

**Anatomy of Death Investigations:
A Qualitative Evaluation of Investigative Methods**

Christina Witt
MSc, University of Leicester, 2008
BSc, University of Calgary, 1997

Doctor of Philosophy

Australian Graduate School of Policing and Security
Facility of Business, Justice, and Behavioural Sciences
Charles Sturt University

1 November 2017

STATEMENT OF AUTHORSHIP

This dissertation is submitted as partial fulfilment of the requirements for the degree of Doctor of Philosophy by research. I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree or diploma at Charles Sturt University or any other educational institution, except where due acknowledgment is made in the dissertation. Any contribution made to the research by colleagues with whom I have worked at Charles Sturt University or elsewhere during my candidature is fully acknowledged.

I agree that this dissertation be accessible for the purpose of study and research in accordance with the normal conditions established by the Executive Director, Library Services or nominee, for the care, loan and reproduction of theses.

.....

Christina Witt (née Van Hereweghe)

ACKNOWLEDGEMENTS

I would like to acknowledge the support I have received from Charles Stuart University, particularly my principal academic supervisor Dr Hank Prunckun. I will forever be grateful for your mentorship, commitment to my research and wise insight. Without Dr Prunckun's support, I would never have been able to complete this thesis.

I would like to extend my gratitude and thanks to friends and colleagues at Mount Royal University, whose support and encouragement were instrumental for me beginning this journey. Thank you Dr Kelly Sundberg and Dr Tanya Trussler for your friendship and guidance, and for the editing and review of this thesis. A huge thank-you to my editor, Ms Jana Lait, whose keen eye improved the quality of this thesis.

To my work family at Calgary Police Service, specifically the members of the Homicide Unit and the subject matter experts who participated in this survey, I am grateful for your contributions and support. Thank-you Kim Assailly for taking the time to read this thesis and providing insight and feedback. I have spent over half my life with this police service and am proud to be a sworn member with the Calgary Police Service. Thank-you Calgary Police Service for the research agreement for access to documentation and data, and for tuition aid.

Finally, to my family whose unwavering support I cherish and depend on. To my mother, Teresa Ridgen, you have been a pillar of strength my entire life. I honestly would not be where I am today without your kindness and love. To my aunt, Jeannette Richter, you too have stood behind me my entire life journey, including reading this thesis and providing insightful feedback. You are both strong women whom I love and admire.

To my beautiful little girl, Sawyer, your innocence and wholehearted belief that dreams come true if you work hard inspires me. I hope I can always model for you that no dream is too big if you put your heart and mind to it—you will succeed.

ABSTRACT

This study explores effective processes and procedures of homicide investigation to achieve increased homicide solution. Homicide investigations do not operate in isolation, therefore the changing nature of law enforcement's external environment such as crime trends, community support, technology, and the law, were central components to the analysis. Based on contingency theory, police agencies must be agile and adaptable within their dynamic environments to be effective. The Delphi method was used to conduct the analysis by building consensus on what constitutes an effective model for homicide investigations. A panel of criminal justice subject matter experts were selected among internal and external stakeholder groups to complete three survey rounds.

The study explored consideration of clearance rate and conviction rate, procedural success, police legitimacy and credibility, examination into Calgary Police Service homicide processes and procedures such as the homicide unit mandate, overtime procedures, case review, and the cold case unit. Three key concepts emerged for achieving effective homicide investigations: (a) the importance of a definition for the measurement of successful homicide investigations; (b) community support of the police agency; and (c) identification of effective organisational methods of homicide investigations. Based on these findings, a model of best practices of homicide investigations was developed, combining overlapping aspects from the three key concepts.

This study contributes to the limited literature on homicide investigative processes and procedures based on consensus of what constitutes an effective method of homicide investigation to achieve increased homicide clearance without jeopardising the integrity of the investigation.

CONTENTS

STATEMENT OF AUTHORSHIP.....	2
ACKNOWLEDGMENTS.....	3
ABSTRACT.....	4
CONTENTS.....	5
GLOSSARY OF TERMS	7
CHAPTER 1: INTRODUCTION.....	8
Background.....	8
Rationale.....	10
Contingency Theory.....	11
Research Question.....	13
Approach of the Study.....	14
Outline of the Study.....	14
CHAPTER 2: LITERATURE REVIEW.....	17
Homicide in Canada.....	17
Investigating Criminal Offences.....	19
Investigating Metrics and Homicide Clearance Rates.....	23
Police Credibility and Legitimacy	26
Contingency Theory.....	28
External Impacts on Police Organisational Efficiency.....	30
Canadian Charter of Rights and Freedoms Impact on Police Operations & Investigative Procedures.....	32
Organisational Influences on Homicide Clearance and Police Efficiency..	35
Homicide Investigation Best Practices.....	41
CHAPTER 3: METHODOLOGY.....	49
Research Design.....	49
Data Collection.....	52
Data Collection and Analysis.....	58
Limitations.....	59
CHAPTER 4: RESULTS.....	60

Delphi Technique.....	60
Survey Round I.....	60
Survey Round II.....	70
Survey Round III.....	83
CHAPTER 5: DISCUSSION.....	93
Introduction.....	93
Defining Effective Homicide Investigations.....	93
Police Legitimacy and Credibility.....	96
Calgary Police Service Homicide Processes and Procedures.....	98
Conclusion.....	113
REFERENCES.....	116
APPENDIX.....	125
Appendix A: Participant Information Sheet.....	125
Appendix B: Participant Consent Form.....	128
Appendix C: Survey I.....	129
Appendix D: Survey II.....	137
Appendix E: Calgary Police Service Homicide Process Map	151
Appendix F: Survey III.....	152

GLOSSARY OF TERMS

The following terms were obtained from Statistics Canada (n.d.) Canadian Centre for Justice Statistics (CCJS) Scoring Guide:

Homicide

A homicide occurs when a person directly or indirectly, by any means, causes the death of a human being. Homicide is either culpable (murder, manslaughter or infanticide) or non-culpable (not an offence). Deaths caused by criminal negligence, suicide and accidental or justifiable homicide (i.e. self-defence) are not included (Statistics Canada, n.d., p. 13).

Homicide Rate

This technique standardizes data to permit comparisons between different geographic regions for different years and for different population sizes. The homicide rate is based on the number of victims per 100,000 populations (Statistics Canada, n.d., p. 13).

Solved Homicide

A solved homicide is one that police have cleared either by laying or recommending a homicide charge or cleared by other means (e.g., suicide of the accused). This term refers only to police investigation and not to court disposition (i.e., a homicide can be “solved” even if an accused person has not been convicted) (Statistics Canada, n.d., p. 14).

Homicide Cleared Otherwise

Can include police discretion, child (under age of 12), mental illness, witness incapacity, death, immunity, extradition, witness refusal, diversion (alternative justice forum), Youth Criminal Justice Act (YCJA) referral (person 12-17 years). Crown’s deciding not to prosecute does not count (Statistics Canada, n.d., p. 38).

Homicide Not Cleared

Includes all homicide incidents that have not been cleared (no accused has been identified). For such un-cleared homicides, the police may have strong suspicions against a particular person; however, an Accused Questionnaire is not to be submitted until the accused has been cleared by charge, suicide, or otherwise (Statistics Canada, n.d., p. 38).

Policy

Policies are the overall guiding principles, which govern the implementation of an organisation’s processes (Boutros & Purdie, 2014, p. 24).

Process

The processes are the related activities performed to achieve a specific result, using inputs such as people, systems and tools to transform them into desired outputs (Boutros & Purdie, 2014, pp. 22-26).

Procedure

Procedures are the detailed steps necessary to carry out the processes (Boutros & Purdie, 2014, p. 26).

CHAPTER 1 — INTRODUCTION

BACKGROUND

Homicide characteristically is a central topic of interest for both the media and public, and the solving of homicides is of the highest priority for law enforcement agencies, and integral within the criminal justice system. While in 2014, police agencies in Canada reported the lowest homicide occurrences (1.45 per 100,000 populations) since 1966, homicide clearance rates in both Canada and the United States (U.S.) have been on the decline (Miladinovic & Mulligan, 2015, p. 3; Silverman & Kennedy, 1997, p. 81; Regoeczi, Kennedy & Silverman, 2000, p. 135).

Homicide investigations are often complicated and considered one of the most challenging types of investigations for police, typically encompassing all components of a criminal investigation (Osterburg & Ward, 2014, p. 371). These investigations require the collection of three types of information: witnesses, physical evidence, and documentation (Osterburg & Ward, 2014, p. 445). A police agency's ability to solve homicides is directly impacted by the organisational methods used to collect these sources of information (Cronin, Murphy, Spahr, Toliver, & Weger, 2007, p. 2). Homicide investigations have become prolonged and highly complex due to a variety of factors such as technological advancements, the changing nature of homicides—such as increased drug activity and firearms use—and greater public apathy, resulting in alternate investigative practices (Innes & Brookman, 2013, p. 287; Halloran, n. d., p. 134; Cronin et al., 2007, p. 13). Societal demands and revisions to legal procedures have also impacted the processes of homicide investigations (Osterberg & Ward, 2014, p. 265). According to Innes and Brookman (2013), modifications of the processes, procedures, and protocols of homicide units are required to improve the integrity, effectiveness, and professionalism of major crime investigation (p. 287).

Over the last few decades the United Kingdom's (U.K.) Association of Chief Police Officers Homicide Working Group has developed best practices for homicide investigations through publications by the National Policing Improvement Agency, including: (a) Core Investigative Doctrine; (b) the Murder Manual; and (c) the Major Incident Room Standard Administrative Procedures (Kirby, 2013, p. 97). The purpose of these documents was to provide procedural guidance for police conducting homicide investigations (Innes & Brookman, 2013, p. 287). Similarly, in the U.S., researchers such as Cronin et al. (2007), Keel, Jarvis and Muirhead (2009), and Carter and Carter (2016) have addressed issues surrounding best practices when investigating homicides. In Canada, the Royal Canadian Mounted Police have developed an internal Major Case Management document aimed at identifying best practices when investigating serious criminal incidents, and in Australia, Westera, Kebbell, Milne, and Green (2014) have examined the key characteristics of an effective detective. As Innes (2002) acknowledges, over the years there have been noted

developments focused on advancing criminal investigative practices, however there remains limited academic examination into the process of investigation and the factors that affect these investigations (Innes, 2002, p. 669). According to Innes (2002):

Notions of ‘process structure’ aim to capture the sense on which police investigations are oriented around an ordered sequence of actions. This results from the way in which the police organization enacts its environment and introduces procedures, routines and conventions, as part of an ‘investigative methodology,’ to facilitate the direction and coordination of social action with the intention of realising its objectives. As a result, individual investigators can be seen to share similar dynamics and trajectories in terms of how they are enacted by detectives (p. 672).

In 1975, the RAND Corporation released a report consisting of three volumes, *The Criminal Investigation Process; (a) Volume I: Summary and Policy Implications* by Greenwood and Petersilia; (b) *Volume II: Survey of Municipal and County Police Departments* by Chaiken; and (c) *Volume III: Observations and Analysis* by Greenwood, Chaiken, Petersilia and Prusoff. Collectively these volumes have been referred to as the *RAND report*. These reports contributed to the limited research on investigative methods. Arguably, there has been very little research specific to the advancement of detective work, let alone the methods used by detectives since the *RAND report* (Liederbach, Fritsch, & Womack, 2011, p. 50). As Liederbach et al. (2011) have identified, the concepts of detective work has basically remained the same for the past 30 years, suggesting a great need for more studies focused on how major crime investigations can improve within today’s rapidly changing criminal justice environment (p. 50).

Understanding the distinction between policy, processes and procedures is important when considering process improvements of homicide investigations (Boutros & Purdie, 2014, p. 24). Policy is typically focused on the guiding principles that govern the implementation of an organisation’s processes; yet provide minimal benefit in relation to the way investigators improve and advance (Boutros & Purdie, 2014, p. 24). The processes are the related activities performed to achieve a specific result, using inputs such as people, systems, and tools to transform them into desired outputs (Boutros & Purdie, 2014, pp. 22–26). Procedures are the detailed steps necessary to carry out the processes (Boutros & Purdie, 2014, p. 26). As discussed in this thesis and as highlighted by noted scholars like Liederbach et al. (2011), a key means for increasing the rate of homicide clearance—and increasing clearance rates for other major crimes—is more research focused on identifying innovative, profession-informed, and evidence-based ways to advance investigative techniques and improved workload management (p. 50).

Cronin et al. (2007) composed one of the benchmark publications influencing this study. As Cronin et al. (2007) suggest, a number of key questions homicide managers should consider, include: (a) how do their community stakeholders define “effectiveness;” (b) have investigators been provided all available resources needed to increase the likelihood of

successful arrest, charge, and conviction; and (c) are investigators receiving adequate training and education to function effectively (p. 34).

RATIONALE

Traditional investigative techniques, many spanning 30 years since the *RAND report* continue to achieve the desired results sought by most homicide investigators, however, new insight about the application of these techniques undoubtedly would improve effectiveness and applicability (Carter & Carter, 2016, p. 151). Likewise, further research into the investigative actions of homicide detectives also would improve investigative effectiveness by promoting broader understanding of how their techniques impact homicide clearance (Puckett & Lundman, 2003, p. 188).

The subject literature pertaining to U.S. police management systems highlight a number of the best practices for homicide investigations, such as: (a) the number of detectives assigned at the onset of the investigation; (b) quick response by the investigators arriving at the crime scene; and (c) the use of investigative tools such as computer information systems throughout the investigative process (Keel, 2012, p. 27; Wellford & Cronin, 2000, p. 3). Consideration should be given to the number of personnel required to meet the investigative needs of a homicide unit (McDevitt, 2005, pp. 23–27). The level of cooperation within a homicide unit and between agencies, investigator characteristics, plan of investigation and methodology to execute it, and a system in place to record the data are important factors requiring examination when determining best practices (Castleman, 2000, pp. 6–8).

Researchers in other countries have examined police perspectives on homicide clearance and investigation. U.K. researchers Brookman and Innes (2013) examined the attributes that define success for police organisations (p. 293). Australian researchers Mouzos and Muller (2001) compared solved and unsolved homicides to determine which factors differentiate between the two and incorporated the perspectives of homicide investigators into the analysis.

There is limited research into the field of homicide clearance and homicide investigative processes and procedures, with the exception of the U.S. studies by Wellford, Cronin, Brandl, Bynum, Eversen and Galeria (1999), Keel, Jarvis and Muirhead (2009), and Keel (2012), which utilised case data and survey protocols to identify best practices for homicide investigations. Additionally, the U.K. study by Brookman and Innes (2013) examined police organisations' perceptions of success in relation to homicide investigations by surveying police agencies, as did the Australian study by Mouzos and Muller (2001) who conducted a comparison of solved versus unsolved homicides and incorporated homicide detective perspectives in the study.

Particularly in Canada, there is a scarcity of research in the field of homicide clearance (Trussler, 2011, p. 2), and no Canadian research was discovered pertaining to processes and procedure evaluation of homicide investigations. Carter and Carter (2016) stated, “new

techniques and a new organisational philosophy of homicide investigations may help increase the effectiveness of these inquiries...” however, “...despite this generally held belief, little scholarly attention has been paid to the actual work the police do to clear homicide cases...” (p. 151). Carter and Carter (2016) identified a deficiency in knowledge about the impact of police investigative processes on homicide clearance (p. 153).

This study bridged the gap between the research from other countries and its application in Canada. The evaluation of Calgary Police Service’s homicide processes and procedures adds insight into homicide investigations that are specific to Canada—an area of research that has not been studied before. In this regard, this study contributes to knowledge from a scholarly perspective, as well as a practical perspective—that is, it can inform Calgary Police Service managers and leadership executive about improvements in effective homicide methods.

CONTINGENCY THEORY

Hogwood and Gunn (1984) describe evaluation studies as an examination process of certain policies to determine if their outcomes have achieved the policy objectives (p. 27). In this study, homicide clearance was categorised as the organisational output and the integrity or quality of the investigation as the outcome.

According to Donaldson (1995) and Maguire (2003), contingency theory states that an organisation is required to stay current and adapt to its constantly changing environment to be effective (as cited in Maguire, King, Johnson, & Katz, 2010, p. 375). For criminal justice organisations to achieve effective crime prevention, managers must use evidence to guide the creation of policy and continued policy developments (Ministry of Justice, 2012, p. 8).

The environment of law enforcement agencies consists of external factors that affect the ability of agencies to solve cases such as homicide case factors, information and raw materials. The adequacy of an organisation’s policies and procedures (its technologies) are the internal factors (Hasenfeld, 1992, Maguire, 2003, as cited by Maguire et al., 2010, p. 375). Donaldson (1995) and Maguire (2003) as cited in Maguire et al. (2010) relate contingency theory to a homicide unit as follows:

All organizations—whether public or private, profit or non-profit, manufacturing or service—take some raw material or input, process it using some technologies (which may be material, electronic or social), and transform it into some output. Viewed in organisational terms, the raw material or input in a homicide bureau is an unsolved murder case. The clearance itself represents the ultimate output. The technology consists of all the internal processes used by the organization to transform inputs into outputs, or put another way, to transform unsolved cases into solved cases. All of the factors external to the organization that influence its ability to solve cases are a part of the organization’s environment. The essential challenge for any organization is to adapt its technologies to its environment. This is one of the basic premises of

Contingency theory, which posits that effective organizations must maintain a proper fit with their environment (p. 374).

Contingency theory emphasises that an organisation requires the ability to adapt to its dynamic environment as a means to sustain effectiveness. Subsequently, the capacity for modification requires an effective method of detecting change and the ability and willingness to implement necessary transformations (Maguire et al., 2010, p. 276). In this sense, adaptive capacity is affected by the demands of the market and the ability of an organisation to change to survive in that market; however, regardless of performance levels, police agencies and many other public organisations are unlikely to go “out of business” (Maguire et al., 2010, p. 376). As a result, the pressure to adapt is far less compared to other types of organisations (Maguire et al., 2010, p. 376).

According to contingency theory, a police organisation’s homicide clearance rate is impacted by external factors such as nature of the homicide, resources, and support (Maguire et al., 2010, p. 375). External changes are difficult for police agencies to manipulate (Maguire et al., 2010, pp. 396–397), and perceive. To address issues such as the decline in homicide clearance, criminal justice agencies require the internal capacity through “...legal structures and processes...” to be capable of detecting changes in the external criminal environment. Ultimately, it is important for police agencies to react suitably to these fluctuations to maintain fit with the external criminal environment (Maguire et al., 2010, pp. 396–397). The processes of a homicide unit guide what the investigators and managers do, while the procedures describe in detail how each activity within a process will be executed (Boutros & Purdie, 2014, p. 26). Procedures are used by organisations to ensure consistency, reduce errors and assist with training employees (Boutros & Purdie, 2014, p. 28).

Homicide cases and the external criminal environment have changed immensely over the past thirty years, causing new challenges for present day homicide investigators in relation to: (1) the investigation and arrest of homicide offenders; and (2) the criminal trial and court procedures (Halloran, n.d., p. 141). Halloran (n.d.) describes some of the obstacles homicide investigators face today in relation to the investigation and arrest of homicide offenders, including staying apprised of changing legal requirements regarding the rights of the accused (pp. 141–142).

Court’s rulings directly influence the manner in which homicide investigations are conducted, causing investigators to operate with an awareness that any action they take throughout the course of an investigation may result in lengthy legal arguments during trial (Halloran, n.d., pp. 141–142). Holloran (n.d.) acknowledges that the media is a useful tool for investigators but cautions that they can also create challenges and negatively impact a homicide investigation (pp. 141–142). Homicide investigators should consider having a strategic media plan to manage the messages released to the public to protect the integrity of the investigation. Halloran (n.d.) recommends investigators continue to educate themselves on the advances in technology to understand the practical application of the information, and

to maintain an on-going commitment to witness management due to the growing apathy among citizens to get involved with police matters (Halloran, n.d., pp. 141–142).

There is a paucity of research studying forensic evidence's role in homicide investigations and prosecution (McEwen, & Regoeczi, 2015, p. 1188). Forensic evidence includes, "... DNA evidence (i.e. evidence such as blood, saliva, or semen from which a DNA profile can be obtained), latent prints, firearms, ballistics (shell casings, spent projectiles, etc.), drugs, clothing, trace, and others" (McEwen & Regoeczi, 2015, p. 1188). Researchers Hickman, Strom, and Johnson (2013) acknowledge the increasing demand for forensic evidence particularly by criminal justice professionals and popular culture, and suggest, "...a more informed understanding of how forensic evidence and other forms of evidence shape justice outcomes could result in... a more efficient use of resources..." (p. S78 and S89).

Halloran (n.d.) describes the issues faced by investigators related to criminal trials, including: (1) most offenders charged with murder do not plead guilty, resulting in long and procedurally complex trials; (2) the duration of these trials often having *voir dire*s which in essence results in a trial within a trial; and (3) the side effects of prolonged murder trials often tying up homicide detectives for weeks due to them having to manage witnesses and also prepare their own testimony (Halloran, n.d., p. 142). In Canada, new case law (*R. v. Jordan*, 2016, para. 5) clearly outlines that any delays beyond 30 months from the date of charge to the actual or anticipated end of trial is presumed unreasonable. As a result, investigators must have disclosure prepared before laying a homicide charge, and provide it to the crown prosecutor quickly for the prosecution to prepare their case in a timely manner for trial. Additionally, in Canada, there often is a preliminary hearing—sometimes a *voir dire* prior to the actual murder trial, which can result in the criminal court process spanning several years. All of these changes have created challenges for homicide investigators to clear homicides. Today, more than ever before, it is evident that police organisations need to stay abreast of the rapidly changing crime and justice environment if they hope to remain effective in realising investigative success in relation to homicide investigations, as well as with other major crime investigations.

A summative evaluation of current Calgary Police Service homicide processes and procedures, in conjunction with contributions from field experts, will assist this police organisation's ability to make informed decisions regarding police investigative processes suitable to its shifting environment.

RESEARCH QUESTION

Homicide investigations are often complicated and arguably one of the most important types of criminal investigation (Eliopoulos, 2003, p. 157) in that a jurisdiction's homicide clearance rate can be considered a measure of its law enforcement agency's effectiveness (Pare, Felson, & Ouimet, 2007, p. 244). Additionally, homicide resolution instils public trust in the state and acts as a general deterrent (Wellford et al., 1999, p. 5).

Carter and Carter (2016) identified two sets of factors influencing police effectiveness to clear homicides: (a) physical evidence; and (b) witness cooperation and community support (p. 153). There is strong support in the subject literature that a community's belief in the legitimacy of their police agency will positively impact the likelihood for compliance with police directives and the law (Telep & Weisburd, 2012, pp. 341–342). In theory, the more the community views the police as legitimate, the more likely the public is to exhibit compliant behaviour, resulting in a reduction of crime (Telep & Weisburd, 2012, p. 342).

It therefore follows that increased witness cooperation and community support are important for homicide solution. Effective homicide investigations based on sound processes and procedures are likely to increase homicide clearance, subsequently influencing citizens' view of police legitimacy. More effective investigative processes and procedures contribute to increased homicide solution, positively impacting community cooperation and support.

There exists some research outlining best practices for homicide investigations (Brookman & Innes, 2013, p. 299). However, there is a paucity of research to determine if the methods suggested are being realised in practice. Therefore, using the jurisdiction of the city of Calgary, in Alberta, Canada, this study examined: What are the most effective homicide investigative methods that optimise clearance without jeopardising the integrity of the investigation?

APPROACH OF THE STUDY

This study used a case approach to evaluate the effectiveness of Calgary Police Service homicide investigation processes and procedures. It focused on the department's allocation of personnel and material resources specific to homicide investigations. The standards of utility, feasibility, propriety, and accuracy (Bachman & Schutt, 2014, p. 316) were adhered through provisions of practical information to the Calgary Police Service. The research design was realistic in scope, was legally and ethically conducted, and produced results that are an accurate reflection of Calgary Police Service processes and procedures.

Qualitative analysis was conducted with three survey iterations, using a selected sample of justice professional experts to determine their opinion on best practices for homicide investigations through the lens of promoting effectiveness and integrity of the investigation. The influence of independent variables such as effectiveness, integrity, technologies, and raw materials on the dependent variable, homicide clearance, was examined. The results were generalisable to the Calgary Police Service, the jurisdiction under study.

OUTLINE OF THE STUDY

Chapter 2 – Literature Review

Scholars in the field of homicide clearance acknowledge restricted access to policing organisations has resulted in limited insight regarding the organisational philosophies of the

investigative units studied and procedural aspects of the homicide investigations reviewed (Jarvis & Regoeczi, 2009, p. 185; Puckett & Lundman, 2003, p. 188; and Carter & Carter, 2016, pp. 151–153). Jarvis and Regoeczi (2009) noted that data from the National Incident-Based Reporting System is limited in that “... data lack detailed information on some of the investigative and procedural aspects of homicide investigations (i.e. the availability of witnesses, police response times, number of detectives assigned to the case, and other details)” (p. 185). In Canada, a similar federal agency, Statistics Canada, collects data on many aspects of Canadian life including yearly crime rates and the homicide clearance rate. While the homicide clearance rate is a measurement of homicide solution, allowing for statistical comparison between police organisations, it does not shed light on the external environment or internal organisational philosophies of the police—both important factors that impact homicide clearance. Reflecting on past studies, this thesis purposefully involved, the canvassing of subject matter experts in the field of homicide investigation with the explicit aim of achieving greater insight.

The literature review focused on the following key areas: (a) homicide investigations and the related criminal law; (b) investigative metrics and homicide clearances; (c) police legitimacy and credibility; (d) contingency theory; (e) external impacts on homicide investigations; (f) Canadian law and the *Charter of Rights and Freedoms* impact on investigative processes; (g) organisational impacts on homicide investigations; and (h) best practices of homicide investigations.

Chapter 3 - Methodology

The primary goal of this thesis was to expand on the qualitative research into police perspectives by canvassing subject matter experts on best practices for homicide investigations. This qualitative study utilised a group communication process focused on achieving consensus among a set of subject matter experts through multiple iterations of surveys, known as the Delphi technique. Utilising the Delphi technique, a panel of eight experts identified the model of best practices for homicide investigations. Delphi technique is a unique survey method, utilising subject matter experts and multiple rounds of surveys with controlled feedback to bring the group as close to consensus as possible in dealing with complex matters (Hasson, Keeney, & McKenna, 2000, pp. 1009–1010). The panel selection of subject matter experts is what distinguishes Delphi from other survey methods (Clayton, 1997, p. 377). This study was conducted with the Calgary Police Service in Calgary, Alberta, Canada.

Chapter 4- Results

Rather than merely focusing on a measurement such as clearance rate, a more encompassing approach to understanding effective investigative work included consideration of a homicide unit’s processes and procedures, their investigative practise, and awareness of their experience and knowledge of homicide investigations (Gottschalk, Holgersson, & Karlsen,

2009, p. 94). Tong (2007) reiterates this by arguing “that effectiveness in the context of detective work is best measured by focusing on key processes and decisions in which detectives engage to encourage a professional working culture based on how detectives come to decisions (as cited by Gottschalk et al., 2009, p. 94). This study encompassed this theory by conducting three iterations of surveys with subject matter experts, sharing first-hand knowledge of the Calgary Police Service Homicide Unit’s processes and investigator experience.

The final results of this study, supported three primary categories: (a) definition of effective homicide investigations; (b) community support of police agency; and (c) best practices model based on participant consensus of current and suggested Calgary Police Service processes and procedures.

Chapter 5 - Discussion and Conclusion

The subject of research described in this thesis was designed to explore the most effective processes and procedures for homicide investigations. However, the results obtained for best practices of homicide investigations can be interpreted within and support the theoretical framework of contingency theory proposed by Maguire et al. (2010). This theory is outlined in Chapter 2, and emphasises the necessity to consider insight from both criminology and organisational science when examining theoretical explanations for homicide clearance (Maguire et al., 2010, p. 373). Contingency theory was chosen as the theoretical framework for two main reasons: (a) acknowledgement of internal and external factors influencing homicide solution; and (b) public organisations, including police agencies ability to detect and adapt to its changing environment. Part of that adaptation process for police organisations is the ability for best practices to be flexible and evolving—with the surrounding criminal justice environment.

This micro-level approach produced results suited for the Calgary Police Service specifically however it could be argued that the principles and best practices identified in this study are applicable to agencies across many jurisdictions in Canada and abroad. The discussion chapter is focused on the following key results of this study: (a) definition of success as it relates to homicide investigations; (b) witness support; (c) homicide unit mandate; and (d) model of best practices for homicide investigations. This research study adds Canadian police perspective to the existing research providing context and new insight into best practices for homicide investigations from subject matter experts.

CHAPTER 2 — LITERATURE REVIEW

HOMICIDE IN CANADA

Though the legal definition of homicide varies between countries, the foundation of the offence is the same across international borders: one person taking the life of another. Critical when investigating a homicide is first determining whether the victim's death was caused by an intentional criminal act or due to negligence or recklessness. Additionally, if intentional, it must also be determined if the murder was premeditated or the result of an immediate response.

Canadian Homicide Laws

Canada has one uniform system of criminal law, the *Criminal Code of Canada*, which applies across all provinces and territories (Holland, 2005, p. 3). Criminal homicide in Canada is defined as first- and second-degree murder, manslaughter and infanticide (Bennett & Hess, 2004, p. 205). One person intentionally killing another with evidence of premeditation is classified as first-degree murder. Where there is no premeditation and solely intent to kill, the murder is considered second-degree (Bennett & Hess, 2004, p. 205). Manslaughter is defined as culpable homicide whereby someone unintentionally causes the death of another person "...in the heat of passion..." (Government of Canada, 2014, para. 1), and culpable homicide consists of an unlawful act or criminal negligence act (Holland, 2005, p. 4). Finally, according to the *Criminal Code of Canada*, infanticide applies to mothers who kill their child of less than one year of age, either by wilful act or omission, due to a disturbed mind as a result of not fully recovering from the effects of giving birth to the newly born child, or the effects of lactation (Department of Justice, 2011, p. 271; Arcaro, 2009, p. 485). The focus of this study was on Canadian definitions and laws.

The Canadian court system is rooted historically in British law and policing practices (Campbell, Cater, & Pollard, 2017, p. 31). The judicial process is adversarial in nature, whereby the prosecution and defence counsel present evidence and strenuously challenge the other's case through cross-examination before an impartial judge or jury, who decides on the case (Cochran, Gulycz, & Kelly, 2008, p. 4). The legal battle is won by whoever is able to persuade the judge or jury that their argument is valid (Campbell et al., 2017, p. 33). The *Canadian Charter of Rights and Freedoms* (1982) is the primary law in Canada, "guaranteeing...basic rights and freedoms for citizens..." and "...empowers judges to strike down legislation and criminal laws as unconstitutional" (Griffiths, 2016, p. 4). Judicial interpretations of the law by the Supreme Court of Canada, the highest court in the country, become Canadian law (Campbell et al., 2017, p. 32). These judicial interpretations and applications of the *Charter* (case law) have transformed criminal investigative processes and procedures across Canada. According to Marin (1995):

Every time a court makes a decision, it is called upon to apply the law. That application of the law may be done through the interpretation of a statute, or it may involve reconciling prior precedents to apply to a new set of facts. The rule that the judge sets down will be a precedent for consideration by other judges. In a sense, judges, by implication, fulfil a role that is very similar to that of the legislator (p. 6).

Verdun-Jones (2015) reports on a Supreme Court of Canada decision, *R. v. Mabior* (2012) whereby Chief Justice McLachlin explained a fundamental principle in Canadian criminal law:

A criminal conviction and imprisonment, with the attendant stigma that attaches, is the most serious sanction the law can impose on a person, and is generally reserved for conduct that is highly culpable—conduct that is viewed as harmful to society, reprehensible and unacceptable. It required both a culpable act—*actus reus*—and a guilty mind—*mens rea*—the parameters of which should be clearly delineated by the law (p. 23).

The prosecution has to prove beyond a reasonable doubt that the accused's actions (voluntary act or omission) caused a certain incident and that the accused was in a certain state of mind (mental elements of the crime), resulting in a crime being committed (Verdun-Jones, 2015, pp. 23–24). This standard of proof—beyond a reasonable doubt—is based on a fundamental principle in Canadian law, presumption of innocence of accused, and requires the determination be based on reason and common sense, where the evidence or absence of evidence must be weighed and the "... burden of proof rests on the prosecution throughout the trial and never shifts to the accused" (Cochran et al., 2008, p. 32).

According to Campbell et al. (2017) there are two distinct phases of Canadian criminal trials: the adjudication phase, and the disposition phase (p. 36). During the adjudication phase, the prosecution presents its case, defence is entitled to cross-examine the witnesses, police officers, and court experts, and call any evidence they wish, which in turn may be cross-examined by the prosecution (Campbell et al., 2017, p. 36). Lastly, both the prosecution and defence counsel summarise their arguments (Campbell et al., 2017, p. 36). If it is a jury trial, the judge addresses the jury to summarise the evidence and provide instruction on all relevant legal matters (Campbell et al., 2017, p. 36). If a guilty verdict is reached, the second phase of criminal trial begins, called the disposition stage, whereby prosecution and defence will make submissions to the judge who will take into consideration the "...seriousness of the offence, the range of sentences spelled out in the *Criminal Code* or other relevant statutes, prevention or deterrence of the offender or others from similar crimes in the future, and the prospects for the accused rehabilitation" (Campbell et al., 2017, p. 36).

In all Canadian criminal trials, the person(s) assessing the evidence is the trier of fact (Cochran et al., 2008, p. 8). The trier of law is always the judge alone, who is the "gatekeeper" of all desirable evidence, who will assist the trier of fact (jury or judge) in

determining the admissibility of the evidence and provides instruction on applicable points of law (Cochran et al., 2008, pp. 8–9).

While Canada does not have the death penalty, judges are bound by law to impose a life sentence that constitutes a 25-year period with no eligibility of parole for first-degree murder cases. The 2016 homicide investigation concerning Douglas Garland provides a recent example of how complex and time intensive a homicide case can be within the Canadian context. Garland was investigated, arrested, and eventually convicted for murdering Alvin and Kathryn Liknes, and their five-year-old grandson Nathan O'Brien in June 2016 (Holmgren, 2016, p. 32). As described by S. Parker, QC, Senior Prosecutor with Alberta Crown Prosecutor Services, the Garland case involved thousands of investigative hours and over a million dollars in both human and technical resources, followed by a five-week jury trial that began in January 2017. Garland was convicted on all three counts of first-degree murder and sentenced to three consecutive life sentences, equating to 75 years in prison with no eligibility for parole (personal communication, May 25, 2017).

As noted, homicide investigations are often complex, as are the procedural processes required to see them through all the prosecutorial phases ending with the conviction of the accused (S. Parker, personal communication, May 25, 2017). Supreme Court of Canada decisions have shaped the course of criminal investigations and the legal requirements for successful prosecution. Supreme Court rulings such as *R. v. Stinchcombe* (1991) and *R. v. Jordan* (2017) are landmark decisions regarding law enforcement's and crown prosecutors' obligations to the court for full disclosure, and prosecution time limitations of 30 months for serious criminal investigations. The crown prosecutor offices and police agencies are still adapting to the recent *Jordan* decision by identifying ways of streamlining the prosecution process to meet the strict deadline set by the *Court*. This requires Calgary Police Service homicide investigators to withhold arrests of homicide suspects until the full disclosure packages are ready for the prosecution, including the Report to Crown Council, and expert evidence such as autopsy reports and crime lab results which may take up to one year for investigators to receive (S. Parker, personal communication, May 25, 2017).

Post-arrest processing is an integral part of the investigative process, whereby the “real detective work” goes far beyond identification and arrest of offenders, and through to the disclosure and prosecutorial phase resulting in a guilty plea or court conviction (Brodeur, 2010, p. 220). “Police officers involved in case investigations must be aware of changes in the Criminal Code, provincial statutes, court decisions, and internal police policies and procedures, among others” (Griffiths, 2016, p. 277). According to S. Parker, without procedurally sound practices by investigators, no homicide case will attain trial success or a guilty verdict (personal communication, May 25, 2017).

INVESTIGATING CRIMINAL OFFENCES

Criminal Investigations

Criminal investigations encompass the gathering of information and evidence for the purpose of identification and arrest of offenders with the ideal outcome resulting in their conviction (Osterburg & Ward, 2014, p. 5; McDevitt, 2005, p. 3). How police conduct criminal investigations is as critical as the identification and arrest of the offenders. Police investigators must first legally obtain all possible information and evidence relating to an offense, while adhering to the procedural requirements set out by their jurisdiction, to present the best possible case to the prosecutor (Bennett & Hess, 2004, p. 5) and obtain a conviction in court.

There are six questions a law enforcement officer seeks to answer through the course of an investigation: if and what type of an offence occurred; where, when, and how the offence occurred; and who committed the crime (Arcaro, 2009, p. 5). Homicide investigations resemble a funnel, beginning with the knowledge that an offence occurred through to the final stage of prosecution (Eliopoulos, 2003, p. 161). The amount of information and evidence to collect at the time of discovery of a homicide is enormous compared to the final evidence presented to the crown prosecutor for trial (Eliopoulos, 2003, p. 161).

Homicide Investigations

The focus of a homicide investigation is to determine the facts of the case by identifying the victim, confirming the death was suspicious, approximating when and how it happened, and establishing the cause and method used to kill the person—in order to identify potential suspects (Eliopoulos, 2003, p. 162; Bennett & Hess, 2004, pp. 211–212).

One technique called the pyramid investigative technique of homicide investigation outlines the stages of a murder investigation as follows: discovery, crime scene, post-scene, investigative stage, identification and arrest, case preparation, and prosecution (Eliopoulos, 2003, pp. 162–163). Once the determination has been made that a suspicious death occurred, evidence collection and observations of the crime scene leads to the development of an initial crime theory of what happened, possible motive, as well as suspect and witness development (Eliopoulos, 2003, pp. 162–163). Post-scene includes conducting an autopsy of the deceased to verify cause of death, potentially establishing time of death, processing evidence, reconstructing the crime scene, and identifying a possible weapon, resulting in an updated crime theory (Eliopoulos, 2003, pp. 162–163). Through the course of the investigative stages, the deceased's identification and information on victimology such as their movements and contact leading up to the offence, is gathered. Information on offender opportunity, motive, possible profiling of offender and computer inquiries is also to be gathered (Eliopoulos, 2003, pp. 162–163).

Once a perpetrator has been identified, the case tends to “bottleneck,” whereby the investigator uses the evidence gathered to focus the case on the suspect(s), leading to the identification and arrest of the suspect (Eliopoulos, 2003, pp. 162–163). Post-arrest case

preparation for the court is required, which includes reviewing the evidence, presenting the final crime theory to the prosecutor, and reinvestigating and demonstrating evidence to support the prosecution of the offender (Eliopoulos, 2003, pp. 162–163). By bringing an investigation to a successful conclusion of forming reasonable grounds and ultimately charging the offender, investigators are able to achieve the overall goal of law enforcement, which is public and officer safety (Arcaro, 2009, p. 6).

Regardless of the jurisdiction of the case, investigators in every developed country perform similar tasks such as securing the crime scene, searching for and collecting evidence, taking notes, documenting the investigative stages, interviewing witnesses, identifying suspects, using operational techniques which lead to the arrest of a suspect, and providing testimony in court (Bennett & Hess, 2004, p. 6). Although the investigative tasks are similar across jurisdictions, the processes and procedures vary between police agencies.

Examination of Homicide Investigations

Academics generally agree that limited research exists about the criminal investigative process (Horvath, Meesig, & Lee, 2001, p. 5; Innes, 2002, p. 669; Liederbach et al., 2011, p. 50; Campbell et al., 2017, p. 273). This section looks specifically at studies in the field of criminal investigations, including the first U.S. national study of its kind, the *RAND report*. The RAND Corporation conducted extensive research spanning over two years, resulting in a three-volume series (*RAND report*) focused specifically on police criminal investigation practices and their impacts (Greenwood & Petersilia, 1975, p. iii). Topics included: (a) investigative effectiveness; (b) organisation of investigative units; (c) how cases were solved; (d) how investigators spent their time; (e) collection of evidence; (f) investigative thoroughness; and (g) investigative organisation and procedure (Greenwood, Chaiken, Petersilia, & Prusoff, 1975, pp. viii–xi).

According to Greenwood (1979), the *RAND report* examined criminal investigations in depth, including the organisation and management of criminal investigation, and the various investigative techniques used to solve crime, comparing the effectiveness of investigative units to overall police effectiveness (p. 1). According to survey results, arrest, nor clearance rates, investigative training, staffing, workload, nor the organisation of investigators had noticeable impact on “...effect on crime, arrest, or clearance rates” (Greenwood & Petersilia, 1975, p. vi). Additionally, the *RAND report* determined that investigators spent a large portion of their time on administrative tasks such as reviewing reports, locating and interviewing victims, documenting files, as well as court preparation once an offender had been charged (Chaiken, Greenwood, & Petersilia, 1976, p. 16). Notwithstanding criticisms concerning the research methods and the overgeneralised findings (Horvath et al., 2001, p. 12), the *RAND report* was the first study of its kind and provided the foundation on which other studies have emerged.

Wellford et al. (1999) conducted a random sample of 798 homicide incidents in four U.S. cities of both solved and unsolved cases (p. 3). Quantitative analysis of the data identified 51 characteristics of homicide events that affect homicide solution, as well as 37 characteristics associated with police practices that affect homicide solution. These findings support the theory that law enforcement policies and procedures related to homicide investigations impact the clearance of homicides (Wellford et al., 1999, p. 4). Improving investigative policies and procedures could lead to more cleared homicide cases (Wellford et al., 1999, p. 4).

Horvath et al. (2001) noted that while advances in technology and police organisational developments have impacted the way police organisations conduct their operations and investigations, investigative activities have remained unchanged (Horvath et al., 2001, p. 104). “Core investigative activities” were identified as witness and victim interviews, record checks and court preparation (Horvath et al., 2001, p. 40), suspect interrogations, and evidence review (Liederbach et al., 2011, p. 57). Horvath et al. (2001) summarise the changes to policing over the last 30 years as follows, “... changes in the nature, amount and costs of crime; organisational, administrative and personnel changes in policing; new research on crime and policing; and increasing resource availability for police agencies” (p. 5). Two critical elements for the success of criminal investigations are public cooperation in providing crime information, and the importance of patrol officers in solving crimes (Horvath et al., 2001, pp. 7–8). New technology has contributed to improvements in investigative effectiveness but the relationship between the public and police remains the most critical factor in solving crime (Horvath et al., 2001, p. 8). Horvath et al. (2001) concluded “...many of the factors found to have limited the productivity of detectives over 30 years ago remain; there is a need for additional training, caseloads are too large and detectives are pressed for time to spend on solvable cases” (Liederbach et al., 2011, p. 50).

Keel, Jarvis, and Muirhead (2009), surveyed 55 law enforcement agencies to examine the various practices of police organisations in solving homicide investigations (pp. 64–65). The researchers studied the impact of discrepancy between agencies in the following areas: (a) processes and procedures between jurisdictions including number of investigators assigned to the case initially and days following the homicide event; (b) available resources through staffing and management of homicide investigative units; (c) investigative procedures; (d) analytical processes; (e) demographics of where the incident occurred and people involved; and (f) degree of political influences (Keel et al., 2009, p. 51). Investigative procedures may include increased effectiveness of the homicide investigators through their experience, availability of witnesses, and the determination of association between victim and offender (Keel et al., 2009, p. 52). Analytical procedures may include use of crime analysts, computer programs, expert analysis such as DNA, and blood splatter (Keel et al., 2009, p. 53). Demographic factors may include the social status of the victim, size and composition of the community the offence occurred in, size of the police agency, and number of investigators

assigned to the homicide unit (Keel et al., 2009, p. 53). The final conclusions were consistent with Wellford and Cronin's (1999) research in that "...management practices, analytical methods, investigative procedures and political influences..." impact the investigative process, and ultimately, the homicide solution (Keel et al., 2009, p. 65). Management practices providing oversight and leeway for investigators to do their jobs, their use of analytical methods, and formal investigator training may increase homicide solution (Keel et al., 2009, p. 65). Finally, community cooperation and support remain an integral part of solving homicides (Keel et al., 2009, p. 65).

Recent literature contradicts the conclusions of the *RAND report* that suggested police organisational structures and the detective function has little impact on crime solution (Horvath et al., 2001, p. 13). Since the *RAND report*, important research on a smaller scale into criminal investigative processes includes, Eck's examination into robbery and burglary investigations, determining detectives are as important as patrol officers in crime solution (Eck, 1983, as cited in Liederbach et al., 2011, p. 52).

INVESTIGATIVE METRICS & HOMICIDE CLEARANCE RATES

Homicide Clearance

In Canada, homicide investigations have three possible outcomes: (a) cleared by arrest and offender is charged; (b) cleared otherwise such as police discretion, child mental illness, witness incapacity, death, suicide, immunity, witness refusal, diversion through alternative justice means, Youth Criminal Justice Act referral for persons 12-17 years old; and (c) not cleared/unsolved (Statistics Canada, n.d., pp. 37-38). Cleared otherwise, or exceptional case clearance is somewhat unique in that an offender has been identified but not arrested, giving the appearance that nothing was done by the law enforcement agency (Jarvis & Regoeczi, 2009, p. 175). The focus of this study was on cleared and unsolved homicide cases.

Importance of Homicide Clearance

High social and moral value is placed on a government's ability to control violent criminal behaviour. Homicide clearance is a key measure of police performance (Riedel & Jarvis, 1999, p. 281) and its decrease is often considered a failure by the government to control severe forms of violence. A decrease in homicide clearance impacts specific deterrence of violent offenders (due to lack of punishment) as well as the general deterrence of potential criminals (Wellford et al., 1999, p. 2). As a measure of police effectiveness, homicide clearance is important because homicide is the most serious type of crime, and is the most reliably reported crime (Maguire, King, Johnson, & Katz, 2010, p. 373). Homicide clearance provides resolution for the families of victims, and unsolved cases may cause devastating effects on family and friends of the victim (Cronin et al., 2007, p. 3).

Research suggests there are two opposing perspectives on how homicide investigations are prioritized. The first, as exemplified by Black's theory of law (1976) suggests that police use discretion when solving homicides based on victim and area

characteristics (as cited in Litwin, 2004, p. 328–329). Similarly, Riedel (2008) suggests police efforts are influenced by victim characteristics such as race, gender, age, and class (p. 1145). Alternatively, other researchers argue that police investigators apply the same effort and resources to every homicide investigation regardless of victim characteristics (Riedel, 2008, p. 1151; Litwin, 2004, p. 331) and that case-specific factors primarily affect homicide solution. Klinger's (1997) study is relevant as he examined neighbourhood level crime patterns and suggested that the level of social deviance will impact police response (p. 299).

Another possible influencing factor for homicide clearance is structural factors within each police agency. According to Trussler (2011), the decrease in homicide clearance rates is related to organisational factors such as police workload and environment, as well as case-specific factors such as offence characteristics and socio-economic factors (p. 3). Changes in the nature of homicides, police resources, and changes in bystander behaviour have contributed to the decline in homicide solution (Wellford et al., 1999, p. 4).

Four key studies have quantitatively examined homicide clearance in Canada. Silverman and Kennedy (1997) examined clearance trends across the provinces and identified Quebec and British Columbia as having the lowest homicide clearance rates in Canada, attributing this in part to flourishing drug trades and gang style murders (p. 84). Regoeczi, Kennedy, and Silverman (2000) compared homicide clearance rates on a national level between Canada and the U.S., as well as a secondary analysis between the province of Ontario and the state of New York (p. 142). It was determined that the two countries had different predicting factors for homicide clearance (p. 135). For New York, weapon, circumstances surrounding the offence, and victim characteristics such as age and gender were strong clearance predictors. In Ontario, case characteristics were the only predictor (p. 135). Pare et al. (2007) used Quebec data to examine characteristics of crimes and the communities where the crimes happened (pp. 246–249). They found police were more likely to solve a crime in a small community rather than a large urban centre (p. 255). Trussler (2010) analysed the effects of time and geography on clearance rates in Canada, determining temporal and geographic factors remain important homicide clearance predictors (p. 366).

Mouzos and Muller (2001) used qualitative data to compare factors that differentiated solved versus unsolved homicides, and incorporated homicide investigator perspectives into the analysis (p. 1). Reasons, Francis, and Kim (2010) interviewed homicide detectives in Seattle, Washington, U.S., and Vancouver, British Columbia, Canada to identify and compare ideologies between two police agencies in relation to detectives' beliefs on police-related issues including working environment and causes of declining homicide clearance rates (pp. 446–447). The responses between the two countries in relation to the factors impacting homicide clearance rates varied significantly, with Vancouver detectives identifying "...types of legal changes, plus resources, police/prosecutor relationships, and political environment..." and Seattle detectives identifying increased "...organised/gang homicides and stranger homicides..." as the main contributing factor for the decline in homicide solution (p. 447).

Keel (2012) surveyed 55 U.S. police departments about operational and management issues and identified twelve traits shared by the high-performing homicide units, using clearance rate as the gauge for comparison of departmental performance (pp. 3, 27). Common traits shared among the successful homicide units included management strategies such as moderate investigator caseload, sufficient human resources committed in the initial stages of investigation, allowance of overtime, establishment of a cold case squad, team work, and a policy allowing homicide detectives to remain in the unit indefinitely rather than forced tenure (Keel, 2012, p. 27).

Organisational traits included case review within 24-72 hours of initial investigation; utilisation of a computerised case management system; standard neighbourhood canvassing forms; crime data analysis; positive interagency relationships with the medical examiner's office; and use of analytical tools such as polygraph, blood splatter analysis, criminal investigative analysis and statement analysis (Keel, 2012, p. 27). The primary factors impacting the effectiveness of homicide clearance were: (a) availability of physical evidence and method of committing the homicide (Litwin, 2004; Litwin & Xu, 2007; Puckett & Lundman, 2003; Regoeczi, Kennedy, & Silverman, 2000; Riedel & Rinehart, 1996; Wellford et al., 1999, as cited in Carter & Carter, 2016, p. 4); and (b) witness information and community support (Greenwood, Chaiken, & Petersilia, 1977; Litwin, 2004; Reiss, 1971; Riedel & Rinehart, 1996, as cited in Carter & Carter, 2016, p. 4).

The *RAND report* confirmed clearance rates are not the best method of determining effectiveness of investigative units (Greenwood, 1979, p. 2). Though scholars spanning 40 years have characteristically noted clearance rates as a poor measure of police performance, the practice remains the most common measure of success for homicide investigations. According to Pare et al. (2007), the use of homicide clearance rates as a measure of police performance in part reflects the lack of alternative measures (p. 244).

Alternate Measures of Investigative Success

Brookman and Innes (2013) explored various definitions of a successful homicide investigation. Data collected from field studies of police murder investigations in the U.K. identified “four alternate definitions of investigative success: (a) outcome success; (b) procedural success; (c) community impact reduction success; and (d) preventative success” (p. 292). Homicide detectives know first-hand the complexities of individual homicide cases: some may be solved quickly, while others require the use of a multitude of investigative techniques. Thus, clearance rate alone fails to capture the investigative effort required to solve each individual case (Brookman & Innes, 2013, p. 296). Innes (2002) referred to a spectrum of difficulty for individual homicide cases, ranging from “self-solvers” to “whodunits,” and identified a distinct investigative process structure for each of these case types (pp. 671–672). Arresting and charging an offender for murder is only part of the process of a homicide investigation.

Successful prosecution is a key factor, not encompassed in detection data (Brookman & Innes, 2013, p. 296). Arguably, homicide detectives spend a larger portion of their time with court preparation than with the actual identification and apprehension of a suspect. However, this critical component of the investigative process is not captured in clearance rates (Brookman & Innes, 2013, p. 296). Through the course of studying the concept of success as it relates to homicide investigations, important features of the investigative process were revealed, specifically that the “connection between the policing means (procedure) and the legal ends (outcome) are not well understood” (Brookman & Innes, 2013, p. 307). The detectives interviewed in the Brookman and Innes (2013) study refer to a “gold standard” of investigations, but do not specify what that was.

In an effort to identify a more accurate measure of investigative success, Roberts (2015) factored in homicide case characteristics (to adjust for investigative difficulty) and jurisdictional variables with homicide clearance rates (p. 274). Situational characteristics may include “weapon type, victim-offender relationship, location of incident, victim’s age, presence of a concomitant offence, and time of incident” (Roberts, 2015, p. 275). Roberts (2015) described obstacles to homicide investigations including socially disorganised places, jurisdictions with high volumes of crime, and limited resources to dedicate to the investigative process (p. 276). Roberts (2015) acknowledged it is likely unrealistic for police agencies to conduct the complex calculations required to attain difficulty-adjusted clearance rates (p. 294). However, the study findings highlight the importance of recognising that situational and jurisdictional characteristics influence clearance rates and should be considered by law enforcement agencies when evaluating police performance (Roberts, 2015, p. 294). Difficulty-adjusted clearance rates can provide valuable insight for law enforcement administrators and policy makers, as well as the community itself, about how the local police agency is conducting homicide investigations and the challenges they face during the investigative process (Roberts, 2015, p. 294).

In Canada, new measures of police performance have been developed. These include the use of surveys to measure community and victim satisfaction with the police, consideration for police success in achieving specific performance goals, as well as objectives and broader “mission statement” goals (Griffiths, 2016, pp. 70–73). Additional measures of police performance include the level of police involvement in various community programs, interagency partnerships with other community stakeholders such as social services, and the number of community volunteers in police programs and services (Griffiths, 2016, pp. 70–73). These police performance measures are more reflective of the diverse roles police encapsulate within the fabric of community policing; the Calgary Police Service considers these measures in conjunction with both crime and criminal case clearance rates.

Accountability in policing refers to a police organisation's ability to provide a credible record of their actions (Goldsmith, 2010, p. 920). Historically, the visibility of police was almost completely based on direct experience or observation (Goldsmith, 2010, p. 914). Today with advances in technology such as mobile phone cameras, closed circuit television, and the "... development of video sharing and social networking sites..." the increase in secondary visibility of policing has exposed questionable policing practices domestically and internationally (Goldsmith, 2010, pp. 914–919). It can be argued that these technologies have been momentous in increasing the police's accountability to the public (Ericson, 1995, as cited by Goldsmith, 2010, p. 915). This is a critical shift from police actions traditionally being held accountable through courts of law and other institutionalized forms of public accountability, to modern day court of public opinion (Goldsmith, 2010, pp. 915–916), which arguably is far less objective or informed.

In addition to the accountability of police actions are the fiscal considerations of policing, and the services they provide to the public. Chan (1999) explains:

The new accountability embraces a theory that public institutions have failed the tests of effectiveness and efficiency, and to correct this deficiency, they need to not only adopt the managerial techniques and administrative structures of private for-profit corporations, but also be subject to competition under market or quasi-market conditions (p. 254).

Applying such a business perspective rather than the traditional public service perspective, policing standards are more focused on "...competencies, best practices and productiveness..." (Chan, 1999, p. 255). Ericson and Haggerty (1997) interviewed 155 Canadian police officers and administrative personnel (p. 4), and identified a common concern described as the "paper burden" whereby police are required to spend more time documenting information than actual crime fighting (p. 296). The demands for knowledge include requests from institutions such as the prosecutions office, as well as various private and government agencies (Ericson & Haggerty, 1997, p. 316). Internal demands for police officer accountability have also intensified (Ericson & Haggerty, 1997, p. 316). Ericson and Haggerty (1997) estimated Canadian police officers typically spent 30-80 percent of their time doing paperwork (p. 296).

The concept of police legitimacy is an extension of accountability, factoring in not only individual police conduct, but also the police organization's relationship with the entire community (Walker & Archbold, 2014, p. 10). Citizens are more likely to trust and cooperate with the police if they view the organisation as legitimate (Walker & Archbold, 2014, p. 10; Tyler & Huo, 2002, as cited in Tanasichuk & Wormith, 2012, p. 416). Legitimacy is based on two core public beliefs: (1) police officers are trustworthy, honest and care about the wellbeing of their citizens; and (2) people should accept police authority and "voluntarily defer to police decisions" (Tyler, 2011, p. 256). This sense of police legitimacy is based on citizen perceptions of being treated with respect and dignity by the police and results in: (a) increased citizen cooperation; (b) greater calls to police for assistance and/or to

report crimes; (c) potentially increased witness cooperation; and (d) compliance, magnifying the effectiveness of the police's ability to fight crime, as well as to solve investigations (Walker & Archbold, 2014, pp. 10-11).

According to Tanasichuk and Wormith (2012), less than half of Canadians polled have confidence in the criminal justice system (p. 415), with "...highest confidence in the police, followed by the courts and corrections (Latimer & Desjardine, 2007; Roberts, 2004, as cited in Tanasichuk & Wormith, 2012, p. 416). Researchers have described procedural justice as the foundation for police legitimacy, and suggest public perception of police legitimacy will increase as components of procedural justice are applied during interactions with citizens and suspects, potentially reducing crime by increasing compliance behavior (Telep & Weisburd, 2012, p. 342). Procedural justice is achieved when police interactions with citizens and suspects reflect the following: (a) fairness in decision making by police through transparency of their decisions and allowing citizens to have a voice in that process; and (b) fair interpersonal treatment, including treating everyone with dignity and respect (Tyler, 2011, p. 257; Telep & Weisburd, 2012, p. 343).

Stone and Travis (2013) suggest an era of new professionalism has been evolving over the last 20 years in the U.S., consisting of the following four elements: (a) accountability for individual police actions within the organisation and beyond to government and the community; (b) police legitimacy based on their authority from the government and the law, as well as earned from the public based on police interactions with individual members of society; (c) innovation through "...active investment of personnel and resources both in adapting policies and practices proven effective in other departments and in experimenting with new ideas in cooperation with a department's local partners;" and (d) conversations between states about the new professionalism to create national coherence (pp. 2-3).

Community support and witness cooperation are critical in solving homicide investigations "with witness cooperation a key component to a successful homicide investigation and clearance of the case, [while] lack of police legitimacy may contribute to lower clearance rates" (Mancik, 2015, pp. 16-17).

CONTINGENCY THEORY

The subject of research described in this thesis was designed to explore the most effective processes and procedures for homicide investigations. However, the results obtained for best practices of homicide investigations support the theoretical framework of contingency theory proposed by Maguire et al. (2010). This theory, outlined in Chapter 1, emphasises the necessity to consider insight from both criminology and organisational science when examining theoretical explanations for homicide clearance (Maguire et al., 2010, p. 373). Contingency theory was chosen for two reasons: (a) its acknowledgement of internal and external factors influencing homicide solution; and (b) public organisations, including police agencies ability to detect and adapt to its changing environment. The police organisation's

environment consists of external factors impacting the homicide clearance rate, including the nature of the homicide case and weapon used (Maguire et al., 2010, p. 375). The internal factors—or the police organisation’s technologies—include organisational processes such as number of investigators and the adequacy of policies and procedures (Maguire et al., 2010, p. 375).

Homicide solution is the ultimate output, and the organisational technologies are the internal processes used by the organisation to solve homicides (Maguire et al., 2010, p. 375). Contingency theory posits that the primary challenge for organisations is to adapt its technologies to the environment, recognising that effective organisations must adjust to their dynamic and complex environments (Maguire et al., 2010, p. 375). Maguire et al. (2010) indicated, “substantial changes in the nature of homicides, combined with insufficient organisational capacity within the criminal justice system to detect and respond to these changes, explain the declining homicide clearance rate” (p. 373).

Secondly, an organisation’s adaptive capacity relies on the organisation’s ability to detect change in the environment and its willingness and ability to make changes to maintain proper “fit” within its environment (Maguire et al., 2010, p. 376). In the private sector, for a business to remain viable it must change to survive. However public organisations such as police agencies are permanent regardless of their performance levels and ability to adapt to its environment (Maguire et al., 2010, p. 376). The literature suggests the nature of homicides is changing due to factors such as a surge in drug activity and firearms use, resulting in an increase in stranger homicides where motivation and suspect identification are not always clear (Cronin et al., 2007, p. 13). There is increased strain on police resources, and decreased witness cooperation particularly in larger urban cities (Wellford et al., 1999, p. 6). These changing trends in homicide impact a police agency’s ability to solve homicides using traditional investigative methods.

Canada’s *Charter of Rights and Freedoms* was introduced in 1982 and is the legal foundation for the protection of individual rights (Trussler, Witt, & Narayan, 2016, p. 1). The changes in law invoked by the *Charter* and the evolution of new case law has greatly impacted the processes and procedures of criminal investigations, moving Canada from a “crime control” model to a “due process” model (Morton, 1987, as cited in Trussler et al., 2016, p. 3). The shift to “due process” has had a considerable impact on procedural aspects of homicide investigations.

Cronin et al. (2007) recognised the impact of organisational factors on a police agency’s homicide clearance rate. Cronin et al. (2007) explained:

It is important to note that the decline in clearance rates may also be the result of organisational changes in law enforcement agencies. These may include changes in the structure and placement of homicide units within the agency (i.e. decentralization in some localities), lack of resources, substantial turnover of experienced personnel, poor working relationships with prosecutors and crime labs, inability to keep pace with

advances in forensic technology, and poor procedures for processing and analysing evidence. Additionally, backlogs and heavy caseloads within crime labs and coroners' offices may reduce investigative effectiveness. The length of time it takes to get results of DNA analysis leaves offenders on the street to perhaps kill again or become victims themselves through retaliation (p. 2).

Contingency theory equates an organisation's ability to remain effective by its achievement in detecting and adapting to shifts in their environment (Maguire et al., 2010, p. 394). Cronin et al. (2007) supported this theory by acknowledging the organisational practices and procedures of a police department and its individual officers can affect the police service's ability to solve homicides (p. 18).

EXTERNAL INFLUENCES ON POLICE ORGANISATIONS' EFFICIENCY

Police organisations' image, organisational structure and operational management are influenced by society's continuous "political, economic, social, technological, environmental and legal changes" (Kirby, 2013, pp. 2–3). Society is changing with greater intensity and speed; these external influences greatly affect police institutions (Kirby, 2013, p. 2). Individual police agencies vary in the rates they adapt to the external influences and respond with "...different levels of professionalism and different degrees of responsiveness" (Kirby, 2013, p. 4). External influences on the investigative process includes "...globalization, privatization, capitalism and the improved mobility of people, goods and information across international borders (Young, 2007, as cited in Kirby, 2013, p. 3).

Additionally, there is increased demand on police organisations to work closely with outside agencies to address community safety issues to increase effective crime prevention (Kirby, 2013, p. 3). The role of police is complex and difficult to measure. It is a mix of inputs, outputs and outcomes involving crime reduction, focus on gaining public confidence and trust, partnerships with other criminal justice agencies as well as community organisations, joint projects to address serious crime and provision of other protective services, and effective use of resources (Kirby, 2013, pp. 7–8). "...Two critical issues differentiate the police from other organisations: the fact that they have large numbers of staff constantly available to deal with any situation and their ability to use legitimate force when appropriate" (Bittner, 1970, as cited in Kirby, 2013, p. 8). Police deliver a diverse range of services including "...reassuring the public, peacekeeping, state security, order maintenance, crime investigation and crime reduction" (Newburn & Reiner, 2007, as cited in Kirby, 2013, p. 8).

Police are faced with increased scrutiny from stakeholders such as media, community leaders, and politicians, each one influencing police decision makers at various levels (Kirby, 2013, pp. 9–11). Within the operational policing environment are two important influencing factors: the geographic community and the "conscious opponent" (Kirby, 2013, p. 12). Communities associated with high levels of crime and disorder are less likely to cooperate with police (Kirby, 2013, p. 13). Similarly, individuals who oppose the police—criminals—

improve their craft of law breaking through trial and error, exposure to the court disclosure and trial processes as well as incarceration. As criminals get more sophisticated, police must also adapt to stay ahead of criminal techniques (Kirby, 2013, p.13).

The Standing Committee, a Canadian parliament committee mandated to study the economics of policing, reported that the costs of policing have compounded due to the changing nature of crime, advancements in technology, increased calls for service for social disorder and mental health issues as well as increased demands on police resources by the criminal justice system (Kramp, 2014, pp. 14–19). The Standing Committee recognized the importance of efficient and effective policing to maintain public confidence (Kramp, 2014, p. 1), and recommended, “...policing research and the sharing of best practices are areas in which improvements could be made” (Kramp, 2014, p. 42).

Cronin et al. (2007) discuss specific external impacts on homicide investigations. The increase in drug activity and firearms possession led to an increase in stranger homicides that traditionally are more difficult to solve due to unknown motive, and a larger suspect pool compared to acquaintance homicides (Cronin et al., 2007, p. 13). Other variables complicating homicide solution include: (a) released prisoners reverting back to crime after returning to mainstream society; (b) illegal immigrants being reluctant witnesses for fear of having their legal status checked, and/or reasons of cultural differences; (c) “oppositional culture” whereby members of the community turn to violence rather than the values of mainstream community members, fostering an environment where it is not acceptable to share information with the police; and (d) witnesses pressured or intimidated to not cooperate with the police (Cronin et al., 2007, pp. 14–15).

Keel et al. (2009) identified “contextual and demographic factors” such as jurisdictional population, homicide rate, clearance rate for other crimes, composition of population, and population density as well as “political influences” by the prosecution office, medical examiner’s office and witnesses, all of which police investigators rely upon heavily for their cooperation to solve homicide cases (p. 57).

Osterberg and Ward (2014) describe external impacts on homicide investigations as follows:

...Criminal investigation has been affected by changes in procedures and tactics based on legal procedures and the demands of societal change and expectations. These changes have an impact on everything from interviewing and interrogation methods to the introduction of new tools designed to support the detective, not the least of which have been in communication, basic computer technology, and the evolution of a process focused...on traditional investigative techniques (p. 264).

There have been advances in communication, crime scene analysis, forensic science and information technology, surveillance technology, police information systems and sophisticated “data mining” capabilities, crime reconstruction, combined with new types of

weapons, new models of criminal behavior, and changes in social media (Osterberg & Ward, 2014, p. 264). According to Osterburg and Ward (2014):

Murder represents one of the major challenges for the investigator; bringing to the fore virtually all aspects of a criminal investigation. Even when the perpetrator is known, the investigator must take care in handling the case and preparing the case for court. One can not anticipate a guilty plea or know what approach the defence counsel will take—such as invoking self-defense, accident, or one of many other defences. When a suspect has not been identified, even one mistake can result in a failure to solve the case or can serve to open a line of defence (p. 371).

Roberts (2015) echoed the same sentiment explaining external factors impact the solvability of the case such as the complexities of the case, as does the organisational factors of the given police agency including resource availability (p. 274). Difficult investigations encompass homicides where there are few witnesses, little physical evidence, or limited information available to police; these external factors are beyond the control of police and have a considerable impact on the solvability of a homicide (Roberts, 2015, p. 274). More difficult homicides include: (a) the use of a firearm versus an edged weapon, blunt object or strangulation; (b) stranger homicides where a suspect may be difficult to identify and few eyewitnesses to provide police with critical information; and (c) the timing of a homicide—those that occur late at night or in early morning hours tend to have fewer witnesses, as it is more difficult to see anything, and there are fewer people out (Roberts, 2015, p. 275). Other external factors include the community; if it is socially disorganised, residents are less likely to cooperate with police. Additionally, the police jurisdiction’s resource availability impacts their ability to solve homicide (Roberts, 2015, p. 276).

In Australia, the changing nature of homicide has been identified as follows: (a) increased number of homicides involving multiple victims or multiple offenders; (b) greater number of fatal attacks occurring in rural areas; (c) increased homicides of elderly people; (d) increased numbers of young offenders committing murder; (e) increase in complicated domestic murders with third parties involved; (f) increased method of murder by stabbings; (g) prolonged and highly complex investigations; and (h) greater public apathy (Halloran, n.d., p. 134). These changes in conjunction with “legislative and procedural changes” have increased the demands on homicide investigators exponentially (Halloran, n.d., p. 135).

Finally, in Canada, since the enactment of the *Canadian Charter of Rights and Freedoms* (1982), police agencies have had to adapt to the continually evolving case law impacting how police investigations are conducted (Campbell et al., 2017, p. 179).

CANADIAN CHARTER OF RIGHTS AND FREEDOMS IMPACT ON POLICE OPERATIONS AND INVESTIGATIVE PROCEDURES

The *Canadian Charter of Rights and Freedoms* (the *Charter*) has been one of, if not the greatest, external influences on criminal investigations through changes to the process and procedures of conducting homicide investigations. The *Charter* was entrenched in the

Constitution Act (1982), replacing the *Canadian Bill of Rights* of 1960, (Boyd, 2015, pp. 111–115). The *Charter* protects the fundamental legal rights of Canadian citizens, specifically: (a) right to life, liberty and security of the person (s. 7); (b) security against unreasonable search or seizure (s. 8); (c) no arbitrary detention or imprisonment (s. 9); (d) right to legal counsel on arrest or detention (s.10); (e) right to be tried within a reasonable time (s. 11); (f) protection from cruel and unusual punishment (s. 12); (g) protection from self-crimination (s. 13); and (h) right to have assistance by an interpreter (Stuart, 2010, pp. 1–2).

A study from British Columbia, Canada by Malm, Pollard, Brantingham, Tinsley, Plecas, Brantingham, Cohen, and Kinney (2005) examined whether the *Charter* has increased the workload demand in police organisations (p. 50). The researchers proposed that police “service demands are frequently defined by judicial decisions, new legislation and government policy initiatives...” (Malm et al., 2005, p. 50). Furthermore, Malm et al. (2005) state:

Since the *Canadian Charter of Rights and Freedoms* was enacted in 1982, giving the Supreme Court of Canada unprecedented authority to redefine substantive, procedural and evidentiary law, demands on police operations have increased dramatically without a proportional increase on budget and/or manpower. In turn, these demands have had significant workload effect on police organisations and their ability to serve the public (p. 50).

These researchers examined the economic impact the *Charter* has had on police organisations and how it has impacted their ability to serve the public (Malm et al., 2005, p. 50). According to their study, the *Charter* has imposed external workload changes “by new judicial decisions, new legislation, and/or new policy initiatives, over which police organisations have no direct control” (Malm et al., 2005, p. 50). They provided numerous examples of external workload changes having tremendous impact on the economic and resource demands of all Canadian police agencies. For the present study, the *Charter’s* impact on changes to investigative processes is the focus of the following paragraphs, which have been highlighted by Malm et al. (2005).

Malm et al. (2005) used a four-step methodology to identify the post-*Charter* judicial decisions, legislative changes and policy initiatives that have the most impact on police operations and investigative practices (p. 54). The four steps included: (a) review of literature in the area of criminal evidence, procedure, legislation and policy; (b) focus groups consisting of Royal Canadian Mounted Police; (c) consultation with experts in law and policing, such as police officers with law degrees, crown prosecutors and lawyers in private practice; and (d) comparison of results from the previous steps (Malm et al., 2005, pp. 54–55). The strongest agreement among the subject matter experts was that “the *Charter* has had the greatest legislative effect on police operations and investigative practice in the history of Canadian policing” (Malm et al., 2005, p. 55).

Malm et al. (2005) highlighted the effect one policy initiative has had on police operations through the change in how police photo line-ups are conducted, post-*Charter* (p. 50). As a result of the inquiry into the wrongful conviction of Thomas Sophonow, in 2000, Mr. Justice Cory made numerous recommendations for police photo line-up practices that have been adopted by all police agencies across Canada. The practice used to require one police officer to show a sheet of six or more photographs to a witness, now consists of the investigating officer requesting in writing a photo line-up package be created, one officer or civilian compiling the 10 “suspect” photos, one officer not involved in the investigation presenting the photo line-up to the witness(s) or victim, and the presentation must be audio and video recorded. Lastly, the recording and documentation must be disclosed for court. All officers and civilians may be required to testify in any related court procedures (Malm et al., 2005, pp. 50–51). This is one example of many where labour, time and potential witnesses for court have increased exponentially due to post-*Charter* judicial recommendations.

R. v. Stinchcombe was a post-*Charter* judicial decision (case law) identified by Malm et al. (2005) stating these “...judicially prescribed disclosure rules.... have probably had the most profound effect on policing in terms of workload and economic cost” (p. 55). This judicial decision relies on s. 7 of the *Charter* (the right to life, liberty and security of person) whereby the Supreme Court decided the accused has the right in all criminal cases to full disclosure of the police investigation and crown prosecutor’s case (Malm et al., 2005, p. 58). What “complete disclosure” means to the courts continues to evolve via numerous Supreme Court rulings.

The most recent judicial decision with momentous impact on police investigative processes is *R. v. Jordan* (2016), whereby a new framework for applying s. 11(b) of the *Charter* (accused’s right to be tried within a reasonable time) has been specified to address the delays between charges and conclusion of a trial (*R. v. Jordan*, 2016, para 1). Under the new framework, there is a ceiling of 30 months in the superior court (homicide cases are tried in superior court) after charges have been laid. If the case exceeds this time, the delay is considered by the courts to be unreasonable and will result in the charges being stayed unless exceptional circumstances exist (*R. v. Jordan*, 2016, para 3). This decision is pivotal for the processes of Canadian homicide investigations due to delays in obtaining written expert testimony, autopsy reports and computer analysis of electronic devices and forensic analysis reports (personal communication, Calgary Police Service lawyer Donna Spaner, 2016). Ultimately, charges can not be laid until all pertinent documentation is ready for disclosure, causing critical delays in the arrest of homicide offenders. Additionally, according to Malm et al. (2005), “the administrative time and cost for police to prepare copies of all information and evidence—whether relied upon or not—of all investigations have increased significantly, if not exponentially” (p. 58).

R. v. Garofoli is a Supreme Court decision increasing the evidentiary burden on police in relation to electronic interception applications and scope of subsequent review of affidavits at trial (Malm et al., 2005, p. 57). The process has become so complicated that “full, frank and fair disclosure” requires incredibly detailed affidavits that used to be approximately 50 pages are often now hundreds of pages long, taking investigators exponentially longer to draft and to testify to them under cross-examination (Malm et al., 2005, p. 57). This investigative technique is so cost-prohibitive that police organisations are forced to limit its use, even for murder investigations (Malm et al., 2005, p. 57). *R. v. Sophonow*, *R. v. Stinchcombe* and *R. v. Garofoli*, are only three post-*Charter* decisions that have impacted police operations and investigative practice, with Malm et al. (2005) summarizing their importance as follows:

It is important these cases not be considered separately. Rather, the effects are cumulative. For example, consider the net effects of *Garofoli* and *Stinchcombe* together in the context of a murder investigation where electronic intercepts are necessary. Moreover, these judicial decisions must be considered along with legislative changes and policy initiatives, where together new burdens are added, compounding the effect and dramatically increasing service demands to the point that investigations and other activities are either being curtailed or abandoned (p. 60).

Malm et al. (2005) determined the number of procedural steps required to handle a homicide case has increased approximately 25% over the 30-year period examined by the study (1974–2004) (p. 16). The researchers concluded that policing has experienced a tremendous increase in demand for services over the last 30 years—in particular, the major increase in the time it takes to prepare a criminal case for prosecution (Malm et al., 2005, p. 19). The post-*Charter* impact on law enforcement is ongoing as case law; policy and legislation continue to evolve. As a result, today’s police organisations must work hard to ensure they maintain their ability to adapt to this ever-changing environment through the advancement of policy, processes, procedure, and investment in officer education and training.

The *Charter* has improved the protection of accused’s rights, changing Canada’s justice system from a “crime control model to a due process model” (Morton, 1987, as cited in Trussler et al., 2016, p. 3). *Charter* impacts to criminal investigations include increased workload, greater difficulty obtaining evidence, and greater investigator knowledge of case law changes for successful prosecution of homicide cases (Trussler et al., 2016, pp. 11–12). “There is a need for professionalism, absence of procedural errors, and an understanding of the nuances of the Supreme Court rulings” (Trussler et al., 2016, p. 13).

ORGANISATIONAL INFLUENCES ON HOMICIDE CLEARANCE AND POLICE EFFICIENCY

Policy, Processes and Procedures

Policies are the overall guiding principles that govern the implementation of an organisation’s processes (Boutros & Purdie, 2014, p. 24). Processes are the related activities performed to achieve a specific result, using inputs such as people, systems and tools to transform them

into desired outputs (Boutros & Purdie, 2014, pp. 22–26). Procedures are the detailed steps necessary to carry out the processes (Boutros & Purdie, 2014, p. 26).

Process of Homicide Investigations

Innes (2002) examined criminal investigations to identify “ordered sequence of actions” (p. 672). Three factors formulate the process structure of criminal investigations: (a) criminal law that provides the structure for criminal investigations to operate within; (b) organisational characteristics; and (c) case characteristics (Innes, 2002, p. 669). The response of the law enforcement agency to its environment through “procedures, routines and conventions” forms the investigative methodology (Innes, 2002, p. 672). Two process structures have been identified: one for “self-solvers” and a second for “whodunits” (Innes, 2002, p. 672).

“Self-solvers” are homicide investigations whereby an offender is identified within the very early stages of the investigation—often with considerable physical evidence to prove their level of involvement or strong witness information (Innes, 2002, pp. 671–672). The process structure for a “self-solver” case typically includes the gathering of evidence to support the investigative theory of the suspect’s role in the homicide, and organising all the evidence and information into a “coherent explanatory account of the incident” (Innes, 2002, p. 672). The specific stages include: (a) crime scene examination; (b) investigative strategy including victimology, background on suspect, witness interviews, neighbourhood inquiries; and (c) organisation of information in preparation for court disclosure (Innes, 2002, p. 673).

“Whodunits” on the other hand are more complex and typically involve a murder with no known suspects in the early stages of the investigation. These often require protracted investigative efforts, a high level of information management and considerable time and resources to solve (Innes, 2002, p. 672). “Whodunits” require a five-stage sequence of investigative action (Innes, 2002, p. 674). Once the incident is confirmed to be a homicide, the following stages are required: (a) examination of crime scene; (b) gathering of large volumes of information and determining what is relevant to the murder investigation; (c) suspect development; (d) investigative techniques to target the suspect; and (e) case construction for prosecution (Innes, 2002, pp. 674–677). “It has been shown that the individual actions performed by detectives are focused around particular stages within the investigative process and these stages, in terms of the way they order and structure these activities, can be seen to constitute ‘the process structure’ of the investigation” (Innes, 2002, p. 678).

Innes (2002) categorises the organisational influence on the investigative process into two areas: (a) administrative-management; and (b) conceptual knowledge structures (Innes, 2002, p. 679). Administrative-management oversees the distribution of personnel and resources, and establishes the procedural guidelines required to achieve investigative effectiveness and efficiency (Innes, 2002, p. 679). The combination of formal training, procedural guidelines, and work experience of the individual detectives formulates the

conceptual knowledge structure, which impacts how the investigative process is performed (Innes, 2002, p. 679). The organisational knowledgeability "...acts as a source of police-relevant 'common sense' understanding, which can be used to inform the investigative role and subsequently investigative actions" (Innes, 2002, p. 679). Recognition of the contribution conceptual knowledge brings to the application of processes and procedures is key to this thesis, as the subject matter experts to complete the Delphi iterations rely upon this type of knowledge.

Innes (2002) acknowledges that within the process structure of criminal investigation, the underlying premise is a sense of "...that what is accepted as knowledge about the crime will either be confirmed or modified as further knowledge becomes available" (p. 685). The investigative process is dynamic and as further physical or secondary evidence (such as closed circuit television and cell phones records) and witness information is gathered, the knowledge and understanding of the crime theory changes until a case is constructed proving beyond a reasonable doubt and supporting a likelihood of conviction. Then charges can be laid and the prosecution stage of the investigation can begin. As Innes (2002) states, the facts of the case are "...progressively and incrementally constructed through a structured process of inquiry" (p. 686).

Organisational Practices for Homicide Solution

Cronin et al. (2007) acknowledge there is a lack of research into organisational characteristics, making it difficult to determine the most effective methods for organising a homicide unit (p. 23). The literature provides little clarity as to the impact of law enforcement resources and management and how their investigative procedures and practices and operational processes influence the effectiveness of homicide investigations (Cronin et al., 2007, p. 24; Keel et al., 2009, p. 52). Specific organisational processes and procedures include: (a) structures of homicide units; (b) resource availability; (c) level of training of investigators; (d) caseload; and (e) outside agency relationships (Cronin et al., 2007, p. 2). Homicide unit mandate considerations include whether a unit will investigate deaths other than suspicious ones, such as police in-custody deaths, officer-involved shootings, suicides, kidnappings, cold cases, aggravated assaults, and workplace accidents with life-threatening injuries (Cronin et al., 2007, p. 21). The number of additional investigations mandated to the unit impact its workload and potentially its ability to solve homicides if not provided enough personnel and resources to manage all the investigations.

There is debate on whether a centralised or decentralised unit is more effective. In theory, stronger community ties may be established with decentralisation, allowing greater potential to develop increased witness cooperation. However, some agencies have found decentralisation of major crimes units such as homicide does not necessarily increase productivity (Cronin et al., 2007, p. 23). Many larger U.S. agencies have found a central homicide unit to be more effective, as the pool of experienced investigators and supervisors work together to manage the complex homicide investigations (Cronin et al., 2007, p. 23).

Ultimately, Cronin et al. (2007) determined that a police agency's practices and procedures, as well as individual investigators, stand to be one of the more critical factors on the homicide clearance rate of a department (Cronin et al., 2007, p. 18). This sentiment was supported by Wellford and Cronin (2000) who determined "police can have a statistically significant impact on solving a homicide" (as cited in Cronin et al, 2007, p. 24). These findings notably differ from those of the *RAND report*, which suggested investigators had little effect on crime solution (Greenwood & Petersilia, 1975, p. vi).

Keel et al. (2009) conducted an extensive literature review into the study of homicide investigative practices and policies (p. 54). The researchers canvassed 81 law enforcement agencies across the U.S. who experience an average of 25 or more homicides annually over 2000–2004, and report to the Federal Bureau of Investigation's Uniform Crime Reporting system (p. 54). Unlike smaller scale studies like Carter and Carter (2016), the large-scale research project by Keel et al. (2009) yields findings with important generalisability to all westernised law enforcement agencies. Specifically, Keel et al. (2009) identified that management resources, investigative procedures and analytical processes impact homicide solution (pp. 56–57). Management resources include investigator training, agency caseload, numbers of investigators assigned to a case, overtime and rotation policies, as well as the existence of cold case units (Keel et al., 2009, p. 56). The method of conducting investigative techniques such as interviews with suspects, victims, victim friends and family, witnesses, and neighbourhood canvasses, as well as task assignment for follow-up investigation can all impact the success of a homicide investigation (Keel et al., 2009, p. 56). Finally, use of investigative tools such as polygraph, computerised case management systems, access to DNA databanks and access to crime analysis software are analytical processes that can positively impact homicide clearance (Keel et al., 2009, p. 57).

Investigative Challenges and Failings

Marché (1994) identified eight factors impacting homicide solution, with investigator experience being the only organisational factor mentioned (p. 399). Marché (1994) acknowledged that identifying investigative challenges, "... may suggest which policies and programs, or even new technologies, might produce the greatest payoffs" (p. 399).

Brookman (2005) summarises factors which may lead to homicide investigative failure as follows: (a) errors made during the initial response, which can often be described as a disorganised and chaotic scene; (b) information overload and quality of information that results in following the wrong leads or missing important ones; (c) no-motive homicides or competing scenarios whereby there are several plausible motives; (d) failures of the major incident team due to information overload and understaffing; (e) financial pressures of the law enforcement agency and understaffing which may result in homicide investigator error due to working long hours and/or insufficient resources to move the case forward; (f) constructing the wrong suspect; and (g) occasions when investigators "circumvent standard practice" in an effort to get a desired result (pp. 264–268).

Brookman and Lloyd-Evans (2015) more recently described investigative challenges and failings in three categories: (a) case-specific challenges; (b) organisational failures; and (c) extrinsic challenges (p. 23). Case-specific challenges included managing the volume of information and complexity of the case and overcoming a delay between the death of the victim and the start of the investigation (Brookman & Lloyd-Evans, 2015, pp. 23–25). Organisational challenges included: (a) communication breakdowns between investigators and team commanders, as well with other police members; (b) failure to adhere to best practices, including crime scene management and the handling of exhibits, witness management, neighbourhood canvasses, and breaches in practice and policy; and (c) lack of resources, equipment and facilities resources, and personnel (Brookman & Lloyd-Evans, 2015, pp. 23, 25–28). Extrinsic challenges included: (a) managing external organisations (i.e. extremely long waits for medical expert reports, or managing the media); (b) external science and technology challenges such as the quality of closed circuit television or the capturing of social media communications; and (c) difficulty engaging hostile communities (Brookman & Lloyd-Evans, 2015, pp. 23, 28–31).

Rossmo (2006-a) categorised investigative failures as follows: (1) cognitive biases; (2) probability errors; and (3) organisational traps (p. 2). Cognitive biases acknowledge that individuals view the world through different lenses and interpret their memories in a subjective manner (Rossmo, 2006-a, p. 2). Biases to name a few can include actions such as tunnel vision, farming around how the information is presented, and bias in evaluation of the evidence (Rossmo, 2006-a, pp. 4-5). Probability errors occur when looking for crime patterns or analysing forensics, whereby the possibility of coincidence or differences may get overlooked (Rossmo, 2006-b, p. 12). Finally, organisational traps include an organisations unwillingness to change referred to by Rossmo (2006-b) as “bureaucratic inertia” (p. 15). Rossmo (2006-b) acknowledges this can be problematic if an investigative unit for example is unable to change direction in a major investigation when new evidence is discovered (p. 15). Ego, fatigue and groupthink can all create problems in a major crime investigation (Rossmo, 2006-b, p. 17). Rossmo (2006-b) recommends eliciting the assistance of independent experts, considering outside review of cases, provide investigators with training and “...create formal organisational mechanisms to prevent these subtle hazards from derailing criminal investigations” (p. 18).

Westera, Kebell, Milne, and Green (2016) acknowledge there is no research examining the future challenges of effective detective work, nor is it easy to define what “effective detective” work entails due to its complexity (p. 198). The researchers interviewed detectives to learn about the challenges investigators face during a criminal investigation (Westera et al., 2016, p. 198). The challenges identified by detectives to be effective investigators included: (a) recruitment and retention; (b) technology; (c) training and ongoing development; and (d) accountability (Westera et al., 2016, p. 204). Detectives identified a poor work-life balance due to the nature of investigative work, being on-call and working

overtime, high workload, large volume of paperwork, and lack of movement to management positions. These factors made recruiting qualified candidates and retaining experienced investigators difficult (Westera et al., 2016, p. 201).

Technology has impacted detectives work in three main ways: (a) the way crime is being committed; (b) the generation of more “passive” evidence such as closed circuit television, cell phone data and social media; and (c) the process of gathering technology-generated data requires more search warrants to access the private information of citizens. These factors contribute to a considerable increase in detective workload and need for continual training to stay apprised of the technological advances and legislative requirements (Westera et al., 2016, p. 203).

Training and ongoing development are required for investigators to maintain the high level of knowledge and skill required to achieve successful homicide solution and convictions in court (Westera et al., 2016, p. 203). The final challenge identified in the study was accountability and the increased pressure on detectives to be transparent about their practices “to the detriment of effective investigations” (Westera et al., 2016, p. 203).

With revealing investigative techniques through the increased accountability and transparency comes what one participant of the study termed “process paralysis,” whereby “less time was spent conducting investigations due to the burden of bureaucratic processes” (Westera et al., 2016, p. 204). These factors combined suggest that for homicide investigators to be more effective, the organisational practices and procedures of a homicide unit must change and adapt to meet future needs (Westera et al., 2016, p. 205).

Participants of the study suggested recruiting police officers with a genuine desire to do detective work to offset the high workload and poor work-life balance, and having senior managers acknowledge and value the difficult work of investigators to improve “organisational recognition” (Westera et al., 2016, p. 202). Other suggested options included “increasing career incentives.... such as specialist promotion streams, removing tenure limits in specialist squads or simple gestures such as receiving a gold badge after five years as a qualified detective” (Westera et al., 2016, p. 202). Attempts to reduce bureaucratic processes to allow more time for detectives to do investigative work was suggested in order to retain good investigators and increase effectiveness (Westera et al., 2016, p. 202). Detectives could be more effective if provided human resources to assist with the collection and review of “passive” evidence (Westera et al., 2016, p. 203). “Passive” evidence includes closed circuit television and cell phone record analysis.

Additionally, the organisation needs to establish a formal system of ongoing professional development for detectives to stay apprised of “rapid changes in legislation, technology and forensic science” (Westera et al., 2016, p. 203). To reduce internal bureaucracy, managers need to trust detectives are acting professionally, establish better public trust by proactive communication with the public instead of waiting until an issue with

a specific investigation, and finding balance between risk management and achieving appropriate police conduct and achieving efficiency (Westera et al., 2016, p. 203).

Although the literature has identified the importance of police organisational influence on homicide investigative success, the details of effective organisational practices and procedures are still in its infancy. Ultimately organisational factors are not the only issues impacting the process of homicide investigations: in addition to the "... ingenuity, skills, and motivation of the investigator(s); the priorities of the police service; the level of sophistication of the crime; and the willingness of crown counsel to proceed with the case" all play a major role in homicide solution (Griffiths, 2016, p. 277).

HOMICIDE INVESTIGATION BEST PRACTICE

In general, processes and procedures set out the guidelines or best practices needed to achieve a desired goal—such as homicide solution—and to achieve optimised operational effectiveness. Investigative methods identified by the literature to assist in homicide clearance are discussed below. In the academic community, these investigative processes and procedures are often referred to as best practice.

Wellford et al. (1999) conducted an in-depth study examining the factors that typically assist in achieving homicide clearance (p. 2). A total of 798 murder events were examined in four U.S. cities between 1994 and 1995 (Wellford et al., 1999, p. 2). Thirty-seven police investigative practices were associated to homicide clearance, providing evidence that the policies and procedures of police agencies regarding homicide investigations impact case solution (Wellford et al., 1999, p. 4).

Some of the recommended investigative practices included: (a) actions of first responding officers such as securing the scene, identifying witnesses, preserving evidence and conducting neighbourhood inquiries; (b) prompt arrival of homicide detectives (within 30 minutes) and the medical examiner's office; (c) number of detectives assigned to the case; (d) allowance for overtime; and (e) importance of computer checks (Wellford et al., 1999, p. 41). The researchers of the study argue "...that practices and policies of law enforcement agencies can have a substantial impact on the clearance of homicide cases and that clearance of homicides could be increased if law enforcement agencies improved investigation policies and practices" (Wellford et al., 1999, p. 42).

Cronin et al. (2007) acknowledged that each homicide is unique with varying levels of solvability and probability of arrest; yet suggest that if every police agency followed certain procedures, the likelihood of homicide solution can increase (p. 27). These procedures include actions of the detectives and other police during the initial response, intelligence gathering and use of crime analysts, eliciting witness cooperation and interview strategies, as well as organisational management of personnel (Cronin et al., 2007, pp. 25–33). The actions of police during the initial phase of the investigation are critical to the success of solving the case including the speed which first responders contact the homicide unit and medical

examiner's office, as well as preservation of the scene and evidence, and witness identification (Cronin et al., 2007, p. 25). The researchers emphasised the importance of proper training for first responding patrol officers for them to understand their important role in the homicide investigation process (Cronin et al., 2007, p. 25).

Arrival of homicide detectives to the scene within 30 minutes was found to be optimal to ensure the scene was processed properly and quickly (Cronin et al., 2007, p. 25). Researchers determined the greatest success in homicide clearance was achieved when three to four detectives were assigned to a case, with one detective taking responsibility for attending the autopsy, detailing and annotating the case notes of other detectives, and following up on all the information provided by witnesses (Cronin et al., 2007, pp. 25–26). The researchers also acknowledged that departments having crime scene specialists who also attend the scene and work in conjunction with the homicide detectives resulted in greater success (Cronin et al., 2007, p. 26). Due to the complex nature of the investigations, there is required some level of supervision review whether formal or informal, internal or external (Cronin et al., 2007, p. 26).

Other valuable police responses included: (a) computer checks on police information systems; (b) interviews of witnesses identified at the crime scene; (c) interviews of victim's friends, family and acquaintances; (d) completion of a body chart by the medical examiner, included in the investigative file; (e) interviews of attending doctors and other medical staff; and (f) use of confidential informants (Cronin et al., 2007, p. 27). Witness cooperation is critical in homicide solution (Cronin et al., 2007, p. 28). The researchers suggested police agencies should focus on strengthening community relations prior to a homicide occurring and protecting witnesses from intimidation once they have cooperated with police (Cronin et al., 2007, p. 28). Numerous personnel policies can impact the effectiveness of the homicide unit such as: (a) selection of the best detectives and specialised training on topics such as in case law, interviewing and interrogation; (b) allowing detectives to stay in the unit to gain expertise rather than rotating them out of the unit; (c) allowance for overtime; and (d) 24-hour assignment of cars so they can attend the crime scene faster than having to go to headquarters first to take out a vehicle (Cronin et al., 2007, pp. 28–29).

A key suggestion emerging from Cronin et al. (2007) was for agencies to invest in crime analysts to complete research and case analysis, and to produce products such as timelines, crime maps, as well as telephone and database analysis reports to assist in investigative and court processes—ultimately freeing up detectives to focus on interviewing and following up on leads (p. 33). The results of their study concluded that police agencies can best increase success in clearing historical homicide investigations by establishing “cold case” units that capitalise on advancements in forensic science such as DNA evidence (Cronin et al., 2007, p. 101).

Keel et al. (2009) examined homicide investigative practices and policies by surveying 55 police agencies in relation to the impact of the following five areas on homicide

clearance: (a) management practices; (b) investigative procedures; (c) analytical methods; (d) jurisdictional characteristics; and (e) political influences (pp. 50–55). One of the central findings of this study was that formal training of homicide investigators markedly improved homicide clearance (Keel et al., 2009, p. 62). Likewise, Keel et al. (2009) also identified that successful homicide clearance is more likely when managers balance oversight and accountability, allowing detectives latitude in areas such as overtime while still overseeing appropriate mobilisation of administrative and financial resources (p. 60). In relation to analytical processes, various investigative tools, such as the forensic analysis of DNA, blood spatter, statements, criminal investigation (case review), and voice stress analysis in interviews were also found to increase homicide clearance (Keel et al., 2009, p. 62).

In earlier publication, Keel (2008) summarised the findings as follows:

Key to a Successful Homicide Unit

- No more than five cases per year as a primary for each detective;
- Minimum of two, two-person units responding initially to the crime scene;
- Case review by all involved personnel within the first 24 to 72 hours;
- Computerised case management system with relational capacity;
- Standardised and computerised car-stop and neighbourhood canvass forms;
- Compstat-style format;
- Effective working relationships with medical examiners and prosecutors;
- No rotation policy for homicide detectives;
- Accessibility to work overtime when needed;
- Cold case squads;
- Investigative tools, such as polygraph, bloodstain pattern analysis, criminal investigative analysis, and statement analysis;
- Homicide unit and other personnel work as a team (p. 4).

The U.S. Bureau of Justice Assistance and the International Association of Chiefs of Police coordinated efforts to conduct two companion projects aimed at identifying effective methods to manage homicide investigations (Carter, 2013, p. i). The International Association of Chiefs of Police focused on the administration of homicide investigations in a study called *10 Things Law Enforcement Executives Can Do To Positively Impact Homicide Investigation Outcomes*, and the U.S. Bureau of Justice Assistance conducted a study called *Homicide Process Mapping: Best Practices for Increasing Homicide Clearance* (Carter, 2013, p. i). The latter study focused on best practises in homicide investigations to achieve greater homicide solution (Carter, 2013, p. i). The study entailed examination of seven police agencies through interviews of homicide managers and investigators and documentation review (Carter, 2013, p. ii). The end product was a process map outlining essential

investigative steps executed within the first 48 hours of a homicide occurrence (Carter, 2013, p. ii).

An agency with high clearance rates and one with low clearance rates could be performing the same investigative task with very different outcomes (Carter, 2013, p. 7). An example used by Carter (2013) was about how differences in the performance of the investigative task of neighbourhood inquiries resulted in various levels of success (p. 7). In successful agencies, different techniques were used such as including patrol officers known to the community members to be a part of the canvass versus simple door knocks by investigators (Carter, 2013, p. 7). Carter (2013) suggested the successful agencies had an established foundation in community, which contributed to the successful generation of information from the neighbourhood canvasses (p. 7). There was also a stark difference between sending patrol officers with limited time and knowledge of the homicide to knock on neighbourhood doors compared to an informed and strategic plan of using set questionnaires and community maps tailored to the individual homicide in question to be used by investigators briefed on the case conducting the neighbourhood inquiries (Carter, 2013, p. 7). The same task or investigative process of neighbourhood canvassing resulted in different outcomes based on the procedures used by the homicide unit (Carter, 2013, p. 7).

Carter (2013) identified 32 best practices to increase homicide clearance (pp. 27–31). The following outlines some of these suggestions: (a) a homicide unit requires support from management in the areas of sufficient staffing levels, resource allocation, adequate overtime budget and organisational flexibility; (b) investigator must have the ability to effectively communicate with the “victim families” and the community in general and must be able to manage large volumes of information from many types of sources to move the investigation forward; (c) careful selection of homicide investigators who possess solid investigative, report writing, interviewing and interrogation skills, with additional training and mentorship provided to the investigators once in the homicide unit; (d) the use of crime analysts and intelligence gathering techniques; (e) homicide unit utilising a team approach to homicide investigations; (f) the use of specially trained crime scene investigators; (g) maintaining positive working relations with outside agencies such as crime labs, medical examiner’s office, media and the crown prosecutor’s office; (h) having a computer forensic unit for techniques such as data extraction from cell phones and computers; (i) utilising an electronic file management system; (j) training for patrol officers in their role in a homicide investigation, and good relations between homicide investigators and patrol officers; (k) strong relationship between the police agency and community; (l) two phase neighbourhood canvass: phase one by patrol officers and phase two by homicide investigators; (m) homicide investigators supplied with cell phones and laptops, as well as a take-home car; (n) daily informal team meetings to discuss ongoing cases; (o) the homicide unit maintains good relations with other units within their agency and considers the use of specialty units; (p)

police agency should have a victim and witness assistance unit; and (q) a crime stoppers unit should be advertised and utilised for the generation of tips (Carter, 2013, pp. 27–31).

Carter and Carter (2016), using the same U.S. Bureau of Justice Assistance study by Carter (2013), commented further on good practices for murder investigations. According to Carter and Carter (2016), police agencies successful in homicide solution exhibited strong community relations, specifically through community policing and homicide investigators recognising the importance of developing community-based trust during homicide investigations (p. 170). They acknowledged there is a paucity of research in relation to the influence police investigative processes have on homicide clearance, with limited knowledge as to what processes and procedures contribute to successful homicide investigations (Carter & Carter, 2016, p. 4).

In the U.K., the National Centre for Policing Excellence produced on behalf of the Association of Chief Police Officers several publications related to criminal investigations including: (a) the Core Investigative Doctrine; (b) the Murder Investigation Manual; and (c) the Major Incident Room Standard Administrative Procedures, outlining good practices for major crimes investigations (Kirby, 2013, p. 97). The Association of Chief Police Officers, *Murder Investigation Manual* (the *Manual*) is an in-depth guide for senior investigating officers and details strategies involved in conducting homicide investigations (ACPO, 2006, p. 17). The *Manual* has evolved since the first publication in 1998, due to changes in legislation and case law, advances in science and technology and procedural developments arising from "...lessons learned from public enquiries, coroners' inquests, trials and internal reviews" (ACPO, 2006, p. 17). The *Manual* describes the role of the Senior Investigating Officer as twofold: (a) as an investigator who has the knowledge of criminal law, and the ability to develop investigative strategies, and (b) as a manager who is able to attain the necessary resources to support the investigation (ACPO, 2006, pp. 25-26).

Sections 9-23 of the *Manual* provide detailed strategies for conducting homicide investigations, including: (a) crime scene management; (b) coordination with the forensic pathology office; (c) search strategies; (d) passive data collection such as bank and cell phone records and closed circuit television; (e) neighbourhood inquiries; (f) witness management; (g) family liaison; (h) media strategy; (i) community involvement; (j) elimination of persons of interest and suspect management; (k) surveillance strategy; (l) covert human intelligence sources; and (m) various types of reconstructions (ACPO, 2006, pp. 132–288). Other U.K. researchers, Brookman and Lloyd-Evans (2015) outlined good practices and innovations as follows: (a) effective flow of communication amongst the investigative team and across other departments; (b) effective liaison with outside agencies and specialists; (c) innovative work to engage difficult-to-reach communities such as the use of social media and approaches to building trust with potential witnesses; and (d) an innovative strategy to mitigate challenges (pp. 31–33).

In Australia, Westera et al. (2014) identified 11 essential skills of investigators (p. 1). Communication and motivation were identified as the most important skills of an effective detective (Westera et al., 2014, p. 9). Particularly essential is a detective's ability to communicate professionally and effectively with a wide variety of people such as vulnerable people within the community, offenders, victim families and other professionals within the justice system (Westera et al., 2014, p. 9). Other skills identified as important for effective performance as a detective included: (a) thoroughness; (b) decision making; (c) managing of resources, people and time; (d) previous life and work experience; (e) leadership; (f) legal and investigative knowledge; (g) resilience; (h) tenacity; and (i) teamwork (Westera et al., 2014, pp. 10–11). Knowledge of these skills can assist police administrators in the selection and training of detectives as well as their management (Westera et al., 2014, p. 14).

In Canada, Brodeur (2010) conducted a similar study and compared it to that of U.S. researchers Wellford et al. (1999). According to Brodeur (2010), both studies compared clearance time and identified assisting factors in homicide solution, outlining that Wellford and Cronin (1999) identified 215 factors related to case characteristics and the investigations from police file data (p. 205). Although Brodeur (2010) did not elaborate on what these assisting factors were for the two studies, he determined that 49% of suspects in Canada were identified, located and arrested within 24 hours or less (p. 206), compared to the Wellford et al. (1999) results of 29% solution within 24 hours (p. 206). Brodeur (2010) also concluded that solving the homicide cases was only part of the investigative process, as investigators spent considerable time on court preparation—often, referred to as “courtroom evidence managers” (p. 207).

In Canada, the Royal Canadian Mounted Police has a Major Case Management Guide. The Major Case Management Guide is an internal reference guide produced by the Office of Investigative Standards and Practices in conjunction with the “E” Division Major Case Management Committee. The guide provides explanation of the major case management principles, the key positions within the model, roles and responsibilities of the investigative team, standard operating procedures (business rules) for investigative techniques, useful resource references, and case law references (Office of Investigative Standards and Practices, 2012, pp. 1–3). According to the Major Case Management Guide (2012),

Major Case Management is a methodology for managing major incidents which provides accountability, clear goals and objectives, planning, utilization of resources and control over the speed, flow and direction. It is a model or ‘framework’ through which the police can best manage investigations for a competent and consistent effort. It can serve as insurance of an end result, which is satisfactory to the police, the Courts and the public we serve (p. 5).

The Major Case Management triangle consists of a primary investigator, file manager, and team commander. Major Case Management is utilised by a team of investigators, with these principles typically applied to any major investigation across Canada (Griffiths, 2016, p. 277;

Campbell et al., 2017, p. 139). “Once the Major Case Management triangle is in place, other expertise may be called upon including legal application support and interview teams, criminal profiles, surveillance team members, and covert operations that may include undercover, wiretap, and other support services” (Campbell et al., 2017, p. 139). The Major Case Management framework is a model that Calgary Police Service homicide investigators apply to their investigative process on varied levels, depending on the type and context of the investigation.

Models of Homicide Investigations

In all regards, the circumstances of an investigation determine the level of response or standard of investigation suitable for the crime. For example, the level of investigation required for a simple break and enter offence is different to a complex homicide investigation (Noble & Alpert, 2012, p. 18). According to Noble and Alpert (2012):

An investigation may be acceptable as long as the investigation is of a sufficient quality to achieve the goals of an effective prosecution...(example, criminal investigation), ...the ability for management to make a fair and reasoned administrative finding... (example, internal police investigation)...or the goal of a special investigation that is most often accountability (example, fatality inquiry, or other critical incident) (p. 22).

They identified a standard of quality that should be applied to all criminal investigations. The continuum includes: an unreasonable, reasonable, good, and excellent investigation (Noble & Alpert, 2012, p. 23). An unreasonable investigation omits critical investigative steps, can not be relied upon and is unlikely to support an effective prosecution (Noble & Alpert, 2012, p. 23). A reasonable investigation is the standard used to judge most investigations, whereby “... appropriate investigative steps are undertaken and documented and while additional efforts may clarify or provide greater weight to the findings, the investigative outcome is reasonable” (Noble & Alpert, 2012, p. 23). Good investigations are more in-depth than reasonable ones and can be achieved when an organization has sufficient resources, time and the need for this level of investigation (Noble & Alpert, 2012, pp. 22–23). Excellent investigations require all investigative steps be procedurally accurate, all necessary investigative steps undertaken, and documented “thoroughly and accurately” in order to achieve the goals of a successful prosecution (Noble & Alpert, 2012, p. 22).

Through the course of the literature review, approximately four standards of homicide investigation were identified. The *gold model* is when there is unlimited availability of resources and investigators are given the freedom to do anything they see fit to further the investigation. This may include unlimited overtime, access to crime labs including expensive private labs, the purchasing of leading edge technology, hiring of as many investigators as necessary to ease caseload burdens, and extensive training for each investigator.

The *silver model* is hypothesized by the researcher to be the most desirable method based on effectiveness and integrity of investigative processes. The *silver model* includes

allocation of funds to the investigations most likely to be solved, monitored overtime when it is necessary to further the investigation, front-end loading of staff in the first few weeks of an investigation, access to training and development of new investigators, retention of experienced homicide investigators and prioritization of funds to where they could be used the most effectively.

The *bronze model* is likely the most representative of current investigative methods, and includes limited financial and personnel resources, limited training for investigators, limited overtime, and limited access to up-to-date technology, as well as few experienced investigators remaining in the unit.

The *do-nothing* option requires little explanation. This model is not applicable to the Calgary Police Service.

With the exception of the *do-nothing* model, similar models were presented to the panel of eight subject matter experts through the use of the Delphi method explained below. For the purpose of preventing researcher bias by suggesting a rank to the various standards, nominal scale labels of A, B, C and D were assigned to the four standards of homicide investigation. The subject matter experts were asked to rank the four investigative methods along the continuum of unlimited resources and time to the opposite end of the spectrum—the front-end-load with an approximate one-month duration. The expert panel consisted of eight justice professionals who were homicide investigation managers or operators who were responsible in various ways for the allocation of human and material resources, and as such had an expert understanding of homicide investigations.

CHAPTER 3 — METHODOLOGY

RESEARCH DESIGN

The Business of Homicide Investigations

From the perspective of contingency theory, a police organisation is like any other business in that it receives inputs, then utilises its technologies to produce outputs (Donaldson, 1995, Maguire, 2003, as cited in Maguire et al., 2010, p. 374). In a homicide unit, the inputs are the unsolved murder cases, its technologies are the internal processes used to solve the cases and the output is homicide clearance (Donaldson, 1995, Maguire, 2003, as cited in Maguire et al., 2010, p. 374).

This study examined how police organisational change with respect to the allocation of human and material resources or technologies (the independent variables) potentially affects homicide clearance (the dependent variable). Simply stated, the key variables for this study were the criminal offence of homicide, homicide investigations, homicide clearance rate and the concepts of effectiveness and integrity.

The study's design consisted of semi-structured questions presented in a survey format. Data was collected using the Delphi method, a technique involving a three-round process of survey questions. The survey questions were administered to a panel of eight subject matter experts, all of whom were homicide investigation managers or operators in various capacities.

The study examined different models of homicide investigation. This technique reflected what Prunckun (2015) refers to as the "straw man technique" whereby respondents are presented several alternative decision-making options (p. 324). These options are: (a) the *gold model*, or *excellent* standard as described by Noble and Alpert (2012), consisting of unlimited financial and personnel resources allocated to homicide investigation; (b) *silver model*, or *good* standard, consisting of the best use of human and material resources; (c) *bronze model* or *reasonable* standard, where there is room for improvement and is likely the model most reflective of current practices; and (d) the *do-nothing model* or *unreasonable standard* (p. 23).

The following four models were presented in the second survey of the study: (a) Model A consisted of front-end loading and investigative efforts lasting one month; (b) Model B was an open-ended option asking participants to describe their ideal model of homicide investigation; (c) Model C consisted of the use of a process map created by the researcher, to highlight the current Calgary Police Service model; and (d) Model D was a *gold model* or *excellent* standard with increased resources designated to homicide investigations. This researcher did not feel it prudent to include a *do-nothing model*, also referred to as the unreasonable standard (Noble & Alpert, 2012, p. 23), as this was not

realistic given the seriousness of homicide investigations. Through the Delphi method, the aim of the study was to reach a consensus by the panel of experts as to the best method of homicide investigation as it pertains to volume of homicide clearance (effectiveness) and the integrity of the investigation (quality).

Jurisdiction: Calgary, Alberta, Canada

Calgary Police Service homicide investigations are governed by legislation and case law. “Legislation is the law that is made by elected representatives from any level of government” (Bora Laskin Law Library, n.d., para. 1). Of particular importance to any criminal investigation is the *Criminal Code of Canada*. Case law consists of written decisions of judges in court cases and tribunals from all levels of courts in Canada (Bora Laskin Law Library, n.d., para. 1), primarily provincial, federal, the Territories, and the superior courts (Department of Justice, 2014, para. 1). Decisions made by the Alberta Law Enforcement Review Board directly impact how criminal investigations are conducted within the Calgary Police Service. The Alberta Law Enforcement Review Board is “an independent, quasi-judicial tribunal established under the Alberta Police Act” and its mandate is to provide independent oversight of police conduct to instil public confidence (Alberta Justice and Solicitor General, 2013, p. 1).

The term *homicide clearance* implies solution: when a homicide is solved and the file is removed from the desk of a homicide detective, the homicide is considered “cleared.” The homicide clearance rate refers to a police organisation’s ability to solve homicides. For example, in 2016, 30 homicides occurred within the city of Calgary, 20 of these cases were cleared by charge—resulting in a clearance rate of 67% (Calgary Police Service, 2017, p. 10). The mean Calgary Police Service clearance rate for 2008–2016 was 80%. In 2011, the Canadian national average for homicides cleared by charge was 69%, whereas the Calgary Police Service average was 75%—a higher output of solved murders for the same time period (Statistics Canada, 2013-a, table 1; Calgary Police Service, 2017, p. 10).

Most studies into homicide clearance are quantitative: the researchers attain large datasets of homicides and examine which factors have the strongest influence on clearance. These studies have been helpful in identifying the trends in clearance; however, the intention of this study was to move away from this type of analysis and ascertain the in-depth perspectives of the homicide managers and operators who deal with the organisational processes and procedures of homicide investigations on a regular basis. The expert panel was asked to determine the best method of homicide investigation based on the criteria of the effectiveness and integrity of the investigational process.

By definition, “effective” means to make operative or put into force a definite or desired effect (Barber, Fitzgerald, Howell, & Pontisso, 2006, p. 299). In relation to homicide investigations, effectiveness is measured by case clearance.

“Integrity” is defined as soundness or uncorrupted condition of something (Barber et al., 2006, p. 299). For the purpose of this study, integrity refers to the quality of the homicide investigation and whether it is successful for reasons besides clearance. According to Brookman and Innes (2013), alternate definitions of success include procedural success which is based on the quality of the investigation and compliance with official guidelines, community impact reduction success which focuses on community reassurance and public confidence, and finally, preventative success which focuses on reducing the occurrence of homicides through prediction, prevention, and pre-emption (pp. 292–293).

The geographic region of study was Calgary, Alberta, Canada. According to the *Focus on Geography Series: 2011 Census*, presented by Statistics Canada (2012-a), Calgary’s total population was approximately 1.2 million and was the largest municipal population in the province of Alberta (para.1). The same Statistics Canada report, recorded Canada’s total population as 33.4 million with Alberta ranked fourth most populated province across Canada (Table 1 Canada, provinces and territories–population change, 2006–2011).

Calgary is the capital of Canada’s energy industry and is the business and financial centre of western Canada (Live in Calgary, n.d., para. 4). According to Tammy Duke of the Calgary Police Service Human Resources Operations Section, the Calgary Police Service is a municipal police force consisting of 2,053 sworn and 715 civilian members as of March 31, 2016 (Personal Communications, August 2, 2016). The Calgary Police Service Homicide Unit consists of two staff sergeants, 15 detectives, two cold case detectives, three missing person constables and a supervisor, two civilian crime analysts (Calgary Police Service, n.d.-a, p. 1), and three to five assisting constables at any given time.

In 2014, there were 516 police reports of homicide in Canada (Boyce, 2015, p. 35), with Manitoba having the highest homicide rate, followed by Alberta (Boyce, 2015, p. 35). For this same year, Calgary experienced 31 homicides (Boyce, 2015, p. 37), which is comparable to the next largest Alberta city, Edmonton, which had 35 homicides (Edmonton Police Service, 2017, para 7). The average number of homicides occurring in Calgary between 2008 and 2016 was 26 murders per year (Calgary Police Service, 2017, p. 10).

Analysis of Calgary Police Service Homicide Processes and Procedures

Calgary Police Service processes and procedures do not specifically address how to conduct a homicide investigation. Rather, the focus is on investigations of assault, sexual assault, child abuse, domestic conflict, hate crimes, threats to the security of Canada, Forensic Crimes Scenes Unit major crime scene protocol, and evictions under the Alberta Gaming and Liquor act (Calgary Police Service, n.d.-b, p. 1). The homicide unit drafted documents in 2011 that are awaiting authorisation by Calgary Police Service management. These documents include standard operating procedures for the Calgary Police Service homicide unit which outline the function of the unit, the role of the staff sergeants and detectives, protocols for responding to homicide complaints, officer-involved shootings, homicide unit and professional standards,

Forensic Crime Scenes Unit, Crown Prosecutor's Office, written reports, and attendance of Calgary Police Service members to victims' funeral services (Calgary Police Service, n.d.-c, pp. 1–16). Analysis of Calgary Police Service processes and procedures including draft documents will be the benchmark for this study's evaluation of process and procedure in relation to the allocation of human and material resources for homicide investigations.

According to the draft standard operating procedures, the Calgary Police Service homicide unit will investigate all suspicious deaths, attempted homicides where a medical doctor has determined that death is expected to occur, in-custody deaths not investigated by the Alberta Serious Incident Response Team, deaths where the cause is not apparent, accidental or sudden deaths involving a handgun (all deaths by handgun are investigated to determine whether the shooting was accidental, suicide, or suspicious) and discharges of service firearms in situations other than those authorised by policy. Anecdotal evidence suggests that Calgary Police Service homicide investigations typically entail front-end loading of human resources in the first 48 to 72 hours (Det. Ken Carriere, personal communication, September 20, 2014). As soon as possible, a homicide detective and the Forensic Crimes Scenes Unit member in charge of processing the scene and collecting evidence go to the crime scene. Within the first 24 to 48 hours, investigators conduct neighbourhood inquiries, collect and review video surveillance, interview witnesses, determine victimology, explore possible motives, attend the autopsy, gather a suspect list, conduct computer inquiries, and create suspect profiles. Additionally, in the initial stages of the homicide, court orders are drafted authorising the entry into any location believed to hold evidence of the murder. Judicial authority is also required for computer searches, cell phone records, and other written material that may afford evidence of the crime (Det. Ken Carriere, personal communication, September 20, 2014).

A medical investigator from the Office of the Chief Medical Examiner attends all occurrences of sudden or unexplained deaths and determines whether the death is suspicious in accordance with the Fatality Inquiries Act (Alberta Justice and Solicitor General, n.d., para. 2). Generally, within 24 hours an autopsy is conducted whereby the forensic pathologist (medical examiner) examines the body for indication of cause and manner of death. Ultimately it is the medical examiner who determines who died, where, when, why, and how (Alberta Justice and Solicitor General, n.d., para. 3), often using information provided by homicide investigators as part of their investigation. Members of the homicide unit can not charge a suspect with murder without confirmation by the medical examiner that the manner of death is homicide (Det. Ken Carriere, personal communication, September 20, 2014). Additionally, pre-charge consultation and approval is required from the Alberta Crown Prosecutors' office prior to police charging an offender with murder (Calgary Police Service, n.d.-c, p. 10).

DATA COLLECTION

Data were collected from the above subject matter experts through three iterations of surveys pertaining to best practices in homicide investigations. According to Evans (2005), the Delphi technique:

... Allows information gathering from a specifically selected group, usually with known or well-respected levels of knowledge or understanding of a particular subject. By providing various questions, delineating general parameters of a problem, ...then reporting the findings to the selectees and refining the information garnered by readdressing more specific inquiries that tend to eliminate conflicting policy choices, policy alternatives are determined which are more likely to result in positive changes. The technique allows for subjects queried to focus on specific items that bring their experience and expertise to bear (p. 72).

Numerous researchers exploring law enforcement issues have applied the Delphi technique. According to Evans (2005), More (1980, 1984) and Tafoya (1986) conducted such studies (p.72). Tafoya (1986) wrote a thesis titled *A Delphi Forecast of the Future of Law Enforcement*, and More (1980) examined police corruption (Evans, 2005, p. 72). More recently, Higgins (2016) utilised the Delphi technique to explore best practices in critical incident stress management training of law enforcement officers (p. 1). According to Loo (2002), “the Delphi method can be a powerful tool to help police organisations forecast the future for the purposes of strategic management, and policy and program development among other potential applications for police management” (p. 762).

The Delphi forecasting technique eliminates group pressures sometimes experienced during face-to-face interactions by canvassing individual experts anonymously (Loyens, Maesschalck, & Bouckaert, 2011, p. 1478). Group dynamics such as dominant individuals and pressure to conform to the majority opinion may influence an expert’s ability to provide individual perspectives on the subject matter.

There are three types of Delphi methods: (a) conventional where the iterations occur over a period of time to reach a consensus; (b) real-time Delphi which occurs during one event with the objective of reaching a consensus during this gathering; and (c) policy Delphi whereby the objective is for the group to identify all the options, rather than to form a consensus, as done in a conventional Delphi (Clayton, 1997, p. 377).

The components of the Delphi technique include: (a) selection and canvassing of subject matter experts; (b) collection of anonymous opinions from several independent experts; (c) multiple survey rounds creating a response—feedback—reconsideration of response and re-response loop; and (d) a goal of reaching consensus among the experts on a specific topic (Cooper, 1974, p. 21; Loyens et al., 2011, p. 1478). Hsu and Sandford (2007) caution that “subject selection, time frames for conducting and completing a study, the possibility of low response rates, and unintentionally guiding feedback from the respondent group are areas which should be considered when designing and implementing a Delphi study” (p. 1). In summary, the strengths of the Delphi technique included effective group

communication, where individuals decided for themselves with controlled feedback to be considered in their formation of perspective. This feedback process was anonymous.

A group communication process was a suitable methodology when examining homicide processes and procedures due to: (a) the combination of more than one perspective was likely to bring results closer to the truth; (b) gaining a better understanding of the “social phenomena” by obtaining views of the subject matter experts; (c) likelihood of “buy-in” from the affected group if they are part of the decision making process; and (d) a “pooled intelligence” was better apt to solve complex issues rather than depend on a single expert (Moore, 1987; as cited in Clayton, 1997, p. 375).

This study used the conventional Delphi method, expanding the method to five months for the completion of the survey processes. Round II and III of the study included controlled feedback to the respondents. The term “quasi-anonymity” refers to the process of survey participants being known to the researcher and possibly to each other, however there is strict anonymity of their judgements and opinions (McKenna, 1994, as cited by Hasson et al., 2000, p. 1012). This was the case in this study due to the limited number of subject matter experts associated to the Calgary Police Service Homicide Unit. Participants must be motivated to complete the rounds of surveys (Clayton, 1997, p. 378). Fortunately, each participant provided in-depth responses, which allowed for their insightful feedback to be used to formulate Round II and Round III surveys.

Reliability and Validity of Delphi

The Delphi technique lacks evidence of reliability due to the uncertainty of whether the same results would be achieved from a different panel of experts (Hasson et al., 2000, p. 1012). To ensure sound translations of the findings, Lincoln and Guba (1985) suggested applying the following criteria for qualitative studies: (a) credibility (truthfulness); (b) fittingness (applicability); (c) auditability (consistency); and (d) confirmability (as cited in Hasson et al., 2000, pp. 1012–1013; Gravelle & Rogers, 2014, p. 109).

To add credibility to this study, subject matter experts working in the field of homicide investigation were consulted through the inquiry. Cooper (1974) described his primary selection considerations as “persons who were actively involved in police work, and who were in a career position that would provide a base of past experience, but which also be conducive to thinking about the future” (p. 24). The study took similar consideration when selecting the panel of subject matter experts.

The findings were the result of multiple iterations (three rounds of surveys) providing the participants with an opportunity to receive feedback prior to reaching a unified decision on the survey topics. The subject matter experts’ insight—feedback—reconsideration of response and re-response produced a best practices model of homicide investigation, applicable to the Calgary Police Service. Detailed records of the research process were kept for this study, including documentation of respondent feedback from each survey, showing

the progression between iteration rounds. The study was careful to refrain from adding personal and professional input to this survey, utilising perspectives only from the subject matter experts.

Tram (2007) identified five conditions required to optimise Delphi reliability: (a) good survey statement design; (b) suitable criteria for selection of panel members; (c) following up quality feedback from experts; (d) close observance of the schedule; and (e) proper interpretation of findings (p. 72). For this thesis, direction was provided in each questionnaire with supporting information for the subject matter experts to make informed decisions.

There are few subject matter experts fitting the criteria for this study within the Calgary Police Service, however the study sought to elicit the participation of all the current homicide managers as well as three operators in the criminal justice field (investigators, crown prosecutor, and an academic). The eight participants provided insightful feedback for each questionnaire and completed them within a reasonable time frame. To increase reliability, the study conducted follow-up phone calls with participants when clarification was needed for a response, in an attempt to correctly interpret the findings.

Where reliability is concerned with the replication of study findings, validity is concerned with whether the conclusions and inferences are valid and whether the measures, samples and designs lead to valid conclusions (Trochim, 2001, p. 20). Concurrent validity relates to the ability to distinguish between groups (Trochim, 2001, p. 68). In respect to Delphi, the use of multiple iterations of the survey assists in increasing the concurrent validity (Hasson et al., 2000, p. 1013). Operationalisation is the translation of an idea into something real or concrete, and the content validity is the extent to which a measure represents all domains of a given idea (Trochim, 2001, p. 67). “The use of participants who have knowledge and an interest in the topic may help to increase the content validity of the Delphi...” (Goodman, 1987, as cited in Hasson, et al., 2000, p. 1013). The validity of the results depends on the quality of the experts (Landeta, 2006, as cited by Loyens et al., 2011, p. 1485), and the response rates (Hasson, et al., 2000, p. 1013). In this study, all eight subject matter experts completed the three rounds of surveys.

When no numerical scores can be compared to determine validity, a construct validity approach can be used through extensive research on the subject to show that various measures are related to each other based on a specific theory (Bachman & Schutt, 2014, p. 87). According to H. Prunckun (personal communication, September 2, 2014), the purpose of surveying an expert panel is to remove the researcher from influencing the research findings and to add to the knowledge obtained from extensive research. The participants’ expertise as homicide investigation managers will ultimately heighten the internal validity of the study by assisting in drawing accurate conclusions about best practices for homicide investigations (Bachman & Schutt, 2014, p. 42).

The purpose of using the Delphi technique was to gain insight from subject matter experts on best practices for homicide investigations. Due to the small sample size, there may be limited generalisability of the results to police agencies other than the Calgary Police Service (Gravelle & Rogers, 2014, p. 48). However, the literature review reflected commonalities between homicide investigations across many jurisdictions and countries, thus the recommendations of this panel of experts would likely provide useful perspectives for agencies across North America and abroad to consider. A pilot study was conducted prior to commencing the three iterations to improve internal validity of the research study (Gravelle & Rogers, 2014, p.47).

Size of Respondent Group

Whether to use an expert panel of judges or a random sample of the population depends on the number of participants. For Delphi studies, it is assumed that only a limited number of people will possess the knowledge and experience in the field under investigation, resulting in a small respondent group (Cooper, 1974, p. 24). The respondent group size recommended for a homogeneous population—experts from the same discipline—is 15–30 people (Clayton, 1997, p. 378). For a heterogeneous population like this study, whereby the subject matter experts consisted of criminal justice professionals from several professions all possessing expertise in homicide investigations, five to ten respondents are recommended (Clayton, 1997, & Martino, 1972, as cited in Loo, 2002, p. 765). Purposive sampling for this study allowed for a sample of people that had the necessary expertise and experience to comprise the expert panel for the Delphi study (Heitner, Kahn, & Sherman, 2013, p. 61).

Selection of Expert Panel

The selection process is critical to the validity of the Delphi method. Clayton (1997) described *experts* as follows:

There are general characteristics of individuals who, in a given context, demonstrate a level of wisdom, insight, theory, practice, experience and analysis not found common to all individuals. It is these individuals to whom the term ‘expert’ is assigned (380).

The following criteria is recommended when selecting experts: (a) they must have expertise in the field under investigation; (b) they must have time and energy to complete the multiple iterations of the Delphi process; (c) they must be able to provide their individual perspectives based on their professional experience rather than just speaking on behalf of an organisation; (d) they must be able to speak freely without fearing the consequences of their position; (e) they need to exhibit open-mindedness, openness to feedback and accountability for their own opinions; and (f) they must be motivated to commit to the entire process (Loyens et al., 2011, p. 1486). The composition of subject matter experts for this study has been displayed in table 1.

Table 1: Composition of Expert Panel of Judges

Classification by Profession	Number
Homicide Manager	4
Homicide Investigator	2
Crown Prosecutor	1
Scholar of Homicide Studies	1
Total Participants	8

The homicide managers consisted of three current managers and one previous member who left homicide in 2014. The two homicide investigators were “mavericks” that focused on the investigation and arrest of homicide suspects. The crown prosecutor focused on the prosecution and conviction of the accused. Finally, a scholar¹ of best practices in homicide investigations added insight from a theoretical standpoint. Together this heterogeneous group provided real-world viewpoints to be applied in actual law enforcement settings based on their first-hand knowledge of what is required to solve and prosecute homicide cases.

Before conducting the surveys, the researcher verbally presented by phone or in person an overview of the study to each potential participant. This overview consisted of an explanation of what their involvement would entail (three rounds of surveys), an estimated timeline of events and a request for their informed consent. After the informal discussion, electronic copies of a participant information sheet (Appendix A) and a formal consent form (Appendix B) were sent to each participant via email. The survey rounds were scheduled one month apart beginning August 3, 2015, with a proposed completion date of November 6, 2015. At the onset of this study the researcher realised there was no time allotted between surveys for analysis, as well several participants required extra time throughout the course of the iterations. As a result, the dates below reflect the actual Delphi timeline:

Survey One

Start date: Monday August 3, 2015

Completion date: Friday August 14, 2015

Survey Two

Start date: Tuesday October 6, 2015

Completion date: Saturday October 31, 2015

Survey Three

Start date: Tuesday December 15, 2015

Completion date: Wednesday December 23, 2015

Pilot Study

¹ The Academic’s credentials included PhD with a research focus on crime prevention projects effectiveness and forensic science. The Academic is a faculty member of a European University in the Faculty of Law and Administration.

Two senior homicide investigators piloted the study whose feedback identified deficiencies and confusing questions in the first draft of Survey I. This feedback allowed for correction and clarification of certain questions and helped the researcher identify the level of response. The content of the answers provided by the two pilot participants guided the researcher to word certain questions differently to elicit more in-depth responses. The quality and depth of the pilot responses influenced the researcher's decision to include two homicide investigators in the panel of experts.

DATA COLLATION AND ANALYSIS

Survey of Homicide Managers and Operators

The survey of homicide managers consisted of semi-structured questions. The beginning of the survey had a summation of the study's guiding theory and evaluation criteria of effectiveness and integrity. Clayton (1997) describes a three-phase process for conducting the Delphi iterations. *Round One* consisted of delivering a questionnaire to the respondents, which they were asked to complete based on their experience (p. 378). Participant responses were summarised for a combined listing of all statements leading to the creation of Round II (Clayton, 1997, p. 378).

Round II participants were asked to rate the level of importance or agreement for a set of statements (usually using a 5-or 7-point Likert scale), and to provide reasoning for their chosen rankings (Clayton, 1997, p. 379). The responses from the second survey were then analysed for descriptive data such as median, mean and central tendency and provided as feedback in the next round (Clayton, 1997, p. 379).

Round III "required the Delphi director to establish a criterion as to which statements or ideas provided a strong indication of expert consensus" (Clayton, 1997, p. 379). The surveys in this study were distributed by email. In the email sent to each participant was a completion date. One week prior to completion date, the researcher sent a follow-up email to participants, reminding them the survey was due in seven days. If respondents were going to be delayed in completing the survey they provided notice via email. The successive rounds could not begin until every participant had completed the outstanding survey. There were only minor delays allowing for the project to be completed within five months. All eight participants completed the three iterations.

In this study the iterations are described as follows:

- *Round I:* The first survey consisted of fifteen questions compiled from a review of the literature regarding effective homicide investigative practices.
- *Round II:* The second survey, unlike the first, was a highly structured questionnaire that primarily asked participants to choose from set possibilities with very few open-ended questions. The questions were based on the literature review and participant feedback. The subject matter experts were asked to indicate preference based on

effectiveness (output or clearing volume) and integrity (outcome or quality of investigation), and required to provide reasons for their choices.

- *Round III*: The third and final survey was again highly structured with set options for respondents to choose from and one open-ended question. It was primarily focused on what an overall model of investigation for best practices would look like.

This Delphi method allowed for solutions to the research question by identifying the most effective method of investigating homicides to achieve increased rates of homicide clearance without jeopardising the integrity of the investigation.

LIMITATIONS

Limitations of the Delphi technique include: (a) the subject matter experts have based their opinions on their expert knowledge and professional experience, not fact, possibly bringing the validity and reliability into question; (b) consensus is not always possible or necessary; (c) this survey style is labour intensive and time-consuming; and (d) participants may find the anonymity of the process frustrating, preferring to have direct interaction with the other experts (Loyens et al., 2011, p. 1480). Despite this, the Delphi technique continues to be an important method of collecting current, real-world knowledge from subject matter experts (Hsu & Sanford, 2007, p. 5), in a group setting whereby pressures to conform or problems typically faced by freely interacting groups can be avoided (Bolger & Wright, 2011, p. 1500), and is a technique particularly useful in areas of research where there is limited published information (Loyens et al., 2011, p. 1478).

As mentioned above, the Delphi technique generally involves several rounds of surveys that are labour intensive for the respondents (Hsu & Sandford, 2007, p. 1), which could be considered a deterrent to participation. However, for this study the participants were experts in the field of homicide management and were engaged in the topic. The sample size was limited to eight purposively chosen subject matter experts. The Delphi technique limited the sample size due to the large amount of data it produced. The generalisability of the findings was limited to Calgary Police Service. The study acknowledges the small sample size and recognises it limits the generalisability of the findings, introducing the possibility of unidentified biases. To use more than one police agency with the intensity of this research process would have made the study unmanageable. Evaluation of homicide processes and procedures has never been done before in Canada. Despite the above limitations, the results answered the research question and provided a platform for further research. The conclusions drawn are within the limits of the method and the data collected.

CHAPTER 4 — RESULTS

DELPHI TECHNIQUE

Traditionally, the Delphi technique consists of the following iterations format: (a) unstructured, open-ended questionnaire (Hasson et al., 2000, p. 1011; Hsu & Sandford, 2007, p. 2); (b) Likert scale questions based on the results of the first survey and participant feedback; and (c) final questionnaire moving towards consensus among participants (Hsu & Sandford, 2007, p. 2). According to Hsu and Sandford (2007) applying an extensive literature review to create a structured first questionnaire is also an acceptable and common modification of the Delphi process format (p. 2).

The first iteration of this study aligned with the format described by Hsu and Sanford (2007). Participants completed three rounds of surveys. Each iteration used feedback from the previous to formulate the next set of questions. Throughout the Delphi process, consensus was defined as 100% agreement ($n=8$) and near consensus 75% agreement ($n=6$ or 7). Additionally, a process map was provided with each questionnaire as a reference to Calgary Police Service homicide investigative processes and procedures (Survey I, Appendix E).

SURVEY ROUND I

The first survey was crafted from a review of the literature about effective homicide investigative practices. The survey consisted of fifteen questions: nine Likert scale, three rank-order, and three open-ended questions. All questions asked the respondent to elaborate on the reasoning for their choices.

Derived from the literature review, the following five categories related to homicide investigations were examined in this survey.

1. Effective homicide investigations:
 - a. Definition of effective homicide investigation; and
 - b. Definition of success of homicide investigation.
2. Community support of police agency:
 - a. Importance of witness cooperation; and
 - b. How to increase witness cooperation.
3. Calgary Police Service homicide processes and procedures:
 - a. Examination of Calgary Police Service homicide unit mandate;
 - b. Examination of overtime procedures;
 - c. Examination of case review protocol;

- d. Examination of other investigative procedures;
 - e. Ranking of categories of change for effective homicide investigations;
 - f. Utilisation of civilian analysts;
 - g. Identification of other resources available to the Calgary Police Service homicide unit; and
 - h. Open-ended question on model of best practices for homicide investigations.
4. Qualified candidates:
- a. Review of Calgary Police Service selection process.
5. Homicide Detective Training:
- a. Participants' opinions on Calgary Police Service having no formal training requirements; and
 - b. The basic and advanced training that should be required of homicide investigators.

Effective Homicide Investigations

Question 1 asked participants to rank in order the most suitable definition of effectiveness in relation to homicide investigations. The majority of respondents chose conviction rates ($n=4$); followed by clearance rate ($n=2$), total homicides investigated per year ($n=1$) and other ($n=1$). The respondent who chose "other" identified suppression and prevention as the best determinant of effective homicide investigations. Participants were instructed to relate success and effectiveness synonymously when referring to the accomplishment of solving homicide investigations.

Participant feedback focused on the merits of each factor. One suggested conviction rates were the best indicator of success and thoroughness as a court ruling is the highest threshold for excellence (Survey I, participant G). Through the trial process, a person charged with the right offence whether that is, for example, first-degree murder or manslaughter, while not full proof given miscarriages of justice, trial process at least partially considers the accuracy of the investigation as a screening process (Survey I, participant A). It was suggested that a judge or jury's independent ruling of guilt demonstrates an investigative unit's commitment to following evidence and the investigative process, beyond just a homicide investigator's theory of "who did it" (Survey I, participant H).

One participant argued that obtaining a conviction is not only a measure of likelihood of guilt, but also a measure of investigators following court acceptable practices (Survey I, participant G), while other participants argued that beyond bringing the best possible case forward, the police are not capable of predicting outcomes or conviction rates, thus

conviction rate was not the best measure of an effective homicide investigation (Survey I, participant D).

These participants favoured clearance rate as the most suitable determinant of investigative effectiveness as investigators have the most control over this measure. It was suggested that conviction rates alone do not capture all homicide investigations that have been brought to conclusion such as those cases where there is a murder suicide and the case is cleared “otherwise,” as the offender is deceased and can not be tried in court (Survey I, participant F). One participant suggested the best determinant would include a combination of conviction and clearance rates, as opposed to one factor (Survey I, participant F).

The majority of participants agreed the total number of homicides per year was not a good indicator of investigative effectiveness as the events themselves are out of the control of the investigators and thus not a measure of their success. Total homicides investigated are a reflection of the murder rate in the jurisdiction and does not speak to the quality of the investigation only the quantity (Survey I, participant A).

Suppression and prevention activities were also identified by participants as potential indicators of effective homicide investigations. Measuring these activities allows for better understanding of the impacts of specialty areas such as the Domestic Conflict Unit and the Gang Suppression Team on homicide rates as well as public safety more specifically (Survey I, participant D).

Survey question 2 asked participants to consider alternative definitions of success in relation to homicide investigations, including procedural success, community impact and preventative success. Procedural success was near consensus ($n=7$), with one respondent choosing community impact ($n=1$). Regardless of court outcomes, procedural success is a measure of the quality of the investigative work (Survey I, participant C), and recognised by the majority of respondents as extremely important. In Canada, case law is continually evolving and investigators have to be aware of the latest developments to ensure that investigative techniques and decisions are acceptable in court (Survey I, participant E). One participant articulated that achieving procedural success allows for a high likelihood of conviction in court and will subsequently enhance public trust and confidence in the police by demonstrating to the public that police followed the rules of Canadian law to obtain their conviction (Survey I, participant G).

Participants' comments were limited in reference to community impact, however they did find links between preventative success and community impact, suggesting that public confidence increases homicide solution, resulting in a general deterrence of crime. One person viewed community impact as being independent of detective work (Survey I, participant C), while another acknowledged that a large part of the investigative process is reassuring the public that sufficient resources are being dedicated to the homicide

investigations and police are conducting thorough and complete investigations (Survey I, participant E).

Most participants pointed out preventative success as more of a service-wide, long-term goal based on police service priorities and resources rather than a measure of effectiveness of homicide investigations. Basically, successful homicide investigations would contribute to the prevention of further homicides, but other units targeted at suppression such as the Gang Unit, Serious Habitual Offender Program and deterrence units such as the Domestic Conflict Unit and the Guns and Gangs Unit, also contribute to homicide prevention (Survey I, participant G). These preventative programs and long-term initiatives such as targeting youth at risk are outside the scope of homicide investigations themselves and the Calgary Police Service Homicide Unit (Survey I, participant G).

Community Support of Police Agency

Question 3 of the survey asked respondents whether they agreed or disagreed (using a 5-point Likert scale) with the following statement: witness cooperation and community support could significantly assist with homicide solution. All eight participants strongly agreed. One participant stated, “Very few crimes can be solved with straight science-based evidence. Even with DNA and digital evidence, civilian witnesses can provide a jury with motive, timing and context” (Survey 1, participant A). Almost all respondents commented on successful homicide investigations’ reliance on witness cooperation, especially early in the investigation.

Witnesses provide direction and can play a major role in early resolution (Survey I, participant E). They can provide context to what is discovered at the scene and lead investigators to the suspects (Survey I, participant B). Participant B explained they had worked homicide cases where there was mistrust of the police, whether it was due to fear, cultural issues or lack of confidence, and found it nearly impossible to solve the case (Survey I). In complex cases where there are multiple offenders or weapons used in the offence, witnesses are required to fill in the gaps that physical evidence alone can not speak to (Survey I, participant F).

When community support is lacking, this can cause strain on the investigative body as they end up spending valuable time responding to the community/media as opposed to moving forward with investigative steps. Without the support of the community in general, many investigative steps can become difficult (like collecting video evidence, obtaining statements etc.) (Survey I, participant F).

The principal theme among all respondents was that witnesses are critical in solving homicide investigations and without their assistance homicide investigators are left with forensic evidence alone to solve files (Survey I, participant G). Ultimately, “...uncooperative witnesses and a non-supportive community drastically reduce the chance of success in any homicide investigation” (Survey I, participant G).

Question 4 was an open-ended question asking respondents to comment on how to ensure increased witness cooperation and strengthen community relations. Thirteen themes were identified: (a) respect; (b) empathy; (c) meeting where convenient for witnesses; (d) utilisation of community liaison officers; (e) building trust; (f) good communication with witnesses; (g) continued relationship building; (h) investigators making themselves available to witnesses at all times; (i) good interview techniques; (j) use of media releases to inform the witnesses and the community; (k) listening to witness concerns; (l) demonstrating interest in the case; and (m) having frequent meets with the witnesses and victim families. Community relations in general begins long before a homicide occurs, but it is important to utilise members of the service that may have a good relationship with the community leaders and task them with liaising between the investigator, victim family, and witnesses (Survey I, participant B). Finally, respondents emphasised that witness cooperation is based on trust and respect, and formed using on-going communication with the victim families and witnesses (Survey I, participant B).

Participants made suggestions to increase witness cooperation such as showing respect and empathy for the difficulty of being a witness, as well as meeting in a place and time that offers more convenience (Survey I, participant A). Investigators are required to be available to witnesses at all times and supportive throughout the investigative and court process (Survey I, participant D). The media is an investigative technique used to message the public of the police services' dedication to the investigation and investigators need for assistance from witnesses to come forward with information related to the offence (Survey I, participant H).

Calgary Police Service Homicide Processes and Procedures

Question 5 consisted of two Likert scale questions related to the Calgary Police Service Homicide Unit's investigative mandate. The respondents were divided on whether there needed to be other types of crime included as part of the Calgary Police Service mandate. A small majority strongly disagreed ($n=3$), disagreed ($n=1$), undecided ($n=2$), and the remaining participants agreed ($n=1$) or strongly agreed ($n=1$). Suggestions were made that unexpected deaths of children under the age of two and people who have drowned should be included as part of the Calgary Police Service Homicide Unit mandate (Survey I, participant B). It was said that these crimes tend to be emotionally charged and difficult for less experienced front-line officers to investigate, with foul play easily disguised (Survey I, participant B). For example, sometimes-infant murders are mislabelled by medical investigators at the scene as non-suspicious and determined some time later to be foul play (Survey I, participant B). Another respondent argued that the homicide unit is already strained and should not be taking on additional types of death investigations (Survey I, participant G).

Alternately, respondents were asked if the Calgary Police Service homicide unit mandate should reduce the type of crimes investigated. There was some agreement with half the respondents disagreeing ($n=4$), undecided ($n=3$), and one strongly agreed. One

respondent commented that the mandate accurately reflects what incidents the homicide unit should investigate, as these crimes require qualified investigators (Survey I, participant G). Having investigators with more general experience conduct death investigations may put the Calgary Police Service at risk from a liability perspective if the case is not investigated appropriately (Survey I, participant G).

Question 6 was about whether the Calgary Police Service Homicide Unit overtime process facilitates effective case management. There was consensus among participants who either agreed ($n=6$) or strongly agreed ($n=2$). Participant comments included recognising the necessity of the team supervisor to balance the needs of effective policing with overtime costs (Survey I, participant A, & participant E), and an investigator's dedication to the file with taking time away from work to spend with their family (Survey I, participant E). "There needs to be oversight of effective time management within the homicide unit, however overtime should not be an obstacle to completing objectives within an investigation" (Survey I, participant F).

Reasons for required overtime included: (a) time sensitive nature of collecting some information to further the investigation; (b) workload, such as other file commitments the investigator has; and (c) the need to stay on top of the investigation to collect, organise and store the large amounts of information. One respondent summarised the issue of overtime as follows:

The only day a homicide investigator is caught up is their first day. After that the workload is huge and balancing life, and efficiency and public expectations regarding files getting solved and cost is important. There is not an unlimited amount of money and there are those that are attracted to investigative work to make overtime money so there needs to be accountability and probably some prioritization of files (Survey I, participant B).

Question 7 incorporated two Likert scale questions about homicide case reviews. The outcome was consensus among all eight participants that homicide managers should include case reviews as part of their standard operating procedures within their homicide unit. The feedback from respondents focused on whether the case review should be formal or informal, the frequency to which it needs to occur, and who is best suited to complete them. Opinions ranged from informal case reviews to formal structured reviews. Informal case reviews would be conducted by the investigative team during the early stages considering multiple crime theories to ensure the evidence matches what is happening and prevent investigators from chasing theories not supported by fact (Survey I, participant B). Formal case reviews would be conducted at structured times throughout the course of the investigation by independent reviewers.

There was no agreement as to the timing of the case review procedures; with some respondents suggesting it should be determined on a case-by-case format depending on the complexity of the case. Several consistent comments were made in relation to what the case

review would entail. Respondent suggestions included: (a) review of the crime theory (Survey I, participant H); (b) inventory of what resources have been utilised and how long they would be required (Survey I, participant G); (c) full review of all materials in order to assist in identifying possible suspects and location of evidence (Survey I, participant F); (d) brainstorming of potential investigative techniques (Survey I, participant G); (e) review of alternative theories or suspects (Survey I, participant H); and (f) identifying areas of tasking that need to be completed (Survey I, participant H).

There was mixed feedback in relation to who should conduct the case reviews. Opinions varied from investigators familiar with homicide investigations but impartial to the case under review, to the supervisor, the primary investigator and the investigative team, or a senior investigator who is not part of the investigative team, collaborating on a monthly basis. One respondent stated the following:

I would think that after the first 30 days it would be an appropriate time to reconsider the theory and the resources that have been assigned and still required. By extension if investigative techniques such as wiretap or undercover operations are being considered, then the legal and practical hurdles will be known and there will be a clearer picture of what might be missing and can be filled by such techniques. Also, initial laboratory results would have been returned by this date to be able to assess where the forensics stand. Thirty days is also assuming that the primary has the proper training and experience for the role. If there is a personnel problem with the primary, then a shorter time frame may be needed before certain areas of investigation are foreclosed (Survey I, participant A).

Question 8 was a Likert scale question asking the participants to reflect on the Calgary Police Service process map and determine if there was an investigative procedure that should be incorporated or changed to increase efficiency within the Calgary Police Service homicide unit. Half of the respondents were undecided ($n=4$), agreed ($n=3$), and one disagreed ($n=1$). Of the limited feedback, some suggestions included the addition of dedicated resources to assist with the collection and review of video evidence and analysis of cell phone data, as both tasks are resource intensive and play a key role in homicide investigations (Survey I, participant E).

The creation of documents to provide guidelines to the investigators was proposed, and referred to by another respondent as business rules or best practices guidelines (Survey I, participant H). The business rules would direct all members to carry out the management of their investigations the same way, proposing this would save time long-term (Survey I, participant H). Finally, it was suggested that there should be more front-end loading of staff and resources, and that the investigative team should be committed to the nine principles of Major Case Management: (a) communication; (b) partnerships; (c) leadership and team building; (d) crime solving strategies; (e) management considerations; (f) accountability; (g) command triangle; (h) legal considerations; and (i) ethical considerations (Survey I, participant H).

Question 9 asked respondents to consider the following five categories that could be changed through a revised process or procedure, then rank them by priority of importance in relation to how they might increase effectiveness of homicide investigations: (a) initial response; (b) detective qualifications and training; (c) actions of the detective; (d) personnel policies; and (e) other police responses. Some respondents' first choice was detective qualifications ($n=3$), actions of detectives ($n=2$), and personnel policy ($n=2$). Finally, one respondent ranked changes in the initial response to a homicide crime scene as the priority for making effective change.

Participant comments in relation to changes to initial response included concern for pulling uniformed officers off patrol as suggested within the survey, as street personnel strength is already short (Survey I, participant G). Time of response and being able to gather as much evidence as possible during the first 48 hours was recognised as the "essence" of homicide investigations (Survey I, participant C).

Suggestions around investigators' training included having formal entry training in place, and other standardised training (Survey I, participant B). One respondent stated, "Having access to highly trained detectives with the most experience and qualifications would greatly increase the knowledge and capacity of the homicide unit" (Survey I, participant G). Personnel policy feedback highlighted the importance of having strong leadership and management of the homicide unit, as managers can make or break an investigation with their leadership or lack of understanding of what homicide investigations entail (Survey I, participant B). "Other" suggestions made by respondents included development of standard operating procedures or business rules that would enable first-responders to do a better job at the initial crime scene, such as guidelines on how to conduct neighbourhood inquiries and methods of scene containment (Survey I, participant F). Shared guidelines for all investigative units would also be helpful especially in cases where the homicide unit was not primary at the start of the investigation (Survey I, participant F). Finally, one respondent recognised that it is important to have cooperation with the Crown to clear cases and have a successful prosecution (Survey I, participant C).

Question 10 asked respondents to use a Likert scale to determine if Calgary Police Service investigators take full advantage of the expertise of their crime analyst, and who else should be assigned to the homicide unit. The responses were varied regarding use of crime analysts, with half disagreeing ($n=4$), a few agreeing ($n=2$), strongly agreeing ($n=1$) and one-person undecided. Several respondents raised the issue of analysts being utilised for tasks other than gathering criminal intelligence, stating this was not the best use of their expertise. The following examples were provided: (a) investigators off-loading tasks traditionally done by themselves on to the analysts such as clerical work and "information mining" (Survey I, participant B), and (b) the analyst role has expanded to include mapping and cell phone data analysis which takes up a large portion of their time (Survey I, participant E). Additional suggestions included: (a) analysts may require more oversight as there is a lack of

investigative mining or understanding of what investigators need to progress an investigation forward and what is required for court disclosure (Survey I, participant F); (b) analysts could be producing work products that increase an investigator's ability to present evidence to the crown prosecutors, the court and defence counsel (Survey I, participant H); and (c) analysts should conduct a secondary assessment of the cell phone data towards the end of the investigation when more information is known when the data may hold greater importance (Survey I, participant A).

Respondent opinions were divided on who else should be assigned to the homicide unit. One argument was in favour of teams such as the forensic crime scene unit, technological crimes team, cybercrime team, surveillance teams, and the undercover team joining the homicide unit as this may increase buy-in from these members who traditionally have lacked focus or commitment to these cases because of their workload service wide (Survey I, participant H). Alternatively, there were suggestions that maintaining some separation was important for objective perspectives and the prevention of "tunnel vision" (Survey I, participant A). One suggestion was that having separate investigators or retired homicide detectives to conduct case reviews would help prevent tunnel vision in the investigation, that way the other teams of people could be brought into the unit to assist the primary homicide investigators (Survey I, participant C). Financially and structurally, the service may not be able to support such units being dedicated only to the homicide unit (Survey I, participant B). A couple of respondents suggested bringing constables into the unit for the purpose of closed circuit television retrieval and review, as well as for witness management (Survey I, participant D, & participant F).

Question 11 was a Likert scale question asking respondents to provide their opinion on whether there were other resources that exist to assist the Calgary Police Service Homicide Unit that are not being utilised. Half the participants were undecided ($n=4$), agreed ($n=1$), and three either strongly disagreed ($n=2$) or disagreed ($n=1$). Comments were limited to the following: (a) assign members of the technological crimes team for collection and review of closed circuit television (Survey I, participant E); and (b) involve members of the diversity unit early in homicide cases where the victim or offender may have strong roots in another culture (Survey I, participant H).

Question 12 was an open-ended question asking participants if they could devise a model of best practices for homicide investigations, what that model would look like. Comments ranged from the model provided in the CPS Process Map is fine as the model allows for variations in the size and complexity of most homicide investigations (Survey I, participant A), to suggestions that the model requires: (a) greater attention to personnel selection (Survey I, participant B); (b) emphasis on the initial response and checklists to guide investigators as well as reliance on physical evidence versus intuition or common knowledge (Survey I, participant C); (c) inclusion in the model of a team of investigators supported by dedicated resources to assist with cell phone analysis and mapping and video

collection, with the built-in flexibility to identify and increase the support given workload (Survey I, participant E); and (d) creation of a booklet of guidelines or procedures (Survey I, participant F). The guidelines would include basic homicide information on crime scene evidence and investigative techniques (Survey I, participant F). It would also include important contact numbers, as well as copies of important forms such as the 911 call requests (Survey I, participant F); (e) inclusion in the model of front-end loading to ensure as much evidence and witness information is gathered as soon as possible (Survey I, participant G); (f) the homicide unit would have dedicated resources such as physical surveillance, undercover operators and electronic surveillance (Survey I, participant G); and (g) model for best practices would be rolled out in a unit's business rules (Survey I, participant H).

Qualified Candidates

Question 13 was about the Calgary Police Service process for detective selection and asked the respondents to use a Likert scale to express their view on whether this process ensured that qualified detectives were chosen to work in the homicide unit. Over half the participants agreed ($n=4$), strongly agreed ($n=5$), while three disagreed. Respondents in favour of the current selection process reported the following: (a) it strikes the right balance of considering the desire of the candidate to work in this gruelling area of policing while considering the needs of the team in getting the most qualified and well-rounded investigator (Survey I, participant A); (b) the selection process identifies those investigators who have the competencies and skills to fulfil the role of an investigator in homicide (Survey I, participant E); (c) the candidates must show that they have the requisite experience, knowledge, and skills to be successful homicide investigators (Survey I, participant G); (d) future performance is best predicted by past performance (Survey I, participant G); and (e) the existing method of selection is objective (Survey I, participant G).

Respondents who felt changes needed to be made to the existing process suggested the following: (a) candidates should be tested by assigning them to cases where they can be mentored by a senior investigator who can assess their capabilities (Survey I, participant C); (b) at this level of investigation, investigative competency is the first priority with fit being the second, and everything after that at the discretion of the team commander building their team (Survey I, participant D); (c) the current process does not work and should be dissolved as it relates to the homicide unit (Survey I, participant D); and (c) a peer review process similar to the one used for promotions should be included (Survey I, participant B, & participant F).

Homicide Detective Training

Question 14 used a Likert scale to canvass whether the participants felt the Calgary Police Service homicide detectives were receiving the training they needed to be effective. Two participants disagreed ($n=1$), strongly disagreed ($n=1$), undecided ($n=2$), and the remaining agreed ($n=4$). There were no comments.

The final question of the survey was open-ended and asked for participants' opinions on the basic and advanced training that should be required of homicide investigators. The following suggestions were provided: (a) training should include the current informal system of mentorship through the partnership of new members with senior investigators, as modelling is a very effective method of learning (Survey I, participant A); (b) training in disclosure and major case management (Survey I, participant A); (c) there should be a brief course on the law of homicide and evidence, as well the requirement for new investigators to watch a homicide trial in court (Survey I, participant A); (d) new investigators should have all of the internal investigative courses such as investigative techniques, interviewing and interrogating, source handling, major case management, search warrant writing, crime scenes investigation, evidence handling, legal requirements, and file management (Survey I, participant G), offering courses such as those by the Public Agency Training Council in the U.S. (Survey I, participant B); (e) investigators with prior experience with complex, fast moving investigations is valuable (Survey I, participant F); and (f) ongoing training should occur in a less formal manner (Survey I, participant F); (g) much of the most valuable "training" comes in the form of meeting with other investigators from other areas of the country (or elsewhere) and sharing new techniques (Survey I, participant F); and (h) an advanced homicide investigation course such as Practical Homicide Investigation should be obtained within the first year the new investigator is accepted into the unit (Survey I, participant G). One participant stated:

Homicide investigators all bring unique skills to the team, some become great file managers, other specialize in writing judicial authorizations and still others enjoy conducting interrogations. There are basic skills that investigators have to master before they get to the unit...interviewing, search warrants and file management. Interrogation is a skill that not everyone possesses nor is called upon to do. Investigators require advanced training in case law and best practices when it comes to running an investigation/operation as well as judicial authorizations related to privacy act authorizations (Survey I, participant E).

SURVEY ROUND II

Survey II consisted of a highly structured questionnaire primarily requesting participants to choose from set possibilities with very few open-ended questions. The selections were based on the literature review and participant feedback. The objective of this survey (Survey II, Appendix D) was to bring the respondent group closer to a consensus on the research question: what is the most effective method of investigating homicides to increase clearance rates without jeopardising the integrity of the investigation?

A review of survey I outcomes showed there was consensus or near consensus on three points resulting in the omission of these questions in survey II. These included: (a) the alternate definition of successful homicide investigations as procedural success; (b) witness cooperation and community support can significantly assist in homicide solution; and (c) the Calgary Police Service overtime process facilitates effective balance between case

management and budget restrictions. In survey I, five categories related to homicide investigations were examined. In survey II the following three categories remained: (a) effective homicide investigations; (b) community support of police agency; and (c) Calgary Police Service homicide processes and procedures. The remaining two categories of qualified candidates and homicide detective training were incorporated into Calgary Police Service homicide processes and procedures.

Effective Homicide Investigations

Conviction Rate involves the identification of a person, followed by arrest, charge, prosecution and conviction in a court of law. This success is constructed on the basis of investigative “outcome” and procedural success.

In Survey I, participants who chose conviction rate identified the trial process as the highest threshold for quality, as it is not only a measure of the right person charged with the right offence but also a measure of investigators following court acceptable procedures during the course of the homicide investigation.

Clearance Rate as defined by Statistics Canada is a homicide investigation that is solved or “cleared” when a person responsible for the murder has been identified and police have laid or recommended a homicide charge or has cleared the investigation by other means (cleared otherwise). Cleared “otherwise” can refer to police discretion, child offender under the age of 12 years, mental illness, witness incapacity, death, suicide, immunity, extradition, witness refusal, and diversion.

Homicide clearance rates are a quantitative measure used in academic research to gauge police effectiveness, with little attention given to qualitative measures such as preventative success, community impact and procedural success as these factors can not be measured or statistically compared as easily by the academic community.

In Survey I, those participants who identified clearance rate as the most accurate measure of effective homicide investigations, reasoned the “clearance” stage is where homicide investigators have the most influence, whereas the subsequent court processes are beyond their control. It was also suggested that clearance rate is a better definition than conviction rate because there are many times a suspect has been identified but can not be charged, but the homicide investigation is complete (cleared otherwise).

Based on the above discussion, participants in survey II were asked to choose one of the following factors as the best measure of success in relation to homicide investigations: (a) clearance rate; (b) conviction rate; or (c) combination of both. All participants ($n=8$) chose a combination of clearance and conviction rates as the best measure of homicide investigative success. Respondents provided considerable feedback, such as that the combination of both conviction and clearance rate paints a better picture as it relates to work performance (Survey II, participant C). It is undesirable to get to the point where charges are laid with no convictions in court (Survey II, participant C). Agreement was expressed through respondent

feedback that a combination of clearance rate and conviction rate captures both the homicides that are cleared by charge or cleared “otherwise” as well as success in court by way of conviction. For some homicide cases, the cleared “otherwise” category is assigned, particularly in cases where one person who takes the life of another person has a justifiable legal reason to do so, or in cases where the offender is not criminally responsible because of mental illness or under the legal age for prosecution (Survey II, participant H).

Additionally, given the number of procedural matters before the courts whereby a person may not be convicted of a crime based on a number of factors which might not actually be reflective of guilt, it would be prudent to include a combination approach, despite the obvious complexity of tracking this information (Survey II, participant F). One participant stated:

By combining clearance rate and cleared ‘otherwise’ with conviction rate, reflects the farthest point for measurable results that have had some testing at a standard beyond that of ‘grounds to believe’ which is the lowest of the legal thresholds for the granting of an order or assessment of the sufficiency of proof (Survey II, participant A).

Community Support of Police Agency

Using participant feedback to formulate Question 2, participants were asked to mark which points they agreed contributed to increased witness cooperation and strengthened community relations. There was consensus among all participants ($n=8$) that being respectful of witnesses and the community was important, as well as building trust with witnesses and victim families.

There was near consensus for the following factors: (a) showing empathy; (b) continued communication with witnesses and victim families; (c) meeting when and where is convenient for witnesses; (d) continued relationship building; (e) listening to the concerns of witnesses and victim families; and (f) conducting respectful and open-ended witness interviews. The remaining factors included members making themselves available at all times ($n=4$), use of media to inform the community ($n=4$) and utilising community liaison officers ($n=3$). There were no additional comments.

Calgary Police Service Homicide Procedures and Processes

Question 3 consisted of five related questions to do with changes to the Calgary Police Service Homicide Unit mandate of crimes to be investigated. The purpose of this question was to flush out the mixed responses from survey I in relation to this topic. Respondent results showed that there was near consensus ($n=6$) that the Calgary Police Service Homicide Unit should investigate all unexpected deaths of children less than two years of age. Five participants believed all deaths caused by drowning should also be investigated, with one respondent prefacing it with all drowning deaths not witnessed by an independent party should be investigated by the homicide unit.

Suggestions for additional crimes to be investigated by the Calgary Police Service Homicide Unit included: missing person cases after a certain point ($n=1$) as there comes a time when the signs of life point to death (Survey II, participant A), suicides with all types of firearms including long guns ($n=2$), and negligent deaths including workplace deaths ($n=1$). One participant stated, “In the past homicide was called to all suicides with firearms as a homicide could be masked as a suicide and the expertise and initial investigation by homicide detectives would satisfy this issue. This was reduced to suicides with handguns. I believe it should be all suicides with firearms” (Survey II, participant B). Participants stated the following crimes should no longer be investigated by the homicide unit: (a) in-custody deaths not investigated by the Alberta Serious Incident Response Team ($n=3$), (b) accidental/sudden death involving handguns ($n=1$); and (c) discharges of service firearms in situations other than those authorised by policy ($n=4$).

Question 4 was a multi-part question based on participant feedback in Survey I. In Survey I, there was consensus among all survey participants that there should be some form of case review for every homicide investigation. Two types of case review were identified, formal and informal.

Informal Case Reviews are conducted among teammates and the supervisor within the first 24–48 hours and then ongoing on a case-by-case basis thereafter.

Formal Case Review involves the procedure of an independent body reviewing all the facts, evidence and investigative steps in a case. The occurrence and frequency of such a case review is standard and applied to all homicide investigations.

Question 4 explored this issue further to bring the respondents closer to consensus on what the case review process should consist of. Respondents who favoured a formal case review ($n=6$) far outweighed the ones who preferred an informal case review method ($n=2$), however, there was still little agreement on what the time frame for a formal case review should be. A formal case review completed within one month ($n=3$) was somewhat more agreed upon than the other choices of 90–120 days ($n=1$), two days ($n=1$), and 240 days ($n=1$). The majority of respondents felt there should be subsequent reviews ($n=4$). Again, the time frame for these subsequent reviews was varied among all respondents: (a) review at two days, two weeks, one month, and six months; (b) review again at 90 days and again at one year, and for complex cases have investigators “shadow” the case the entire time as an ongoing review of sorts; (c) additional reviews at six months and 18 months; and (d) every 90 days, then transition to every 180 days once all investigative steps have been taken.

When asked who should conduct the case reviews there was very little agreement. Responses varied, however five of the respondents identified retired homicide investigators as part of their proposed model. Some of the models included retired homicide detectives in conjunction with a supervisor or active investigators. One participant suggested the case

reviews be completed in conjunction with a crown prosecutor (Survey II, participant A). The following are case review models proposed by the respondents:

Model A: One formal case review to be conducted between 90–120 days to allow for forensic results and autopsy findings to be formalised. Crown Prosecutor Service should be a part of this formal case review to provide input on questions of admissibility of evidence due to their familiarity with the criminal standard of proof and realistic prospect of conviction (Survey II, participant A).

Model B: Case reviews within the first 48 hours, two weeks, one month, six months and one year with retired homicide detectives performing the case reviews (Survey II, participant C).

Model C: Formal case review within 90 days only for those cases that go unsolved, then again at one year. Basically the review process would be dependent on the complexity of the case. In large complex files, the primary investigator is essentially a resource director as opposed to a true investigator. There is little time for that person to “investigate” and ensure things make “sense.” In these cases, two investigators should be assigned to be in the immediate circle of knowledge and be allowed to review the entirety of the file at will to ensure the file makes sense. Case reviewers should be members assigned to the homicide unit, whether they are retired homicide detectives or a team dedicated for this purpose. The assignment of these reviews should be conducted by a group under the direction of the homicide unit, not an independent group, due to the sensitive nature of the files and the presence of holdback information. There should also be a feeling of working together (the review team working with the investigative team), as opposed to someone checking another’s work in a punitive way (Survey II, participant F).

Model D: Case review conducted every 90 days to determine all investigative steps have been completed and all leads have been followed up. If all steps have been completed the review could increase to 180 days when all steps have been completed and all viable strategies considered/implemented. The reviews could be conducted by supervisors in conjunction with either independent investigators or retired homicide detectives (Survey II, participant G).

Model E: A formal case review should occur around six months into a homicide investigation, then a second one at the eighteen-month mark. The reason for this is the trickle down of information that generally ceases around the six-month mark. This way the reviewer would have a completed case file to review

of all the collected evidence. Retired homicide detectives should complete the reviews (Survey II, participant H).

Question 5 was an open-ended question asking the participants to review the Calgary Police Service Homicide Unit Process Map (Appendix E) and comment on whether there was a procedure on this map that should be eliminated. Half the participants did not comment ($n=4$). Other feedback included: (a) keep Calgary Police Service processes but send one homicide detective to the scene immediately (Survey II, participant B); (b) none of the processes should be eliminated (Survey II, participant C); (c) the process map is a layout of what should happen but not what actually happens (Survey II, participant C); (d) additions to the Calgary Police Service processes also include tasking by the file manager as a result of reviewing written material and data and informing the primary investigator (Survey II, participant F); and (e) adding a “devil’s advocate” role in the brainstorming section (Survey II, participant H).

In question 6, participants were asked to state whether they agreed to each factor’s inclusion or exclusion for changes in Calgary Police Service process and procedures. The objective of any changes would be to improve the effectiveness of Calgary Police Service homicide investigations. Where there was respondent feedback from Survey I, this was stated and all other recommendations came from the literature review. The results of participant selection are as follows.

1) Initial Response

There were no suggestions in Survey I by participants in relation to the initial response.

Suggestions from academic literature:

- ($n=3$) On-call investigator assigned as crime scene manager has a take-home car in order to arrive at the crime scene sooner.
- ($n=2$) First responding patrol officer at the crime scene joins the homicide team for first 48–72 hours. Theoretically this officer would not only have knowledge of the crime scene, but of the people and area of the community where the crime occurred which could assist the investigation, and this is a developmental opportunity for the patrol officer.
- ($n=5$) Homicide investigators need to have good relationships with patrol officers, to include communications, information sharing, and respect. The investigator needs to recognise that his or her case will largely be built on the foundation established by the first responding patrol officers.

- (n=8) First-responding officers must be effectively trained to protect the crime scene and also identify, stop, detain and interview potential witnesses.
- (n=8) Whenever there is a drug-or gang-related homicide, an investigator from the appropriate unit is assigned to the homicide investigation team for up to 72 hours depending on the status of the case and the facts.
- (n=4) A first-responding patrol officer is assigned to be the crime scene scribe. Using a standardised form (i.e. Homicide Investigation Briefing Script), the officer is able to document all the critical people, conditions and circumstances at the crime scene. The completed form is turned over to the homicide investigators.

2) Detective Qualifications and Training

Suggestions from survey participants:

- (n=8) Have a formalised training program for detectives entering the homicide unit, as well as required ongoing learning in the area of homicide investigations.
- (n=6) Homicide managers are given the ability to recruit the “best” detectives from other units to work in their unit, with a process that does not involve a formal competition.
- (n=8) When selecting a potential homicide investigator, consider the desire of the candidate to work in such a gruelling area of policing as homicide, balanced with getting the most qualified and well-rounded investigator.
- (n=6) Level of education should not be a selection factor, however consideration should be given to police-related courses and training.
- (n=6) Conduct more in-depth background checks, similar to promotion process, where there is a peer review process. This peer review process is important because some investigators have excellent investigative minds and can move the investigations forwards but this is hard to translate into an example.
- (n=4) Test the homicide candidate by assigning them a homicide case where they can learn from the process and also

provide a good test of their capabilities (this could be done with an actual homicide investigation or a mock case).

- (n=6) Investigative competency is the first priority with best “fit” being the second, and at the discretion of the team and its commander.
- (n=2) The current Calgary Police Service model should be dissolved as it is not working.
- (n=3) Current Calgary Police Service model is working. The process identifies those investigators who have the competencies and skills to fulfil the role of an investigator in homicide. Past performance is a good predictor of future performance.
- (n=6) The current Calgary Police Service model is valuable but needs some tweaking.
- (n=0) No formal training is required for Calgary Police Service investigators; their training needs are met informally during their time in the unit.
- (n=5) More training is required to understand the role of the Diversity Unit (Calgary Police Service members designated to work with the various cultures within the community of Calgary), and more utilisation of the Diversity Unit when dealing with victim families and witnesses with cultural barriers.

Suggestions from academic literature:

- (n=8) New homicide investigators should be assigned to a seasoned investigator for mentorship training for six months.
- (n=8) New homicide investigator should receive training in the following topics: (1) death investigation; (2) homicide crime scene investigation; (3) interviewing and interrogation; (4) officer-involved shootings; and (5) training in relation to in-custody deaths.
- (n=3) New homicide detectives must complete a set number of training hours within their first year in the unit as well as receive mentoring from within the unit. For example, in Houston, Texas, new investigators must complete 186 hours of training within their first year, equating to 12 mandatory investigative classes throughout the year.

- (n=7) A rigorous selection process must be in place to ensure the candidates have the personality and aptitude for homicide investigations. Some of the important characteristics include passion, tenacity, tolerance, creativity, commitment, strong work ethic, integrity, taking pride, being able to bond with people and being able to work effectively on a team.
- (n=8) Basic skills for a homicide investigator include solid investigative skills and good report writing.

3) Actions of the Detectives

Suggestions from survey participants:

- (n=8) Implement best practices for various investigative strategies in the form of business rules. For example, instructions on how to conduct neighbourhood inquiries utilising a standard questionnaire, how to complete a witness interview summary and standards for the briefing room.
- (n=7) Strictly adhere to the Major Case Management Model whereby each homicide investigation would have for its duration, a primary investigator, file manager, affiant and team commander.

Suggestions from academic literature:

- (n=7) Neighbourhood inquiries should be performed in two phases: (1) immediately after the incident by patrol officers who collect initial information, identify potential witnesses and inform the citizens that an investigator will be coming to see them in the days to come; and (2) a second canvass by investigators in the days following the homicide.
- (n=4) There should be a daily scheduled “coffee break” for the investigative team to informally discuss their cases.

4) Personnel Policies

Suggestions from survey participants:

- (n=7) Have dedicated resources for closed circuit television surveillance collection and review.
- (n=8) Have dedicated resources for analysing data dumps from cell phone towers and other cell phone analysis.

- (n=5) Only the crime analysts should be assigned to a homicide team. There needs to be a degree of separation from other specialty units (such as undercover teams and crime scenes investigators) in order to have “fresh eyes” examining the evidence to prevent the investigators from getting tunnel vision.
- (n=6) Have a crown prosecutor assigned to a new homicide investigation immediately.
- (n=2) Have a designated undercover team.
- (n=6) Have a designated crimes scenes team.
- (n=7) Have a civilian or sworn support team to deal with subpoenas and witness management for court procedures including crown witness interviews, witness transportation and liaising for court matters.
- (n=7) Hire retired homicide detectives to do formal case reviews on homicide cases to help deter “tunnel vision” or “group thinking syndrome” of an investigation.
- (n=3) Have a designated surveillance team.
- (n=7) Have a designated technological crimes team (electronic analysis team) to assist homicide investigators through the course of the investigation not just the first 48 hours.
- (n=7) Have a designated cybercrimes team (social media analysis) to assist homicide investigators through the course of the investigation not just the first 48 hours.

Suggestions from academic literature:

- (n=7) Create a “homicide relief team” consisting of investigators from other units who have been chosen based on their skill level available for call-out to assist homicide investigators in the first 48–72 hours when a large number of resources and investigators are required.
- (n=5) Create an aggravated assault team of investigators who investigate all serious assaults that do not result in death, and work closely with the homicide unit when they need extra resources. This allows for development of these investigators to potentially transfer to the homicide unit when a vacancy becomes available.

- (n=8) Staffing levels must meet the workload. If there is inadequate staffing, it is more difficult to conduct a comprehensive investigation, and personnel morale may decrease resulting in less commitment and productivity.
- (n=5) Have a team of crime scene investigators assigned to each team of homicide investigators who work the same shifts and attend all homicides together to enhance the coordination and efficiency of the investigations.
- (n=8) An important aspect of successful clearance is giving homicide investigators the time to work leads, develop new leads, analyse evidence and integrate all of the information derived from the evidentiary analysis, intelligence analysis and the medical examiner's findings. Managers must recognise the importance of these duties and ensure that all investigators have time to perform these tasks without handling new cases or other non-case management duties. Some investigators refer to this as "down time" so they can focus all of their efforts and thoughts on an open case.

5) Other Police Responses

Suggestions from survey participants:

- (n=1) An assigned crown prosecutor attends the crime scene with the primary investigator and crime scene investigators prior to the scene being collapsed to ensure all evidence has been collected.

Suggestions from academic literature:

- (n=8) The computer forensics unit (in Calgary Police Service, they are referred to as the Technological Crimes Team) must understand the need for fast analysis and feedback in homicide cases.
- (n=7) Traditionally homicide investigators tend to be viewed as the experts and other police units as simply a support role in the investigation. However, given the nature of complex criminality, the growth of professional expertise of all police officers, and the vast expertise that has been developed by law enforcement personnel in all assignments, the "first among equals" perspective of homicide

investigators should be more of a legacy than a current practice in police homicide units today.

Question 7 outlined that the Calgary Police Service employs civilian crime analysts who are trained in intelligence gathering techniques. The homicide crime analysts' main role is to provide suspect and victim profiles during the initial stages of the homicide investigation, as well as area maps and other criminal intelligence reports. The analysts continue to assist with the ongoing investigations by processing data such as cell phone data, association charts of suspects or victims, social media inquiries and many other intelligence-gathering techniques. The Calgary Police Service Homicide Unit has one analyst assigned to each of the two homicide teams who are called out for each new homicide as part of the investigative team.

Participants were asked to choose the factors they recommended the Calgary Police Service Homicide Unit incorporate in relation to their crime analysts:

- (n=7) Analysts conduct two-stage analysis of cell phone records, once when they are initially received and a secondary assessment of the telephone data towards the end of the investigation when the data may hold greater significance given more information about the homicide investigation has been gathered.
- (n=6) Put strict parameters around what crime analysts will do in order to prevent "off-loading" of clerical tasks or other basic police information system checks that have been traditionally done by investigators.
- (n=7) Provide formal training for crime analysts in relation to preparation of court documents and giving testimony.
- (n=5) Assign more analysts to each homicide team or other dedicated resources to conduct cell phone and mapping analysis. These tasks are time consuming and have reduced the analyst's ability to support the investigators with intelligence gathering analysis.
- (n=4) Have more oversight of the crime analysts for accuracy and to assist them with intelligence gathering from an "investigative mind" perspective. Help the analysts to understand how the information they are gathering fits into the bigger investigative puzzle.

The final question of Survey II dealt with proposed models of homicide investigations. Participants were asked to rank the following homicide investigation models in order of

preference: (1) most desirable to (4) least desirable model of effective homicide investigations. The following is a breakdown of highest preference models:

(n=0) Model A:

- i. A front-end load homicide investigation takes place in first 48–72 hours; a minimum of two investigators respond;
- ii. Resources available at initial stage include the homicide team of eight investigators and any other available resources, however these “other” resources are not designated nor guaranteed to be available;
- iii. If after one month no viable theories or suspects have been identified, the case is moved to the cold case unit; and
- iv. Generalist approach is taken with heavy reliance on patrol personnel and supporting units but with no guarantee of the availability of supporting units.

(n=2) Model B:

- i. Please describe in as much detail as possible what your ideal homicide investigation model would look like.

(n=0) Model C:

- i. Calgary Police Service homicide processes and procedures—refer to the attached Process Map.

(n=6) Model D:

- i. The model for best practices would be rolled out in the units’ business rules, which would be strictly adhered to by all homicide investigators and management. The best practices would include business rules for the following:
 1. Team commanders;
 2. Primary investigator;
 3. File Manager;
 4. Affiant;
 5. Homicide investigators; and
 6. For operational procedures such as briefing, neighbourhood canvasses, witness statements, analyst court documents, report to crown council, notes, electronic file management including naming

conventions, investigative task assignment, investigative chronology, protocol for holdback information, exhibits and scene investigators, handling of sensitive information, electronic communication, officer involved deaths, and case review protocols.

- ii. Conduct evidence-led investigations (not intuition or common knowledge), emphasising the importance of the initial response, checklists and business rules and a reliance on physical evidence;
- iii. This model would include a team of investigators supported by dedicated resources to assist with cell phone analysis and mapping, video collection and review with the built-in flexibility to identify and increase the support given the current workload for specialty units such as cybercrimes, technological crimes, gang suppression team, guns and gangs investigators, child abuse investigators, as well as designated surveillance, undercover and crimes scenes officers;
- iv. Formal and informal training structure is in place, including mentorship in new homicide investigators;
- v. An information package of guidelines is provided with relevant case law and general homicide information such as what a crime scene can tell you, such as evidence gained from the body. This information package would also include investigative steps to consider, contact phone numbers of important contacts with outside agencies (i.e., Alberta Health Services Release of Information), as well as copies of the forms required for information in the early stages of a homicide investigation (i.e., obtaining 911 calls, forms for request of Emergency Medical Services statements); and
- vi. Adherence to the Major Case Management Model (team commander, primary investigator, file manager and affiant) with front-end loading to ensure as much evidence and witness information is gathered as soon as possible.

SURVEY ROUND III

The third and final survey was highly structured with set options for respondents to choose from and one open-ended question (Survey III, Appendix F). Survey II results had participants reach a consensus with each other on several points. This included consensus agreement of a combination of clearance rate and conviction rate as the best measure of

success in relation to homicide investigations. Additionally, there was considerable agreement among participants in relation to witness management, initial response procedures, detective qualifications and training, actions of detectives, personnel policies, “other” police responses and use of crime analysts. As a result, the third survey was focused primarily on agreement of what an overall model of investigation for best practices would consist of. The survey had twelve questions in total, focused on homicide unit processes and procedures including: (a) Calgary Police Service mandate; (b) formal case review structure; (c) the existence of a cold case unit; and (d) various homicide investigation models.

The objective of the third and final survey was to answer the research question and to bring the participant group as close to a consensus as possible on all survey questions. For this last survey, participants were asked to choose their most weighted response and provide comments regarding their thought process. For example, if they agreed with “a” more than “b” but with a caveat that they would alter “b” somewhat, they were directed to explain these caveats as much as possible.

Calgary Police Service Mandate

There was near consensus in relation to all unexpected deaths of children less than 2 years of age, therefore this was not discussed in survey III. Question 1 asked participants to indicate if they thought the following crimes should be investigated by the Calgary Police Service Homicide Unit. The following are those who indicated “yes”:

- (*n*=7) All deaths caused by drowning that are not witnessed by an independent party;
- (*n*=4) All deaths involving firearms, including long guns;
- (*n*=7) Missing person cases where circumstances are suspicious and they have been missing for over 30 days; and
- (*n*=2) All negligent deaths including workplace deaths where the employer may have been negligent.

In relation to investigations involving death by drowning, one respondent reported the following; “investigation is required to determine what the circumstances are of finding a body in the water as there exists a system bias to declare deaths by drowning as an accident when in fact waterway death scenes can be indicative of foul play” (Survey III, participant H). As a result, homicide investigators should manage the initial scene and investigation, until a manner of death can be confirmed (Survey III, participant H).

There was some debate over handgun deaths versus long gun deaths. One participant explained that handgun deaths can be staged and should therefore be investigated by homicide detectives however long gun deaths are more difficult to stage and do not require homicide investigators to look into these types of deaths (Survey III, participant H). In relation to negligent deaths, one participant suggested there are Occupational Health and

Safety investigators to deal with these matters (Survey III, participant H), while another respondent commented that the initial investigation should be handled by the general investigative unit until there is evidence of negligence, then homicide should take over (Survey III, participant D).

Question 2 asked participants to indicate whether they thought the following crimes should not be investigated by the Calgary Police Service homicide unit, but rather the Professional Standards Section. The following are those who indicated “Agree”:

(*n*=6) In-custody deaths; and

(*n*=7) Discharge of a service firearm.

The following respondent statement is an accurate reflexion of the near consensus responses:

Officer involved incidents should be investigated by Professional Standards Section or an independent body such as the Alberta Serious Incident Response Team. Most officer-involved incidents involve a review of policy, procedure and determination of whether Provincial or Federal Acts were adhered to, which are all areas more readily understood by officers in the professional standards area of investigation. Investigation of the affected person should also be part of the Professional Standards Section mandate because a subject officer’s actions are most often directly correlated to the affected person(s) criminal behaviours toward that officer” (Survey III, participant H).

Formal Case Review

The purpose of case reviews, whether formal or informal, is to limit investigative bias, prevent “tunnel vision,” ensure integrity of the investigative process, encourage “brainstorming” and can lead to valuable input for the primary investigator. In survey II, a near consensus was reached—most participants agreed there should be a formal case review. Keel (2012) with the Federal Bureau of Investigations canvassed 55 homicide units across the U.S. identified as having a high clearance rate. The study results showed that 83% of agencies had a case reviewed by all personnel within the first 72 hours (p. 24). This review included homicide detectives and supervisors, analysts, crime lab personnel and crown prosecutors where appropriate.

Question 3 results were a reflection of the number of respondents who agreed with the following statement: the Calgary Police Service homicide unit should conduct a case review/briefings within the first 72 hours involving all personnel as described in the Federal Bureau of Investigations study above, (*n*=7). Participant feedback included the following: (a) the review should occur only on cases that are unsolved or lack a primary suspect (Survey III, participant D); (b) case reviews are not always required and are draining on resources (Survey III, participant B); and (c) the review process should be a formal analysis of case information rather than just a briefing among investigators (Survey III, participant F).

The business rules for the Integrated Homicide Investigation Team out of British Columbia require each file coordinator ensure a “30 Day Report” is submitted to the team commander for review, each month.

Question 4 asked participants to state whether they agreed or disagreed with the following statement: the Calgary Police Service Homicide Unit should adopt a similar practice of submitting a 30-day report monthly to the team commander for review. In a near consensus, the respondents agreed ($n=6$) with this statement, while two disagreed. The concern of two participants was that this task would cause more work for investigators and would need to consist of a one-page check sheet briefing that could be completed in a short time (Survey III, participant C, & participant D).

Question 5 asked participants to rank the following statements in order of preference. The following is each respondent’s highest preference:

Time Frame for Case Review:

- ($n=1$) Within 48 hours, 14 days, 30 days, 6 months and one year.
- ($n=0$) One month, no subsequent case reviews.
- ($n=3$) If charges are laid early in the case, there is a built-in review process by the crown prosecutor. For example, a domestic homicide whereby the offender confesses, had exclusive opportunity, and charges are laid within a week of incident, then no further Calgary Police Service case review is required. Cases at one month should be reviewed and again at 90 days and subsequent reviews depending on the case. In complex cases, for example, multiple offender cases (swarming/beating), even where one or some people have been charged, there should be a review done within 90 days. Ideally, all cases would be reviewed again at the one-year mark if still unsolved or complex. In some cases, such as stranger attacks with no obvious suspects or motive, file review should happen within a very short period of time (a day or week to two weeks, depending on the progression of the case).

In large complex cases, one or two investigators should be assigned to “shadow” an investigation. The primary investigator is essentially a resource director as opposed to a true investigator. There is little time for that person to “investigate” and ensure things make “sense.” In these cases, two investigators should be assigned to be in the immediate circle of knowledge and be allowed to review the entirety of the file at will to ensure the file makes sense. This is essentially an “immediate” review of the file.

- (n=1) 90–120 days to allow for forensic and autopsy findings to be formalised; no subsequent formal reviews.
- (n=1) One month, and subsequent reviews every 90 days to determine all investigative steps have been completed and all leads have been followed up. If all steps have been completed, the review could increase to 180 days when all steps have been completed and all viable strategies considered or implemented.
- (n=2) Six months and 18 months as the trickle of information generally ceases around the six-month time frame and so the reviewer would have likely a completed case file of the evidence collected. If the review is conducted too early while the investigation is still very active, the review process will precede the flow of information, detracting from the thoroughness of the review.

One participant suggested there should be a more formal case review in consultation with the team commander and the crown prosecutor within 30 days to ensure the primary investigator is not overwhelmed by the investigation (Survey III, participant D).

Question 6 asked participants to rank the following statements in order of preference. The following are respondent results for their highest preference:

Who should conduct formal case review:

- (n=1) Retired homicide detectives as they have enough qualifications and can remain independent.
- (n=2) A blended model with both retired and current homicide detectives, and crown prosecutor.
- (n=2) The case review should be completed by people who are assigned or attached to the Homicide Unit. This could include retired homicide investigators or a team of investigators dedicated to this purpose. Although prosecutors play important roles, in unsolved/uncharged cases, it is not likely within the Calgary Police Service's ability to assign this to prosecutors. It is unrealistic for the supervisor to conduct an appropriate review of each file.

A big consideration as to who conducts any review is the sensitive nature of these files and any hold-back information. In other words, the assignment of these reviews should be conducted by a group controlled by or under the direction of the homicide unit, not an independent group. There should also be a feeling of working together (the review team working with the investigative team), as opposed to someone checking another's work in a punitive way.

- (n=2) In addition to homicide investigators and/or supervisors, the Crown Prosecutor Service should be part of the formal review to provide input questions. They are familiar with the criminal standard of proof and the crown's prosecutorial function/test (realistic prospect of conviction).
- (n=2) Supervisors in conjunction with either independent investigators or retired homicide investigators.

Two participants suggested considering a blended model with senior investigators outside the homicide unit who could bring different perspectives to the review or even a non-investigative person who may have the courage to ask the weird questions that investigators would never think about (Survey III, participant B, & participant D).

Cold Case Unit

Question 7 asked participants to comment on the current structure of the Calgary Police Service Homicide Units' cold case unit, which consists of two homicide detectives. There was consensus ($n=8$) among the participants that there should be a cold case unit, and near consensus that there was not sufficient staffing ($n=7$). One participant suggested there be three, six, or nine members to align with the Major Case Management Protocol (assigned primary investigator, affiant and file manager) (Survey III, participant H). Among all the participants, the suggested staffing levels varied between four to nine. There was near consensus ($n=7$) on the formula to be used to calculate the appropriate staffing levels, based on complexity and volume of cases. The other options were: (a) based on complexity of cases; (b) based on volume of cases; and (c) based strictly on staffing numbers.

Homicide Investigation Models

Question 8 asked participants to review the various models of homicide investigations. No participant selected Model A or Model C as their first choice in survey II. As such, these two models were eliminated in survey III.

Model A:

- a. Front-end load homicide investigation takes place in first 48–72 hours; minimum of two investigators respond;
- b. Resources available at initial stage would include the homicide team of eight investigators and any other available resources, however these "other" resources are not designated nor guaranteed to be available;
- c. If after one month, no viable theories or suspects have been identified, the case is moved to the cold case unit; and

- d. Generalist approach is taken, heavy reliance on patrol personnel and supporting units but no guarantee of the availability of the supporting units.

Model C:

- a. Calgary Police Service homicide processes and procedures—refer to the attached Process Map.

All participants chose Model D, some with suggested additions or changes. The following is a summary of this model with participant input.

Model D:

- a. The model for best practices would be rolled out in a unit's business rules, which would be strictly adhered to by all homicide investigators and management. The best practices would include business rules for the following:
 - i. Team commanders;
 - ii. Primary investigator;
 - iii. File manager;
 - iv. Affiant; and
 - v. Homicide investigators.
 - vi. Operational procedures such as briefing, neighbourhood canvasses, witness statements, analyst court documents, report to crown council, notes, electronic file management including naming conventions, investigative task assignment, investigative chronology, protocol for holdback information, exhibits and scene investigators, handling of sensitive information, electronic communication, officer-involved deaths and case review protocols;
- b. Evidence-led investigations (not intuition or common knowledge), emphasise the importance of the initial response, with checklists to assist detectives, business rules and a reliance on physical evidence;
- c. This model would include a team of investigators supported by dedicated resources to assist with cell phone analysis and mapping, video collection and review with the built-in flexibility to identify and increase the support given the current workload for specialty units such as cybercrimes, technological crimes, gang suppression team, guns and gangs investigators, child abuse investigators, as well as designated surveillance, undercover and crimes scenes officers;

- d. Formal and informal training structure is in place, including mentorship in new homicide investigators;
- e. An information package is provided with guidelines, relevant case law and general homicide information such as what a crime scene can tell you. This information package would also include investigative steps to consider, contact phone numbers of important contacts with outside agencies (i.e., Alberta Health Services Release of Information) and copies of the forms required for information in the early stages of a homicide investigation (i.e., obtaining 911 calls, forms for request of Emergency Medical Services statements); and
- f. The Major Case Management Model (team commander, primary investigator, file manager and affiant) is adhered to, with front-end loading to ensure as much evidence and witness information is gathered as soon as possible.

One participant commented on the wording of point “a” around “strict adherence to,” stating this advocates rigidity or a formula that sometimes does not fit and may actually slow the efficiency of an investigation (Survey III, participant E).

Participants were asked to rank the following statements in order of preference. The following are results showing their highest preference:

- (n=0) There needs to be flexibility and adaptability to each investigation; the business rules should be a guideline, not a mandatory requirement of how to conduct each homicide investigation.
- (n=0) The business rules must be strictly enforced to ensure all homicide investigators are following the best practices model; otherwise investigators will continue to conduct their investigations in an inconsistent manner.
- (n=8) Extra consideration needs to be allowed for certain homicide investigations. As such the business rules would be followed by all investigators and monitored by supervisors. However, exceptions can be made with supervisor approval to allow for flexibility and adaptability to each investigation.

Question 9 asked participants to rank the following statements in order of preference. The following are results showing their highest preference:

- (n=3) The homicide unit should create a *Homicide Investigation Manual* in addition to the *Homicide Business Rules* and provide this to every new investigator entering the unit.

- ($n=4$) The homicide unit should create a two-day course for all members of the homicide unit that is subsequently provided to all new members entering the unit. In this course, instruction would be provided on the business rules of the unit, and presentations would be given by the various units that work in conjunction with homicide such as crimes scene, technological crimes, cybercrimes, surveillance unit and the undercover unit.
- ($n=1$) New detectives entering the homicide unit will be assigned a mentor who will provide informal training to the investigator including review of the *Homicide Business Rules* (Survey III, participant B).

An additional suggestion was that every investigator would be required to review the business rules and sign a completion sheet once per year, with a possible presentation of the business rules to the unit as well (Survey III, participant D).

Question 10 asked participants to review the above homicide investigation model carefully and state whether overall they agreed that this was the most effective method of investigating homicides. There was consensus ($n=8$) that this model was the most effective method of homicide investigations. There were no additional comments.

Question 11 was an open-ended question asking respondents to describe what they liked and disliked about the chosen investigative model. One participant stated the following,

The number one problem with a new homicide investigation is providing the necessary resources to ensure that all investigative avenues and strategies can be covered off/completed during the initial stages of the investigation and resources are available to complete the follow-up tasks as the investigation moves forward. This model allows for that resourcing. In addition, it provides the framework for business rules etc. so all involved have a full understanding of best practices (Survey III, participant E).

Additionally, there was emphasis by one participant on the need for flexibility from file to file based on complexity and needs (Survey III, participant G). Other comments included: (a) the Major Case Management Model is an ideal way of operating, but rarely is there adherence to the actual model (Survey III, participant F); (b) generally, staffing levels are not sufficient to support this model of investigation (Survey III, participant F); (c) this model provides formal structure and accounts for mentorship and training, as well as recognising the importance of following evidence rather than theories when conducting investigations (Survey III, participant H); and (d) the model still lacks a review process for unsolved or complex files and this should be considered (Survey III, participant H).

The final question of the survey asked participants to state whether they thought this proposed model for homicide investigations would be the most effective method of investigation to increase clearance rates without jeopardizing the integrity of the

investigation. There was consensus ($n=8$) that this model is the solution to the research question. Additional suggestions for the proposed model included: (a) hold-back information should be omitted from any review process to keep the integrity of the investigation in check (Survey III, participant G); and (b) awareness that there are other units such as domestic conflict and child abuse conducting important investigations and managers have to guard against “unit arrogance” assuming their needs are greater than other areas of the service for resources (Survey III, participant B).

Final opinions of the proposed model included: (a) this model will afford higher clearance rates as long as there are sufficient investigative resources from the aspects of number of investigators and quality of the investigators (Survey III, participant G); (b) this model will likely be the most effective method of investigation to increase clearance rates without jeopardizing the integrity of the investigations, but there is a need to convince detectives that it will actually help them in their everyday work; (c) it may be perceived as more theoretical paperwork rather than helping the investigation (Survey III, participant C); and (d) this is an ideal way of operating, however the Calgary Police Service must support the model by providing the resources and commanders to enforce this investigative model. Without this support, the investigators are being asked to do yet more work (for example, adding a review process of other people’s work) without adding any human resources. The strength must be in the commanding level to enforce the review process and support the investigators (Survey III, participant F).

CHAPTER 5 — DISCUSSION

INTRODUCTION

In response to declining clearance rates, changes to police agency's processes and procedures, such as best practices of homicide investigations, are necessary to achieve increased effectiveness, improved investigative integrity and ultimately increased homicide solution. According to contingency theory, for an organisation to remain effective they must adapt to the continually changing environment around them (Donaldson, 1995, & Maguire, 2003, as cited in Maguire, et al., 2010, p. 375). Contingency theory relates to homicide investigations as follows: (1) the raw materials are the unsolved homicide cases; (2) the internal processes applied by the law enforcement agency are the technology; and (3) the output produced by the technology is homicide solution. The external environment including homicide case factors, information and raw materials influence a police agency's ability to solve homicide cases and as such it is critical for any police organisation to adapt "its technologies to its environment" (Hasenfield, 1992, Maguire, 2003, as cited in Maguire et al., 2010, p. 375; Donaldson, 1995, Maguire, 2003, as cited in Maguire et al., 2010, p. 374). Contingency theory emphasises that police agencies require the internal capacity through "... legal structures and processes..." to detect change to the external criminal environment and the willingness to adapt to these changes (Maguire et al., 2010, pp. 396-397).

The manner in which homicide investigations are conducted is impacted by changes in the types of murder such as elevated stranger homicides and the increased use of firearms. Additionally, there is the transformation in the nature of evidence collected, for example, secondary evidence, such as cell phone data and closed circuit television collection and review, is increasingly relied upon. An evolving legal system requires law enforcement agencies to stay apprised of new legislation and judicial decisions to protect the procedural integrity of the investigation. It is critical for police organisations to adapt to all of these changes in order to achieve homicide solution.

The homicide clearance rate is a common success measure of law enforcement. As such, homicide solution is important to: (a) assist victims' families; (b) maintaining public order; (c) reinforcing the legitimacy of police agencies; and (d) building community trust and confidence in the police agencies. To address the need for increased homicide solution, this study examined the following question: What is the most effective method of investigating homicides to achieve increased rates of homicide clearance without jeopardising the integrity of the investigation?

The final results supported three key concepts: (a) a definition for the measurement of successful homicide investigations; (b) community support of a police agency; and (c) identification of effective organisational methods of homicide investigations.

DEFINING EFFECTIVE HOMICIDE INVESTIGATIONS

Clearance Rate and Conviction Rate

The first result of this study addressed defining the most accurate measure of effective homicide investigations. Statistics Canada and criminologists use clearance rates as a performance measure of police investigative success. Keel (2012) recognised that the conviction rate may be a more meaningful measurement of success, however more difficult to obtain compared to the clearance rate (p. 3). Unique to this study was participant consensus on the best measure of success in relation to homicide investigations, which included consideration for a homicide unit's clearance and conviction rates. The subject matter experts identified the true measure of homicide investigative efficiency as the combination of clearance rate and conviction rate. This adjusted measure considers the cleared by charge, "cleared otherwise" cases and the investigative outcome. Statistics Canada, Juristat definitions (2012-b) explain clearance rate as follows:

The clearance rate represents the proportion of criminal incidents solved by the police. Police can clear an incident by charge or by means other than the laying of a charge. For an incident to be cleared by charge at least one accused must have been identified and either a charge has been laid, or recommended to be laid, against this individual in connection with the incident. For an incident to be cleared otherwise, an accused must be identified and there must be sufficient evidence to lay a charge in connection with the incident, but the accused is processed by other means for one of many reasons (para. 35).

"Cleared otherwise" refers to homicide cases considered solved without the arrest of an offender (Jarvis & Regoeczi, 2009, p. 175). This includes incidents where sufficient evidence exists to charge an offender however due to suicide, the offender being a child, mental illness, witness incapacity, death, immunity, extradition, witness refusal, diversion (alternative justice forum), or Youth Criminal Justice Act (YCJA) referral (person 12–17 years), charges are not laid (Statistics Canada, 2013-b, p. 97). This combined measurement could be more accurate as it would take into consideration how many homicide cases have been cleared, as well as the successful prosecution of the case through court to conviction. Closer scrutiny of the procedural aspects of homicide investigations during the prosecution phase could possibly help improve the integrity of the investigation.

Some may argue this close scrutiny already occurs given the considerable attention the media, police, public, and the courts give to homicide investigations. Although homicide investigations themselves vary significantly in length and cost of the investigation, the actual prosecution and trial phase of the process is typically lengthy and always costly, as such this scrutiny of procedural aspects already exists. Additionally, Keel (2012) argues, "The conviction rate, if one can ascertain what the percentage actually is, is affected by many indirect non-homicide unit related factors, including jury selection, witness testimony, ability of the prosecutor to present a case to a jury, and the quantity and quality of evidence" (p. 3).

In Canada, court results are difficult to monitor by police and are impossible to obtain by researchers, as there is no method of keeping track of trial outcomes. Further to this, in Alberta when a plea of guilt is not entered by the accused, the homicide trials often get appealed after conviction. This is especially true for first-degree murder cases where the accused has nothing to lose in challenging the trial process as their conviction of this most serious offence comes with an automatic life sentence with no option of early parole. Given this insight, conviction rate provides a measure of prosecution and investigative outcome but is not an accurate reflection of effective homicide investigations alone and should not be factored into the measurement equation for homicide investigations.

Regardless, close attention should be paid to trial outcomes to recognise procedural errors homicide investigators may be making. Examination of procedural errors may help to bring attention to training needs of detectives to improve their knowledge and understanding of criminal law and the court processes. Furthermore, attention to the trial process and outcomes could assist in improving homicide unit processes and procedures. For example, if an analyst presentation of cell phone data during a trial by way of slides appeared to explain this extremely technical information in a clearer manner for a jury, perhaps the homicide analysts should consider making this a standard practice when preparing their testimony for court.

Brookman and Innes (2013) acknowledged the conventional police performance measure was investigative outcomes. The terms homicide clearance and conviction were used together stating investigative outcome concerns “the identification, prosecution and conviction of factually guilty offenders...and is measured by the overall proportion of homicide cases ‘cleared’ by an individual force” (pp. 293–296). The results of this study support this notion of recognising an alternate definition of successful homicide investigations as clearance rate and consideration for procedural success.

Procedural Success

Defining success of homicide investigations for reasons other than case clearance and conviction, Brookman and Innes (2013) provided three alternate definitions of success. These include: (1) procedural success, which is measured based on the quality of the investigation and compliance with official guidelines; (2) community impact reduction success, which focuses on community reassurance and public confidence; and finally (3) preventative success, which focuses on reducing the occurrence of homicides through prediction, prevention, and pre-emption (Brookman & Innes, 2013, pp. 292–293).

Roberts (2015) recognised that measuring police performance strictly on homicide clearance rates does not account for case and jurisdiction factors which impact homicide solution (p. 274). Consideration for case characteristics and jurisdictional factors beyond the control of law enforcement agencies should be factored into homicide clearances rates for a more accurate measure of police performance (Roberts, 2015, p. 273). Similarly, other

researchers recognise that additional factors need to be considered when measuring the success of homicide investigations, whether that is difficulty-adjusted homicide clearance rates or a combination of clearance and conviction rates. The literature review revealed a study by Brookman and Innes (2013), recognising police perspectives on investigative outcome in conjunction with procedural success is the most accurate measure of investigative success—however the researchers acknowledged these two are not always directly linked in research (p. 298). The philosophy of encompassing aspects of procedure as well as outcome to measure investigative success (Brookman & Innes, 2013, p. 298) has drawn minimal attention in the academic community by way of research and is a reflection of the lack of police perception and context within the existing literature. In Survey I, participant G explained it best:

Conducting a quality investigation within the rules, procedural success, will provide a higher likelihood of conviction for any given file or group of files. Conducting quality investigations that result in convictions and a high clearance rate will enhance public trust and confidence in police by showing police/investigators followed the rules to obtain their convictions...successful homicide investigations in and of themselves would contribute to preventing further homicides.

Given there is no measure of trial outcome and the understanding that court processes are not a reflection of homicide investigation alone, for now it is likely more practical to continue to use clearance rate as the statistical measure of effective homicide investigations, with the understanding that the procedural success of these investigations through court is critical when considering effective homicide investigations particularly maintaining the integrity of these cases.

POLICE LEGITIMACY AND CREDIBILITY

Witness Cooperation and Community Support

According to Eliopoulos (2003), homicides are primarily solved through the discovery of physical evidence, witness information and offender confessions (p. 161). All participants in this study strongly agreed that without witness cooperation, there is a reduced chance of success in homicide solution. Cronin et al. (2007) recognised witness cooperation is essential to solving homicides, suggesting law enforcement agencies focus on strengthened community relations before homicides occur through community policing and protection of homicide witnesses to gain and maintain witness cooperation (pp. 27–28). Sarre (2016) suggested when the public views the police acting in a procedurally fair, unbiased manner, they are more likely to comply with the law, making policing less problematic (p. 7). Barkworth and Murphy (2015) explain the components of procedural justice as follows: (a) public perception of police's trustworthiness; (b) respectful treatment of the public; (c) neutrality whereby police handle every case in the same manner, regardless of factors such as race and economic class; and (d) allowing the public to express their viewpoint and contribute to the decision-

making process (p. 255). The results of Barkworth and Murphy's (2015) study show the following:

By engaging with the public in a polite, respectful and empathetic manner, police officers will be able to reduce negative sentiments and emotion directed at them, thereby increasing people's willingness to comply with them both immediately and in the future (p. 269).

When you achieve true legitimacy and credibility within a community, you achieve increased crime solution across the spectrum of offences. This results in fewer resources required for each investigation, including homicide cases, and greater investigative success. With increased homicide solution and solving of other crimes, the community trust in the police increases, as does their cooperation, creating a positive momentum of crime solution and community support.

Arguably this level of community support requires sustained and consistent commitment to community policing, which carries a considerable cost in financial and human resources. Some law enforcement personnel and managers may even argue that the resources put into community policing, such as youth programs and outreach ventures with outside agencies, takes away already limited human resources from core policing elements such as calls for service and criminal investigations. It is a delicate balance, however, to conduct effective homicide investigations as well as other criminal investigations. Police rely heavily on the public for their assistance and cooperation, which requires a level of police legitimacy and credibility within the community. Ultimately, the positive effects of increased community support transcend the justice system, since as more crime is solved, more time can be spent focusing on new crime reduction strategies and prevention solutions. This in turn may lead to a decrease in crime rates, including homicides, alleviating pressure on the prosecution office, the courts and corrections.

Improving Community Support

Adding insight to the literature, participants agreed unanimously that being respectful and building trust with witnesses and victim families was essential to achieving witness cooperation. Additionally, investigators demonstrating empathy to the stress and burden of being a witness, practicing good communication and listening skills, accommodating as much as possible with convenient meeting times and locations for the witness all help in increased and sustained witness cooperation. The consensus among the subject matter experts was through continued relationship building with witnesses and victim families, investigators will strengthen witness and community support resulting in increased cooperation in providing crucial information for homicide investigations.

Westera et al. (2014) canvassed experienced detectives from five police agencies in Australia and New Zealand to examine what characteristics make an effective detective (p. 1). The participant investigators identified communication skills and motivation as the two most

valuable qualities, and acknowledged that investigators must communicate well with a variety of people including victims, witnesses from all lifestyles, suspects, professionals within the justice system, other law enforcement personnel and the medical community (Westera et al., 2014, p. 9–10). Rapport building is an essential skill as the roles of the public may change from suspect to witness for example, requiring an ongoing relationship with all individuals and the community to achieve investigative success (Westera et al., 2014, p. 11).

The literature recognises the importance of witnesses in homicide solution and acknowledges the necessity of treating witnesses with respect and dignity to achieve witness cooperation with the investigation and subsequent prosecution (ACPO, 2006, p. 198). This study added insight on a micro-level of what investigators can do to gain and ensure witness cooperation based on their professional experience. Examples from this study included participant suggestions such as investigators being available by phone to witnesses and victim families at all times and conducting respectful and open-ended witness interviews. Additional strategies included using the media to inform the community of investigative updates to build and maintain trust between witnesses and police, as well investigators receptive to hearing and acknowledging the concerns of witnesses and victim families. It was the opinion of participant D in the first survey that:

Without the community support and/or witness support a homicide cannot be solved by forensics alone. You require witnesses to fill in the blanks...this goes without saying that if the public is not there to assist the police and support their own community then you end up having a community that lives in fear.

CALGARY POLICE SERVICE HOMICIDE PROCESSES AND PROCEDURES

Reference to Literature

Researchers in the U.S. recognised that organisational changes in law enforcement agencies can negatively impact homicide clearance rates and that the adoption of best practices can increase investigative effectiveness (Cronin et al., 2007, pp. 1–2). Police practices and investigative procedures are key predictors of clearance rates (Maguire et al., 2010, p. 378), and examination of police agencies' practices and procedures can determine whether the best investigative environment exists for that agency and consider application of best practices identified through research (Keel, 2012, p. 1). Keel et al. (2009) identified four homicide investigative practices and policies that impact an agency's effectiveness in solving homicides: (a) management practices; (b) investigative procedures; (c) analytical methods; and (d) demographics of population served (p. 54). Carter and Carter (2016) examined methods of homicide investigation and techniques to apply them to police strategies and practices with the objective of increasing homicide clearance rates (p. 151), and Carter (2013) identified 32 points on best practices for homicide investigations (pp. 27–31).

Researchers in the U.K., Brookman & Innes (2013), examined various measures of success of homicide investigation and revealed insightful aspects of the investigative process

recognising that the "...connection between the policing means (procedure) and the legal ends (outcome) are not well understood..." (p. 307). In Australia, Westera et al. (2014) examined homicide investigators and identified four clusters of main skills believed to be necessary to be an effective investigator: (a) managing tasks; (b) managing information; (c) dealing with people; and (d) communicating effectively (p. 3). Mouzos and Muller (2001) included homicide detective perspectives in their homicide clearance study canvassing them on the following five major themes: (a) internal organisational factors; (b) crime scene factors; (c) witness factors; (d) other factors; and (e) major impediments (p. 5). Internal organisational factors including availability of sufficient resources, staffing and overtime, existence of support staff and analysts, and effective cooperation, were identified as necessary for solving homicide investigations (Mouzos & Muller, 2001, p. 5). "Lack of resources, time and suitably qualified staff were recurring themes...poor information flow, organisational structure, the time taken for forensic examinations and lack of analytical support" (Mouzos & Muller, 2001, p. 5) were all identified as impediments to homicide solution.

Calgary Police Service Study

As stated, the benchmark study by Cronin et al. (2007) recommended homicide managers consider the following topics to improve efficiency within their investigative units: (a) the definition of effectiveness of the homicide unit; (b) unit mandate; (c) investigator training; (d) homicide detective selection process; (e) initial response; (f) overtime procedures; (g) utilisation of crime analysts; (h) levels of case review; (i) increased witness cooperation; and (j) other resources required to assist homicide units (p. 34). These ten topics formed the beginning examination into best practices for this Calgary Police Service Homicide Unit study.

Homicide Unit Mandate

According to policy *Calgary Police Service Standard Operating Procedures for the Major Crimes Section–Homicide Unit* (2011), the Calgary Police Service Homicide Unit will investigate all homicides, attempted homicides where a medical doctor has determined that death is expected to occur, in-custody deaths not investigated by the Alberta Serious Incident Response Team, deaths where the cause is not apparent, accidental, sudden death involving a handgun, and discharges of service firearms in situations other than those authorised by policy (p. 1). Subject matter experts were provided the above details on the Calgary Police Service Homicide Unit mandate. Initially there was very little consensus among the subject matter experts. Through the course of three iterations near consensus was reached to include the following additional occurrences: (a) unwitnessed drowning; (b) all unexpected deaths of children less than two years of age; and (c) missing person cases where there are no footprints of life with some passage of time.

The benefit of having homicide detectives investigate these types of cases is their expertise in suspicious death investigations. Their experience in conducting witness interviews and interrogations is valuable when trying to determine if foul play has occurred. Additionally, when homicide investigators are engaged, with them comes a major case management response consisting of a team of investigators as well as the Forensic Crimes Scene Unit and any other required specialty units. In Survey I, participant B suggested that the unexpected death of children under the age of two and death by drowning should be added to the Calgary Police Service homicide mandate as both of these offences are easily disguised if foul play is used. “Additionally, they are emotional scenes and difficult to sift through for frontline officers who lack experience,” requiring the experience of homicide investigators to make the determination of foul play (Survey I, participant B). By utilising the skills of the homicide detectives, the efficiency of the investigations will be improved.

It could be argued that increasing the scope of investigations could have a negative impact on a homicide unit. Increasing the scope of investigations and therefore causing heavier workloads for homicide detectives may cause the opposite of the intended effect by negatively impacting the effectiveness of investigations. As previously stated, an estimated 30–80 per cent of Canadian police officers’ time is spent doing paperwork (Chan, 1999, p. 255; Ericson & Haggerty, 1997, p. 296). It could also be argued that nowhere in police organisations is this more prevalent than in major crime investigations, particularly homicide investigations where the procedural complexity is at its highest.

Additionally, with major crimes response comes increased cost in financial and human resources. These are all factors that have to be weighed carefully by police agencies operating on fixed budgets with finite resources. Ultimately, when police agencies are creating policy they must balance financial restraints with the desired goal of how to best serve the public. According to Wellford et al. (1999), “There are few homicide cases that given the right initial response, the right timing, the right dedication of resources cannot be solved” (p. 4). It comes down to prioritising which investigations require an “excellent standard” as outlined by Noble and Alpert (2012) versus a “reasonable standard” (p. 23) as the human and financial resource requirements of each are drastically different.

The subject matter experts not only agreed on what should be included in the Calgary Police Service homicide mandate, they identified investigations they believed should be excluded, including: (a) discharge of service firearm; and (b) deaths in custody, as the Alberta Serious Incident Response Team is available to investigate these matters, removing the burden and potential subjectivity of Calgary Police Service members investigating other Calgary Police Service officers. There was strong opinion among the subject matter experts that this process of dual investigations was a waste of precious time and resources that takes away from the other suspicious deaths requiring investigation. Perhaps eliminating these officer-involved shootings from the homicide mandate would allow for the investigation of all child deaths, unwitnessed deaths by drowning and suspicious missing person cases.

At this time however, this procedure is legislated by the Alberta Provincial Police Act. Under the Police Act, the Alberta Serious Incident Response Team mandate is to investigate the actions of the police, not the affected person (civilian). The Calgary Police Service homicide unit is required to assist the Alberta Serious Incident Response Team with officer-involved shootings. The Alberta Serious Incident Response Team investigates the officer to determine if their actions were consistent with criminal law, and the Calgary Police Service Homicide Unit investigates the deceased person to determine whether any criminal offences had been committed (Calgary Police Service, 2011, p. 1). Upon completion of the Alberta Serious Incident Response Team investigation, their case information is provided to the Calgary Police Service Professional Standards Section to determine if the sworn member breached any regulations under the Police Act. These investigations are often confusing given the overlap between homicide and the Alberta Serious Incident Response Team, with the Alberta Serious Incident Response Team leading the investigation. Both agencies must collect witness statements, physical evidence and other case specific information that is primarily why the subject matter experts in this study nearly all agreed that officer-involved shootings should no longer be part of the Calgary Police Service Homicide Unit mandate. A change in legislation would have to occur before the Calgary Police Service could amend any policy. In the mean time, consideration may be given for a different Calgary Police Service unit, such as the Professional Standards Service to take these investigations on rather than the Homicide Unit.

There is limited information in the literature related to homicide unit mandates. Cronin et al. (2007) explain that types of crimes investigated by homicide units vary between police agencies (p. 21). Most homicide units conduct other death investigations in addition to homicides, including officer-involved shootings, suspicious deaths, suicides and deaths in custody (Carter & Carter, 2016, p. 11; Keel, 2012, p. 3). Like the Calgary Police Service Homicide Unit mandate, Cronin et al. (2007) recognise that some homicide units also investigate officer-involved shootings while other agencies have separate units to investigate these matters to determine if agency policy has been breached (p. 22). According to Keel (2012), “departments that experience more than 100 homicides per year, the more collateral duties they were tasked to perform, the lower clearance rate they generally experienced” (p. 3). Although the Calgary Police Service is nowhere near 100 homicides per year, usually averaging 15–30, it is reasonable to assume any increase in workload that is not offset by increased personnel and resources would have a negative impact on the homicide clearance rate. The Calgary Police Service homicide unit mandate provides the framework through specific processes outlining which suspicious and unexpected deaths the unit will investigate. The overtime procedures, case review, cold case unit, and model of best practices serves as the processes and procedures to effectively carry out these investigations.

Calgary Police Overtime Procedures

Calgary Police Service investigators are required to obtain Staff Sergeant approval to work overtime. If overtime is required to further the homicide investigation, approval is typically granted. The Staff Sergeant's aim is to balance prevention of unnecessary overtime with allowing investigators the time to support the homicide investigations through review of all overtime and expense claims for quality and content (Calgary Police Service, 2011, p. 7). This perspective was reflected by a participant: "There needs to be oversight of effective time management within the Homicide Unit, however overtime should not be an obstacle to completing objectives within an investigation" (Survey I, participant F). Cronin et al. (2007) described overtime procedures for various agencies. Their work included examining shift work, and call-out procedures, file ownership by investigators, and partnership and team investigations. As such, one of the report's highlights was the necessity of homicide managers to be aware of competing concerns associated to overtime (p. 32). One respondent stated:

In a typical investigation, the volumes (large) amounts of information collected, organized and eventually stored is vast. As a result, efforts must be maintained to stay on top of this information from the outset to avoid falling behind. If not, key information can be lost forever or not learned of for many days. Overtime allows for the continued maintenance of this information (Survey I, participant H).

Although allowance for overtime is essential for conducting effective homicide investigations, there needs to be some oversight to achieve transparency and the trust of the public. In Alberta, the *Public Sector Compensation Transparency Act* legislates all government employees with base salaries or severance packages equal to or greater than the identified annual threshold, must post all compensation, including salary, benefit and severance amounts online (Alberta Government, n.d., para 1). The salary threshold for 2016 was \$105,906.00 (Alberta Government, n.d., para 3). This process of posting total earnings online has been coined the "sunshine list."

In an effort to increase transparency, the Calgary Police Service has chosen to provide salary amounts publicly despite being exempt from the legislation. Constables earn between \$62,816 and \$93,766 while Level 1 detectives make between \$109,242 and \$112,528 and Inspectors make between \$140,317 and \$161,366 (Dormer, 2015, para 3). Efforts by police agencies to achieve transparency and the trust of the public increases their legitimacy and credibility with the community which ultimately contributes to increased public cooperation and assistance with solving homicide investigations.

Case Review

In Survey I, case reviews were described as providing an objective review of the homicide investigation to: (a) examine the investigative steps taken; and (b) review the existing evidence. The purpose of case reviews, whether formal or informal, is to limit investigative bias, prevent "tunnel vision," ensure integrity of the investigative process, encourage "brainstorming" and contribution of knowledge for the primary investigator. Case reviews

may provide additional investigative measures not previously considered by the primary investigator, or identify alternative murder theories. All participants agreed that informal case reviews conducted among teammates and the supervisor within the first 24 to 48 hours and then ongoing on a case-by-case basis thereafter was not sufficient. Instead, there was near consensus between the subject matter experts that a formal case review process whereby an independent body reviewing all the facts, evidence and investigative steps in a case is necessary for best homicide investigative practices.

In summary, the research demonstrated flexibility should be allowed depending on the case, rather than requiring absolute timelines for each case review. This was reflected in no participants choosing the requirement of one month with no subsequent reviews, and only one participant each choosing the following formats: (a) 48 hours, 14 days, 30 days, six months and one year; (b) 90–120 days to allow for forensic and autopsy findings to be formalised, no subsequent formal reviews; and (c) one month, with subsequent reviews every 90 days to determine all investigative steps have been completed and all leads have been followed up. The review could increase to 180 days when all steps have been completed and all viable strategies considered and/or implemented.

Two participants agreed the case reviews should occur within six months, and then 18 months as the trickle of information generally ceases around the six-month time frame allowing for the reviewer to have a completed case file of the evidence collected. The argument for waiting for the second case review as suggested by one participant was that if the case review was conducted too early in the investigation while it was very active, information may still be coming at the same time as the review process (Survey 2, participant H).

Three participants preferred the most flexible model, which addressed case dependent factors. For example, formal case review would not occur by Calgary Police Service if charges were laid early in an investigation, relying on the crown prosecutor to review the file in preparation for trial. Calgary Police Service case review would occur for homicide cases at one month, and then 90 days followed by subsequent reviews depending on the case. For example, true stranger attacks should be reviewed within a very short period of time, and in larger complex cases there should be one or two investigators assigned to monitor and review the case on an ongoing basis (Survey II, participant F). In general, the competing concerns related to the formal case review process consisted of the following: (a) without clear structured timelines the formal review process may get overlooked and informal briefings may remain the primary review process, versus (b) strict rules for all homicide investigations without various case considerations may be a drain on resources and ineffective, as not all homicide investigations may require formal review.

Not only did respondents fail to identify best practices of case review, there was no consensus on who should be conducting these reviews. This is an important finding in this study, as uncertainty among the subject matter experts is consistent with the paucity of

research addressing how formal case reviews should be structured. Primarily, the literature merely acknowledges that case review should be done to increase investigative effectiveness but there is no clear direction on how to conduct the reviews.

In general, participants preferred a blended model, which would include retired homicide investigators and additional reviewers such as: (a) current homicide detectives; (b) crown prosecutor; (c) investigators from other parts of the police service; and/or (d) civilian reviewers. Keel (2012) surveyed 55 police departments and determined that 89% of the departments had some type of case review system in place, however 60% of the departments' review processes consisted of informal review by homicide managers (p. 24). To this researcher's knowledge, there was no other literature discussing specific case review procedures besides Keel (2012). Although the information generated in the current study was limited, the findings indicate there is value in a formal case review process with the perspective of the subject matter experts contributing to further research into best practices of formal homicide case review. It is evident more research is required into how the reviews should be conducted and by whom.

It is this researcher's opinion that any policy decision around case review should not occur until evidence on best practices is gathered through research. The drafting and implementation of policy before a base of evidence is established may result in the misuse of resources and decrease the effectiveness of homicide investigations, negatively impacting homicide solution.

Cold Case Unit

According to Keel (2012), 80% of the police departments with above average clearance rates had some form of cold case unit (p. 13). The results of this study indicate all the subject matter experts agreed there should be a cold case unit within homicide with more than two assigned investigators. There was no agreement however on sufficient staffing levels with numbers ranging from four to nine investigators. The near consensus was that consideration for appropriate staffing levels should be based on complexity and volume of cases. One suggestion was that each case have a one-page report outlining the solvability of the case based on factors like outstanding DNA and witness availability (Survey III, participant D). The Calgary Police Service Cold Case Unit utilises such a report, referred to as Historical Homicide Priority Matrix. This cold case matrix was created within the Calgary Police Service to highlight the key case factors of each investigation in order to help prioritise which cases to investigate based on likelihood of solvability. Factors include: (a) victim information; (b) eyewitness information; (c) suspect information; (d) offence information; and (e) presence of physical evidence (Calgary Police Service, 2011, p. 32).

Cronin et al. (2007) associate the increased formation of cold case units among police agencies with advances in analysis of forensic evidence such as DNA (p. 101). Most experts suggest assigning investigators full time to cold case investigations; otherwise they are likely

to be pulled away for new cases (Cronin et al., 2007, p. 103). Models for cold case units vary among police agencies however typically staffing levels are based on "...the local homicide rate, the size of the agency, and the number of cold case files" (p. 103). Many U.S. agencies combine civilian members, retired homicide detectives and seasoned sworn officers to review cold cases (Cronin et al., 2007, p. 103). Similar to the Calgary Police Service Historical Homicide Priority Matrix, other police agencies use some type of cold case solvability criteria to determine which cold cases are most viable, including factors such as: (a) presence of physical evidence; (b) witness identification; (c) suspect identification and ability to be processed through the judicial system; and (d) history of review by the crown prosecutor's office (Cronin et al., 2007, p. 107). The perspectives of this study's respondents were consistent with the guidelines described by Cronin et al. (2007). The solution of historical homicide cases provides the opportunity of resolution for the victim families and increased community confidence in the police department's commitment to solve what is viewed by the public, media, and justice system as the most serious and violent crimes.

Model of Best Practices

There is limited research on best practices for homicide investigations, however the body of research has been growing in recent years. Research by Carter (2013) and Carter and Carter (2016) provided the platform for outlining best practices for the subject matter experts in the second iteration of surveys as well as guidance on creating a homicide process map. Recommendations by Carter (2013) were included along with participant suggestions from the first survey results. Participants were provided a Calgary Police Service homicide process map (Appendix E) to outline current processes and procedures and were then asked to state whether they agreed to each factor's inclusion or exclusion depending on the statement for future changes to Calgary Police Service best practices.

There was consensus or near consensus among the respondents to include processes and procedures suggested from academic literature as well as direct respondent insight. The following suggestions were made by Carter (2013) and agreed upon by nearly all the respondents for improved homicide investigative efficacy: (a) scene management training for first responders; (b) new homicide investigators assigned a seasoned investigator for six months mentorship and receive training in core homicide investigative functions; (c) a rigorous selection process to ensure the candidates have the personality and aptitude for homicide investigations; (d) neighbourhood inquiries completed in two phases; (e) creation of a homicide relief team; (f) adequate staffing levels to meet workload; (g) investigators given appropriate time to work investigative leads; (h) technological crimes team adequately staffed to provide forensic analysis for homicide investigations in a timely manner; and (i) recognition among homicide investigators that they are not the only experts and require the assistance of other specialty units. Respondents agreed with Carter and Carter (2016) recommendation of utilising investigators from specialty units such as drugs and organised crime during the initial stages of a homicide investigation.

Finally, the following suggestions were made by the respondents and agreed upon as a group that the following factors may improve the efficacy of homicide investigations: (a) formal training for new homicides investigators; (b) specific candidate selection processes; (c) retention of current Calgary Police Service processes and procedures with some tweaking; (d) adherence to business rules by all investigators; (e) strict adherence to the Major Case Management Model; (f) dedicated resources for closed circuit television surveillance camera collection and review; (g) dedicated resources for cell phone analyses; (h) immediate assignment of crown prosecutors; (i) designated Forensic Crimes Scenes Unit; (j) designated Technological Crimes Team and Cyber Crimes Team; (k) cell phone records analysed upon receiving the data and then again towards the end of the investigation when more is known about the homicide; and (l) formal training for crime analysts in relation to preparation of court documents and strict parameters around their duties in order to prevent “offloading” of additional tasks. These suggestions introduce fresh insight and context to the existing literature.

Using the respondent feedback from Survey I and Survey II, four optional models were presented to the subject matter experts in the final iteration in order to identify the most efficient homicide investigation model. Models A, B and C were not chosen by any respondents: (a) Model A, the “do little” model beyond a front-end load response and investigate for one month; (b) Model B, an option for the respondent to outline their own model; and (c) Model C, maintain the current Calgary Police Service model. There was group consensus on the fourth “gold standard” model, Model D, consisting of the following core processes and procedures: (a) strict adherence to a set of business rules in relation to procedures for team commanders, primary investigators, file manager, affiant, homicide investigators, as well as operational procedures for briefings, neighbourhood inquiries, witness statements, analyst court documents, reports to crown counsel, notes and electronic file management; (b) evidence-led investigations; (c) technological support; (d) candidate selection and training structure; and (e) adherence to the Major Case Management Model.

Business Rules: although Model D from Survey III suggested strict adherence to homicide unit business rules, the model for best practices identified by the subject matter experts would be rolled out in a unit’s business rules with some flexibility. Respondents agreed it is imperative to adhere to the unit’s business rules, however they acknowledged there needs to be consideration for certain homicide investigations, and as such, the business rules would be followed by all investigators and monitored by supervisors. Exceptions could be made with supervisor approval to allow for adaptability to each investigation. It was important for the subject matter experts to incorporate flexibility into the model of best practices; they were reluctant for too rigid of a structure that would inhibit rather than promote efficiency.

The best practices would include business rules for the following: (a) team commanders; (b) primary investigator; (c) file manager; (d) affiant; (e) homicide

investigators; and (f) operational procedures such as briefings, neighbourhood canvasses, witness statements, analyst court documents, report to crown council, notes, electronic file management including naming conventions, investigative task assignment, investigative chronology, protocol for holdback information, handling of exhibits by crime scene investigators, handling of sensitive information, electronic communication, officer-involved deaths, and case review protocols. The details of these business rules were not elaborated on in this survey, however there are excellent examples of such business rules by the RCMP Integrated Homicide Investigative Team operating in the province of British Columbia, Canada as an assist to local partner police agencies. In survey I, participant H provided the Integrated Homicide Investigative Team business rules as well as a draft business rules document created by members of the Calgary Police Service Homicide Unit in 2011. These rules were provided by one of the participants (participant H) as a guideline for what could be adapted for Calgary Police Service. No formal business rules exist for the Calgary Police Service Homicide Unit, however the drafted business rules below are an accurate reflection of Calgary Police Service Homicide Unit processes and procedures.

Team Commander will have the required skills and knowledge to provide oversight and understanding of the investigations under their control (Calgary Police Service, 2011, p. 7; Roff, 2012, p. 10). Team commanders will provide investigative as well as administrative oversight for their team of investigators (Calgary Police Service Business Rules, 2011, p. 7) including quality assurance oversight, compliance with all business rules, evaluation and assessment of current state of the investigation, and enlistment of appropriate resources (Roff, 2012, p. 10).

Primary Investigator will control the direction, speed and flow of the investigation, develop operational strategies, assign tasks and responsibilities, ensure effective communications through clear and concise instructions to other investigators and frequent briefings, identify resource needs, have a strong understanding of the investigation, maintain the integrity of the investigation and report directly to the team commander (Calgary Police Service, 2011, p. 14; Roff, 2012, p. 24). Maintaining ongoing communication with the crown prosecutor (Calgary Police Service, 2011, p. 15) is an important responsibility to obtain charge approval and ensure a successful prosecution. The primary investigator must direct the investigation based on evidence and understand the quality of that evidence, avoiding “tunnel vision” at all times. The timing of operational strategies (speed) and how they are executed and by whom (flow) is the responsibility of the primary investigator and can have profound impact on the investigation’s success.

File Manager is responsible for file integrity and quality assurance, electronic management of all investigative material including written and electronic material, maintenance of an accurate recording of investigative events, completion of briefing minutes and task logs, compliance with business rules, contact with the crown prosecutor for disclosure requirements, maintenance of an ongoing electronic case file that is searchable in

preparation of providing disclosure at time of file conclusion rather than several months afterwards (Calgary Police Service, 2011, pp. 15–16; Roff, 2012, pp. 26–27).

Affiant is responsible for ongoing communication with the primary investigator, file coordinator and sometimes crown prosecutor; gathering and organising all information for composition of an investigative chronology to be used as the base for any warrants contemplated by the investigative team and ensuring the veracity of the information through maintaining a source file and authenticating the information where required (Calgary Police Service, 2011, p. 17).

Homicide Investigators investigate assigned tasks, adhere to business rules and vet all reports, data and personal notes (Calgary Police Service, 2011, p. 22; Roff, 2012, p. 29). They also maintain an up-to-date statement of activity for the investigative chronology and ultimately court disclosure (Calgary Police Service, 2011, p. 22).

Operational Procedures such as briefings, neighbourhood canvasses, witness statements, analyst court documents, report to crown council, notes, electronic file management including naming conventions, investigative task assignment, investigative chronology, protocol for holdback information, exhibits/scene investigators, handling of sensitive information, electronic communication, officer involved deaths, and case review protocols provide a template of required forms—the business rules—to use and procedures to follow for the various investigative techniques in order to maintain quality and consistency among all investigators. For example, a set of rules should be posted on the door of the homicide operations room so all members entering briefings are clear on briefing procedures and etiquette to ensure control and flow of the briefings, especially in the first 24 hours when first-responders and other outside investigators are assisting the homicide team. Form templates should be used for consistency and to assist with file management, so that the file coordinator does not have to spend hours reformatting documents for disclosure. An example of this would be the use of one witness interview summary document by all investigators, one neighbourhood canvass form and a standardised naming convention system for all electronic files.

As was noted in the literature review, Carter and Carter (2016) acknowledged that effectiveness of investigative techniques might vary depending on the application of the techniques (p. 151), adding weight to respondent H's perspective that business rules are a necessary component of homicide investigative efficacy. The business rules are the "procedures" and outline step-by-step how to carry out each activity within a process (Boutros & Purdie, 2014, p. 26). The application of investigative techniques can be improved through processes and procedures such as business rules, which provide consistency and direction for all homicide investigators potentially increasing the success of homicide solution (Carter & Carter, 2016, p. 151). A limitation of these findings is the understanding that this study canvassed a small group of subject matter experts who examined best practices for the Calgary Police Service Homicide Unit. Perhaps a different panel of experts would

have come to different conclusions. For example, a panel of strictly homicide investigators versus homicide managers or crown prosecutors may have suggested different perspectives on best practices for homicide investigations. This study used a panel of experts purposely selected for their expertise in managing, investigating and prosecuting as well as one academic to broaden the perspective of the panel in hopes of reaching a consensus that better represents all the stakeholders involved in homicide investigations.

It would seem common sense to have a model of best practices for a homicide unit to improve effectiveness in achieving increased rates of homicide clearance without jeopardising the integrity of the investigation. However, the determination of what best practice entails should be based on research, including this study. By using research as the guiding principles for changes in policy, process, and procedure within a police organisation, decisions will be made based on evidence not on a political or social agenda.

Evidence Led Investigation and Technology Support: Rather than intuition or common knowledge, the investigations would be led by evidence, emphasising the importance of the initial response, checklists assisting detectives, focus on business rules and reliance on physical evidence to further the homicide investigation. This model would include a team of investigators supported by dedicated resources to assist with cell phone analysis and mapping, video collection and review, with the built-in flexibility to identify and increase the support given the workload for specialty units such as cybercrimes², technological crimes³, gang enforcement team⁴, gang suppression team⁵, electronic surveillance unit⁶, child abuse investigators, as well as designated surveillance⁷, undercover⁸ and crimes scenes officers⁹.

In reference to contingency theory, the results presented in this thesis indicate there are changes required by the Calgary Police Service to the homicide unit's processes and procedures to increase its effectiveness in homicide solution. There is a need for more formal training and case review due to the technical nature of the investigations and the criminal law itself. Dedicated investigators for closed circuit television collection and review as well as additional analysts for cell phone records review and analysis were identified by the subject matter experts as required changes to Calgary Police Service processes and procedures to increase homicide investigation effectiveness. Fifteen years ago, these were not important

² *Cyber Crimes Unit* is a team of investigators specially trained to provide online Internet investigative support, covert operations and intelligence support.

³ *Technological Crimes Team* provides computer and mobile device forensics.

⁴ *Gang Enforcement Team* investigates gang-related crime and gang-related targets of interest unilaterally and in conjunction with other Calgary Police Service units and sections.

⁵ *Gang Suppression Team* provides a uniformed police presence in an effort to deter violent and criminal behavior in and around licensed premises.

⁶ Electronic Surveillance unit assists with the installation and monitoring of covert interception technologies.

⁷ Strike Force Unit provides specialized surveillance and counter surveillance expertise to all areas of Calgary Police Service.

⁸ *Priority Crimes Unit* conducts major covert operations designated by the Target Selection Committee.

⁹ *Forensic Crimes Scene Unit* provides expert technical assistance to locate and process physical trace evidence to link person(s) to a place or object.

factors in a homicide investigation however today's reality of closed circuit television technology utilised by a large number of businesses and homeowners as well as the reliance on personal cell phones has exponentially increased the need for these investigative techniques.

The changes in law invoked by the *Charter* and the evolution of new case law has greatly impacted the processes and procedures of criminal investigations, moving Canada from a "crime control" model to a "due process" model (Morton, 1987, as cited in Trussler et al., 2016, p. 3). The shift to "due process" has had a considerable impact on procedural aspects of homicide investigations. The subject matter experts of this study recognised the need for formal training and case review to increase investigator knowledge of the law and to ensure proper criminal law procedures are being adhered to so that the effectiveness of the Calgary Police Service Homicide Unit is increased.

According to Trussler et al. (2016), "There is a need for professionalism, absence of procedural errors, and an understanding of the nuances of the Supreme Court rulings" (p. 13). Homicide investigations are particularly vulnerable to these constant changes in judicial decisions, legislative changes and policy initiatives as they are procedurally complex and the stakes are high. Any consideration for best practice models for homicide investigations must include the evolving post-*Charter* decisions as a foundation to build on, with consideration that this is a fluid platform that police organisations must continue to adapt to achieve homicide solution and maintain integrity of the investigation to achieve convictions in court.

Cronin et al. (2007) recognised the impact of organisational factors on a police agency's homicide clearance rate. Although the factors they discussed are different than the organisational factors identified in this study, the concept of an agency's internal technologies impacting their output—homicide solution—is similar.

Candidate Selection Process and Training Structure: The subject matter experts in this study agreed the current Calgary Police Service process was acceptable and provided additional recommendations. The Calgary Police Service Major Crimes Selection process includes review of the investigators' prior work history, professional training, police-related training, level of education, and a letter of interest. Each applicant is assigned points for these components, with the successful candidate achieving the highest points. The subject matter experts recommended the candidate selection processes also include the following: (a) homicide managers selecting new investigators versus entry via competition; (b) candidate consideration should include committed, qualified and well-rounded investigators; (c) level of education is not a requirement, however police-related courses should be considered for candidates; (d) as part of selection process, include a peer review for new candidates; and (e) when homicide managers select new investigators, their primary requirement should be investigative competency with best fit for the team as a secondary requirement.

In relation to suggested training structure, there would exist formal and informal training including mentorship for new homicide investigators. As part of the formal training, new investigators would be provided an information package of guidelines, relevant case law and general homicide information such as what a crime scene can tell you, and important evidence to be gathered from the body. This information package would also include investigative steps to consider, phone numbers of important contacts with outside agencies (e.g., Alberta Health Services release of information), as well as copies of the forms required for information needed in the early stages of a homicide investigation (e.g., obtaining 911 calls, forms for request of Emergency Medical Services statements).

A limitation of this study, was the narrow feedback by the subject matter experts on training requirements. Instead they focused more on the selection process of new homicide detectives. Despite this unexpected outcome, there was consensus among the respondents that there should be a formalised training program for detectives entering the homicide unit, assignment of a mentor for six months and specific training provided in: (a) death investigation; (b) crime scene investigation; (c) interviewing and interrogation; (d) officer involved shootings; and (e) in-custody death training. This is consistent with the literature whereby Carter (2013) emphasised that homicide investigators should have a solid foundation in basic investigative skills as well as report writing and described in detail training requirements of homicide investigators to include: (a) death investigation; (b) interviewing and interrogation; (c) information resources; and (d) DNA identification and collection (p. 27).

All eight respondents recognised investigators entering the homicide unit should possess strong investigative skills and good report writing. Carter and Carter (2016) described training requirements to include minimum three years patrol and two years detective experience followed by three months mentorship by a senior homicide investigator and training in death investigation, homicide crime scene investigation and interviewing and interrogation once in the unit (p. 161). The lack of input by the subject matter experts in relation to training requirements may be more related to sufficient descriptions provided by the literature and the paucity of information in relation to best practices in investigator selection processes.

Major Case Management Model: As part of this homicide investigation model, there would be adherence to the Major Case Management Model (team commander, primary investigator, file manager and affiant) with front-end loading to ensure as much evidence and witness information is gathered as soon as possible. The Royal Canadian Mounted Police has a formal Major Case Management Model, which Calgary Police Service uses as a guideline for conducting homicide investigations. Similar methods are described in literature from U.S. researchers. Akin to the Canadian Major Case Management, the essential features include the following: (a) careful planning and preparation; (b) defined roles and responsibilities; (c) managing information effectively; and (d) maintaining effective communication (McDevitt,

2005, p. 10). In the Calgary Police Service Major Case Management Model, there is a team supervisor, a primary investigator, file manager and a designated affiant. Traditionally a crown prosecutor is assigned the file early in the investigation and offers support and legal guidance as the investigation progresses. The team supervisor, similar to the major case manager as described by McDevitt (2005), is responsible for making all final major operational decisions and has authority over the entire investigative team (p. 69). In Calgary, the team supervisor supports the investigative team with the necessary resources, updates the chain of command and speaks to the media on behalf of the primary investigator. Tasking, investigative strategies, briefings, overall control of the direction, speed and flow of the investigation and ongoing communication with the assigned crown prosecutor are responsibilities of the primary investigator. Carter and Carter (2016) describe the role of the primary investigator as follows:

The lead investigator typically has a number of responsibilities on a case that other investigators do not. These include managing the information flow and the case file, briefing supervisors and commanders on the status of cases, meetings with the District Attorney's office on the investigation, meetings with the medical examiner, meetings with the forensic analysts, as well as a wide array of other case management responsibilities (p. 160).

The file manager/lead coordinator as referred to by McDevitt (2005) must receive, organise, track and review all investigative leads in a systematic way to be able to manage them for prosecution and effectively communicate the information to the primary investigator (p. 71). In the Calgary Police Service, the electronic organisation of all investigative material must be maintained by the file manager on a daily basis and be formatted in a manner to assist the crown prosecution in understanding the investigation in all of its detail. In McDevitt's (2005) description of Major Case Management, he does not explain the role of affiant; however, it could be viewed as an essential role in the Major Case Management Model, worthy of detailing. The affiant is assigned to draft and make application for all court orders, which typically in a homicide investigation can be numerous.

The final question of the survey asked participants to state whether they thought this proposed model for homicide investigations would be the most effective method of investigation to increase clearance rates without jeopardizing the integrity of the investigation. There was consensus (n=8) that this model is the solution to the research question. The underlying theme of this study was improved investigative efficiency increases the legitimacy and credibility of a police agency, and boosts community cooperation and support. This creates a "snowball" effect, where increased witness and community support solve more homicide investigations, thus increasing public confidence and removing some of the obstacles associated to homicide investigations and policing in general. This micro-level approach produced results suited for Calgary Police Service specifically; however, it could be argued that the principles and best practices identified in this study are applicable to agencies across many jurisdictions in Canada and abroad. This study adds Canadian police

perspective to the existing research, providing context and new insight into best practices for homicide investigations from subject matter experts.

CONCLUSION

Summary of Study

The aim of this study was successfully achieved. By using the Delphi technique to canvass eight subject matter experts, this study presented insightful recommendations for increasing the effectiveness of homicide investigations through changes to the Calgary Police Service Homicide Unit's processes and procedures¹⁰. These recommendations are in response to the changing nature of homicides and are consistent with the theoretical framework of this thesis. Contingency theory equates an organisation's ability to remain effective by its achievement in detecting and adapting to shifts in their environment (Maguire et al., 2010, p. 394). For criminal justice organisations to achieve effective crime prevention, managers must use evidence to guide the creation of policy and continued policy developments (Ministry of Justice, 2012, p. 8). The recommendations made by the subject matter experts in this study were consistent with the literature and added insight not discussed in previous research studies. This insight could possibly contribute to the creation of research informed processes and procedures for best practices of homicide investigations, assisting law enforcement agencies in improving homicide solution efficiency through adaptation of their changing criminal justice environment.

Key Research Findings

Through the Delphi method, the aim of the study was to reach a consensus by the panel of experts as to the best method of homicide investigation as it pertains to volume of homicide clearance (effectiveness) and the integrity of the investigation (quality). The primary research findings are categorised into three key themes: (a) collection and analysis of "passive source" data such as cell phone records and closed circuit television surveillance; (b) formal case review; and (c) investigator training.

The subject matter experts' recognition of the increased use of personal cell phones and presence of closed circuit television surveillance is important. This evidence has impacted homicide investigations tremendously in the amount of time required to obtain, review and analyse the data, resulting in an increased need for the assignment of investigators specialised in these techniques to the homicide unit. Their recommendations for best practices in cell phone analysis and closed circuit television collection and review add insight to the existing research and context to the application of contingency theory. The subject matter experts also identified the merit of formal case review and training for investigators, which was consistent with the literature. These findings suggest several courses of action for the Calgary Police Service Homicide Unit, as well as other police agencies.

¹⁰ The study acknowledges the small sample size and recognises it limits the generalisability of the findings, introducing the possibility of unidentified biases.

Implications and Limitations of Research

Existing homicide clearance research is deficient in explaining police processes and procedure factors that enhance the effectiveness of homicide investigations. This study utilised a small sample size, and recognises its limits and generalisability of the findings, introducing the possibility of unidentified bias. However, as mentioned in the methodology section, given the heterogeneous population of this study, consisting of criminal justice professionals including homicide managers, homicide investigators, a crown prosecutor, and an academic, the sample size falls within acceptable limits of five to ten respondents for a heterogeneous population (Clayton, 1997, & Martino, 1972, as cited in Loo, 2002, p. 765). Police forces of similar size and municipalities may benefit from considering the best practices identified in this study's findings, however there is limited generalizability for smaller municipal agencies and rural detachments where access to resources and personnel vary significantly. This study focused on one police agency and is the first of its kind in Canada. The subject matter experts in this study were in agreement with many of the processes and procedures highlighted in the research from the U.S., U.K., and Australia.

The methods of policing, and homicide investigation in particular, are not that different from country to country—it is the application of these processes, and the procedures of each agency that impacts their effectiveness. Although specific procedures vary among jurisdictions, often the processes involved with homicide investigations are similar. "...Investigation work is similar in police agencies in most nations" (Hawk & Dabney, 2014, p. 1144). Homicide investigations in the U.S., U.K., Australia and Canada require the processes of evidence collection, witness interviews and management, suspect identification, arrest and interview. Homicide investigations in general comprise of three distinct phases: (a) instigation and initial response; (b) the investigation; and (c) case management (ACPO, 2006, p. 33). As such, the best practices model of homicide investigations identified in this study may be applicable across most jurisdictions. An important limitation is that there was little agreement on procedures for formal case review within the Calgary Police Service Homicide Unit. Further work needs to be done to identify best practices for formal homicide case reviews including the timing of the reviews and by whom.

Suggested Future Research

The findings of this study have a number of important implications for practice. Firstly, this research revealed the need for further exploration into police perspectives and procedures to better understand homicide investigations and ultimately to contribute to research in homicide clearance and assist law enforcement agencies' efficiency in solving homicides. Identification of factors that affect homicide solution increases the efficiency of homicide investigations, and ultimately the clearance of homicide cases. Adding insight and context to the organisational methodologies encourages exploration of investigative processes, procedures and best practices.

The second implication is the enhanced understanding of the pressures of evolving policing environments that impact effective homicide solution. Best practices are dynamic and must be re-evaluated on a regular basis for a police organisation to stay current with its changing environment, as emphasised by contingency theory. New insight into the investigative actions of homicide detectives would increase understanding of how these techniques impact homicide clearance, ultimately improving investigative effectiveness (Puckett & Lundman, 2003, p. 188). There is limited U.S. and Canadian research into the field of homicide clearance and no Canadian studies besides this study, which examines homicide investigative processes and procedures. A study similar to this study, utilising a far greater sample size would likely contribute to the existing literature and assist law enforcement agencies in the development of processes and procedures of best practices of homicide investigations.

Lastly, the results of this research contribute to better understanding for criminologists and other stakeholders of the complexity of homicide investigative processes and procedures and homicide clearance. The results may be applied to police agencies across countries such as Canada, U.S., U.K., and Australia.

In conclusion, research into Calgary Police Service homicide investigation processes and procedures could lead to an increase in case clearance: "...clearance rates could be increased if law enforcement agencies improved investigation policies and procedures... given the right initial response, the right timing, and the right dedication of resources, there are few homicide cases that can't be solved" (Wellford et al., 1999, p. 4). Through the systematic analysis of the processes and standard operating procedures of the Calgary Police Service, this research study will help bridge the gap between academic literature and field experience in identifying the most effective method of homicide investigation.

REFERENCES

- Alberta Government. (n.d.). *Salary and severance disclosure*. Retrieved from <https://www.alberta.ca/salary-disclosure.aspx>
- Alberta Justice and Solicitor General. (2013). *Law enforcement review board mandate and roles document*. Retrieved from http://www.solgps.alberta.ca/boards_commissions/law_enforcement_review_board/Publications/Alberta%20Law%20Enforcement%20Review%20Board%20-%20Mandate%20and%20Roles.pdf
- Alberta Justice and Solicitor General. (n.d.). *Office of the chief medical examiner*. Retrieved from http://justice.alberta.ca/programs_services/fatality/ocme/Pages/default.aspx
- Arcaro, G. (2009). *Criminal investigation: Forming reasonable grounds* (5th ed.). Toronto, Canada: Emond Montgomery.
- ACPO (2006). *Murder investigation manual*. Wyboston: Association of Chief Police Officers.
- Bachman, R., & Schutt, R. (2014). *The practice of research in criminology and criminal justice* (5th ed.). Thousand Oaks, CA: Sage.
- Barkworth, J., & Murphy, K. (2015). Procedural justice policing and citizen compliance behaviour: The importance of emotion. *Psychology, Crime and Law*, 2(3), 254–273.
- Barber, K., Fitzgerald, H., Howell, T., & Pontisoo, R. (2006). *Oxford Canadian dictionary* (2nd ed.). Don Mills, Canada: Oxford University Press.
- Bennett, W., & Hess, K. (2004). *Criminal investigations* (7th ed.). Belmont, CA: Wadsworth/Thomson Learning.
- Bolger, F., & Wright, G. (2011). Improving the Delphi process: Lessons from social psychological research. *Technological Forecasting & Social Change*, 78, 1500–1513. doi 10.1016/j.techfore.2011.07.007
- Bora Laskin Law Library (n.d.). *Step 2: Primary sources of law: Canadian case law*. Retrieved from <http://library.law.utoronto.ca/step-2-primary-sources-law-canadian-case-law-0>
- Boutros, T., & Purdie, T. (2014). *The process improvement handbook: A blueprint for managing change and increasing organizational performance*. United States: McGraw-Hill Education.
- Boyce, J. (2015). *Police-reported crime statistics in Canada, 2014*. Juristat. Retrieved from www.statcan.gc.ca/pub/85-002-x/2015001/article/14211-eng.pdf
- Boyd, N. (2015). *Canadian law, an introduction* (6th ed.). Toronto, Canada: Nelson

Education.

- Brodeur, J. (2010). *The policing web*. New York, NY: Oxford University Press.
- Brookman, F. (2005). *Understanding homicide*. London, United Kingdom: Sage.
- Brookman, F., & Innes, M. (2013). The problem of success: What is a 'good' homicide investigation? *Policing and Society: An international Journal of Research and Policy*, 23(3), 292–310. doi:10.1080 /10439463.2013.771538
- Brookman, F., & Lloyd-Evans, M. (2015). A decade of homicide debriefs: What has been learnt? *The Journal of Homicide and Major Incident Investigations*, 10(1), 14–37.
- Calgary Police Service. (2017). *2017 chain of command report*. Retrieved May 25, 2017, from Calgary Police Service Secure Server.
- Calgary Police Service (2011). *Calgary Police Service Standard Operating Procedures for the Major Crimes Section – Homicide Unit*. Retrieved September 8, 2014, from Calgary Police Service Secure Server.
- Calgary Police Service. (n.d.-a). *Careers with Calgary Police Service*. Retrieved September 8, 2014, from <http://www.calgary.ca/CPS/Pages/Working-for-Calgary-Police/Careers-with-Calgary-Police.aspx>
- Calgary Police Service. (n.d.-b). *Calgary Police policy and procedures manual: Criminal investigations Ref#IN-003*. Retrieved September 8, 2014, from Calgary Police Service Secure Server.
- Calgary Police Service. (n.d.-c). *Standard operating procedures: Homicide function (draft)*. Retrieved September 8, 2014, from Calgary Police Service Secure Server.
- Campbell, C., Cater, J., & Pollard, N. (2017). *Canadian policing*. Don Mills, Canada: Oxford University Press.
- Carter, D. (2013). *Homicide process mapping: Best practices for increasing homicide clearances*. A project of the U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Assistance. *Institute for Intergovernmental Research*.
- Carter, D., & Carter, J. (2016). Effective police homicide investigations: Evidence from seven cities with high clearance rates. *Homicide Studies*, 20(2) 150–176. doi: 10.1177/1088767915576996.
- Castleman, T. (2000). *Death investigation: A handbook for police officers*. Springfield, IL: Charles C Thomas.
- Chaiken, J., Greenwood, P., & Petersilia, J. (1976). *The criminal investigation process: A summary report*. Santa Monica, CA: The Rand Corporation.
- Chan, J. (1999). Governing police practice: limits of the new accountability. *British Journal of Sociology*, 50(2), 251–270.

- Clayton, M. (1997). Delphi: a technique to harness expert opinion for critical decision-making tasks in education. *Educational Psychology, 17*(4), 373-386. doi:10.1080/0144341970170401
- Cochran, D., Gulycz, M., & Kelly, M. (2008). *Rules of evidence: A practical approach*. Toronto, Canada: Emond Montgomery.
- Cooper, T. (1974). Professionalization and unionization of police: A Delphi forecast on police values. *Journal of Criminal Justice, 2*, 19-35.
- Cronin, J., Murphy, G., Spahr, L., Toliver, J., & Weger, R. (2007). *Promoting effective homicide investigations*. Washington, DC: U.S. Department of Justice.
- Department of Justice. (2011). *Criminal Code of Canada*. Retrieved July 22, 2014 from <http://laws-lois.justice.gc.ca/PDF/C-46.pdf>
- Department of Justice (2014). *Canada's court system*. Retrieved September 8, 2014, <http://www.justice.gc.ca/eng/csj-sjc/ccs-ajc/page3.html>.
- Dormer, D. (2015). *Calgary police service releases own salaries list including officers and civilian employees*. Retrieved June 17, 2017 from <http://www.calgarysun.com/2015/06/24/Calgary-police-service-releases-own-salaries-list-including-officers-and-civilian-employees>
- Eliopoulos, L. (2003). *Death investigators handbook* (Vol. 2). Boulder, Colorado: Paladin Press.
- Edmonton Police Service (2017). *Edmonton's 2017 homicide statistics*. Retrieved August 27, 2017, from <http://www.edmontonpolice.ca/search.aspx?q=Homicide%202014>
- Ericson, R., & Haggerty, K. (1997). *Policing the risk society*. Toronto, Canada: University of Toronto Press.
- Evans, S. (2005). Law enforcement and Delphi: An exercise in strategic intelligence research. *Low Intensity Conflict & Law Enforcement, 13*(1), 70–79. doi: 10.1080/09662840500223648
- Goldsmith, A. (2010). Policing's new visibility. *British Journal Criminal, 50*, 914–934. doi: 10.1093/bjc/azq033.
- Gottschalk, P., Holgersson, S., & Karlsen, J. (2009). How knowledge organizations work: the case of detectives. *The Learning Organisation, 16*(2), 88–102. Retrieved from <http://dx.doi.org/10.1108/09696470939189>
- Government of Canada. (2014). *Justice Laws Website*. Retrieved from <http://lawslois.justice.gc.ca/eng/acts//C-46/section-232.html>
- Gravelle, J., & Rogers, C. (2014). *Researching the police in the 21st century: International*

- lessons in the field*. Safron House, United Kingdom: Palgrave Macmillan. doi: 10.1057/9781137357489
- Greenwood, P. (1979). *The Rand criminal investigation study: Its findings and impacts to date*. Santa Monica, CA: The Rand Corporation.
- Greenwood, P., Chaiken, J., Petersilia, J., & Prusoff, L. (1975). *The criminal investigation process volume III: Observations and analysis*. Santa Monica, CA: The Rand Corporation.
- Greenwood, P. & Petersilia, J. (1975). *The criminal investigation process volume I: Summary and policy implications*. Santa Monica, CA: The Rand Corporation.
- Griffiths, C. (2016). *Canadian police work* (4th ed.). Toronto, Canada: Nelson Education.
- Halloran, P. (n.d.). The Police Perspective: The changing face of homicide. Retrieved from http://aic.gov.au/media_library/publications/proceedings/17/halloran_et_al.pdf
- Hasson, F., Keeney, S., & McKenna, H. (2000). Research guidelines for the Delphi survey technique. *Journal of Advanced Nursing*, 32(4), 1008-1015.
- Hawk, S., & Dabney, D. (2014). Are all cases treated equal? Using Goffman's frame analysis to understand how homicide detectives orient their work. *The British Journal of Criminology*, 54, 1129–1147. doi: 10.1093/bjc/azu056
- Heitner, K., Krahn, A., & Sherman, K. (2013). Building Consensus on defining success of diversity work in organisations. *Consulting Psychology Journal: Practice and Research*, 65(1), 58–73. doi: 1037/a0032593
- Higgins, M. (2016). Best practices in law enforcement officer critical incident stress management (CISM) training: A Delphi study. Dissertation of Doctor of Philosophy. School of Organisational Leadership. University of the Rockies.
- Hogwood, B., & Gunn, L. (1984). *Policy analysis for the real world*. Oxford, NY: Oxford University Press.
- Holland, W. (2005). *Murder related issues: An analysis of the law in Canada*. Retrieved from http://lawcommission.justice.gov.uk/docs/Murder_comparative_studies.pdf
- Holmgren, J. (2016). *Interviewing and interrogation: A Canadian critical and practical perspective*. Toronto, Canada: Nelson Education.
- Horvath, F., Meesig, R., & Lee, Y. (2001). *A national survey of police policies and practices regarding the criminal investigation process: Twenty-five years after Rand*. U.S. Department of Justice. Retrieved from <https://www.ncjrs.gov/pdffiles1/nij/grants/202902.pdf>
- Hsu, C., & Sandford, B. (2007). The Delphi technique: Making sense of consensus. *Practical Assessment, Research and Evaluation*, 12(10), 1-8. Retrieved from

<http://pareonline.net/pdf/v12n10.pdf>

- Innes, M., & Brookman, F. (2013). Helping police with their enquiries: International perspectives on homicide investigation. *Journal of Policing and Society*, 23(3), 285–291. Retrieved from <http://dx.doi.org/10.1080/10439463.2013.771542>
- Innes, M. (2002). The ‘Process Structures’ of police homicide investigations. *The British Journal of Criminology*, 42(4), 669–688. Retrieved from <http://doi-org.ezproxy.csu.edu.au/10.1093/bjc/42.4.669>
- Jarvis, J., & Regoezi, W. (2009). Homicides clearances: An analysis of arrest versus exceptional outcomes. *Homicide Studies*, 13(2), 174–188. doi: 10.1177/1088767909331694
- Keel, T. (2008). Homicide investigations: Identifying best practice. *FBI Law Enforcement Bulletin*, 77(2), 1–9. Retrieved from web.b.ebscohost.com.ezproxy.csu.edu.au
- Keel, T. (2012). Detecting clues in homicide management: A homicide best practices research project. *Federal Bureau of Investigation: National Center for the Analysis of Violent Crime*. Quantico, VA: Federal Bureau of Investigations.
- Keel, T., Jarvis, J., & Muirhead, Y. (2009). An exploratory analysis of factors affecting homicide investigations: Examining the dynamics of murder clearance rates. *Homicide Studies*, 13 (1), 50–68. doi: 10.1177/1088767908326903
- Kirby, S. (2013). *Effective policing: Implementation in theory and practice*. London, United Kingdom: Palgrave Macmillan.
- Klinger, D. (1997). Negotiating order in patrol work: An ecological theory of police response to deviance. *Criminology*, 35 (2), 277-306. Retrieved from <https://onlinelibrary-wiley-com.ezproxy.csu.edu.au/doi/epdf/10.1111/j.1745-9125.1997.tb00877.x>
- Kramp, D. (2014). *Report of the standing committee on public safety and national security*. 41st Parliament, Second Session. Retrieved from <http://www.parl.gc.ca>
- Liederbach, J., Fritsch, E., & Womack, C. (2011). Detective workload and opportunities for increased productivity in criminal investigations. *Police Practice and Research: An International Journal*, 12(1), 50–65. doi: 10.1080/15614263.2010.497379
- Litwin, K. (2004). A multilevel multivariate analysis of factors affecting homicide clearances. *Journal of Research in Crime and Delinquency*, 41, 327–351. doi: 10.1177/0022427803260269
- Live in Calgary. (n.d.). *Calgary's economy*. Retrieved September 8, 2014 from <http://liveincalgary.com/overview/economy>

- Loo, R. (2002). The Delphi method: A powerful tool for strategic management. *Policing: An International Journal of Police Strategies & Management*, 25(4), 762–769. Retrieved from <http://dx.doi.org/10.1108/13639510210450677>
- Loyens, K., Maesschalck, J., & Bouckaert, G. (2011). Delphi in criminal justice policy: A case study on judgemental forecasting. *The Qualitative Report*, 16 (96), 1477–1495.
- Maguire, E., King, W., Johnson, D., & Katz, C. (2010). Why homicide clearance rates decrease: Evidence from the Caribbean. *Policing and Society: An international Journal of Research and Policy*, 20 (4), 373–400. doi: 10.1080/10439463.2010.507869
- Malm, A., Pollard, N., Brantingham, P., Tinsley, P., Plecas, D., Brantingham, P., Cohen, I., & Kinney, B. (2005). *A 30 Year Analysis of Police Service Delivery and Costing*. Department of Criminology and Criminal Justice, University College of the Fraser Valley. Abbotsford, Canada: International Centre for Urban Research Studies (ICURS).
- Mancik, A. (2015). *Community context and homicide clearance rates: Estimating the effects of collective efficacy*. Dissertation of Master of Arts. Department of Criminology. University of Delaware.
- Marché, G. (1994). Production of homicide solution: An empirical analysis. *American Journal of Economics and Sociology*, 53 (4), 385–401. Retrieved from <http://web.a.ebscohost.com.exproxy.csu.edu.au>
- Marin, A. (1995). *The guide to investigations and prosecutions: A critical analysis of the modern legal obligations imposed on the investigators and prosecutors*. Aurora, Canada: Canada Law Book.
- McDevitt, D. (2005). *Major case management: A guide for law enforcement managers*. Springfield, IL: Charles C Thomas.
- McEwen, T., & Regoezi, W. (2015). Forensic evidence in homicide investigations and prosecutions. *Journal of Forensic Sciences*, 60 (5), 1188 – 1198. doi:10.1111/1556-4029.12787.
- Miladinovic, Z., & Mulligan, L. (2015). *Homicide in Canada, 2014* (No. 85-002-X). Retrieved from <http://www.statcan.gc.ca/pub/85-002-x/2015001/article/14244-eng.pdf>
- Ministry of Justice (2012). *Comparing international criminal justice systems*. Retrieved from http://www.nao.org.uk/wpcontent/uploads/2012/03/NAO_Briefing_Comparing_International_Criminal_Justice.pdf
- Mouzos, J., & Muller, D. (2001). Solvability factors of homicide in Australia: An exploratory

- analysis. *Australian Institute of Criminology Trends and Issues in Crime and Criminal Justice*, 216, 1–6. Retrieved from <http://web.a.ebscohost.com.ezproxy.csu.edu.au>
- Noble, J., & Alpert, G. (2012). Evaluating the quality of law enforcement investigations: Standards for differentiating the excellent, good and reasonable from the unacceptable. *Journal of California Law Enforcement*, 46(1), 18–25.
- Office of Investigative Standards and Practices (2012). *Major case management guide, RCMP*. Retrieved September 8, 2014, from Calgary Police Service Secure Server.
- Osterburg, J., & Ward, R. (2014). *Criminal investigation: a method for reconstructing the past*, (7th Ed.). Waltham, MA: Elsevier.
- Pare, P., Felson, R., & Ouimet, M. (2007). Community variation in crime clearance: A multilevel analysis with comments on assessing police performance. *Journal of Quantitative Criminology*, (23), 243–258. Doi: 10.1007/s10940-007-9028-0.
- Peterson, J., Hickman, M., Strom, K., & Johnson, D. (2013). Effect of Forensic Evidence on Criminal Justice Case Processing. *Journal of Forensic Sciences*, 58 (S1), S78-S90. doi: 10.1111/1556-4029.12020.
- Prunckun, H. (2015). *Scientific Methods of Inquiry for Intelligence Analysis, Second Edition*. London, United Kingdom: Rowman & Littlefield.
- Puckett, J., & Lundman, R. (2003). Factors affecting homicide clearances: Multivariate analysis of a more conceptual framework. *Journal of Research in Crime and Delinquency*. 40 (2), 171–193. doi: 10.1177/0022427803251125
- Regoeczi, W., Kennedy, L., & Silverman, R. (2000). Uncleared homicides: A Canada/United States comparison. *Homicide Studies*, 4(2), 135–161. Retrieved from <http://hsx.sagepub.com/content/4/2/135>. Doi: 10.1177/1088767900004002002
- Reasons, C., Francis, T., & Kim, D. (2010). The ideology of homicide detectives: A cross-national study. *Homicide Studies*, 14(4), 436–452. doi: 10.1177/1088767910381864
- Riedel, M. (2008). Homicide arrest clearances: A review of the literature. *Sociology Compass* 2(4), 1145–1164. doi: 10.1177/088740349900900302
- Riedel, M., & Jarvis, J. (1999). The decline of arrest clearances for criminal homicide: Causes, correlates and third parties. *Criminal Justice Policy Review*, 9(3), 279–306.
- Roberts, A. (2015). Adjusting rates of homicide clearance by arrest for investigation difficulty: Modelling incident and jurisdiction level obstacles. *Homicide Studies*, 19(3), 273–300. doi: 10.1177/1088767914536984
- Roff, M. (2012). Integrated Homicide Investigative Team: Business Rules. Royal Canadian Mounted Police, unpublished. Retrieved September 8, 2014, from Calgary Police Service Secure Server.

- Rossmo, D.K. (2006-a). Criminal investigative failures: Avoiding the pitfalls. *FBI Law Enforcement Bulletin*, 75(9), 1-8. Retrieved from <https://search-proquest-com.ezproxy.csu.edu.au/docview/204150797/fulltextPDF/3D9016DE544F4ACFPQ/1?accountid=10344>.
- Rossmo, D. K. (2006-b). Criminal investigative failures: Avoiding the Pitfalls (Part Two). *FBI Law Enforcement Bulletin*, 75 (10), 12-19. Retrieved from <https://search-proquest-com.ezproxy.csu.edu.au/docview/204142723/fulltextPDF/AE2B0C7C1450454APQ/1?accountid=10344>.
- R. v. Jordan (2016). S.C.C. (27). Case Information: 36068. Retrieved from <https://scc-csc.lexum.com/scc-csc/scc-csc/en/item/16057/index.do>
- Sarre, R. (2016). Ten “big bangs” in theory and practice that have made a difference to Australian policing in the last three decades. *Salus Journal*, 4(2), 1–15.
- Silverman, R., & Kennedy, L. (1997). Uncleared homicide in Canada and the United States. In Marc Riedel and John Boulahanis (Eds), *Lethal Violence: Proceedings of the 1995 meeting of the Homicide Research Working Group* (81–86). Washington, DC: Office of Justice Programs, U.S. Department of Justice.
- Statistics Canada (n.d.). Scoring Guide for the Homicide Survey: Canadian Centre for Justice Statistics. Retrieved from http://www.23statcan.gc.ca/imdb-bmdi/document/3315_D2_T1_V1-eng.pdf.
- Statistics Canada (2012-a). *Focus on Geography Series, 2011 Census*. Statistics Canada Catalogue no. 98-310-XWE2011004. Ottawa, Ontario. Analytical Products, 2011 Census. Last updated January 7, 2016. Retrieved from <http://www12.statcan.gc.ca>, August 1, 2016.
- Statistics Canada (2012-b). Publications, Juristat Definitions. Last updated November 30, 2015. Retrieved from <http://www.statcan.gc.ca/pub/85-002-x/2012001/definitions-eng.htm>, August 6, 2016.
- Statistics Canada (2013). *Homicide Survey, Research Data Centre User Manual*. Last updated October 2013. Ottawa, Canada: Central Reception, Statistics Canada.
- Stone, C., & Travis, J. (2013). Toward a new professionalism in policing. *Journal of the Institute of Justice and International Studies*. 13, 1–24. Retrieved from <http://search-proquest-com.ezproxy.csu.edu.ca/docview/1511121838/fulltextpdf>
- Stuart, D. (2010). *Charter justice in Canadian criminal law* (5th ed.). Toronto, Canada: Thomson Reuters Canada.
- Tanasichuk, C., & Wormith, S. (2012). Changing attitudes towards the criminal justice system: Results of an experimental study. *Canadian Journal of Criminology and Criminal Justice*, 54(4), 415–441. Retrieved from <https://muse-jhu-edu.exproxy.csu.edu.au/article/488647/pdf>

- Telep, C., & Weisburd, D. (2012). What is known about the effectiveness of police practices in reducing crime and disorder? *Police Quarterly*, 15(4), 331–357. doi: 10.1177/1098611112447611
- Tram, L. (2007). *Systematic development of a curriculum for library and information science education employing a Delphi technique*. Dissertation of Doctor of Philosophy. School of Information Studies. Charles Sturt University.
- Trochim, W. (2001). *The research methods knowledge base* (2nd ed.). Retrieved from <https://www.socialresearchmethods.net/kb/>
- Trussler, T. (2010). Homicide clearance in Canada: Logistic regression analysis of homicide clearance. *International Criminal Justice Review*, 20(4), 266–383.
- Trussler, T. (2011). *A fixed analysis of factors affecting changing homicide clearance in Canada, 1976 to 2006*. Unpublished article.
- Trussler, T., Witt, C., & Narayan, R. (submitted). *Homicide clearance and the Canadian Charter of Rights and Freedoms: The impact of legislative changes on homicide solvability*. Presentation at the Congress Conference, 2016, Calgary, Alberta.
- Tyler, T. (2011). Trust and legitimacy: Policing in the USA and Europe. *European Journal of Criminology*, 8(4), 254–266. doi: 10.1177/1477370811411462
- Verdun-Jones, S. (2015). *Criminal law in Canada: Cases, questions, and the Code*. Toronto, Canada: Nelson Education.
- Walker, S., & Archbold, C. (2014). *The new world of police accountability* (2nd ed.). Thousand Oaks, CA: Sage.
- Wellford, C., & Cronin, J. (2000). Clearing up homicide clearance rates. *National Institute of Justice Journal* (April 2000). Retrieved from <https://www.ncjrs.gov/pdffiles1/jr000243b.pdf>
- Wellford, C., Cronin, J., Brandl, S., Bynum, T., Eversen, T., & Galeria, S. (1999). *An analysis of variables affecting the clearance of homicides: A multistate study*. Retrieved from http://www.jrsa.org/pubs/reports/Clearance_of_Homicide.html
- Westera, N., Kebbell, M., Milne, B., & Green, T. (2014). Towards a more effective detective. *Policing and Society: An International Journal of Research and Policy*, 26(1), 1–17. doi: 10.1080/10439463.2014.912647
- Westera, N., Kebbell, M., Milne, B., & Green, T. (2016). The prospective detective: developing the effective detective of the future. *Policing and Society, An International Journal of Research and Policy*, 26(2), 197–209. doi: 10.1080/10439463.2014.942845

APPENDIX A

PARTICIPANT INFORMATION SHEET

Anatomy of Homicide Investigation: A Qualitative Evaluation of Investigative Methods

Chief Investigator
Christina Witt Msc
PhD Student, Charles Sturt University, Sydney
Faculty of Arts

Principal Supervisor
Dr. Hank Prunckun
Associate Professor of Intelligence Analysis
Australian Graduate School of Policing and Security, Charles Sturt University, Sydney

Invitation

You are invited to participate in a research study on identifying what is the most effective method of investigating homicides to increase clearance rates without jeopardising the integrity of the investigation.

The study is being conducted by Christina Witt; from the Australian Graduate School of Policing and Security, Faculty of Arts, Charles Sturt University, Sydney.

Before you decide whether or not you wish to participate in this study, it is important for you to understand why the research is being done and what it will involve. Please take the time to read the following information carefully and discuss it with others if you wish.

Purpose of Study

The aim of the study is to identify best practices of homicide investigations through the evaluation of Calgary Police Service homicide processes and procedures. The purpose of evaluating processes and procedures is to determine if their outcomes have achieved the policy objectives. In relation to homicide investigations, the processes and procedures are evaluated to determine if it has allowed for a high rate of homicide clearance.

To relate a homicide unit to a business, it's important for all businesses to adapt to their changing environments in order to remain effective. In this study, the raw materials of the homicide unit are the actual homicide cases. The homicide unit's processes and procedures (internal processes) impact the ultimate organisational output of homicide clearance. The integrity or quality of the investigation is the outcome. The following is a comparison to apply this theoretical framework:

Model 1 – Small business owner of a Spa:

Raw Material – Services provided by the spa;

Internal Processes – the staff's level of customer service, and quality of services rendered;

Output – client pays for spa service, and the spa generates a profit;

Outcome –return clientele, and recommendations to others.

Model 2 – Police Homicide Unit:

Raw Material – occurrence of homicide;

Internal Processes – the method by which the homicide unit conducts the investigation, amount of manpower and financial resources allocated to the case, and how those resources are managed;

Output – solution of the homicide, offender arrested and charged for murder;

Outcome – victim family satisfied, citizens feel safer and confident in their law enforcement agencies abilities, successful prosecution in court.

A sample of seven subject matter experts in homicide management will be asked to complete three rounds of surveys, evaluating the existing Calgary Police Service processes and procedures. The purpose of three rounds of surveys is to come to a consensus (or as close as possible) among the experts as to the best practices for homicide investigations through the lens of promoting effectiveness and integrity of the investigation.

The study will test four competing hypotheses that describe the various models of homicide investigation. These models include what could be considered the “gold standard” with unlimited resources, the “silver standard” consisting of best use of human and material resources, the “bronze standard” where there is room for improvement and likely the model most reflective of current practices, and finally, the “do nothing” model.

The proposed study will bridge the gap between the existing research in other countries and Canada. The evaluation of Calgary Police Service’s homicide processes and procedures from the perspective of subject matter experts will add insight into homicide clearance research in general. Finally, the contribution of knowledge and understanding pertaining to effective homicide methods will be valuable to Calgary Police Service managers and the executive.

Participant Invitation

Homicide managers with the Calgary Police Service and Alberta Justice, Crown Prosecutors Office and a Scholar from the University of Warsaw, Poland, have been invited to participate, based on their subject matter expertise in the field of homicide investigations.

Study Involvement

If you agree to participate, you will be asked to complete three rounds of electronic surveys each taking approximately 30 – 45 minutes to complete. These surveys will be conducted once every six weeks with a completion deadline of two weeks. The surveys will be provided in the following time line:

Survey One

Start date: Monday August 3, 2015

Completion date: Friday August 14, 2015

Survey Two

Start date: Tuesday October 6, 2015

Completion date: Saturday October 31, 2015

Survey Three

Start date: Tuesday December 15, 2015

Completion date: Wednesday December 23, 2015

The purpose of three rounds of surveys with the same participants is to reach as close to a consensus as possible, to the best methods of homicide investigation.

Risks / Benefits to Participation

There will be no risk to you participating in this study. You will benefit from participating in this study as it provides you an opportunity to have direct input into the best practices of homicide investigations.

Study Funding

The research is not funded by an external organization, only the researcher and Charles Sturt University will have input in the research results.

Study Costs to Participants

There will be neither costs to the participants nor payments.

Participation is a Personal Choice

Participation in this research is entirely your choice. Only those people who give their informed consent will be included in the project. Whether or not you decide to participate, is your decision and will not disadvantage you.

If you do decide to participate, you may withdraw from the project at any time without giving a reason.

Confidentiality of Participant

Any information collected by the researcher which might identify you will be stored securely and only accessed by the researcher unless you consent otherwise, except as required by law. Confidentiality will be ensured as the participant names, will be replaced with codes (re-identified). The researcher who will store the codes in a secure safe will be the only person to know participant names.

Data will be retained for seven years by the researcher.

Dissemination of Information

Data will be in a thesis to be submitted for Ms Christina Witt's doctoral degree as well as in papers in scientific journals. Individual participants will not be identified in any reports arising from the project. The researcher will provide a copy of Ms Witt's thesis upon request by participant.

Participant Concerns or Questions

If you would like further information please contact project supervisor, Dr. Hank Prunckun (hprunckun@csu.edu.au), or chief investigator Ms Christina Witt (403-807-3502).

Should you have concerns about the conduct of this study please contact:

Charles Sturt University's Human Research Ethics Committee who has approved this project. If you have any complaints or reservations about the ethical conduct of this project, you may contact the Committee through the Executive Officer:

The Executive Officer
Human Research Ethics Committee
Tel: (02) 6338 4628
Email: ethics@csu.edu.au

Thank you for considering this invitation. This information sheet is for you to keep.

APPENDIX B**PARTICIPANT CONSENT FORM****Anatomy of Homicide Investigation: A Qualitative Evaluation of Investigative Methods**

Chief Investigator
Christina Witt Msc
PHD Student, Charles Sturt University, Sydney
Faculty of Arts

Principal Supervisor
Dr. Hank Prunckun
Associate Professor of Intelligence Analysis
Australian Graduate School of Policing and Security, Charles Sturt University, Sydney

Participant Name: _____

Participation is a Personal Choice

Participation in this research is entirely your choice. Only those people who give their informed consent will be included in the project. Whether or not you decide to participate, is your decision and will not disadvantage you.

1. _____ (*Initial*), I understand that I am free to withdraw my participation in the research at any time, and that if I do I will not be subjected to any penalty or discriminatory treatment.
2. _____ (*Initial*), the purpose of the research has been explained to me, and I have read and understood the information sheet given to me.
3. _____ (*Initial*), the purpose of the research has been explained to me, including the (potential) risks / discomforts associated with the research and I have been given the opportunity to ask questions about the research and received satisfactory answers.
4. _____ (*Initial*), I understand that any information or personal details gathered in the course of this research about me are confidential and that neither my name nor any other identifying information will be used or published without my written permission.

Charles Sturt University's Human Research Ethics Committee has approved this study.

5. _____ (*Initial*), I understand that if I have any complaints or concerns about this research I can contact:

Executive Officer
Human Research Ethics Committee
Office of Academic Governance
Charles Sturt University
Panorama Avenue\Bathurst NSW 2795
Phone: (02) 6338 4628
Email: ethics@csu.edu.au

Signed by: _____ Date: _____ (yyyy/mm/dd)

APPENDIX C

SURVEY 1

Research Question

What is the most effective method of investigating homicides to achieve increased rates of homicide clearance without jeopardizing the integrity of the investigation?

Survey Questions

Effective Homicide Investigations

1. How do you define effectiveness in relation to homicide investigations? Please rank (1-4), 1 the highest value, 4 the lowest.

Clearance rates	_____
Total homicides investigated /year	_____
Conviction rates	_____
Other	_____

- a. Please explain why the factor you ranked highest is the best indicator of homicide investigation effectiveness and why the factor you ranked lowest is the least likely to define effectiveness in your opinion.
2. Defining success of homicide investigations for reasons other than case clearance, researchers Brookman and Innes (2013) provided three alternate definitions of success. These include; (1) procedural success which is measured based on the quality of the investigation and compliance with official guidelines, (2) community impact reduction success, which focuses on community reassurance and public confidence, and finally, (3) preventative success, which focuses on reducing the occurrence of homicides through prediction, prevention, and pre-emption (Brookman & Innes, 2013, pp. 292–293). Please rank (1-3), 1 being the highest value, 3 the lowest value for the three definitions.

Procedural success	_____
Community impact	_____
Preventative success	_____

- a. Please explain your reasoning for ranking them in this order.

Community Support of Police Agency:

3. Witness cooperation and community support can significantly assist homicide investigators in solving their cases.

Strongly Disagree _____
 Disagree _____
 Undecided _____
 Agree _____
 Strongly Agree _____

- a. If you agree, please provide detail as to how witness cooperation and community support can assist in solving homicide investigations.
- b. If you are undecided or disagree what are your thoughts on why this might be the case?
4. As a homicide unit, how do you ensure increased witness cooperation and strengthened community relations?

Calgary Police Service Homicide Processes and Procedures

5. According to draft standard operating procedures, the Calgary Police Service homicide unit will investigate all; homicides, attempted homicides where a medical doctor has determined that death is expected to occur, in-custody deaths not investigated by the Alberta Serious Incident Response Team, deaths where the cause is not apparent, accidental, sudden death involving a handgun, and discharges of Service Firearms in situations other than those authorized by policy.

- a. The homicide unit's responsibilities need to be modified to include other types of crime. Please describe the types of modifications you would suggest, specifically what types of crimes would you include.

Strongly Disagree _____
 Disagree _____
 Undecided _____
 Agree _____
 Strongly Agree _____

- b. The homicide unit's responsibilities need to be modified to reduce the types of crime investigated? Please describe the types of modifications you would suggest, specifically what types of crimes would you reduce.

Strongly Disagree _____
 Disagree _____
 Undecided _____
 Agree _____
 Strongly Agree _____

6. Calgary Police Service investigators are required to obtain Staff Sergeant approval to work overtime. If overtime is required to further the homicide investigation, approval is typically granted. The Staff Sergeants aim to balance prevention of unnecessary overtime with allowing investigators the time to support the homicide investigations.

Do you think the Calgary Police Service homicide unit overtime process facilitates effective case management?

Strongly Disagree _____
 Disagree _____
 Undecided _____
 Agree _____
 Strongly Agree _____

- a. If you agree, please articulate why you believe this contributes to effective case management?
- b. If you disagree or are undecided, please detail your thoughts on this matter and provide any suggestions you may have to improve the process.

7. Case reviews are designed to provide an objective review of the homicide investigation; (1) to examine the investigative steps taken, and (2) evidence obtained. Case reviews may provide additional investigative measures not previously considered by the primary investigator, or identify alternative murder theories.

Given this situation, should homicide managers include case reviews as part of their standard operating procedures for their homicide units?

Strongly Disagree _____
 Disagree _____
 Undecided _____

Agree _____
 Strongly Agree _____

- a. If you agree, please describe:
 - I. When this should be done (ie. the first forty-eight hours after a murder has been reported to police, after seven days, 30 days, one year, more than once, etc);
 - II. What would the case review entail?
 - III. Who should be doing the case review?
- b. If you disagree or are undecided, please provide your reasons for your position.

8. Do you there is an investigative procedure that should be incorporated or changed to increase efficiency within the Calgary Police Service homicide unit?

Strongly Disagree _____
 Disagree _____
 Undecided _____
 Agree _____
 Strongly Agree _____

- a. What would that investigative procedure be?
- b. How strongly would you recommend this change to occur on a scale of 1-5?

Not Necessary				Highly Recommend
1	2	3	4	5

9. Please consider the following categories of change and rank them by priority of importance in relation to how they might increase effectiveness. Examples have been provided for each category.

Initial Response

There are procedures we could change to enable homicide investigators to arrive at homicide crime scenes as quickly as possible (i.e., take-home cars, change in notification procedures etc).

For police agencies utilising a community based police model, initial first responder joins homicide team for first 48-72 hours to provide knowledge of area and people where murder

occurred. This also provides a learning opportunity for the patrol officer to be exposed to the inner workings of a homicide investigation.

Detective Qualifications and Training

Homicide managers can select the best detectives from other units to work in their unit.

There exists a formalised training program for detectives entering the homicide unit as well as required on-going learning in the area of homicide investigations.

Actions of the Detectives

There are 3-4 investigators assigned to the case (primary, file manager, affiant, etc).

There are standardised “best practices” for various investigative strategies in order to achieve the most effective outcome. This is based on the theory of “same practice different outcomes”. There exist many common investigative strategies that virtually every police agency utilises. For example most homicide units’ conduct some form of neighbourhood inquires however, their outcomes may be very different depending on the amount of time and effort put into them.

The use of homicide investigators making the inquiries using a standard questionnaire, clear direction provided to investigators making the inquires, and having an assigned investigator oversee the inquiries will produce a very different outcome then assigning patrol officers to go do door knocks in surrounding areas, with little direction or supervision.

Personnel Policies

There is opportunity for homicide detectives to work beyond their regular scheduled hours (overtime) to meet the needs of the investigation.

Homicide detectives are not regularly rotated out of the unit, and are allowed to stay and gain experience.

Senior homicide detectives are retained or hired back to work homicide cases in order to provide experience and knowledge to the investigative team.

Existence of a “Homicide Relief Team” of investigators from other units who have been chosen based on their skill level to assist homicide investigators in the first 48–72 hours when large numbers of resources/investigators are required.

Other Police Responses

The assigned crown attends the crime scene with primary investigator and the forensic crimes scenes unit prior to scene collapsing, in order to ensure all evidence has been collected.

- a. Please rank the Categories of Change and provide an explanation for your ranking.

Initial Response _____

- Detective Qualifications and Training _____
- Actions of the Detective _____
- Personnel Policies _____
- Other Police Responses _____

b. Please provide any additional examples of change that you would recommend.

10. Calgary Police Service employs crime analysts who are civilian members trained in intelligence gathering techniques. The homicide crime analysts' main role is to provide suspect and victim profiles during the initial stages of the homicide investigation as well as area maps and other criminal intelligence. The analysts continue to assist with the ongoing investigations by processing data such as cell phone data, association charts of suspects or victims, social media inquiries and many other intelligence-gathering techniques.

Currently, the Calgary Police Service homicide unit has one analyst assigned to each of the two homicide teams who are called out for each new homicide as part of the investigative team.

Do you think Calgary Police Service investigators take full advantage of the expertise of their crime analysts?

- Strongly Disagree _____
- Disagree _____
- Undecided _____
- Agree _____
- Strongly Agree _____

a. If you disagree, please explain how Calgary Police Service could be using the analysts more effectively?

11. There are other resources that exist to assist the Calgary Police Service homicide unit, that are not being utilised.

- Strongly Disagree _____
- Disagree _____
- Undecided _____
- Agree _____
- Strongly Agree _____

- a. If you agree, please provide a detailed description of the resources you suggest Calgary Police Service utilise.
12. If you could devise a model of best practices for homicide investigations, what would that model look like? Please provide as much detail as possible.

Qualified Candidates

13. The Calgary Police Service Major Crimes selection process includes review of the investigators prior work history, professional training, police-related training, level of education, and a letter of interest. Each applicant is assigned points for these components, with the successful candidate achieving the highest points.

In your opinion, does this process ensure that qualified detectives are chosen to work in the homicide unit?

Strongly Disagree _____

Disagree _____

Undecided _____

Agree _____

Strongly Agree _____

- a. If you agree with the Calgary Police Service Major Crimes selection process, please explain your reasons and provide any suggestions for improvement.
- b. If you disagree or are undecided on the effectiveness of the Calgary Police Service Major Crimes selection process, please explain why and provide alternative selection methods to achieve qualified candidates being chosen for homicide investigator positions.

Homicide Detective Training

14. There are no formal training requirements for homicide investigators entering the unit, however previous courses in search warrant drafting, interview and interrogation, and source handling are encouraged. Could you please indicate your level of agreement or disagreement with the following statement and explain why.

Calgary Police Service homicide detectives are receiving the training they need to be effective.

Strongly Disagree _____

Disagree _____

Undecided _____

Agree _____

Strongly Agree _____

15. In your opinion, what basic and advanced training should be required of homicide investigators? If you do not believe homicide investigators require training, please explain your position.

APPENDIX D

SURVEY II

Research Question

What is the most effective method of investigating homicides to increase clearance rates without jeopardising the integrity of the investigation?

Survey Questions

In the first survey, the term *successful* was used synonymously with effective; both terms refer to the accomplishment of solving homicide investigations.

Conviction Rate: involves the identification of a person, arrest, charge, prosecution and conviction in a court of law. This success is constructed on the basis of investigative ‘outcome’ and procedural success.

In Survey I, participants that chose conviction rate identified the trial process as the highest threshold for quality as it is not only a measure of the right person charged with the right offence but also a measure of investigators following court acceptable procedures during the course of the homicide investigation.

Clearance Rate: Statistics Canada defines a homicide investigation as solved or “cleared” when a person responsible for the murder has been identified and police have laid or recommended a homicide charge or have cleared the investigation by other means (cleared otherwise). Cleared Otherwise can refer to police discretion, child offender under the age of 12 years, mental illness, witness incapacity, death, suicide, immunity, extradition, witness refusal, and diversion.

Homicide clearance rates are a quantitative measure used in academic research to gauge police effectiveness, with little attention given to other qualitative measures such as preventative success, community impact and procedural success as these factors can not be measured or statistically compared as easily by the academic community.

In Survey I, those participants that identified clearance rate as the most accurate measure of effective homicide investigations, reasoned that at the ‘clearance’ stage is where homicide investigators have the most influence, whereby the court process is beyond their control. It was also suggested that clearance rate is a better definition than conviction rate because there are many times a suspect has been identified but can not be charged yet the homicide investigation is complete (cleared otherwise).

1. Based on the above discussion, please choose **ONE** of the factors below that you consider is the best measure of success in relation to homicide investigations.

_____ Clearance rate;

_____ Conviction rate;

_____ Combination of clearance rate and conviction rate is your true measure of a successful homicide investigation, in order to take into consideration the 'cleared otherwise' cases and the investigative outcome.

a. Please provide an explanation for your choice.

2. Please mark with an **X** the factors you believe contribute to increased witness cooperation and strengthened community relations?

Being respectful of witnesses and the community _____

Showing empathy _____

Utilising a community liaison officer _____

Continued Communication with witnesses & victim families _____

Building trust with witnesses & victim families _____

Meeting when and where convenient for witnesses _____

Continued relationship building _____

Members making themselves available at all times _____

Listen to the concerns of witnesses & victim families _____

The use of media to inform the community _____

Conducting respectful & open ended witness interviews _____

Other _____

a. If you answered **OTHER** please specify what that factor is:

3. According to a draft standard operating procedures, the Calgary Police Service homicide unit will investigate all homicides including cold cases, attempted homicides where a medical doctor has determined that death is expected to occur, in-custody deaths not investigated by the Alberta Serious Incident Response Team, deaths where the cause is not apparent, accidental, sudden death involving a handgun, and discharges of Service Firearms in situations other than those authorised by policy.

One survey participant identified two crimes whereby the occurrence of foul play can be easily masked — deaths of children under 2 years' old and drowning deaths.

- a. Please mark with an **X** which / if either of these crimes you consider should be included as part of the Calgary Police Service homicide unit's mandate.

_____ All unexpected deaths of children less than 2 years of old;

_____ All deaths caused by drowning.

- b. Should the Calgary Police Service homicide unit include other any other types of crimes in its mandate? Please answer ONE with an **X**:

_____ Yes

_____ No

- c. If you answered **YES**, please state if there are any other crimes you consider should be investigated by the Calgary Police Service homicide unit, and why:

- d. If you consider there are crimes the Calgary Police Service homicide unit **SHOULD NO LONGER** include in its mandate, please indicate any/or all with an **X**:

_____ Attempted homicides where a medical doctor has determined that death is expected to occur;

_____ In-custody deaths not investigated by the Alberta Serious Incident Response Team;

_____ Deaths where the cause is not apparent;

_____ Accidental, sudden death involving a handgun;

_____ Discharges of Service Firearms in situations other than those authorised by policy.

- e. If you did not mark any procedures above, please indicate that you are suggesting the Calgary Police Service unit should not change its current investigative mandate. _____ Yes

4. There was consensus among all survey participants that there should be some form of case review for every homicide investigation. Two types of case review were identified, formal and informal reviews.

Informal Case Review: conducted among teammates and the supervisor within the first 24–48 hours and then on going on a case-by-case basis thereafter.

Formal Case Review: the procedure of an independent body reviewing all the facts, evidence and investigative steps in a case. The occurrence and frequency of such as case review is standard and applied to all homicide investigations.

In order to identify best practices for formal case reviews please answer the following questions:

- a. Do you think there should be a formal case review for homicide investigations? Please mark with an **X**, yes or no:

_____ Yes

_____ No

**If you selected no please go to question 5. Do not answer questions 4b – 4f*

- b. If you selected **YES**, please consider the time frame of a formal case review. All homicide investigations should be reviewed within one month of occurrence unless the case has already been cleared (by charge or ‘otherwise’). Please mark with an **X** yes or no:

_____ Yes

_____ No

- c. If you selected **NO** and do not agree with the one month requirement, please specify at what time frame the first formal case review should be conducted in increments of days:

_____ Days

- d. Should there be subsequent formal case reviews? Please answer with an **X**, yes or no:

_____ Yes

_____ No

- e. If you selected **YES**, please specify in as much detail as possible the frequency and timing of all formal case reviews.
 - f. Who should conduct the formal case reviews? Some participant suggestions included hiring retired homicide detectives, independent homicide investigator partnerships, a crown prosecutor, or the supervisor of the homicide team. Please specify who you think should conduct the formal case reviews.
5. Please review the Process Map of the Calgary Police Service Homicide Unit. Is there a procedure on this map that you feel should be eliminated? If so, please specify which one(s), and why.
6. For the following five categories please state whether you agree to each factor's inclusion or exclusion for future changes in Calgary Police Service process and procedures. The objective of any future changes would be to improve the effectiveness of Calgary Police Service homicide investigations. Please place a **Y** (Yes) next to the factors you believe should be included in the Calgary Police Service homicide investigation processes and procedures, and an **N** (No) for each factor you would not include.

1) Initial Response

There were no suggestions in Survey I by participants in relation to the initial response.

Suggestions from academic literature:

_____ On-call investigator assigned as crime scene manager, have a take-home car in order to arrive at the crime scene sooner;

_____ First responding patrol officer at the crime scene, joins the homicide team for first 48-72 hours. Theoretically this officer will not only have knowledge of the crime scene, but the people / area of the community in which the crime occurred which can assist the investigation, and is a developmental opportunity for the patrol officer;

_____ Homicide investigators need to have good relationships with patrol officers, to include communications, information sharing, and respect. The investigator needs to

recognise that his or her case will largely be built on the foundation established by the first responding patrol officers;

_____ First-responding officers must be effectively trained to not only protect the crime scene but to also identify, stop, detain and interview potential witnesses;

_____ Whenever there is a drug or gang related homicide, an investigator from the appropriate unit is assigned to the homicide investigation team for up to 72 hours depending on the status of the case and the facts;

_____ A first responding patrol officer is assigned to be the crime scene scribe. Using a standardised form (i.e. Homicide Investigation Briefing Script), the officer is able to document all the critical people, conditions, and circumstances at the crime scene. The completed form is turned over to the homicide investigators.

2) **Detective Qualifications and Training**

Suggestions from survey participants:

_____ Existence of a formalised training program for detectives entering the homicide unit as well as required on-going learning in the area of homicide investigations;

_____ Homicide managers able to select the 'best' detectives from other units to work in their unit, and not involve a formal competition;

_____ When selecting a potential homicide investigator, consider the desire of the candidate to work in such a gruelling area of policing as homicide, balanced with getting the most qualified and well-rounded investigator;

_____ Level of education should not be a selection factor, however consideration given to police related courses and training should be;

_____ Need more in-depth background checks done, similar to promotion process, where there is a peer review process. This peer review process is important because some investigators have excellent investigative minds and can

move the investigations forwards and is sometimes hard to translate this into an example;

_____ Test the homicide candidate by assigning them a homicide case where they can learn from the process and also provide a good test of their capabilities (this could be done with an actual homicide investigation or a mock case);

_____ Investigative competency is priority with best 'fit' being the second priority, which should be at the discretion of the team and its commander;

_____ Current Calgary Police Service model should be dissolved, as it isn't working;

_____ Current Calgary Police Service model is working as is. The process identifies those investigators that have the competencies and skills to fulfil the role of an investigator in homicide. Past performance is a good predictor of future performance;

_____ Current Calgary Police Service model is valuable but needs some tweaking;

_____ No formal training is required for Calgary Police Service investigators, their training needs are met informally during their time in the unit;

_____ More training to understand the role of the Diversity unit (Calgary Police Service members designated to work with the various cultures within the community of Calgary), and more utilization of Diversity unit when dealing with victim families and witnesses with cultural barriers.

Suggestions from academic literature:

_____ New homicide investigators should be assigned to a seasoned investigator for mentorship training for six months;

_____ New homicide investigator should receive training in the following topics: (i) death investigation, (ii) homicide crime scene investigation, (iii) interviewing and interrogation, (iv) officer involved shootings, and (v) in-custody deaths training;

_____ New homicide detectives must complete a set number of training hours within their first year in the unit as well as receive mentoring from within the unit. For example in Houston, Texas, new investigators must complete 186 hours of training within their first year, equating to 12 mandatory investigative classes through out the year;

_____ A rigorous selection process must be in place to ensure the candidates have the personality and aptitude for homicide investigations. Some of the important characteristics include passion, tenacity, tolerance, creativity, commitment, a strong work ethic, integrity, taking pride, being able to bond with people, and being able to work effectively on a team;

_____ Basic skills for a homicide investigator include solid investigative skills and good report writing.

3) **Actions of the Detectives**

Suggestions from survey participants:

_____ The implementation of ‘best practices’ in place for various investigative strategies in the form of business rules (i.e. how to conduct neighbourhood inquiries utilising a standard questionnaire, how to complete a witness interview summary, standards for the briefing room etc.);

_____ Strict adherence to the major case management model whereby each homicide investigation would have for its duration, a primary investigator, file manager, affiant and team commander.

Suggestions from academic literature:

_____ Neighbourhood inquiries should be performed in two phases: (i) immediately after the incident by patrol officers who will collect initial information, identify potential witnesses and inform the citizens that an investigator will be coming to see them in the days to come, and (ii) a second canvass by investigators in the days following the homicide;

_____ There should be daily scheduled ‘coffee break’; for the investigative team to informally discuss their cases.

4) Personnel Policies

Suggestions from survey participants:

- _____ Have dedicated resources for closed circuit television surveillance cameras (CCTV) collection and review;
- _____ Have dedicated resources for analysing data dumps from cell phone towers and other cell phone analysis;
- _____ Only the crime analysts should be assigned to a homicide team. There needs to be a degree of separation from other specialty units (such as undercover teams and crime scenes investigators) in order to have ‘fresh eyes’ examining the evidence to prevent the investigators from getting tunnel vision;
- _____ Have a crown prosecutor assigned to a new homicide investigation immediately;
- _____ Have a designated undercover team;
- _____ Have a designated Crimes Scenes team;
- _____ Civilian or sworn support team to deal with subpoenas and witness management for court procedures including crown witness interviews, witness transportation and liaising for court matters;
- _____ Hire retired homicide detectives to do formal case reviews on homicide cases, to help deter “tunnel vision”/or “group thinking syndrome” of an investigation;
- _____ Have a designated surveillance team;
- _____ Have a designated technological crimes team (electronic analysis team) to assist homicide investigators through the course of the investigation not just the first 48 hours;
- _____ Designated Cyber Crimes team (social media analysis) to assist homicide investigators through the course of the investigation not just the first 48 hours.

Suggestions from academic literature:

- _____ Creation of a “homicide relief team” consisting of investigators from other units who have been chosen based on their skill level, available for call out to assist homicide

investigators in the first 48–72 hours when large number of resources and investigators are required;

_____ Aggravated assault team of investigators, who investigate all serious assaults that do not result in death, and work closely with the homicide unit when they need extra resources. This allows for development of these investigators to potentially transfer to the homicide unit when a vacancy becomes available;

_____ Staffing levels must meet the workload. If there is inadequate staffing, it is more difficult to conduct a comprehensive investigation additionally, personnel morale may decrease resulting in less commitment and productivity;

_____ Team of crime scenes investigators are assigned to each team of homicide investigators, work the same shifts and attend all homicides together, this enhances the coordination and efficiency of the investigations;

_____ An important aspect of successful clearances is giving homicide investigators the time to work leads, develop new leads, analyse evidence, and integrate all of the information derived from the evidentiary analysis, intelligence analysis and the medical examiner's findings. Managers must recognise the importance of these duties and ensure that all investigators have time to perform these tasks without handling new cases or other non-case management duties. Some investigators refer to this as 'down time' so they can focus all of their efforts and thoughts on an open case.

5) Other Police Responses

Suggestions from survey participants:

_____ Assigned crown prosecutor attends crime scene with primary investigator and crimes scene investigators prior to the scene being collapsed, in order to ensure all evidence has been collected.

Suggestions from academic literature:

_____ The computer forensics unit (in Calgary Police Service they are referred to as the technological crimes team) must

understand the need for fast analysis and feedback in homicide cases;

_____ Traditionally homicide investigators tended to be viewed as the experts and other police units as simply a support role in the investigation, however given the nature of complex criminality, the growth of professional expertise of all police officers, and the vast expertise that has been developed by law enforcement personnel in all assignments, the “first among equals” perspective of homicide investigators should be more of a legacy than a current practice in police homicide units today.

- a. Please provide any other factors that should be included in Calgary Police Service processes and procedures to ensure effective homicide investigations.

7. The Calgary Police Service employs civilian crime analysts who are trained in intelligence gathering techniques. The homicide crime analysts’ main role is to provide suspect and victim profiles during the initial stages of the homicide investigation, as well as area maps and other criminal intelligence reports/briefings. The analysts continue to assist with the ongoing investigations by processing data such as cell phone data, association charts of suspects or victims, social media inquiries and many other intelligence-gathering techniques.

Currently, the Calgary Police Service homicide unit has one analyst assigned to each of the two homicide teams who are called out for each new homicide as part of the investigative team.

Please place an X by the factors you recommend the Calgary Police Service Homicide unit incorporate in relation to their crime analysts:

_____ Analysts conduct two-stage analysis of cell phone records, once when they are initially received and a secondary assessment of the telephone data towards the end of the investigation when the data may hold greater significance given more information about the homicide investigation has been gathered;

_____ Strict parameters around what crime analysts will do in order to prevent ‘off loading’ of clerical tasks, or other

basic police information system checks that have been traditionally done by investigators;

_____ Formal training for crime analysts in relation to preparation of court documents and giving testimony;

_____ Addition of more analysts assigned to each homicide team or other dedicated resources to conduct cell phone and mapping analysis. These tasks are time consuming and have reduced the analyst's ability to support the investigators with intelligence gathering analysis;

_____ More oversight is required of the crime analysts for accuracy and to assist them with intelligence gathering from an "investigative mind" perspective. Helping the analysts to understand how the information they are gathering fits into the bigger investigative puzzle.

8. Please rank the following homicide investigation models in order of preference. (1) Highest preference, and (4) least desirable model of effective homicide investigations:

_____ **Model A:**

- i. Front-end load homicide investigation in first 48–72 hours; minimum of two investigators respond;
- ii. Resources available at initial stage would include the homicide team of eight investigators, and any other available resources however these "other" resources are not designated nor guaranteed to be available;
- iii. If after one month no viable theories and/or suspects have been identified, case is moved to cold case unit;
- iv. Generalist approach, heavy reliance on patrol personnel and the availability of supporting units but no guarantee.

_____ **Model B:**

- i. Please describe in as much detail as possible what your ideal homicide investigation model would look like.

_____ **Model C:**

- i. Calgary Police Service homicide processes and procedures, please refer to the attached Process Map.

Model D:

- i. The model for best practices would be rolled out in a units business rules that would be strictly adhered to, by all homicide investigators and management. The best practices would include business rules for the following:
 1. Team commanders;
 2. Primary investigator;
 3. File Manager;
 4. Affiant;
 5. Homicide investigators;
 6. For operational procedures such as briefing, neighbourhood canvasses, witness statements, analyst court documents, report to crown council, notes, electronic file management including naming conventions, investigative task assignment, investigative chronology, protocol for holdback information, exhibits/scene investigators, handling of sensitive information, electronic communication, officer involved deaths, and case review protocols;
- ii. Evidence led investigations (not intuition or common knowledge), emphasising the importance of the initial response, checklists assisting detectives/business rules and relying on physical evidence;
- iii. This model would include a team of investigators supported by dedicated resources to assist with cell phone analysis and mapping, video collection and review with the built in flexibility to identify and increase the support given the current workload for specialty units such as cyber crimes, tech crimes, gang suppression team, guns and gangs investigators, child abuse investigators, as well as designated surveillance, undercover and crimes scenes officers;

- iv. Formal and informal training structure including mentorship in new homicide investigators;
- v. In information package of guidelines, relevant case law and general homicide information such as what a crime scene can tell you, the body etc. This information package would also include investigative steps to consider, contact phone numbers of important contacts with outside agencies (i.e. Alberta Health Services release of information etc.), as well as copies of the forms required for information required in the early stages of a homicide investigation (i.e. obtaining 911 calls, forms for request of Emergency Medical Service statements etc.);
- vi. Adherence to the Major Case Management model (team commander, primary investigator, file manager and affiant) with front-end loading to ensure as much evidence and witness information is gathered as soon as possible.

APPENDIX E

CALGARY POLICE SERVICE HOMICIDE PROCESS MAP

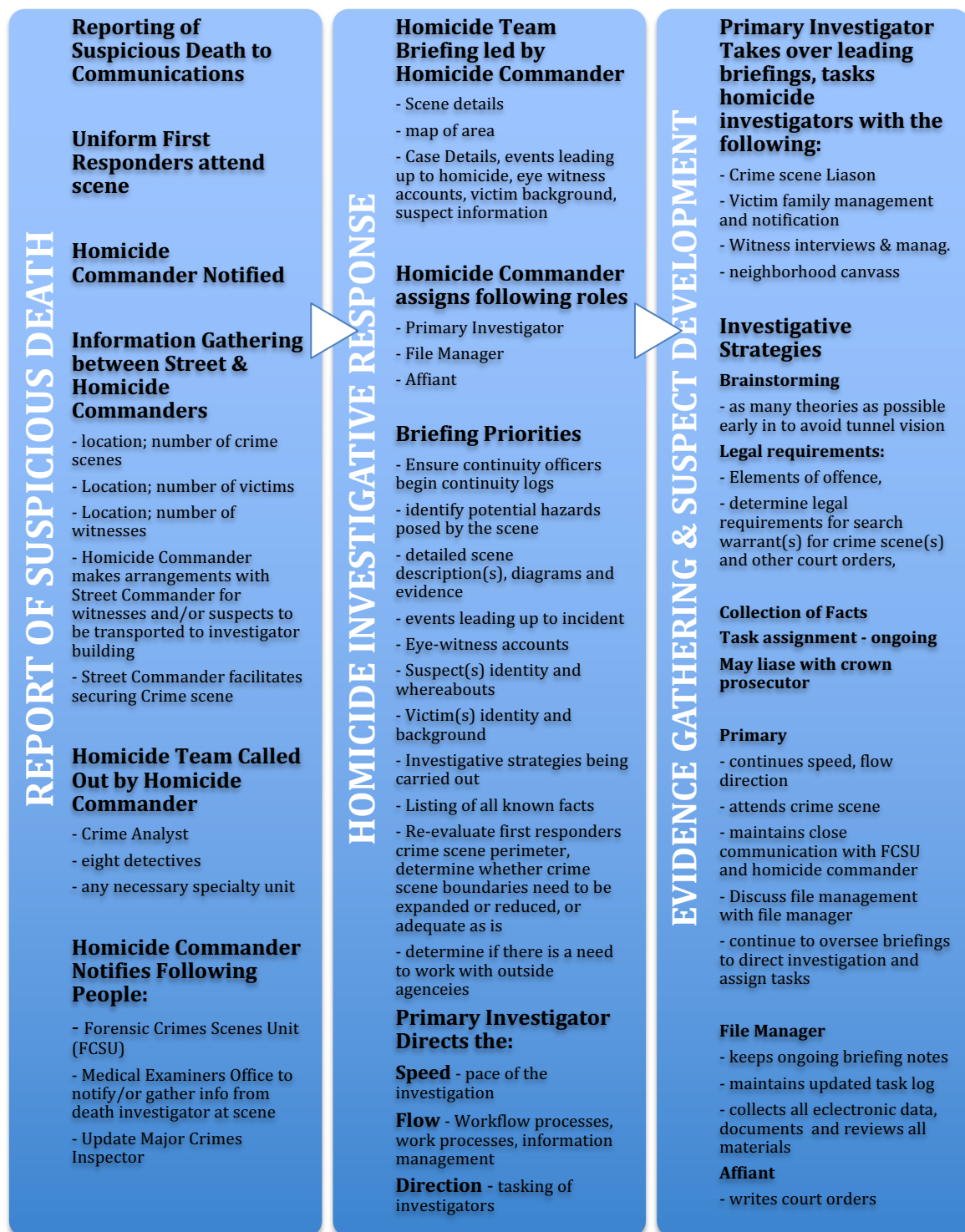


Figure 1: FIRST 48 HOURS OF HOMICIDE INVESTIGATION

APPENDIX F

SURVEY III

Research Question

What is the most effective method of investigating homicides to increase clearance rates without jeopardising the integrity of the investigation?

In these surveys, the term *successful* was used synonymously with effective; both terms refer to the accomplishment of solving homicide investigations. The term *consensus* is used throughout this third survey when all eight participants were in agreement on a response. *Near consensus* equates to 6-7 participants in agreement.

The objective of this third and final survey is to answer the research question above and to bring the participant group as close to a consensus as possible on all survey questions. For this last survey, please choose your most weighted response and provide comments regarding your thought process for example you may agree with “a” more than “b” but with a caveat that you would alter “b” somewhat. Please explain these caveats as much as possible.

Calgary Police Service Mandate

Near Consensus - All unexpected deaths of children less than two years of age.

1. Please indicate with a yes or a no if you think the following crimes should **BE** investigated by the Calgary Police Service homicide unit:

_____ All deaths caused by drowning that are not witnessed by an independent party;

_____ All deaths involving firearms, including long guns;

_____ Missing person cases where circumstances are suspicious and they have been missing for over 30 days;

_____ All negligent deaths including workplace deaths where the employer may have been negligent.

2. Please indicate with agree or disagree if you think the following crimes should **NOT BE** investigated by the Calgary Police Service Homicide Unit, but rather the Professional Standards Section:

_____ In-custody deaths;

_____ Discharges of Service Firearms.

- a. Provide comment on your reasoning for the above responses.

Formal Case Review

The purpose of case reviews whether formal or informal is to limit investigative bias, prevent “tunnel vision”, ensure integrity of the investigative process, encourage “brainstorming” and can lead to valuable input for the primary investigator.

Near Consensus - Most participants agreed there should be a formal case review.

Researcher Timothy Keel (2012) with the Federal Bureau of Investigations canvassed 55 homicide units across the U.S., identified as having a high clearance rate. The study results showed that 82.6% of agencies had a case reviewed by all personnel within the first 72 hours. This review included homicide detectives and supervisors, analysts, crime lab personal and crown prosecutors where appropriate.

3. Please state whether you agree or disagree with the following statement:

_____ The Calgary Police Service homicide unit should conduct a case review/briefings within the first 72 hours involving all personnel as described in the Federal Bureau of Investigations study above.

The business rules for Integrated Homicide Investigation Team out of British Columbia require each file coordinator ensure a “30 Day Report” is submitted to the team commander for review, each month.

4. Please state whether you agree or disagree with the following statement:

_____ The Calgary Police Service homicide unit should adopt a similar practice of submitting a 30 day report monthly to the team commander for review.

Participant Input

5. Please rank the following statements in order of preference. (1) highest preference, and (6) least desirable preference:

Time Frame for Case Review:

_____ Within 48 hours, 14 days, 30 days, six months and one year;

_____ One month, no subsequent case reviews;

_____ If charges laid early in case, there is a built in review process by the crown prosecutor. For example a domestic homicide whereby the offender confesses, had exclusive opportunity, and charges laid within a week of incident, no further Calgary Police Service case review required. Cases at **one month** should be reviewed and **again at 90 days** and **subsequent**

reviews depending on the case. In complex cases, for example multiple offender cases (swarming's/beatings), even where one or some people have been charged, there should be a review done within 90 days. In an ideal world I think all cases would be reviewed again at the one-year mark if still unsolved or complex. In some cases such as stranger attacks with no obvious suspects or motive, file review should happen within a very short period of time (a day or week or two even depending on the progression of the case);

In large complex cases, an investigator or two should be assigned to “shadow” an investigation. The Primary investigator is essentially a resource director as opposed to a true investigator. There is little time for that person to “investigate” and ensure things make “sense”. In these cases, two investigators should be assigned to be in the immediate circle of knowledge and be allowed to review the entirety of the file at will to ensure the file makes sense. This is essentially an “immediate” review of the file.

_____ 90–120 days to allow for forensic and autopsy findings to be formalized, no subsequent FORMAL reviews;

_____ One month, and subsequent reviews every 90 days to determine all investigative steps have been completed and all leads have been followed up. If all steps have been completed the review could increase to 180 days when all steps have been completed and all viable strategies considered and/or implemented;

_____ Six months, 18 months as the trickle of information generally ceases around the six-month time frame and so the reviewer would have likely a completed case file of the evidence collected to date. Too early and the investigation when it is still very active, information is still coming while the review process would be happening.

6. Please rank the following statements in order of preference. (1) highest preference, and (5) least desirable preference:

Who Should Conduct Formal Case Review:

_____ Retired homicide detectives as they have enough qualifications and can remain independent;

_____ Blended model with both retired and current homicide detectives, and crown prosecutor;

_____ It should be reviewed by people who are assigned or attached to the Homicide Unit. This could include **retired homicide**

investigators or a team of investigators dedicated to this purpose. Although prosecutors play important roles, in unsolved/uncharged cases this is likely not within the Calgary Police Service's ability to assign this to prosecutors. It is unrealistic for the supervisor to conduct an appropriate review of each file;

A big consideration as to who conducts any review is the sensitive nature of these files and any hold back information. In other words, the assignment of these reviews should be conducted by a group controlled or under the direction of the homicide unit, not any independent group. There should also be a feeling of working together (the review team working with the investigative team), as opposed to someone checking another's work in a punitive way;

_____ In addition to homicide investigators and or supervisors, the crown prosecutor service should be part of the formal review to provide input questions and are familiar with the criminal standard of proof and the crown's prosecutorial function/test (realistic prospect of conviction);

_____ Supervisors in conjunction with either independent investigators or retired homicide investigators.

Cold Case Unit

7. The Calgary Police Service homicide unit has a cold case unit, which currently consists of two homicide detectives.

a. Do you agree there should be a cold case unit?

_____ Yes

_____ No

b. Do you think two investigators is the appropriate staffing level?

_____ Yes

_____ No, please indicate how many _____

c. If you answered no to question b above, what would you consider to be the formula that should be used to calculate an appropriate staff level for cold case?

_____ Based on complexity of the cases;

_____ Based on volume of cases;

_____ Based on complexity and volume of cases;

_____ Based strictly on staffing numbers.

Homicide Investigation Models

Consensus

No participant selected Model A or Model C as his or her first choice in Survey II. As such these two models have been eliminated.

Model A:

- a. Front-end load homicide investigation in first 48–72 hours; minimum of two investigators respond;
- b. Resources available at initial stage would include the homicide team of eight investigators, and any other available resources however these ‘other’ resources are not designated nor guaranteed to be available;
- c. If after one month no viable theories and/or suspects have been identified, case is moved to cold case unit;
- d. Generalist approach, heavy reliance on patrol personnel and the availability of supporting units but no guarantee.

Model C:

- a. Calgary Police Service homicide processes and procedures please refer to the attached Process Map.

Consensus

All participants chose Model D, some with suggested additions or changes. The following is a summary of this model with participant input.

Model D:

- a. The model for best practices would be rolled out in a units business rules that would be strictly adhered to, by all homicide investigators and management. The best practices would include business rules for the following:
 - i. Team commanders;
 - ii. Primary investigator;
 - iii. File Manager;
 - iv. Affiant;
 - v. Homicide investigators;
 - vi. For operational procedures such as briefing, neighbourhood canvasses, witness statements, analyst court documents, report to crown council, notes,

electronic file management including naming conventions, investigative task assignment, investigative chronology, protocol for holdback information, exhibits/scene investigators, handling of sensitive information, electronic communication, officer involved deaths, and case review protocols.

- b. Evidence led investigations (not intuition or common knowledge), emphasising the importance of the initial response, checklists assisting detectives/business rules and relying on physical evidence;
- c. This model would include a team of investigators supported by dedicated resources to assist with cell phone analysis and mapping, video collection and review with the built in flexibility to identify and increase the support given the current workload for specialty units such as cyber crimes, tech crimes, gang suppression team, guns and gangs investigators, child abuse investigators, as well as designated surveillance, undercover and crimes scenes officers;
- d. Formal and informal training structure including mentorship in new homicide investigators;
- e. An information package of guidelines, relevant case law and general homicide information such as what a crime scene can tell you, the body etc. This information package would also include investigative steps to consider, contact phone numbers of important contacts with outside agencies (i.e. Alberta Health Services release of information etc.), as well as copies of the forms required for information required in the early stages of a homicide investigation (i.e. obtaining 911 calls, forms for request of Emergency Medical Service statements etc.);
- f. Adherence to the Major Case Management model (team commander, primary investigator, file manager and affiant) with front-end loading to ensure as much evidence and witness information is gathered as soon as possible.

Recommendations by Participants:

In relation to point A; “strict adherence to” advocates rigidity or a formula that sometimes does not fit and may actually slow the efficiency of an investigation.

8. Please rank the following statements in order of preference. (1) highest preference, and (3) least desirable preference:

_____ There needs to be flexibility and adaptability to each investigation, the business rules should be a guideline, not a mandatory requirement of how to conduct each homicide investigation;

_____ The Business Rules must be strictly enforced to ensure all homicide investigators are following the best practices model; otherwise investigators will continue to conduct their investigations in a non-uniform manner;

_____ There needs to be consideration for certain homicide investigations, as such the business rules would be followed by all investigators and monitored by supervisors however exception can be made with supervisor approval to allow for flexibility and adaptability to each investigation.

9. Please rank the following statements in order of preference. (1) Highest preference, and (3) least desirable preference:

_____ The homicide unit should create a *Homicide Investigation Manual* in addition to the Homicide Business Rules and provide this to every new investigator entering the unit;

_____ The homicide unit should create a two day course for all members of the homicide unit, then subsequently provide to all new members entering the unit. In this course, instruction will be provided on the Homicide Business Rules of the unit and presentations by the various units that work in conjunction with homicide such as crimes scene (FCSU), technological crimes (TCT), cybercrimes (CCT), surveillance unit (SFU) and the undercover unit (PCU);

_____ New detectives entering the homicide unit will be assigned a mentor who will provide informal training to the investigator including review of the Homicide Business Rules.

10. Please review the above homicide investigation model carefully and state whether overall you agree that this is the most effective method of investigating homicides?

_____ Agree

_____ Disagree

11. Please describe what you like and dislike about this homicide investigation model.

12. Do you think this proposed model for homicide investigations will be the most effective method of investigation to increase clearance rates without jeopardizing the integrity of the investigation?

_____ Yes

_____ No

- a. Please add any additional comments regarding your response to the research question.

This completes your participation in this research study. I thank you for your patience and participation in this survey process.