

# Audit Report Highlights

Medical Examiner's Office

August 2021

Total Potential Recoveries<sup>1</sup> = None

Total Cost Savings<sup>2</sup> = None

2021 Medical Examiners Office Budget<sup>3</sup> = \$14.3 million

County Annual Budget<sup>4</sup> = \$1.4 billion

## Why DIA Did This Audit



An audit was conducted to assess the completeness and accuracy of the statistical report published annually by the Medical Examiner. The Audit Committee approved DIA's audit plan to include this audit as the Medical Examiner's Office was identified as high risk on the annual Risk Assessment due to legal complexity, stakeholder pressure, and reputational sensitivity. The audit was based on processes in place during the drafting and release of the 2018 Medical Examiner's Statistical Report. The purpose of this audit was to:

1. Assess the completeness and accuracy of the annual statistical report,
2. Determine if the MEO was operating in a control conscious environment with adequate controls in place to ensure significant statements are properly supported and statistical data is accurate,
3. Determine if the annual statistical reporting is in accordance with all governing laws and regulations.

## What DIA Found

The 2018 Medical Examiner's Statistical Report appeared accurate. However, DIA did note the following internal control or compliance issues:

- There is a lack of policy and procedures manuals (PPM) and system controls for critical applications.
- There is a lack of documented PPM for the statistical report drafting process.
- There is a lack of controls over the collection and consolidation of statistical data presented in their annual report.
- There was conflicting data in the 2018 Medical Examiner's Statistical Report.

*Recommendations have been rated by priority: High, Moderate or Low.*

*The report contains 5 recommendations:*

**3 High** – 30 days to complete

**0 Moderate** – 90 days to complete

**2 Low** – 180 days to complete

<sup>1</sup> Total amount that could potentially be recovered from overpayments or other revenue sources.

<sup>2</sup> The amount the County could potentially save annually by implementing recommendations. Cost savings may not be identified.

<sup>3</sup> Budget amount reported on OBM's 2021 Adopted Departmental Budget Summary.

<sup>4</sup> The County Annual Budget includes operating appropriations from all County funds.

# Audit Report Highlights

Medical Examiner's Office

August 2021

## Background

For over 80 years, the Medical Examiner's Office has released an annual report documenting case trends and notable statistics.

Case trends are classified according to the Medical Examiner's verdict as to the manner of death. Cases are further subdivided according to geographical location, monthly incidence, mode, sex, race, age, and ethnicity of victim.

In 2018, notable statistics reported on included the Cuyahoga County Opiate Initiative and Sexual Assault Policy noting:

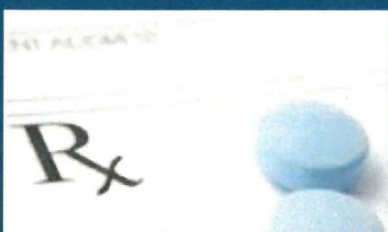
- 551 Drug Deaths of which 439 were due to opioids/opiates.
- An average of 39.19 rape kits were processed every month.

## What DIA Recommended

DIA provided the Medical Examiner's Office management with recommendations for improving internal controls. We provided these recommendations during fieldwork to lessen potential risks related to internal controls for system applications and annual reporting of statistics. Doing so during the course of the fieldwork rather than at the end allows the department a chance to remedy things immediately and have no surprises when the report is written.

The Medical Examiner's Office is working to address the issues noted in this report. Based on their responses, we believe corrective action will be taken to mitigate the risks identified. Management responses follow each recommendation in the report. Recommendations we made included:

- Develop formal ITGC Policies and Procedures regarding critical applications including VertiQ and Justice Trax.
- Work with their Justice Trax application provider to implement strengthened password requirements.
- Develop a Policies and Procedures Manual regarding the process for publishing the annual Medical Examiner's Statistical Report.
- Incorporate secondary reviews for accuracy over the collection of data used in the annual Medical Examiner's Statistical Report.
- Incorporate the requirement of the existence and review of audit trail and/or other supporting documentation within the report publishing Policies and Procedures Manual.



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*Internal Audit would like to express our appreciation for the cooperation and assistance received from the Medical Examiner's Office during this audit. The strides made help improve the County's efficiency and accountability.*

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# Internal Audit Report

Cuyahoga County, Ohio  
Department of Internal Auditing

Annual Statistical Reporting Audit  
Medical Examiner's Office  
2018 Medical Examiner's Statistical Report

Director of Internal Auditing: Monica Houston, CPA,  
CGMA, CFE, CIDA

Internal Audit Manager: Joshua Ault, CIA

Staff Auditors: Dawn Meredith





**CUYAHOGA COUNTY  
DEPARTMENT OF INTERNAL AUDITING**

**INTERNAL AUDIT REPORT  
Medical Examiner's Office  
Cover Letter**

August 24, 2021

To: Medical Examiner, Thomas P. Gilson, M.D., Director of Operations, Hugh Shannon, and current staff of Medical Examiner's Office

The Department of Internal Auditing (DIA) has conducted an audit of the internal controls of the Medical Examiner's Office (referred to within this report as "MEO") annually released statistical report, for the processes in place during the release of the 2018 report. Our main objective was to perform audit procedures to assess the completeness and accuracy of the statistical report published annually by the Medical Examiner. We assessed and reviewed these controls to ensure that significant statements are properly supported, data reported is accurate, and that the report follows governing laws and regulations.

To accomplish our objectives DIA conducted interviews with management and staff in regard to the statistical reporting process at the MEO to document the effectiveness of controls in place. We assessed and reviewed the processes and systems utilized. In addition, we reviewed internal controls, conducted control testing, and reconciled statistics included within the 2018 Medical Examiner's Statistical Report to the data of origin.

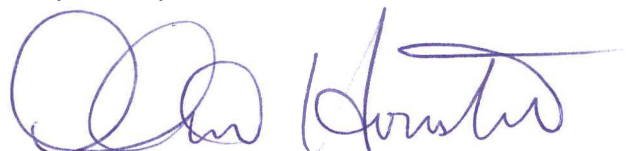
Our audit procedures disclosed internal control weaknesses related to statistical reporting and information technology general controls (ITGC). This report provides the details of our findings. We are confident corrective action has been taken or will be taken to mitigate the risks identified in this audit report.

We conducted this audit in accordance with the International Standards for the Professional Practice of Internal Auditing. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Because of the inherent limitations of internal controls, errors or irregularities may occur and not be detected. Also, projection of any current evaluation of the internal control structure to future periods is subject to the risk that procedures may become inadequate due to changes in conditions, or that the degree of compliance with the procedures may weaken.

DIA would like to express our appreciation to MEO staff and management, and interrelated departments that assisted throughout the process for their courtesy and cooperation during this audit particularly as such occurred during time of national crisis related to COVID-19. A draft report was provided to MEO management for review. Management responses are included within the audit report.

Respectfully,



Monica Houston, CPA, CGMA, CFE, CIDA  
Director of Internal Auditing

Cc: Cuyahoga County Council  
William Mason, Chief of Staff  
Greg Huth, Law Director  
Michael C. O'Malley, Cuyahoga County Prosecutor  
Catherine Tkachyk, Executive Audit Liaison

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## Glossary

<b>Justice Trax</b>	MEO system application for laboratory information management including evidence tracking, analytical results, laboratory management, and reporting.
<b>VertiQ</b>	MEO system application for case management including death investigation workflow, task management, digital imaging, and reporting.
<b>Information Technology General Controls (ITGC)</b>	Controls that apply to all systems, components, processes, and data for a given organization or information technology environment.
<b>• Change Management</b>	Management of technological changes that affect an organization's systems, programs, or applications.
<b>• Security</b>	The prevention of unauthorized physical and/or logistical access to digital assets.
<b>• Access</b>	Appropriate authorization or permissions that a user has within an application.
<b>• Data Back Up/Disaster Recovery</b>	Back up and recovery strategies and practices to maintain normal operations.

## Report Details

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### Purpose

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The purpose of this audit was to assess the completeness and accuracy of the annual statistical report published by the Medical Examiner.

The Audit Committee approved DIA's 2020 audit plan to include an audit of the Medical Examiner's annual report. The Medical Examiner's Office was identified as an area of high risk on the annual Risk Assessment due to legal complexity, stakeholder pressure, and reputational sensitivity.

The audit included review and evaluation of procedures, practices, and controls as deemed necessary.

### Audit Objectives

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The objectives of this audit were to:

#### Control conscious environment

Adequate level of internal control awareness; proper separation of duties; existence of a proper monitoring system; appropriate authorization/approval of expenditures; and adequate safeguarding of financial, physical, and information assets.

- Assess the completeness and accuracy of the annual statistical report.
- Determine if the MEO was operating in a control conscious environment with adequate controls in place to ensure significant statements are properly supported and statistical data reported is accurate.
- Determine if the MEO reporting of statistical data is in accordance with all governing laws and regulations.

### Scope

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To accomplish our objectives, we focused on the processes in place during the drafting and release of the 2018 Medical Examiner's Statistical Report. Interviews with management and staff were conducted to document the controls in place and determine if they were properly designed to mitigate risk. Additionally, observation and/or testing of controls were performed along with reconciliation of reported statistics to determine if controls were operating effectively.



## Methodology

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DIA made inquiries to gain a general understanding of the MEO's statistical reporting processes and recording data of origin, as well as the information system general controls (ITGC) for critical applications which maintain records. MEO's critical applications were identified as VertiQ and Justice Trax.

DIA obtained VertiQ and Justice Trax reports providing the data of origin utilized to compile the statistical reporting. DIA reperformed the calculation of statistics and reconciled the results with the statistics reflected in the 2018 Medical Examiner's Statistical Report.

DIA verified approvals and accuracy of data input into VertiQ and Justice Trax. In addition, DIA assessed the MEO's information technology general controls over VertiQ and Justice Trax.

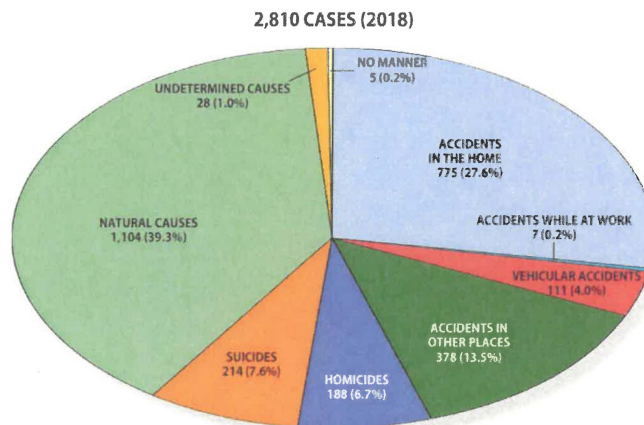
## Background

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The Cuyahoga County MEO is a public service agency responsible for the investigation of violent, suspicious, and sudden and unexpected deaths as well as the provision of laboratory services. For over 80 years, The MEO has published case trends and notable statistics every year within their Medical Examiner's Statistical Report (ME Report).

ME Reports document cases classified according to the Medical Examiner's verdict as to the manner of death. Cases are further subdivided according to geological location, monthly incidence, mode, sex, race, age, and ethnicity of victim.

The 2018 ME Report states they received 6,657 cases reported. Of the reported cases, 2,810 were accepted and included 1,422 autopsies. Types of cases received are shown below:



In the 2018 ME Report, trends identified and reported on included the Cuyahoga County Opiate Initiative and Sexual Assault Policy.

The Cuyahoga County Opiate Initiative is a broad response to the ongoing public health emergency identified by the MEO through review of case statistics including over-dose deaths specifically due to opiates/opioids and heroin. The 2018 ME Report states that there were 551 drug deaths in 2018. Of the 551:

- 439 were a result of opioid/opiates.
- 398 were specific to Fentanyl or a fentanyl analog.

The Cuyahoga County Sexual Assault Policy is a broad agency response to the continuing problem of unresolved sexual assaults in the County. The MEO Forensic laboratory performs scientific exams in the areas of forensic pathology, trace evidence, serology, DNA, Parentage, and Identification. Such testing has resulted in the identification of suspected perpetrators of these violent crimes. This testing is conducted at no cost to submitting agencies or communities. The work is being performed in collaboration with a variety of law enforcement agencies, the Cleveland Rape Crisis Center and the County Prosecutor's Office. In 2018, the MEO reported processing an average of 39.19 rape kits per month.

## Commendable Practices

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DIA commends the MEO for their public service in the investigation of violent, suspicious, and sudden and unexpected deaths. DIA noted that there were good controls throughout the life cycle of case investigations. The MEO's staff seems very knowledgeable in their respective field of study.



We commend and thank the MEO for their cooperation during the audit especially as such occurred during the challenging crisis created by COVID-19. Based on the results of our audit, we believe the ME Report was significantly accurate.

### Priority Level Criteria for Recommendations

<p><b>High</b> <b>(P1)</b></p>	<p><b>Highest-Ranking Officer's immediate attention</b> is required. Corrective action is strongly recommended (<u>30 days</u>).</p> <ul style="list-style-type: none"> <li>• Financially material loss or potential loss</li> <li>• Lack of or failure of internal controls requiring considerable time and resources to correct</li> <li>• Non-compliance with laws, regulations, and policies resulting in significant loss of funds, fines, or restrictions</li> <li>• Significantly negative effect on the County's reputation or public perception</li> </ul>
<p><b>Moderate</b> <b>(P2)</b></p>	<p><b>Senior Management's attention</b> is required. Corrective action is recommended (<u>90 days</u>).</p> <ul style="list-style-type: none"> <li>• Financial loss or potential loss</li> <li>• Internal controls exist but they are not effective, or they are not consistently applied</li> <li>• Non-compliance with laws, regulations, and policies resulting in loss of funds, fines, or restrictions</li> <li>• Negative effect on the County's reputation or public perception</li> </ul>
<p><b>Low</b> <b>(P3)</b></p>	<p><b>Management's attention</b> is required. Corrective action is recommended (<u>180 days</u>).</p> <ul style="list-style-type: none"> <li>• Financial loss or potential loss is minimal</li> <li>• Internal controls exist, but could be improved</li> <li>• Non-compliance with laws, regulations, and policies is a minimal risk</li> <li>• No effect on the County's reputation or public perception</li> </ul>

In an effort to assist the auditee in making the best use of their resources, we have prioritized the recommendations according to the table above.

## Findings and Recommendations

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### Information System General Controls

#### **FINDING Lack of PPM & Controls – Information Systems**

The Medical Examiner's Office (MEO) lacks policy and procedure manuals (PPM) and appropriate system controls for critical applications. Information system general controls (ITGC) are intended to ensure business continuity and data security. They govern the design and security (access and data) throughout an organization. Formal policy and procedure manuals assist to ensure appropriate ITGC are implemented, adequate, and operational. Best practices would include consideration of controls in the areas of:

- Change Management,
- Security,
- Access, and
- Data backup/disaster recovery.

VertiQ and Justice Trax are the two system applications which are heavily relied upon for operations and reporting. Both applications are utilized to document results, ensure accuracy, and compile statistics. VertiQ is specific to MEO cases in determining manner of death. Justice Trax is specific to forensic lab work for MEO cases and law enforcement agencies.

DIA performed a review of information system general controls of both applications. During the audit, DIA noted a lack of PPM and sufficient controls. More specifically, the MEO does not:

- *Change Management Controls* (Specific to VertiQ only)
  - Require review or approval to changes made to the system production environment.
  - Perform user acceptance testing in a testing environment rather than in the production environment.
- *Access Controls* (Both VertiQ and Justice Trax)
  - Formally document approval of access role permissions and user access including new users, role changes, and terminations.
- *Security Controls* (Specific to Justice Trax)
  - Include password requirements such as a minimum character length and criteria (Upper/lower case letters, number, symbol).
- *Disaster Recovery Testing* (Both VertiQ and Justice Trax)
  - Perform testing of application back up restoration on a scheduled basis.

The MEO was unaware of the need for formal information system policy and procedure manuals and lacked awareness of ITGC for both VertiQ and Justice Trax.

### **Risk to the County if Not Corrected**

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Inadequate or lack of general computer controls could result in significant disruption to MEO operations, loss of data, and/or inappropriate access to confidential information. As multiple law enforcement agencies rely on MEO services, public safety and prosecutorial processes could be impacted.

### **Recommendations**

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1. **(P1)** ITGC policy and procedure manuals (PPM) should be developed for all critical systems including VertiQ and Justice Trax. All application PPMs should incorporate adequate controls such as formalized approval of changes to the production environment, role permissions, and user access. In addition, application PPMs should include password strength requirements and regularly scheduled disaster recovery testing.
2. **(P1)** The MEO should work with their Justice Trax software provider to implement strengthened password requirements such as length and specific characters (Upper/lower case, number, symbols).

***Management's Response:***

***Review of systems critical to the agency (Justice Trax and VertiQ) with vendors to develop SOP manuals as well as discussions regarding the above controls.***

***Target Date for Completion:***

***October 1, 2021: Discussions with Vendors to begin***

***December 31, 2022: Completion of system applications SOP manuals***

## Statistical Reporting Processes

### **FINDING    Lack of PPM – Statistical Reporting**

Formally documented policies and procedures is a best business practice. They promote compliance with laws, consistency of work, and serve as a training tool for employees. Policies and Procedures describe an overview of a process and requirements (such as review sign off).

During its interviews, DIA noted the lack of documented procedures for the entire reporting process from draft stage through publishing. There should be a document stating:

- When and how the reporting begins.
- Content to include.
- How to obtain and summarize source data.
- Writing and review process requirements.
- Publishing.
- Responsible parties for each step.

The report is based upon a template that began 80+ years ago. Since this report is based upon a historical template, there is an underlying belief that the reporting process is known to all involved.

### **Risk to the County if Not Corrected**

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There may be a loss of knowledge of the reporting process if supervisors or directors leave the MEO resulting in the inconsistent aggregation and reporting of data as well as omissions of pertinent information. Key processes or procedures that serve as controls in ensuring the completeness and accuracy of data may not be consistently and timely performed.

### **Recommendations**

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1. (P3) A Policy and Procedure Manual should be created to document the process of publishing the annual ME Report. The Manual should include information on when drafting begins, responsible parties within the process, what content is included in the report, and approvals of each report section and the final draft.

***Management's Response:***

***SOP Manual will be developed by the Stat Book team and reviewed by management every two years with changes made as needed.***

***Target Date for Completion:***

***December 31, 2021***

**FINDING    Lack of Controls – Statistical Reporting**

The Medical Examiner Office (MEO) lacks controls over the collection and consolidation of statistical data presented in their annual Medical Examiner's Statistical Report (ME Report). When preparing the annual ME Report, statistical data is obtained from several MEO units. All collected data is consolidated at the MEO executive level for publication within the ME Report. However, the risk that the information received or consolidated may be inaccurate is not properly controlled.

Internal controls assist an organization to achieve its objectives by minimizing risk. Secondary review of data to confirm accuracy is a best business practice as it limits errors that may result in inaccurate or incomplete information in reports.

During its interviews, DIA noted the lack of secondary reviews of reported data. This includes a review of reported data from individual MEO units for accuracy, as well as upon consolidation during the ME Report drafting process.

The MEO was unaware of the lack of policy and/or procedure to appropriately control the accuracy of the drafting of the annual ME Report.

**Risk to the County if Not Corrected**

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There may be inaccuracies or incomplete information in reports. This may result in missing trends and the historical baseline for trends being incorrect. There may also be a negative impact on funding and/or of the MEO's reputation.

## Recommendations

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1. (P1) Secondary reviews should become a standard part of the reporting process. Every report that is utilized in the Annual Statistical Report should be reviewed by the creator and an independent secondary reviewer. The secondary reviews should be incorporated within the Policy and Procedure Manual also recommended by DIA in this report.

***Management's Response:***

***Once quarterly stat reports are sent and collected, a secondary review will be conducted as well as stats from the previous 2 quarters as items can change throughout the year. Another review will be conducted when year end stats are final as well.***

***Target Date for Completion:***

***October 1, 2021***

## **FINDING    Conflicting Data**

There is conflicting data within the 2018 annual Medical Examiner's Statistical Report (ME Report). Internal controls assist an organization to achieve its objectives by minimizing risk. Maintaining support documentation for all statistical data included within a report is a best business practice and provides a measure of control over the accuracy and completeness of information. Support documentation may provide an audit trail that allows the information reported to be traced back to the record of origin.

During review, DIA noted the Histology Laboratory Report within the 2018 ME Report stated the total number of autopsied cases was 2,756. The Summary of Medical Examiner's Cases within the 2018 ME Report reflects the total number of autopsied cases as 1,422.

Upon inquiry, Histology could not provide support for the 2,756 cases stated as this information was obtained verbally from another unit within the MEO. DIA reviewed the support used to calculate 1,422 total autopsied cases as reflected in the Summary of Medical Examiner's Cases and found it accurate.

The MEO lacks a policy and/or procedure requiring all sources of data included within the annual ME Report be documented and reviewed for accuracy.



## **Risk to the County if Not Corrected**

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There may be inaccuracies or incomplete information in reports. There may also be a negative impact on funding and/or of the MEO's reputation.

## **Recommendations**

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1. (P3) Appropriate audit trails and support documentation should become a standard part of the annual reporting process. All data utilized in the annual Medical Examiner's Statistical Report should have documented sources. Requiring the existence and review of audit trails and support documentation should be incorporated within the Policy and Procedure Manual also recommended by DIA in this report.

***Management's Response:***

***To be included in SOP. Source documentation will be included in Stat report.  
Part of the Stat report process will include QA reviews of audit trails on select  
random data.***

***Target Date for Completion:***

***December 31, 2021***