G90 Comparative Analysis of Medical Examiner and Coroner Systems of Medicolegal Death Investigation: Is There a Bias Toward Manner of Death?

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After attending this presentation, attendees will become aware of some of the differences between a Coroner's and a Medical Examiner's jurisdiction regarding the relative percentages of natural and violent deaths that are investigated by the respective jurisdictions.

This presentation will impact the forensic community and/or humanity by encouraging critical examination of the differences between Coroner- and Medical Examiner-based medicolegal death investigation systems in order to learn more about the motivating factors behind the decisions to investigate various types of deaths; to retain the most positive and beneficial aspects of both systems; and, ultimately, to promote practices that are sound from an investigative standpoint yet also cost- effective.

Background and Objective: In the United States, two different types of medicolegal death investigative systems, namely, the Coroner and Medical Examiner, exist, the former, headed by an elected, often lay official, the latter, by an appointed physician, sometimes a pathologist. The origin of the Coroner system dates back to English common law when the "crowner" was purely a political position; not surprisingly, such political overtones have persisted to the present day. The Medical Examiner system, on the other hand, is, at its best, led by a physician, preferably a pathologist, who has formal training in medicolegal death investigation and in the performance of forensic autopsies. The fundamental philosophical differences between the Coroner and Medical Examiner systems exert a substantial influence on the nature of the cases that are selected by the medicolegal official to come to autopsy; specifically, that the Coroner, in an effort to minimize spending and stay within the budget, is more likely to authorize cases for autopsy that will potentially result in a criminal proceeding (or a high-profile civil litigation), most frequently violent (non-natural) deaths, while the Medical Examiner will have a greater tendency to pursue sudden unexplained deaths, the majority of which result in certification of a natural manner of death. The objective of this study was to determine whether this hypothesis was indeed valid by comparing a contemporary Coroner and Medical Examiner system.

Methods: This study reviewed deaths spanning a 14-year period from 1992-2005 that were reported to a coroner's office (the Charleston County, South Carolina Coroner) and over a 6-year period from 2000- 2005 reported to a medical examiner's office (the State of Delaware Office of the Chief Medical Examiner [OCME]). Data were coded and analyzed using the program SPSS for Windows, Version 14.0.

Results: The breakdown of cases according to manner of death for the two respective jurisdictions is as follows:

Jurisdiction	Number of Deaths	Natural	Accident	Homicide	Suicide	Undetermined
Charleston County Coroner, SC	2,638	827 (31.3%)	940 (35.6%)	422 (16.0%)	345 (13.1%)	104 (3.9%)
Delaware OCME	4,608	2,302 (50.0%)	1,437 (31.2%)	230 (5.0%)	529 (11.5%)	110 (2.4%)

Comparison of the two medicolegal systems showed a negative correlation ($r = -0.046$ [$P = 0.018$]) for 2,638 subjects. The difference between the means of the two groups was 0.171 (95% CI = 0.107 to 0.235; student's $t = 5.3$; $df = 2,637$; $P < 0.001$).

Conclusion: The proportion of natural deaths appears to have been substantially greater in the State of Delaware Medical Examiner jurisdiction while the percentage of homicides was significantly higher in the Charleston County, South Carolina Coroner's Office. While the obviously higher degree of inflicted fatal injury in Charleston County, South Carolina is beyond the scope of this study, the greater percentage of natural deaths in the Delaware OCME supports the hypothesis. More detailed analyses of these respective trends are necessary in order to create the most effective and efficient medicolegal death investigative systems possible.

Medicolegal Death Investigation, Manner of Death, Coroner/ Medical Examiner

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