Coroner Versus Medical Examiner Systems: Can We End the Debate?

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ABSTRACT: This article is a discussion and comparison of coroner systems and medical examiner systems. Each type of system has potential merits and drawbacks, and virtually all systems face certain problems and challenges and could be improved. The arguments about coroner versus medical examiner systems have gone on for nearly a century, coroner and medical systems remain, and we need to shift our focus from our differences to those goals that we share. We believe the best approach is for each state and its various death investigation jurisdictions to thoroughly study its death investigation system to determine whether it is meeting the needs of the criminal and civil justice system, the courts, prosecution (plaintiff) and defense attorneys, public health and safety agencies, the medical community, and other interested users such as researchers and those interested in prevention strategies. It is also critical that jurisdictions ensure their medicolegal death investigation systems become accredited, their personnel become certified, and that they are following nationally accepted guidelines, standards, and best practices. If there are deficiencies, then the state, in conjunction with local jurisdictions, can decide what changes may be needed and which options are available to implement those changes. Again, the issue is not necessarily one of system type, but rather, the adequacy of support and manpower to function professionally and to meet the needs of users.

KEYWORDS: Forensic pathology, Coroners, Medical examiners, Death investigation systems

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INTRODUCTION

This article is a discussion and comparison of coroner systems and medical examiner systems. The article is prompted by a National Academies of Science (NAS)/National Research Council (NRC) report recommendation that coroner systems eventually be replaced with medical examiner systems and the realization that such conversion has essentially ceased in recent decades (1, 2). Also, the Committee on Identifying Needs of the Forensic Science Community, which prepared the report and included forensic pathologists and medical examiners, heard testimony from a non-physician coroner but did not include a representative of the coroner community on the Committee itself. Thus, this article provides information about each type of system to facilitate further discussion in follow up to the NAS/NRC report recommendation.

METHODS

This article does not include the history of the coroner system, which is documented elsewhere (3). For the purpose of this article and comparing coroner and medical examiner systems, we provide the following definitions: A *coroner* system has an elected or appointed chief medicolegal officer who is responsible for overseeing death investigations administratively in a given jurisdiction, but who is not the person who provides autopsy and other postmortem examination services. A *medical examiner* system has a forensic pathologist who is the chief medicolegal officer responsible for overseeing death investigation in a given jurisdiction and whose duties include not only administrative oversight, but may also include the performance of autopsies and other postmortem examinations. In these systems, the titular head of the system is either a coroner or

a medical examiner. We understand that some forensic pathologist coroners perform autopsies, but in such settings, they essentially function as medical examiners. Thus, our definitions are necessary to appropriately compare coroner systems with medical examiner systems because the title of medical examiner is not always used in the same way among states (see below), so a strict definition is needed to place this article in the proper context. Further, a key element of each system is that the titular head has administrative duties and is "in charge" of the system.

One author (JF) is not a physician, serves as an assistant coroner in a metropolitan coroner's office, and is active in managing and being a President of a membership organization which consists primarily of coroners, the International Association of Coroners and Medical Examiners (IAC&ME). The other author (RH) is a forensic pathologist and works as a medical examiner in a metropolitan medical examiner's office and is a past-president of the National Association of Medical Examiners (NAME), a membership organization including mostly medical examiners. Further, each author is a member of the Scientific Working Group for Medicolegal Death Investigation (SWGMDI); the topic of coroner and medical examiner systems has been hotly debated by that group. Through these experiences, the authors have gained both personal and organizational viewpoints about coroner and medical examiner systems. Although specific literature outlining the pros and cons of coroner and medical examiner systems is relatively sparse, an effort has been made to review such articles and reports to guide the writing of this article and provide a basis for statements made by the authors.

DISCUSSION

Since as long ago as 1928, multiple reports have described the coroner system as anachronistic, archaic, or otherwise outdated and that it needs to be replaced (4-7). The 1928 National Research Council Report contains analysis and comparison of coroner and medical examiner offices based on surveys and other studies, and is quite comprehensive in detail and the scope of issues examined (4). Subsequently, although the replacement theme is common in these various reports, there is usually little or no thoughtful analysis of the relative strengths and weaknesses of coroner versus medical examiner systems. Rather, they are mainly limited to discussion of how medical examiner systems should be structured.

In a multidisciplinary session at a 1997 American Academy of Forensic Sciences (AAFS) meeting in New York City, the pros and cons of coroner and medical examiner systems were discussed by a panel (8). That session covered many aspects, but the most important had to do with the potential value of coroner inquests, more autonomy for coroner's to have a "bully pulpit" from which to address important public health and safety issues, and less chance for coroners to have potential conflicts of interest than physician medical examiners who may be on medical school faculty or paid by a medical school that is involved in death-related issue being investigated by the medical examiner. The point was also made that a medical examiner appointed by a government body may not be any less political than a coroner who is elected to office by the public. Specific questions on point include whether the proper administration of medicolegal investigation requires a forensic pathologist to be the head of the office (the answer was "no"), or whether there is something intrinsically wrong with a forensic pathologist working in a coroner's office when the coroner is not a forensic pathologist or physician (also a "no" answer). A third question was whether a coroner with no medical training is capable of effectively heading a death investigation office, and the answer was "yes." A crucial element cited is whether those in charge of the system have the necessary training and experience to administer the office.

The Institute of Medicine's Medicolegal Death Investigation System Workshop Summary compared medical examiner systems with coroner systems from the viewpoints of a *forensic pathologist medical examiner* and *forensic pathologist elected coroner* with no input from a non-physician coroner (9). Unfortunately, the comparisons were somewhat superficial in detail. The suggested advantages of a medical examiner system concentrated on the advantages of a state system rather than potential advantages on a county-based level. The coroner system was described as having advantages that are "far outweighed" by its disadvantages. Access to political power of other elected officials and ability to represent the electorate were cited as strengths. Deficiencies included less likelihood of a coroner system being "medically proficient" and that system structure often reflects "piecemeal" legislation rather than "intelligent design." One could argue, however, that some medical examiner legislation has been piecemeal and without intelligent design, especially in states where "medical examiners" need not be physicians or where medical examiner systems have been established but lack adequate support or consistent service levels in all parts of a state.

The "*Medical Examiner and Coroner Systems: Current and Future Needs*" chapter of the NAS/

NRC report echoes some points which have been made through the years (1). First, it states that the disconnect between a medical determination of cause and manner of death and what the coroner may independently decide is the cause and manner of death is the weakest link in the coroner system process. That criticism assumes, however, that the coroner either has no medical input for decision making or that the coroner ignores medical input, a circumstance we believe is unacceptable and in our experience is also becoming more rare with time. Second, the options mentioned for improving death investigations by coroners included replacing coroner systems with medical examiner systems, increasing the statutory requirements for coroners, or infusing money to improve coroner capabilities. Each of those options has been implemented in various parts of the country. For example, Cuyahoga County, Ohio has recently converted to a medical examiner system, states such as Ohio, North Dakota, Louisiana, and Kansas require the coroners to be physicians, and Georgia, Ohio, Indiana, and some other states have developed statutory requirements for coroner training, which requires increased funding to implement. Importantly, these options do include the improvement of coroner systems as an option to replacement of coroner systems. Third, whether a coroner refers a body for autopsy may be a budget-driven decision. Conversely, however, the NAS/NRC report does not mention that fact that forensic pathologists who provide services for medical examiners may have such caseloads that they cannot accept for autopsy all cases for which the coroner wants an autopsy to be performed. Fourth, the NAS/NRC report points out that all medical examiner and coroners share various deficiencies to some extent (e.g., imperfect legal code), inadequate expertise, resources, facilities, equipment, and technical infrastructure, inadequate training, and lack of best practices, quality measures and controls, good information systems, translational research, and associations with university research. The acknowledgement that a medical examiner system does not fix all problems is an important one.

The 1928 NRC bulletin was highly critical of coroner systems, to the point of recommending that coroner systems be abolished (4). It also concluded that medical examiner systems were more efficient and overall, less expensive than coroner systems, inferentially because of economy of scale, and especially when quality and scope of work are considered. We believe, however, that the claim of greater efficiency and cost savings is not one that can be easily proven, especially if one desires to ensure the continued existence of a local chief medicolegal officer. We discuss such issues further below.

The 1954 Model Act basically advocates medical examiner systems, and recommends that a Commission be developed to oversee death investigation activities in the respective state (6). The Chief Medical Examiner would be required to be a physician pathologist with at least two years' experience. The Model Act recommends that the office of coroner be abolished, but it does contain a provision to allow coroners to perform duties as instructed by the Commission. Thus, continuation of coroners is not inconsistent with provisions in the Model Act.

In his book "*Death Investigation in America*," Jentzen provides a fairly thorough discussion of the movement against coroner systems in the mid-20th century, spear-headed by Richard Childs of the National Municipal League (10). He and others, including Richard Ford of Harvard, met to discuss the development of a model medical examiner law. Jentzen also discusses what he calls the "demedicalization" of death investigation in subsequent years. His discussion of events in South Carolina (coroner to dual medical examiner/coroner and back to coroner system) illustrates the rivalries and their consequences when a coroner versus medical examiner system battle takes place in a real-life setting.

The Wingspread conference of 1985 in Racine, Wisconsin titled "*Death Investigation in the Community: Forging New Partnerships*" had about 50 medical examiners and coroners in attendance as well as law enforcement and prosecutor representatives (11). Conference topics included the need for modern equipment, more training, better interaction with public health, and improved relationships with users. Arguments about medical examiner versus coroner systems were not a prominent part of the conference. Unfortunately, a lawsuit developed involving the researchers (accusations of sexual discrimination), and the conference report did not receive much further attention or follow up (10).

An Internet search by the authors resulted in numerous websites that contain information about the coroner versus medical examiner argument, and we cite some of these as references (12-21). In general, such sites discuss the relative lack of training and education of coroners, but they also include information that problems exist within medical examiner systems as well as coroner systems because of the "patchwork" status of death investigation systems in the United States.

We do not wish to embarrass any specific coroners, medical examiners, or death investigation systems so we will not cite specific references for information in this paragraph. But a thorough

search of the literature, Internet sources, and lay periodicals shows that both coroner and medical examiner systems have been plagued by serious problems. In fact, at least one medical examiner keeps a file of embarrassing travesties involving medical examiners and coroners and has presented same at professional meetings. Such problems include release of the wrong body to the funeral home, misidentification of the deceased, theft of property from the morgue or from the deceased body, bringing personal pets to the morgue, misdiagnoses, missed diagnoses leading to deaths of others, confrontations with police outside the workplace, diagnoses or opinions leading to wrongful prosecution or lack of prosecution, lack of performing an autopsy when one should have been performed, misuse of public funds, and other undesirable events. Our point is that both coroners and medical examiners are people, and both are subject to error, incompetence, ignorance, corruption, overconfidence, mental illness, and other undesirable circumstances. When problems such as these occur, it is usually not the system type that is at fault. Rather, it is the people who work in the system who are to blame.

The above information has been provided for several reasons. First, the reader may gain a better understanding of events that have transpired over the past 86 years related to the coroner versus medical examiner issue. Second, most of the written historical recommendations have been written by the medical and/or legal community and by persons or entities who opposed the coroner system. There has been minimal input or counterarguments from the coroner community with the exception of physician coroner Sam Gerber of Cleveland, Ohio, fifty plus years ago, who was a major advocate of the coroner system (10). Third, although there is an often cited attitude that "coroner systems should be abolished," thorough reading of available documentation indicates that medical examiner systems can and do have problems and that options of improving coroner systems exist without the need to replace coroner systems with medical examiner systems. Fourth, recommendations from the early to mid-20th century reports cited above have resulted in conversion of coroner systems to medical examiner systems, but such conversions have essentially ceased and efforts to improve coroner systems have also occurred. As Steven Clark stated in his recent NAME Milton Helpern Award speech (Titled "*Timing*," October 2013, Milwaukee, Wisconsin), many things and important developments are a matter of timing. And as newly elected NAME President Gregory G. Davis stated in his remarks, arguing needs to end and we need to work together in a spirit of cooperation to improve death investigation in general. We agree with those thoughts and are of the opinion that death investigation systems of all types need to be improved, doing that should now replace the decades of debating coroner versus medical examiner systems, and that the adversarial sentiment that has persisted for decades (almost a century) needs to cease. In short, it is time to bury the hatchet. We like this new attitude and believe that it is time to move on and do things that are constructive. With that thought in mind, we present our thoughts on the positive aspects of coroner and medical examiner systems.

Positive Attributes of Coroner Systems

With the shortage of forensic pathologists, nonphysician coroners who are good managers/administrators can coordinate the investigations, manage external stakeholder relationships and perform duties such as personnel issues, and perform budget related duties and overall administrative functions, allowing the forensic pathologist to commit their time to performing autopsies and medical related tasks.

In areas where coroners are elected, they answer to their constituents and therefore are able to act independently from other potential pressures. Elected coroners may also have strong political ties with other elected officials, which can help assure adequate funding of operations. Where coroners are elected, a poorly-performing coroner can be taken out of office by the electorate and a well-performing coroner can be re-elected (except in the few states where there are term limits). In other areas, coroners can be appointed by governing bodies, as are medical examiners. Coroners are often entitled to formally impanel juries and hold inquests, which can be of help in contentious or high-profile cases by providing transparency and an opportunity for public participation and awareness.

Especially in small or rural jurisdictions, coroners may be quite familiar with the community, types of deaths that occur locally, and the nature of people served by the coroner. Coroners can create a local link where there are no medical examiner systems, autopsy facilities, or local forensic pathologists. Also in small or rural jurisdictions the local funeral directors often times serve as coroner as somewhat of a community service due to the fact that the funeral director may be the only resource for transportation and handling of decedents and the local jurisdictions have no funding or infrastructure to perform these duties without the assistance of the funeral director. The coroners in some states have authority or responsibility to carry out duties that go beyond death investigation, such as sexual as-

sault examinations and commitments for mental disorders (22). In most areas, the coroner's office is independent of other agencies and is not under the umbrella of a parent body or appointing authority that can control funding and support and give second or lower priority to the needs of the death investigation system.

Positive Attributes of Medical Examiner Systems

One positive attribute of a medical examiner system is that the death certificates are completed by physicians who are usually forensic pathologists trained in death certification procedures during their fellowship training. Medical examiners are virtually always appointed by a local or state governing body. Thus, being appointed, having unlimited terms (subject to performance), and being subject to performance review by an appointing authority can be viewed as positive features of medical examiner systems. In a medical examiner system, it is usually a trained forensic pathologist who makes the decision about the type of investigation and postmortem examination that should be conducted. Another positive thing about medical examiner systems is that other than their medical school, pathology, and forensic pathology training, there is no need for government funded training programs to teach them about death investigation.

In medical examiner systems, the medical examiner can oversee and conduct autopsies. Thus, in a medical examiner system, there is often no need to have a separate person serve as the titular head of the system or the chief medicolegal officer. There is no "middle man" in the process. The medical examiner can serve both duties.

In medical examiner systems, the chief medical examiner position is almost always a full-time job, or the medical examiner serves multiple jurisdictions which amount to full-time work in death investigation. Such a setting fosters the gaining of death investigation knowledge and experience, which may be another positive feature of medical examiner systems.

Most chief medical examiners are paid a salary and not by the case. Thus, the full-time salaried medical examiner usually makes case decisions independently from income, although there are some medical examiner systems that pay a base salary plus a per-case fee, as occurs in Tennessee, for example.

As physicians, medical examiners in general have a strong academic and scientific background. Thus, many medical examiners conduct research and prepare published reports of educational cases or case series for scientific and public health purposes.

Part of death investigation involves analyzing medical histories and medical records. Physician medical examiners are generally adept at this function. The same goes for the determination of which laboratory tests are done during a death investigation and the interpretation of results.

Other Comments

The United Kingdom and Canada have taken steps to improve their coroner systems (23-25). They serve as an example of how to address weaknesses and improve the current system. The NAS/NRC recommendation to eventually replace coroner systems with medical examiner systems takes a "one-size fits all" approach and does not fully address problems that also occur in medical examiner systems and the recommendation ignores important details and needs at the state level, not to mention that such conversions have essentially ceased (2).

One can argue that the difference between some medical examiner and coroner systems is in name only. For example, in some states having persons with the title of "medical examiner" but who are not required to be physicians or who are perhaps physicians but not pathologist who can perform autopsies, (which occurs to various extent in Michigan, Wisconsin, Virginia, and West Virginia, for example), such "medical examiners" essentially function as coroners.

We believe that *the* critical issue in a death investigation system is to have a strong administrative leader who can manage people, obtain necessary funding and support, attract and hire qualified workers, ensure that desired or required certifications and accreditations are attained, and ensure that medicolegal death investigations are conducted in accordance with professional standards and guidelines and by persons who are fully qualified to perform such procedures. Of all of these desirable attributes, the only one that requires medical knowledge is the performance of autopsy and interpretation of medical history and findings. Thus, as was concluded in the 1997 AAFS panel discussion, there seems to be nothing inherently wrong with a non-medical person being the administrative head of a death investigation system. This assumes that such a person develops policy and procedure based on, and actually following nationally accepted guidelines, standards, and best practices, and specifically, that policy and procedure of the medicolegal office is developed in conjunction with forensic pa-

thologist input and guidance regarding the need, value, and extent of postmortem examination and necessary related laboratory testing. Further, the cause of death should be determined by a board-certified forensic pathologist and the manner of death, when being determined by a non-physician coroner, must be determined in consultation with a board-certified forensic pathologist. The coroner must not ignore the medical element or advice and guidance of the forensic pathologists working in the system.

We know there is a current shortage of forensic pathologists in the United States (26). It is such persons who perform medicolegal autopsies and other postmortem examinations. One could question if it is an efficient use of skill to pull a forensic pathologist out-of-service to conduct office administrative functions, especially if there is a shortage of forensic pathologists in the area. Let's assume, for example, that there are 50 chief medical examiner forensic pathologists who spend 50% or their time doing administrative work. That would be an equivalent of 25 full-time forensic pathologists not available to do autopsy work. Real-life implications for the national level forensic pathologist workforce could be even greater depending on the number of forensic pathologist chief medical examiners and the portion of their time spent on autopsy service work compared with administrative time, especially when one considers that there are only about 500 forensic pathologists practicing full-time in the United States and there are shortages in some areas of the country (26). On the other side of the coin is the argument that it is valuable to have an administrator who can professionally oversee and understand the medical work done by other forensic pathologists in the office, especially for quality assurance purposes. An acceptable option is for a nonphysician or nonpathologist coroner (elected or appointed) to have a "chief forensic pathologist" who could perform such duties (perhaps also assisting in the hiring and evaluation of forensic pathologists) but who would not be tied down with general office administrative detail such has hiring, firing, payroll, purchasing, and discipline of other types of employees. To illustrate the point, recent events in North Carolina (27), where the medical examiner's office is understaffed and underfunded, resulted in the replacement of the chief medical examiner's administrative duties by another person and the chief medical examiner returning primarily to autopsy case work. All of this is to re-emphasize that either system type can work if funding, staffing, support, and skills are adequate.

In regard to the 1928 NRC report statement that medical examiner systems are more efficient and less expensive than coroner systems, it is difficult to calculate the cost of coroner systems in comparison with medical examiner systems and to ensure that such a comparison is a fair one. For example, a centralized state medical examiner system may be less expensive if the costs of coroners in each county were no longer supported. But what is the "cost" of losing a local death investigation contact in the community, or the lack of consistent personnel locally to attend death scenes and handle local issues? In contrast, is the total cost of all coroners in the state (plus the cost of training them) worth the expense when operations can otherwise be centralized from the forensic pathologist, autopsy services, and system administration standpoints? These are the types of questions that must be addressed and answered at the state level. Such review can lead to interesting findings and possible solutions to meet identified needs. For example, in Georgia, coroners at training conferences have expressed frustration in their ability to obtain autopsies in some traffic fatality cases, and some sudden apparently natural deaths. They are told (correctly) that the caseload of the forensic pathologists who provide autopsy services is too high and there are not enough resources and staff to conduct complete autopsies in all such cases. Coroners also have limited funds to transport bodies for autopsy. The solution to this problem is not the abolishing of coroners. Rather, a more appropriate solution is to increase resources so there are enough funds to transport bodies and for forensic pathologists to provide autopsies in such cases to better serve the coroners and the communities and users they represent. Only specific study at the state level will identify such needs and possible solutions.

We are unaware of any recent studies that specifically discuss the total cost of all medicolegal death investigations in a specific state. Neither are we aware of studies that report the estimated comparative costs of an equivalent quality coroner system and medical examiner system.

CONCLUSION

We believe that the best approach is for each state to thoroughly study its death investigation system to determine whether it is meeting the needs of its citizens through the criminal and civil justice system, the courts, prosecution (plaintiff) and defense attorneys, public health and safety agencies, the medical community, and other interested users such as researchers and those interested in prevention strategies. If there are deficiencies, then the state, in conjunction with local jurisdictions, can decide what changes may be needed and which options are available to implement

those changes. Again, the issue is not necessarily one of system type, but rather, the adequacy of support and manpower to function professionally and to meet the needs of users.

In summary, a forensic pathologist medical examiner and a non-physician coroner have some thoughts in common. Although one of us may be considered an advocate for coroners and the other, an advocate for medical examiners, we are together advocates for improving death investigation systems of all types. To further quote Gregory Davis, "*we need to shift our focus from our differences to those goals that we share*." We believe that some coroner systems can be as good or better than some medical examiner systems, and that some medical examiner systems can be as good or better than some coroner systems. Our thoughts are: stop arguing about coroners and medical examiners, move on to do something constructive, identify deficiencies in death investigation systems, and take the necessary steps in each state to address deficiencies. Regardless of system type, death investigations should be conducted by accredited organizations, certified practitioners, and in compliance with professional guidelines and practice standards as recommended in the NAS/NRC report and by scientific working groups. Additional funding and support are needed in virtually all states to attain such goals, regardless of system type. All of these thoughts are consistent with points made at the most recent Forensic Death Investigation Summit help in Scottsdale, Arizona, in July of 2010 (28).

DISCLOSURES

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