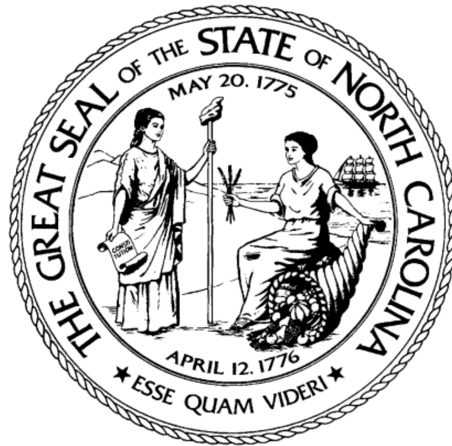
Strategic Plan for Improving the Medical Examiner System

Session Law 2023-134, Section 9H.8.(e)



Report to the

Joint Legislative Oversight Committee on Health and Human Services

and

Fiscal Research Division

by

NC Department of Health and Human Services

August 6, 2024

Table of Contents

EXECUTIVE SUMMARY 2

INTRODUCTION OF THE 2024 STRATEGIC PLAN
What is the 2024 Strategic Plan? 4

NORTH CAROLINA MEDICAL EXAMINER SYSTEM TODAY
What Does the Medical Examiner System Do Today? 7
What are the Origins of North Carolina's Current Medical Examiner System? 7
What Entities Comprise the NC Medical Examiner System? 7
What is the Current and Expected Change in Demand for Medical Examiner Services? 8
What Organizational Structures Make Up the Medical Examiner System? 9
Forensic Pathologists and Forensic Toxicologists: A National Shortage 12
What are the Top Challenges Across the Medical Examiner System? 12
What are the Efforts to Date to Improve the Medical Examiner System? 12

RECOMMENDATIONS FOR THE MEDICAL EXAMINER SYSTEM

Recruitment and Staffing Strategies for the Efficient Operation of the Medical Examiner System
Recommendation 1: Retain Staff to Meet Today's Medical Examiner System's Needs 14
Recommendation 2: Create Competitive Benefits for Prospective Hires, Encourage Talent to Stay in NC Medical Examiner System 14

Any Proposed Reorganization of the Medical Examiner System
Recommendation 3: Improve Access to Timely Communication and Information 15
Recommendation 4: Conduct Study to Determine Viability of Identified Opportunities to Optimize the Medical Examiner System 17

Long Term Plan for Establishing Additional Regional Autopsy Centers
Recommendation 5: Expand the Capacity of the Medical Examiner System to Meet the Growing needs of North Carolinian Communities 18

Long-term Plan for the Office of the Chief Medical Examiner to Oversee Autopsy Centers
Recommendation 6: Enhance Standards and Accountability Through A Dedicated Quality Assurance and Performance Program 20

Consolidated Legislative Changes 22
Consolidated Obstacles and Mitigation Plans 23

RELEVANT APPENDICES 24

Appendix 1: Historical Strategic Plan Recommendations 24

Appendix 2: Capacity Modeling Methodology and Utilization 27

Executive Summary

Session Law 2023-134 directs the North Carolina Office of the Chief Medical Examiner (OCME) to develop and submit to the Joint Legislative Oversight Committee on Health and Human Services and the Fiscal Research Division a strategic plan for improving the operation and efficiency of the State's medical examiner system to enable the performance of timely, high-quality death investigations of all appropriately identified deaths occurring in North Carolina (and under the medical examiner's jurisdiction). OCME leveraged approximately 600 stakeholders to provide input on this strategic plan who assessed the current medical examiner system, identified challenges, explored opportunities, and provided recommendations.

OCME's vision for the medical examiner system is to be the unmatched leader in medicolegal death investigation for the decedents and communities we serve resulting in better health, wellbeing, and safety for all North Carolinians. The recommendations in this plan will better support this vision by:

- Increasing the timeliness and efficiency of decedent investigations and reporting.
- Maintaining high quality investigative findings that partner organizations rely on and that bring closure to families.
- Improving the experience of partner organizations, families, and the medical examiner workforce.

This Strategic Plan includes recommendations that will both (1) stabilize the medical examiner system as it is organized today to better meet the baseline needs of families, communities, and partners, and (2) support continued expected growth of cases falling under medical examiner jurisdiction with timely and high-quality assessments. The six recommendations are grouped in 4 distinct categories as follows:

Address Staffing Needs for North Carolina's Medical Examiner System

1. Recruit and retain a workforce to meet today's medical examiner system needs by:
   - Transitioning temporary and time limited staff to permanent FTE positions
   - Ensuring salaries are more competitive by increasing the budget of current positions to align with the labor market
   - Increasing the payments to County Medical Examiners and providing equipment
   - Providing support for education, training, and outreach to improve future workforce pipeline
2. Offer competitive benefits for prospective hires
   - Exploring/developing loan forgiveness and scholarship programs for critical OCME positions

Proposed reorganization of the medical examiner system:

3. Improve access to timely communication and information through:
   - Launching a new Medical Examiner Information Management System (MEIS)
   - Enhancing the current call center so as to operate 24 hours, 7 days a week to manage incoming requests from constituents and MEIS users
   - Developing a self-service portal to quickly provide key information about cases to constituents, law enforcement, justice system partners, county medical examiners, and pathologists
   - Expanding expertise in constituent relations, outreach, and grief and trauma
4. Leverage opportunities to optimize the medical examiner system
   - Securing recurring state funding to better support current and future OCME operations
   - Simplifying the billing system by removing "fatal injury" as a deciding factor
   - Providing recurring funding for medical examiner expert witness testimony on par with other state agencies

Long-term plan for the establishment of additional regional Autopsy Centers across the State

5. Expand the capacity of the medical examiner system to meet the growing needs of North Carolina communities
    - Expanding the facility housing OCME to increase capacity for examinations, ancillary procedures, toxicology, and storage
    - Establishing two additional Autopsy Centers across the State and under the purview of the OCME, to meet the increasing population and work volume of the system
    - Funding new equipment that will drive more efficient disposition of cases (e.g., CT Scanners)
    - Funding additional staff, including Forensic Pathologist and Toxicologist positions, as the new and expanded facilities become operational

Long-term plan for the Office of the Chief Medical Examiner to operate Autopsy Centers

6. Establish and staff a dedicated Quality Assurance and Performance Program to enhance standards and accountability within the statewide medical examiner system.

Since 2000, NCDHHS has two developed Strategic Plans – one each in 2001 and 2014 – that studied the medical examiner system in North Carolina and in other states, and provided recommendations. Some of those recommendations have been successfully implemented, while others have not been addressed due to a lack of funding, staff or both. NCDHHS appreciates the support of the General Assembly to revisit and consider prior and new recommendations, and OCME is eager to work collaboratively to implement the recommendations outlined in this Strategic Plan.

Introduction of the 2024 Strategic Plan

What is the 2024 Strategic Plan?

Section 9H.8.(e) of Session Law 2023-134 requires OCME to develop and submit a strategic plan to the Joint Legislative Oversight Committee on Health and Human Services and the Fiscal Research Division by March 1, 2024, for improving the operation and efficiency of the State's medical examiner system. The strategic plan is required to contain the following:

- Any proposed reorganization of the medical examiner system, including an estimated timeline and process for implementing the proposed reorganization in a manner that will cause the least amount of disruption to the medical examiner system.
- Any legislative changes that would be necessary or helpful to implement a proposed reorganization of the medical examiner system.
- An explanation of any obstacles that could hinder successful implementation of the proposed reorganization of the medical examiner system.
- A long-term plan for the establishment of additional regional autopsy centers across the State, along with suggested locations, assigned county coverage areas, and estimated costs for the establishment and operation of each.
- A long-term plan for the Office of the Chief Medical Examiner to operate additional regional autopsy centers.
- Recruitment strategies for hiring a sufficient number of board-certified Forensic Pathologists, board-certified Toxicologists, and other professional and administrative staff essential to the efficient operation of the medical examiner system.
- Any other information the OCME deems relevant or necessary to improving the medical examiner system.

Section 9H.8.(f) of Session Law 2023-134 requires OCME to collaborate with representatives of the following entities:

1) Licensed funeral establishments
2) State and local law enforcement agencies
3) North Carolina teaching hospitals
4) North Carolina medical schools
5) North Carolina institutions of higher education with graduate forensic science or toxicology programs

From November 2023 through February 2024, the Division of Public Health's Office of the Chief Medical Examiner (OCME) carried out a detailed analysis of the medical examiner system and gathered stakeholder input on recommendations for this Strategic Plan. Through interviews, surveys, and working sessions, OCME worked with over 600 stakeholders and reviewed over 100 documents as inputs to the recommendations in this Strategic Plan. OCME collaborated with the stakeholders required by Session Law 2023-134 as well as other statewide medical examiner system partners, including:

Stakeholder Group	Interviews	Survey Responses	Working Sessions
OCME Leaders and Staff	12	--	5
Autopsy Centers	8	8	2
County Medical Examiners	--	149	--
Licensed Funeral Homes	--	141	--
Storage Facility Managers	--	72	--
Decedent Transportation Vendors	--	72	--

State and Local Law Enforcement Agencies	--	139	--
District Attorneys and Public Defenders	--	56	--
Medical Schools	1	5	--
Residency Programs (teaching hospitals)	--	7	--
PhD Programs	--	2	--
Pre-Medicine Graduate Programs	--	2	--
National Association of Medical Examiners	1	--	--

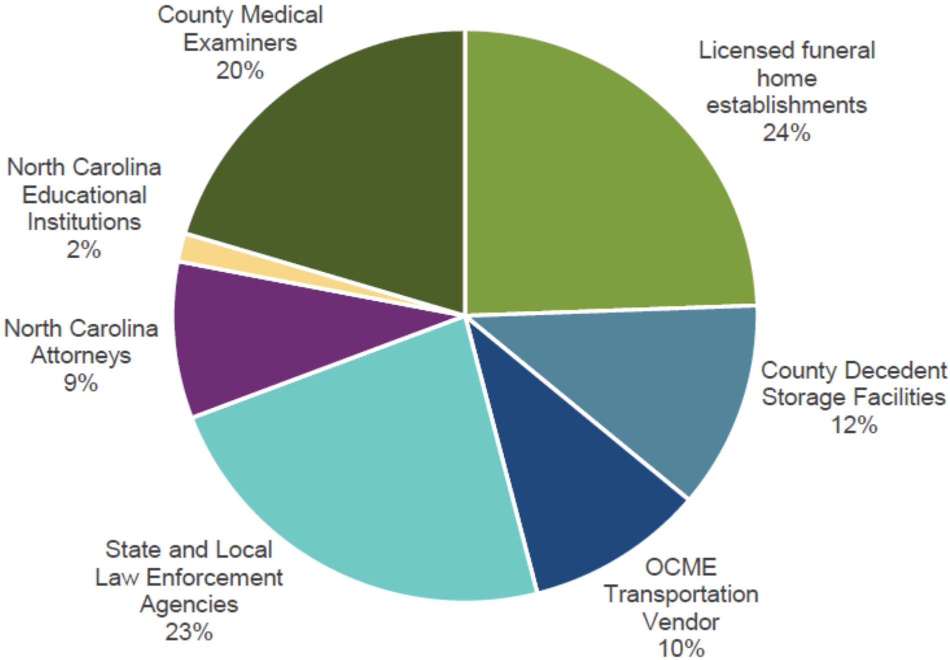


Chart 1. Stakeholder Participation Analysis Results

Key insights and themes emerged from the responses obtained in the stakeholder survey. Specifically, feedback was obtained on what is working and not working in the medical examiner system today, including overlapping themes – indicating a disparity also exists in expectations of the medical examiner system.

Key Insights

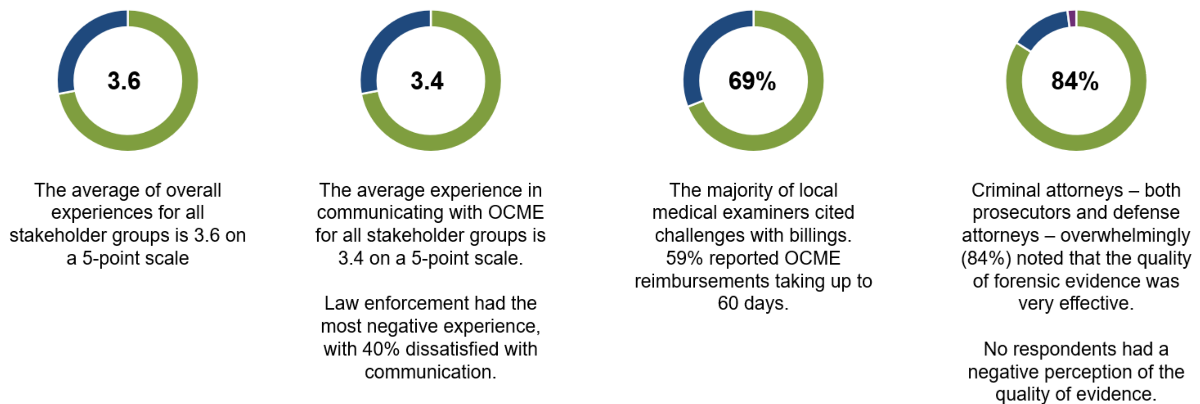


Figure 1. Key Insights from Stakeholder Analysis

A geographic analysis of the medical examiner system footprint and a high-level simulation model to identify capacity needs for the system was developed. The findings from these models and input from the 600+ stakeholders formed the recommendations in this Strategic Plan, and will improve the operations and efficiency of the medical examiner system.

North Carolina Medical Examiner System Today

What Does the Medical Examiner System Do Today?

There are approximately 110,000 deaths each year in North Carolina, and approximately 15% of those deaths are referred to the medical examiner system. General Statute § 130A-383 of the North Carolina General Statutes requires the following deaths to be investigated by the medical examiner system:

- Any death resulting from violence, poisoning, accident, suicide, or homicide.
- Sudden deaths when the deceased had been in apparent good health or when unattended by a physician.
- Deaths occurring in a jail, prison, correctional institution, or in police custody.
- Deaths occurring in State facilities operated in accordance with Part 5 of Article 4 of Chapter 122C of the General Statutes.
- Deaths occurring pursuant to Article 19 of Chapter 15 of the General Statutes.
- Deaths occurring under suspicious, unusual, or unnatural circumstances.

In addition to investigating these deaths and providing closure to families, medical examiner experts testify in judicial proceedings, and data from the medical examiner system provides invaluable insights on decedent trends to support broader public health responses.

The medical examiner system has jurisdiction to investigate all deaths in North Carolina due to injury or violence, as well as natural deaths that are suspicious, unusual, or unattended by a medical professional.[1] Geographical jurisdiction is determined by the county in which a decedent is found, while fees are determined by where an injury or illness was sustained.[2]

What are the Origins of North Carolina's Current Medical Examiner System?

The North Carolina General Assembly passed the Statewide Medical Examiner Act of 1967 to provide a statewide system for postmortem medicolegal examinations. This legislation transitioned North Carolina from a system of elected lay county coroners to appointed medical examiners under the umbrella of the state's Office of the Chief Medical Examiner (OCME).[3] The OCME was established in 1968 and the first Chief Medical Examiner was appointed that same year. By 1972, the current structure of North Carolina's medical examiner system fully emerged, and all 100 counties had appointed medical examiners – as specified in the legislative framework.

What Entities Comprise the NC Medical Examiner System?

North Carolina's medical examiner system is a hybrid of state, regional, and county-based organizational units. OCME is responsible for overseeing the operations of the entire medical examiner system which is a network of Forensic Pathologists, Toxicologists, chemists, health professionals, technicians, investigators, and assistants. At the state level, the OCME is the centralized administration entity who appoints, trains, and supports over 340 NC Medical Examiners, and the NC OCME Toxicology Laboratory serves all 100 counties. Regionally, the OCME contracts with Regional Autopsy Centers, Autopsy Centers, and Forensic Pathology practices to carry out external examinations and autopsies of

---

[1] G.S. 130A-383.

[2] See, e.g., G.S. 130A-387 and G.S. 130A-389.

[3] See North Carolina Medical Examiner Study Group, *Strategic Plan for Improving the Medical Examiner System* (August 31, 2001), 3; North Carolina Department of Health and Human Services Division of Public Health Office of the Chief Medical Examiner, *North Carolina Statewide Medical Examiner System Strategic Plan* (November 1, 2014), 4.

decedents. The OCME also serves as a Regional Autopsy Center. In addition, OCME is certified by the National Association of Medical Examiners (NAME), and OCME's toxicology laboratory is certified by the American Board of Forensic Toxicology (ABFT) and will be transitioning to College of American Pathology Laboratory Accreditation Program certification.

At the county-level, OCME appoints local Medical Examiners to assist with components of decedent investigations and decedent management, as well as contracts with transportation entities. County governments are responsible for owning or contracting storage facilities.

Funding of the state medical examiner system is a hybrid of county funds, state funds, and federal grants. The funding for County Medical Examiner services, autopsy services, and transportation is structured on a fee-for-service model, with the source of funds based on where the decedent resided, where the decedent died, and where the death occurred. Not all services provided by the medical examiner system have reimbursable fees.

The work of the medical examiner system consists of four key functional areas: (1) Decedent Investigations, (2) Decedent Management, (3) Data, Monitoring & Surveillance, and (4) System Management & Administration. Within each of these areas, there are numerous capabilities that the medical examiner system is expected to deliver. See Figure 1 for an overview of the medical examiner system capabilities.

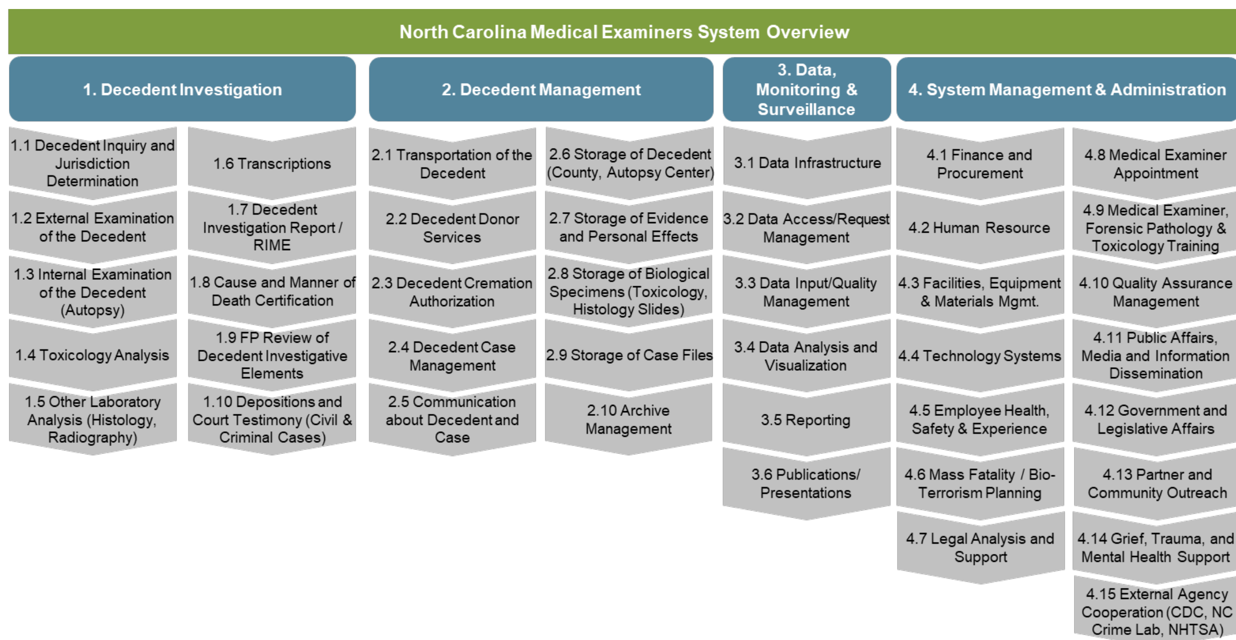


Figure 2: Overview of the medical examiner system capabilities

What is the Current and Expected Change in Demand for Medical Examiner Services?

The medical examiner system is currently facing a demand for services beyond its capacity, and reflects an increase in caseload, autopsies, toxicology tests, and court testimony. Currently, Forensic Pathologists are handling a caseload of autopsy and autopsy equivalent activities well over (approximately 38% above)

the standard set by the National Association of Medical Examiners (NAME) of no more than 250 autopsy equivalents or less per pathologist per year.[4]

The medical examiner system has seen a 26% overall increase in cases in 2023 compared to 2019, two comparative years that exclude the impact of the surge from COVID-19.[5] Much of that case increase was driven by a 63% increase in suspected drug overdose cases. This increase has placed a burden on the OCME toxicology laboratory. and the recent legislative changes that enable District Attorneys to request autopsies for death by distribution is also expected to increase the requests for autopsies. In addition, Forensic Pathologists and Toxicologists have received a 53% increase in subpoenas in the last year, and each court appearance takes time away from performing autopsies and decedent exams and finalizing reports. But opportunities exist to optimize time spent away from clinical work.

In addition to the growing caseloads noted above, the medical examiner system is expecting to see an increase in decedents that will be driven by migration into the State and an aging population. From 2010 to 2020, North Carolina's population grew by 9.8%. Looking forward, North Carolina's population is projected to grow 12.1% from 2020 to 2030.[6] This includes an anticipated increase of 1.17 million people due to migration to the State.[7]

What Organizational Structures Make Up the Medical Examiner System?

Today, the work of the medical examiner system falls across different entities with overlapping roles and responsibilities. The work is carried out by 17 key roles at the OCME, regionally based organizations, and county-based organizations (see Table 1).[8] The span of control, associated number of supervisors and managers, and responsibilities for each role differs by organization. For county-based roles, OCME only has oversight of the appointed County Medical Examiners.

Role	OCME Filled Full Time State Positions	OCME Filled Time Limited or Temporary	Regionally Based Positions	Independent Contractors
Chief Medical Examiner	1	--	--	--
Medicolegal Death Investigators	9	8	19	--
Autopsy Technicians	7	7	17	--
Pathology Assistants	--	1.5	1	--
Pathologists		0.25	4	--
Forensic Pathologists	7	0.75	13	--

[4] See National Association of Medical Examiners, *Forensic Autopsy Performance Standards* (2023), 10.
[5] In 2019, the Medical Examiner System had 12,010 decedent investigations compared to 15,175 decedent investigations in 2023. See Office of the Chief Medical Examiner, *Annual Report 2020* (2020), 12; North Carolina Department of Health and Human Services, *Annual Autopsy Center Report* (2023), 5.
[6] North Carolina Office of State Budget and Management, Population Growth 2020-2030 (accessed January 16, 2024)
[7] Ibid.
[8] Regional organizations consist of autopsy centers and pathology practices. County organizations consist of the locally appointed medical examiners, storage facilities, and transportation vendors.

Toxicology Technicians	3	--	--	--
Chemists	9	2	--	--
Toxicologists	5	--	--	--
Histologist	1	--	--	--
Decedent Case Managers	6	5.25	--	--
Data Scientist / Epidemiologists	3	3	--	--
Trainers	1	3.5	--	--
Decedent Affairs	--	4	--	--
Administrative Support Specialists	4.5	8	8	--
Appointed County Medical Examiners	Encompassed in other roles.	Encompassed in other roles	--	340+
Transporters	--	--	--	125

Table 1. Approximate number of current personnel by role in the medical examiner system[9]

The medical examiner system also partners with funeral homes, law enforcement, medical providers, and District Attorneys in carrying out medicolegal investigations into cause and manner of death, as well as managing the decedent's release to their families. Key partners rated their experience and satisfaction with the medical examiner system as 3.6 out of a 5-point scale.[10]

[9] The count of positions and vendors supporting the medical examiner system is based on a point-in-time analysis, as of February 15, 2024.
[10] North Carolina Strategic Plan Surveys (2024).

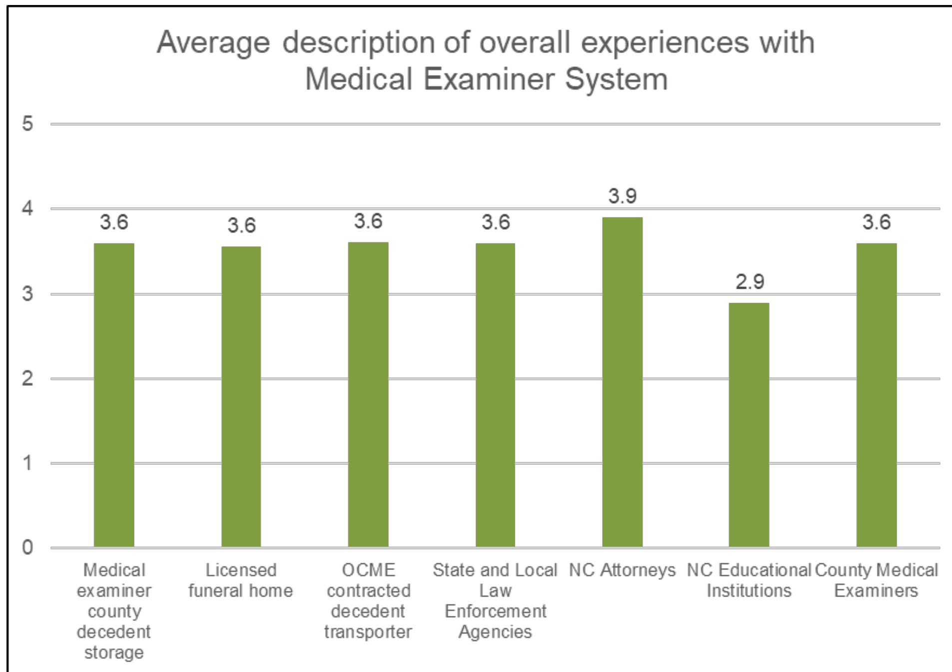


Chart 2. Experience rating by partner organization

Examples of what partners cite as key drivers of that score include:

- The quality and accuracy of findings from autopsies and toxicology
- The relationships and the ease of working with people in the medical examiner system
- The ease of requesting reports online or via e-mail

What is Working	What is Not Working
• Overall experiences with the medical examiner system are positive • Strong working relationships are cited among all the partner organizations as a key strength in today's system • High quality of forensic evidence and ability to deliver to court audience is a key strength	• Experience with facilities – in particular transportation and storage – was varied, with the biggest concern availability for external exams • Reimbursement from OCME is low and a challenge, particularly for local medical examiners • Unreimbursed out-of-pocket expenses incurred by local Medical Examiners impact their ability to respond to death scenes • Lack of a single source of truth of information drives frustration with communications • Part-time nature of local medical examiners negatively impacts availability and accountability • Law Enforcement satisfaction with autopsies is higher than toxicology

Forensic Pathologists and Forensic Toxicologists: A Nationwide Shortage

There are approximately 750 board-certified Forensic Pathologists across the country – about half the amount needed to meet the needs of rising caseloads across the country.[11] This shortage is further exacerbated by an increase in drug overdose deaths. In a career field that deals with death and vicarious trauma daily, coupled with an increased workload, Forensic Pathologists and Forensic Toxicologists struggle with compounded stresses which has contributed to increased burnout and high turnover.[12] There is also a declining interest in forensic pathology as a career choice, as fewer medical students are exposed to autopsies and their benefits or are encouraged to pursue the field.[13] This decreased supply and interest of available talent has led to a highly competitive job market within an already limited applicant pool, where organizations offering the best salaries and higher benefits tend to win.

What are the Top Challenges Across the Medical Examiner System?

North Carolina's medical examiner system is under-resourced and understaffed, with acute and chronic challenges across the system.

To help identify, inform, and evaluate recommendations to stabilize and reorganize the medical examiner system, OCME engaged in a statewide discovery approach with stakeholders to understand and document the current key challenges. This included conducting over 20 interviews, analyzing 500 stakeholder survey responses, and reviewing over 50 documents. Key themes or challenges identified were:

- The decentralized system makes standardization of services difficult.
- Manual and paper-based nature of the system leads to duplicate work.
- There is not a single source of data and case management information.
- Unable to match supply of personnel to the demand of services. and salaries and recruitment ranges are not competitive with the market.
- Existing facilities are small and outdated.
- Funding for the medical examiner system is inadequate to support the full cost of the system.

What are the Efforts to-Date to Improve the Medical Examiner System?

Every OCME employee cares deeply about, and is committed to, bringing closure in a timely fashion to the families and communities left behind after an unexpected or unnatural death. OCME has made undertaken several efforts to improve customer services and to realize its vision of being a leader in medicolegal death investigation resulting in better health, wellbeing, and safety for all North Carolinians. Some of those efforts include:

- **Established Decedent Affairs Unit**
  In 2020, the OCME established a Decedent Affairs unit to provide public-facing communications, with a special focus on decedent families and next of kin. This unit is also available to respond to questions from funeral homes, the funeral board, hospital staff, law enforcement, District Attorney offices, or anyone else with a vested interest in a case. The Decedent Affairs unit receives up to 150-200 calls per day and is staffed primarily by personnel that are paid out of one-time or temporary funding. Recommendation #1 would expand on the Decedent Affairs unit to provide consistent communication and information 24 hours a day, 7 days a week.

[11] See NAME, Forensic Mag, and https://time.com/6234125/forensic-pathologist-shortage/.
[12] Needs Assessment of Forensic Laboratories and Medical Examiner/Coroner Offices, 2018.
[13] Reclaiming the Autopsy as the Practice of Medicine, 2020.

- **Expanded Forensic Pathologists at the OCME**
  With recurring financial support from the General Assembly, OCME received positions and funding to establish and hire additional Forensic Pathologists. The funding supported the creation of four, additional full-time forensic pathologist positions. The compression from seven to four positions reflects the higher, competitive salaries that were needed to recruit these new positions and, equally important, to retain our current Forensic Pathologists. The new positions will add capacity in calendar year 2024 and beyond, and they were included in the analysis of the medical examiner system specific to our recommendation for additional autopsy centers.

- **Increased Autopsy Fees**
  Effective July 1, 2024, autopsy fees increased from $2,800 to $5,800, and now more appropriately cover the current cost of performing an autopsy. OCME is already receiving positive feedback that this will help support each of our contracted Autopsy Centers, which have been reimbursed well below their cost when providing this vital service.

- **Addressing Bottlenecks with Toxicology**
  To support more rapid certification of Toxicology results, OCME trained and elevated three Chemist positions to serve as Toxicologists. OCME also purchased additional toxicology equipment.

- **Increased County Medical Examiners**
  With approval from the General Assembly, OCME expanded the types of roles or licensed professional that can serve as a County Medical Examiner. In combination with our expanded recruitment efforts, OCME was successful in recruiting 115 new County Medical Examiners.

- **Expanding Autopsy Centers**
  The General Assembly has also provided additional funding to Union County to establish a new Autopsy Center, and appropriated funds to ECU for the renovation/expansion of ECU's Regional Autopsy Center. Both projects will add increased capacity, particularly for the counties who will be served by the one new facility and one expanded facility.

- **Implementing Statewide Information System**
  OCME will be implementing a new systemwide North Carolina Medical Examiner Information System (MEIS) that will electronically connect OCME, the Autopsy Centers and over 340 County Medical Examiners so as to provide more timely, efficient, consistent, electronic, professional reports and results for staff and families. This system will revolutionize the predominantly paper-based current system and allow for better tracking for decedent information. The system will enable staff to track new or emerging trends in data, to monitor not only case management, but the overall performance of the medical examiner system. MEIS is expected to be launched by the end of calendar year 2024.

- **Added Temporary Staffing**
  To expand the workforce, OCME created a team of temporary or time-limited staff that currently account for approximately 45% of OCME's entire workforce. This includes positions across all sections – the most significant being in the Decedent Affairs unit, our case management team, and among the investigations team. Understandably, this is a stopgap measure as temporary staffing must take mandatory furloughs, do not receive the same benefits as state employees, cannot perform certain functions, and are prone to significant turnover as staff find permanent employment opportunities with more competitive salaries.

Recommendations for the Medical Examiner System

The six recommendations in this Strategic Plan will address the aforementioned challenges and help improve the health of our communities by providing the best care to every decedent through accurate, scientifically based, timely, professional, compassionate, and high-quality assessments of medical examiner jurisdictional deaths.

Recommendation 1: Retain Staff to Meet Today's Medical Examiner System's Needs

To help retain the workforce across the OCME, the regional Autopsy Centers, and County Medical Examiners, it is essential to provide competitive compensation, continuing education, and long-term support. To attract new and retain existing qualified talent, the compensation packages must align with industry standards that reflect candidate expertise and experience. For example:

- An examination of Forensic Pathologist salaries across North America reveals an average starting salaries between $252,500 and $316,000. To be competitive, OCME will need additional, recurring funds to increase budgeted salaries.
- County (or local) Medical Examiners report that the current medical examiner fee is too low and inadequate to cover the costs of performing a decedent investigation. Specifically, they shared that the current rate equates to under $20 per hour, and requires that they self-fund transportation costs, some personal protective equipment (PPE), and equipment used in and required during a case.
- OCME staff and County Medical Examiners noted a desire for additional continuing education to enhance their skill set and to maintain the quality of their work.

- OCME recommends:
  - Providing funding to convert temporary positions to permanent positions
  - Increasing compensation/salaries so that they remain competitive and in line with the labor market, including shift differential pay
  - Increasing County Medical Examiner payments from $200 to $400 per case, and providing them with investigation scene kits
  - Expanding continuing education opportunities

The benefits from these investments include:

- *Increased Efficiencies* by retaining staff and reducing the need for re-training due to attrition
- *Adequate Capacity* to manage county medical examiner caseload as an increased fee will attract additional County Medical Examiners
- *Improved Experience* for families and partner organizations as adequate capacity to manage caseload is established, resulting in faster case management

Legislative Changes

Funding and increased FTE allocation would be required to convert temporary positions to permanent positions, increase compensation, and expand continuing education. The recommendation to increase County Medical Examiner fees also requires a modification to the General Statutes at §137A-387.

Recommendation 2: Create Competitive Benefits for Prospective Hires, Encourage Talent to Stay in NC Medical Examiner System

As OCME and North Carolina's medical examiner system compete for new and additional talent across North America, prospective hires often weigh employment benefits when considering offers. Input from the National Association of Medical Examiners (NAME), academic universities, and other key stakeholders revealed that North Carolina must do more to increase the pipeline of new forensic

pathologists and to ease the financial burden of those who have completed their formal training. Specifically, OCME recommends:

- Funding to support student and pathology resident rotational programs for prospective forensic pathologists
- Scholarships at universities to improve the pipeline on prospective hires
- Loan repayment to offset the high cost of entering the profession

Forensic Pathologists graduate with a significant student loan debt (an average of $250,000) and may not necessarily qualify for federal loan forgiveness programs. Student loan repayment or loan forgiveness programs will increase the competitiveness (and attractiveness) of the benefits offered by North Carolina.[14] These programs typically require personnel to remain with the office (i.e. OCME) for a set timeframe.

In addition, incentivizing students into the field of forensic pathology and toxicology will create a pool of talent for North Carolina's medical examiner system. OCME can partner and collaborate with academic medical institutions (e.g., Eastern Carolina University, Wake Forest University, Duke University and Campbell University) to offer scholarships specifically for students who will pursue careers in forensic pathology and/or toxicology. This serves to encourage and foster interest in the field, while supporting their education and training. Including a contingency, like *remaining in the state after graduation*, ensures access to this future talent.

Timeline and Implementation Approach, contingent upon additional funding

- In 2025, OCME proposes to:
    - Explore state loan repayment and scholarships for critical positions
    - Launch a pilot of the student rotational program
- In 2026, OCME proposes:
    - Funding the loan repayment and scholarships, based on findings in 2025
    - Providing results of the pilot rotational program and carrying out any recommended expansion from the pilot

Legislative Changes

Funding and changes in the law would be required to implement the changes above.

Recommendation 3: Improve access to timely communication and information

Through the surveys and interviews, OCME determined that communication and information needs were a key driver of the dissatisfaction rate with the medical examiner system, which ranged from 18% to 40% depending on the partner organization.[15]

[14] See e.g., Maricopa County, Arizona, which approved a loan repayment program for Forensic Pathologists in 2017. https://www.maricopa.gov/CivicAlerts.aspx?AID=340&ARC=825

[15] North Carolina Strategic Plan Surveys (2024). Attorneys, Transporters, and County Medical Examiners had a lower dissatisfaction rate between 18-20%, which Law Enforcement had the highest rate of dissatisfaction at 40%.

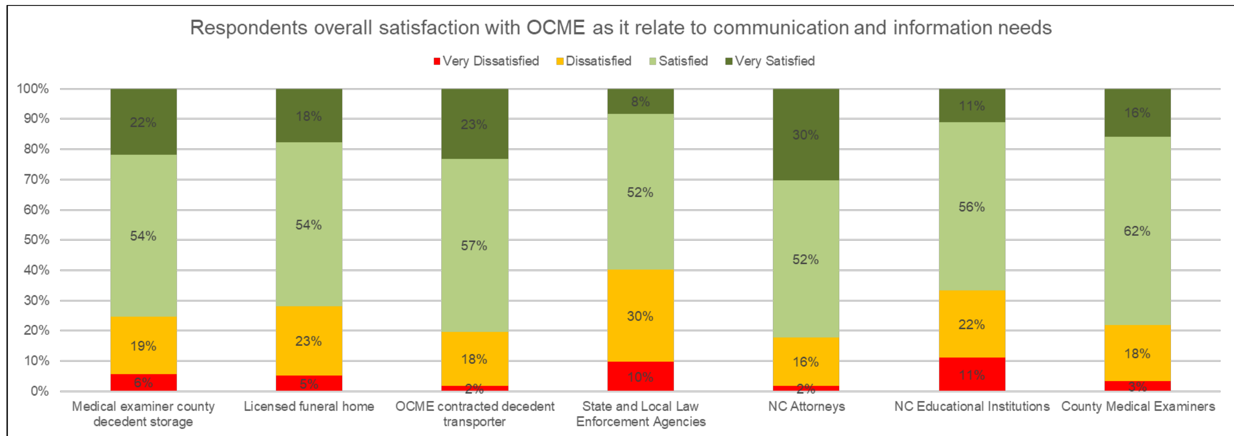


Chart 3. Satisfaction with OCME Communication by Partner Organization

Examples cited by participants included imprecise information being provided, delays in notifications of newly available information, and not knowing who to contact for different topics.

To address this issue, OCME recommends:

- Launching a new, integrated Information Management System with enhanced data and analytics capabilities to ensure accurate and timely sharing of information (in progress)
- Enhancing a call center to operate 24 hours a day, 7 days a week to manage incoming requests
- Launching a self-service portal that securely provides key and timely information about cases to all applicable stakeholders.
- Expanding expertise in stakeholder relations, outreach, and grief and trauma to improve the experience of families and members of the medical examiner system

The integrated Information Management System will be used by OCME, Autopsy Centers, and County Medical Examiners. The call center and self-service portal will provide improvements for County Medical Examiners, physicians, hospital employees, law-enforcement officers, funeral home employees, emergency medical technicians, prosecutors, and families.

Timeline and Implementation Approach, contingent upon additional funding

- In 2024, OCME proposes:
  - Launching the new Information Management System to serve as an accurate source of information within and to partners of the medical examiner system
  - Providing technical assistance and change management for statewide Information System Users
  - Procuring new customer relationship and contact management software for use by the existing Decedent Affairs Unit
  - Developing the plan to transition to a 24-hours a day, 7 days a week call center to serve Information System Users, medical examiner stakeholders, families and other constituents
  - Designing the self-service portal
- In 2025, OCME proposes:
  - Establishing and recruiting staff for the expanded call center to provide 24-hours a day, 7 days a week service
  - Piloting and refining the self-service portal with key partners and planning enhancements to eventually roll the portal out for families. Followed by integrating the self-service

  - portal and contact management system to produce call center service tickets within the case management system.
- In 2026, OCME proposes:
  - Expanding call center coverage to all Autopsy Centers and County Medical Examiners

Legislative Changes
Funding would be required to implement the recommendations/changes described above.

Obstacles and Mitigation Plans
- New technology changes can disrupt day-to-day operations of the medical examiner system. Mitigation plans are already underway for migrating from the existing paper information system to the new digital system. Training and change management for staff and County Medical Examiners is also underway.
- The Division of Public Health, which houses OCME, is piloting a call center management solution and self-service portal for the Office of Vital Records (OVR) and is assessing the viability of using these platforms to support the OCME. Using the OVR pilot as a model could significantly mitigate or reduce the technology investment needed to deliver these solutions to the medical examiner system and increase the likely success of its use in OCME.

Recommendation 4: Conduct a Study to Determine Viability of Identified Opportunities to Optimize the Medical Examiner System

The NC Medical Examiner System was designed or organized as a state-administered system. Rather, it was built on leveraging contract autopsy services and centers. This design makes it challenging to share resources, staffing, workflows, and technology across different agencies and jurisdictions. Through interviews and surveys, several ideas emerged to improve the system. While further research is likely needed to determine which of these ideas are most feasible/viable, the suggestions include:

- Establishing satellite OCME locations
- Establishing state recurring funding for all fees rather than county/state split for fees
- Simplifying the billing system by removing “fatal injury” as a deciding factor on whether the state or locals pay for an autopsy
- Considering the costs of hazardous conditions in payments
- Opportunities for maximizing time of OCME expert witnesses, including providing remote testimony and charging fees.

Timeline and Implementation Approach, contingent upon additional funding
- In 2025, OCME proposes:
  - Carrying out more detailed data collection (e.g., gathering more detailed cost information from across the system and conducting site visits to assess optimization opportunities)
  - Gathering input from relevant stakeholders on the different proposals
  - Modeling the potential value gained from each proposal

- In 2026, OCME proposes:
  - Providing results of the study with recommendations on optimizing the medical examiner system

Legislative Changes
None.

Recommendation 5: Expand the Capacity of the Medical Examiner System to Meet the Growing Needs of North Carolinian Communities

With the expected growth in medical examiner jurisdictional cases, North Carolina's medical examiner system needs greater building space and additional personnel.

To make informed recommendations, OCME created a network simulation model to forecast growth in demand of the system over time. This model uses current data on decedent transportation times, toxicology samples and reports. The model also allowed for the OCME to assess the performance of the current medical examiner system based on forecasted demand in 2030, and to understand the potential impact to key performance metrics based on adjusting elements of the medical examiner system (e.g., adding or moving Autopsy Center locations, adding additional staff or capacity, adjusting county assignments to Autopsy Centers).

A review of 18 potential options to align counties to Autopsy Centers helped identify the optimal geographic clustering based on expected caseloads by 2030. Using the selected geographic clustering described above, the model was then used to simulate the end-to-end medical examiner system process using multiple input scenarios to identify the recommended capacity needed for both Forensic Pathologists and Toxicologist to meet national standards.

Recommendations include:

- Expanding the OCME's facility,
- Establishing two additional Autopsy Centers,
- Increasing Forensic Pathologist and Toxicology personnel, and
- Investing in additional equipment and technology.

Details on Expansion of Autopsy Centers

The four Regional Autopsy Centers in the state include the Office of the Chief Medical Examiner (a state agency), located in Raleigh and is responsible for conducting one-third of all medicolegal autopsies in the system. The other three autopsy centers are contracted entities and they are located in Greenville (staffed by the East Carolina University's Brody School of Medicine); Winston-Salem (staffed by Wake Forest University Health Services); and Charlotte (staffed by County of Mecklenburg Medical Examiner's Office). There are also four, hospital-based Autopsy Centers, who are also under contract, and they are located at: Coastal Pathology Associates at Onslow Memorial Hospital in Jacksonville, Falvy C. Barr, Jr., MD. at Sampson Regional Medical Center in Clinton, Southeastern Pathology Associates in Lumberton, and Mountain Pathology Services at Harris Regional Hospital in Sylva.

In analyzing expected decedent cases by county and the potential resource needs for the entire system over the next decade, it is evident that the existing Autopsy Centers will not be able to accommodate the increased workloads – driven by either a growing state population or the rise in medical examiner cases. Two additional Autopsy Centers - staffed and operated by the OCME - are needed.

Table 4 outlines the *proposed* potential county coverage of each proposed Autopsy Center to offset future population and workload increase. This chart also includes the proposed additional centers and their respective county coverage areas.

Region	Status	County Coverage
ECU/East Coastal	Existing	Beaufort, Bertie, Camden, Carteret, Chowan, Craven, Currituck, Dare, Edgecombe, Gates, Greene, Halifax, Hertford, Hyde, Jones, Lenoir, Martin, Nash, Northampton, Pamlico, Pasquotank,

Region	Status	County Coverage
		Perquimans, Pitt, Tyrrell, Washington, Wayne, Wilson
Southeast Coastal	*New*	Bladen, Brunswick, Columbus, Duplin, New Hanover, Onslow, Pender, Robeson, Sampson
OCME/East Piedmont	Existing	Alamance, Caswell, Chatham, Cumberland, Durham, Franklin, Granville, Harnett, Hoke, Johnston, Lee, Orange, Person, Scotland, Vance, Wake, Warren
Wake Forest/Central Piedmont	Existing	Alexander, Alleghany, Ashe, Catawba, Davidson, Davie, Forsyth, Guilford, Iredell, Lincoln, Randolph, Rockingham, Stokes, Surry, Wilkes, Yadkin
Union	Planned/Underway	Anson, Cabarrus, Montgomery, Moore, Richmond, Rowan, Stanly, Union
Mecklenburg/Southwest Piedmont	Existing	Cleveland, Gaston,[16] Mecklenburg
Mountain	*New*	Avery, Buncombe, Burke, Caldwell, Cherokee, Clay, Graham, Haywood, Henderson, Jackson, Macon, Madison, McDowell, Mitchell, Polk, Rutherford, Swain, Transylvania, Watauga, Yancey

Table 4. Proposed potential autopsy centers and county coverage

The addition of two Autopsy Centers and the additional realignment of counties across the proposed seven geographic regions will reduce the distance (and time) when transporting decedents to an Autopsy Center. We estimate it will reduce total mileage driven by greater than 20% - from 70 miles today to 54 miles. In addition, having the seven regions will also reduce travel distance for key partners (e.g., law enforcement) of the medical examiner system to attend autopsies.

With the revised county alignment and the associated population change per county, it is recommended that each Autopsy Center have a sufficient number of Forensic Pathologists and examination tables to help achieve the key national standard of finalizing ninety percent (90%) cases (autopsy reports) within ninety (90) days.

Table 5 outlines the number of Forensic Pathologists and examination tables which will be needed to meet projected demand in 2030, comply within national standard of completing 90% cases in 90 days, per facility.

Region	Number of New Forensic Pathologists Needed (Number Today)	Number of Examination Tables Needed (Number Today)
East Coastal (ECU)	6 (3)	5 (4)
New Southeast Coastal Autopsy Center (Pathology Practices)	5 (3)	4 (3)
East Piedmont (OCME)	15 (11)	6 (4)
Central Piedmont (Wake Forest Baptist)	9 (5)	7 (3)

[16] Gaston county is currently serviced by Mecklenburg County. Under House Bill 259, Gaston County is one of nine counties listed for the geographic coverage of the Union County Autopsy Center.

Region	Number of New Forensic Pathologists Needed (Number Today)	Number of Examination Tables Needed (Number Today)
South Piedmont (Union County)	5 (N/A)	3 (N/A)
Southwest Piedmont (Mecklenburg County)	6 (4)	4 (3)
New Mountain Autopsy Center (Pathology Practices)	6 (1)	4 (1)

Table 5. Projected Capacity by Autopsy Center Compared to Positions Today

The investments made by the General Assembly to Wake Forest Baptist, East Carolina University, and Union County provide the expansion needed to partially meet the capacity needed statewide. Mecklenburg County will need to assess its infrastructure to determine if additional space is needed to meet this need. And investments are needed to expand the OCME in Raleigh and to develop the two new facilities in Southeast Coastal and Mountain regions.

Expanding the capacity of the medical examiner system will provide the following benefits:

1. Improve the speed to complete cases to the national standard of 90 percent of cases completed in 90 days
2. Improve the experience of families and next of kin by providing closure in a shorter amount of time
3. Increase the satisfaction of key partners, including law enforcement, by being closer to the autopsy center for viewing of autopsies and meeting with forensic pathologists
4. Enhance the quality and depth of findings to cases by increasing the volume of comprehensive autopsies and toxicology
5. Increase the satisfaction and reduce burnout of personnel in the medical examiner system by maintaining appropriate levels of work
6. Provide the opportunity for shared equipment, staffing, training, and other resources between OCME operated facilities.

Timeline and Implementation Approach, contingent upon additional funding

- In 2024, OCME proposes:
  - Funding to add 20,000 square feet to the existing Office of Chief Medical Examiner facility on District Drive in Raleigh. This expansion will improve the facility's capacity and will include six additional autopsy tables, a decedent cooler, storage for evidence and records, and some support space.
  - Funding to establish two additional Autopsy Centers, including the Forensic Pathologists and other staffing needed as these facilities come online and are operational.

Legislative Changes

This recommendation would require capital costs for renovations and establishing new facilities and an increase in recurring funding for staffing and equipment/maintenance costs.

Recommendation 6: Enhance standards and system-wide accountability through dedicated Quality Assurance (QA) and Performance Program

A key opportunity identified through interviews of OCME staff, interviews of Autopsy Center leaders, and surveys of County Medical examiners was to increase consistency and to hold those within the medical examiner system accountable to key standards. The creation of a dedicated Quality Assurance and Performance Program in OCME will aid in systematically monitoring, evaluating, and improving the

quality of casework, performance, documentation, and overall processes across the entire medical examiner system, including the activities performed by OCME, Autopsy Centers, County Medical Examiners, and transporters. While the General Assembly focused the request on the OCME's role in overseeing Autopsy Centers, this recommendation would also address County Medical Examiners and transporters as well.

The Quality Assurance and Performance Program would routinely conduct reviews of casework, documentation, and procedures - thus ensuring compliance with established standards by accreditation organizations, like the National Association of Medical Examiners (NAME). Today, that work is conducted piecemeal by each specialty. The new Program could also serve as the point of contact for law enforcement, District Attorneys, and the Medical Examiner Review Committee.

The Quality Assurance and Performance Program will bring the following benefits:

- Provide consistent, high-quality services and experiences to families and partner organizations by supporting and monitoring compliance of standards of all those within OCME and the medical examiner system
- Enhance skills of specialists and other staff through tailored training based on the quality assurance results
- Maintain trust in the results of decedent investigations with the effective quality assurance process
  Improve the efficiency of service delivery by streamlining processes and supporting adoption of compliance standards

Timeline and Implementation Approach, contingent upon additional funding

- In 2025, OCME proposes:
    - Establishing the Quality Assurance and Performance Program and its oversight role within legislation
    - Funding and an additional FTE position to manage the Quality Assurance and Performance Program
    - Developing a plan to optimize data, information systems, and staffing to establish the standards and processes for monitoring, evaluating, and improving the work across the medical examiner system
- In 2026, OCME proposes:
    - Increasing and training staff dedicated to monitoring and evaluating
    - Implementing QA standards plan developed in Year 1, focusing on identifying and bridging gaps
- In 2027 and beyond, OCME proposes:
    - Requesting new recommendations to proactively incentivize strong performance, based on the insights gathered through the monitoring, evaluation, and improvement results

Legislative Changes

No specific legislative changes are required at this time. However, this recommendation would require an increase in funding and FTE positions for training of the Quality Assurance and Performance Program and further defining the oversight role.

Consolidated Legislative Change Requests

Additional Autopsy Centers
Modify provisions and appropriate funding to operationalize two additional autopsy centers that outline county coverage (e.g., HB 651). In order to optimize capacity, improve efficiency in autopsies and reports, and minimize transportation of decedents, it is recommended to establish two additional autopsy centers as State facilities and sunset the contracts with the hospital-based pathology practices. The new facilities along with the existing autopsy centers will aim to complete ninety (90) percent of cases in ninety (90) days or less. In addition, they will facilitate a closer relationship with law enforcement and district attorneys for their coverage areas, which enables officers to attend autopsies and meet to discuss findings more easily.

Payment for Hazardous Conditions – G.S. 130A-387
Draft new legislation to adjust payment-for-services to account for hazardous conditions. Medical examiner cases may pose health risks or additional physical hardship to those carrying out examinations, and under current legislation there is no additional compensation to cover the costs associated with protecting Local Medical Examiners.

Flat Rate Payment Increases from LMEs - G.S. 130A-387
Legislation set the current payment for an LME to respond to a case and carry out an investigative report at $200. To better account for the investigative services that an LME may undertake for a given case and the costs associated with the services, it is recommended to increase the fee to $400. Increasing payments will also increase satisfaction, drive higher retention rates, and make jobs more attractive to prospective candidates.

Loan Forgiveness and Scholarship Program - G.S. 116-209.45
Modify legislation to create a loan forgiveness and a scholarship program for forensic pathologists and forensic toxicologists. Both will increase the capacity of the medical examiner system and will contribute to more timely reports and case closures.

While not recommended for the near term, future research may yield recommendations related to the following:

- **County Fee Payments - G.S. 130A-387 and G.S. 130A-389**
  Modify legislation to require a county to pay the fee if a decedent is a resident of the county in which the decedent was found. Modifying the language to remove reference to fatal injury and instead reference where a decedent was found will align to national standards, streamline reconciliation of payments to both medical examiners and autopsy centers, and increase satisfaction of local medical examiners.

- **State-Funded Model - G.S. 130A-387 and G.S. 130A-389**
  Remove the county apportionment of investigative report and autopsy fees and establish state recurring funding for the entire fees. This will further drive procurement efficiencies to have the state pay the full amount of the payment for both the investigative report and autopsy fee.

- **Tiered Payments for LMEs - G.S. 130A-387**
  For Local Medical Examiner tiered payments, modify legislation to list the sliding scale of payments from $50 to $500. Increased payments will provide appropriate incentives to Local

Medical Examiners for investigations. Increasing payments will also increase satisfaction, drive higher retention rates, and make jobs more attractive to prospective candidates.

Consolidated Obstacles and Mitigation Plans

There are obstacles that could hinder successfully implementing the previously mentioned recommendations for reorganization, establishing additional Autopsy Centers operated by the OCME, implementing recruitment strategies, and making any needed legislative changes. They are:

Staff Shortages and Turnover
Staff shortages, turnover, and challenges with recruitment occur when compensation is low in tandem with a high workload and limited career advancement opportunities. This can result in burnout, leaves of absence, and attrition that reduce available staff. The potential consequences are increased workload for existing and/or retained staff, decreased morale, and delays in overall case processing times.

The strategies listed in the "Staffing and Recruiting" section of this Strategic Plan aim to mitigate this obstacle. These strategies include developing competitive compensation packages (comparable with other states and current market value), including professional development opportunities, providing loan forgiveness, and implementing succession planning strategies to reduce the impact of turnover that does occur.

Complex and Evolving Accreditation Standards
When appropriately resourced, the OCME is committed to maintaining the accreditation standards set by national organizations (e.g., NAME), while aligning with federal, state, and local laws and professional guidelines. These standards and regulations can change with new developments in science, technology, and law. To mitigate this risk, the proposed Quality Assurance and Performance Program can monitor regulatory changes and compliance, conduct internal audits, and drive adherence to accreditation standards and legal requirements.

Caseload Increases
A high backlog of cases occurs when the volume of cases exceeds the medical examiner system's capacity to process in a timely manner. Potential reasons for increased caseloads beyond what is currently expected include the rapidly changing pace of new drug-related deaths, unexpected mass-fatality events, increase in civil unrest, acts of terrorism, increase in violence, or weather-related fatalities.

The likely consequences of an increase in cases include delayed case processing and completion, and increased stress and frustration for families waiting upon resolution.

The mitigation plan includes the following: the existing mass fatality plan, deploying additional strategies to triage cases appropriately, increasing staffing levels, streamlining administrative processes, and/or collaborating with other departments.

Alignment with External Stakeholders
OCME works with several external stakeholders, including law enforcement, District Attorneys, healthcare providers, funeral homes, and community groups. If stakeholders are not aligned to recommendations during implementation, it may impact the ability to adopt changes. The mitigation plan includes dedicated effort to communicate the findings of the Strategic Plan to stakeholders and engaging with stakeholder representatives to conduct further refinement of the recommendations and to support implementation planning and execution.

Relevant Appendices

Appendix 1: Historical Strategic Plan Recommendations

Since 2000, the OCME has convened and provided two strategic plans to the General Assembly, one in 2001 and one in 2014. The tables below provide a high-level synopsis of the recommendations that came from these previous strategic plans, along with the status and any relevant context.

North Carolina Department of Health and Human Services Division of Public Health Office of the Chief Medical Examiner, North Carolina Statewide Medical Examiner System Strategic Plan (November 1, 2014)

Recommendation	Status	Notes
Upgrade Medical Examiner Information System	Scheduled for 2024	This recommendation is scheduled for implementation in 2024.
Fully Support Statewide Body Transportation Costs through State Resources and Master Agreement	Partially Implemented	
Develop Funding Strategy for Regional Autopsy Centers at Infrastructure at Three Existing Centers	Partially Implemented	Funding for ECU and Wake Forest Baptist address infrastructure.
Seek National Accreditation	Completed	
Increase Medical Examiner Fee to $250 / case	Partially Implemented	Increased to $200 per case
Mandate Medical Examiner Training and fund the OCME for training costs	Completed	
Evaluate use of MDIs	Completed	ABMDI Certified MDIs can now be appointed MEs. MDIs now provide 24-7 support.
Develop Strategy to Fund MDI FTEs per 100,000 population	Partially Implemented	ABMDI Certified MDIs can now be appointed MEs. OCME positions funded through State, Grant, and operation budget.
Reimburse Autopsy Centers for Actual Costs to Perform Autopsies	Completed	Session Law 2023-134 increased autopsy payments to $5,800.
Support Additional Fellowship Positions at WFU and ECU	Completed	Fellowships are provided at WFU, ECU and OCME.

North Carolina Medical Examiner Study Group, Strategic Plan for Improving the Medical Examiner System (August 31, 2001)

Recommendation	Status	Notes
Establish 5 Medical Examiner Offices with MDIs and Pathologists	Not Carried Out	Unfunded
Establish MDI as a Position in NC	Partially Implemented	Established at 4 Autopsy Centers but not in Counties
Enhance Training Locally and Regionally, with Certification of Training for those Appointed to Medical Examiner	Completed	Carried out via the 2014 Report and Funding

Recommendation	Status	Notes
Mandatory Training Requirements	Partially Implemented	Requirement for orientation is implemented. Yearly minimum hours for Continuing Education for death investigation and pathology to maintain appointments is not implemented.
Improve Quality of Death Scene Investigations	Partially Implemented	Requirement for mandatory training for death investigation personnel - this is complete for Local MEs, not for MDIs
Establish a Certification System	Partially Implemented	Require MDIs affiliated with regional centers be certified. This is not funded or an established requirement. In practice, MDIs at the regional centers do typically have certification at their own expense.
Training Coordinator	Completed	Create Training Coordinator Position. Implemented via 2014 Strategic Plan
Accreditation	Completed	Seek certification from NAME and NFTA. Completed via 2014 Strategic Plan
Broaden Mission of Medical Examiner System	Partially Implemented	Explicitly list data analysis, academic research, injury prevention, and public health, with accompanying resources
Enhance Data Analysis	Completed	Create Data Research Coordinator Position
Improve Public Access to Information	Partially Implemented	Establish an IS position to respond to info, data, report requests. Manage inquiries from press, citizens. Decedent Affairs team established; role vis-à-vis public relations role is unclear.
OCME Infrastructure	Completed	Single case management system and archiving at OCME
Creation of a Medical Examiner System Advisory Committee	Not Carried Out	Included in this is arranging and staffing to support ME Advisory Committee
Electronic Reporting System	In Progress	Electronic reporting / case management system. Part of Forensic Advantage Project
Digital Photographs	Completed	Adopt a policy and capacity to use digital photography
Enhanced Website	Partially Implemented	Website remains an area for enhancements
Storage of Bodies	Partially Implemented	Clarify statues for county responsibility, ensure access if 24/7, funding by County entity. Today, while there is county responsibility, there is no enforcement mechanisms

Recommendation	Status	Notes
Fee Structure	Partially Implemented	New fee structure to capture costs, variation in investigations (complexity of cases). Unclear if anything was implemented
Establish MDI Authority in Statute	Completed	None
Mandatory Training Requirements	Not Carried Out	No clear continuing education requirements across the system
Clarify the Appointment of Acting Medical Examiner	Not Carried Out	Clarify ME, Acting ME (non-physician) and MDI. Not carried out in any statute
State and Local Funding	Partially Implemented	Maintain shared funding between state and counties. County Funding center on local transport and storage, state take more responsibility for out-of-county transport and regional office work
Legislative Study Commission	Not Carried Out	Establish a Legislative Study Commission to evaluate the ME System

Appendix 2: Capacity Modeling Methodology and Utilization

The recommendations for additional autopsy centers leveraged both a center of gravity geographic analysis and a high-level simulation model to identify optimized capacity for the medical examiner system. Both analyses started with the current footprint and capacity across the medical examiner system and then carried out different scenarios to provide the recommendation for additional regional autopsy centers.

The Center of Gravity analyzed the expected volume of cases by counties, applying projected population changes by 2030 to the expected number of cases. Analyses were carried out on the impact to travel distance based on the number of autopsy centers and looked at scenarios for four (4) through ten (10) centers. The six scenarios by number of centers were then carried out for both a greenfield – holding no current geographic centers constant – as well as scenarios holding OCME and the existing contract centers constant. Finally, an analysis was carried out redistribution the counties to the existing footprint – both holding all autopsy centers and pathology practices constant and holding just the regional autopsy centers constant.

From these analyses, the ideal footprint to optimize transportation distance with capacity resulted in seven centers: the existing OCME autopsy center, four contracted autopsy centers (including Union County) and two additional centers. These results are provided in the section "Regional Autopsy Centers" of this report.

Following the Center of Gravity analyses, four scenarios were then simulated to determine the optimal capacity to meet the critical national indicator of ninety percent of cases completed in ninety days. This simulation started with the current bottlenecks and geographic footprints. The results showed that all regional centers and OCME will need to increase capacity, and toxicology will also need increased capacity to handle the increased demand. The results are included in Recommendations 1 and 2.