

BERRIEN COUNTY MEDICAL EXAMINER



2018 ANNUAL REPORT



**BERRIEN COUNTY
HEALTH DEPARTMENT**

better health. stronger communities.

Office of the Medical Examiner
2149 E. Napier Avenue
Benton Harbor, MI. 49022

 *Berrien County Printing*

I am pleased to present the 2018 Medical Examiner's Annual Report.

2018 was the fifth and final year of the current Medical Examiner regime in Berrien County! We now have transitioned all Medical Examiner functions, including the Medical Examiner position, to Western Michigan School of Medicine (WMed) and Dr. Joyce deJong as of January 1, 2019. They have provided complete services to many other counties and will provide excellent service.

Working with Mary Baker, the Chief Administrative Medical Examiner Investigator has been a great privilege! Her knowledge, diligence, and passion was phenomenal.

Special thanks are due to Kim Rodgers, Sheriff Bailey and Prosecutor Mike Sepic. Thanks to law enforcement, the medical community, emergency medical technicians, local funeral homes, and our County Commissioners. We live in a great community!

Sadly, drug overdose deaths remain our single leading cause of death, behind natural causes. Fentanyl is the number one drug cause as it is in many areas of the country. However, drug overdose deaths are for a second year in a row decreased from our baseline. As stated last year this most likely reflects a described "Narcan Effect". Berrien County first responders and law enforcement were quick to implement Narcan (a drug that can reverse opioid overdose in emergency situations) use on a wide scale, and were leaders in Statewide efforts! Thank you. Hopefully drug prevention activities are also having an impact.

My best wishes for Berrien County and thank you for allowing me to serve.



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Berrien County Health Department Medical Director

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MEDICAL EXAMINER PERSONNEL

Frederick A. Johansen, MD, MPH
Chief Medical Examiner

Larry Wile, MD
Deputy Medical Examiner

Mary Baker
Chief Administrative Medical Examiner Investigator

Josh Kay, CCEMTP I/C
Medical Examiner Investigator

Cris Rieli, HTL (ASCP)
Medical Examiner Investigator

Joan LaLonde, HT (ASCP)
Medical Examiner Investigator

Kim Rodgers
Executive Staff Assistant

Medical Examiner Reportable Deaths and Autopsy

The Michigan County Medical Examiners Law, P.A. 181 of 1953, as amended, and the Michigan Public Health Code, P.A. 368 of 1978, as amended, mandates that specific types of deaths (listed below, left) be referred to the Medical examiner for investigation. Medical examiner investigation of a death may also be ordered by the county's prosecuting attorney, the Michigan Attorney General or, upon the filing of a petition, signed by six (6) electors of a county. Not all deaths referred to the medical examiner for investigation necessarily result in an autopsy; however, an autopsy is generally ordered in certain circumstances (listed below, right), to determine more accurately the cause and manner of death.

Types of Deaths Reportable to the Medical Examiner, P.A. 368 of 1978:

1. Sudden deaths and unexpected deaths (all deaths occurring in operating room, in recovery room, anesthesia related, natural death but not expected, occupational related deaths, subdural hematoma, intracerebral hemorrhage, etc.)
2. Accidental deaths (motor vehicle, burns, drowning, falls, broken bones, drug overdose, drug toxicity, subdural hematoma, recent or past trauma, etc.)
3. Violent deaths (homicide, gunshot, stabbing, suicide, subdural hematoma, etc.)*
4. Suspicious circumstances surrounding a death.*
5. Deaths occurring as a result of an abortion.
6. Upon written order of the prosecuting attorney or the attorney general or upon the filing of a petition signed by six (6) electors of a county.
7. Death of a prisoner in any county or city jail who dies while Imprisoned.
8. If a fetal death occurs without medical attendance at or after the delivery; in terms of a physician attendance: for the purposes of the medical examiner program, we consider that an investigation is required when:
 - a. The deceased was last seen by a physician more than** ten (10) days before his or her death, if the cause of death appears to be other than the illness or condition for which the deceased was being treated.
 - b. The attending physician cannot accurately determine the cause of death.
 - c. When the deceased has not received any medical attention during the ***48 hours prior to the hour of death unless the attending physician, if any, is able to accurately determine the cause of death.

**All trauma related deaths no matter when the trauma occurred*

*** The ten (10) day requirement relates solely to physician attendance.*

**** The 48 hour requirement triggers an investigation when there has been no medical attendance of any kind (i.e., nursing care, etc.)*

Types of Medical Examiner Cases for which Autopsy is Generally Ordered:

1. Sudden deaths and unexpected deaths only when in the medical examiner's judgment, sufficient medical history is not available to determine cause and manner of death.
2. Accidental deaths such as motor vehicle, burns, drowning, etc. If an individual has been hospitalized for a length of time, it is the medical examiner's decision to order an autopsy.
3. Violent deaths such as homicide, suicide, gunshot, stabbing, etc.
4. Suspicious circumstances surrounding death, including unidentified bodies.
5. Death related to an abortion.
6. Sudden infant deaths (SIDS) and deaths of children 18 and under without significant medical history.
7. Death of a prisoner imprisoned at any county or city jail.
8. In a fetal death occurring without medical attendance at or after delivery.
9. An autopsy may be ordered at the discretion of the medical examiner if the cause of death appears to be other than the illness or condition for which the deceased was being treated, or if the attending physician cannot accurately determine the cause of death.
10. Anesthesia-related and unexpected deaths of patient in health care institutions.
11. Partial autopsies are not done because it is not best practice.
12. Views are performed in cases in which there is adequate history to explain the death, but there are external findings, such as injuries, that require direct examination to determine whether they maybe significant injuries that mandate full autopsy.

Berrien County Medical Examiner Program Expenditures 2014-2018

	2014	2015	2016	2017	2018
ME Compensation	13,250.00	15,000.00	15,000.00	23,999.96	23,999.96
Chief ME Investigator	19,195.06	41,630.95	60,347.28	67,997.80	76,641.05
Investigators & Examinations	50,420.00	33,975.35	32,200.00	26,000.00	26,200
Autopsies	74,186.85	94,221.04	127,794.18	138,697.61	171,937.50
Body Transportation	37,281.18	49,185.25	36,830.20	32,332.51	36,881.19
Contractual Services	18,291.85	15,157.00	15,031.00	11,862.58	25,726
Office Supplies & Other	1,645.25	5,375.35	2,217.03	2,615.42	651.39
Indirect Cost	-	4,056.00	4,239.00	34,225.76	50,091.82
Total	214,270.19	258,600.94	293,658.69	337,731.64	412,128.91
Per Person, Population	1.38	1.67	1.89	2.18	2.67

Berrien County Medical Examiner Statistics 2014 - 2018

	2014		2015		2016		2017		2018	
	#	%	#	%	#	%	#	%	#	%
Referred to ME Office	231	13.4%	209	12.3%	185	10.9%	172	9.7%	204	11.7%
ME Cases Autopsied	38	2.2%	44	2.6%	53	3.1%	43	2.4%	69	4.0%
Deaths in County	1723	100%	1699	100%	1695	100%	1775	100%	1738	100%

2018 Medical Examiner Cases Reviewed

Figure 1: Cases by Age at Death

<1	1-5	6-16	17-25	26-44	45-64	65+
4	4	3	14	42	78	59

Figure 2: Manner of Death by Race/Ethnicity

Race	Natural	Accident	Suicide	Homicide	Indeterminate	Total
White	70	49	21	0	4	144
Black	21	17	2	7	2	49
Hispanic	3	2	0	0	0	5
Native American	1	1	1	0	0	3
Asian/ Mid-Eastern	0	2	2	0	0	4
Other	0	0	0	0	0	0
Total	95	70	26	7	6	204

Figure 3: Homicides, Suicides, Accident Death 2014 - 2018

Type of Death	2014	2015	2016	2017	2018	5 year Average
Homicides	4	9	11	10	7	8.2
Suicides	26	31	21	23	26	25.4
Accident	74	66	67	52	70	65.8
Overdose	34	34	34	23	30	31
Vehicle	14	18	19	11	14	15.2
Total	152	158	152	119	147	145.6

Figure 4: Homicides by Age

0-19	20-44	45-64	65+
0	6	1	0

Figure 5: Homicides by Race

White	Black	Hispanic	Other
0	7	0	0

Figure 6: Homicides by Method

Gun	Asphyxia	Stabbed	Assault	Other
6	0	1	0	0

Figure 7: Homicides by Age

0-19	20-29	30-39	40+
0	4	2	0

Figure 8: Suicide Cases by Method Used

Gun	Hanging	Drug Overdose	Carbon Monoxide	Other
12	7	3	1	3

Figure 9: Suicide Cases by Age

1-19	20-44	45-64	65+
0	13	9	4

Figure 10: Suicide Cases by Gender

Female	Male
4	22

Figure 11: Suicide Cases by Race

White	Black	Hispanic	Native American	Asian/ Mid-Eastern	Other
21	2	0	1	2	0

Figure 12: Drug Related Deaths by Age

<21	21-44	45-64	65+
1	14	13	1

Figure 13: Drug Related Deaths by Gender

	Female	Male
Accident	7	20
Suicide	1	2

Figure 14: Medical Examine Cases by Cause of Death

Natural	Vehicle*	Bike/Ped.	Gun	Drug OD	Poison*	Fire
96	14	4	19	30	1	6

*Vehicle: Snowmobile

*Poison: Carbon Monoxide Poisoning

*Asphyxia: Hanging/Drowning/Strangulation/Choking/Suffocation

*Other: Exsanguination/Hypothermia/Farm Accident/Wrist Laceration/Stabbing

Figure 15: Medical Examiner Cases by Manner of Death
2014-2018

Manner	2014	2015	2016	2017	2018	5 year Average
Natural	125	101	86	82	95	97.8
Accident	74	66	65	52	70	65.4
Suicide	26	31	21	23	26	25.4
Homicide	4	9	11	10	7	8.2
Indeterminate	2	2	2	5	6	3.4
Total	231	209	185	172	204	200

Figure 16: Medical Examiner Cases by Cause of Death
2014-2018

Cause	2014	2015	2016	2017	2018	5 year Average
Natural	125	99	83	82	96	97
Vehicle	11	11	13	11	14	12
Bike/Pedestrian	3	7	3	7	4	4.8
Gun	14	25	17	19	19	18.8
Drug OD	34	34	34	23	30	31
Poison	6	1	1	2	1	2.2
Fire	0	0	0	0	6	1.2
SIDS/SUIDS	4	1	5	2	4	3.2
Fall	10	10	5	3	5	6.6
Asphyxia	15	15	15	19	17	16.2
Other	9	4	7	4	8	6.4
Indeterminate	0	2	2	0	0	0.8
Total	231	209	185	172	204	200