



# Iowa Office of the State Medical Examiner



# Annual Report 2021

## 2021 Annual Report

# Iowa Office of the State Medical Examiner

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## **INTRODUCTION**

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The Iowa Office of the State Medical Examiner (IOSME) was established in 1976. In May 1999, Governor Thomas J. Vilsack signed legislation approving the move of the office from the Department of Public Safety to the Department of Public Health.

The primary role of the office is to provide support, guidance, education, consultation, and training to county medical examiners and their investigators. County medical examiners investigate violent, suspicious, and unexpected natural deaths that occur in their counties. Upon a county medical examiner's request, the Iowa Office of the State Medical Examiner will assist at the death scene and perform the autopsy. Board certified forensic pathology staff at the IOSME provide expert testimony in depositions and trials in homicide and other wrongful death cases.

The Iowa Office of the State Medical Examiner is committed to providing support, education, consultation, and training to each of the county medical examiner offices in order to assist them in the investigation of deaths throughout the state.

## **MISSION STATEMENT**

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*To establish and maintain credibility  
in death investigation  
in a system that will operate efficiently  
and serve the needs of  
the citizens of Iowa.*

## **STATE MEDICAL EXAMINER INTERAGENCY COORDINATING COUNCIL**

The State Medical Examiner Advisory Council was established in 1999 via Iowa Code 691.6C. This Council was established to “advise and consult with the state medical examiner on a range of issues affecting the organization and functions of the office of the state medical examiner and the effectiveness of the medical examiner system in the state.”

During the 2020 legislative session a law was enacted that merged the Advisory Council into the Interagency Coordinating Council (Iowa Code 691.6 B). This Council meets on a biannual basis.

Membership is determined by Dr. Dennis Klein, State Medical Examiner, in consultation with Kelly Garcia, Interim Director, Iowa Department of Public Health.

### 2021 membership:

|                       |  |
|-----------------------|--|
| Scott Brown           | Attorney General’s Office                          |
| Julie Breiner, MD     | Iowa Association of Pathologists                   |
| Kelly Garcia          | Interim Director, Iowa Department of Public Health |
| Joshua Cook, MD       | Iowa Medical Society                               |
| James Fullerton       | Iowa Funeral Directors Association                 |
| Keith Hansen, DO      | Iowa Association of County Medical Examiners       |
| Dennis Klein, MD      | State Medical Examiner                             |
| Jennifer Miller       | Iowa County Attorney’s Association                 |
| Marcus Nashelsky, MD  | University of Iowa, Department of Pathology        |
| Bruce Reeve           | Iowa Department of Public Safety                   |
| Thomas Summitt        | Iowa Emergency Medical Services Association        |
| Kurt Swaim            | Iowa Public Defender’s Office (invitation)         |
| Jonathan Thompson, MD | Deputy State Medical Examiner                      |

## **COUNTY MEDICAL EXAMINERS**

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The primary function of the county medical examiner is to determine a truthful, logical, and scientifically unbiased statement of the cause and the manner of death. (Iowa Code 331.801-805 and Administrative Code 641-127 govern county medical examiner activities).

County medical examiners are uniquely qualified to investigate the deaths of individual citizens in their counties, not only because of their medical training, but also by virtue of the fact they usually live and work in the counties in which they serve. County medical examiners must display uncompromising honesty, integrity, and loyalty to their community and their oath, regardless of any pressure they may receive from outside sources.

The county medical examiner of any of the counties is a physician appointed by the Board of Supervisors of that county to act in an official capacity to investigate and make a report of any death as described in Iowa Code section 331.802(3).

The county medical examiner shall be licensed in Iowa as a doctor of medicine and surgery, a doctor of osteopathic medicine and surgery, or an osteopathic physician.

The county medical examiner shall be appointed, from lists submitted by the medical society and the osteopathic society of the particular county, for a period of two years (a period of time that shall commence on January 1, if it is not a Sunday). If a qualified physician in the particular county cannot be identified, the Board of Supervisors may appoint a physician from outside the particular county.

The county medical examiner is required by law to make inquiry into the cause and manner of death of any individual meeting the criteria outlined in Iowa Code section 331.802(3) and make a report of this to the state medical examiner, the county attorney where the incident occurred and/or any law enforcement agency having jurisdiction.

The county medical examiner shall make a determination as to the most probable cause and manner of death, and issue the death certificate for those deaths within their jurisdiction as outlined by the statute.

The county medical examiner will determine if an autopsy is needed, and will make a written request.

The county medical examiner shall issue permits as required by the county and/or state which are necessary for the disposition of a dead body (including cremation permits).

The duties of a county medical examiner can be quite time-intensive, as someone must be available 24 hours per day, 7 days per week. Therefore, the county medical examiner is authorized to appoint deputy or assistant county medical examiners and county medical examiner investigators to assist him/her in the fulfillment of his/her duties.

These deputy medical examiners must be physicians who are licensed in the state of Iowa and who have been approved for service by the state medical examiner. The county medical examiner is responsible to train and/or secure training for his/her deputies.

## **FACILITY**

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A laboratory facility housing the IOSME also houses the Department of Public Safety, Agriculture & Land Stewardship, and the University of Iowa Hygienic Laboratory. It opened in March 2005 on the Des Moines Area Community College (DMACC) campus in Ankeny, Iowa.

The facility allows the IOSME to house both the office and the morgue in one building allowing the SME to maintain accreditation with the National Association of Medical Examiners, aiding recruitment of high quality workers and federal grant eligibility.

The facility improves services provided by the IOSME and provides the capabilities to:

- ❖ Perform complex autopsies efficiently in a biologically safe and physically secure facility.
- ❖ Protect and secure evidence and records for criminal cases in a manner that meets or exceeds stringent court scrutiny as well as state and national standards.
- ❖ Operate cooler space for deceased individuals awaiting identification and/or autopsy.
- ❖ Handle multiple deaths as necessary for disaster preparedness, including infectious diseases or mass disasters.

The IOSME staff is available to perform autopsies and assist with medicolegal death investigations 24 hours per day, 7 days per week, and 365 days per year.

## **REPORTABLE DEATHS**

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As per Iowa Code 331.802(3), certain types of deaths are to be reported to the county medical examiner. A medical examiner death is defined as a death that affects the public interest and is unexpected, unexplained, and/or unwitnessed. These deaths affect the public interest and include, but are not limited to, any of the following:

- a. Violent death, including homicidal, suicidal, or accidental death.
- b. Death caused by thermal, chemical, electrical, or radiation injury.
- c. Death caused by criminal abortion including self-induced, or by sexual abuse.
- d. Death related to disease thought to be virulent or contagious which may constitute a public hazard.
- e. Death that has occurred unexpectedly or from an unexplained cause.
- f. Death of a person confined in a prison, jail, or correctional institution.
- g. Death of a person who was prediagnosed as a terminal or bedfast case who did not have a physician in attendance within the preceding thirty days; or death of a person who was admitted to and had received services from a hospice program as defined in section 135J.1, if a physician or registered nurse employed by the program was not in attendance within thirty days preceding death.
- h. Death of a person if the body is not claimed by a relative or friend.
- i. Death of a person if the identity of the deceased is unknown.
- j. Death of a child under the age of two years if death results from an unknown cause or if the circumstances surrounding the death indicate that sudden infant death syndrome may be the cause of death.

## **STATUTORY DUTY STATE MEDICAL EXAMINER**

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Iowa Code 691.5-6C and Administrative Rule 641-126 govern the Iowa Office of the State Medical Examiner. Autopsies are performed at the request of county medical examiners for those deaths that are reportable. The duties of the state medical examiner are:

1. To provide assistance, consultation, and training to county medical examiners and law enforcement officials.
2. To keep complete records of all relevant information concerning deaths or crimes requiring investigation by the state medical examiner.
3. To adopt rules pursuant to chapter 17A, and subject to the approval of the Director of Public Health, with the advice and approval of the State Medical Examiner Advisory Council.
4. To collect and retain autopsy fees as established by rule. Autopsy fees collected and retained under this subsection are appropriated for purposes of the state medical examiner's office. Notwithstanding section 8.33, any fees collected by the state medical examiner that remain unexpended at the end of the fiscal year shall not revert to the general fund of the state or any other fund but shall be available for use for the following fiscal year for the same purpose.
5. To conduct an inquiry, investigation, or hearing and administer oaths and receive testimony under oath relative to the matter of inquiry, investigation, or hearing, and to subpoena witnesses and require the production of records, papers, and documents pertinent to the death investigation. However, the medical examiner shall not conduct any activity pursuant to this subsection, relating to a homicide or other criminally suspicious death, without coordinating such activity with the county medical examiner, and without obtaining approval of the investigating law enforcement agency, the county attorney, or any other prosecutorial or law enforcement agency of the jurisdiction to conduct such activity.
6. To adopt rules pursuant to chapter 17A relating to the duties, responsibilities, and operations of the Office of the State Medical Examiner and to specify the duties, responsibilities, and operations of the county medical examiner in relationship to the Office of the State Medical Examiner.
7. To perform an autopsy or order that an autopsy be performed if required or authorized by section 331.802 or by rule. If the state medical examiner assumes jurisdiction over a body for purposes of performing an autopsy required or

authorized by section 331.802 or by rule under this section, the body or its effects shall not be disturbed, withheld from the custody of the state medical examiner, or removed from the custody of the state medical examiner without authorization from the state medical examiner.

8. To retain tissues, organs, and bodily fluids as necessary to determine the cause and manner of death or as deemed advisable by the state medical examiner for medical or public health investigation, teaching, or research. Tissues, organs, and bodily fluids shall be properly disposed of by following procedures and precautions for handling biologic material and bloodborne pathogens as established by rule.
9. To collect and retain fees for medical examiner facility expenses and services related to tissue recovery. Fees collected and retained under this subsection are appropriated to the state medical examiner for purposes of supporting the state medical examiner's office and shall not be transferred, used, obligated, or otherwise encumbered. Notwithstanding section 8.33, any fees collected by the state medical examiner shall not revert to the general fund of the state or any other fund.

## **STATUTORY DUTY DEPUTY STATE MEDICAL EXAMINER**

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Iowa Code 691.6A governs the Deputy State Medical Examiner creation and duties.

The position of deputy state medical examiner is created within the Office of the State Medical Examiner. The deputy state medical examiner shall report to and be responsible to the state medical examiner. The deputy state medical examiner shall meet the qualification criteria established in section 691.5 for the state medical examiner and shall be subject to rules adopted by the state medical examiner as provided in section 691.6, subsection 3.

The state medical examiner and the deputy state medical examiner shall function as a team, providing peer review as necessary, fulfilling each other's job responsibilities during times of absence, and working jointly to provide services and education to county medical examiners, law enforcement officials, hospital pathologists, and other individuals and entities.

The deputy medical examiner may be, but is not required to be, a full-time salaried faculty member of the Department of Pathology of the University Of Iowa College Of Medicine. If the medical examiner is a full-time salaried faculty member of the Department of Pathology of the University of Iowa College of Medicine, the Iowa Department of Public Health and the State Board of Regents shall enter into a chapter 28E agreement to define the activities and functions of the deputy medical examiner, and to allocate deputy medical examiner costs, consistent with the requirements of this section.

## **ORGAN AND TISSUE DONATION ACTIVITIES**

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Organ and tissue transplantation can have tremendous lifesaving and life altering benefits to patients who are in need. The IOSME supports and encourages organ and tissue donation whenever it is possible. Due to the wide geographical area covered by the IOSME, coordinating body transportation, acquiring case information, timing of autopsy, and timing of organ and tissue recovery can be a very challenging task.

Many cases requiring medicolegal autopsies are also cases that would be eligible for organ and tissue donation. However, timing, logistics, and access to medical and investigative information are the major factors that may limit the number of medical examiner cases that can also undergo donation. Both the IOSME and the Iowa Donor Network (IDN) recognized there was a large overlap and duplication in information that needs to be acquired by both agencies. In November 2013, IDN partnered with the IOSME and appointed a fulltime liaison, who resides permanently at the IOSME, to streamline and facilitate the process of gathering information for both death investigation and potential donation. The liaison attended the St. Louis course on medicolegal death investigation, received many hours of training and mentorship in death investigation, and is now in the state medical examiner investigator rotation. In 2015, a second IDN liaison was added to the IOSME team. In addition to coordinating tissue donation, thus increasing efficiency and likelihood of successful donation in suitable candidate cases, the liaisons also assist IOSME pathologists with medicolegal death investigation.

During the 2006 Legislative session, HF2768 was introduced and signed into law by Governor Vilsack. Subsection 8 in Iowa Code 691.6 allows the State Medical Examiner's Office to collect and retain fees for the expenses and services related to tissue recovery. These fees help offset the expense with the use of the tissue recovery suite.

Iowa Donor Network's basic criteria and procedures for potential donors are included in the County Medical Examiner's Handbook. The IOSME and IDN continue to improve communications to ensure a successful relationship that provides an essential service to the public.

## Tissue Referrals

|      |  |
|------|--|
| 221  | Tissue Donors                              |
| 150  | Approached Not Authorized (Family Decline) |
| 71   | Consented Not Recovered                    |
| 1786 | Not Medically Suitable                     |
| 48   | No Next-of-Kin Found/Available             |
| 37   | Embalmed                                   |
| 29   | Timed Out, Restricted to Post Autopsy      |
| 34   | ME Declines                                |
| 2    | Weather Deferral                           |
| 15   | Time Constraints                           |

### Summary

In 2021, the IOSME referred 777 deaths to IDN, 69 of which became tissue donors.

In addition, IOSME was involved in autopsy and release for 181 tissue donors, 101 of which were referred by Out of Hospital Agencies (MEs, EMS, and Fire/Rescue) and 80 referred by hospitals.

In total 181 donors were recovered, 95% were recovered pre-autopsy.

IDN recovered 163 donors at the IOSME Recovery Suite.

The 163 tissue recoveries in which IOSME was involved (hospital and OOH deaths) resulted in:

|     |  |
|-----|--|
| 120 | Skin recoveries  |
| 137 | Bone and associated tissue recoveries (36 JR recoveries) |
| 61  | Heart for valve recoveries                               |
| 109 | Saphenous vein recoveries (58 Left/61 Right)             |
| 73  | Femoral vein recoveries (24 Left/25 Right)               |
| 2   | Juvenile Cartilage recoveries                            |
| 1   | Adipose  |

### Statewide Organ Referrals

|                         |     |                          |     |
|-------------------------|-----|--------------------------|-----|
| Organ Donors            | 152 | Cardiac Arrested on Vent | 142 |
| Family Declines         | 38  | Consented Not Recovered  | 41  |
| Patients Not Brain Dead | 563 | Medical Examiner Decline | 3   |
| Not Medically Suitable  | 407 | Referred, Survived       | 213 |
| Non-Converted Potential | 11  |                          |     |

## **ACCREDITATION**

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The IOSME received accreditation from the National Association of Medical Examiners (NAME) in 2008 and continually works toward maintaining that status.

On January 11, 2022, the IOSME was inspected and achieved reaccreditation for the period November 6, 2021 to November 6, 2025.

## **BUDGET AND STAFFING**

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The IOSME receives its funding from the State of Iowa general fund appropriation, charges and fees for autopsies performed and a portion of the fees collected by Vital Records for copies of death certificates.

| <b>Fiscal Year</b> | <b>General Fund<br/>Appropriation</b> | <b>Autopsy<br/>Fees Collected</b> | <b>Death Certificate<br/>Fees Collected</b> |
|--------------------|---------------------------------------|-----------------------------------|---|
| FY2000             | 357,184 (transfer)                    | 0                                 | 0   |
| FY2001             | 514,029                               | 213,500                           | 0   |
| FY2002             | 544,103                               | 339,000                           | 0   |
| FY2003             | 497,220                               | 406,100                           | 0   |
| FY2004             | 511,211                               | 372,395                           | 0   |
| FY2005             | 526,268                               | 512,100                           | 185,238                                     |
| FY2006             | 865,270                               | 707,052                           | 379,320                                     |
| FY2007             | 984,981                               | 690,590                           | 383,187                                     |
| FY2008             | 1,143,497                             | 879,659                           | 393,162                                     |
| FY2009             | 1,262,566                             | 725,943                           | 393,015                                     |
| FY2010             | 932,138                               | 864,953                           | 390,655                                     |
| FY2011             | 903,782                               | 800,410                           | 402,606                                     |
| FY2012             | 852,801                               | 964,800                           | 410,535                                     |
| FY2013             | 822,084                               | 1,020,062                         | 420,013                                     |
| FY2014             | 822,084                               | 1,084,450                         | 405,449                                     |
| FY2015             | 822,084                               | 1,059,100                         | 403,825                                     |
| FY2016             | 822,084                               | 1,056,496                         | 387,301                                     |
| FY2017             | 822,084                               | 1,134,550                         | 405,828                                     |
| FY2018             | 822,084                               | 1,118,309                         | 397,899                                     |
| FY2019             | 822,084                               | 1,492,000                         | 394,704                                     |
| FY2020             | 814,769                               | 2,154,553                         | 429,155                                     |
| FY2021             | 1,052,263                             | 2,248,277                         | 521,883                                     |

The IOSME had 16.5 FTEs in 2021:

- |  |                                  |
|--|----------------------------------|
| 1 Chief State Medical Examiner           | 1 Office Manager                 |
| 1 Deputy State Medical Examiner          | 2 Secretaries                    |
| 3 Associate State Medical Examiners      | 2 Medicolegal Death Investigator |
| 2 Medical Examiner Investigator liaisons | 1 Radiological Technologist      |
| 0.5 Vital Statistics liaison             | 3 Autopsy Technicians            |

The IOSME supplements the staffing shortfall with temporary part-time employees. These employees work in the capacity of forensic pathologist, forensic autopsy technicians, forensic morgue attendants, medicolegal death investigator assistants, and office clerical staff. The number of part-time temporary employees averaged 27 in 2021.

## **GOALS FOR THE FUTURE**

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Many of the original goals set in 1999 have been met. Anticipating the needs of the future, goals are updated periodically.

The following are some of the current goals established for the office:

- ✓ Maintain turnaround time goal of a majority of autopsy reports finalized within 30 days and all within 90 days.
- ✓ Finalize reports on homicide cases within 30 days.
- ✓ Recruit and retain quality staff.
- ✓ Provide a supportive work environment, and promote professional growth and quality.
- ✓ Continue accreditation with the National Association of Medical Examiners (NAME).
- ✓ Promote the work quality of the IOSME so that the citizens of Iowa understand that the IOSME is an independent and objective investigative agency.
- ✓ Establish funding for the continuous operation of the IOSME and allow retention of funds to cover the costs for death investigation and autopsies.
- ✓ Improve case management system and web portal entry system for county medical examiner personnel to enter scene investigation information electronically.
- ✓ Maintain rotation for fourth-year medical students from Des Moines University and continue Community-based Primary Care Clerkship for medical students from the University of Iowa.
- ✓ Continue to improve mass disasters plans.
- ✓ Continue to develop the Iowa Mortuary Operations Response Team (IMORT) Team, and increase volunteer members and training.
- ✓ Establish staffing to accommodate increase in case volume.

**Statistical Information:**

The Iowa Office of the State Medical Examiner oversees 99 county medical examiner offices. The following information has been gathered from all 99 counties and reflects the state as a whole. However, there is statistical information provided that reflects how the Iowa Office of the State Medical Examiner performs its duties as the central office.

**Central Office Numbers for the Year 2021**

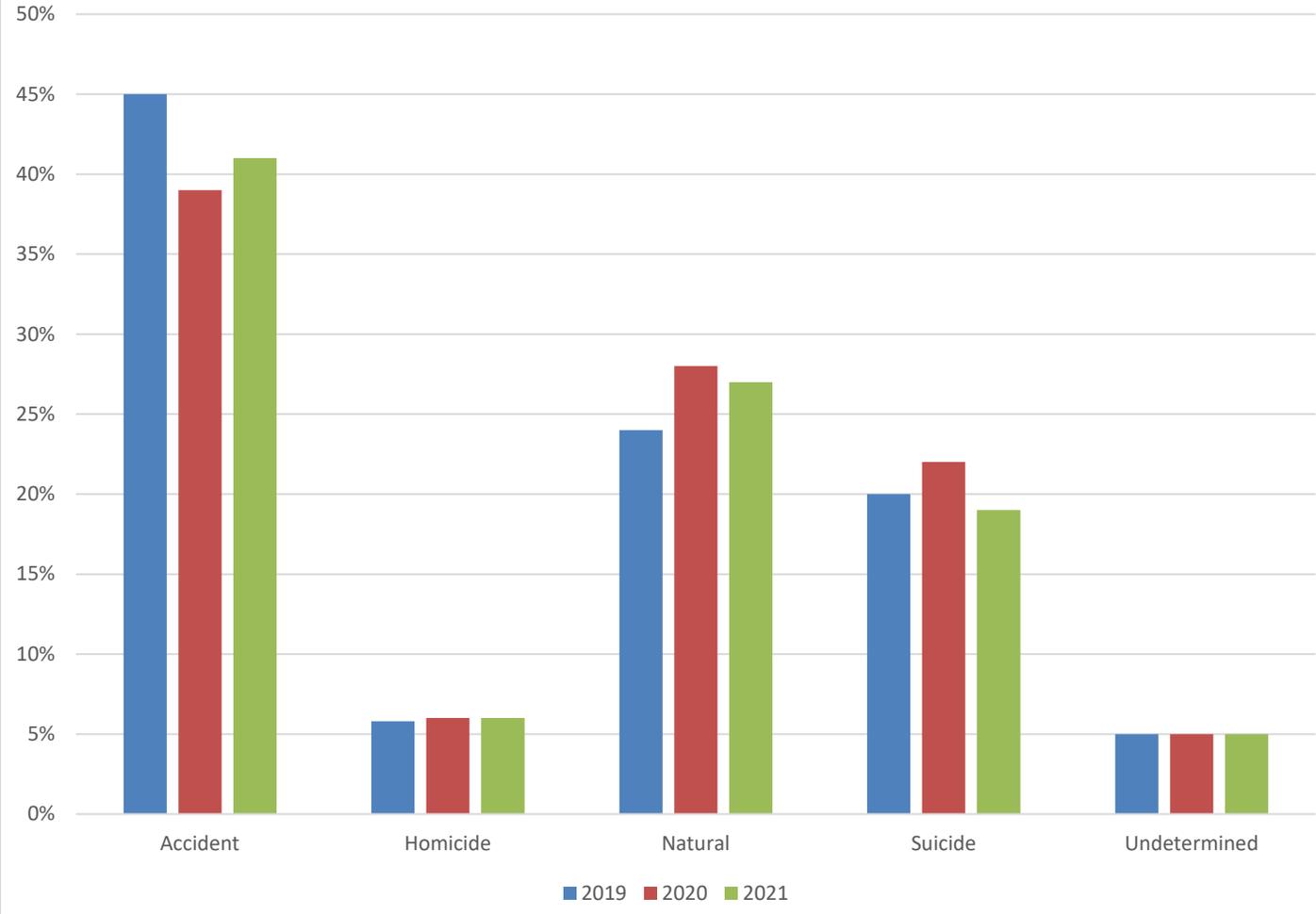
**Total medical examiner cases reported in Iowa:**

**10,291**

|  |                |
|--|----------------|
| <b>Total cases accepted by IOSME for autopsy.....</b>          | <b>1397</b>    |
| <b>Total scenes attended.....</b>                              | <b>0</b>       |
| <b>Total bodies transported by office.....</b>                 | <b>2</b>       |
| <b>External examinations.....</b>                              | <b>2</b>       |
| <b>Complete autopsies* .....</b>                               | <b>1390</b>    |
| <b>Partial autopsies .....</b>                                 | <b>2</b>       |
| <b>Cases where toxicology is performed.....</b>                | <b>1361</b>    |
| <b>Bodies unidentified after examination .....</b>             | <b>0</b>       |
| <b>Organ and tissue referrals/donations.....</b>               | <b>777/181</b> |
| <b>Unclaimed bodies .....</b>                                  | <b>0</b>       |
| <b>Exhumations .....</b>                                       | <b>0</b>       |
| <b>Bodies transported to the office.....</b>                   | <b>1190</b>    |
| <b>Hospital autopsies retained under ME jurisdiction .....</b> | <b>0</b>       |

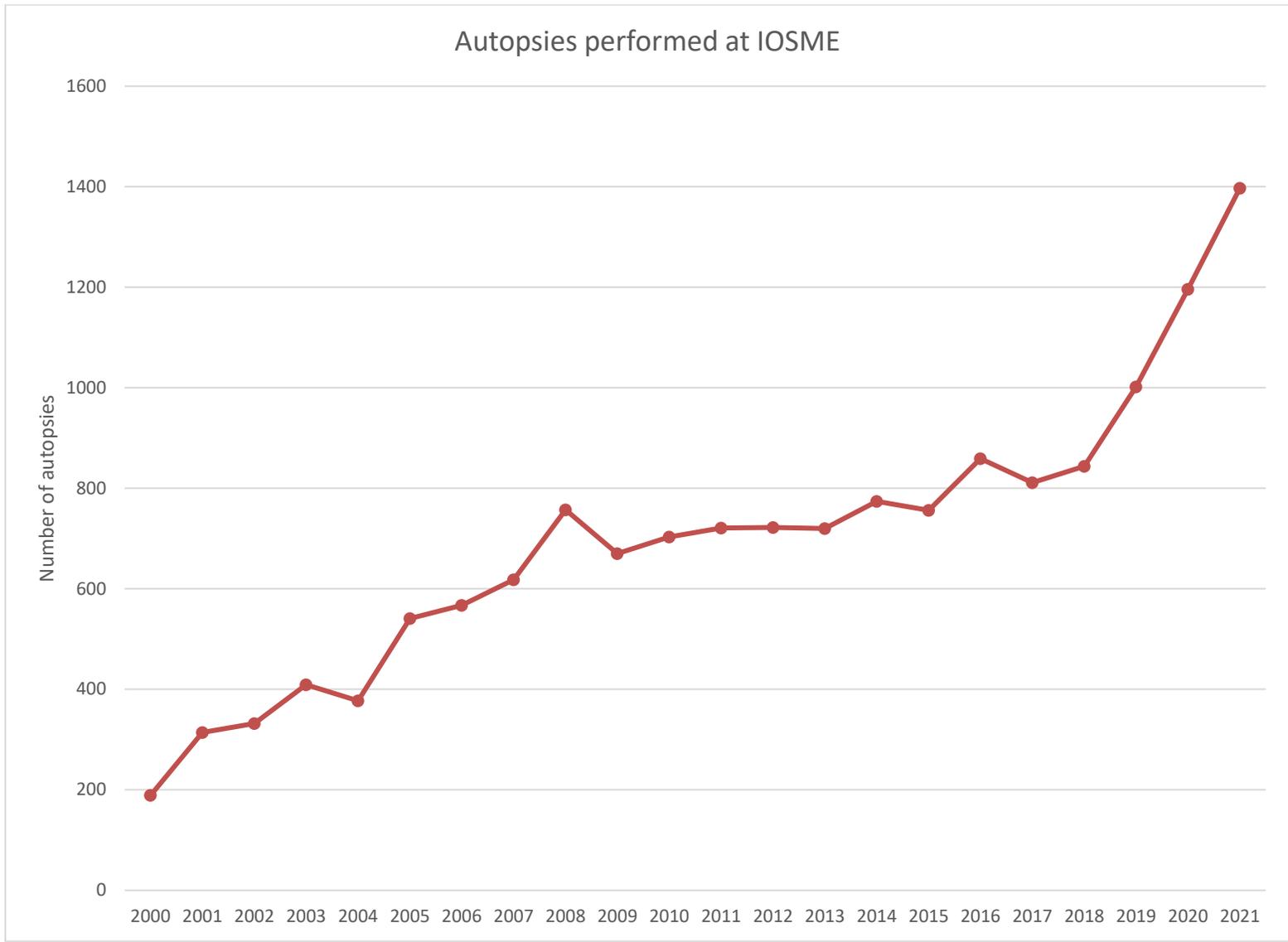
(Central office does not accept hospital autopsies)

### Manners of Deaths Percentages for Cases Performed at the Iowa Office of the State Medical Examiner



# Iowa Deaths

|                             | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   | 2021   |
|-----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Total Deaths in Iowa</b> | 28,301 | 28,815 | 28,088 | 28,548 | 29,512 | 30,527 | 30,369 | 30,399 | 35,669 | 33,996 |
| <b>CME Investigated</b>     | 5,108  | 5,272  | 5,121  | 5,285  | 5,524  | 5,789  | 5,515  | 6,686  | 10,893 | 10,615 |
| <b>% of Total Deaths</b>    | 18%    | 18%    | 18%    | 18%    | 19%    | 19%    | 18%    | 22%    | 30%    | 31%    |
| <b>Autopsies Requested</b>  | 1,513  | 1,541  | 1,507  | 1,533  | 1,565  | 1,543  | 1,499  | 1,472  | 1,868  | 2,135  |
| <b>% of ME Cases</b>        | 30%    | 29%    | 29%    | 29%    | 28%    | 28%    | 26%    | 22%    | 17%    | 20%    |



## CATEGORIES OF DEATH BY MANNER

### NATURAL

|                                   |     |
|-----------------------------------|-----|
| Cardiac > Coronary Artery Disease | 111 |
| Cardiac > Non-atherogenic         | 71  |
| Cerebrovascular                   | 10  |
| Chronic Alcohol-Related           | 33  |
| Congenital Defect                 | 1   |
| Diabetes                          | 8   |
| Gastrointestinal                  | 7   |
| Hypertension                      | 11  |
| Infectious Disease                | 32  |
| Natural Disease > NOS             | 30  |
| Pulmonary Disease                 | 10  |
| Pulmonary Embolism                | 26  |
| Seizure                           | 5   |
| Sepsis                            | 3   |
| Other                             | 20  |

### UNDETERMINED

|                                     |    |
|-------------------------------------|----|
| Asphyxia                            | 2  |
| Blunt Force Injury                  | 4  |
| Blunt Force Injury > Transportation | 3  |
| Cardiac > Coronary Artery Disease   | 0  |
| Drowning                            | 4  |
| Firearm                             | 1  |
| Intoxication > Alcohol              | 0  |
| Intoxication > Drug                 | 10 |
| SIDS/SUID                           | 15 |
| Undetermined                        | 25 |

### HOMICIDE

|                    |    |
|--------------------|----|
| Asphyxia           | 3  |
| Blunt Force Injury | 10 |
| Firearm > Handgun  | 31 |
| Firearm > Rifle    | 4  |
| Firearm > Shotgun  | 5  |
| Firearm > NOS      | 18 |
| Sharp Force Injury | 11 |
| Other              | 3  |

### ACCIDENT

|                                     |     |
|-------------------------------------|-----|
| Asphyxia                            | 31  |
| Blunt Force Injury                  | 38  |
| Blunt Force Injury > Transportation | 165 |
| Chronic Alcohol-Related             | 4   |
| Drowning                            | 31  |
| Electrical                          | 5   |
| Exposure                            | 13  |
| Fall                                | 3   |
| Fire > Motor Vehicle                | 20  |
| Fire > Structure                    | 15  |
| Firearm > Handgun                   | 1   |
| Intoxication > Alcohol              | 3   |
| Intoxication > Drug                 | 168 |
| Intoxication > Mixed Drug & Alcohol | 22  |
| Poisoning > Non-drug                | 2   |
| Pulmonary Embolism                  | 9   |
| Seizure                             | 3   |
| Sepsis                              | 1   |
| Weather related                     | 0   |

### SUICIDE

|                                     |     |
|-------------------------------------|-----|
| Asphyxia > Carbon Monoxide          | 9   |
| Asphyxia > Hanging                  | 79  |
| Asphyxia > Suffocation              | 2   |
| Blunt Force Injury                  | 6   |
| Drowning                            | 1   |
| Fire                                | 0   |
| Firearm > Handgun                   | 108 |
| Firearm > Rifle                     | 8   |
| Firearm > Shotgun                   | 29  |
| Intoxication > Drug                 | 18  |
| Intoxication > Mixed Drug & Alcohol | 7   |
| Sharp Force Injury                  | 1   |

## **SUMMARY**

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The Iowa Office of the State Medical Examiner (IOSME) has made tremendous progress in improving the oversight, guidance, and assistance to county medical examiners throughout the State of Iowa since its move to the Department of Public Health in 1999.

The IOSME has performed an increasing number of autopsies since 1999. The main reason for the increase has been due to the decrease in availability of pathologists throughout the state either willing or trained to perform forensic autopsies. The office has seen an increase in the number of yearly autopsies from under 200 in 2000 to a record high of 1,397 autopsies in 2021, a 17% increase in the number from cases performed in 2020, and a 65% increase from the number of cases performed in 2018.

The computer case management application, Forensic Advantage System (FAS), went into production at the end of June 2014. FAS is a customizable off-the-shelf application developed by The Computer Solutions Company (TCSC) which was acquired by Think IT in 2018. Think IT sold the company to Caliber in 2020. The purchase of FAS was funded using Return on Investment (ROI) funds, IOSME general funds, and National Forensic Science Improvement grant funds. Some of the funds from the National Forensic Science Improvement Competitive Grant awarded to the IOSME in 2013 were used to cover expenses for necessary hardware to host FAS. Data entry into FAS began with entry of decedent's name, biographical information, and intake narrative information on cases accepted for autopsy at the IOSME. IOSME full-time and part-time staff were trained in these entry and tracking processes. Over the course of several months, additional functions were implemented in FAS, including entry of and tracking of specimens acquired during autopsy and tracking of evidence. IOSME staff continues to work with Caliber to improve certain features, as well as begin development of new features that enhance the efficiency and power of the application.

In collaboration with the Bureau of Vital Statistics, a project was completed in 2019 that involved updating and revising the preliminary death investigation form (ME-1) into a web based electronic data entry system, EMER (Electronic Medical Examiner Record) that is integrated with the web interface of Iowa's electronic death registry system IVES (Iowa Vital Event System). County medical examiner personnel were trained in the use of the new system that went live in October 2019. Training materials and short how-to videos were available to all County Medical Examiners and County Medical Examiner Investigators on the IOSME website. By the end of 2019 all, but with a few exceptions, of medical examiner cases were entered by county ME personnel into the ME section of the IVES system. A

project was started in 2021 to import a majority of the data fields from IVES into FAS.

Continuing to operate efficiently and safely during 2021 in the midst of the COVID pandemic proved to be a challenge. New policies and procedures were developed to minimize the risk of infection to workers in the autopsy suite, as well as to protect workers in administrative areas. With these new processes, the IOSME was successful in meeting the increased demand for autopsy services in a timely manner, as well maintaining the health and safety of all workers.

The IOSME continued to support and participate in the annual Iowa Association of County Medical Examiners fall conference. In 2021, the conference was held in a hybrid virtual in-person format to provide safety to attendees who were at highest risk, and provided the benefit of in-person meetings for those who felt comfortable in that setting. The evaluations by attendees for both the format and content were positive.

The IOSME continued to manage its website at [www.iosme.iowa.gov](http://www.iosme.iowa.gov). The website has pages for funeral homes, law enforcement, county medical examiners, and families. This continued to be a major step in communicating and making information available to families. A form continued to be available for next-of-kin to request a copy of the autopsy report, and information about the IOSME was readily available to them. The site also had links to other agencies, and Iowa Code and Administrative Rules pertinent to the IOSME.

The Iowa Mortuary Operations Response Team (IMORT) was developed via a partnership between the Iowa Department of Public Health and the IOSME. IMORT's mission is to provide decedent recovery, identification, and assistance with medical examiner duties in a mass fatality event. In partnership with the Department of Public Health, planning was started for a multi-agency mass fatality table top exercise, to be conducted in the spring of 2022.

The IOSME remained committed to quality improvement in death investigation. Modifications were rapidly developed and implemented to autopsy processes to mitigate the risks because of the COVID-19 pandemic. Support and trainings were modified with virtual technologies. The IOSME researched current literature and rapidly provided guidelines for safety recommendations and proper death certification protocols to county medical examiners and funeral directors.

The Iowa Office of the State Medical Examiner looks forward to continuing in its commitment to quality improvement and in service to the citizens of Iowa.

Iowa Office of the State Medical Examiner  
Annual Report 2021

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