Governor's Office of Planning & Budget and
Office of the Legislative Fiscal Analyst

Office of the Medical Examiner Efficiency Evaluation

A Report for the
Department of Health and Human Services

December 2022

TABLE OF CONTENTS

SUMMARY

In accordance with Utah Code Annotated (UCA) 63J-1-904, the Governor's Office of Planning and Budget (GOPB) and the Office of the Legislative Fiscal Analyst (LFA) conduct efficiency improvement projects with state agencies. For this efficiency evaluation, we collaborated with the Office of the Medical Examiner (OME) within the Department of Health and Human Services (DHHS). OME investigates and documents the cause and circumstances of unexpected deaths in the State, per UCA 26-4. We focused our review on the final report that OME produces for each case of unexpected death and developed recommendations to improve the process of completing that report.

Based on our review, we see OME's purpose as facilitating justice and preventing future harm for Utah residents through their investigation and documentation of the cause and circumstances of unexpected deaths. OME largely accomplishes this purpose with manner and cause of death determination and the final report.[1] The final report is used by OME customers, who we identified broadly in justice, public health, and administrative categories. Because the final report is written in technical language that is challenging for a lay individual to read, we do not consider the families of the deceased direct customers. However, we see families as an important beneficiary of the report. It allows them to claim insurance benefits, have peace of mind for themselves, and experience dignity for their family members.

The primary problem we identified with the process of OME producing the final report is that OME is not meeting national standards for timeliness. **The national medicolegal professional standard is 90% of cases finalized within 60 days after the autopsy.[2] At the close of FY 2022, OME reported that 69% of reports were completed within 60 days and 83% were completed within 90 days.** Not meeting these standards delays justice and prevention of future harm, and negatively impacts families who benefit from the final report. These delays also prevent OME from reaching accreditation status. OME has indicated accreditation as a goal for several reasons, including improving their ability to recruit new pathologists.

Certain time-consuming elements of the final report are out of OME's control, such as toxicology laboratory results. Nonetheless, we believe there is opportunity for improvement within the current system. We recommend that OME:

1. *Improve information collection processes to avoid unnecessary delays later*
2. *Delegate administrative tasks and case management to staff other than pathologists*
3. *Protect pathologist time from interruptions*
4. *Collect data for the purpose of managing operations and performance*

---

1 Utah Code 24-4-17(2)(a) refers to the "final report of examination." We have also heard this referred to as "the report" or the "the examination report." For the purposes of our evaluation, we refer to it as the "final report."

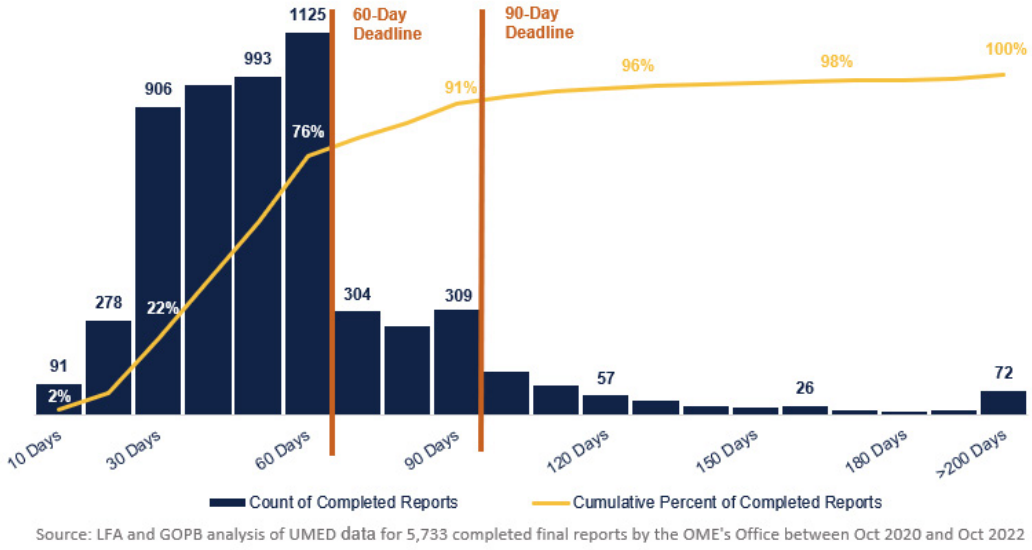
2 National Association of Medical Examiners Inspection and Accreditation Checklist, pg. 23, items F(4)(k) (phase II deficiency: "Are 90% of reports of all postmortem examinations completed within 90 calendar days from the time of autopsy?") and F(4)(l) (phase I deficiency: "Are 90% of reports of all postmortem examinations completed within 60 calendar days from the time of autopsy?")

OME leadership reports that they are currently working on several process improvement initiatives. We focus our recommendations specifically on the process to complete the final report. One of OME's initiatives is improving the quality and consistency of investigations conducted by part-time or vendor investigators; as such we have excluded that aspect of the process from our analysis. Another initiative is selecting and migrating to a new electronic case management system. We support implementing a new system and provide a list of functionalities that would support our recommendations; however, we caution that a new system is not a solution for operational improvement in and of itself. We structured our recommendations around use of OME's existing electronic medical records system (UMed), cloud document storage, and paper-based methods. Further, we recommend that operational changes be implemented prior to integrating the new case management system, so that any inefficiencies are not institutionalized.

ANALYSIS

For this efficiency evaluation, we utilized data from OME's UMed system.[3] These data allowed us to track the length of time it takes to complete final reports, as well as steps within the process. Figure 1 illustrates the number of reports that OME completed between October 2020 and October 2022 and the number of days that each report took to complete. For example, OME completed 1125 reports that each took between 51 and 60 days. Seventy-two reports took more than 200 days to complete. The "Cumulative Percent" line shows the total percent completed by that number of days.[4]

Figure 1. *Many Final Reports are Completed After the 60-Day National Standard.*



Source: LFA and GOPB analysis of UMED data for 5,733 completed final reports by the OME's Office between Oct 2020 and Oct 2022

To identify which part of the final report process to focus on, we analyzed the average, range, and variation of days it takes OME to complete each step. The steps that we were able to track using the timestamps from UMed were:

- Date of death
- Date of scene investigation
- Date of examination (autopsy, partial autopsy, or external exam)
- Date of toxicology results (only two pathologists consistently record these data)
- Date of report completion

Each of the first three steps typically occurs in less than one day from the prior step, so we did not identify significant delays in the process from date of death through the examination.

Next we considered the impact of waiting for toxicology lab results, which is outside of OME's control.[5] OME reports that both labs that they use, the Utah Public Health Laboratory and a private contractor, have about the same turnaround time. They also told us that they order toxicology testing

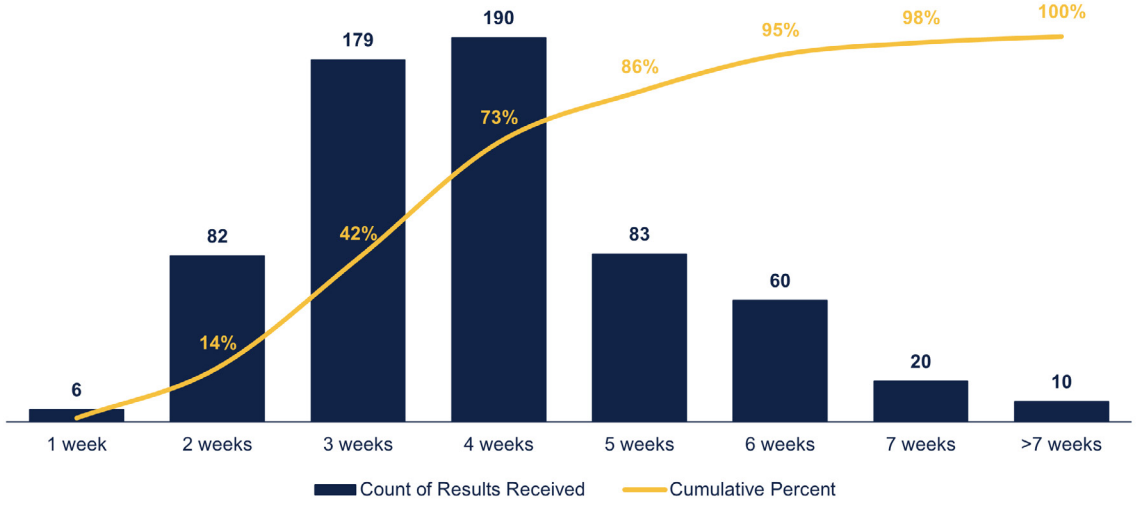
3 For more detail on the dataset we used, see the Methodology section.

4 Because our UMed dataset is from October 2020 to October 2022, the cumulative percent complete score differs from the result noted for FY 2022 (July 2021 to June 2022) in the Summary.

5 OME currently uses the Utah Public Health Laboratory and a national lab for processing toxicology samples. OME has researched alternative lab options and DHHS is also considering reviewing current practices at the Utah Public Health Laboratory.

for nearly all cases. Figure 2 shows the range of days for toxicology results: half are received within 23 days of the examination and 95% are received within 42 days.[6]

Figure 2. *Most Toxicology Results are Returned Within 4 Weeks (28 days) of an Exam.*



Source: Evaluator analysis of UMed data for 630 exams conducted by OME from October 2020 through September 2022

Even for toxicology results received at 42 days, OME has 17 days to complete the report to meet the national standard. OME told us that the amount of time to finalize a report once the pathologist begins working on it, and has all the requisite information, is usually less than two hours, though it may be up to two days or more for the most complex cases. OME cannot control the timeline for toxicology results, but they can impact internal processes so that they complete reports in the 17 or more days they have available.

The process to complete final reports, once toxicology results are received, requires expert work that can only be done by pathologists: analyzing and synthesizing the case information and making a final determination of the cause and circumstances of death.[7] In order to improve the timeliness of the final report, pathologist time must be used more efficiently.

To identify process challenges that may impact the efficient use of pathologist time, we asked OME about causes for delay. They cited:

- Incomplete scene investigation data, particularly from vendor or part-time investigators
- Court appearances
- Not having enough pathologists
- Missing supplemental documents, such as medical records and police reports
- Phone calls with families
- General office interruptions

As noted previously, OME already has a project underway regarding scene investigation data quality. In our analysis we did not find a statistically significant difference between cases where the scene was in Salt Lake County (where many investigations are performed by full-time investigators)

6 These data are inconsistently documented in UMed, but match what OME told us, what we observed on site visits, and are consistent with a national assessment.

7 Pathologists also conduct expert work on examinations, but the data show that examinations are occurring in a timely manner.

and cases originating in other counties (where investigations are performed by part-time or vendor investigators). In other words, we did not find evidence of an association between investigator type and time to complete the report.

We also could not determine if OME has a sufficient number of pathologists. Data on the number of cases coming into OME and the number of reports completed suggest that, while there is currently a growing backlog of cases, OME had two vacant pathologist positions for an extended period of time, and historically the backlog was not always increasing. Therefore, we did not address the needed number of pathologists in our recommendations. We do address the other challenges in our recommendations.

In our fieldwork and data analysis, we identified additional potential reasons for delay:

- Conducting data entry
- Tracking supplemental documents
- Individualized processes

The first two reasons for delay we address in our recommendations. For individualized processes, we observed that different pathologists have different processes for completing a report. More importantly, our data analysis shows a wide variation in the predicted average days it takes different full-time pathologists to complete final reports – from 38 to 101 days – even after removing locum tenens and controlling for variables that can indicate the complexity of a case.[8] Our analysis further shows that case characteristics such as exam type, manner of death, undetermined cases, and county of origin do not explain the variation in the number of days it takes different pathologists to complete final reports.

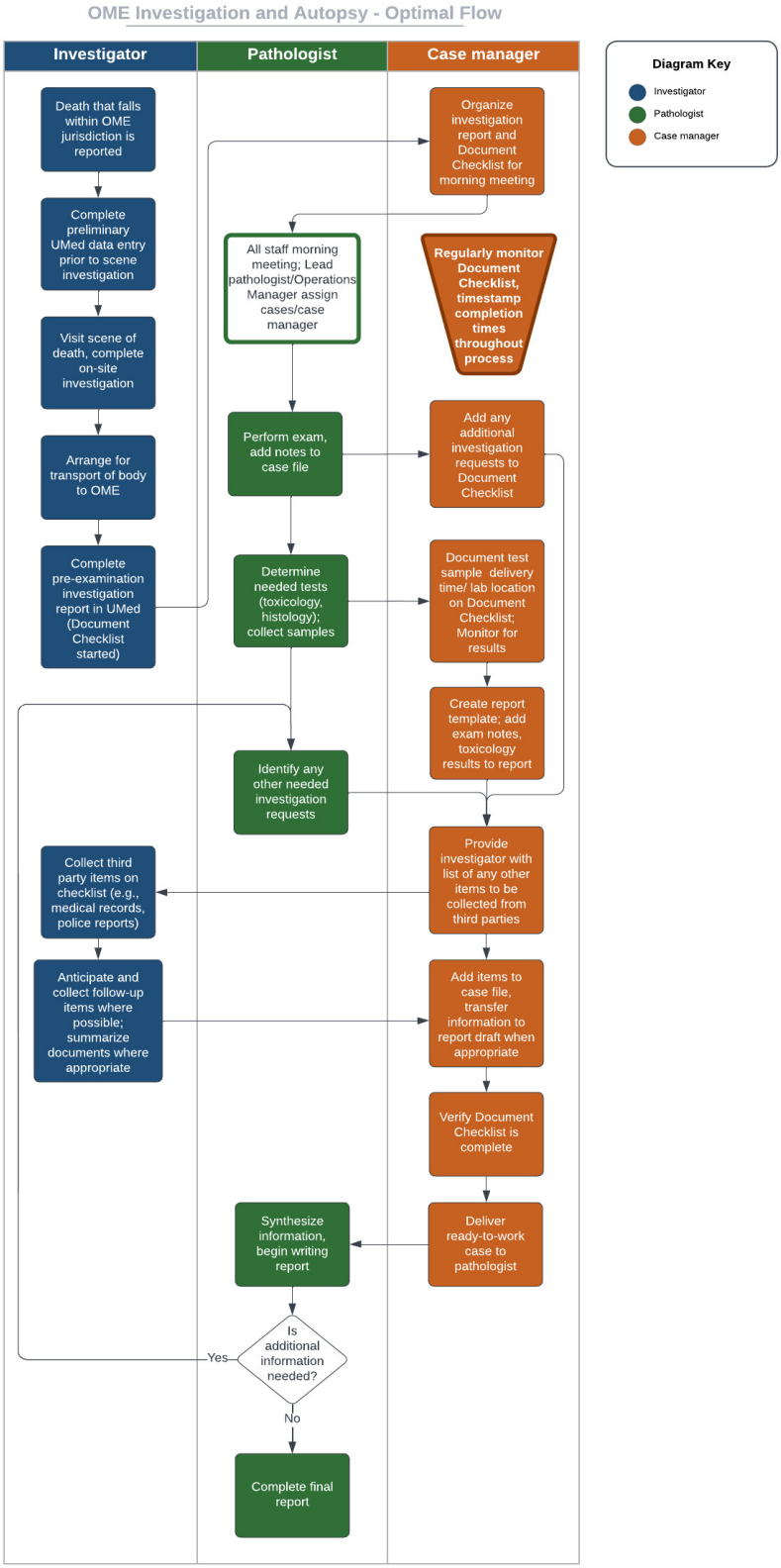
Because there is notable variation in pathologists' processes for report writing, we expect that standardizing efficient processes and implementing other improvements will enhance the timeliness for completing reports. Although we do not address it in our recommendations, we expect that comparing processes between pathologists and identifying and institutionalizing best practices is an opportunity for future improvements at OME. For the purposes of this report, we made recommendations to be applied broadly across all pathologists.

From OME's assessment and our analysis, we identified challenges and practices that use pathologist time inefficiently. In the remainder of the report, we outline the ideal system and then provide additional explanation for why and how to implement our recommendations.

8 Locum tenens are contracted pathologists who OME hires periodically to help address high caseloads.

IDEAL FINAL REPORT SYSTEM MAP

In the system map below and accompanying narrative, we describe the high-level steps in the ideal process for OME to produce a final report. Some steps in the ideal system are current practice, while others are new or clarified steps that we discuss further in our recommendations.



Initial Investigation:

1. When a new case comes in, the investigator enters it in UMed and starts the investigation narrative.
2. For cases in Salt Lake County during business hours:
    a. The investigator travels to the scene and conducts the scene investigation. They arrange for body transport to OME.
    b. The investigator completes the investigation narrative and enters all information into UMed.
3. For other cases:
    a. The investigator confirms the investigation narrative from the vendor investigator is complete and enters all information into UMed.
    b. If information is missing, the investigator proactively reaches out to the vendor investigator or other sources to collect that information.
4. The investigator starts the "document checklist" to capture needed supplemental information and records to request.

Case Assignment, Planning, and Examination:

5. Pathologists, investigators, and case managers[9] gather for the morning meeting where they discuss and plan for how to handle cases.
    a. The lead pathologist in the meeting, using data provided by the Operations Manager, may adjust the distribution of new case assignments to reduce the workload for pathologists with a higher number of reports awaiting completion.
    b. In the meeting, the lead pathologist designates the case manager for each case, which is usually the front office staff person assigned to that pathologist.
    c. Pathologists identify records to request and other information needed for each case.
6. The case manager adds pathologist requests to the document checklist.
    a. Investigators request all documents in the checklist from the appropriate source.
    b. To the extent they have capacity, investigators may review received documents and summarize and provide comments to support the analysis work of the pathologists.
7. Pathologists conduct the examination. They create examination notes, identify any additional documents that should be requested, and collect samples for toxicology, histology, or other testing.
8. Autopsy technicians prepare and send samples for testing.

9 We propose leveraging front office staff to act as case managers, who will track and handle administrative aspects of the case.

Report Work:

9. An autopsy technician takes examination notes and any new requests for documents to the case manager.
10. The case manager adds additional pathologist requests to the document checklist.
    a. The case manager updates the investigator on any new information requests.
    b. The investigator requests those documents from the appropriate source.
11. The case manager creates the final report template.
12. The case manager enters the examination notes into the report.
13. The case manager monitors the document checklist and reaches out to the investigator or appropriate source to request or check the status of missing documents.
14. Toxicology results are received.[10] The case manager enters toxicology results into the report.
15. The case manager determines that the document checklist is complete and all necessary information is in the file. They timestamp the report as "ready-to-work."
16. The case manager delivers the ready-to-work file to the pathologist.
17. If the pathologist needs additional information, they return the file to the case manager with the request.
    a. The case manager notifies the investigator or otherwise obtains the information and returns the file to the pathologist.
    b. The case manager timestamps the initial return and redistribution of the file.
18. The pathologist writes the final report.
19. The case manager may consult with the Operations Manager for assistance with delayed reports. Office leadership also monitors the status of reports.
20. The case manager collects the final report and, if applicable, reassigns it for any reviews, such as homicide reviews.
21. Once any reviews are complete, the case manager timestamps the final report as complete.
22. The case manager distributes the final report to any requestors.

10 Ideally, by the time toxicology results are received the case manager has confirmed that all other documents in the Document Checklist have been received.

RECOMMENDATIONS AND DISCUSSION

Our recommendations are intended to improve the timeliness of pathologists completing final reports by utilizing pathologist time more efficiently. The tasks that must be completed as part of the medicolegal process can be split into two groups. The first group is tasks that can be completed by a non-pathologist staff member, such as requesting information from outside sources, entering data, organizing and compiling that information into a complete case file, and communicating with grieving families about general concerns. The other group is tasks that can only be performed by the pathologist, which include performing the examination, synthesizing all the relevant information, and determining and recording the cause and circumstances of death. Pathologist time is the most valuable due to their specialized training and the cost to employ them. Our recommendations describe ways to focus pathologist time on those tasks that only they can complete. Through the recommendations, we describe and elaborate on the steps from the ideal final report system map that are changes from current practice.

Recommendation 1: Improve information collection processes to avoid unnecessary delays later.

The overall medicolegal process consists of a series of sub-processes, many of which rely on and build upon the information gathered in earlier steps. During our fieldwork, we encountered instances when individuals were required to re-do work that had been previously completed by another, had to finish a task that another individual failed to complete, or began a task but were unable to complete it because important information or required items were missing. We also found there is often not a clear indicator that a step has been completed, nor a clear hand-off between individuals. These problems result in additional workload, increased likelihood of errors, and unnecessary delays in the process. To reduce these issues, we recommend creating a checklist for needed documents and defining roles and responsibilities related to preparing information for the final report.

The document checklist will help ensure completeness. OME told us that sometimes pathologists begin to write the final report and find that key pieces of information are missing, such as police reports or medical records. By listing all necessary documents in a central location – potentially in an existing, unused field in UMed or in a shared cloud-based document – investigators have documentation for everything they need to request and case managers can accomplish the administrative work of confirming that all documents have been received. In our ideal process, case managers are responsible for determining completeness before delivering ready-to-work files to the pathologists, which they could not accomplish without access to a centralized checklist.[11]

Improved timeliness is another benefit of the document checklist. With both the investigator and case manager using the same centralized document checklist, both can easily see whether requested documents have been received and follow up quickly and proactively when necessary, prior to the pathologist receiving the file and realizing that documents are missing. Further, we recommend that case managers aim to have all documents other than toxicology collected within 14 days after the examination. If all other documents are in order, case managers should be able to move the status to ready-to-work and deliver the file to the pathologist soon after the toxicology results are received.

11 OME has considered creating standard starting-point document checklists for certain kinds of cases, such as pediatric, drowning, etc. We support developing those.

By facilitating the ability to easily identify what requests are outstanding, a checklist will avoid many of the common problems caused by things 'falling through the cracks.' In addition to the checklist itself, in our system map and narrative we specifically identify the individual that takes action for each step of the process. Clearly assigning roles and responsibilities to collect information, check the completeness of information, and transfer the case to the next individual allows cases to move through the process efficiently, providing pathologists more time to write reports.

<u>Recommendation 2:</u> Delegate administrative tasks and case management to staff other than pathologists.

Currently, pathologists coordinate all aspects of cases they are assigned. As the subject matter experts, this is appropriate for certain aspects of a case, such as performing the examination and writing the final report. We recommend each case also be assigned a case manager, most likely using current front office staff, to track completion and coordinate administrative functions of the case. Primarily, this assignment frees pathologists from tracking the status of their own cases, allowing them more time for writing reports.

Beyond saving time on administrative tasks and improving the completeness and timeliness of information collection (as described in Recommendation 1), case managers could create more capacity for pathologists in multiple other ways. Currently, some pathologists enter their own examination notes or toxicology results in UMed; we recommend that case managers conduct all such data entry. We further recommend that case managers determine when a case is ready-to-work and deliver it to the pathologist. At present there is no clear indication to a pathologist when all documents have been received and a file is ready-to-work. We anticipate that identification of ready-to-work cases will reduce the number of cases that each pathologist has awaiting completion at any given time, which should improve productivity. Because the case manager would be responsible for proactively keeping a case moving through the office, they could identify when a case is languishing at a certain step or with a certain individual. The case manager would also be responsible for entering timestamps for key steps in the process. Among other uses of timestamp data, lead pathologists (those who make case assignments in the morning meeting) could adjust the incoming workload to provide more capacity to pathologists who have many reports awaiting completion, allowing them to catch up on writing.

As the front office staff is already doing administrative case work, we recommend they be given the designation of case manager. Since each pathologist has a front office staff member assigned to them, that respective staff member would become the case manager of the cases that pathologist is overseeing. While the pathologist will remain the subject matter expert of the case, the front office staff person would be responsible for the administrative aspects. We recommend, however, that case managers be able to communicate with the Operations Manager about delayed cases when they need additional support to move the case forward.

There are other tasks pathologists undertake that could be delegated to other staff:

- Pathologists communicate with grieving families. When a family needs detailed information about the case, it may be appropriate for the pathologist to respond. In other cases, a trained front office person or a referral to counseling services would be more appropriate.[12]

12 OME has indicated that they are exploring specialized staff to work with families.

- To the extent capacity allows, investigators could review and summarize supporting documentation, such as police reports or medical records.[13]

<u>Recommendation 3:</u> Protect pathologist time from interruptions.

In the previous two recommendations, we identified key ways to use pathologist time more efficiently by improving the completeness and timeliness of information before pathologists begin work on a final report and delegating tasks that can be done by other staff to those individuals. In this recommendation, we identify ways to focus pathologist time on core tasks and protecting that time against interruptions in particular.

These proposals are:

- Group ready-to-work cases and have case managers provide them to the pathologist all at once at the beginning or end of the day. This avoids the disruption caused by many small interruptions throughout the day, which are especially impactful when the pathologist is doing the high-focus work of synthesizing case information.
- Group non-urgent tasks, such as phone messages, in a similar way.
- Encourage pathologists to schedule work blocks on their calendars.
- Institute a closed-door policy. When a pathologist needs uninterrupted focus time, they shut their door, and others do not interrupt the pathologist during that time unless the need is urgent.
- Allow pathologists to telework more frequently on their non-examination days.

By minimizing interruptions, along with our other recommended process changes, pathologists should have additional time for analyzing and writing the final report.

<u>Recommendation 4:</u> Collect data for the purpose of managing operations and performance.

We advise tracking the following performance measures:

- Percent of reports finalized within 60 days (target = 90%)
- Percent of ready-to-work cases sent back to case manager because new information is needed or previously requested information is missing
- Distribution of ready-to-work cases waiting for the report to be completed, by days since examination and by pathologist
- Distribution of number of days for pathologists to finalize reports after receiving ready-to-work files, by pathologist
- Average number of days between when toxicology results are received and when the case manager delivers the ready-to-work case to the pathologist

We recommend that the Operations Manager have primary responsibility for managing performance measures and other data elements, including providing regular reports to lead pathologists (those who make case assignments in the morning meeting) and to OME leadership.

---

13 OME reports that their investigators do not have capacity for this work currently and that they may pursue a budget adjustment to expand their investigations staff.

Lead pathologists should regularly receive a report from the Operations Manager showing how many ready-to-work cases are awaiting completion, by pathologist, as well as the total number of final reports completed in a certain time period, by pathologist. This information allows the lead pathologist to adjust the new workload to provide more capacity to finish the existing workload, while keeping workloads balanced across pathologists over the long-term.

OME leadership should use the performance information for overseeing accountability on cases moving through to completion. This information can alert leadership to individual or office-wide performance issues.

To create the data for these measures, case managers should be responsible for entering case timestamps. At a minimum timestamps should include: date of examination, date each test result is received, date the file is in ready-to-work status, date a file is returned to the case manager for missing or new need information (if applicable), date the file is in ready-to-work status again (if applicable), date final report is completed by pathologist, and date final report is completed by review pathologist.

Ideally, the new case management system that OME is pursuing could address many of the data collection and reporting needs, as well as facilitate many of the steps described in the ideal final report system map automatically. However, it is not necessary to implement the new case management system prior to implementing our recommendations. The new system would preferably include:

- Document checklist
    - Auto-population by case type
- Integration with toxicology and other testing providers
- Notifications when documents are received
- Notifications when all documents in the checklist have been received
- A dashboard view for investigators, case managers, and pathologists to easily see their cases by status
- A dashboard view for pathologists to see and access all their ready-to-work cases
- A dashboard view for the Operations Manager and office leadership to manage workload, avoid older cases not getting completed, and assess performance on key metrics

METHODOLOGY

Operational Processes:

In 2021, the Utah State Legislature (in HB 326) established a joint team from the Governor's Office of Planning and Budget (GOPB) and the Office of the Legislative Fiscal Analyst (LFA) with the direction to undertake efficiency improvement projects with state agencies. Under this authority, we worked with the Office of the Medical Examiner (OME) within the Department of Health and Human Services (DHHS).

To evaluate the OME processes, we met regularly with a working group of DHHS and OME leadership, observed the OME operations on premises, shadowed and interviewed full-time investigators, pathologists, and front office staff, and consulted with the GOPB and LFA financial analysts assigned to OME. Additionally, we analyzed:

- Current OME practices
- Professional accreditation standards from the National Association of Medical Examiners (NAME), the Scientific Working Group for Medicolegal Death Investigation (SWGMDI), and information from the National Forensic Laboratory Information System.
- OME-produced reports regarding:
    - Current office needs
    - Financials
    - Investigator survey data
    - Case statistics
- OME front office report requests data
- Data sample created from files during onsite observation
- UMed case data

Data Analysis:

The UMed data provided by OME contained records of 12,049 examinations dating between October 2020 and October 2022. Each observation contains the following information about the deceased: Demographics, scene location, scene information, manner of death, exam type, examination pathologist, investigator, various medical information, and timestamps along the report writing process including death date, exam date, toxicology received date, and report completion date.

To evaluate the UMed data, we conducted the following reviews: (1) Figure 1 - Evaluation of Report Completion Time, (2) Figure 2 - Evaluation of Toxicology Return Time, (3) Variables Affecting Report Completion Time.

1. Figure 1: Evaluation of Report Completion Time - To determine report completion time, we compared the examination date to the report completion date. We excluded observations where cause and manner of death were determined in absentia or by a designated representative, observations without an exam date or a report completion date, and observations with timestamps that created unusable results, such as those resulting in a negative report completion time. This resulted in 5,733 observations between October 2020 and October 2022. We created a histogram with 10-day bins for Figure 1.

2. Figure 2: Evaluation of Toxicology Return Time - To determine toxicology return time, we assumed that toxicology is ordered on the date of the examination and compared the examination date to the toxicology return date. Timestamps for examination date and toxicology return date were available for 630 of the 12,049 observations in the dataset. We found that 603 of the toxicology tests were ordered by two pathologists, while the remaining 27 were ordered by 7 pathologists and designated representatives. We created a histogram with 7-day bins for Figure 2.

3. Variables Affecting Report Completion Time - We analyzed the UMed data through linear regression models using report completion time as the dependent variable and the following independent variables: (1) Manner of Death, (2) Examination Type, (3) Examination Pathologist, (4) Age of Decedent, and (5) Scene County - including separating full-time and part-time investigators in Salt Lake County. We excluded cases completed by a designated representative, cases determined in absentia, cases with timestamp issues affecting the report completion time, and observations where the relevant variable was blank.

APPENDIX - RESPONSE

State of Utah

SPENCER J. COX
Governor

DEIDRE M. HENDERSON
Lieutenant Governor

Department of Health & Human Services

TRACY S. GRUBER
Executive Director

NATE CHECKETTS
Deputy Director

DR. MICHELLE HOFMANN
Executive Medical Director

DAVID LITVACK
Deputy Director

NATE WINTERS
Deputy Director

December 7, 2022

Heidi Tak
Operations Analyst
Utah State Legislature

Subject: Efficiency Project Response

Dear Ms. Heidi Tak,

The Department of Health and Human Services and its Office of the Medical Examiner (OME) appreciates the time and effort you put into the process. Thank you for the opportunity to respond to the recommendations provided by the Efficiency and Process Improvement Committee. We appreciate the professionalism of you and your staff during this review and for the guidance and recommendations you have provided for improvement. We believe our combined efforts will result in improvements that will benefit the agencies we serve.

We concur with all recommendations in this report and have attached a summary of steps we will take. The Department of Health and Human Services and its Office of the Medical Examiner, are committed to efficiency, transparency, and quality customer service. We value the insight this project provided and look forward to implementing solutions for improvement.

Sincerely,

Tracy S. Gruber
Executive Director

Recommendation 1: Improve information collection processes to avoid unnecessary delays later

Recommendations:

The overall medicolegal process consists of a series of sub-processes, many of which rely on and build upon the information gathered in earlier steps. During our fieldwork, we encountered instances when individuals were required to re-do work that had been previously completed by another, had to finish a task that another individual failed to complete, or began a task but were unable to complete it because important information or required items were missing. We also found there is often not a clear indicator that a step has been completed, nor a clear hand-off between individuals.These problems result in additional workload, increased likelihood of errors, and unnecessary delays in the process. To reduce these problems, we recommend creating a checklist for needed documents and defining roles and responsibilities related to preparing information for the final report.

The document checklist will help ensure completeness. OME told us that sometimes pathologists begin to write the final report and find that key pieces of information are missing, such as police reports or medical records. By listing all necessary documents in a central location – potentially in an existing, unused field in UMed or in a shared cloud-based document – investigators have documentation for everything they need to request and case managers can accomplish the administrative work of confirming that all documents have been received. In our ideal process, case managers are responsible for determining completeness before delivering ready-to-work cases to the pathologists, which they could not accomplish without access to a centralized checklist.[1]

Another benefit of the document checklist is improved timeliness. With both the investigator and case manager using the same centralized document checklist, both can easily see whether requested documents have been received and follow up quickly and proactively when necessary, prior to the pathologist receiving the file and realizing that documents are missing. Further, we recommend that case managers aim to have all documents other than toxicology collected within 14 days after the examination. If all other documents are in order, case managers should be able to move the status to ready-to-work and deliver the file to the pathologist very soon after the toxicology results are received.

By facilitating the ability to easily identify what requests are outstanding, a checklist will avoid many of the common problems caused by things "falling through the cracks." In addition to the checklist itself, in our system map and narrative, we specifically identify the individual that takes action for each step of the process. Clearly assigning roles and responsibilities to collect information, check the completeness of information, and transfer the case to the next individual and step of the process further allows cases to move through the process efficiently, providing pathologists more time to write reports.

[1] OME has considered creating standard starting-point document checklists for certain kinds of cases, such as pediatric, drowning, etc. We support developing those.

DHHS Headquarters: 195 North 1950 West, Salt Lake City, Utah 84116
telephone: (801) 538-4001 | email: dhhs@utah.gov | web: dhhs.utah.gov

Department Response:

The department concurs that it is important to formalize the document collection and investigative process. We will do this by creating a checklist for needed documents and defining roles and responsibilities related to preparation of the final report.

What:

OME has already begun building out the Core/Standard checklists with the goal of improving timeliness and quality in each investigation. The checklists will include the individual responsible for each step of the process, including reviewing for completeness of information and transferring the case to the next responsible party. The primary step over the next 90 days will be to work to identify a "ready-to-work" file for different manners of death. The long-term goal in each case will be to produce and deliver a ready-to-work file to each pathologist in 14 days or less. This will be monitored as a key performance indicator.

The OME will develop a records request tracking system (checklist) that will be available to all involved staff (pathologists, investigators, records staff) as a place for real-time assessment of the obtaining and review of routine records requests needed in every case, specific and unique requests that come up in an individual case, and to add requests as they come up in the evaluation of previously obtained information. Such a working checklist will enable assessment of the time required to obtain records, as well as serve as a marker of incomplete requests.

Initially, OME will plan to develop this process in a shared network-based drive with the eventual aim of adding this functionality to the ongoing upgrades in the Utah Medical Examiner Database (UMED).

When: As outlined in the response, the department has already started to formalize the process of developing the checklists. The next step in the process will be to begin operationalizing the checklist in practice with an interactive review process to improve. Phase 1 of the development will be completed by April 30, 2023.

Contact: Michael Glod (DHHS) Operations Director OME, mglod@utah.gov 385.364.5061

Recommendation 2: Delegate administrative tasks and case management to other staff

Recommendations:

Currently, pathologists coordinate all aspects of cases they are assigned. As the subject matter experts, this is appropriate for certain aspects of a case, such as performing the examination and writing the final report. We recommend each case also be assigned a case manager, most likely using current front office staff, to track completion and coordinate administrative functions of the case. Primarily, this

assignment frees pathologists from tracking the status of their own cases, allowing them more time for writing reports.

Beyond saving time spent on administrative tasks and improving the completeness and timeliness of information collection (as described in Recommendation 1), case managers could create more capacity for pathologists in multiple other ways. Currently, some pathologists enter their own examination notes or toxicology results in UMED. We recommend that case managers conduct all such data entry. We further recommend that case managers determine when a case is ready to work and deliver it to the pathologist. At present there is no clear indication to a pathologist when all documents have been received and a file is ready to work. We anticipate that identification of ready-to-work cases will reduce the number of cases that each pathologist has awaiting completion at any given time, which should improve productivity. Because the case manager would be responsible for proactively keeping a case moving through the office, they could identify when a case is languishing at a certain step or with a certain individual. The case manager would also be responsible for entering timestamps for key steps in the process. Among other uses of the data, lead pathologists (those who make case assignments in the morning meeting) could adjust the incoming workload to provide more capacity to pathologists who have many reports awaiting completion, allowing them to catch up on reports.

As the front office staff is already doing much of the administrative case work, we recommend they be given the designation of case manager. Since each pathologist has a front office staff member assigned to them, that respective staff member would become the case manager of the cases that pathologist is overseeing. While the pathologist will remain the subject matter expert of the case, the front office staff person would be responsible for the administrative aspects. We recommend, however, that case managers be able to communicate with the Operations Manager about delayed cases when they need additional support to move the case forward.

There are other tasks that pathologists undertake that could be delegated to other staff:

- Pathologists communicate with grieving families. When a family needs detailed information about the case, it may be appropriate for the pathologist to respond. In other cases, a trained front office person or a referral to counseling services would be more appropriate.[2]
- To the extent capacity allows, have investigators review and summarize supporting documentation, such as police reports or medical records.[3]

Department Response:

The department concurs and would ask for the following modification to the recommendation to enhance the case management philosophy within the office.

[2] OME has indicated that they are exploring specialized staff to work with families.
[3] OME reports that their investigators do not have capacity for this work currently and that they may pursue a budget adjustment to expand their investigations staff.

What: The OME will be responsible for tracking the implementation of the case management philosophy. After reviewing the scope of work the department leadership recommends that this be moved to existing investigators job description and scope of work. This would be our proposed approach rather than adding this responsibility to the front office staff. In review of existing positions, we would like to work to repurpose and build the capacity of the investigator role to carry this additional responsibility. This aligns with the existing budget requests to modernize and improve overall quality and efficiency in the investigations team. We believe that the investigations team can begin to study the implementation of this process with the eventual plan to build in the necessary capacity to this team. Additionally we would focus on potentially repurposing the administrative support needed in the office to support the investigations team. The department agrees there is a need for both a case manager level role and a family liaison role.

The use of data tracking and understanding ready-to-work definitions will allow us to implement this system. We would like to take time to study this process through a pilot using the framework developed by the OME and a small handful of staff. This will allow us to parse out necessary administrative functions by case type and gain a better understanding of which functions should be assigned to investigators and which functions are purely administrative.

When: The department will begin to review this process following the 2023 Legislative Session. We will begin the study of this immediately with a target for implementation of July 2023.

Contact: Michael Glod (DHHS) Operations Director OME, mglod@utah.gov 385.364.5061

Recommendation 3: Protect pathologist time from interruptions

Recommendations

Recommendation 3: Protect pathologist time from interruptions

In the previous two recommendations, we identified key ways to use pathologist time more efficiently by improving the completeness and timeliness of information before pathologists begin work on a final report and delegating tasks that can be done by other staff to those individuals. In this recommendation, we identify ideas for focusing pathologist time on core tasks and protecting that time against interruptions in particular.

These ideas are:

- Grouping ready-to-work cases and having case managers provide them to the pathologist all at once at the beginning or end of the day. This avoids the disruption caused by many small interruptions throughout the day, which are especially impactful when the pathologist is doing the high-focus work of synthesizing case information.
- Grouping non-urgent tasks, such as phone messages, in a similar way.
- Encourage pathologists to schedule work blocks on their calendars.
- Institute a closed-door policy. When a pathologist needs uninterrupted focus time, they shut their door, and others do not interrupt the pathologist during that time unless the need is urgent.
- Allow pathologists to telework more frequently on their non-examination days.

By minimizing interruptions, along with our other recommended process changes, pathologists should have additional time for analyzing and writing the final report.

Department Response:
The department concurs with the recommendation for implementing measures to protect the pathologist time.

What: The OME will implement the necessary tracking mechanisms in order to allow data to better inform decisions around protecting pathologists' time. Many pathologists already telecommute when possible to minimize interruptions. Additional practices will be explored to maximize the amount of uninterrupted time available for case completion. In addition the implementation of a phone call log with tracking and prioritization will be rolled out and standardized within the office.This will allow us to better capture data related to pathologists' ongoing phone messaging, help to reduce duplication and improve efficiency.

The purpose of the phone log is to show the main reason calls are received , how they were handled, and how many people intervened in the resolution that was made in each case. This tool will also help to illuminate possible solutions related to who should and can provide the requested information, standardize and establish response times, show the documentation generated in each case, and finally create innovative mechanisms that help to reduce response times without compromising the quality of the final product.

The OME is updating the phone tree with clear and practical options to facilitate access for families, providers, vendors, funeral homes, law enforcement agencies, and the general public.

When: The department will implement the tracking and phone log by January 31, 2023. The team will do a full review and implement at least 1 key action to protect pathologist time by the end of March 2023.

Contact: Michael Glod (DHHS) Operations Director OME, mglod@utah.gov 385.364.5061

Recommendation 4: Collect data for the purpose of managing operations and performance

Recommendations:

We advise tracking the following performance measures:

- Percent of reports finalized within 60 days (target = 90%)
- Percent of ready-to-work cases sent back to case manager because new information is needed or previously requested information is missing
- Distribution of ready-to-work cases waiting for report to be completed, by days since autopsy and by pathologist
- Distribution of number of days for pathologists to finalize reports after receiving ready-to-work cases, by pathologist
- Average number of days between when toxicology results are received and when the case manager delivers the ready-to-work case to the pathologist

We recommend that the Operations Manager have primary responsibility for managing performance measures and other data elements, including providing regular reports to lead pathologists (those who make case assignments in the morning meeting) and to OME leadership.

Lead pathologists should regularly receive a report from the Operations Manager showing how many ready-to-work cases are awaiting completion, by pathologist, as well as the total number of final reports completed in a certain time period, by pathologist. This information allows the lead pathologist to adjust the new workload to provide more capacity to finish the existing workload, while keeping workloads balanced across pathologists over the long-term.

OME leadership should use the performance information for overseeing accountability on cases moving through to completion. This information can alert leadership to individual or office-wide performance issues.

To create the data for these measures, case managers should be responsible for entering case timestamps. At a minimum, timestamps should include: date of examination, date each test result is received, date the file is in ready-to-work status, date a file is returned to the case manager for missing or new need information (if applicable), date the file is in ready-to-work status again (if applicable), date final report is completed by pathologist, and date final report is completed by review pathologist.

Ideally, the new case management system that OME is pursuing could address many of the data collection and reporting needs, as well as facilitate many of the steps described in the ideal final report system map automatically. However, it is not necessary to implement the new case management system prior to implementing our recommendations. The new system would preferably include:

- Document checklist

    - Auto-population by case type
- Integration with toxicology and other testing providers
- Notifications when documents are received
- Notifications when all documents in the checklist have been received
- A dashboard view for investigators, case managers, and pathologists to easily see their cases by status
- A dashboard view for pathologists to see and access all their ready-to-work cases
- A dashboard view for the Operations Manager, Director, and other leadership to manage workload, avoid older cases not getting completed, and assess performance on key metrics

OME Response:

The department concurs and work towards implementation of tracking for following data sets in order to improve overall performance.

- Percent of reports finalized within 60 days (target = 90%)
- Percent of ready-to-work cases sent back to case manager because new information is needed or previously requested information is missing
- Distribution of ready-to-work cases waiting for report to be completed, by days since autopsy and by pathologist
- Distribution of number of days for pathologists to finalize reports after receiving ready-to-work cases, by pathologist
- Average number of days between when toxicology results are received and when the case manager delivers the ready-to-work case to the pathologist

What: The department agrees with the need for additional data surrounding work processes. As noted above, the development of the case manager role will be critical in allowing the recommendation outlined above to be implemented. The OME already tracks (through a laborious manual data extraction) information related to case completion within 60 and 90 days. The priority will be to build these metrics into our new case management system in order to allow data tracking to drive performance monitoring by case type. The department agrees that this should take place prior to the design and implementation of the new case management system in order to improve efficiency of the operation and optimally retool UMED to drive performance improvement.

When: The department would like to finalize the inventory and review of the existing system capabilities for data tracking by February 1, 2023. We would like to be prepared to make design recommendations for the new case management software by April 30, 2023.

Contact: Michael Glod (DHHS) Operations Director OME, mglod@utah.gov 385.364.5061

AUTHORS

This report was written as part of a joint collaboration between the Utah Governor's Office of Planning & Budget and the Office of the Legislative Fiscal Analyst.

Governor's Office of Planning & Budget

Jeff Mottishaw	Director of Operational Efficiencies
Sam Warrick	Performance Improvement Coordinator
Michael Allred	Budget & Policy Analyst

Office of the Legislative Fiscal Analyst

Clare Tobin Lence	Performance Initiatives Manager
Alexander Wilson	Operations Analyst
Heidi Tak	Operations Analyst