Testimony
Health Services Interim Committee
October 30, 2013
North Dakota Department of Health

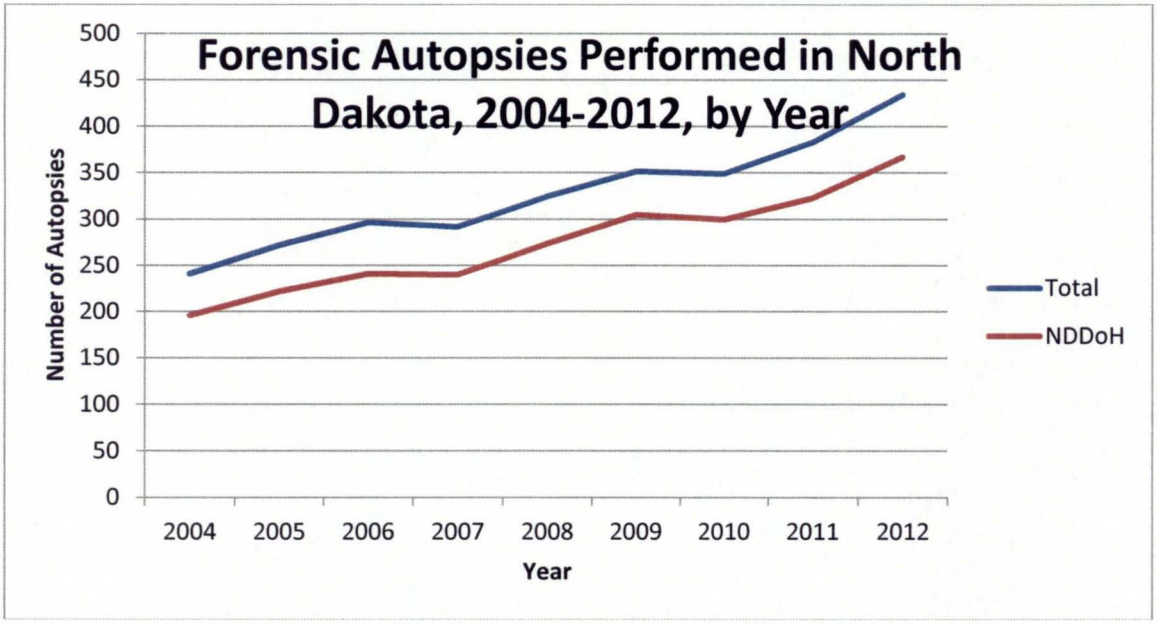
Good afternoon, Chairman Lee and members of the Interim Health Services Committee. My name is Kirby Kruger, and I am the Section Chief for the Medical Services Section with the North Dakota Department of Health. The Medical Services Section consists of the Forensic Examiner's Office and the Division of Disease Control. I am here today to provide information to the committee on forensic autopsies in North Dakota.

The Forensic Examiner's Office was established by the legislature in 1996. It is located within the North Dakota Department of Health. Staff includes three FTE – the forensic pathologist, an autopsy technician who is a certified death investigator, and a Forensic Administrator who is also a certified death investigator. There are also several part time autopsy assistants.

Autopsies are recommended for many types of deaths, which are listed below.

1. All gunshot wound deaths
2. Suspected drug overdoses
3. Industrial and farm accidents
4. Deaths in police custody and institutional deaths
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

While most of the autopsies performed in North Dakota have been conducted at the Forensic Examiner's office, Grand Forks County has been sending forensic cases to the Pathology Department at UND School of Medicine and Health Sciences. The number of forensic autopsies being performed in North Dakota has been steadily increasing. In 2004 there were 240 forensic autopsies performed in North Dakota. In 2012, 434 autopsies were performed – an 80.8% increase over that nine year span. At the Forensic Examiners Office for this same time span, cases increased from 196 cases to 367 cases – an increase of 87.2%. The National Association of Medical Examiners (NAME) has recommended that a single forensic pathologist conduct no more than 250 autopsies per year. The chart below illustrates the increase in forensic autopsies in North Dakota.



To help address the steadily increasing workload due to the increasing number of autopsies, the 2013 Legislature appropriated $480,000 to the Department of Health. Of this amount, $459,000 has been obligated to the Department of Pathology at UND to conduct autopsies in eastern North Dakota. During the 2013-2014 fiscal year, UND will perform autopsies for 13 eastern counties. During the 2014-2015 fiscal year, an additional eight counties will send bodies to UND for autopsies. Based on 2012 data, UND would be performing about 148 autopsies and the Department of Health about 286 in the first fiscal year. During the second fiscal year, about 185 autopsies will be performed at UND and 249 at the Department of Health. If the upward trend of forensic autopsies continues in North Dakota, the number likely will be greater than these estimates. Attachment A shows a map of these areas.

Counties Using UND for Forensic Autopsies during the 2013-2015 Biennium

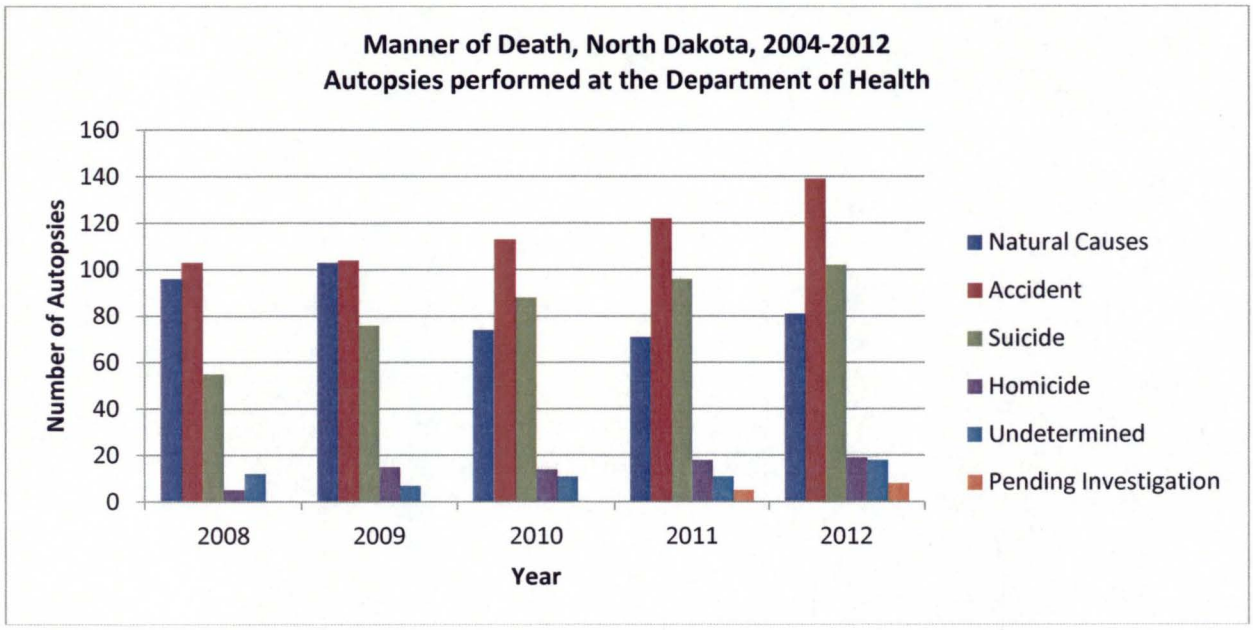
2013-2014 Fiscal Year	2014-2015 Fiscal Year
Barnes	Benson
Cass	Eddy
Cavalier	Foster
Grand Forks	Pierce
Griggs	Ramsey
Nelson	Rolette
Pembina	Towner
Ransom	Wells
Richland	
Sargent	
Steele	
Traill	
Walsh	

We also looked at autopsies on a regional level in the state. We used the existing eight emergency preparedness regions that were developed by the Department of Health for preparedness planning. These regions along with the number of autopsies performed in 2012 from each region are outlined in the following table. Attachment B shows maps of the emergency preparedness regions in North Dakota, with autopsy trends for each region from 2004 to 2012.

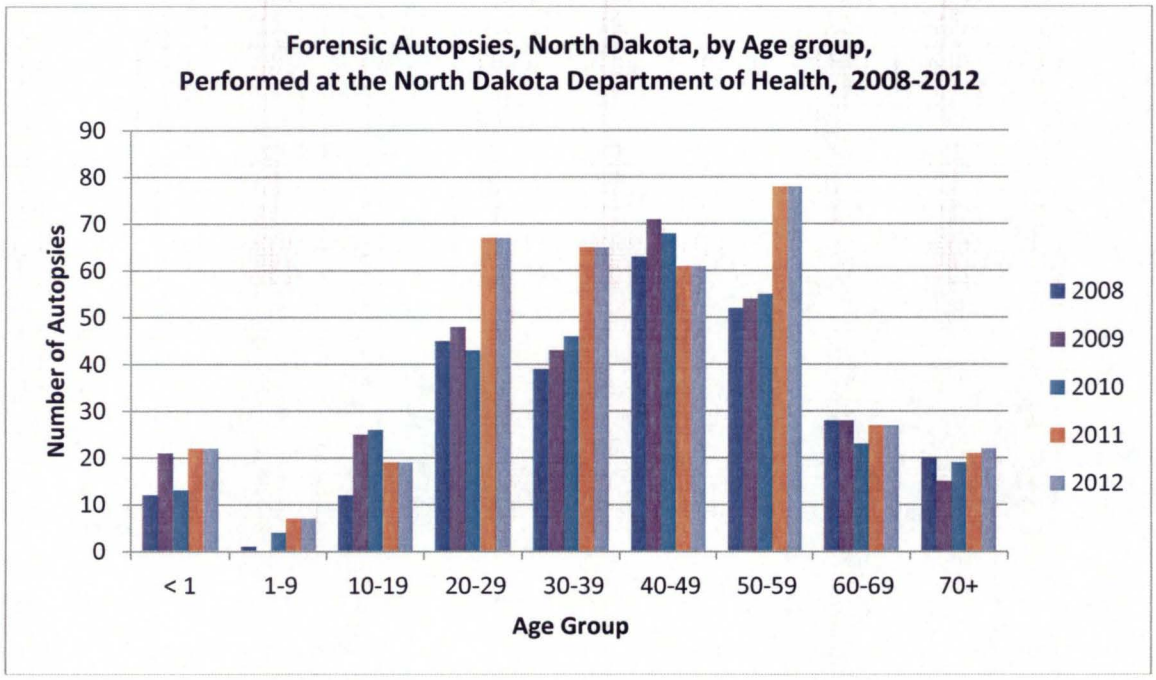
North Dakota Autopsies by Emergency Preparedness Region and County, 2012

Region 1		Region 2		Region 3		Region 4	
County	2012 Autopsies	County	2012 Autopsies	County	2012 Autopsies	County	2012 Autopsies
Divide	2	Bottineau	2	Benson	3	Grand Forks	67
McKenzie	18	Burke	1	Cavalier	1	Griggs	0
Mountrail	19	McHenry	1	Eddy	4	Nelson	0
Williams	38	McLean	9	Pierce	2	Pebmina	3
		Renville	1	Ramsey	13	Walsh	2
		Sheridan	0	Rolette	12		
		Ward	40	Towner	1		
Totals	77		54		36		72
Region 5		Region 6		Region 7		Region 8	
County	2012 Autopsies	County	2012 Autopsies	County	2012 Autopsies	County	2012 Autopsies
Cass	58	Barnes	8	Burleigh	55	Adams	1
Ransom	3	Dickey	0	Emmons	2	Billings	2
Richland	4	Foster	1	Grant	2	Bowman	2
Sargent	0	LaMoure	2	Kidder	0	Dunn	3
Steele	1	Logan	0	Mercer	4	Golden Valley	0
Traill	1	McIntosh	0	Morton	11	Hettinger	0
		Stutsman	13	Oliver	1	Slope	2
		Wells	1	Sioux	8	Stark	10
Totals	67		25		83		20

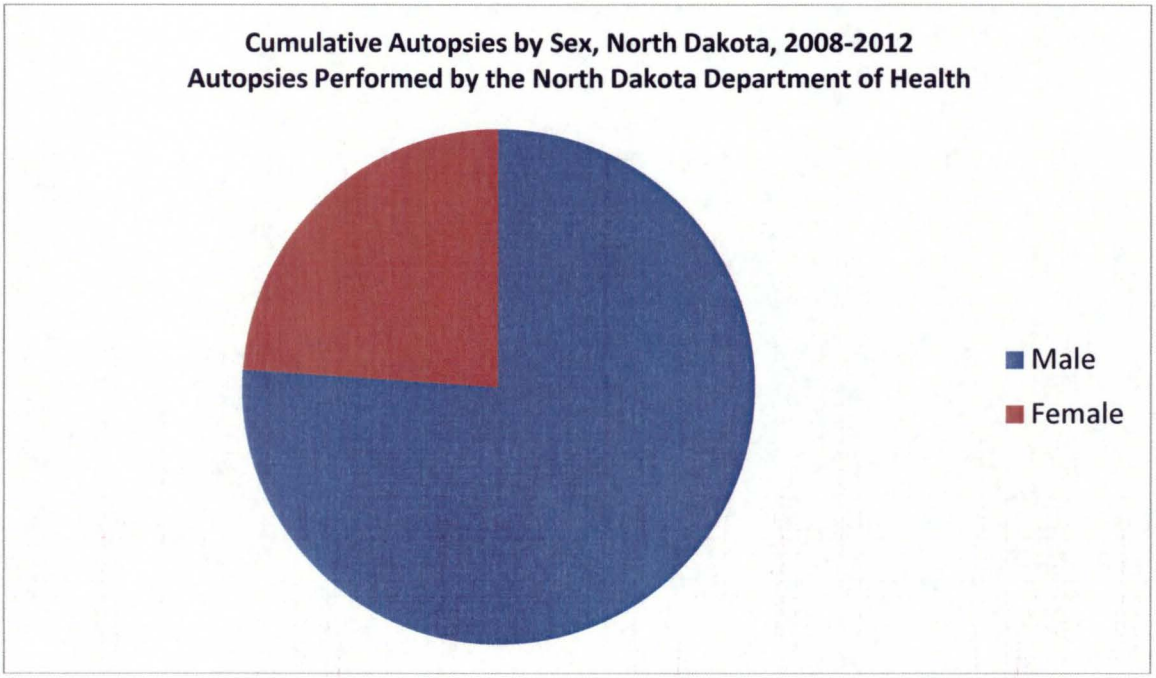
Manner of death is categorized into one of five areas: natural causes, accidental, suicide, homicide, undetermined and pending investigation. Among autopsies performed at the Department of Health, the general trend in North Dakota has been for a greater proportion of deaths to be classified as homicide and suicide, while the proportion of deaths due to natural causes has been decreasing. This may partially be due to local coroners and law enforcement being better informed regarding the need to consult with the forensic examiner to determine the need for an autopsy. Below is a chart showing the manner of death for autopsies performed by the Department of Health from 2008-2012.



When looking at deaths by age group, more forensic autopsies are performed on older adults ages 30 to 59. In the past two years there have been increases in the number of adults ages 20 to 29, 30 to 39 and 50 to 59 years of age that were autopsied. The chart below illustrates the number of forensic autopsies performed by the Department of Health by age group from 2008 to 2012.



When looking at forensic autopsies by sex conducted by the Department of Health the last five years, there has been a fairly steady proportion between the genders. The average ratio of male to female autopsies has been 3.2:1. The pie chart below illustrates this ratio for the last five years.



Finally, I would like to present you with some data regarding the cost of an autopsy performed by the Department of Health during the 2011-2013 biennium. During the first fiscal year, 373 autopsies were performed by the Department of Health and during the second fiscal year 391 were performed. Actual expenditures for the 2011-2013 biennium were $1,395,243. This equates to a cost per autopsy for the biennium of $1,826. If you don't consider the fixed costs related to the building bond payment, the cost per autopsy drops to $1,605 per case. As required in North Dakota Century Code 11-19.1-18, counties are responsible for the cost of transporting the body to the morgue in Bismarck and other costs associated with the investigation or inquiry into the death. The state general fund pays all of the costs to conduct the autopsy, which mainly consist of staff, medical supplies and laboratory testing.

This concludes my testimony. I will be happy to answer any questions you may have.

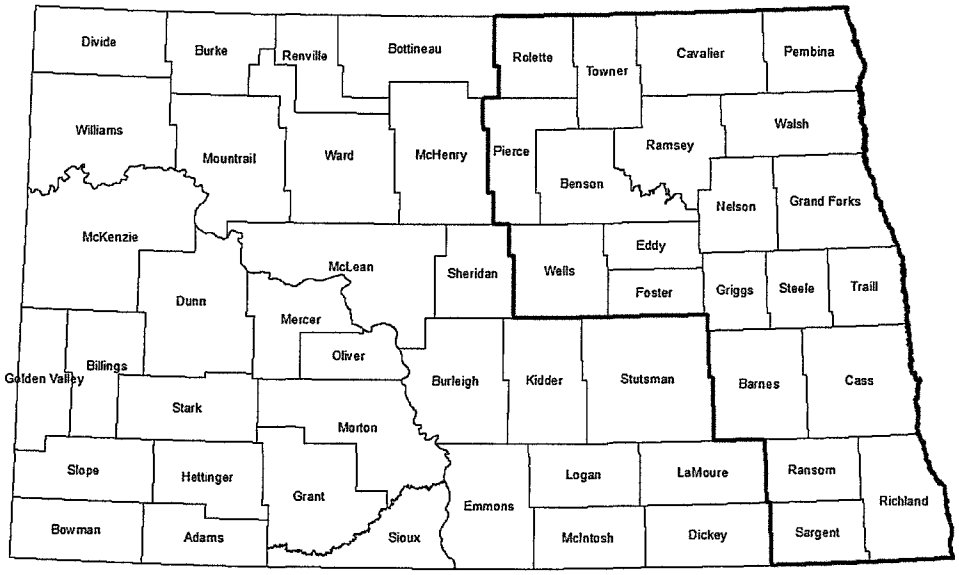
Attachment A

Eastern Counties Using UND School of Medicine and Health Sciences

For Autopsies Services, 2013 -2014 Fiscal Year

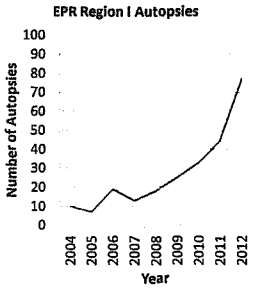
Eastern Counties Using UND School of Medicine and Health Sciences

For Autopsies Services, 2014 -2015 Fiscal Year

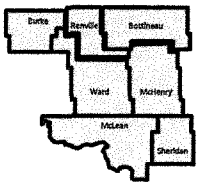


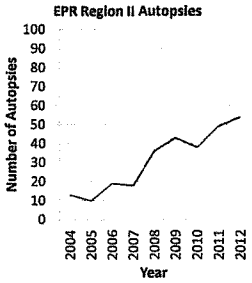
Attachment B

Region I Autopsies, 2004-2012

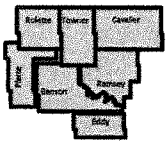


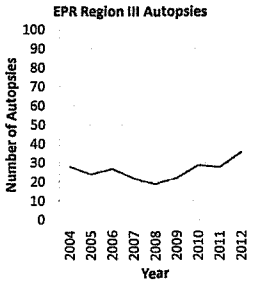
Region II Autopsies, 2004-2012



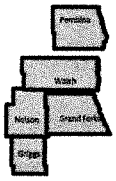


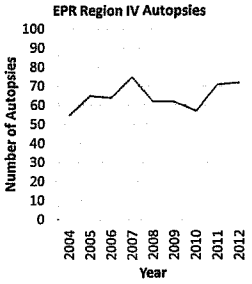
Region III Autopsies, 2004-2012



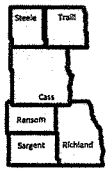


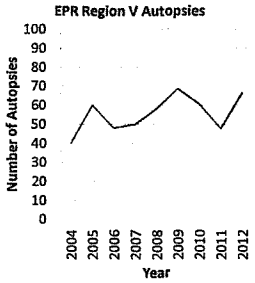
Region IV Autopsies, 2004-2012



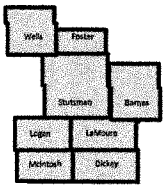


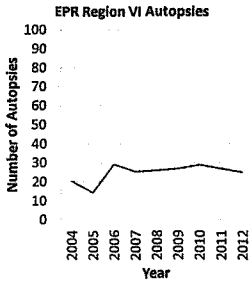
Region V Autopsies, 2004-2012



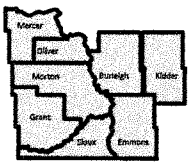


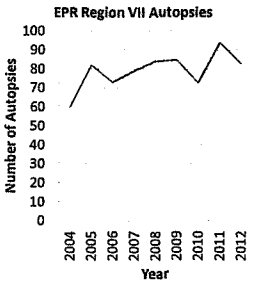
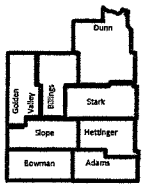
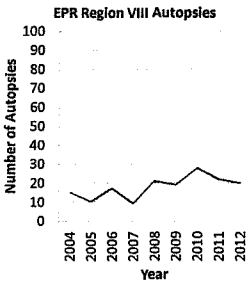
Region VI Autopsies, 2004-2012





Region VII Autopsies, 2004-2012





Region VIII Autopsies, 2004-2012