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# Strengthening the U.S. Medicolegal Death Investigation System

Lessons from Deaths in Custody

*Committee on Advancing the Field of Forensic Pathology:  
Lessons Learned from Death in Custody Investigations*

*Committee on Science, Technology, and Law  
Policy and Global Affairs Division  
National Academies of Sciences, Engineering, and Medicine*



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# Study Committee

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Committee on Science, Technology, and Law

# Introduction

Medical Examiner and Coroner Offices investigate approximately 20% of deaths in the United States.

In 2018, ~2000 medical examiner and coroner offices provided death scene investigations, autopsies, and determinations of cause and manner of death.

In 2018, more than 1.3 million deaths were referred to medical examiner and coroner offices. 605,000 referrals were accepted for further investigation.

States set standards for which deaths are investigated and professional and continuing education for those conducting death investigations.

## The Medicolegal Death Investigation (MLDI) System: Functions

The MLDI system conducts death investigations and certifies the cause and manner of unnatural, untimely, or unexplained deaths.

It produces data that play a critical role in justice and public health and consumes data that is generated by those systems.

In the criminal justice system, the findings of the MLDI system may be used to justify and support charging decisions and convictions, exonerate the wrongfully accused or convicted, or determine the causes of deaths in custody.

In the public health system, the MLDI system assists in the tracking of drug overdoses and chronicling the emergence of infectious disease outbreaks and provides data that allows public health systems to monitor changes in prevalence and incidence of deaths from chronic diseases.

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# The MLDI System: Characteristics

- The MLDI system is decentralized and lacks the resources, uniformity, enforceable standards, data, and incentives to produce consistent cause and manner of death determinations.
- In particular within the MLDI system, there is considerable variation around and even within states.
- The MLDI system suffers from a shortage of trained practitioners, especially board-certified forensic pathologists.

# The MLDI System: Key Players

- Forensic Pathologists
- Medical Examiners
- Coroners
- Medicolegal Death Investigators
- Law Enforcement
- Prosecutors and Defense Attorneys
- The Judiciary
- Families

# The MLDI System: Persistent Concerns

There are persistent concerns:

- that determinations of cause and manner of death do not have a solid medical or scientific foundation
- about the numbers of individuals who die in custody

# Data on Deaths in Custody

Comprehensive data on deaths in custody are not available and there are questions about the reliability of available data. Federal data provide a partial picture of the numbers of deaths in custody:

- In FY 2021, the Bureau of Justice Statistics (BJS) reported that the majority (80 percent) of 613 deaths identified as in-custody deaths by federal agencies were due to natural causes or illnesses followed by suicide (10 percent). 96 percent of those who died were male, 62 percent were White, 32 percent were Black, and 53 percent were age 55 or older.
- Reporting on data from 2019, BJS indicated that 636 jail jurisdictions reported at least one death in that year, and 222 reported two or more deaths. Further, there were more deaths of unconvicted (i.e., pretrial) individuals (192 deaths per 100,000) than deaths of convicted individuals (112 per 100,000). Further, almost 40% of inmates who died in local jails in 2019 had been held for 1 week or less and suicide was the leading single cause of death for those in jail in 2019, with 49 deaths per 100,000 individuals.

But when the Bureau of Justice Assistance recently published data for thousands of in-custody deaths it has collected from states, territories, and the District of Columbia for FY 2000–2023, it could make no representations about the completeness or accuracy of the information.

# Charge to the Committee

The study committee was asked to consider:

- the number of deaths while in custody throughout the criminal justice process and how those deaths are investigated, diagnosed, recorded, reported, and made transparent;
- the distribution of diagnoses for deaths that occur in custody (cause and manner of death) and the scientific bases for attributing such diagnoses to those deaths;
- measures (and limitations thereof) that forensic pathologists should follow to conduct independent assessments of cause of death generally and in particular for deaths in custody;
- the proper range of attributions for cause and manner of death that should be made in a medicolegal death investigation and the scientific bases and associated evidence needed to justify a diagnosis related to any death in general and, in particular, to deaths in custody;
- mitigation strategies to be used to protect forensic pathologists from factors that may bias their diagnosis;
- an assessment of the dual role played by the medicolegal death investigation system as fact finders of manner of death for public health as opposed to for the criminal justice system; and
- quality standards and regulations needed for improvement.

To communicate its findings and recommendations, the committee was asked to produce a consensus report that would advance the field of forensic pathology.

# What We Heard

The MLDI system in the United States faces significant challenges, including:

- a lack of uniform standards and scientific rigor that creates inadequacies and inconsistencies
- that the demand for forensic pathologists significantly exceeds supply nationwide, impeding medicolegal death investigations

Many medical examiners and coroners often face major obstacles, including:

- outdated and unaccredited facilities
- a shortage of trained and certified personnel

# What We Heard (continued)

The current state of the system undermines public confidence in death investigations and limits opportunities for its practitioners to interact meaningfully with the broader medical and public health research communities.

Without adequate resources and standards, MLDI professionals struggle to provide the accurate information needed to protect communities and ensure justice.

MLDI professionals may face undue pressure from the public, law enforcement, the media, and others when making determinations of cause and manner of death.

Incorrect or biased conclusions undermine confidence in medical systems, can misdirect public health outcomes, and may result in a lack of accountability or culpability.

# What We Heard (continued)

To improve the MLDI system, a coordinated effort is needed to ensure that all deaths are appropriately identified and properly investigated so that collected data can be used to improve the nation's understanding of deaths in custody and ultimately improve outcomes, thereby serving both justice and public health.

# KEY FINDINGS

# MLDI System Improvements

*Key Finding #1: While there have been efforts to improve standards of practice and scientific rigor across the MLDI system, medicolegal death investigations continue to suffer from a lack of sufficient resources, well-trained personnel, rigorous and enforceable standards, research on controversial areas of death determinations, peer review, and connections to the broader medical and research communities.*

# Data Collection on Deaths in Custody

*Key Finding #2: Comprehensive data on deaths in custody are not available. Incomplete or inaccurate data on any death deprive the nation of information that is essential to justice and public health. Incomplete or inaccurate data on the cause and circumstances of a death in custody hinder society's ability to protect the health and safety of incarcerated persons and correctional staff, the ability of public health officials to generate findings that affect population health positively, and the ability of the criminal justice system to hold accountable those who cause the unnatural deaths of persons in custody.*

# Testimony Regarding Cause and Manner of Death in Legal Proceedings

*Key Finding #3: A range of factors (e.g., the condition of the body, whether there is an individual who can attest to the circumstances of a death) affect the reliability and degree of certainty of determinations about cause and manner of death. While in some cases there is little doubt about cause and manner (e.g., a stab wound to the chest inflicted by another person that was witnessed by multiple people and captured on a surveillance camera), in other cases determinations about cause and manner of death may be much less reliable and certain (e.g., with a body found years after death).*

# RECOMMENDATIONS

## MLDI System Improvements

### **Congress should allocate funds to states to:**

- improve physical infrastructure for those entities that are accredited or are seeking accreditation of their facilities and certification of their practitioners;
- increase coordination among federal, state, and local MLDI systems; and
- develop experimental programs and pilot studies to identify novel ways to increase coroner access to medical examiner and forensic pathologist expertise and services (e.g., by enabling small medical examiner and coroner offices to pool resources to improve regional operations and efficiency).

### **Congress should allocate funds to the National Institutes of Health to:**

establish a 1-year forensic pathology fellowship, in partnership with the Office of Justice Programs and the National Institute of Standards and Technology, where fellows conduct original forensic pathology research.

### **Congress should allocate funds to:**

the Department of Justice and the National Institutes of Health to establish opportunities for cross-disciplinary research and collaborations that will foster the development of enforceable standards for the practice of forensic pathology and the investigation of deaths in custody.

## **Congress should allocate funding to:**

the National Institute of Justice (NIJ) to support research on methods to reduce deaths in custody. NIJ should consult with the Department of Health and Human Services (DHHS) (National Institutes of Health [NIH] and Centers for Disease Control and Prevention [CDC]) and the National Institute of Standards and Technology (NIST) to identify priority research in this space. As new approaches are developed, the Department of Justice should provide enhanced training programs for law enforcement and corrections officers to make them aware of these approaches. Further, standards should be incorporated into training materials that require law enforcement and corrections officers to follow proven, evidence-based practices to reduce deaths in custody; and

DHHS (NIH, CDC) to support research to quantify the accuracy of cause- and manner-of-death determinations.

## **Congress should direct:**

the National Center for Health Statistics (NCHS) of the Centers for Disease Control and Prevention, in consultation with National Association of Medical Examiners (NAME), the International Association of Coroners & Medical Examiners (IACME), the American Medical Association, and the National Medical Association, to develop consensus definitions for the five common manner-of-death categories (homicide, suicide, accident, natural, and undetermined) that are specific and objective. The consensus definitions should be adopted and used consistently throughout the medicolegal death investigation and public health systems. In addition, to improve the accuracy of (and reduce bias in) manner-of-death determinations, Congress should direct NCHS, in consultation with NAME and IACME, to develop unified, national methodological and documentation standards.

the Department of Health and Human Services (National Institutes of Health, Centers for Disease Control and Prevention), in consultation with the National Institute of Justice and the National Institute of Standards and Technology, to convene a panel to define the characteristics of a death in custody that should require an autopsy.

## States

**States should require** licensure of all medicolegal death investigators. Licensure should be granted by an appropriate regulatory body, such as a state department of health or licensing board. As a condition of licensure, licensees should meet prescribed training and educational requirements and pass a nationally recognized certification examination (e.g., the exam administered by the American Board of Medicolegal Death Investigators). To maintain their license, licensees should meet continuing education requirements. Reciprocity provisions should be developed to recognize licenses from other states.

**State or local public health departments should** conduct mortality reviews of deaths in custody. These reviews should be conducted by multidisciplinary review committees operating under state or local jurisdiction. A report summarizing the findings of the reviews should be submitted to state attorneys general offices and state health departments at least annually to indicate the prevalence of particular types of deaths. As merited by the findings of the summary reports, state attorneys general offices should conduct routine, multidisciplinary audits to ensure accuracy and reproducibility in manner-of-death determinations for deaths in custody.

## Accreditation Councils/Boards

**The Accreditation Council for Graduate Medical Education and the American Board of Pathology should integrate** additional requirements into forensic pathology fellowship programs. The requirements should include the review of disputed cases or cases that have previously undergone formal review (e.g., adjudicated exoneration cases or case reports from audits); education about how forensic pathologists may become involved in legal proceedings and how their work may be used in legal proceedings; and education on the health risks of incarceration.

## Medical Examiner and Coroner Offices

To maintain the quality of forensic pathology services, **all medical examiner and coroner offices should arrange** for rigorous, meaningful peer review of no less than 10 percent of cases at least annually. This review should include special case types, such as infant fatality cases, maternal fatality cases, death-in-custody cases, homicide cases, and cases where manner of death was listed as undetermined. Criteria for quality review should be based on standards established by relevant professional organizations, including the National Institutes of Health, the Centers for Disease Control and Prevention, the National Institute of Standards and Technology, and the Department of Justice.

# RECOMMENDATIONS

## Data Collection on Deaths in Custody

## **Congress should amend the Death in Custody Reporting Act to:**

- return responsibility for collecting state and local death-in-custody data from the Bureau of Justice Assistance to the Bureau of Justice Statistics (BJS);
- require states to collect and report data on all deaths in custody to BJS;
- expand the definition of a reportable in-custody death to include deaths that occur in a hospital in a community after release from custody, where the condition leading to hospitalization began or was exacerbated during incarceration; and
- mandate that all deaths that occur while in custody be certified by a medical examiner or coroner.

The legislation should require BJS to develop mandatory uniform data collection and reporting protocols for state deaths in custody.

**Congress should require** the Department of Justice to develop effective incentive mechanisms and enforceable requirements to ensure that in-custody deaths are reported.

**Congress should direct** the National Center for Health Statistics to add a checkbox on the U.S. Standard Certificate of Death to indicate whether a death occurred in custody. Regardless of whether a checkbox is available, all deaths in custody should be noted as such on death certificates and appropriate contextual information should be provided.

**Congress and state legislatures should mandate** that all death-in-custody cases be referred to an independent (i.e., unaffiliated with law enforcement or the institution where the death occurred) certified forensic pathologist to undertake a postmortem examination of appropriate scope. In some circumstances, autopsies may be required and may need to be conducted by certified forensic pathologists outside the jurisdiction of the death. In such cases, the postmortem examination report should be filed with the U.S. Department of Justice (DOJ). While respecting privacy concerns, data from these postmortem examination reports should be aggregated and made publicly available by DOJ for analysis and publication.

**Congress should authorize and appropriate funding to** the Center for Medicare & Medicaid Services to reimburse state and local governments for the cost of autopsies performed on those who have died in custody.

# RECOMMENDATIONS

## Testimony Regarding Cause and Manner of Death in Legal Proceedings

**In legal proceedings**, a forensic pathologist should testify only to medical and scientific findings and information collected as part of a medicolegal death investigation. Testimony should be constrained by the principles enumerated in Federal Rules of Evidence 702 and 703.

**In legal proceedings**, it is likely that the five common manner-of-death categories (homicide, suicide, accident, natural, and undetermined) will be more confusing than helpful to the fact finder because the terms have different meanings in legal and public health contexts. In the medicolegal death investigation system, the designation of homicide as a manner of death is a medical, not legal, determination and should not be interpreted to mean that a person did or did not commit a crime. Further, as the accuracy of these determinations is currently unknown, their probative value is questionable. Consequently, the courts should seriously consider whether to exclude statements on manner of death.

**Any testimony related to cause and manner of death should be subject to rigorous judicial gatekeeping standards. Judges should, for example, assess:**

- whether the expert's opinion is based primarily on medical/postmortem findings;
- in instances where an expert's opinion relies on nonmedical information (e.g., police body camera video), whether that information is accurate and reliable;
- whether the expert's method is based on sound scientific methodology and whether the expert reliably applied that methodology in the case at hand as articulated in Federal Rule of Evidence 702; and
- whether the expert's opinion assumes facts not in evidence or lacks transparency in its reasoning.

**Terminology used in forensic reports and testimony should avoid** the use of terms with legal significance in favor of more precise, descriptive, and neutral language. Terminology should reflect medical findings rather than investigative or legal judgments.

**To prevent improper testimony on cause and manner of death from being admitted in legal proceedings, federal and state courts should** enhance judicial training on cause and manner of death. In addition, stakeholders in the criminal justice system—such as the Federal Judicial Center and the National Association of State Courts and federal and state prosecutor and defense attorney associations—should develop model jury instructions for manner-of-death testimony, consistent with the federal and state rules of evidence and effective standards of professional medicolegal death investigation organizations, including the National Association of Medical Examiners, the American Board of Medicolegal Death Investigators, and the International Association of Coroners & Medical Examiners. These instructions should identify the limitations inherent in cause-and manner-of-death determinations.

# Final Thoughts

Cause and manner of death of those in custody should not be shrouded in secrecy, nor should such deaths remain undetermined due to inadequate investigation.

The committee was reminded time and time again that the deceased are sons, daughters, fathers, mothers, grandfathers, and grandmothers of families in our communities.

The Eighth and Fourteenth Amendments to the Constitution ban cruel and unusual punishment, including deliberate indifference to the serious physical and mental health needs of people in carceral facilities.

Injustice festers when an individual's basic rights can be disregarded with little accountability and when the cause or manner of death is shrouded in secrecy or ambiguity or otherwise remains undetermined.

Too many deaths in custody can be prevented.

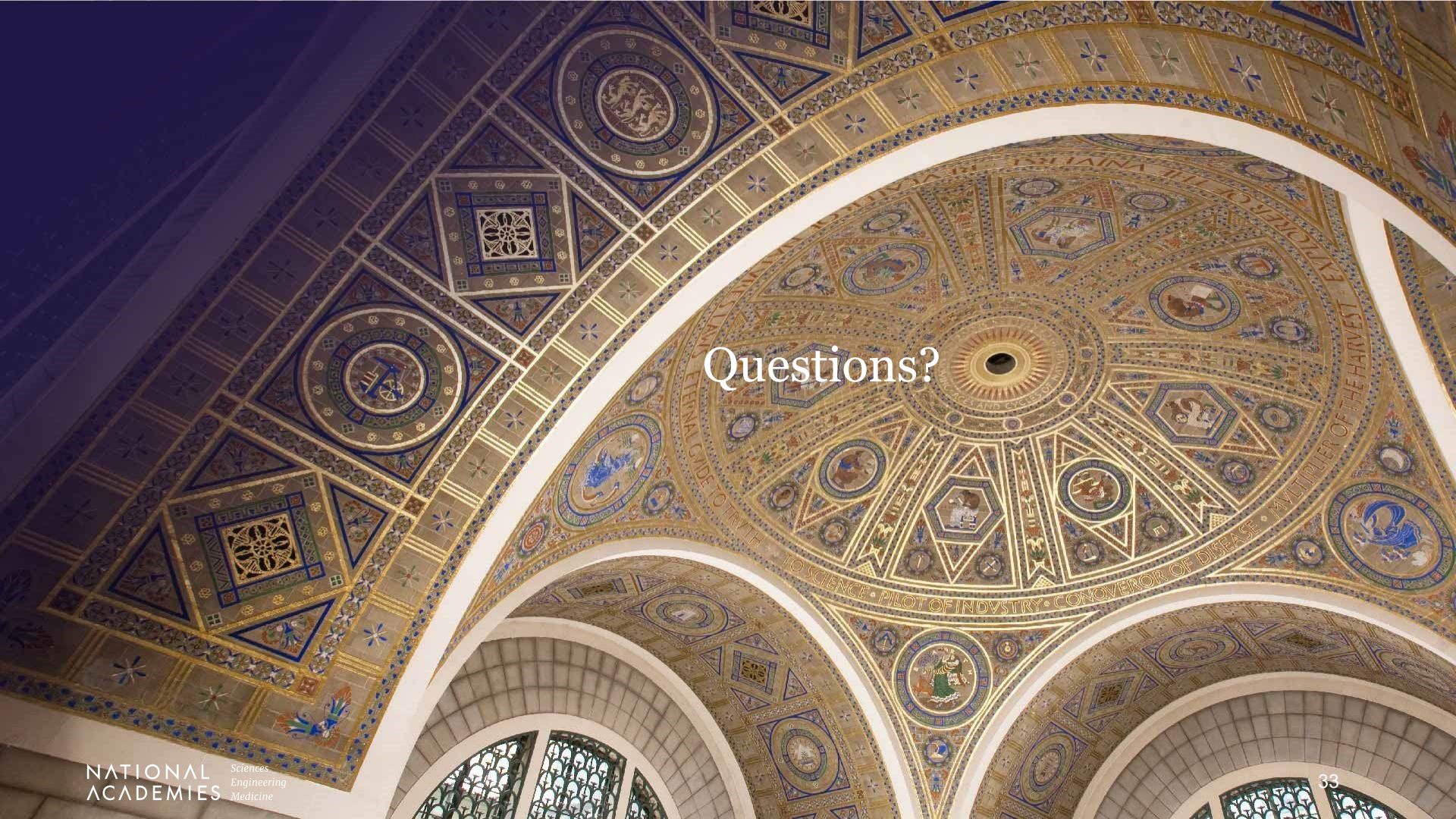
The MLDI system should function to provide timely, accurate, and unbiased information that can be used to help us prevent such deaths, whenever possible, and to serve as an objective voice for those who die in custody.

Strengthening the system is even more urgent today, as detention centers proliferate in this country with a tremendous potential for disease, abuse, and enduring psychological trauma.

# Conclusion

A robust MLDI system is crucial for both justice and public health. The committee's findings emphasize the need for reform, highlighting the gaps and challenges faced by medical examiners and coroners.

By implementing the committee's recommendations, the nation can create a modern system that meets the needs of its citizens. A commitment to these improvements will lead to more accurate death determinations, better public health outcomes, and a fairer criminal justice system.

The image shows a low-angle view of a highly ornate, vaulted ceiling. The ceiling is covered in intricate mosaics and frescoes. A large central medallion features a sunburst design. Surrounding it are various circular and polygonal panels containing figures and scenes. The architecture includes large, arched windows with decorative grilles at the bottom. The overall color palette is dominated by gold, blue, and earthy tones.

Questions?