

**Testimony**  
**Health Services Interim Committee**  
**10:10 a.m., July 27, 2016**  
**North Dakota Department of Health**

Good morning Chairman Lee and members of the Health Services Interim Committee. My name is William Massello, and I am the State Forensic Examiner for the North Dakota Department of Health (NDDoH). I am here today to present information regarding the role of our office in death investigations in North Dakota. I will be presenting slides along with a brief description of each slide.

- Slide 1      Title Slide
- Slide 2      North Dakota's system of death investigations is a hybrid system consisting of county coroners and a state forensic examiner. We are one of eight states to have this type of system.
- Slide 3      Of our 53 counties, 28 have medically trained coroners and 25 have coroners with non-medical backgrounds – usually the sheriff or a funeral director.
- Slide 4      Due to an increasing case load in our state, the Department entered into a contractual agreement with the University of North Dakota's Department of Pathology to assist with conducting forensic examinations. Currently UND serves 21 eastern counties and the Department serves 32 central and western counties.
- Slide 5      The 1995 Legislative Assembly established the State Forensic Examiner's Office in order to increase expertise in death investigations and provide a resource for county coroners.
- Slide 6      The general function of the Forensic Examiner's Office is to:
- Perform medicolegal autopsies
  - Consult with local officials on a case by case basis
  - Provide education to local coroners, law enforcement, medical and mortuary personnel
- Slide 7      NDCC 23-01-05.4 and NDCC 11-19 provides for the qualifications and duties of the state forensic examiner.
- Slide 8      NDCC 11-19.1-11 states that medicolegal autopsies must be performed by the state forensic examiner or a pathologist approved by the state forensic examiner
- Slide 9      There are two types of autopsies. Hospital or medical autopsies are performed, usually at the request of the family for primarily medical and private concerns. These are performed by the hospital for a fee and require consent from the family or next of kin.

Medicolegal autopsies address issues of law, government and public concern. Medicolegal autopsies can be ordered without consent from the family of the deceased.

Slide 10 The primary objectives of the medicolegal autopsy are to:

- Determine cause and manner of death
- Identify the dead
- Document and determine injuries
- Conform to legal requirements
- Provide information to local, state and federal investigators
- Answer questions of public health interest

Slide 11 This is a picture of our current building which houses the Forensic Examiners Office and the autopsy suite. This building is located close to the intersection of 26<sup>th</sup> Street and Main Avenue in Bismarck.

Slide 12 This is a picture of the autopsy suite. We have two stations in the suite plus a special procedures room. Noted on the slide are two air ducts which maintain negative air pressure in the autopsy suite, relative to the rest of the building. Negative pressure is needed to ensure any disease causing agents that can be carried in the air are not introduced into the rest of the building.

Slide 13 This slide shows the entrance to the special procedure room, our cold storage for bodies, and the carts used to hold the bodies.

Slide 14 X-rays are used routinely to identify injuries, foreign objects and bullets. Our x-ray machine is considered to be portable as it is on wheels and was designed to be moved to the body versus moving the body to the machine.

Slide 15 The North Dakota State Crime Laboratory performs toxicology screening for us at no cost. They are able to detect the presence of drugs or alcohol, but do not provide us with the level of drugs found in the deceased. For cases where drugs are detected, a sample is sent out of state to determine the amount of drugs that are in the system.

Slide 16 In North Dakota:

- Autopsies and laboratory testing are performed at no cost to the counties
- Transportation costs to send the bodies to Bismarck or Grand Forks are the responsibility of the counties
- Death certificates for forensic cases are signed by the forensic examiner
- Investigating officers are welcomed and encouraged to witness the autopsy

Slide 17 From 2007 through 2012, the number of autopsies being performed by the State Forensic Examiner increased from 240 to 367 cases, annually. This was a 53 percent increase and far above the 250 autopsies per pathologist per year recommended by the National Association of Medical Examiners. In 2013, The Forensic Examiner Office entered into a contract with UND to

assist with forensic examinations. Since that time, the number of autopsies being performed have fallen to a level that is closer to our goal of 250 autopsies.

Slide 18 NDCC 11-19.1-01 directs that certain deaths be reported to the county coroners. These include the following deaths:

- Obvious or suspected homicides, suicides or accidental injury
- Firearm injury
- Severe, unexplained injury
- Occupant or pedestrian motor vehicle injury
- An injury to a minor
- Fire, chemical, electrical or radiation injuries
- Starvation
- Unidentified skeletal human remains
- Drowning
- Suffocation, smothering or strangulation
- Poisoning or illegal drug use
- Prior child abuse or neglect assessment concerns
- Open child protection service cases
- Victims in the custody of human services, social services, corrections or law enforcement
- Unexplained death or death in an undetermined manner
- Suspected sexual assault
- Any other suspicious factor

Slide 19 It does not matter if the death occurred in a hospital or in a private residence. The criteria for reporting must be adhered to.

Slide 20 This slide shows a screen shot of our Vital Record's electronic death certificate program. The system has been updated so that when a physician indicates that the death was any other than a natural death, the system will not allow the completion of the death certificate. The system will prompt the physician to report the death to the local coroner or the forensic examiner.

Slide 21 The decision to perform an autopsy is made on a case by case basis. This is a screen shot from our web site outlining criteria that are used to determine if a medicolegal autopsy is needed. These include:

- All gunshot wounds and other firearm injuries
- Suspected drug overdoses
- Industrial and farm accidents
- Deaths in police custody, in state institutions or in pursuit by law enforcement
- Fire related deaths
- Unexpected child and infant deaths

- Deaths with criminal charges pending or with suspicious circumstances
- Traffic fatalities where criminal charges are pending
- Traffic fatalities without obvious death causing injuries
- Deaths that occur at a work site
- Victims of drowning or suspected exposure
- Persons with questionable identity
- Deaths where the cause of manner of death are in question
- Suspicious skeletal or near skeletal remains
- All suicides, by any means or method
- All homicides or deaths related to homicides, recent or old

Slide 22      This slide provides information on the total number of cases accepted by the forensic examiner's office for autopsy and the number of times in which the forensic examiner provided consultation only. From 2012 to 2015, 64 to 75 percent of cases in which the forensic examiner was notified resulted in the body being accepted for a forensic autopsy.

In summary, North Dakota uses a hybrid system of county coroners and a central forensic examiner. Recent increases in case load resulted in North Dakota counties being regionalized into one of two regions. Twenty-one eastern counties are served by the University of North Dakota's Department of Pathology. Thirty-two central and western counties are served by the Forensic Examiner's Office in Bismarck. This regionalization has decreased the case load for the Bismarck office closer to what is nationally recommended. The qualifications and duties of the forensic examiner and the county coroners are defined in Century Code.

This concludes my prepared testimony and I would be happy to answer any questions.

# DEATH INVESTIGATION IN NORTH DAKOTA: ROLE OF THE STATE FORENSIC EXAMINER

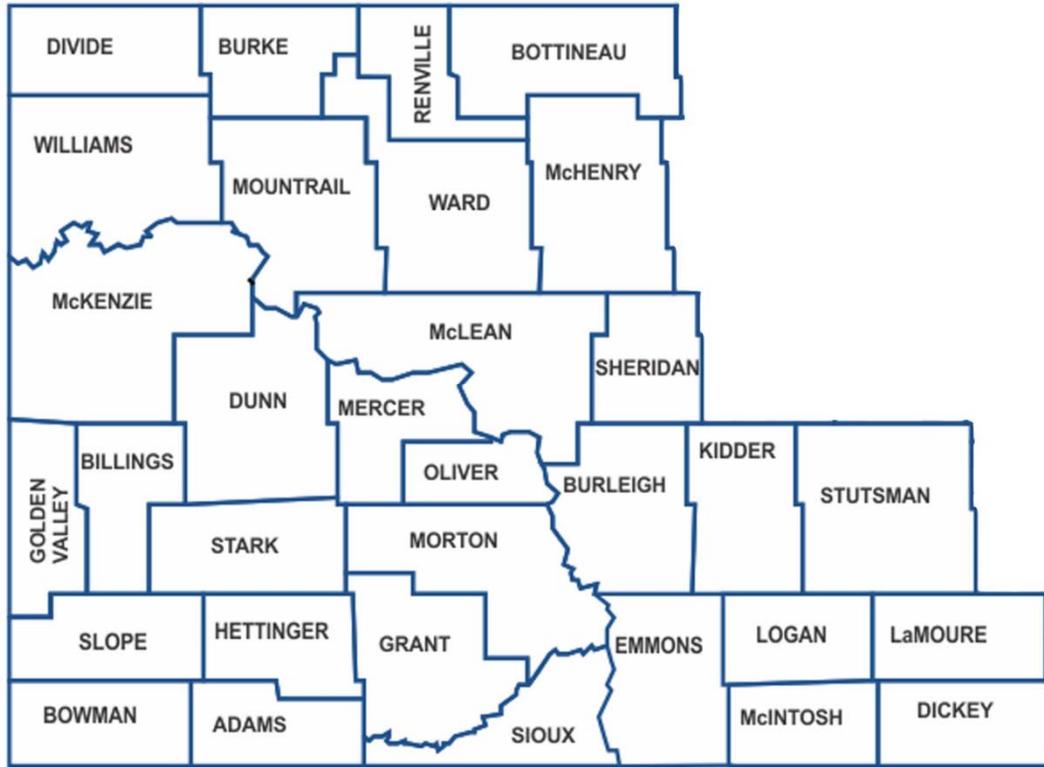
DR. WILLIAM MASSELLO  
STATE FORENSIC EXAMINER

# **HYBRID DEATH INVESTIGATION SYSTEMS**

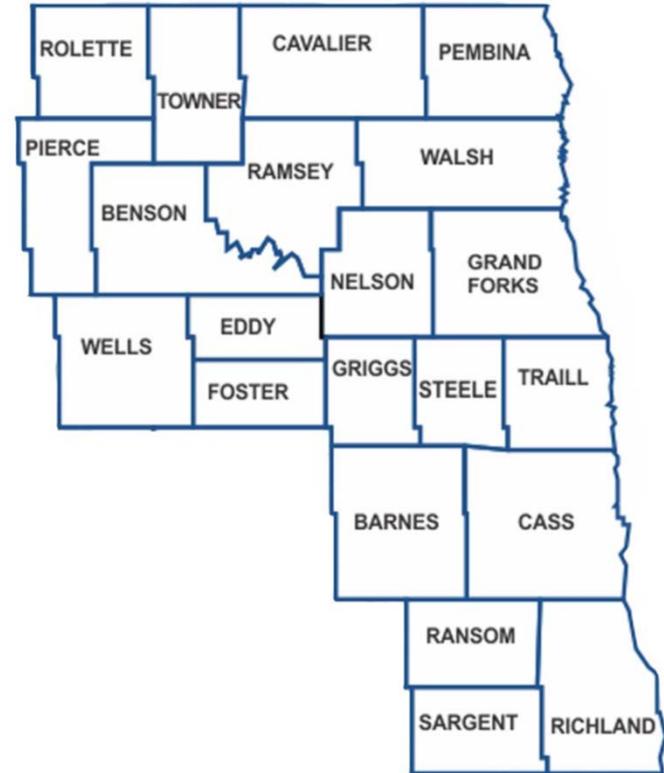
**Eight States with decentralized death investigation systems also have a state medical examiner office performing medicolegal duties (Alabama, Arkansas, Georgia, Iowa, Kentucky, Montana, North Dakota, and Tennessee).**

# County Coroner System

- ▶ 53 counties
- ▶ 28 counties with medical county coroners
- ▶ 25 counties position of coroner held by another official, usually the sheriff or a funeral director



**BISMARCK JURISDICTION**



**GRAND FORKS  
JURISDICTION**

# **STATE FORENSIC EXAMINER**

- **IN 1995, THE DEPARTMENT OF HEALTH WAS AUTHORIZED TO ESTABLISH THE OFFICE OF STATE FORENSIC EXAMINER. (NORTH DAKOTA CENTURY CODE SECTION 23-01-05.4)**
- **INCREASE THE INVESTIGATIVE EXPERTISE AND RESOURCES AVAILABLE TO COUNTY CORONERS**

# GENERAL FUNCTIONS:

1. PERFORMANCE OF MEDICOLEGAL AUTOPSIES
2. CONSULTATION ON A CASE BY CASE BASIS (coroners, law enforcement, funeral directors, etc)
3. EDUCATION:
  - A. MEDICAL PERSONEL (physicians, nurses, EMS, etc.)
  - B. CORONERS
  - C. LAW ENFORCEMENT (police, social services, etc.)
  - D. MORTUARY SERVICE PERSONNEL (funeral directors, disaster planners, etc.)

#### 23-01-05.4. Department to employ state forensic examiner - Qualifications - Duties.

The state department of health may employ and establish the qualifications and compensation of the state forensic examiner. The state forensic examiner must be a physician who is board-certified or board-eligible in forensic pathology, who is licensed to practice in this state, and who is in good standing in the profession. The state forensic examiner shall:

1. Exercise all authority conferred upon the coroner under chapter 11-19.1 and any other law;
2. Consult with local coroners on the performance of their duties as coroners;
3. Conduct investigations into the cause of death of and perform autopsies on any deceased human body whenever requested to do so by the acting local county coroner or the local state's attorney;
4. Provide training and educational materials to local county coroners, law enforcement, and any other person the state forensic examiner deems necessary;
5. Maintain complete records of the cause, manner, and mode of death necessary for accurate health statistics and for public health purposes; and
6. Perform other duties assigned by the state health officer.

## 11-19.1-11. Autopsies

“The autopsy must be performed by the state forensic examiner or by the state forensic examiner's authorized pathologist at a facility approved by the state forensic examiner.”

## **HOSPITAL AUTOPSIES**

- **ADDRESS PRIMARILY HEALTH CARE ISSUES AND PRIVATE CONCERNS**
- **REQUIRES NEXT-OF-KIN CONSENT**

## **MEDICOLEGAL AUTOPSIES**

- **ADDRESS PRIMARILY ISSUES OF LAW, GOVERNMENT AND PUBLIC CONCERNS**
- **CAN BE ORDERED WITHOUT CONSENT OF NEXT-OF-KIN**

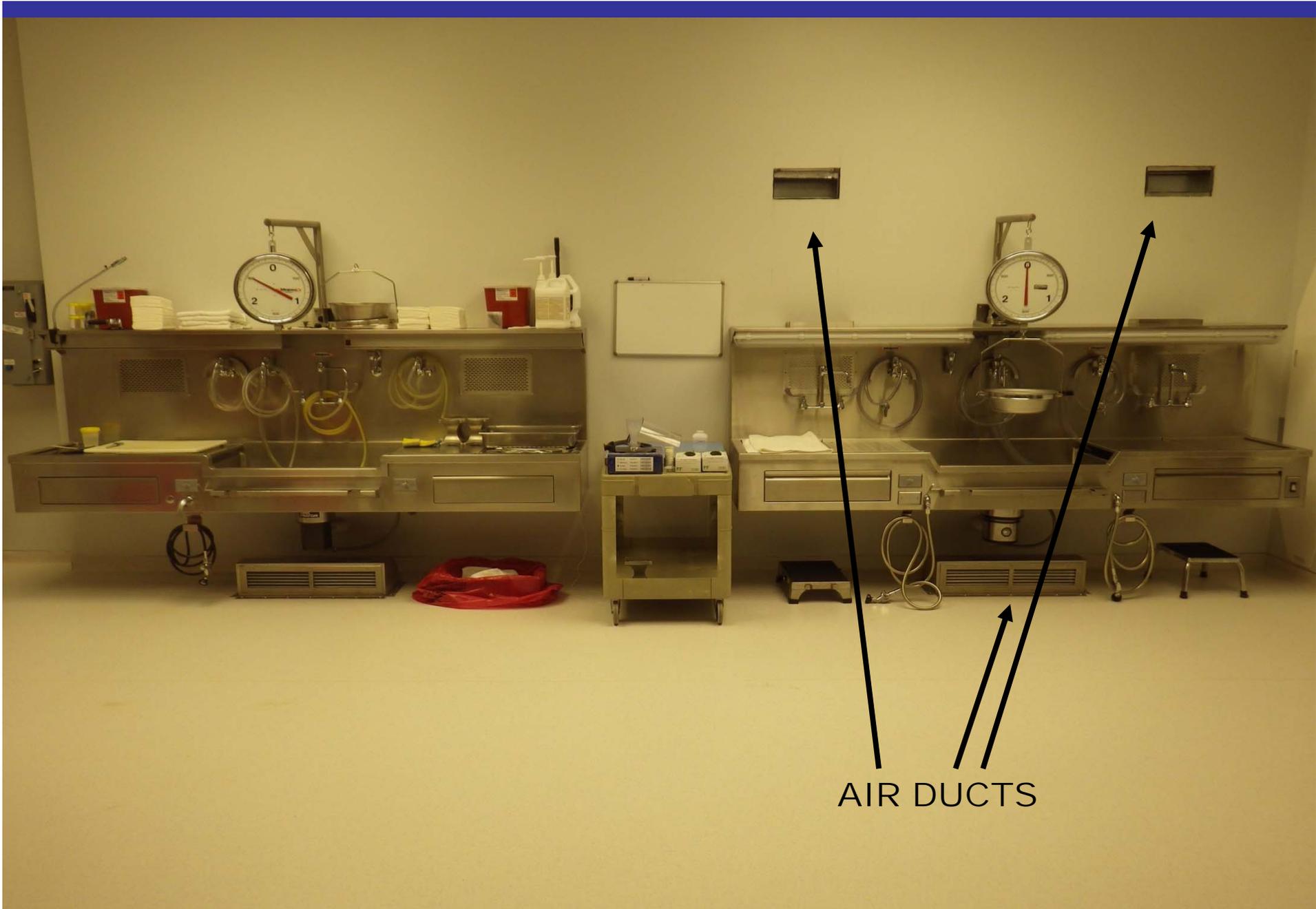
# **OBJECTIVES OF A MEDICOLEGAL AUTOPSY**

- **DETERMINE THE CAUSE AND MANNER OF DEATH**
- **IDENTIFY THE DEAD**
- **DOCUMENT AND INTERPRET WOUNDS AND INJURIES**
- **CONFORM TO LEGAL REQUIREMENTS**
- **PROVIDE INFORMATION TO LOCAL, STATE AND FEDERAL INVESTIGATIVE AGENCIES**
- **ANSWER QUESTIONS OF PUBLIC INTEREST**

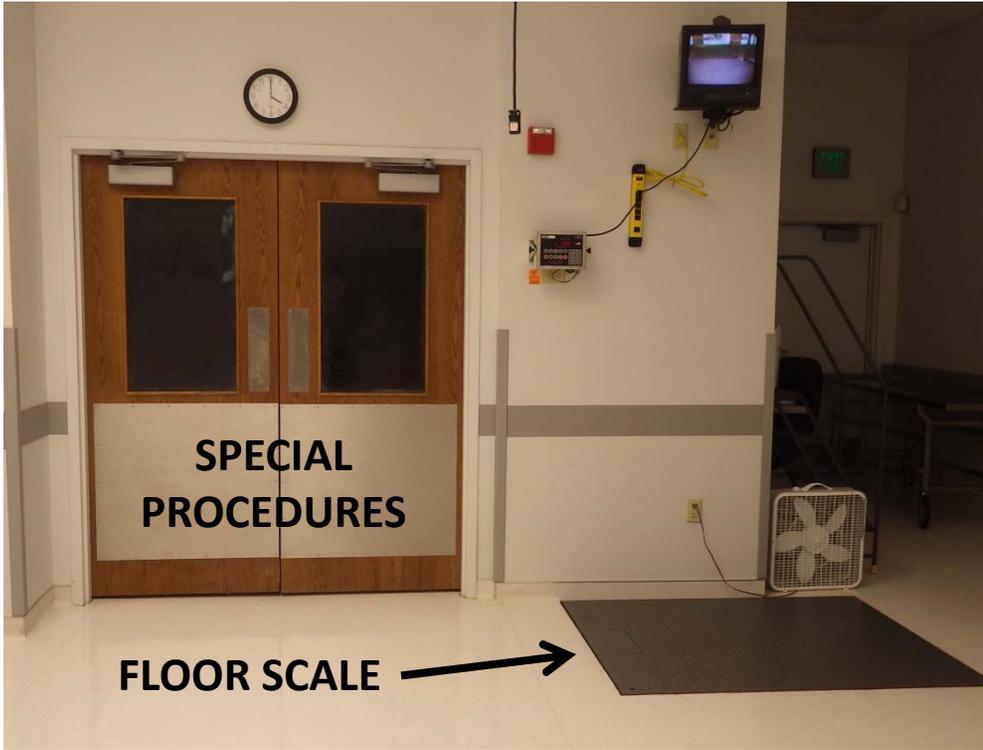


**NORTH DAKOTA**  
**DEPARTMENT of HEALTH**

**OCCUPIED IN 2004**



AIR DUCTS



**SPECIAL  
PROCEDURES**

**FLOOR SCALE** →



**BODY STORAGE SPACE**



**STURDY CARTS (UP TO 500 LBS.)**



LOCATING  
BULLETS AND  
OTHER FOREIGN  
BODIES

VICTIM  
IDENTIFICATION

DISCOVERY AND  
DOCUMENTATION  
OF FRACTURES

**TOXICOLOGY  
FORENSIC BIOLOGY  
FINGERPRINTS  
TOOL MARK EXAMINATION**

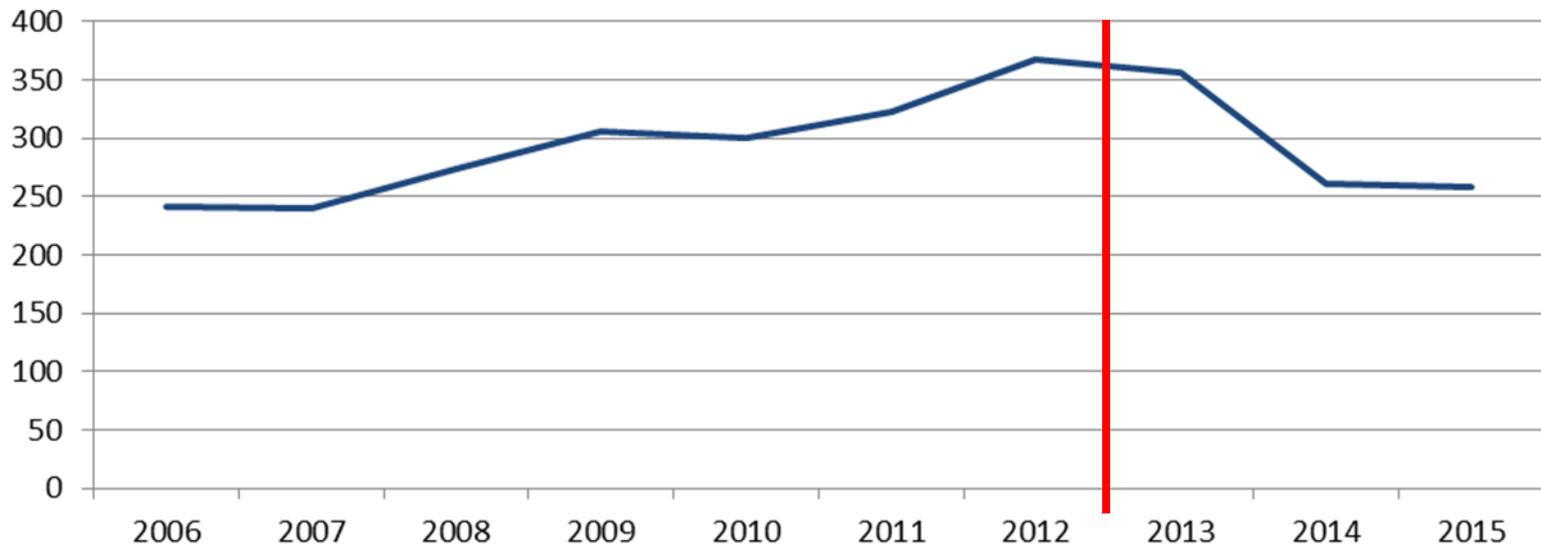


**ACCESS TO THE NORTH DAKOTA FORENSIC SCIENCE BUILDING**

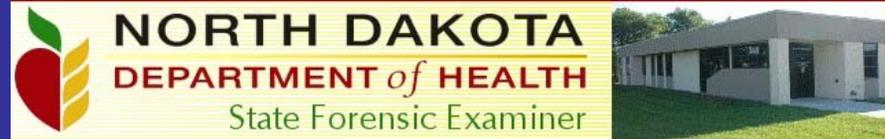
# STATE FORENSIC EXAMINER SERVICES

- ▶ **NO CHARGE FOR PERFORMANCE OF AUTOPSIES OR ADDITIONAL TESTING**
- ▶ **TRANSPORTATION COSTS ARE THE RESPONSIBILITY OF THE COUNTY CORONER** (transport costs vary).
- ▶ **DEATH CERTIFICATES ARE SIGNED BY THE FORENSIC EXAMINER**
- ▶ **INVESTIGATING OFFICERS ARE WELCOME AND ENCOURAGED TO ATTEND THE AUTOPSY** (but it is not a requirement).

## Bismarck Caseload - 10 Year Summary



241 240 274 305 300 323 367 356 261 258



- NDME
- Coroner Information
- Family Information
- Request for Autopsy
- Coroner's Investigation

### Reported Deaths to the Coroner

As listed in the North Dakota Century Code 11-19.1-01 part 5:

1. Obvious or suspected homicidal, suicidal, or accidental injury
2. Firearm injury
3. Severe, unexplained injury
4. Occupant or pedestrian motor vehicle injury
5. An injury to a minor
6. Fire, chemical, electrical, or radiation
7. Starvation
8. Unidentified or skeletonized human remains
9. Drowning
10. Suffocation, smothering, or strangulation
11. Poisoning or illegal drug use
12. Prior child abuse or neglect assessment concerns
13. Open child protection service case on the victim
14. Victim is in the custody of the department of human services, county social services, the department of corrections and rehabilitation or other correctional facility, or law enforcement
15. Unexplained death or death in an undetermined manner
16. Suspected sexual assault
17. Any other suspicious factor

ROUGHLY 10 - 20%  
OF ALL DEATHS.



*CASE REPORTING IS AN ISSUE  
THAT WE HAVE RECENTLY  
DEALT WITH:*

**WHETHER DEATH OCCURS IN THE  
HOSPITAL OR IN THE HOME, IT MAY  
OR MAY NOT BE A CORONER OR  
FORENSIC EXAMINER CASE**

## Medical Certification

**You must correct the following error(s) before proceeding:**

- If this is a non-natural death, this death record must be referred to a coroner or medical examiner.

\*Actual or Presumed Date of Death: 05/25/2016 (mm/dd/yyyy)

\*Actual or Presumed Time of Death: 00:00 (military)

Date Pronounced Dead: 05/25/2016 (mm/dd/yyyy)

Time Pronounced Dead: 00:00 (military)

\*Was Medical Examiner or Coroner Contacted: No

### Cause of Death - Part I

#### Chain of Events

#### Time Interval

\*Immediate Cause of Death: BLUNT CHEST AND ABDOMINAL INJURIES

Due to (or as a consequence of):

Due to (or as a consequence of):

Due to (or as a consequence of):

### Cause of Death - Part II

Other contributing factor(s):

\*Was an autopsy performed?: No

Were autopsy findings available to complete the cause of death?: No

\*Did tobacco use contribute to death?: No

\*Was deceased diabetic?: No

If Female, Pregnant at Time Of Death:

\*Manner of death: Accident

Activity at time of death:

If other, specify:

Date of Surgery: (mm/dd/yyyy)

Date of Injury: 05/17/2016 (mm/dd/yyyy) If death is injury-related, date of injury is required.

Time of Injury: 99:99 (military)

Place of Injury: Street/Highway

If other, specify:

Injury at work?: No Enter only if injury related death.

Location of Injury Address 1: INTERSTATE 94

Location of Injury City, State: Bismarck, North Dakota Search

# THE DECISION TO PERFORM AN AUTOPSY IS MADE ON A CASE BY CASE BASIS

North Dakota [nd.gov](http://nd.gov) Official Portal for North Dakota State Government   Search

 **NORTH DAKOTA**  
DEPARTMENT of HEALTH  
State Forensic Examiner



Medical Services Disease Control

[NDME](#)

[Bismarck Jurisdiction Map](#)

[Grand Forks Jurisdiction Map](#)

[Coroner Information](#)

[Ebola](#)

[Request for Autopsy](#)

[Coroner's Investigation](#)

[SUIDI Form](#)

[Deaths to Report to Coroner](#)

[Criteria for Medicolegal Autopsy](#)

[Family Information](#)

[Request for Autopsy Findings](#)

## Criteria for Medicolegal Autopsy

1. All gunshot wound or other firearm injury deaths, regardless of manner
2. Suspected drug overdoses
3. Industrial and farm accidents
4. Deaths in police custody, in state institutions, or in pursuit of by law enforcement
5. Fire related deaths
6. Unexpected child and infant deaths
7. Deaths with criminal charges pending or with suspicious circumstances
8. Traffic fatalities where criminal charges are pending
9. Traffic fatalities without obvious death causing injuries
10. Deaths that occur at work sites
11. Victims of drowning or suspected exposure
12. Persons with questionable identity
13. Deaths where the cause and manner of death are in question
14. Suspicious skeletal or near skeletal remains
15. All Suicides, by any means or method
16. All homicides, or deaths related to homicides, recent or old

MANDATORY GUIDELINES

# PERCENT OF REPORTED CASES AUTOPSIED 2012 - 2015

<b>YEAR</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<i>Autopsies</i>	<b>367</b>	<b>356</b>	<b>261</b>	<b>258</b>
<i>Consults</i>	<b>209</b>	<b>153</b>	<b>118</b>	<b>85</b>
<i>Autopsy %</i>	<b>64</b>	<b>69</b>	<b>69</b>	<b>75</b>