A REVIEW OF THE OFFICE OF THE MEDICAL EXAMINER,

PROVINCE OF MANITOBA

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Recommendations for the Chief Medical Examiner's Office: (Recommendations are listed in the order they appear in the "RECOMMENDATIONS" section of this paper with discussion, findings, and recommendation.)

1. This report recommends the retention of the Chief Medical Examiners model in Manitoba.
2. It is recommended that the workload of the Director be reviewed to ensure a stronger focus on the leadership and management of the CME's office.
3. It is recommended that the Department (Corporate and Strategic Services) work with the Director of the Chief Medical Examiner's office to develop a strategic plan.
4. It is recommended that the Chief Medical Examiner's (CME's) office, in collaboration with Corporate and Strategic Services systems group, examine options to improve their use of technology and systems.

23(1)(a), 20(1)(a)

6. It is recommended that the Corporate and Strategic Services Division assign resources from the Strategic Innovation Unit to conduct a lean study of the CME's operation. This should include a review of workflow, processes, as well as staff roles and responsibilities.
7. It is recommended that Corporate and Strategic Services assign resources from the systems group to work with the CME's office to determine if there are other automated systems and hardware that would more effectively support the timely completion of investigations, move information more efficiently, and allow for easier extraction of

data for research purposes. In particular, discussions should be held with Saskatchewan's Chief Coroners Office to review their newly implemented system.

8. The need for a business continuity plan is clear and it is recommended that Corporate and Strategic Services work with the Director to ensure a plan is completed.
9. It is recommended that a mass casualty plan be created in conjunction with the other stakeholders.
10. It is recommended that meetings be scheduled with Shared Health to occur three times per year. Meetings with Vital Statistics and representatives of the funeral industry should be considered on a bi-annual basis.
11. It is recommended that the Department assist the CME's office in developing a trauma informed model for CME staff.
12. It is further recommended that where the Department is using specific resources to support staff in other areas dealing with trauma, that those resources be made available to CME staff as required.
13. It is recommended that the Civil Service Commission's attendance management policy be implemented to ensure accountability for use of sick leave.
14. It is recommended that the CME's office work with Human Resources to identify a pool of people who could be contracted with to fill in when long term absences arise.
15. In light of the number of reportable deaths mandatory reporting in personal care homes generates, the fact that 95% of the reported deaths are attributable to natural causes, coupled with the small number of further investigations completed, it is recommended

that the Department review the regulation requiring the reporting, to determine if there is an ongoing need for mandatory reporting requirement.

16. It is recommended that the CME's office consult with Corrections Division scheduling experts to review their current "on call" system to determine if changes can be made to improve scheduling with the resources in place.
17. It is recommended that the CME's office review its current approach to "on call" scene attendance to assess alternate methods for service delivery.
18. It is recommended that the CME's office work in concert with Corporate and Strategic Services to determine if there are potential partnerships to reduce costs or alternate contracting, or work arrangements, that can be found to bend that cost curve on transportation.
19. It is recommended that the Department consider the fit and alignment of the CME's office and consider a preliminary discussion with the Department of Health about how the broader public health and safety mandate of the CME can best be accommodated.

INTRODUCTION

"Show me the manner in which a nation cares for it's dead and I will measure with mathematical exactness, the tender mercies of it's people, their respect for the laws of the land, and their loyalty to higher ideals." (Sir William Ewart Gladsone, Prime Minister, Great Britain).

The history of Coroners dates back as far as the ninth and tenth centuries to England. They were formalized into law by King Richard I. The King had Coroners attend to the death scenes to protect the crowns' interests and collect duties that were owed. Over time, the role evolved to investigating, determining the cause of death and convening villagers as a jury to render judgement. As the British Empire expanded it's reach the colonies adopted the British framework of laws including the roles of Coroners.

A new development in the late 19th century saw the inception of Medical Examiners replacing Coroners in some jurisdictions. The introduction of Medical Examiners was intended to professionalize death investigation, with medicine at its centre.

A review completed by Dr. Matthew J. Bowes *"Concerning the Office of the Chief Medical Examiner"* in Newfoundland noted, "Competent medicolegal death investigation is a cornerstone of any governments efforts at preserving public safety because we cannot prevent deaths we do not understand. Suicides, deaths due to drunk driving, homicides due to domestic violence, sudden infant death syndrome, and deaths due to drug intoxication – all these are important threats to public health, all are potentially preventable, and all pass through the Medical Examiner service for a detailed investigation. The usefulness of the Medical Examiner service is, therefore, not limited to providing an autopsy in murder cases: the

Medial Examiner service is ideally positioned to collect data that would permit government to prevent many kinds of death."

Bowes goes on to note, "For an activity of such importance, one would expect that the medicolegal death investigation would have its own set of standards, with a corresponding system of inspections and accreditations. That is not so. Canada has no standards that apply to medicolegal death investigation. The United States has two different sets of standards that can be applied to medicolegal death investigation agencies but both are voluntary. The question whether a given Medical Examiner or Coroner system in Canada is actually doing its job, when measured against its peers, is a difficult question to answer."

This quote neatly summarizes a principal challenge confronting this review. Simply put, there is no directly comparable data that exists to allow for a clear understanding of how one jurisdictions' death investigation model compares when assessed against other models. At best, the data collected in the jurisdictional scan offers a basic understanding of the differences between provinces but it does not easily allow for a more specific operational understanding of which model is most efficient and effective.

PURPOSE OF THE REVIEW

The primary purpose of the review is to assess other models for the Office of the Chief Medical Examiner, which could result in a more cost effective approach, based on an inter-jurisdictional examination. It is anticipated that this will be accomplished through an analysis of other death investigation models based on an inter-jurisdictional scan. More specifically, the report was requested to address the following:

1. The reviewer will review the Medical Examiner and Coroner systems in Canada for a qualitative, and quantitative analysis of the cost effectiveness as it would apply to the Manitoba landscape.
2. To provide recommendations to the Government of Manitoba based on the review of the systems that are in place in other jurisdictions.
3. If an alternative system is determined to be more cost effective, what costs would be associated with the change to that system.
4. If it is determined that a Medical Examiner system should be retained, is there a more cost effective approach through the use of innovation and efficiency to the operation of the Office of the Chief Medical Examiner.

QUALITATIVE ANALYSIS

There are 6 jurisdictions in Canada that operate on a Coroners model. They are British Columbia, Saskatchewan, Ontario, Quebec, New Brunswick, and Prince Edward Island. Alberta, Manitoba, Nova Scotia, and Newfoundland/Labrador all operate under a Medical Examiner model.

A review of provincial legislation reveals that, irrespective of the model, all systems exist to respond to 5 questions when they become aware of a reportable death. These are:

1. To determine the identity of the deceased
2. To determine the date, time, and place of death
3. To determine the cause of death
4. To determine the manner of death

5. To determine the circumstances in which the death occurred

The answers to these questions determine if further investigation is required of a reportable death.

What is considered to be a reportable death is also set out in legislation. Reportable deaths, in all jurisdictions, generally includes:

- deaths due to accident, suicide, homicide,
- that were sudden or unexpected,
- due to poisoning,
- due to a contagious disease that is a threat to the public,
- during pregnancy or following pregnancy, in circumstances that might reasonably be related to the pregnancy,
- during operating room (OR) post surgical procedures,
- when the death occurs as the result of use of force by a peace officer,
- when the death occurs in a correctional facility, or the deceased is the resident of a mental health facility or a developmental centre,
- when the deceased is a child.

Every reportable death causes a review to be completed, that will determine the circumstances surrounding the death and may be referred to a Medical Examiner for autopsy.

It is notable that only two jurisdictions, Manitoba and Ontario, require mandatory reporting of all deaths in personal care homes. In Manitoba the requirement to report is set by regulation for the Chief Medical Examiner (CME) office. This report will have more to say on this topic in due course.

Irrespective of the model being used, the reasons for the existence of medicolegal death investigation services are essentially the same across all jurisdictions. The nature of the investigations that both systems undertake are also broadly similar. It is the manner in which the two systems accomplish their work where differences and distinctions emerge. These differences, in combination with the absence of national standards for death investigations, mean that direct comparisons between the two systems are very difficult. In the result, a direct generic "apples to apples" comparison is not the best or most accurate way to assess information. A more apt comparison would be that of a "Honey Crisp apple to a Granny Smith apple". Both are fundamentally apples, and they are similar to that extent, but they are not the same apple. It is important to bear this distinction in mind when considering the data from the cross-jurisdictional scan and reaching conclusions.

The following paragraphs outline the qualitative advantages and disadvantages of the Coroner and CME models.

There are a number of advantages to the Medical Examiner model. They include:

1. Medical Doctors, including pathologists and forensic pathologists, are leading and working in the role of Medical Examiners.
2. Medical Investigators are almost all fully trained nurses.
3. There is a higher level of science and medicine within the system.
4. A key feature of the CME's structures across the country is the centralization of operations. This supports improved quality control of investigations and autopsies. Centralization also allows for better opportunities to more efficiently deploy staff and achieve economies of scale in the cost of operations.

5. Centralization allows for more readily available cross-consultation between professionals and peer review of the work being done.
6. There is consistency achieved with respect to credentialing, training for medical staff, and continuing education.
7. The Medical Examiner model creates a clear line of demarcation between the medical and CME communities and assists in protecting the independence of the CME.

23(1)(a)

23(1)(a)

While the CME's office has access to E-Chart and the Drug Program Information Network (DPIN), it does not have access to Electronic Patient Records (EPR). 23(1)(a)

23(1)(a)

There are a number of advantages to the Coroners model as well. They are:

1. Coroner models use lay coroners to consult investigations. They may, or may not have some form of medical training. Some may be former police officers or possess some

other form of investigative background. Others may be respected local people in the community. This approach means that Coroners are well distributed across their jurisdictions and closer to the communities they are serving.

2. As a result, investigations are more community sensitive, and some family members are more comfortable sharing information with the Coroners than the police.
3. Local presence of Coroners can lead to more direct family involvement, and improve communication for everyone involved.
4. The Coroners model completes inquests with the services of a jury, which is seen as a mechanism to improve the transparency of the process.

23(1)(a)

There have been a number of reviews of both systems. Ontario began a review subsequent to the number of deaths in personal care homes that were later determined to be homicides. They determined that they were keeping their current model, but have made a number of changes to improve their operations. However, in December of 2019, they announced a review of 132 cases in which top billing medical Coroner investigated the death of a person they had treated within the past 5 years.

In 2017, the CME in Nova Scotia conducted a review of the CME's office in Newfoundland. The review was prompted by the loss of a brain and dura of a deceased 4 month old boy. The review made a number of recommendations focusing on staffing levels, facilities, policy and

procedures, record keeping, data management, evidence management practices, and consistency of practice outside of St. John's. The review recommendations were aimed at improving the current model.

In 2018, Saskatchewan completed an independent outside review of its death investigation system (Weighill, C., 2018). The review is comprehensive and identified 44 recommendations for changes to and improvement of their Coroners model. The review was unable to compare the costs of the various systems due to varying and unique funding models across jurisdictions.

In concluding that it would recommend retention of the current model, Saskatchewan's report notes that shifting from a Coroners Model to a CME model would require new legislation (Weighill, C., 2018). The same would largely be true in Manitoba, if it were to adopt a Coroner's model.

21(1)(b), 23(1)(a)

21(1)(b), 23(1)(a)

A jurisdictional scan/questionnaire was sent to all 10 provinces. Responses were received from six provinces. The questionnaire can be found as Appendix A. The tables in the next pages display the answers to the questions.

21(1)(b), 23(1)(a)

21(1)(b), 23(1)(a)

21(1)(b), 23(1)(a)

21(1)(b), 23(1)(a)

21(1)(b), 23(1)(a)

QUANTITATIVE ANALYSIS

While the information from other jurisdictions is interesting, the data from 20(1)(b), 23(1)(a) is the most directly comparable to Manitoba from a demographic perspective. In the result, particular attention has been paid to the 20(1)(b), 23(1)(a) data in completing this report.

The number of deaths per 100,000 people, is a basic starting point for understanding an early driver of workload. Both Manitoba 20(1)(b), 23(1)(a) were mid-range with 20(1)(b), 23(1)(a) having a rate of 829 per 100,000, while Manitoba's rate was 809 per 100,000. The 20(1)(b), 23(1)(a) jurisdictions had higher numbers per capita 20(1)(b), 23(1)(a) 20(1)(b), 23(1)(a) than other jurisdictions. 20(1)(b), 23(1)(a) were at the lower end (20(1)(b), 23(1)(a) 742 and 20(1)(b), 23(1)(a) 601 per 100,000). There is no clear and compelling data that explains the differences between jurisdictions.

A more specific driver of workload is the number of reportable deaths that come to the attention of the medicolegal process and require some initial work. The 2018 results of the cross-Jurisdictional scan reveal that Manitoba has by far the highest percentage of reportable deaths with 60% of deaths reportable to the CME's office. 20(1)(b), 23(1)(a) is next highest at 39%. It should be noted that both Manitoba 20(1)(b), 23(1)(a) require the mandatory reporting of deaths in personal care homes. The other jurisdictions are considerably lower 20(1)(b), 23(1)(a) rate at 23% is 37% lower than Manitoba's.

The impact of reporting personal care home (PCH) deaths is clear. In Manitoba, PCH reporting was required in 2829 cases of the 6599 that were reportable in 2018. This equates to almost 43% of all reportable deaths in that time frame. While we do not have specific

comparable data from 20(1)(b), 23(1)(a) they reported that 20% of their reportable deaths were from PCHs.

A closer look at the comparison with 20(1)(b), 23(1)(a) reveals that even when the PCH data is removed, the number of reportable deaths in Manitoba is still higher by 1518 cases. The obvious question is why? However, there is no clear answer that easily or accurately explains the differences between jurisdictions. Nor is there any nationally available database against which this information can be compared. There may be explanations in public health data, or social determinants of health data but that research was outside the scope of the Terms of Reference of this review.

Generally speaking, a more specific driver of work is the number of reportable deaths that lead to further investigation. While the process is broadly similar elsewhere, in Manitoba, an investigation sometimes involves attendance at the scene of the death by a Medical Investigator or the police, interviews with family members or others germane to the investigation, coordinating with investigating police services, and a review of health care files. The results of these reviews will either lead to a decision to certify the death, or a review and possible referral for an autopsy by a Medical Examiner. In Coroner based jurisdictions, the investigations are completed by Coroners or lay Coroners appointed by the provinces in which they work.

In looking at the data provided through the cross jurisdictional scan, there were only three jurisdictions that provided at least two years worth of data outlining both the number of reportable deaths and number of deaths investigated. As a result, only the data from those jurisdictions was considered for the analysis below:

20(1)(b), 23(1)(a)	Year	Reportable Deaths	# of Investigations	% of Reportable Deaths Investigated
	2016	1995	1167	58%
	2017	1981	1103	55%
	2018	2252	2252	100%
	2016	6374	1750	27%
	2017	6391	1756	27%
	2018	6599	1852	28%
	2016	1234	935	75%
	2017	1257	934	74%

The data indicates in all three years, Manitoba had more reportable deaths than the other jurisdictions. In two of the last 3 years, Manitoba commenced more investigations than 20(1)(b), 23(1)(a) In two of the last 2 years, Manitoba completed more investigations than 20(1)(b), 23(1)(a) While the percentage of reportable deaths that became investigations in Manitoba is lower than other provinces, this seems to be a function of the larger number of deaths that were reportable in each year. This can be attributed in large part, to the mandatory reporting of PCH deaths.

The Terms of Reference requested an analysis of the per capita cost of death investigation services. While per capita costing is a way to get to a direct comparison of costs for services, in

this case, the calculations must be understood to be a " ball park estimate". This is because the systems in play are not directly comparable, and in some instances, all of the associated costs are not included in a jurisdictions budget. For example, in Manitoba, there are 7 forensic pathologists, 6 of which are funded by Shared Health and cross appointed at the University of Manitoba. Those costs are not found in the CME's office budget. The CME's funding is in the budget, but is used to finance a contract with the University of Manitoba, who actually pays the CME a salary plus a stipend for teaching duties at the University.

It should also be noted that there are a variety of funding models across the provinces that are not directly comparable. In some jurisdictions, costs such as pathology operating costs are paid for by the health regions. Some jurisdictions have stand alone pathology facilities funded separately from Health. How staff are allocated also reveals a wide variation in approach. A full-time position in one province may be "fee for service" in another, with funding associated to that contract coming from another area of government. Toxicology is another area where costs are not uniformly allocated. In some provinces, the provincial laboratories absorb the costs for their service, while in other jurisdictions, the CME or Coroners office funds toxicology. The CME's office in Manitoba actually shares costs for the laboratory at St. Boniface Hospital with Shared Health, which represents another approach.

As a result, it is not really possible to make direct per capita cost comparisons without devoting considerable time and effort to understanding the funding mechanisms in each province. Therefore, the numbers as presented cannot be considered to accurately provide the comparison being sought. At best, the calculation provides a broad estimate of costs, at worst, if used to make direct comparisons, they would lead to potentially incorrect conclusions.

Per Capita Calculations

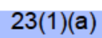
The per capita calculation was competed by dividing the budget of the reporting jurisdiction into the provinces population and multiplying the result by 100,000 to achieve a cost per 100,000. The results were:

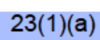
20(1)(b), 23(1)(a)	$291
	$399
Manitoba	$320
20(1)(b), 23(1)(a)	$543
	$518
	$437

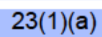
Given the caveats noted earlier, it is clear that based on the reported costs, Manitoba has the second lowest cost on a per capita basis. 20(1)(b), 23(1)(a) per capita cost is the third lowest, but it should be noted that their staffing complement includes 23 full-time staff (including 5 management positions), as well as 75-80 community Coroners who work on a "fee for service" basis, and 5 inquest Coroners. Manitoba operates with a total of 13 staff, with 1 management position. On this basis, it would appear that Manitoba has a higher volume of work, with less staff, and therefore, offers better value than the other models under consideration.

The Chief Medical Examiner (CME) model offers the best science that is available for medicolegal death investigations. While no system is perfect, the CME model has robust peer review processes and professional accountability standards to ensure work is done to a high scientific standard. The importance of this work for public health and safety reasons needs the highest possible medical science in order to maintain the trust of those it serves. This is also

very important to family members who are looking for answers in the aftermath of the loss of a loved one.







23(1)(a)

RECOMMENDATIONS

Recommendation #1:

Based on all of the foregoing information this report recommends the retention of the Chief Medical Examiners model in Manitoba.

Opportunities for Improvement:

The CME's office has experienced four changes in executive leadership over the recent past; either as the result of changes in executive leadership or departmental restructuring. 23(1)(a)

23(1)(a)

The Director of the CME's office wears many hats. A significant portion of the Directors time is dedicated to conducting medical investigations when staff are absent on a short or long term basis, or to balance workload within the office. He fills in for clerical support when the need arises, as well as performing "on call" duties. In the current circumstance, it is the management duties of the Director that are on the "corner of the desk" as the Director primarily deals with the day to day operations and administrative functions of a busy office.

Recommendation #2:

It is recommended that the workload of the Director be reviewed to ensure a stronger focus on the leadership and management of the CME's office. The following paragraphs will outline in greater detail, why this is critical.

Management, Administrative Practices, Workflow, and Systems:

The cross jurisdictional review revealed that other jurisdictions had strategic plans. Manitoba's CME's office does not. A strategic plan that identifies the organizations mission, mandate, and operating environment will identify meaningful and measurable goals to address the challenges the CME's office faces. It is also a document that communicates to government and the public, the work of the CME's office. A sound strategic plan will also identify the goals set, and how progress towards those goals is being measured and achieved.

Recommendation #3:

That the Department (Corporate and Strategic Services) work with the Director of the Chief Medical Examiner's office to develop a strategic plan.

The current CME's office has numerous challenges with respect to systems and the use of technology to complete daily work. Virtually all work is paper based and most files are paper based. This extends to the reporting of deaths, which are reported by phone, pager, messages left on voicemail on the back shift, and facsimile (fax). Information from death investigations is

manually recorded on a form and then given to clerical staff for data input. Once the data has been entered, it is difficult to extract information that is responsive to queries.

The CME's office has been responding to an increasing number of requests for research data from outside organizations. Current examples would include requests from the Office of the Children's Advocate and inquiries around opiate related deaths. The office currently has a statistician who works to extract data from the system as a principal part of his responsibilities.

23(1)(a)

The absence of a modern operating system is impacting the efficiency and effectiveness of the CME's office as well as outside stakeholders. 23(1)(a)

23(1)(a)

23(1)(a), 21(1)(a)

Recommendation #4:

It is recommended that the CME's office, in collaboration with the Corporate and Strategic Services systems group, examine options to improve their use of technology and systems.

23(1)(a)

23(1)(a), 21(1)(a)

Recommendation #6:

It is recommended that the Corporate and Strategic Services Division assign resources from the Strategic Innovation Unit to conduct a lean study of the CME's operation. This should include a review of workflow, processes, as well as staff roles and responsibilities. There are a number of potential inefficiencies that could be identified from such a review; that could in concert with better technology, yield savings or opportunities for reinvestment in the CME's office to improve effectiveness.

Recommendation #7:

It is recommended that Corporate and Strategic Services assign resources from the systems group to work with the CME's office to determine if there are other automated systems and hardware that would more effectively support the timely completion of investigations, move information more efficiently, and allow for easier extraction of data for

research purposes. 23(1)(a), 20(1)(b)

23(1)(a), 20(1)(b)

The CME's office does not have a business continuity plan. The CME's office operates 24 hours a day, 7 days a week. It's services are essential, and the need for a business continuity plan is important to sustaining services.

Recommendation #8:

The need for a business continuity plan is clear and it is recommended that Corporate and Strategic Services work with the Director to ensure a plan is completed.

It is also noted that the CME's office does not have an articulated "mass casualty" plan. The CME's office has participated in mass casualty exercises, but there is no written plan. This became a topical issue most recently after the Humboldt Broncos bus crash and may become an issue in light of the current concerns with the spread of COVID-19 virus.

Recommendation #9:

It is recommended that a mass casualty plan be created in conjunction with the other stakeholders.

Improved Communications

The CME's office works with a broad variety of stakeholders, but there is no consistent mechanism for communication between them. 23(1)(a)

23(1)(a)

Regularly scheduled meeting would also allow for consistent discussion about improved data sharing between stakeholders. For example, the CME's office is interested in acquiring access to EPR data from health. Electronic access to this data would significantly reduce the number of visits CME medical investigators would have to make to hospitals to complete their investigations.

Regularly scheduled meeting between Shared Health and the CME's officials could be used to proactively address issues like the ones identified above, and improve coordination between the two systems. Similar meetings with Vital Statistics and the funeral industry would also assist in improving efficiency and effectiveness of service delivery.

Recommendation 10:

It is recommended that meetings with Shared Health be scheduled to occur three times per year. Meetings with Vital Statistics and representatives of the funeral industry should be considered on a bi-annual basis.

23(1)(a)

Recommendation #11:

It is recommended that the Department assist the CME's office in developing a trauma informed model for CME staff. To this end, it is recommended that the Director contact Manitoba Corrections to examine the potential for the "Road to Mental Readiness" in order to assist in improving the management of trauma in the workplace, and better support staff.

Recommendation #12:

It is further recommended that where the Department is using specific resources to support staff in other areas dealing with trauma, that those resources be made available to CME staff as required.

Recommendation #13:

It is recommended that the Civil Service Commission's attendance management policy be implemented to ensure accountability for use of sick leave.

Recommendation #14:

It is recommended that the CME's office work with Human Resources to identify a pool of people who could be contracted with to fill in when long term absences arise.

Mandatory Reporting of Personal Care Home (PCH) Deaths:

In Manitoba, the mandatory reporting of personal care home deaths is required by regulation. Manitoba is only one of two jurisdictions in Canada where the reporting of PCH deaths is mandatory.

As noted earlier in this review, just under 43% of reportable deaths in Manitoba came from PCH's. Review of the annual statistical reports submitted by Manitoba's CME indicates that 95% of the reportable deaths from PCH's were certified as a natural death by a medical investigator. Over the same 3 year period, less than 1% of those deaths were certified by a Medical Examiner. Simply put, the mandatory reporting requirements for PCH's are generating a significant amount of initial work with a much smaller number of more fulsome investigations.

Recommendation #15:

In light of the number of reportable deaths mandatory reporting in personal care homes generates, the fact that 95% of the reported deaths are attributable to natural causes, coupled with the small number of further investigations completed, it is recommended that the Department review the regulation requiring the reporting, to determine if there is an ongoing need for mandatory reporting requirement.

Options could include simply asking PCH's to report deaths that are reportable under the Fatalities Inquiry Act as it is currently written, or adopting the Critical Incident reporting criteria used by the health care system. Either approach would reduce the number of reportable deaths, but ensure reporting of deaths where a more in depth investigation would be required.

On Call:

The CME's office has someone on call 24 hours a day. On the back shift, they are available by pager to respond to death scene investigations. 23(1)(a)

23(1)(a)

Determining when a medical investigator goes out after hours is a matter of judgement for the "on call" person, and is based on information they receive from the scene. 23(1)(a)

23(1)(a)

The scheduling of "on call" staff has used the same process for many years. In essence, staff take "call" one night per week on a rotational basis. Compensation for being "on call" is determined by the collective agreement as is the cost of using a personal vehicle to attend death scenes. 23(1)(a)

23(1)(a)

Recommendation #16:

Given the current nature of the "on call" system 23(1)(a)

23(1)(a) it is recommended that the CME's office

consult with Corrections Division scheduling experts to review their current "on call" system to determine if changes can be made to improve scheduling with the resources currently in place.

Recommendation #17:

It is recommended that the CME's office review it's current approach to "on call" scene attendance to assess alternate methods for service delivery. Options could include contracting out "on call" services or using other service providers attending the scene to provide the information needed by the CME's office.

Transportation Costs:

The single largest operating expenditure in the CME's budget is for transportation of deceased bodies for autopsies. The cost for transporting deceased to Winnipeg for autopsies has increased by just under 29% from 2015 [23(1)(a)] to 2019 [23(1)(a)]. [23(1)(a)] [23(1)(a)]. The increase appears to be largely attributable to increased costs for transportation as the numbers being transported over the last three years have remained relatively stable. In light of the increasing costs for transportation, this is an area that requires a further review to determine if there are partnerships with others in government, or if tendering for transportation services might not yield more cost effective results. Consideration should also be given to assessing the viability of having Medical Examiners attend to appropriately equipped rural facilities to conduct autopsies locally.

Recommendation #18:

It is recommended that the CME's office work in concert with Corporate and Strategic Services to determine if there are potential partnerships to reduce costs or alternate contracting, or work arrangements that can be found to bend that cost curve on transportation costs.

Organizational Fit:

As noted at the beginning of this review, the location of the Coroner or CME model in Departments of Justice is a legacy of British medieval and colonial history. In Manitoba, the CME's office has long been a part of the Justice Department. In fact, all death investigation services in Canada, irrespective of their death investigation model, are located in the Departments of Justice. The assumption has always been that the protection of the independence of the CME was somehow linked to their placement in Justice.

This is not the case internationally. In American jurisdictions, Medical Examiners can be found in state government, or in some cases local government health care systems. Both models are also found in the state or local justice system as well, although the research suggests this is, in part, because Justice funding in many American jurisdictions is more robust than the publicly funded health care. The best fit for the location of Coroner or CME's operations in the current government environment is a matter that has largely gone unexamined.

23(1)(a)

23(1)(a)

23(1)(a) The CME, subject to the act, has control of the work of Medical Examiners and Investigators, establishes and maintains the professional standards for Medical Examiners and investigators, and regulates the "education and training of Medical Examiners and Investigators in areas relevant to their duties under the act." Furthermore, the CME, and the CME alone, "Must determine if an inquest into a death should be held". It should also be noted, that unlike some other jurisdictions, in Manitoba, no Minister of the Crown has a role in deciding, nor can they ask the CME to conduct an inquest. Because the independence of the CME is established by the Fatalities Inquiry Act, their location in the Department of Justice does not appear to be a necessary condition to their being independent.

On the question of conflict of interest, it is clear that no matter where the CME's office is located, that questions of conflict arise. Both the Healthcare and Justice systems are subject to mandatory investigation and review by the CME as required in the Fatalities Inquiry Act. The mandatory provisions of the Act require both systems to report certain types of deaths to the CME for further inquiry. In some circumstances, both systems are subject to inquests that are mandatory, meaning the CME is obligated to call an inquest. Furthermore the CME is reliant on

the health care system for it's facilities to conduct autopsies. As both systems are subject to potential conflict of interest concerns, and have the same obligation for mandatory reporting to the CME, it seems that there is little to choose between Justice and Health as both are similarly conflicted.

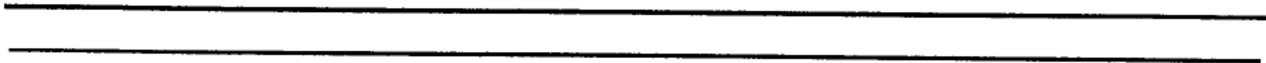
The advances of medical science, and broad interpretation of public safety in the context of the CME's role in recognizing threats to public health and safety; and their role in identifying steps to prevent similar deaths indicates that the purpose of the CME's office is much broader than the completion of autopsies for homicides. Given the broader context, the proper location for the CME's office is an important question of system alignment. Systems work best when they are aligned in such a way as to support the work of the other systems, reducing barriers and eliminating needless friction that comes from crossing over bureaucratic boundaries. In an aligned model for service delivery, death investigation can also be seen as the last act of care delivered by a health care system.

In Manitoba, the connections to the health care system are significant. The CME is a medical doctor as are other Medical Examiners. Almost all ME's are forensic pathologists and their salaries, like all pathologists, are negotiated between Doctors Manitoba and Shared Health. All the pathologists are cross appointed to the Faculty of Medicine, and like the CME, are funded for base salaries through contracts with the Faculty of Medicine. Furthermore, funds for additional professional services provided by the pathologists are paid through funding from Shared Health. The CME's office uses morgue space located within the health care system, and uses hospital space for the completion of autopsies. The CME's office also relies on access to the information held by the health care system to complete their investigations. In

the result, Medical Investigators and Medical Examiners must work across the justice/health care "border" on a daily basis.

Recommendation #19:

It is recommended that the Department consider the fit and alignment of the CME's office and consider a preliminary discussion with the Department of Health about how the broader public health and safety mandate of the CME can best be accommodated.



Reference Material:

1. "A Primer on Patient Safety Events", *Winnipeg Regional Health Authority,* Nov. 2014, accessed 4 December 2019,< https://www.wrha.mb.ca/extranet/rl6/PatientSafetyEventPrimer.pdf>.

2. "About the Coroners Office", Province of British Columbia, accessed 5 December 2019, <https://www2.gov.bc.ca/gov/content/life-events/death/coroners-service/about-us>.

3. "Act Respecting Determination of Causes and Circumstances of Death", Chapter R0.2, Chapter 1 Coroners, Division 1, Jurisdiction of Coroners, updated Dec. 10, 2019, Province of Quebec, accessed 15 December, 2019, <http://legisquebec.gouv.qc.ca/en/showDoc/cs/R-0.2?&digest=>.

4. Bowes, Matthew, "A Report Concerning the Office of the Chief Medical Examiner", Jun. 1, 2017, accessed 14 December 2019, <https://www.releases.gov.nl.ca/releases/2017/just/report_office_chief_medical_examiner.pdf

5. Bowes, Dr. Matthew, "National Standards needed for coroners, medical examiners, says CMAJ editorial", CBC news, updated Feb. 1, 2016, accessed 10 December, 2019, <https://www.cbc.ca/news/canada/north/coroners-medical-examiners-national-authority-cmaj-editorial-1.3428705>.

6. "Computational Formulas", Government of Canada, accessed 20 December 2019, <https://oag.ca.gov/sites/all/files/agweb/pdfs/cjsc/stats/computational_formulas.pdf>.

7. "Coroners Act, Chapter 15", Current to January 22, 2020, Province of British Columbia, accessed 16 January 2020, <http://www.bclaws.ca/civix/document/id/complete/statreg/07015_01>

8. "Coroners Act, Chapter C-23", Province of New Brunswick, accessed 4 December 2019, <https://www2.gnb.ca/content/gnb/en/services/services_renderer.14198.Coroner_Services.html>.

9. "Coroners Act, R.S.O. 1990, C-37", (act current March 25, 2019), Province of Ontario, accessed 14 December 2019,< https://www.ontario.ca/laws/statute/90c37>.

10. "Coroners Act", Province of Prince Edward Island, current to Sept. 21, 2019, accessed 2 December 2019, <https://www.princeedwardisland.ca/sites/default/files/legislation/c-25-1-coroners_act.pdf>.

11. "Critical Incident Reporting and Management", *Winnipeg Regional Health Authority Policy Manual;* policy 10.50.040, Apr. 2014, accessed 5 December 2019,< https://www.wrha.mb.ca/about/policy/files/10.50.040.pdf>.

12. "Fatalities Inquiries Act, Chapter F-9", Revised Statutes of Alberta 2000, (current to Feb. 1, 2019), accessed 14 December 2019, <http://www.qp.alberta.ca/documents/Acts/F09.pdf>.

13. "The Fatality Inquiries Act", C.C.S.M. C. F52, current Dec. 10, 2019 and in effect since Jan. 1, 2019, Province of Manitoba.

14. "The Fatality Inquiries Amendment Act, Bill 16", Jul. 31, 2019, Province of Manitoba, accessed 20 November 2019, < https://web2.gov.mb.ca/bills/41-2/b016e-php >.

15. "Fatalities Investigation Act, Chapter F-6.1", current to November 15, 2018, Province of Newfoundland and Labrador, accessed 5 December 2019, <https://www.assembly.nl.ca/legislation/sr/statutes/f06-1.htm>.

16. "Fatality Investigations Act, Chapter 31 of the Acts of 2001", updated 2014, Province of Nova Scotia, accessed 12 December 2019, <https://nslegislature.ca/sites/default/files/legc/statutes/fatality%20investigations.pdf>.

17. Forestall, Gregory, "New Brunswick Chief Coroner, Office of the Chief Coroner", Annual Report 2015, accessed 3 December 2019, <https://www2.gnb.ca/content/dam/gnb/Departments/ps-sp/pdf/annual_reports/coroner/AnnualReport-Coroner2015.pdf>.

18. "General Position Description of the Medical Examiner Investigator (MEI)" effective date of consolidation Feb. 2, 2009, Province of Manitoba.

19. "Law Reform Commission of Saskatchewan, Proposals for a New Coroners Act", September 1984, accessed 5 December, 2019, <https://lawreformcommission.sk.ca/Coroners_Act_Proposals.pdf>.

20. "Medicolegal Death Investigation System: Workshop Summary"; Institute of Medicine (US) Committee for the Workshop on the Medicolegal Death Investigation System; Washington (DC): *National Academies Press (US);* 2003.

21. Melinek, J. MD, Thomas, L. MD, Oliver, W. MD, et al, "National Association of Medical Examiners Position Paper: Medical Examiner, Coroner, and Forensic Pathologist Independence; *Academy of Forensic Pathology, 2013, 3 (1), 93-98,* accessed 12 December 2019, <https://name.memberclicks.net/assets/docs/00df032d-ccab-48f8-9415-5c27f173cda6.pdf>.

22. Ministry of Community Safety and Correctional Services, "Strategic Plan for Ontario's Death Investigation System 2015-2020", Province of Ontario, accessed 28 December 2019, <https://www.mcscs.jus.gov.on.ca/english/DeathInvestigations/Ourcommitment/DI_Strat_plan_15_20.html>.

23. "Nova Scotia Medical Examiner Service", Province of Nova Scotia, accessed 12 December 2019, <https://novascotia.ca/just/cme/>.

24. "Nurse Coroner: Job Description, Duties and Requirements", *Glossary of Career Education Programs,* Sept. 28, 2019, accessed 5 December 2019, <https://study.com/articles/Nurse_Coroner_Job_Description_Duties_and_Requirements.html>.

25. "Office of the Chief Medical Examiner", Province of Alberta, accessed 16 December 2019, <https://www.alberta.ca/office-of-chief-medical-examiner.aspx>

26. Russell, Jennie & Rusnell, Charles, "Alberta Chief Medical Examiner, Dr. Elizabeth Brooks-Liam Resigns", CBC news, updated Jan. 15, 2020, accessed 15 January 2010,< https://flip.it/5PSQ5R>.

27. Statistics Canada, "Canadian Coroner and Medical Examiner Database 2006 to 2017", released Apr. 29, 2019, accessed 3 December 2019, <https://www150.statcan.gc.ca/n1/daily-quotidien/190429/dq190429a-eng.htm>.

28. "Strengthening Forensic Science in the United States: A Path Forward", *The National Academies*, (2009), accessed 14 December 2019, <https://sites.nationalacademies.org/cs/groups/pgasite/documents/webpage/pga_057632.pdf>.

29. Taylor, C., "How to Calculate Prevalence Rates Per Thousand", *Sciencing,* updated Mar. 13, 2018, accessed 20 December 2019, <https://sciencing.com/calculate-prevalence-rates-per-thousand-7533277.html>.

30. "The Coroner and Medical Examiner Systems", Statistics Canada, accessed 12 November 2019, <https://www.150.statcan.gc.ca/n1/pub/82-214-x/2012001/int-eng.htm>.

31. "The Role of the Chief Medical Examiner's Office", Province of Manitoba, accessed 4 December 2019, <https://www.gov.mb.ca/justice/crown/cme.html>.

32. "What is a Critical Incident?", *Winnipeg Regional Health Authority Patient Safety,* accessed 5 December 2019, <https://www.wrha.mb.ca/quality/patientsafety/criticalincident/whatis.php>.

33. Weighill, C., "A Review of the Office of the Chief Coroner, Province of Saskatchewan", Jun. 20, 2018.

Correspondence and Other Reference:

1. Pilley, Dr. S., "Cross Canada Analysis of Coroner/Medical Examiner Agency Models", Jan. 16, 2002.

2. "Quarterly Budgets-Office of the Chief Medical Examiner", Province of Manitoba.

APPENDIX A:

Questions for Jurisdictional Scan:

1. Does your jurisdiction use a Chief Medical Examiner (CME) or Coroners model?

2. If you are operating in a Coroners jurisdiction, do you use lay Coroners?

   - Does your office employ investigators to support Medical Examiners or Coroners?

   - If so, do they investigate reports of deaths from police/hospitals after hours or is there another mechanism i.e.: central phone message or email, call centre, casual or part- time staff?

   - Do investigators work daytime with after hours on call, or rotating shifts?

3. What percentage of deaths are reportable under your legislation?

   - Are all deaths in personal care homes reportable?

   - If not, what criteria determines what is reportable?

4. What was the number of deaths reported annually over the past 3 years?

5. How many investigations (Coroner/Medical Examiner) were opened annually over the past 3 years?

6. What is the current annual salary and operating budget for your program?

   - Annual salary_______________, Operating Budget__________________

7. How many full-time, part-time and contract staff are in your authorized staff compliment?

   - Full-time staff_________ Part-time staff_________ Contract staff__________

8. How many are employed in management, administration, investigator and autopsy roles?

   - Management________, Administration________, Investigator_______, autopsy________

9. How many external and full autopsies have been performed over the past 3 years?

10. What was the average time to receive autopsy reports over the past 3 years?

11. What was the number of toxicology analysis reports received over the past 3 years?

12. What was the average time to receive toxicology reports?

13. How many mandatory inquests have been called in your jurisdiction over the past 3 years, and under what circumstances were they called?

14. How are inquests or inquiries structured in your jurisdiction?

    - Who conducts the inquest/inquiry?
    - What mechanisms are there for following up on recommendations?

15. Does your jurisdiction conduct peer reviews for forensic autopsies?

16. Does your jurisdiction have any death review committees to provide advice to the Chief Coroner or CME in your jurisdiction?

    - If so, what areas do the committees focus on?

    - Are the roles of the committees embedded in legislation?

17. How many inquests have been held over the past 3 years and how many days on average did they take to complete?

18. Under your legislation, do inquests in general, produce recommendations to prevent similar situations?