62,423	577	465	158	140	129	57	325	3
Berrien	154,316	1,581	1,736	610	525	456	233	1,207	18
Calhoun	134,310	718	1,432	530	482	401	204	1,040	29
Cass	51,589	508	359	128	124	110	60	282	1
Grand Traverse	95,238	601	1,598	461	380	231	182	1,355	12
Kalamazoo	261,670	580	3,176	1,086	880	741	450	2,449	63
Leelanau	22,301	2,532	202	42	42	28	13	172	1
Mason	29,052	1,242	293	90	84	71	40	244	3
Muskegon	175,824	1,459	1,902	678	533	466	261	1,491	63
St. Joseph	60,939	521	497	170	161	139	63	371	5
Van Buren	75,587	1,090	503	206	201	192	79	382	9
<b>Total</b>	<b>1,243,751</b>	<b>13,242</b>	<b>13,079</b>	<b>4,388</b>	<b>3,771</b>	<b>3,166</b>	<b>1,736</b>	<b>9,977</b>	<b>213</b>

For all counties, about 34% of deaths are reported; jurisdiction is accepted, and deaths are investigated in about 29% of the deaths. Complete autopsies are conducted in about 5% of all deaths within the county and in about 16% of deaths reported. A formal external or limited examination occurs in another 3% of deaths in the county. In total, a postmortem examination occurs in about 26% of deaths reported.

<sup>115</sup> Total county populations based on 2020 estimates by the US Census Bureau

<sup>116</sup> Provisional number of deaths occurring in each county

## Forensic Postmortem Examinations, 2024

	Complete Autopsies	Limited Exams	External Exams	Total Postmortem Exams	Cardiovascular Consults
Allegan	32	7	27	66	0
Barry	26	4	14	44	1
Berrien	105	5	43	153	1
Calhoun	85	7	53	145	0
Cass	26	3	18	47	0
Grand Traverse	58	2	28	88	0
Kalamazoo	173	17	86	276	0
Leelanau	1	0	6	7	0
Mason	17	2	12	31	0
Muskegon	121	10	51	182	2
St. Joseph	34	0	20	54	0
Van Buren	37	4	23	64	0
Consultant Counties	251	1	12 <sup>117</sup>	264	3
<b>2024 Total</b>	<b>966</b>	<b>62</b>	<b>393</b>	<b>1,421</b>	<b>7</b>

<sup>117</sup> Includes both external examinations and individuals brought in solely for identification purposes.

## Manners of Death Reported, All Medical Examiner Counties, 2024

	Natural	Accident	Suicide	Homicide	Indeterminate	Total
Allegan	173	35	17	2	2	229
Barry	123	25	8	2	0	158
Berrien	472	104	17	8	8	609
Calhoun	395	95	27	8	5	530
Cass	95	26	6	0	1	128
Grand Traverse	329	111	11	1	3	456
Kalamazoo	780	238	35	16	14	1,083
Leelanau	36	3	3	0	0	42
Mason	68	12	8	0	2	90
Muskegon	494	130	33	13	6	676
St. Joseph	130	30	6	1	2	169
Van Buren	159	31	9	4	3	206
<b>Total</b>	<b>3,254</b>	<b>840</b>	<b>180</b>	<b>55</b>	<b>46</b>	<b>4,376</b>

## Significant Death Statistics, 2024

	Accidental Drug-Related Deaths	Indeterminate Drug-Related Deaths	Opioid-Related Deaths	Accidental Vehicle-Related Deaths	Accidental Fall-Related Deaths
Allegan	5	0	2	15	7
Barry	3	0	2	7	12
Berrien	29	3	22	18	37
Calhoun	39	0	20	20	26
Cass	9	0	2	8	4
Grand Traverse	16	0	8	25	60
Kalamazoo	60	0	32	41	112
Leelanau	0	0	0	0	2
Mason	4	0	4	4	2
Muskegon	49	0	38	21	42
St. Joseph	15	1	6	10	3
Van Buren	12	1	5	9	7
<b>Total</b>	<b>241</b>	<b>5</b>	<b>141</b>	<b>178</b>	<b>314</b>



STATE OF MICHIGAN

BOARD OF COMMISSIONERS OF THE COUNTY OF ALLEGAN

**FINANCE – CLAIMS & INTERFUND TRANSFERS**

**WHEREAS**, Administration has compiled the following claims for 8/22/25 and 8/29/25;  
and

**WHEREAS**, the following claims, which are chargeable against the County, were audited in accordance with Section 46.61 to 46.63, inclusive, M.C.L. 1970 as amended and resolutions of the Board; and

**WHEREAS**, said claims are listed in the 2025 Claims folder of the Commissioners' Record of Claims.

August 22, 2025

	TOTAL AMOUNT CLAIMED	AMOUNT ALLOWED	AMOUNT DISALLOWED
General Fund – 101	133,648.72	133,648.72	
Parks/Recreation Fund – 208	1,907.26	1,907.26	
Health Department Fund – 221	1,164.04	1,164.04	
Solid Waste/Recycling – 226	16,626.48	16,626.48	
Animal Shelter – 254	1,071.77	1,071.77	
Palisades Fund – 257	7.04	7.04	
Indigent Defense Fund – 260	60,725.36	60,725.36	
Central Dispatch Fund – 261	461.75	461.75	
Law Enf. Training Fund PA302 – 266	550.00	550.00	
Grants – 279	13,508.22	13,508.22	
Crime Victims Rights Grant – 280	12.21	12.21	
Sheriffs Contracts – 287	7,842.80	7,842.80	
Transportation Fund – 288	7,263.89	7,263.89	
Child Care Fund – 292	6,208.53	6,208.53	
Senior Services Fund – 298	234,805.17	234,805.17	
Capital Improvement Fund – 401	5,728.88	5,728.88	
Property Tax Adjustments - 516	3,968.63	3,968.63	
Tax Reversions 2018 – 629	136.00	136.00	
Fleet Management/Motor Pool – 661	1,586.60	1,586.60	
Drain Fund – 801	206,840.84	206,840.84	
<b>TOTAL AMOUNT OF CLAIMS</b>	<b>\$704,064.19</b>	<b>\$704,064.19</b>	

August 29, 2025

	TOTAL AMOUNT CLAIMED	AMOUNT ALLOWED	AMOUNT DISALLOWED
General Fund – 101	55,880.51	55,880.51	
Parks/Recreation Fund – 208	1,289.60	1,289.60	
Friend of the Court – Coop. Reimbursement	172.53	172.53	
Health Department Fund – 221	8,535.70	8,535.70	

Solid Waste/Recycling – 226	29,258.80	29,258.80	
Indigent Defense Fund – 260	26,351.20	26,351.20	
Central Dispatch Fund – 261	620.76	620.76	
Concealed Pistol Licensing Fund – 263	535.41	535.41	
Grants – 279	3,856.90	3,856.90	
Transportation Fund – 288	3,192.02	3,192.02	
Child Care Fund – 292	17,250.96	17,250.96	
Senior Services Fund – 298	2,567.74	2,567.74	
American Rescue Plan Act – ARPA – 299	15,000.00	15,000.00	
Capital Improvement Fund – 401	350,873.73	350,873.73	
Medical Care Facility Fund – 512	96.77	96.77	
Property Tax Adjustments - 516	14.13	14.13	
Self-Insurance Fund – 677	9,021.00	9,021.00	
Drain Fund – 801	27,704.96	27,704.96	
<b>TOTAL AMOUNT OF CLAIMS</b>	<b>\$552,222.72</b>	<b>\$552,222.72</b>	

**THEREFORE BE IT RESOLVED** that the Board of Commissioners adopts the report of claims for 8/22/25, 8/29/25, and interfund transfers.