

Testimony of Gregory A. Schmunk, MD
President, National Association of Medical
Examiners
And
Chief Medical Examiner
Polk County Medical Examiner's Office
Des Moines, IA

Before the
United States Senate Committee on
Commerce, Science, and Transportation

June 26, 2013

Mr. Chairman, Ranking Member Thune, and Members of the Committee:

Thank you for giving me the opportunity to testify before you today regarding science and standards in forensics and specifically how those issues are reflected in the Medical Examiner community.

My name is Gregory Schmunk and I am a physician certified by the American Board of Pathology in Anatomic and Forensic Pathology and a Registered Diplomat with the American Board of Medicolegal Death Investigators (ABMDI). I am Chief Medical Examiner for Polk County, Iowa in the city of Des Moines. I am here today representing the National Association of Medical Examiners (NAME) as their President. NAME is the professional society representing over 1,100 Forensic Pathologists, Medical Examiners, Medicolegal Death Investigators, and Coroners in the United States.

My organization has long been supportive of the efforts to draft legislation for the Death Investigation community in both your Committee and the Judiciary Committee. In fact, as members of the Consortium of Forensic Science Organizations we have long asked for legislation to be written creating a federal structure that will provide guidance and leadership for our community. We believe that it is critical to have national uniformity in death investigation policies, to ensure proper training and recruitment of trained pathologists to ensure the quality investigations, to improve the frequent lack of communication between medicolegal jurisdictions, and to create a mechanism for the proper distribution of death investigation data not only in the forensic community but also the public health, public safety, and homeland security communities.

In 2009, the National Research Council (NRC) published a report, *Strengthening Forensic Science in the United States: A Path Forward*¹. This report contained many recommendations for improving the quality of forensic services including medicolegal death investigation in the United States. We believe many of those recommendations, if implemented, could resolve many of the problems within the Medical Examiner community. In July of 2009, NAME passed a resolution² strongly endorsing the recommendations of the Council and specifically endorsed the establishment of a National Institute of Forensic Sciences to promote the development of forensic science into a mature field of multidisciplinary research and practice based on scientific principles.

NAME has long believed that there needs to a formal and federal entity which oversees forensic science and death investigation. We believe that by having this entity exist we could address most of our major concerns and specifically the continuity of quality. However, it is important to recognize that the entity must take into consideration the fact that a complete death investigation determines the cause of death and can thus assist in a criminal investigation.

NAME specifically endorsed the NRC recommendation that accreditation and individual certification of forensic science professionals, specifically medical examiners, should be mandatory. NAME has had professional practice standards for autopsy performance since 2005³. These standards are under constant review and revision. NAME has also had a professional system of medicolegal office accreditation in place since 1974⁴ and is currently working towards ISO certification of our system. Unfortunately, due to the lack of any federal or state mandates for accreditation, only 70 out of over 465⁵ offices performing forensic autopsies are currently accredited in the United States. This is up from 40 offices in 2004. NAME accredited offices serve a total of just over 102 million persons or around 1/3 of the population. Forensic Pathologists have been individually certified by the American Board of Pathology⁶ since 1964. The American Board of Medicolegal Death Investigators (ABMDI)⁷ has certified Medicolegal Death

¹ *Strengthening Forensic Science in the United States: A Path Forward* accessed 6/23/2013 at http://www.nap.edu/catalog.php?record_id=12589

² National Association of Medical Examiners Executive Committee and Board of Directors Resolution on National Research Council (NRC) of the National Academies report "Strengthening Forensic Science in the United States: A Path Forward." July 2009

³ NAME Autopsy Performance Standards 2013 accessed 6/23/2013 at <https://netforum.avectra.com/eweb/DynamicPage.aspx?Site=NAME&WebCode=PubIA>

⁴ NAME Accreditation Checklist 2009-2014 accessed 6/23/2013 at <https://netforum.avectra.com/eweb/DynamicPage.aspx?Site=NAME&WebCode=PubIA>

⁵ National Association of Medical Examiners, *Preliminary Report on America's Medicolegal Offices* (180 day report to the Senate Appropriations Committee; findings presented at the National Institute of Justice Summit on Forensic Sciences Services, May 2004) accessed 6/23/2013 at <http://www.nij.gov/nij/pubs-sum/213420.htm>

⁶ <http://www.abpath.org/>

⁷ <http://www.abmdi.org/>

Investigators since 2005. Unfortunately, additional certification bodies have risen with less rigorous certification standards.⁸

This clearly points to the fact that the standards exist but we lack the leadership and carrot/stick to enforce them within the medical examiner community. Since forensic pathologists receive very little federal funding so it is difficult to enforce any such standards. In fact, the only funding we receive is that under the Paul Coverdell Forensic Science Act which was not funded by the Administration this year. Since its inception in 2000 Coverdell has been funded in the federal budget less than five times. Increased federal funding of forensic pathology programs could represent the “carrot” to encourage states to adopt uniform standards.

Therefore, no current federal or uniform state standards exist for death investigation other than the voluntary NAME standards previously mentioned and the death investigation standards issued by the National Institutes of Justice in 1999⁹. We think it is important to point out here that we do not believe that these standards should be thrown out. Rather, we believe they are a starting point and should grow with the science. But as noted there is very little federal funding that goes to our community that could enforce standards. To that end it is critical that grants be created and funded based on the needs of the forensic community. There needs to be federal guidance and leadership in mandating standards.

NAME has attempted to garner interest in drafting new national model medical examiner legislation without success. The last model legislation was issued in 1954 and is obsolete. Various death investigation systems exist around the country such as Medical Examiner, Sheriff-Coroner (California), District Attorney-Coroner (Nebraska), and elected Coroner. Thus a constituent from one of your states may be in a jurisdiction where the coroner is not trained in death investigation, operates under a budget shortage, and uses no required guidelines. They may not take jurisdiction of a case, not request an autopsy or misinterpret the medical findings of the autopsy. The 65 year old crash victim may not have visible injuries and be certified as a natural death or the decedent in the motel room may have a detectable and heritable cardiac condition which could have been found at autopsy, giving the surviving children opportunity to assess their own risks for a similar condition. Recently, an under-funded system in North Carolina missed rapid diagnosis of two carbon monoxide deaths in a motel room, resulting in a third death of a child¹⁰. The variability of death investigation and the effects on your constituents was the subject of an extensive exposé by NPR, Frontline, and ProPublica in 2011¹¹.

⁸ “No Forensic Background? No Problem” accessed 6/23/2013 at

<http://www.propublica.org/article/no-forensic-background-no-problem>

⁹ “Death Investigation: A Guide for the Scene Investigator – Technical Update”, National Institutes of Justice 2011, accessed 6/23/2013 at <http://www.nij.gov/pubs-sum/234457.htm>

¹⁰ “Failures in state medical examiner system were exposed, not fixed” accessed 6/23/2013 at <http://www.newsobserver.com/2013/06/22/2982968/failures-in-state-medical-examiner.html>

¹¹ “Medical Examiners In America: A Dysfunctional System” accessed 6/23/2013 at http://www.huffingtonpost.com/2011/02/02/the-real-csi-how-americas_n_816842.html and “Post Mortem: Death Investigation in America” accessed 6/23/2013 at <http://www.propublica.org/series/post-mortem>

But we must also make sure that we have enough pathologists in the country to perform the job. A recent report from the Justice Department¹² addressed workforce shortages and blames the shortage of forensic pathologists on limited numbers of training programs and low pay in relation to other medical subspecialties. An estimated 500 board certified forensic pathologists are currently in practice; it is estimated that at least 1,000 are needed to meet even the minimal needs of the country. The lack of board certified forensic pathologists is more pronounced in rural areas. An alarming trend is the lack of medical students pursuing a career in forensic pathology. While there are 131 medical schools in the US only 37 forensic pathology training programs exist. Of the 77 approved training positions in 2012 only 52 were funded and only 42 were actually filled¹³. Of the 30-40 forensic pathologists trained each year some choose not to practice forensics and only two-thirds choose to practice full time. The supply is thus barely able to keep up with the attrition in the field due to death, retirement and decisions to move into a better compensated and less stressful branch of pathology. As many of these programs are not associated with medical schools (where funding for graduate medical education is sometimes available), funding for forensic pathology training often comes from local tax dollars, if at all.

NAME is strongly in agreement with the NRC recommendation that incentive funds should be provided to states and jurisdictions with the goal of ensuring that all death investigation systems in the country are of uniform excellence. Until this is achieved we will continue to see some parts of our country which have systems which are not run professionally, in an accredited Medical Examiner system, with all forensic autopsies performed or directly supervised by board certified forensic pathologists. We will continue to have a shortage of forensic pathologists and many forensic autopsies will be performed each day by individuals who are not trained in the profession, sometimes even by non-pathologists. The shortage of forensic pathologists has even led to physician extenders, such as autopsy assistants, performing medicolegal autopsies in some jurisdictions¹⁴ and even testifying in homicide trials.¹⁵ In fact, due to the lack of standards, death investigations are commonly performed in the country by individuals with no specific training (including either persons with no medical training or paramedics, nurses and EMTs).

Another matter of great importance to our community is that of communication and data sharing among States. Surprisingly this is another victim of the lack of leadership from the Federal government in forensic science and medicolegal death investigation. In 1986, the Medical Examiner/Coroner Information Sharing Program (MECISP) was established

¹² "PRC#5: Increasing the Supply of Forensic Pathologists in the United States: A Report and Recommendations" accessed 6/23/2013 at

http://swgmdi.org/index.php?option=com_content&view=article&id=90&Itemid=103

¹³ Report of Forensic Pathology Fellows in the United States 2011-12 Academic Year Prepared by Randy Hanzlick, MD, Chair, NAME ad hoc Data Committee

¹⁴ "Was a Bachelor of Science performing unsupervised forensic autopsies in Missouri?" accessed 6/23/2013 at <http://pathologyblawg.com/?s=parcells>

¹⁵ "Loughridge murder trial begins" accessed 6/23/2013 at

<http://www.waynesvilledailyguide.com/article/20120911/NEWS/120919648#axzz2X4z7dIpN>

by the Centers for Disease Control and Prevention (CDC) because of the lack of uniformity in national death investigation policies, the frequent lack of communication between medicolegal jurisdictions, and the need for more wide-spread distribution of death investigation data. The primary goals of the MECISP were:

- To improve the quality of death investigations in the United States and to promote the use of more standardized policies for when and how to conduct these investigations.
- To facilitate communication among death investigators, the public health community, federal agencies, and other interested groups.
- To improve the quality, completeness, management, and dissemination of information on investigated deaths.
- To promote the sharing and use of medical examiner and coroner (ME/C) death investigation data.

Unfortunately, due to changes in administrative policy in 2004 this office ceased to exist and with it went our ability to communicate and share data across borders. We believe this office needs to be recreated.

NAME endorses the position of the NRC report that support for basic and applied research in forensic science and forensic pathology in particular is needed. The application of evidence based medicine is essential to improving the quality of forensic death investigation and ensuring confidence in the outcomes. In addition, the provision of grants to state and county systems to improve the overall quality of forensic pathology services would serve to raise the bar for death investigation across the nation, allowing antiquated and inadequate systems to be replaced by modern medical examiner systems using certified practitioners in accredited offices. This could be accomplished, for example, by providing support for accreditation and certification or by encouraging regionalization in order to conserve scarce resources.

A major focus of the federal government is currently in health care. The Affordable Care Act, or any subsequent modifications to improve health care in the country, does have an ultimate focus on quality and accountability. Although possibly not directly within the scope of this committee, I would like to note that the national autopsy rate is miserably low at about 8.5% of deaths. The gold standard for healthcare accountability is the autopsy. Unfortunately when the Joint Commission on Accreditation of Healthcare Organizations dropped its requirement for a minimum hospital autopsy rate of 20% in the mid-1970's, hospitals across the country stopped doing autopsies, which are uncompensated by Medicare or any insurance program and are thus a drain on the bottom line. Medical Examiners and Coroners around the country have become the *de-facto* autopsy service for the country. But with manpower issues and funding deficiencies, many autopsies which could provide essential information are left undone. Many studies have shown that the autopsy provides quality control to the medical community, in addition to the contribution to public health. As an example, trauma systems around the country regularly audit their provision of care by means of peer review. When a death has resulted from trauma, the autopsy plays a vital role in detecting injuries which may have

been missed. This helps to allow trauma systems to evaluate whether a death may have been preventable. An autopsy may not be performed if sufficient medical information is available from hospitalization, even though the death lies within medical examiner jurisdiction. Thus, even though the legal obligation of the medical examiner system is fulfilled, valuable additional information of value to the medical and legal communities may be lost, often for simply fiscal reasons.

In conclusion, I would like to thank you for this opportunity to address the committee today. I also thank you for what you have done thus far and we look forward to the continued discussion with you and your staff in order to achieve the much needed federal leadership that we require in the field of forensics.

Resolution
National Association of Medical Examiners
Executive Committee
July 2, 2009

Be it resolved:

The National Association of Medical Examiners (NAME) strongly endorses all of the recommendations of the National Research Council (NRC) of the National Academies encompassed in the report "Strengthening Forensic Science in the United States: A Path Forward."

The NAME Executive Committee has the following specific comments on the recommendations:

Recommendation #1

The first and most important NAS recommendation is that a new and independent National Institute of Forensic Sciences (NIFS) be established to promote the development of forensic science into a mature field of multidisciplinary research and practice founded on the systematic collection and analysis of data. NAME strongly supports this recommendation and sees it as the foundation for the remainder of the NRC recommendations. NAME also recognizes that there might be impediments to establishing a new institute at this time. If NIFS is unattainable at present, NAME believes that the duties of this agency should be placed as a bridging step into a new Office of Forensic Services (OFS) within an existing agency fulfilling the spirit of the NRC recommendations.

The report outlines that one of the functions of NIFS is to establish and enforce best practices for forensic science professionals. In the arena of medicolegal death investigation, NAME has established forensic autopsy performance standards that can be used for this purpose.

NAME believes that an essential function of NIFS would be to conduct periodic forensic science needs assessments at the federal, state, regional, and local levels in order to ensure optimal provision of resources to service providers. Such assessments should also consider research needs. The assessment results should be presented in a report.

Recommendation #4

NAME supports the NRC recommendation that all public forensic science laboratories including medical examiner and coroner offices should be independent from or administratively autonomous within law enforcement agencies or prosecutor offices. Provisions should be made to assure the technical and professional autonomy of forensic service providers at all levels. The goal is to have unbiased professional testing and reporting and the absence

of real and perceived conflicts of interest. We agree, that to achieve this end will require incentive funds as indicated in the report.

Recommendation #5

NAME endorses the recommendation that research programs on human observer bias and sources of human error in forensic examinations including studies to determine contextual bias in forensic practice should be encouraged. However, NAME urges caution in the arena of contextual information and forensic pathology. Medical examiners are physicians who operate in the medical paradigm of using a clinical history and information about the circumstances surrounding a death to generate hypotheses about potential causative diseases and injuries. The autopsy and laboratory examination allows a forensic pathologist to confirm or refute these hypotheses and reach medical conclusions. Autopsy is the practice of medicine. The history and circumstances provide the context for the autopsy and laboratory findings. In addition to determining cause of death, medical examiners are directed to determine the manner of death, which is largely based on the circumstances surrounding death.

Recommendation #7

NAME endorses the recommendation that laboratory accreditation and individual certification of forensic science professionals should be mandatory and all forensic science professionals should have access to a certification process. In the arena of medicolegal death investigation NAME believes that all death investigators should at least be certified by the American Board of Medicolegal Death Investigators at the registry (basic) level. All pathologists performing medicolegal autopsies should be certified by the American Board of Pathology in forensic pathology. All medicolegal death investigation offices and agencies should be accredited using professional consensus practice standards such as those developed by NAME. To achieve such ideals will require funding to improve the organization and operations of many medicolegal death investigation offices. Training programs and certifying and accrediting bodies will likely also need funding to process increasing numbers of applicants.

Recommendation #11

NAME fully supports the recommendation ideal that incentive funds should be provided to states and jurisdictions with the goal of replacing coroner systems with medical examiner systems. These funds should be used to build facilities, purchase necessary equipment, improve administration, and ensure education, training and staffing of offices. To foster this transition, NAME supports the recommendation that NIFS should work with the National Conference of Commissioners on Uniform State Laws, the American Law Institute and NAME to draft legislation for a modern model death investigation code. NAME also supports the recommendation that all medicolegal autopsies should be performed or directly supervised by a board certified (American Board of Pathology) forensic pathologist and that this standard should be phased in over a defined period of time. As a more immediate step, NAME believes it essential that all medicolegal death investigative systems incorporate the leadership of a

board certified forensic pathologist. Efforts to achieve more uniformity in medicolegal death investigation can be hindered by the severe lack of resources (financial, personnel, equipment, and training) on a national level. Each of these resources should be addressed in order to improve our national medicolegal death investigation infrastructure on a jurisdictional or state level.

The report also recommends that NIFS and the National Institutes of Health (NIH) promote scholarly, competitive peer-reviewed research and technical development in forensic medicine and develop a strategy to improve forensic pathology research. This recommendation includes the provision of research funding and the development of a study section to establish research goals and evaluate research proposals. This goal is reinforced in recommendations #1 and 3. NAME enthusiastically supports these recommendations. Forensic pathology supports both public health and public safety but this combined role has often remained unrecognized. Historically, minimal research funds have been provided for forensic pathology research by the Centers for Disease Control and Prevention and the National Institute of Justice.

NAME also supports the recommendation that NIFS/NIH in conjunction with NAME and the American Board of Medicolegal Death Investigators establish a Scientific Working Group (SWG) for forensic pathology and medicolegal death investigation. NAME agrees that this committee should develop and promote standards for best practices, administration, staffing, education, training, and continuing education for competent death scene investigation and postmortem examinations. NAME believes that this committee should be led by and have strong representation from board certified forensic pathologists.

As also articulated in recommendation #7, NAME supports the concept that all medical examiner offices should be accredited pursuant to NIFS endorsed standards and believes that professional consensus accreditation standards such as those developed by NAME should become the NIFS standard. Restricting federal funding to offices that are accredited or making measurable and significant progress towards accreditation is appropriate.

As outlined in the report, recruitment of qualified practitioners into the forensic pathology should be enhanced. NAME supports the recommendation that funding in the form of medical student loan forgiveness and/or fellowship support should be made available to pathology residents who choose forensic pathology as their specialty. Increasing the numbers of forensic pathologists will facilitate the transition from coroner to medical examiner systems.

**Report of Forensic Pathology Fellows in the United States
2011-12 Academic Year
Prepared by Randy Hanzlick, MD, Chair, NAME ad hoc Data Committee**

A few years back, there were about 40 ACGME-accredited forensic pathology training programs in the United States. In recent years, the number has been 37. IN the past year or so, two of those programs have become inactive (Newark NJ and Oklahoma City). Thus, there are technically 35 active forensic pathology fellowship training programs. Locations, number of ACGME-approved positions, number of funded positions, and number of filled positions is shown below.

Name of the Sponsoring Institution	Number of approved positions	Number of funded positions	Filled positions
Allegheny County	2	2	1
Armed Forces Medical Examiner	4	0	0
Bexar County Medical Examiner's Office	2	1	1
Broward County Medical Examiner's Office	2	1	1
Cook County Office of the Medical Examiner	2	1	1
Cuyahoga County Medical Examiner's Office	3	1	1
Emory University School of Medicine	2	1	1
Harris County	2	2	1
Hennepin County Medical Examiner	1	1	1
Indiana University	1	1	1
Jackson County Medical Examiner's Office	1	1	0
Los Angeles County Coroner	6	2	1
Massachusetts	4	2	0
Medical College of Wisconsin/Milwaukee County MEO	2	1	1
Medical University of South Carolina	1	1	1
Miami-Dade County Medical Examiner Department	4	4	4
Montgomery County Coroner's Office (Ohio)	1	0	0
New York City Office of Chief Medical Examiners	4	4	4
Office of the Chief Medical Examiner's - State of Maryland	4	3	3
Office of the Medical Examiner Metro Nashville/Davidson County	2	2	0
Puerto Rico	0	0	0
Saint Louis University	1	1	1

Name of the Sponsoring Institution	Number of approved positions	Number of funded positions	Filled positions
San Diego County Medical Examiner	2	1	1
Seattle-King County	2	1	0
Southwestern Institute of Forensic Sciences	3	2	2
Tarrant County Medical Examiner's District	1	1	1
UNC Hospitals	2	1	2
University of Alabama at Birmingham	1	1	0
University of Colorado Denver	1	1	1
University of Louisville	1	1	1
University of New Mexico	4	4	4
University of South Florida	2	1	1
VCU- Richmond	4	4	3
Wake Forest University School of Medicine	1	1	1
Wayne County Medical Examiner (Detroit)	2	1	1
TOTAL	77	52	42

Thus, only 68% of approved positions are funded, and 81% of the funded positions are filled with a total of 42 fellows this year. 8 of the 35 programs (23%) have no fellow this year.