Iowa’s State Medical Examiner System
Annual Update and Future Outlook

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Cases Reported/Cases Autopsied
2006—2015

Cases Reported by Manner of Death
2006—2015

Homicides
Top 5 Counties
2006—2015

Firearm Deaths
2006—2015

Drug and Alcohol Deaths
2006—2015
Opioid Deaths* 2006—2015

Heroin and Opioid

--- | --- | --- | --- | --- | ---
Heroin | 186 | 636 | Heroin | 2 | 19
Other Opioids | 422 | 1,363 | Other Opioids | 10 | 33

Data from IDPH

Opioid Deaths by Region*

*per data reported to IOSME
Purpose of Death Investigation

• Determine who died
• Determine Cause and Manner of Death
  – Why?
    • Accurately certify death
      ✓ Legal implications
      ✓ Medical implications
      ✓ Civil implications
      ✓ Public Health and Public Safety implications
      ✓ Humanitarian implications
      ✓ Guidance in health and safety research allocations
      ✓ Data for state and federal reviews (SUID, NVDRS, CPSC)

• Prevention of further deaths
  – Carbon monoxide, electrical
  – Protection of living children
  – Dangerous products
  – Sentinel pandemics (infectious, drug)
• Evidence collection
  – Assistance to other agency investigators

1970 Iowa Code Chapter 1280 Sec 6
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 promulgate rules and regulations pursuant to chapter seventeen A (17A) of the Code regarding the manner and techniques to be employed while conducting autopsies; the nature, character, and extent of investigations to be made in cases of homicide or suspected homicide necessary to allow a medical examiner to render a full and complete analysis and report; the format and matters to be contained in all reports rendered by medical examiners; and all other things necessary to carry out this Act. All county medical examiners and peace officers shall be subject to such rules and regulations.”

Information
(Expectations)

• True
• Accurate
• Timely
• Understandable
• Pertinent

Ensure Information TRUE

• Ethical practice
• Training
• Respect limits of knowledge and science

Ensure Information ACCURATE

• Consistent reliable investigation practices
• Attention to detail
• Appropriate use of technology
  – Photos, GPS, Apps
• Quality Assurance
Consequences of Inaccurate Information

• Stresses credibility
• Erroneous Diagnoses and Opinions
• DELAYS
  – Death Certificates
• Expense

How are we doing?

• ME incorrect information delaying Death Certification
  – Name misspelled: 5%
  – Location of injury not specific enough: 17%

Ensure Timely Information

• Commitment
• Culture and Standards
• Resources

Hospital Autopsy vs Forensic Autopsy

• Hospital autopsy
  – Family consent
  – Clarification of disease process or cause of death
• Forensic autopsy
  – Determines/confirms identification
  – Cause and Manner of Death
  – Through analysis of injuries and toxicology
  – Evidence collection
  – Anticipates presentation of findings in court

Ensure Information Understandable

• Communication skills
• Standard language
• Appreciation of constituent
  – Who is reading the report?
  – How is the data used?
  – What questions are posed?

Ensure Information Pertinent

• Training
  – Essential case specific information gathered
• Essential evidence collected
• Provide pertinent opinions
• Selection of data to collect
• Provide data in format pertinent to key sectors
  – Public safety, public health, public policy, research
Storing Information
- Security
  - Loss protection
  - Hacking protection
- Store information only on county-approved servers

State Migration to Google Email
- Planned January 2017
- New protocol for secured e-mail

Dissemination of ME Records and Autopsy Reports
- ME-1
  - Retain copy
  - Original to State ME
  - Copy to County Attorney
- Autopsy reports
  - County ME
  - County Attorney
  - NOK
  - Investigating law enforcement and other agencies
  - Treating physician

Geographic Information Systems GIS
- Technology integrates databases with maps

Heat Mapping vs Hot Spot
- Heat Mapping
  - Geographical clustering of a phenomenon
- Hot Spot
  - Shows statistically significant clusters
  - (High Z score and small p value)

GIS Heat Map
Standardization

- Nosology (classification)
- Language (terminology and wording)
- Consistency in protocols
  - Cases to autopsy
  - Level of detail

2014 Opioid Statistics

<table>
<thead>
<tr>
<th></th>
<th>IOSME</th>
<th>Vital Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heroin</td>
<td>33</td>
<td>19</td>
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<tr>
<td>“Other Opioids”</td>
<td>55</td>
<td>33</td>
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Tomato—Toemahto

- Opioid intoxication
- Acute (heroin and oxycodone) intoxication
- Morphine intoxication
- Mixed drug (morphine and heroin) intoxication
- Morphine overdose
- Polypharmacy intoxication

Challenge: Communication of Information

Remote ME-1 Entry

- Advantages
  - Real-time database entry
  - Accuracy
  - Efficiency
- Disadvantages
  - $$$ Funding
  - Maintenance
    - Application software maintenance
    - Off-hours help desk (forgotten PW, etc.)
Emergency Communications

- State Radio Telephone backup: 515-281-3561
- Website: https://www.iosme.iowa.gov
- Plans to have emergency cell phone

Legislative Update

- Chapter 127 “County Medical Examiners”
  - Administrative rule change
  - Payment for ME and MEI services
    - Shall submit invoices jointly to County of Appointment (CoA)
    - CoA either pay or forward to County of Residence
    - If >60 days then CoA shall pay

Legislative Proposals

- 691.6 Duties of State Medical Examiner
  - Include consultation in injury cases (“Live Consults”)
  - Perform autopsy requests from hospitals or NOK

IMORT

- Need for Organized Mass Fatality Response

ME On the Road

- Training for ME, MEI, LE
- Education about communities
- Value of face to face
The Medicolegal Death Investigator Training Course

• Dates:
  – January 9–13, 2017
  – April 3–7, 2017
  – September 25–29, 2017

• Course fee: $850
• Anticipate Grant available

We All Need Time Away...

• Options to cover CME
  – Appointed Deputy ME
  – Adjacent county ME
  – State ME

• Not an option
  – Nobody
  – Physician who is NOT appointed

Changes

• Better
• Faster
• More efficient
• Cheaper
• Not needed
• Law, rule, requirement