

**BERRIEN COUNTY
MEDICAL EXAMINER
2016
ANNUAL REPORT**

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

It is my pleasure to present the 2016 Berrien County Medical Examiner Report. The percent of deaths that our office has handled decreased for the second year. This most likely reflects the effort to have physicians complete death certificates for natural deaths that do not require Medical Examiner involvement. Our number of cases autopsied significantly increased this past year but is still below the national average.

Fentanyl overdose deaths increased this past year, which is alarming!

Our cost to the Berrien County community remains below \$2.00 per capita. Thanks to the Medical Examiner Team and we hope this report continues to provide valuable information to the community.

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Berrien County Medical Examiner

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Medical Examiner Investigator

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Medical Examiner Investigator

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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 so 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.

MEDICAL EXAMINER PROGRAM EXPENDITURES 2014 THROUGH 2016

	2014	%	2015	%	2016	%
ME Compensation	13,250.00	6.18%	15,000.00	5.80%	15,000.00	5.11%
Chief ME Investigator	19,195.06	8.96%	41,630.95	16.10%	60,347.28	20.55%
Investigators & Examinations	50,420.00	23.53%	33,975.35	13.14%	32,200.00	10.97%
Autopsies	74,186.85	34.62%	94,221.04	36.43%	127,794.18	43.52%
Body Transportation	37,281.18	17.40%	49,185.25	19.02%	36,830.20	12.54%
Contractual Services	18,291.85	8.54%	15,157.00	5.86%	15,031.00	5.12%
Office Supplies & Other	1,645.25	0.77%	5,375.35	2.08%	2,217.03	.75%
Indirect Cost			4,056.00	1.57%	4,239.00	1.44%
Total	214,270.19	100%	258,600.94	100%	293,658.69	100%
Per Person, 2014 Population	1.38		1.67		1.89	

	2014	2015	2016
Deaths in County	1723	1699	1695
Referred to ME Office	231	209	185
% of Deaths Referred	13.4%	12.30%	10.91%
ME Cases Autopsied	38	44	53
% of ME Cases Autopsied	16.45%	21.05%	28.65%

Demographics of Medical Examiner Cases

Figure 1: Medical Examiner Cases by Race/Ethnicity

White	Black	Hispanic	Native American	Asian/Middle Eastern	Other*	Total
151	26	4	2	1	1	185

* Mixed Race.

Figure 2: Medical Examiner Cases by Age at Death

<1	1-5	6-16	17-25	26-44	45-64	65+
7	1		14	45	69	49

Figure 3: Medical Examiner Cases by Manner of Death

Natural	Accident	Suicide	Homicide	Indeterminate		
86	65	21	11	2		

Figure 4: Manner of Death by Race/Ethnicity

	Natural	Accident	Suicide	Homicide	Indeterminate	
White	71	53	18	7	2	
Black	13	7	3	3		
Hispanic	1	3				
Native American	1	1				
Middle Eastern		1				
Other				1		
Totals	86	65	21	11	2	

Figure 5: Homicides by Race

White	Black	Hispanic	Other			
7	3		1			

Figure 6: Homicides by Age

0-19	20-44	45-64	65+			
2	5	3	1			

Manner of Death

Figure 7: Homicide Cases by Method Used

Gun	Asphyxia	Stabbed	Assault	Other		
8			3			

Figure 8: Gun Homicides by Age

0-19	20-29	30-39	40+			
1	2		5			

Figure 9: Suicide Cases by Race

White	Black	Hispanic	Native American	Other		
18	3					

Figure 10: Suicide Cases by Age

1-19	20-44	45-64	65+			
	9	7	5			

Figure 11: Suicide Cases by Method Used

Gun	Hanging	Drug Overdose	Carbon Monoxide	Other		
9	8	1		3		

Cause of Death

Figure 12: Drug Deaths by Age

<21	21-44	45-64	65+			
2	22	9	1			

Figure 13: Drug Deaths by Gender

	Female	Male
Accident	15	18
Natural with Drug Mentioned	1	3
Suicide	1	
Homicide		

Figure 14: Medical Examiner Cases by Cause of Death

Natural	Vehicle	Bike/Ped.	Gun	Drug OD	Poison*	Fire	SIDS	Fall	Asphyxia*	Other*	Indeterminate*
83	13	3	17	34	1		2	5	17	8	2

*Poison: Carbon Monoxide Poisoning

*Asphyxia: Mouth Covered/Hanging/Drowning/Inhalation/Aspiration/Positional/Plastic Bag Over Head

*Other: Assault/Stabbed/Cold Water Drowning/Anaphylactic Shock/Injuries with Ethanol Toxicity

*Indeterminate: No Physical or Toxicological Findings from Autopsy

Figure 15: Medical Examiner Cases by Cause of Death

Cause	2014	2015	2016
Natural	125	99	83
Vehicle	11	11	13
Bike/Pedestrian	3	7	3
Gun	14	25	17
Drug OD	34	34	34
Poison	6	1	1
Fire	0	0	0
SIDS/SUIDS	4	1	5
Fall	10	10	5
Asphyxia	15	15	15
Other	9	4	7
Indeterminate	0	2	2
Total	231	209	185