Washtenaw County Medical Examiner

2017 Annual Report

Washtenaw County Medical Examiner
300 North Ingalls
NI2D19
Ann Arbor, Michigan 48109

Accredited by the National Association of Medical Examiners
TABLE OF CONTENTS

Table of Contents 2
Message to the Board of Commissioners and Citizens of Washtenaw 3
Medical Examiner Staff 4
Medical Examiner Staff Portrait 5
Types of Deaths Reportable to the Medical Examiner 6
Washtenaw County Medical Examiner Cases 6
Autopsy Activity 7
Manner of Death by Postmortem Examination 8
Deaths by Natural Causes 9
Deaths by Unnatural Causes 9
Accidental Deaths by Type 10
Accidental Deaths – Motor Vehicle Crashes 11
Suicide by Means 12
Homicide Deaths 12
Deaths by Age Group 13
Drug Deaths Per Year 14
Drug Deaths by Type 15
Drug Death Trends 16
Motor Vehicle Death Trends 17
Organ Procurement Activity (GOL) 18
Infant Sleep Related Death Trends (MPHI) 19
Autopsy Completion Statistics 20
Cremation Permits Issued 21
Message to the Board of Commissioners and Citizens of Washtenaw County

The main duties of the medical examiner are to determine the cause and manner of death and make legal determinations of identify of the decedent. The Washtenaw County Medical Examiner's Office investigates sudden, violent, unexpected, and suspicious deaths that occur in Washtenaw County. The Office of the Medical Examiner certifies death after investigation and postmortem examination and issues the death certificate as required by law. Complete findings of the death investigation are distributed to families and law enforcement agencies as appropriate. Bereavement counseling and viewing of the decedent are provided as needed. The 2017 annual budget was $778,026 or $2.10 per capita, one of the lowest in Michigan. Additional revenue collected was $159,888 for the year.

There were a total of 1008 deaths reported and the office performed 361 complete autopsies, 65 external examinations and 423 death scene investigations.

The opioid epidemic continues unabated in Washtenaw County. In 2017 there were a total of 84 drug-related deaths. There was a marked increase in the synthetic opioid Fentanyl which alone or in combination with other drugs accounted for 48 percent of all drug deaths. Heroin and Cocaine alone or in combination was present in another 40 percent and 20 percent of drug deaths, respectively. These three drugs are often used in combination, with 36 per cent of drug deaths containing two or more of these drugs. Prescription opioids (Methadone, Hydrocodone, etc,) continued to show a significant decrease and were present in only 13 per cent of all drug deaths.

2017 witnessed a marked increase in motor vehicle-related deaths. Included in this category was an increasing number of pedestrian deaths. The medical examiner office continues to participate in research with the International Center for Automotive Medicine (ICAM), which is housed in the University of Michigan. The goals of the research are to gain better understanding of the injuries related to motor vehicle and how automotive design can improve survival.

The medical examiner office continues with its participate with Gift-Of-Life, the local organ and tissue procurement program. In 2017 the office referred 418 total cases and 200 non-hospital cases that resulted in 47 tissue or organ donations second highest in the state. A total of 2570 cremation certifications were approved, which is an 8.3% increase over the number in 2015.

We extend our sincere gratitude to the Washtenaw County Board of Commissioners for their support and encouragement of the medical examiner program and the services we provide and the opportunity to serve the citizens of the Washtenaw County.

Respectfully submitted,

Jeffrey Jentzen, M.D.
Medical Examiner
# Medical Examiner Staff

<table>
<thead>
<tr>
<th>Name</th>
<th>Title and Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jeffrey Jentzen, MD</td>
<td>Chief Medical Examiner</td>
</tr>
<tr>
<td>Allecia M Wilson, MD</td>
<td>Deputy Medical Examiner</td>
</tr>
<tr>
<td>Christine Rigney</td>
<td>Assistant Administrator of Operations Division of Anatomic Pathology</td>
</tr>
<tr>
<td>Diana French, D-ABMDI</td>
<td>Investigator</td>
</tr>
<tr>
<td>Lisa Taulbee</td>
<td>Laboratory Supervisor UMH Surgical/Necropsy Pathology</td>
</tr>
<tr>
<td>Jonathan Black, D-ABMDI</td>
<td>Investigator</td>
</tr>
<tr>
<td>Camelia Prescott, D-ABMDI</td>
<td>Investigator</td>
</tr>
<tr>
<td>Scott Peterson</td>
<td>Investigator</td>
</tr>
<tr>
<td>Deanna Griffis, D-ABMDI</td>
<td>Investigator</td>
</tr>
<tr>
<td>Adam Covach, MD</td>
<td>Forensic Pathology Fellow</td>
</tr>
<tr>
<td>Sarah Avedschmidt, MD</td>
<td>Forensic Pathology Fellow</td>
</tr>
<tr>
<td>Lisbeth Harcourt</td>
<td>Program Coordinator office of Decedent Affairs</td>
</tr>
<tr>
<td>Aimee Vantine</td>
<td>Children &amp; Women’s Bereavement Program Manager</td>
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<tr>
<td>Erin Loomer</td>
<td>Social Work Intern</td>
</tr>
<tr>
<td>Lisa Neal</td>
<td>BioMedical Photographer</td>
</tr>
<tr>
<td>Kris LaMaire</td>
<td>Administrative Assistant</td>
</tr>
<tr>
<td>Mary Currie</td>
<td>Administrative Assistant</td>
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</table>
Medical Examiner Staff Portrait

Autopsy and Forensic Services
Michigan Medicine
University of Michigan Department of Pathology
Washtenaw County Medical Examiner
Livingston County Medical Examiner

Jeffrey Jonsen, MD, PhD
Chief Medical Examiner

Alicia Wilson, MD
Deputy Medical Examiner

Christine Pigney
Assistant Administrator of Operations

Lisa Tauber
Laboratory Supervisor

Adam Cresch, MD
Forensic Fellow

Sarah Avedeschmidt MD
Forensic Fellow

Mary Currie
Administrative Assistant

Kristin Lalonde
Administrative Assistant

Diana French, D-ABMDI
Medical-Legal Investigator

Mick Black, D-ABMDI
Medical-Legal Investigator

Carolyn Pettitt, MS, D-ABMDI
Medical-Legal Investigator

Deanna Griffin, D-ABMDI
Medical-Legal Investigator

Scott Peterson
Medical-Legal Investigator

Nikki Williams
Medical-Legal Investigator

Alayne vanRyn, LMSW
Office of Decedent Affairs

Lisa Ricarzo, LMSW
Office of Decedent Affairs

Lisa Neal, CPA, OCT-C
BioMedical Photographer
Types of Deaths Reportable to the Medical Examiner

The Michigan County Medical Examiner Law, Act 181, P.A. of 1953, as amended, and the Michigan Public Health Code, Act 368, P.A. of 1978, as amended, mandates that specific types of death be referred to the Medical Examiner for investigation (see list below). These deaths include sudden and unexpected deaths, accidental deaths, and violent deaths. The medical examiner has the authority under these Acts to order an autopsy at any time it is deemed necessary to determine or confirm the cause and manner of death.

Deaths Reportable to the Medical Examiner:

- Violent death (e.g., strangulation, gunshot, stabbing, poisoning, etc.)
- Accidental deaths (e.g., falls, drowning, motor vehicle collisions, burns, overdose, etc.)
- Death of a prisoner (e.g., deaths in any county or city jail while imprisoned or in custody)
- Suspicious Circumstances (e.g., Unidentified Bodies or events surrounding death)
- Sudden and Unexpected deaths (e.g., all deaths during a surgical procedure, in recovery, anesthesia-related, unexpected natural death, occupational-related deaths)
- Without medical attendance within 48 hours of death
- In cases of chronic illness, the attending physician may sign the death certificate if s/he can be reasonably certain of the cause of death
- Death of a mother due to an abortion
- Unexpected infant deaths

The medical examiner would generally order an autopsy for any of the reportable deaths listed above.

Washtenaw County Medical Examiner Cases

Population 364,709
Cases Reported to Medical Examiner 1011
A. Number of deaths certified after postmortem examination 427
   1. Number of Medical Examiner Cases with Complete Autopsy 361
   2. Number of Medical Examiner Cases with External Examination 65
   3. Number of Medical Examiner Cases with Limited Examination 1
B. Number of deaths certified without postmortem examination 1011
C. Number of deaths not certified by Medical Examiner's Office after investigation* 127

Definitions:
- Full Autopsy: A complete external and internal examination of a decedent
- Limited Examination: An examination which is focused on a specific organ or region of the body, i.e., heart. The limited examination also includes an external examination.
- External examination: An examination of the exterior of a decedent

*The high volume of certified cases results from M.E. signing all ER deaths
### Autopsy Activity

**Washtenaw County Autopsy Activity 2013-2017**

<table>
<thead>
<tr>
<th>Year</th>
<th>#Cases</th>
<th>#Autopsies</th>
</tr>
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<tbody>
<tr>
<td>2013</td>
<td>939</td>
<td>358</td>
</tr>
<tr>
<td>2014</td>
<td>848</td>
<td>359</td>
</tr>
<tr>
<td>2015</td>
<td>917</td>
<td>342</td>
</tr>
<tr>
<td>2016</td>
<td>1063</td>
<td>537</td>
</tr>
<tr>
<td>2017</td>
<td>1008</td>
<td>426</td>
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</table>
Manner of Death by Postmortem Examination

![Manner of Death by Postmortem Examination](chart.png)
**Deaths by Natural Causes**

*OTHER - 10 out of 14 caused by diabetes

**Deaths by Unnatural Causes**

OTHER - Asphyxia - 11; Therapeutic injury - 4; Undetermined - 3; Other – 6
Accidental Deaths by Type

*OTHER - Asphyxia - 6; Blunt force trauma - 2; Therapeutic injury - 4
Accidental Deaths – Motor Vehicle Crashes

*OTHER - ATV - 1; Bike - 1; Tractor – 1
**Suicides by Means**

Other cases include: Fire - 3; Drowning - 1; Asphyxia - 1, CO - 2; Other - 1

**Homicide Deaths**
Deaths by Age Group

- <1: 17
- 1-5: 6
- 6-10: 1
- 11-17: 11
- 18-25: 37
- 25-44: 109
- 45-64: 290
- 65+: 539
- Unknown: 1
Drug Deaths Per Year

*Excludes deaths due to alcohol

*Annual Washtenaw County Drug-Related Deaths*
Drug Deaths by Type


<table>
<thead>
<tr>
<th>Year</th>
<th>Heroin</th>
<th>Fentanyl</th>
<th>Cocaine</th>
<th>Heroin/Fentanyl</th>
<th>Fentanyl/Cocaine</th>
<th>Heroin/Cocaine</th>
<th>Opioids</th>
<th>ETOH</th>
<th>Synthetic</th>
<th>Mixed</th>
<th>Other Rx Drugs</th>
<th>Other</th>
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<tbody>
<tr>
<td>2013</td>
<td>21</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>3</td>
<td>16</td>
<td>0</td>
<td>16</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>2014</td>
<td>25</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td>16</td>
<td>16</td>
<td>0</td>
<td>14</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>19</td>
<td>6</td>
<td>3</td>
<td>13</td>
<td>10</td>
<td>15</td>
<td>10</td>
<td>2</td>
<td>5</td>
<td>10</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>14</td>
<td>9</td>
<td>5</td>
<td>11</td>
<td>4</td>
<td>17</td>
<td>1</td>
<td>14</td>
<td>9</td>
<td>0</td>
<td>0</td>
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<tr>
<td>2017</td>
<td>7</td>
<td>14</td>
<td>4</td>
<td>18</td>
<td>9</td>
<td>23</td>
<td>2</td>
<td>9</td>
<td>9</td>
<td>0</td>
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Drug Death Trends

Trends in Washtenaw County Drug-Related Deaths 2013-2017
Deaths Due to Drug Type

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
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<tbody>
<tr>
<td>Heroin</td>
<td>21</td>
<td>25</td>
<td>19</td>
<td>14</td>
<td>7</td>
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<tr>
<td>Fentanyl</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td>9</td>
<td>14</td>
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<tr>
<td>Cocaine</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>4</td>
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<tr>
<td>Heroin/Fentanyl</td>
<td>1</td>
<td>6</td>
<td>13</td>
<td>11</td>
<td>18</td>
</tr>
<tr>
<td>Fentanyl Cocaine</td>
<td>2</td>
<td>0</td>
<td>6</td>
<td>3</td>
<td>3</td>
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**Motor VehicleDeath Trends**

<table>
<thead>
<tr>
<th>Year</th>
<th>Motor Vehicle Deaths</th>
<th>Pedestrian Deaths</th>
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<tbody>
<tr>
<td>2009</td>
<td>38</td>
<td>3</td>
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<tr>
<td>2010</td>
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<td>2016</td>
<td>47</td>
<td>11</td>
</tr>
<tr>
<td>2017</td>
<td>70</td>
<td>12</td>
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</table>
Organ Procurement Activity (GOL)

Washtenaw County Medical Examiner
Collaborating to Save & Enhance Lives

Washtenaw County 2017 Highlights

- 22 Tissue Donors Referred by Washtenaw County Medical Examiner’s office (highest in past years was 19 tissue donors in 2014)
- 200 Non-Hospital Deaths Referred! (#2 in state)
- 22 ME Referred TISSUE Donors (#2 in state of Michigan)
- 18 ME Referred EYE Donors (#2 in state of Michigan)
- 51 donors from Washtenaw County Hospitals were facilitated by ME office: 10 organ, 3 organ+tissue; 4 organ+tissue+eye; 15 Tissue; 11 tissue+eye; 8 eye

<table>
<thead>
<tr>
<th>Washtenaw County Medical Examiner</th>
<th>2017</th>
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<tbody>
<tr>
<td></td>
<td>HOSPITAL MORTALITY DEATHS</td>
</tr>
<tr>
<td>Michigan Medicine</td>
<td>1530</td>
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<tr>
<td>St. Joseph Mercy AA</td>
<td>560</td>
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<tr>
<td>Total Hospital</td>
<td>1790</td>
</tr>
<tr>
<td>Non-Hospital Death</td>
<td>700</td>
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<tr>
<td>Total All</td>
<td>1390</td>
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</table>

<table>
<thead>
<tr>
<th>2017 Iop Counties for ME Referrals</th>
<th>Non-Hospital Death Referrals</th>
<th>Tissue Donors</th>
<th>Jan</th>
<th>Apr</th>
<th>Aug</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wayne</td>
<td>163</td>
<td>146</td>
<td>18</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Washtenaw</td>
<td>200</td>
<td>91</td>
<td>22</td>
<td>24%</td>
<td>18</td>
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<tr>
<td>Kent</td>
<td>189</td>
<td>122</td>
<td>42</td>
<td>24%</td>
<td>25</td>
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<tr>
<td>Kalamazoo</td>
<td>156</td>
<td>81</td>
<td>18</td>
<td>20%</td>
<td>10</td>
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<tr>
<td>Calhoun</td>
<td>146</td>
<td>91</td>
<td>10</td>
<td>14%</td>
<td>8</td>
<td></td>
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<tr>
<td>Ingham</td>
<td>146</td>
<td>80</td>
<td>20</td>
<td>15%</td>
<td>6</td>
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</tbody>
</table>

Thank you WASHTENAW COUNTY!
Your collaboration, dedication & going ABOVE & BEYOND to help facilitate the donation process is truly appreciated!

You are MAKING A DIFFERENCE!
**Infant Sleep Related Death Trends (MPHI)**

**Washtenaw County**

**Sleep-related infant deaths** are defined in Michigan as deaths to infants less than 1 year of age that occur suddenly and unexpectedly, including Sudden Infant Death Syndrome (SIDS), Undetermined/Sudden Unexplained Infant Death (SUDB), and other causes wherein the sleep environment was likely to have contributed to the death.

**Mortality Rate**

The sleep-related infant mortality rate in Washtenaw County is 0.9 deaths per 1,000 live births, which is lower than the overall rate in Michigan (1.2 deaths/1,000 live births).

**Sleep Environment**

The American Academy of Pediatrics (AAP) recommends that infants: 1) sleep in a safety-approved crib, bassinet, or portable crib with a firm mattress and tight-fitting sheet, 2) sleep on surfaces separate from adults or other children free of blankets, pillows, or toys, 3) be placed on his or her back every sleep time. 50% of sleep-related deaths in Washtenaw County involved an infant sleeping on the same surface with another person at the time of death.

70% of sleep-related deaths in Washtenaw County occurred in an unsafe sleep location.

Approximately 50% of infants found unresponsive were in a position other than on their backs.

**Source:** Data are from county of residence from CDC SUID Case Registry, Michigan Public Health Institute, 2014. Birth data are from Michigan Resident Birth Files, Division for VITAL Records and Health Statistics, Michigan Department of Community Health, 2014. Prepared by the Michigan Public Health Institute, Center for Child and Family Health, August 2014. Questions may be directed to Lindsey Gross, MPH, 517-524-7290.
Cremation Permits Issued

![Chart showing the number of cremation permits issued from 2013 to 2017. The numbers issued are as follows: 2251 in 2013, 2262 in 2014, 2355 in 2015, 2550 in 2016, and 2570 in 2017.](Image)