Fatal Call - Getting Away with Murder:

A Study into Influences on Decision Making at the Initial Scene of Unexpected Death

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'It is a capital mistake to theorise before you have all the evidence. It biases the judgment'

Sherlock Holmes (Sir Arthur Conan Doyle, 1905)

Abstract

This thesis examined influences on the decision making process of police officers attending the scenes of sudden and unexpected death in England and Wales. It was initiated following concerns raised by Home Office Registered Forensic Pathologists (HORFPs) in some parts of England and Wales that their services were not being appropriately utilised to assist in the decision as to whether a death was 'suspicious' and possibly involving a third party, or a non-suspicious community death. Failure to properly assess the scene of the death can deny the investigation of processes to forensically determine a cause of death, and to lose forensic trace evidence from the body. There were three parts to the research; i) an examination of homicide statistics and forensic post mortem data which showed inconsistency in decision making between some police forces; ii) a case study of 32 real deaths where HORFPs had taken over the conduct of a post mortem procedure where the police had made a decision that the case was not suspicious but where the non-forensic pathologists felt that the case was a suspicious one; and iii) focus groups interviews with key individuals involved in the operational decision making process at the scene of sudden and unexpected death which revealed a lack of training and standardisation in dealing with sudden and unexpected deaths. Overall it was found that homicide cases may be missed due to poor decision making and that this phenomenon is not a new one. The mind-set of police officers dealing with these cases may influence the decision to treat cases as non-suspicious, and thus the services of a HORFP is not utilised to give an expert medical opinion. A major factor appeared to be the vulnerability of the deceased, as well as budgetary pressures. Recommendations are made to address the quality of death investigations, including a national policy, training of front line officers and supervisors and a standard operating procedure.

The wrong decision – a *'fatal call'* – can lead to a failed investigation and someone *'getting away with murder'*.

Declaration

Whilst registered as a candidate for the above degree, I have not been registered for any other research award. The results and conclusions embodied in this thesis are the work of the named candidate and have not been submitted for any other academic award.

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Glossary of Terms and Abbreviations

ACPO	Association of Chief Police Officers
Autopsy	Post Mortem
CSI	Crime Scene Investigator
CSM	Crime Scene Manager
FME	Force Medical Officer (Police Doctor)
FSS	Forensic Science Service
GMC	General Medical Council
Histopathologist	Doctor specialising in the microscopic examination of human tissue
HO	Home Office
Home Office List	Home Office Register
Home Office Register	Register of Forensic Pathologists held by the Home Office
HORFP	Home Office Registered Forensic Pathologist
MCCD	Medical Certificate of Cause of Death
MoJ	Ministry of Justice
Natural causes	Death due to disease or a medical condition unattributed to third party involvement
Non-Forensic Pathologist	Autopsy Pathologist not on the Home Office Register
NPCC	National Police Chiefs' Council
ONS	Office for National Statistics
PM	Post Mortem
RCP	Royal College of Pathologists
Suspicious	A case where homicide cannot be excluded

Introduction: Setting the Scene

In 1997, the body of a paraplegic man was found at his home address in a small market town in the south of England. The local Detective Inspector was informed and attended the scene. Also in attendance were uniformed officers, a Detective Constable and a Scenes of Crime officer. The man in his sixties was found in a downstairs room in his council house, sat in his motorised wheelchair slumped forward and in a semi-decomposed state. The house was in disarray with rubbish strewn throughout. Examination of letters on the doormat revealed that the body had probably been there for at least six weeks, and the unfortunate man was known as a hermit with no family or friends. The Detective Inspector concluded from all the available information that the man had probably died because of natural causes and the case was referred to the coroner.

The coroner telephoned the Detective Inspector questioning the decision that the death was not suspicious as there appeared to be no adverse medical history. The officer assured the coroner that the case was a straightforward non-suspicious death in the community and that no forensic post mortem was necessary. The coroner accepted those assurances. A non-forensic coroner's post mortem took place. The pathologist commenced the autopsy but ceased his examination on dissection of the neck of the deceased. He formed the view that the man had been strangled as evidenced by a fractured hyoid bone.

A forensic pathologist was called and the Detective Inspector ordered that the scene be guarded pending a full scene examination, even though the house had been released back to the local council. A full forensic post mortem then took place on the deceased body. Although the death of this poor vulnerable individual transpired not to be a murder, the Detective Inspector had learnt a lesson on making hasty decisions at the scene of sudden and unexpected deaths and vowed never to make the same mistake again.

The Detective Inspector was the author of this thesis.

This thesis examined influences on decision making by the police in the early stages of a sudden and unexpected death investigation in England and Wales. The focus was on the decisions of death investigators in the early stages of an inquiry into a death and whether to call for a forensic post mortem examination. Current forensic pathologists on the Home Office Register of Forensic Pathologists (HORFP) have made anecdotal claims that police and coroners may not be using their services in a way that will maximise the decision making process as to whether to treat a death as 'suspicious' or as 'natural causes'. Failure to properly forensically process the body of a deceased

person has the potential to lead to homicides not being identified as such, or in cases later confirmed as homicide, forensic trace evidence from the body being missed.

The system of death investigation in England and Wales essentially fits into one of three pathways. The first and most common is a death which is anticipated due to ill health and where a medical doctor can issue a Medical Certificate of the Cause of Death (MCCD). If a doctor is unable to issue a certificate because they had not recently been treating the deceased or the death was unexpected, the case is referred to a coroner for investigation. This will usually involve the police attending the scene of the death and completing an investigation on behalf of the coroner. If the outcome of that initial police investigation is that the death is not suspicious, and there is no third-party involvement, the coroner will continue with the investigation which may involve the appointment of a non-forensic hospital 'histopathologist' conducting a post mortem (PM) to assist with the medical cause of death. If, however the outcome of the police investigation is that the case *is* suspicious, the police take on primacy in the investigation. In consultation with the police, the coroner will appoint a HORFP to conduct the PM. The two disciplines of normal non–forensic PM's and forensic PM's are very different. Therefore, if the outcome of that initial police investigation is flawed and the decision by the police is that the case is not suspicious, there will be no forensic examination of the body and a potential homicide could be missed.

The research question was;

Are decision makers at the scene of unexplained deaths utilising the services of Home Office registered forensic pathologists appropriately, thereby reducing the possibility of missed homicides?

There are three principle sub-questions:

How are decisions about whether to undertake a forensic post-mortem made, and what are the key influences upon these?
Why aren't forensic post-mortems commissioned when they should be?
What are the implications for policy and practice that can be distilled from the findings?

Scope of the research

Since 2003 there has been a downward trend in the homicide rate, coupled with a reducing number of requests for the services of HORFPs and so this thesis examined the relationship between identified homicides and the number of cases where HORFPs are called to perform a

forensic post mortem examination. It is clearly important that the investigation of sudden and unexplained death is of a high quality to identify cases where there may have been third party involvement. Reductions of homicide may be due to several factors, but could poor death investigations contribute to the falling homicide rate? The goal of this research was to identify good practice and areas which may need to be reviewed and be improved upon.

Chapter 1 examines how death is investigated in England and Wales, both in terms of criminal homicide investigations and the parallel coronial inquiry. The processes of a homicide investigation are examined and highlights that good quality investigations are necessary to avoid miscarriages of justice.

Chapter 2 examines the academic literature in terms of failed murder investigations and psychological issues concerning decision making and in particular investigative decision making, together with issues of bias and heuristics and measures that can be employed to reduce biased thinking.

Chapter 3 describes the methodology used within this mixed method study. The rationale is explained for the selected design and the way in which the data were collected, stored and analysed. The chapter also discusses the ethical issues and in particular considerations involved with being a 'practitioner researcher'.

Chapter 4 identifies the social reasons death investigation is important and the roles of those who are charged with identifying the medical cause of death. It examines the differing roles of doctors involved in death work and how forensic pathology differs from routine coronial autopsy practice. Key cases of missed homicide are examined which highlight the importance of high quality and robust investigations by the police and coroners.

Chapter 5 sets out the findings of the study in terms of the overall statistical state of death investigation in England and Wales and an analysis of the relationship between forensic PM investigations with the homicide rate.

Chapter 6 sets out the analysis of thirty-two real death cases where initial decisions may have been flawed and sets out the factors identified as potentially influencing decision making by investigators.

Chapter 7 describes the outcomes of focus groups interviews with key decision makers in the investigation of sudden and unexpected death and identifies the various issues perceived to impact on decision making.

Chapter 8 discusses the findings of all three parts of the study and sets out the implications for the coronial investigation of death as well as homicide investigation. Several conclusions and recommendations are made which have been taken forward with the National Police Chiefs' Council and the College of Policing, including a draft national policy in dealing with death cases as well as training for front line officers and a proposed standard operating procedure.

Chapter 1: Dealing with Death

1.1 Death Investigation in England and Wales: How Many?

As can be seen in table 1, there are about half a million deaths in England and Wales annually (MoJ, 2016). Most of these deaths are from natural causes, whether that be through natural illness, unfortunate circumstances or simply 'old age'. Approximately 55% of deaths can be accounted for when a medical practitioner issues a document certifying the death as being due to known medical conditions (MoJ, 2016).

Table 1: Registered deaths and deaths reported to coroners in England and Wales

Year	Registered deaths	Deaths reported to coroners	
	Number	Number	% of registered deaths
2000	537,877	218,092	40.5%
2001	532,498	224,286	42.1%
2002	535,356	224,999	42.0%
2003	539,151	227,790	42.2%
2004	514,250	225,511	43.9%
2005	512,993	232,401	45.3%
2006	502,599	230,007	45.8%
2007	504,052	234,458	46.5%
2008	509,090	234,784	46.1%
2009	491,348	229,883	46.8%
2010	493,242	230,595	46.8%
2011	484,367	222,371	45.9%
2012	499,331	227,721	45.6%
2013	506,790	227,984	45.0%
2014	500,122	223,841	45.0%

Of this half a million deaths, about 45% will not be clear cut (MOJ, 2014). These will be cases where a doctor is unable to immediately identify the cause of death and so referral is made to the coroner for investigation and usually attended by the police who conduct an initial investigation at the scene on behalf of the coroner. This study examines those factors affecting police decision making at the scene of sudden and unexpected death and discusses the potential for homicides to be left undetected due to decisions made in the early stages of the investigation when the police are involved.

The vast majority of the deaths referred to coroners will be deemed as ‘non-suspicious’ where there is no suspected third party involvement. The coroner may or may not request that a post mortem (PM) examination of the body takes place by a pathologist to assist in the identification

of the cause of death. Approximately two thousand deaths annually will be treated as 'suspicious' from the outset (Home Office, 2016). Table 2 shows the numbers of cases where the coroner refers deaths for PM examination as well as the number of inquests[1].

Table 2: Number of coroner authorised PMs and inquests opened in England and Wales

Year	Number of Post-Mortems	Number of Inquests
2000	124,536	24,117
2001	121,112	24,617
2002	117,684	25,363
2003	119,610	25,754
2004	115,773	26,618
2005	114,620	27,537
2006	110,224	27,305
2007	110,360	28,510
2008	108,360	28,518
2009	105,354	28,213
2010	101,943	27,401
2011	93,954	27,162
2012	94,814	28,279
2013	94,455	29,942
2014	89,875	25,889

Usually, the pathologist asked to conduct such an autopsy[2] is a 'hospital pathologist' known as a 'histopathologist' who is trained in autopsy practice. A histopathologist is a medical doctor who specialises in the examination of human tissue under a microscope and assists in the diagnosis of disease in both the living and the dead. In a death case, the report from the pathologist will go with other evidence gleaned by the coroner who will decide on a cause of death and issue a death certificate accordingly. Autopsy practice is normally ancillary to the main role of disease diagnosis that histopathologists perform.

Of the two thousand cases annually dealt with as deaths where there is the possible involvement of a third person, the coroner in consultation with the police will order what is known as a 'forensic post mortem' examination, and a 'Home Office Registered Forensic Pathologist' (HORFP) will be called upon to conduct this examination. Of these forensic cases, approximately one third have historically transpired to have been homicide (Hutton, 2015). If a homicide is suspected, the

[1] An inquest is held when; i) a violent or unnatural death; ii) a sudden death of which the cause is unknown, or iii) death in custody.
[2] Autopsy and Post Mortem are synonymous.

coroner will suspend their investigation until the police investigation is complete. The numbers of forensic PM examinations compared with homicides is examined in Chapter 5.

The decisions made by the police and the coroner in the early stages of an unexplained death are therefore very important contributors to the outcome. Failure to identify a suspicious death may lead to the homicide being undetected because an untrained histopathologist may not pick up on indicators pointing to foul play. A homicide can be missed or at best, vital forensic evidence could be lost. The initial investigation can be a difficult call. If the wrong decision is made it could be fatal to the investigation - a *'fatal call'*.

1.2 The Coronial System

The system of death investigation in England and Wales is complex and its origins based in history and commonly referred to as the 'coronial' system (Knight, 2008). The coronial system was established in England during the reign of Richard 1st (Knight, 2008). The word 'Coroner' was derived from the original title of 'Crowner' and their purpose was primarily the collection of revenue to support King Richard's conquests in the Holy Land. This was done by establishing an inquisition into the death of a person and recovering any assets due but also enquiring as to the cause of death with a view of identifying cases of murder and in particular suicides. Suicide was an offence against god and therefore all assets of the deceased were taken by the state and became the property of the King (Knight, 2008, p. 3). A short history of the coronial system in England and Wales is included at Appendix 1.

The primary role of a coroner in modern times is to inquire into the death of a human being within their jurisdiction. Their role was directed by several statutes and rules but has now been consolidated into current legislation under the Coroners and Justice Act 2009. Section 1 of the Act defines the primary role of the coroner to investigate a death where the body lies within their jurisdiction if:

a) The deceased died a violent or unnatural death;

b) The cause of death is unknown; or

c) The deceased died while in custody or otherwise in state detention.

In practical terms, this is any death where a medical practitioner cannot issue a Medical Certificate of Cause of Death (MCCD).

The purpose of the coronial investigation is to establish who the deceased was, how, when and where the deceased came by his or her death and the particulars required to register the death (Fairbairn, 2014). The detailed guidance as to the role of the coroner is set out in the 'Guide to Coroners Services' (MoJ, 2014a). Coroners are independent judicial appointees and are paid and funded by local authorities. Their governmental oversight lies with the Ministry of Justice and since July 2013, all newly appointed coroners must be legally qualified. This new requirement is controversial in some quarters as it is argued it may lead to unnecessary autopsies being ordered by legally qualified coroners, nervous about calling the cause of death because they are not knowledgeable about medical issues (Carpenter and Tait, 2010, p. 207). Carpenter and Tait (2010) claim there is an over reliance on the medical reports from the pathologist rather than the scene report outlining the circumstances of the death, resulting in more focus on the 'science' rather than the investigation. This is due to the perceived superiority of the 'scientific' medical evidence verses what is seen as less scientific circumstantial and physical evidence from the police investigation at the scene (Carpenter and Tait, 2007, p. 209-10).

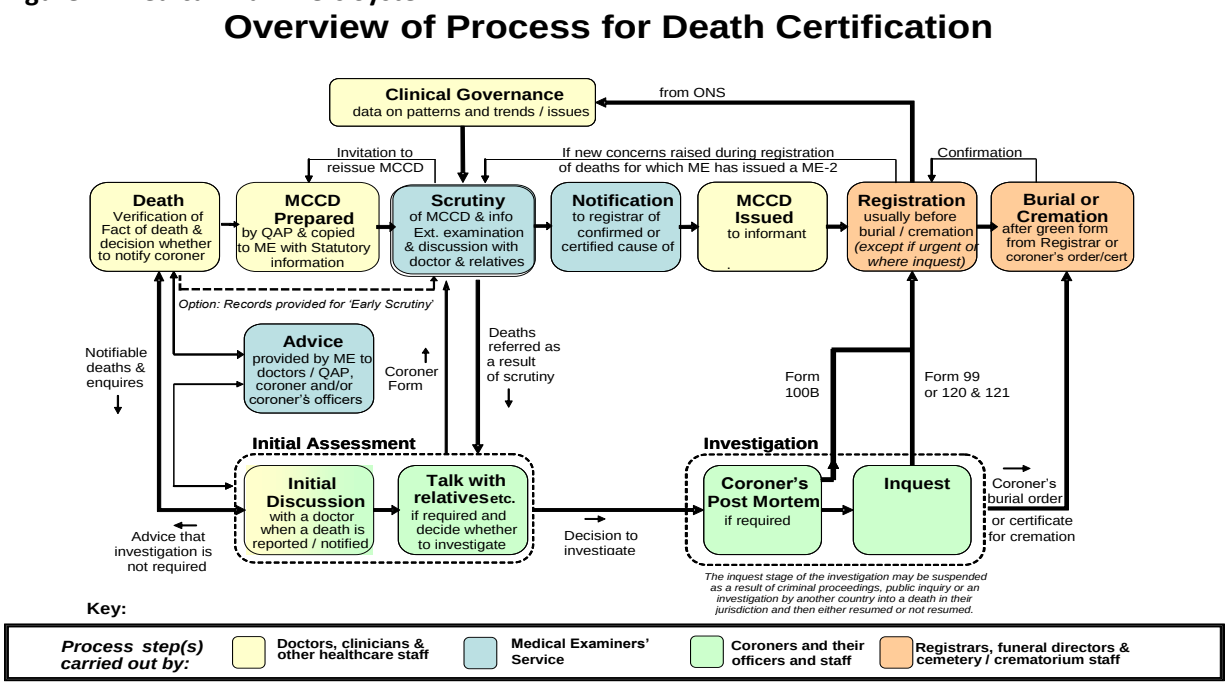
This over reliance on autopsy demonstrates a risk averse approach which is driven partly by a fear of missing homicides. If the coroner makes the call without the PM, and it is wrong, it is the coroners fault. If a PM is conducted and the outcome is wrong, it is the pathologists fault (Carpenter and Tail, 2010, p. 214). The existence of this risk averse attitude of coroners is supported by Luce, (2003, p. 70) and Smith (2004, p. 284). Over reliance on the medical cause of deaths can lead to less consideration as to *why* the death occurred which the medical evidence cannot reveal (Carpenter and Tait, 2010, p. 216).

The 2009 Coroners and Justice Act created the post of 'Chief Coroner' whose main responsibility is to provide support, leadership and guidance for coroners in England and Wales. The 2009 Act also introduced the concept of 'Medical Examiners'. This was due to recommendations of Dame Janet Smith in the 2003 public enquiry which took place following the conviction of Dr Harrold Shipman for murdering what is estimated to be at least 215 of his patients dating back to the 1970's (Smith, 2003). The necessity for medical examiners was reinforced by the Francis Inquiry into Mid Staffordshire Foundation Trust (Francis, 2010) and the Kirkup Inquiry into the Morecambe Bay disaster (Kirkup, 2015). It was recognised that the quality of the MCCD reports completed by doctors was flawed (Fernando, Oxley and Nottingham, 2012; James and Bull, 1996; Roulson, Benbow and Hasleton, 2005; Slater, 1993; Swift and West, 2002). The medical examiners system, unlike the system of the same name in other jurisdictions[3], will not replace coroners, but acts as

[3] Medical examiners in the USA take on a dual role of pathologist and decision maker replacing the coroner.

an oversight second opinion for all deaths except those which are referred to coroners from the outset. It is still unclear how medical examiners when appointed will interact with coroners but speculation was made by the interim National Medical Examiner, Professor Peter Furness for which the title of his lecture to the Medico-legal Society in 2012 sums up the possibilities; 'Mutualism, Commensalism or Parasitism?' (Furness, 2012). The system of medical examiners has been piloted in various parts of the country and a review of these pilot studies found that the quality of death certification by doctors improved; there was more consistency of reporting to coroners where a doctor could not issue a certificate and a better liaison with next of kin. In one pilot area the medical examiner altered the MCCD in 83% of cases and in another site 33% required 'major changes' (Furness, Fletcher, Shepherd, Bell, Shale and Griffin, 2015, p. 11). Figure 1 appears complex but in fact the medical examiners system will, in theory, improve the quality of death investigation and assist to reduce the potential for missed homicide in those cases where a doctor has issued a death certificate (MCCD).

Figure 1. Medical Examiners System



Abbreviations & Notes: QAP = Qualified attending practitioner. ME = Medical examiner. Statutory information required with the copy of the MCCD may be documented in records. External examination may be delegated in certain conditions. The Coroner Form is issued by a coroner for deaths that have been reported, notified or referred, but do not need to be investigated.

1.3 Types of Death Investigation

All deaths in England and Wales must be registered with the Registrar of Births, Marriages and Deaths. This registration is required under the Births and Deaths Registration Act 1953 and registration must take place before the body can be released for burial or cremation and the financial and legal affairs can be settled. Before the registrar can make an entry of the death in

the register of births marriages and deaths and thereby issue a death certificate to the next of kin, they must be in receipt of a MCCD issued by a medical practitioner if the legal conditions are met. These conditions are described at table 3 and termed as a 'non-suspicious community death'. If these conditions are not met, the next of kin will require a certificate issued by a coroner. The undertaker will require a copy of the death certificate from the registrar prior to disposal of the body. If the body is to be cremated, a second medical practitioner must verify the cause of death before the body is released by the undertaker. This is clearly because once destroyed by fire, no further examination can take place, whereas, if the body is buried, it can be exhumed and examined at a later date if further information comes to light which casts doubt on the original cause of death (Department of Health, 2016).

Therefore, a death will fall into one of three categories which will determine the way in which it is investigated. Table 3 briefly explains these. We therefore see three broad categories of non-suspicious; unknown (or 'grey') and suspicious. These same categories are referred to further in Chapter 3.

Table 3: Investigation of death

Investigation	Decision Maker	Outcome	Process
Non-suspicious community death	Doctor	Certificate Issued	A death certificate (MCCD) may be issued by a doctor (under Births and Deaths Registration Act 1953) who has provided care during the last illness and who has seen the deceased within 14 days of death or has seen the body after death and where there are no circumstances leading to suspicion of third party involvement (ONS, 2010). These are normally deaths which occur in the community or in hospital settings and are expected due to terminal illness and are not routinely referred to the police or the coroner for investigation.
Non-suspicious death where conditions for Doctor to issue a certificate are not satisfied	Coroner	Coronial Investigation. Certificate issued after decision or inquest	In circumstances of unexpected death where the deceased was not being treated for an illness and/or has not been seen within 14 days of death, the case must be referred to a coroner (Births and Deaths Registration Act 1953). The police will normally inquire into the death on behalf of the coroner who may, depending on the circumstances of the case, order there to be a post mortem examination of the body and may also order an inquest (Coroners and Justice Act, 2009).
Suspicious Death	Coroner Police	Police Investigation followed by Coronial Investigation	Where death is unexpected and unexplained and there are circumstances which arise as to the possibility that there may have been a third-party involvement, the coroner will be informed, but the police will conduct an initial investigation. If the results of that investigation allay fears of third

			party involvement in the death, the case will be referred back to the coroner to complete investigations and consider whether an inquest is required. If, however the outcome of the initial investigation points towards third party involvement, the police will commence a homicide investigation. In such cases, the coroner's investigation will be suspended until the outcome of the homicide case or the case has been heard by a Crown Court.
Hospital Death	Doctor and NOK[4]	Post Mortem for learning purposes	If a person dies in hospital whist being treated, the next of kin can 'consent' to a post mortem to discover the cause of death. This is done in the interests of learning and future death prevention. However, such post mortems are rare in recent years, which have caused some concern amongst the pathology profession as this source of data is being eroded (Burton and Underwood, 2003).

1.4 The Initial Police Investigation

The police will be involved in the initial investigation of the death only in circumstances where a doctor cannot certify from known facts regarding the patients' medical condition. Upon the report of a sudden and unexpected death, a police officer will be deployed to the place where the body has been discovered or currently lays, which could be the hospital if admission had taken place or death had occurred *on route* to the hospital. It will be the responsibility of that police officer to make an initial assessment of the death as to whether there may be third party involvement or not; in other words, to treat the death as 'suspicious', or to satisfy themselves that no suspicious circumstances exist (ACPO, 2006). It is this initial investigation by the police which is the subject of the research in this thesis. There is no clear guidance, even within the 'grey literature'[5] which sets out a process for this part of the investigation. If it is thought that the death may be suspicious, medical assistance will be required to provide an initial opinion as to the medical cause of death. A 'police doctor' sometimes referred to as a 'Force Medical Officer' (FME) may be called to the scene but unlike forensic pathologists, they are not trained to provide a medico-legal cause of death (ACPO, 2006). Other than pronouncing that 'life is extinct', the FME may not be able to offer any expert opinion as to the cause and surrounding circumstances of the death apart from in the most obvious of cases. There is a lack of nationally accepted advice regarding the process of having a doctor contracted by the police attending unexplained deaths,

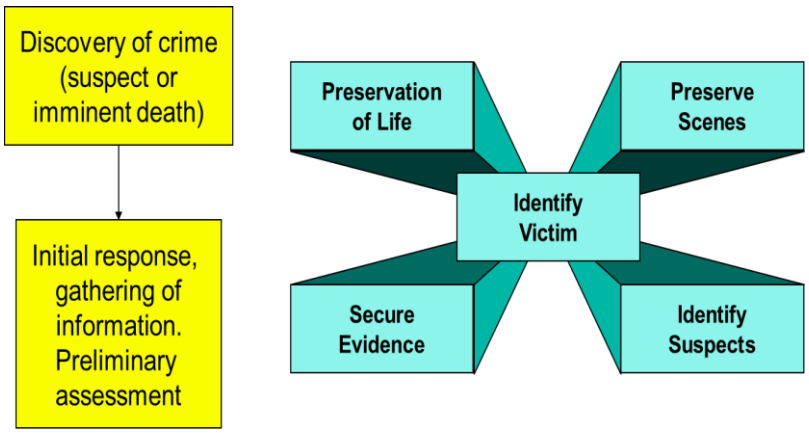
[4] Next of Kin

[5] Grey literature is defined as *'material produced and published by organisations without recourse to the commercial or scholarly publishing industry*' (Lawrence, Houghton, Thomas, Weldon, 2014, p.2).

and there is no law or national policy in relation to the need for a medical professional to declare that life is extinct. The reason for this is not clear but is discussed at chapter 8. At this stage, if the first attending officer considers that the death may be suspicious, the investigation will be referred to detective officers and crime scene examiners. If the view remains that expert medical opinion on the cause of death is required, the services of a HORFP will be called to conduct a forensic PM examination and to advise at the scene if appropriate (ACPO, 2006). However, the HORFP will not be called if the view of the attending police officers is that there are no suspicious circumstances, and it is considered that the case is a straightforward non-suspicious coroner's case. If no suspicious circumstances are identified, the police officer will arrange for the body to be recovered by an undertaker and a report will be completed for the information of the coroner. Based upon the police report and any other facts gleaned from the deceased's medical records and witness evidence, the coroner will decide on the conduct of the coronial investigation and whether a non-forensic PM examination is required. It is these such cases which is the focus of this research.

Prior to a homicide investigation commencing, the most likely scenario is that there will be a reported incident of some kind. This may be a fight, an accident or a discovery of a body. In any event there is typically limited information and so a uniformed police officer is deployed (Feist and Newiss, 2000, p. 5). The Murder Investigation Manual (MIM) (ACPO, 2006, p. 35) describes the priorities of the first attending officers and is known as the 'Five Building Block Principles' at figure 2 (source ACPO, 2006).

Figure 2. Five Building Blocks Principle



These five principles are self-explanatory with the preservation of life clearly being the overriding one. The MIM (ACPO, 2006) describes processes and acknowledges that identifying whether a

death is a potential homicide can be very difficult, and states that all cases should be treated as a homicide until the evidence proves otherwise (ACPO, 2006, p35). However, it offers little guidance to officers on decision making. One of the main weaknesses is that the document was written for the SIO and not the officers who are most likely to attend, few of which would have ever heard of the manual (Fox, 2013).

Some scenes are easier to identify than others (Innes, 2002, p. 671), such as those described as 'self-solvers' (as opposed to 'whodunits') – cases where the person responsible is obvious (Innes 2003, p. 197). The importance of the police initial response to crime more generally is also important to the outcome (Steer, 1980, p. 74; Eck, 1983). The first stage of the investigation is sometimes referred to as the 'Golden Hour', which is the period most critical to the investigation in terms of losing evidence and identifying witnesses (Cook and Tattersall, 2010).

1.5 The Coronial Investigation

The reason that the coroner is an important figure in the potential for homicides to be missed is because of their gate keeping and decision making role in death investigations referred to them. Because only the coroner can authorise a PM examination under Section 14.1 of the Coroners and Justice Act (2009), any erroneous decision leading to a missed homicide may be shared between the police and the coroner. However, the coroner does rely on the police report and opinion in making directions as part of their investigation (see Chapter 8). If the police investigation at the scene is inadequate, the decision making thereafter may be flawed (Carpenter and Tait, 2010, p. 206). There are political influences which can shape the decisions of professional death investigators, especially when suicide is suspected where there is great pressure to reclassify for the sake of grieving relatives (Timmermans, 2006, p. 75). Another area of external influence relates to terminally ill people where the euthanasia debate is often encountered (Materstvedt, 2003). It can therefore be seen that there are outside influences to decision making other than the actual evidence from the scene and at autopsy. There are also social issues which can affect an investigation into a death such as a reluctance of some police officers to examine a dead body or do not know what to look for (Timmermans, 2006 p. 41). There may be objections to the invasive PM process on ethical or religious grounds (Hutton, 2015).

There have been several academic studies in relation to shortcomings in the current coronial system, none of which have been 'fixed' by the 2009 Coroners and Justice Act, which introduced largely cosmetic changes and has been viewed by many within the system as a missed

opportunity (Cooper, Leigh, Lucas, and Martin, 2007). The deaths caused by Dr Harold Shipman, the Marchioness disaster and the Alder Hay tissue scandal all highlight that the system is not water tight (Berry and Heaton-Armstrong, 2005). Although there have been several reviews dating back to 1920, there has been no significant change in a system which is embedded in history (Palmer, 2012, p. 64).

Whatever the shortfalls of the coronial system, the main reason for the coronial investigation is to identify suspicious deaths where third party involvement is suspected, in other words 'homicide'. If the coroner's inquest cannot identify a cause of death, the jury will normally return what is termed an 'open verdict' – this means that the cause of death cannot be established and doubt remains as to how the deceased came to their death. There were over 1700 open verdicts in England and Wales in 2015 (MoJ, 2016, p. 23) and although the majority tend to be possible but unproven suicides, this is the arena where unidentified homicides are most likely to be found (MoJ, 2016.

Chapter 2: Academic Literature Review

Bell (1993; p. 25) describes that the literature review should show that *'the writer has studied existing work in the field with insight'*. The purpose of a literature review is to provide the reader with a picture of the state of knowledge and of major questions in the subject matter being investigated (Bell, 1993).

2.1 Miscarriages of Justice

Several significant cases dating back to the seventies have shaped the way that the police deal with homicide investigations. To fail to identify a homicide thereby allowing someone to 'get away with murder' is a miscarriage of justice in its own right.

In 1972, the way in which the police interviewed juveniles in the Maxwell Confait case led to murder convictions being overturned, resulting in an inquiry into the case by Sir Henry Fisher, which in turn led to the Royal Commission of Criminal Procedure in 1979 (Poyser and Milne, 2015). The case of the 'Yorkshire Ripper' in which thirteen women were murdered by Peter Sutcliffe highlighted many failures of the police to tie together murder investigations across police force boundaries thus resulted in the 1982 'Byford Report' (1981), which introduced many changes in the police handling of homicide investigations. These included the introduction of a standardised method of managing investigations (ACPO, 2005a) and the development of the Home Office Large and Major Enquiry System (HOLMES) as the first national IT solution for major inquiries. There are many more cases such as the Soham murders (Rogerson, 2004), Damilola Taylor (Metropolitan Police, 2002), Shipman Inquiry (Smith, 2005) and the Canning's case (Dyer, 2004) which show that the failings are also a contemporary problem. Failures emanating from the IRA mainland bombings in the 1980's led to a Royal Commission on Criminal Justice in 1981 (Reiner, 2000, p. 67). The death of Stephen Lawrence in 1993 was a watershed in the way that murder was dealt with by the police. This lead to the Macpherson Enquiry (1999) which made far reaching recommendations into police practice. Miscarriages of Justice are not simply 'wrongful convictions' but are '*questionable convictions'* as the former suggests there has been a '*denial of the truth*' which may not in fact be the case (Savage and Milne, 2007). Questionable convictions are not only the consequence of poor investigations, but also *'inaction'* or *'no action',* and so the miscarriage may be a result of a failure to act on the part of investigators. The reasons for miscarriages of justice are varied, and include police malpractice; failed investigation; disclosure issues, through to poor legal representation and questionable 'expert evidence', but fundamentally a violation of an individual's rights (Walker and Starmer, 1999). Miscarriages of Justice can occur where there is no action which can include police incompetence (Milne, Poyser,

Williamson and Savage, 2010). As well as the causes of failed investigations characterised by unwitting prejudice, ignorance, thoughtlessness, stereotyping and other forms of bigotry (Grieve, Crego and Griffiths, 2007). Grieve *et al* introduced the concept of *'institutional incompetence'* which may not be mutually exclusive from the concept identified by the findings of the Macpherson inquiry of 'Institutional Racism' (Macpherson, 1999).

These failings have in turn resulted in legislative changes imposed on the police as it appeared to politicians that there was an inability for the police service to effectively manage major crime without intervention (Stelfox, 2006, p. 102). This resulted in the introduction of the Police and Criminal Evidence Act 1984; Criminal Procedures and Investigations Act 1996 and Regulation of Investigatory Powers Act 2000. These measures caused the intended tightening of outside scrutiny of the police and how they operate, particularly when dealing with serious and major crime. This increase in oversight was even to the extent of taking charging decisions away from the police via the creation of the Crown Prosecution Service. Further measures were introduced such as the introduction of the Independent Police Complaints Commission (IPCC) and establishment of the Criminal Case Review Commission (CCRC), the latter to review the numerous claims of wrongful conviction for murder (Stelfox, 2015, p. 102-105).

The police themselves have recognised the need for professionalising and have introduced many measures to safeguard against the failings of the past; such as the introduction of reviews for homicide cases (Jones, Grieve and Milne, 2008), and the writing of the Murder Investigation Manual (MIM) the first version of which was published in 1998 (ACPO, 1998). The MIM was reviewed in 2000 (ACPO, 2000), and the latest version was published in 2006 (ACPO, 2006). The MIM has a 'sister' document called the Major Incident Room Standardised Administrative Procedures (MIRSAP) which sets out the procedures and processes within a murder incident room based upon the Byford recommendations (ACPO, 2005a). The MIM and the MIRSAP documents set out the collective learning from murder investigations and reviews of the past and provide practice advice in the light of new technical and forensic advances. However, much has changed since the last iteration of the MIM which is long due for revision. The MIM outlines the core doctrine for the management of murder inquiries, and is annexed to the Core Investigative Doctrine publication (ACPO, 2005b).

The MIM sets out the process of a murder investigation (see Appendix 2), but only at the point a death is deemed to be suspicious. It does not create policy in respect of the process prior to that, namely the initial stage of the police attending a sudden and unexplained death. If the first attending officer is unsure as to the cause of death, they should alert supervisors and the case is

referred to the Criminal Investigation Department. Forensic pathologists can be consulted and attend the scene to assist in the medical cause of death, as well as making a scene assessment and advising on evidence recovery from the body. However, if the first officer who attends the scene of the death does not consider it 'suspicious', then the process directed within the MIM will not take place. The management of the scene of death prior to the declaration that there is some reason for suspicion of third party involvement appears to be outside of the traditional management, supervision and oversight of criminal investigation (Neyroud and Disley, 2007, p. 549). It is important to have a designed and established protocol for officers first attending the scene of a potential homicide (Geberth, 1996). Such a protocol on a national basis in England and Wales does not exist currently (Doyle, 2011).

The arrest and conviction of homicide offenders is usually in the mid 90 percent range (Office for National Statistics, 2014) and so success is high. This success is clearly in ignorance as to the number of homicides which are never identified as such. Stelfox (2006) examined a number of homicide investigations conducted in a single year in a large force with a view to identifying the features of a police homicide investigation which lead to a successful detection of the crime. He concluded that *'the investigation process does not consist of a series of designed activities which occur in all cases but a loose framework within which officers deploy a range of investigative techniques, knowledge and decision making skills depending on the needs of the individual case'* (Stelfox, 2006, p. iii).

Surprisingly, there is little academic literature about homicide investigation (Stelfox 2006, p. 2) although some notable exceptions exist such as Innes, (1999; 2002; 2003); Brookman, (2005); Brookman and Innes (2013) and Stelfox (2006). To conduct a successful homicide investigation, there are three key information needs as identified by Innes (2002, p. 681) and Maguire and Norris (1992, p. 7) as:

- ✓ Determining that a crime has taken place;
- ✓ Identifying a suspect and;
- ✓ Gathering evidence to support a prosecution.

Traditionally a successful murder investigation has only been heralded as such when there is a successful conviction at court, however as well as 'outcome success' the investigation can also be judged on *'procedural success'*, *'community impact success'* and *'preventative success'*. (Brookman and Innes 2013, p. 296-305). For a homicide to be categorised as such, the event must be identified and classified in relation to the standards of evidence and definitions in law, which is

a *'complex constructive process'* (Innes, 2002, p. 671). The interpretation of 'facts' is through a *'social process of objectification'* (Innes, 2002, p. 671), which of course can be different realities to different people because meaning is not intrinsic to an object or phenomena but is *'an artful construction'* expressing a *'situated perspective'* (Innes, 2003, p. 68). This thesis is concerned with the first of Innes' three stages - identifying whether a homicide has taken place, because if this is not done properly, there may be no homicide investigation. The investigation at the scene by the first attending officer is therefore the most critical part of the investigation because if this is flawed, the other two stages will not come into play.

Doyle (2011) conducted a survey of all police forces in England and Wales to ascertain whether they had policies in place for first responders on how to deal with a sudden unexpected death. She found that 66% of forces had policies in place but the quality and content varied across the country, and it was clear that those who were expected to attend these incidents were the most junior and inexperienced of officers. There was little in the way of guidance as to what constitutes 'suspicious' or indicators of aggravating factors which may lead to suspicion. Some forces had policies in place where ambulance staff attended and the police were only involved if the ambulance staff considered the case to be suspicious (Doyle, 2011, p. 50). Policies were in place for half of the forces for child death cases, but again, she found the content and quality variable. Thus, there appears to be considerable disparity across the country which remains unchanged (Doyle, 2011), although there is now a national protocol for dealing with child death cases (Marshall, 2012).

2.2 Issues Affecting Decisions Made in the Early Stages of a Sudden Death Case

Central to this research are the decisions made in the early stages of a sudden and unexpected death investigation. It is important therefore to look at factors which may affect the choices that first attenders make. Decision making within the investigative context is no different from the broader issues in respect of any context (O'Neill and Milne, 2014, p. 124), and so this section will examine the literature on generic but then focus in on investigative decision making. Systematic errors can be caused by bias thinking and many of the issues which affect our perceptions of reality, impressions, intuitions and decisions go on subconsciously in human minds (Kahneman, 2011, p. 4). Cognitive bias is a result of 'computational trade-offs' carried out in the brain (Dror, 2013, p. 2). Most of the time humans are rational and their thinking is sound, but this can be affected by emotions which can cause a departure from rationality (Dror, 2013, p. 8). Kahneman, (2011) describes two systems in the mind, System 1 and System 2. System 1 operates

automatically, intuitively involuntarily and effortlessly. This might include such tasks as riding a bicycle or other 'motor' tasks which we do not consciously think about in any depth. System 2 requires active thought; slowing down; deliberating; problem solving; reasoning; concentrating and not jumping to quick conclusions (Johnson, 2014, p. 1). The problem with system 1 thinking is that many people are over confident in their intuitions and they find cognitive effort 'unpleasant' and so rely on their intuition which may be flawed. They are also likely to listen to arguments which support their view and ignore those that do not. With system 1 thinking, the conclusion comes first and the justification follows (Kahneman, 2011, p. 45). Although system 2 should overcome the weaknesses inherent in system 1, on most occasions '*the lazy system 2 will adopt the suggestions of system 1 and march on'*. In other words, the decisions reached in system 2, although slow and more thoughtful, will be influenced by initial thoughts already made (Kahneman, 2011, p. 64).

There is a bias of 'first impression' which is supported by a sub-conscious search for evidence to reinforce that first impression, rather than gathering all the evidence and then using system 2 to analyse and consider what might be the reasoned outcome (Rabin and Schrag, 1999). This phenomenon was realised even as far back as Francis Bacon in the 17th century (Bacon, 1620). Kahneman (2011) introduces the mnemonic WYSIATI – 'What You See Is All There Is'. In other words, one does not look beyond what one observes, or thinks that they have observed. Kahneman (2011) describes the heuristic approach to problem solving, learning, or discovery that employs a practical method not guaranteed to be optimal or perfect, but sufficient for the immediate goals. Where finding an optimal solution is impossible or impractical, heuristic methods are used to speed up the process of decision making. Heuristics are mental shortcuts that ease the cognitive load of making a decision. Examples of this method include using a rule of thumb, an educated guess, an intuitive judgment, stereotyping, profiling, or common sense. *'System 1 is sometimes the cause of what we do wrong, but it is also the origin of most of we do right – which is most of what we do'* (Kahneman, 2011, p. 416). Whereas one might expect the individual to deduce the particular from the general, in fact there is a tendency to deduce the general from the particular. In other words, to generalise a principle from one particular case (Kahneman, p. 174)[6].

Generally, the literature describes the effect of bias on decision making as affecting all human interaction. Dhami (2003) studied decisions on bail applications in court cases and found that decision makers were more likely to use heuristics than an objective consideration of the case.

[6] A range of heuristics are summarised at Appendix 4, together with other academic references.

The same heuristic interference is identified within the medical profession (Hamm, 2004). Goldacre (2008) explained the appeal of alternative medicine on the effect of bias, including confirmation bias which induced people to use substances for which there remains no medical evidence that it works. Pennington and Hastie (1986 and 1992) examined the influence of heuristics on jurors which influenced their decision making rather than the evidence presented in criminal trials; Carpenter and Tait (2010) found similar biases in the decisions of coroners. There have also been studies into the decisions made by legally qualified professionals including judges where bias influenced decisions rather than the evidence presented (Simon 2004). The decisions of judges and legal professionals are equally susceptible to the effect of heuristics which poses a concern for the reliability of criminal and civil proceedings (Greene and Ellis 2007; Heilbrun and Erikson, 2007).

Eyre and Alison (2007) examined the organisational and political culture in which professionals work when dealing with 'critical incidents', particularly with heavy media coverage and within the context of the blame culture (Eyre and Alison, p. 212). Context is a very important influence over decision making which is a factor not previously considered by traditional decision making theory (TDM), pointing to the fact that most research in this area has been laboratory based experimental research, where the researcher has control over the context which may not have much applicability in the 'real world' (Eyre and Alison, 2007). This type of research is contrasted with 'Naturalistic Decision Making' (NDM) which examines what decision makers do in real situations. In other words, the study commences with what *was* done rather than what *should* have been done (Eyre and Alison, 2007, p. 214). Researching the real world brings into play factors which may not be present in laboratory based experimentation, such as time constraints, stress, ambiguity, emotion, fear of criticism and organisational culture which can lead an operational decision maker to miss or ignore vital information causing 'premature closure' of an incident (Eyre and Alison, 2007, p. 220). Premature closure could of course include the investigation of a sudden and unexpected death. Eyre and Alison (2007) examined the literature in respect of failure to make decisions which are described as 'decision avoidance'. This accounts for many of the tragedies over recent years which have led to public inquiries such as failure of the authorities to act in many child deaths where social services were criticised for failing to act to implement child protection measures (Laming, 2003).

Decision avoidance is defined as *'a tendency to avoid making a choice by postponing it or by seeking an easy way out that involves no action or no change'* (Anderson, 2003, p. 139), which leads to the bias effects of; i) maintaining the status quo; ii) omission to act and iii) deferring the

decision (Anderson, 2003). A sudden and unexpected death where the simplest option is that the death was from natural causes seems therefore to be attractive in that it is the easiest line of resistance. The effect of organisational culture and identity may also play a part in operational decision making (Eyre and Alison, 2007).

Klein (1993) introduced 'Recognition Primed Decision Making (RPM)', which examined the decision making of experienced fire-fighting commanding officers and found that they were able to assess a situation and rather than considering alternative options, they simply decided on the required action based upon the first option they generated. Using their experience, the fire officers could access the 'typicality' of the situation and act appropriately (Klein, 1993; Klein, 2008; Eyre and Alison, 2007, p. 215). Klein found that those fire commanders with experience made more correct decisions than those with less experience. The main element of the Recognition Primed Decision Making model can be seen at figure 3 (Klein, 1993, p. 147).

Figure 3: Elements of Recognition Primed Decision Making

- Prescriptive decision strategies are not designed for ill-defined tasks or for time-pressured situations.
- A Recognition-Primed Decision (RPD) model describes how decision makers use their experience to avoid painstaking deliberations.
- Experience enables a person to understand a situation in terms of plausible goals, relevant cues, expectancies and typical actions.
- Experienced decision makers usually try to find a satisfactory course of action, not the best one.
- Experienced decision makers can usually identify an acceptable course of action as the first one they consider, and rarely need generate another course of action.
- Decision makers can evaluate a single course of action through mental simulation. They don't have to compare several options.
- Recognitional decision strategies are more appropriate under time pressure and ambiguity; analytical strategies are more appropriate with abstract data and pressure to justify decisions.
- In a variety of operational settings, recognitional decision strategies are used more frequently than analytical strategies, even for difficult cases.

The RPM model is analogous to a learner driver of a car who must slowly consider each next action, whereas an experienced driver does so without even thinking (Klein, 1993; Eyre and Alison, 2007). In the context of critical incident management, '*less experienced managers do not possess a complex memory structure which contains a broad repertoire of typical situations from which to generate first and best options and are more likely to be prone to error*' (Eyre and Alison, 2007, p. 215). Saunders (2001, p226) also found that police officers did not rely on a formal

decision making process, instead responded in ways that they had done in previous similar situations. The shortfall of this experiential learning model is that when dealing with a relatively rare event such as a homicide, the repertoire of responses is likely to be more limited (Adhami, Browne and Laycock, 1996, p. 15). There are currently less than ninety-nine thousand[7] 'front line' police constables in England and Wales and so considering the numbers of cases they might attend per year on average it would be no more than one or two and thus they cannot build an experience base on which to rely. Police officers decisions are also influenced by the *'occupational values of the police and a set of rules used to achieve outcomes consistent with those values'* (Reiner, 2000, p. 87).

Another form of effect which is an example of cognitive bias is the effect of 'framing', whereby people react to a particular choice in different ways depending on the way information is presented; e.g. as a loss or as a gain (Plous, 1993). Alternative ways of presenting the same information can cause the recipient to think about it in a different way. Kahneman (2011, p. 88) gives the example of a surgeon explaining that *'the odds of survival one month after surgery are 90%'* is more reassuring than the equivalent statement that *'mortality within one month of surgery is 10%.'* Although both statements may be true, the latter can be perceived in a far more negative way (Tversky and Kahneman, 1981). Thus, the way a decision is presented has a large impact upon the choices that result, and is a form of framing. Although the experiments carried out by Tversky and Kahneman were in the main concerned with the framing of questions as to financial loss or gain in medical settings, the principles of how a question is framed can be equally relevant to decision making in the death investigation context. (This is further discussed at chapter 8).

Another biasing effect described by Kahnamen (2011) is that of 'priming'. Priming is a nonconscious form of human memory concerned with identification of words and objects. It refers to activating associations in memory which can influence that memory (Tulving, 1991). Research on priming was pioneered by Meyer and Schvaneveldt (1971) who found that memory and recall is affected by having a word fed to them which will affect a response due to association with that word. For example, a person who sees the word 'yellow' will be slightly faster to recognise the word 'banana'. This happens because yellow and banana are closely associated in memory. This is a kind of 'word association' (Kahneman, 2011, p. 52) and the effect is to anchor one's thoughts to an idea rather than using free thought. Priming can affect thoughts and behaviour influenced by stimuli to which the individual has no conscious awareness. '*Our*

[7] Gov UK website at https://www.gov.uk/government/statistics/police-workforce-england-and-wales-31-march-2015-data-tables

thoughts and our behaviour are influenced, much more than we know or want, by the environment of the moment' (Kahneman, 2011, p. 128). There is an obvious link to decision making of first attenders at the scenes of sudden and unexpected deaths in terms of the information officers receive prior to or at attendance. A practical example of this was described by Kertsholt and Eikelbloom, (2007), who looked at mitigating bias in criminal investigations. Thirty-eight crime analysts were asked to advise on causal scenarios for how the investigation team should continue their investigation. Half of the analysts were given the existing hypothesis held by the investigation team while the other half were given no prior hypothesis about the case. The results of this study showed that when given a prior hypothesis, the analysts were more likely to go with that hypothesis, i.e. a better, more objective analysis of the facts was achieved without prior information and knowledge of the hypothesis provided. It was thus recommended that in cases where the crime analyst is asked to give an objective assessment, he or she should not be informed about the hypothesis of the investigation team until after the analysis has been conducted. This was also supported by Saunders (2001, p. 226). An analogy can be drawn here with the biasing effect of inappropriate information being given to a police officer attending a sudden and unexplained death by a control room operative such as; "*please attend a routine sudden death at…".*

One of the most significant issues for police officers in managing critical incidents is the concern over how their actions would be perceived by the press and the public (Crego and Alison, 2004). This is a sub-set of decision making referred to as 'investigative decision making'.

2.3 Investigative Decision Making

Most literature concerning investigative decision making tends to centre on the role of the SIO and strategic decisions (Mullins, Alison and Crego, 2008) once the crime is declared as such, but little appears to consider the role of the officer attending the initial stages of a crime and in particular, decision making in homicide cases (O'Keefe, 2002). Dror (2013, p. 3) discussed the effect of 'base rate' on the cognitive mechanism whereby the human brain gets used to base rate regularities which adjusts cognitive attention and processing. He gives as an example the people who view x-ray scanners at airports and never find anything. This can be problematic when a second person must check the work of the first, such as a fingerprint expert checking a colleague's findings, or in the context of this study, a supervisor effectively scrutinising a junior officer's decision making. Dror (2015) succinctly described the biased construction of a case to support an

argument at the Bond Solon Expert Witness Conference[8] as *'…it's like firing an arrow into a tree and then drawing a target around it'.*

Much of Dror's research has been in the realm of laboratory based forensic experts, and his work has in part informed the Forensic Science Regulator to issue guidance in October 2015 entitled 'Cognitive Bias Effects Relevant to Forensic Science Examinations', regarding bias in laboratory work. There is a risk of misleading an investigation by investigators focussing too early and incorrectly on false information where other evidence can be overlooked (Forensic Science Regulator, 2015). A summary of the various biasing effects of forensic work can be seen at Appendix 4. Similarly, there has long been a debate whether police decision making is intuitive or learnt by experience and professional judgement. Skills, knowledge and experience influence the decision making of homicide detectives (Wright, 2013). Wright (2004, p. 183) differentiates between 'procedural decisions' which are standard actions laid down in policy and procedures, to 'intuitive decisions' which are defined as *'the ability to automatically go beyond the information available to develop hypotheses and make inferences'* and is a form of rapid cognition based upon experience. It therefore follows that those with the greatest experience and knowledge base are better equipped to make those intuitive decisions. Wright used multi-dimensional scalogram analysis (MSA) and identified a cycle of cognition which involved a four-stage process of; i) contextual clues; ii) hypothesis generation; iii) inferences and vi) decision and action. The subjects of the research were detective officers who used contextual features of crime scenes and their knowledge and experience to derive inferences and make hypotheses about what happened by viewing scene photographs. The study found that overall 67% of detective's inferences were correct and 23% incorrect, but there were variations according to the type of crime scene and there were no clear differences between officers of various ranks although the higher ranked officers made more inferences (Wright, 2013, p. 194). Officers partaking in the study emphasised the importance of 'keeping an open-mind', however the psychology of human inference would indicate that keeping an open-mind is not possible (Tversky and Kahneman, 1981). Wright found that detectives, from very limited information built a picture of how they perceived events to be but this is necessary to make sense of what they see at crime scenes (Pinizzotto, Davis and Miller, 2004).

Barrett (2009) explored psychological mechanisms underlying the acquisition, interpretation and exploitation of information in complex criminal inquiries and found that interpretations varied across participants in the study who were given vignettes of crimes to consider, albeit that the

[8] 6th November 2015 at the Church House, London.

scenarios within the vignettes were the same. Factors of complexity, incomplete information, ambiguity and risk can affect investigative decision making especially in the early stages when deciding whether a criminal offence has been committed (Ormerod, Barrett and Taylor, 2008, p. 81). Kerstholt and Eikelboom (2007) describe the main threat to objective information processing in crime investigation as the tendency to focus on only one interpretation. One of the main issues in respect of confirmation bias is the tendency for people to pay the most attention to that information which is confirmatory of one's existing hypothesis to the exclusion of information that challenges that hypothesis (Brandl, 2009, p. 11). A contributing factor in failing to identify a homicide as such could be the role that confirmation bias plays in the officer's initial hypothesis that the death is natural or a non-suspicious death (Jones, 2014).

The Core Investigative Doctrine (ACPO, 2005b) seeks to plot a set of principles in relation to policing; in particular crime investigation, and refers to the use of hypotheses within the context of the investigation of crime. Hypotheses are defined as *'a suggested explanation for a group of facts either accepted as a basis for further verification or accepted as likely to be true'* (ACPO, 2005b, p. 70). One of the early writers about hypothecation was William of Ockham (1288 to 1348). *Ockham's razor* was his principle that theory construction should always err towards the simple as this was more likely to be the truth. Ockham also warned about making hypotheses too elaborate and 'hypothesising about a hypothesis' (O'Connor and Robertson, 2005). However, the use of Ockham's principle could itself be the source of bias. Heuer (1999) argues that a set of hypotheses should be identified and the inquiry should seek to disprove each one; the one which remains is probably the truth[9]. There is a school of thought that the use of hypotheses within a crime investigation should be avoided as the investigator could fall foul to the principles of *'case construction'* (Sanders and Young, 2003; Henneberg and Loveday, 2015). '*Case construction'* is where the investigator adopts a hypothesis as to what has happened and identifies evidence to support that hypothesis to the exclusion of evidence which does not support or even contradicts that hypothesis (Sanders and Young 2003). This phenomenon is particularly evident in the interviewing of witnesses, where there is now a considerable body of evidence to show that using traditional interviewing methods it was relatively simple for the investigator to obtain a statement as to what the interviewer wants the witness to say as opposed to what the witness wanted to say (Milne and Bull, 1999). One can see the dangers of forming a hypothesis too early in a death investigation at the scene before all the facts are known. The ACPO Core Investigative Doctrine (ACPO, 2005b) describes the dangers inherent in many historical cases of *'verification bias'* which

[9] This concept was first expounded by Sir Arthur Conan-Doyle in his Sherlock Holmes series of fiction and was the first of his seven principles of investigation (Tallon and Baggett, 2012). The name 'Holmes' and the link with the computer system adopted for the use of major crime inquiries will not escape notice.

is where an investigator forms an early view as to a hypothesis and then concentrates the focus of the inquiry into supporting that hypothesis to the subjective exclusion of other lines of inquiry.

The opposite of case construction is *'case denial'* where the investigator forms an early view that no crime has been committed, which can limit the investigation to proving that no offence took place (Sanders and Young, 2003). Indeed, this is what happened in the case in of Ricky Reel who went missing in 1997 but whose family still campaign for justice[10]. When this youth was reported missing the police took the view that there was no crime even after his body was found in the River Thames (BBC, 2000). Such preconceived views on the part of investigators can lead to '*premature closure'* of investigations prior to all reasonable lines of inquiry being followed in accordance with Section 23a of the Criminal Procedures and Investigations Act 1996. Again, both case denial and premature closure are relevant to decision making at the scenes of death.

The Core Investigative Doctrine (ACPO, 2005b) describes reasons for flawed decision making on the part of senior investigators and accepts that it may be impossible to rid one's mind of 'ingrained flaws'. However, as Hammond, Keeney and Raiffa (1998, p. 47-58) argue, if one is aware of the flaws which effect decision making, the individual may be able to compensate for them. Hammond *et al* (1998) describe the most common of the decision making traps as being i) over-confidence; ii) over-cautiousness; iii) memory interference or 'recalability' and iv) what he describes as 'anchoring' which is an over reliance on the first accounts available to the investigator to the exclusion of further and perhaps more accurate information. Hammond *et al* (1998) describe the tactics to overcome these flaws as; i) view a problem from different perspectives; ii) thinking a problem through alone prior to consultation with others thus avoiding being *anchored* by their ideas and iii) to be open-minded and seek views from a variety of others to widen the frame of reference.

The Core Investigative Doctrine (ACPO, 2005b) lists five elements of what it describes as the *'investigative mind-set'* necessary for an investigating police officer to acquire over time and with experience;

- Understanding the source of material;
- Planning and preparation;
- Examination;
- Recording and collation: and
- Evaluation.

[10] Report on the case of Ricky Reel downloaded 28th February 2016 from http://www.bbc.co.uk/news/uk-england-london-28447168.

More recently, the College of Policing has adopted a National Decision Making Model at figure 4 (College of Policing, 2014).

Figure 4: National Police Decision Making Model

The College of Policing model has five sequential processes, but with the overarching principle being the Code of Ethics to ensure that decisions are ethical, lawful and proportionate in accordance with the principles of human rights. The elements are:

Code of Ethics – Principles and standards of professional behaviour

Information – Gather information and intelligence

Assessment – Assess threat and risk and develop a working strategy

Powers and policy – Consider powers and policy

Options – Identify options and contingencies

Action and review – Take action and review what happened.

This model is similar to the 'Intelligence Cycle' (Maguire and John, 2006) and has similarities to the 'Experiential Learning Cycle' (Kolb, 2014). Although the model assists police officers and decision makers with a framework, James, (2016) argues that it does not take into consideration other factors such as the experiential, psychological and emotional dimensions of decision making. It thereby assumes that decision makers are rational and consistent and so although the model may satisfy the police hierarchy that staff will act lawfully and ethically, it ignores the realities of the real world (James, 2016).

2.4 What Measures can be introduced to Reduce Bias Thinking at the Scene of a Death?

There are a taxonomy of 'biasing' factors in five levels called 'Linear Sequential Unmasking' (LSU) at table 4 (Dror, Thompson, Meissner, Kornfield, Krane, Saks and Risinger, 2015, p. 1111-1112). Dror *et al* (2015) argues that the further through the levels, the more likelihood of a bias affecting the outcome of forensic analysis. This principle is also relevant to the officer in first attendance at a death scene.

Table 4: Taxonomy of Linear Sequential Unmasking

Level	Factors Causing Bias
5	Organisational and Cultural Factors
4	'Base Rate' Expectations
3	Case Information
2	Reference Material
1	Trace Evidence

According to Dror *et al* (2015) forensic examination (such as attendance at a death scene) should attempt to restrict access to information to as low a level as possible within the taxonomy to reduce the bias affect. This mainly relates to laboratory analysis and therefore its application to the first officer attending the scene is limited.

A rather crude method of reducing the effects of bias is taught on Senior Investigation Officer training to the police in England and Wales, called the 'ABC rule' (Cook and Tattersall, 2010):

A – Assume Nothing;
B – Believe Nothing; and
C – Challenge and Check everything.

Rossmo (2006) describes several strategies to reduce the influence of bias affecting decision making which includes the importance of study based training. This is supported by Fahsing and Ask (2013) who identified that experience and training were the single most important safeguards against biasing influences. This was also found to be the case in a study of decision making between British and Norwegian detectives, where Norwegian officers receive degree level academic education which was found to be inferior to the British system where detectives have a nationally standardised professional experienced based training (Fahsing and Ask, 2016). It is interesting to note that little or no training is given to police officers attending the scenes of

sudden death. The curriculum offered by the College of Policing website[11] to police supervisors and managers of those responsible for dealing with these cases tends to concentrate on leadership and management competencies and the system of delivery may be flawed (White, 2006; Peace, 2006). In police training, emphasis on cultural change and ethical standards leads the political agenda since the Neyroud report in 2011 triggered the government to setting up the College of Policing (Neyroud, 2011).

One of the strategies which could be effective in combating poor decision making due to bias is the adoption of Standard Operating Procedures (SOP). There is evidence that SOPs can overcome the bias effect (Dror, 2013, p. 2; Nakhaeizadeh, Dror and Morgan 2015). Other measures which can overcome base rate bias can be 'blind verification', whereby the person who is supervising and checking work does so without knowing the outcome of that work (Dror, 2013, p. 3). Kahneman, (2011, p. 417) argues that the way to avoid the pitfalls of heuristics invited by system 1 is to slow down the thought process, and actively use system 2 and this can be aided using algorithms or mechanical systems which are more reliable at coming to a judgement than experts because a slight variation as a judgment by a human can vary with differing circumstances. Therefore, checklists and simple rules are more efficient than judgement which can be influenced by the 'halo effect', defined as the tendency to use global evaluations to make judgments about specific traits (Long-Crowell, 2015). Meehl (1954) describes the argument between the merits of experience and knowledge verses 'system' or a 'Standard Operating Procedure' as 'Clinical verses Statistical Prediction'. Meehl argues that a system based upon statistical probability is a more reliable tool than the intuition and experience of professionals. In other words, a rule or a standard way of decision making is more reliable than a clinician's opinion. Reviews of 20 studies in later work found this was shown in respect of prediction in a variety of environments including criminal justice (Meehl, 1986). A substantial number of studies have shown that the use of algorithms is more reliable than expert opinion and it is also more cost effective (Kahneman, 2011, p. 223). Meehl argues that there are only a few circumstances when a human judgement should be substituted for a formula, but one of them is when unusual facts are known which make the formula redundant. Kahneman (2011) states that the reason that algorithms are more reliable is that they are not susceptible to the frailties of system 1 thinking. Dawes (1979) argues that even roughly conceived algorithms are more reliable than professional judgement. The adoption of standard operating procedures in medicine has saved many lives in the past rather than reliance on clinical judgement (Gawande, 2010). These principles are now common place in

[11]http://www.college.police.uk/What-we-do/Learning/Curriculum/Leadership/Pages/leadership-and-strategic-command.aspx

selection interviews where rather than relying on the interviewer's judgement regarding a candidate, a scoring matrix is used (Kahneman, 2011, p. 232).

Gawande (2010) takes the principles of Meehl and writes of the applications of a simple checklist to aid decision making in all walks of life including medicine, manufacturing and construction. Medicine has become so specialised there is no such thing in modern hospitals as a general surgeon and so each procedure accompanies a checklist to avoid missing anything and making up for human error (Gawande, 2010, p. 30). Gawande makes the point that most professions including services like emergency responders deal with such complexity that they cannot rely upon experience and memory alone (Gawande, 2010, p. 34). Checklists instil a 'discipline of higher performance' (Gawande, 2010, p. 36) and reduces the likelihood of missing stages in a process that appear not to be necessary. Medical procedures have seen some remarkable increases in reliability and patient safety as a result (Berenholtz, 2004; Pronovost, Needham, Berenholtz, Sinopoli, Chu, Cosgrove and Bander, 2006; Haynes, Weiser, Berry, Lipsitz, Breizat, Dellinger and Merr, 2009). Checklists assist memory recall and set out the minimum necessary steps in a process. This leads to a higher level of baseline performance (Gawande, 2010, p.39). Heilbrum and Erickson (2007) argue that checklist principles could also be applied to judicial decision making (Heilbrun and Erickson, 2007, p. 202).

Although the concept of using checklists appears to detract from personal responsibility for decision making, Gawande (2010) is clear that although apparently contradictory, a decision maker must use the checklist to avoid simple mistakes but responsibility remains with the decision maker who is left with the '*power to manage the nuances and unpredictability's the best they know*' (Gawande, 2010, p. 79).

Checklists should be structured and be clear and precise. They do not attempt to manage all eventualities but must spell out the important and critical steps, those points that even the most professional and highly skilled operators could miss (Gawande, 2010, p. 120). Gawande (2010) also points out that checklists cannot be lengthy and contain no more items than the human brain can recall which is stated as nine. The checklist must contain the critical factors and wording should be simple and exact but also reflect the familiar language of the profession (Gawande, 2010, p. 123).

2.5 Standard Operating Procedures in the Police Service: Are they Effective?

The use of checklists in the police service is not a new concept. There are many suggested lists and models which are used and the use of the mnemonic dates back many years (Cook and

Tattersall, 2010). Jones, Grieve and Milne (2010) experimented with a checklist-type tool for the use in the review of homicide inquiries. Two groups of detective investigators were used as a control and experimental group. Both groups contained equal numbers of pre-defined experienced and non-experienced officers. All participants were given the same homicide case to review. The control group were asked to produce a report outlining the strengths and weaknesses of the homicide inquiry to date with recommendations for the future progress of the investigation. The experimental group were asked to produce a report in the same way, but using a review tool template (a detailed checklist). The experimental group outperformed the control group in terms of the quality, detail and length of the review report. It was clear that the experience of the reviewer was a significant factor in quality and quantity of the review report in both the control and experimental groups. The inference was that an officer detailed to perform a review should be very experienced within the field of murder investigations, but also that that the use of a structured standard operating procedure is likely to garner far more quality information than leaving the process to individual thought, knowledge and experience (Jones *et al,* 2010, p. 14).

Chapter 3: Methodology

3.1 Introduction

This chapter describes the way in which answering the research question was approached. The British Society of Criminology's general principle is that *'researchers should ensure that research is undertaken to the highest possible methodological standard and the highest quality in order that maximum possible knowledge and benefits accrue to society'*, (British Society of Criminology, 2006).

To answer the research question it was necessary to carefully consider the appropriate methodology. As with any research, it is vital that data is collected appropriately and outcomes are consistent with that data and that any inaccuracies or bias are kept to a minimum. With this study, as the outcomes and recommendations were likely to be acknowledged by the police and coroners, and possibly implemented, the methodology was likely to receive further scrutiny beyond academia, particularly by those who may feel threatened by the outcomes.

A *scientific* approach was therefore required to produce the necessary data. Johnson and Onwuegbuzie (2004) define *science* as '...*an approach for the generation of knowledge that places high regard for empirical data and follows certain norms and practices that develop over time ...* (Johnson *et al* p. 24). There has been much debate about what is and what is not scientific (Chalmers, 1999). Robson (2011, p. 14) talks in terms of a '*scientific attitude'* which he describes as being ethically sound and systematic but also viewing your ideas sceptically by subjecting your ideas to possible disconfirmation. It can be quite problematic to be systematic as the researcher is human and subject to the frailties well documented in other types of investigation (Kahneman, 2011) including the investigation of criminal offences (Eyre and Alison, 2007 p211-232; Rossmo, 2006). Postmodernists may claim that the scientific approach does not in reality exist (Wilson 1999 p. 44), however this appears to be a minority view (Robson, 2011). Having established that a scientific approach is required for this research, the particular methodology and methods needed to be identified.

The existing literature concerning the investigation of death and homicide in the main examines actual homicide investigations rather than decision making at the original scene. Therefore, there is little in the way of precedent in terms of methodology. Other research which has examined the way in which death is investigated include Innes (1999) who looked at the process of a murder investigation and used participant investigations and case studies – real murder investigations

which he was able to observe. Saunders (2001) used a simulated crime to research how investigators make decisions. A similar methodology was used by Adhami, Browne and Laycock (1996) in respect of a simulated child homicide. The role and function of a SIO was examined by Smith and Flanagan (2000) where semi-structured interviews were used. The favoured methodology in crime investigation research appears to be examination of official case files (Stelfox, 2006; Banton, 1985), or participant observation (McCabe and Sutcliffe, 1978). A combination of both methodologies was used by Steer, (1980). Doyle (2011) conducted a document analysis of death investigation policies from all police forces in England and Wales. Jones, Milne and Grieve (2008) used a case study experiment in relation to murder review. Henneberg and Loveday (2015) examined three murder investigations from different jurisdictions to identify shortcomings in police investigatory practice, in particular the phenomenon of 'case construction' where cases go 'off track'. Another possible method considered for this research was that of trawling cases of known 'missed homicide' from media and academic accounts. However, it was considered difficult to make approaches to those involved in such cases as many are historic in nature and it was likely that they would be unwilling to assist for the purpose of research. Some may have received discipline outcomes and others may still be going through the discipline process. Known cases have however been highlighted as part of this research within chapter 4.

There were three main strands to this mixed method study. The first was to identify the numbers of death investigations in England and Wales and compare this with the number of identified suspicious deaths to see if there was a correlation with the reducing number of forensic PM's performed with the reducing homicide rate. The second and central method was an examination of over thirty real cases where there was potential for a homicide to be missed due to the decisions made by police and coroners in the early stages of the sudden and unexplained death investigation. These were cases identified because they were initially thought to be non-suspicious but later facts emerged tending to make them less straight forward. Each was treated as a separate case study whereby information was gathered as to the circumstances of each case. The third method was a series of focus group interviews involving police decision makers in unexplained death investigations.

3.2 Philosophical Positioning

According to Mackenzie and Knipe (2006), social scientists have come away from categorising between quantitative and qualitative data, instead concentrating on the most appropriate

methodology to address the research subject. It is important however to set out the philosophical position in terms of the epistemological and ontological standpoints of the researcher. The reason this is important is that those who read and consider the research should be aware of the paradigm in which the researcher is positioned and thereby ensuring that the principles and assumptions that underpin the research are clear, allowing the reader to make their own evaluation (Crotty, 1998). The choice of this paradigm sets down the intent, motivation and expectations for the research (Mackenzie and Knipe, 2006). The construction of the research therefore relies on the subjective assumptions of the researcher which is based upon his or her learning and experience (Scotland, 2012). Although the literature refers to at least four research paradigms[12], the two dominant epistemological and ontological ideologies are positivism and constructivism (also referred to as interpretivism). Positivism is sometimes referred to as a 'scientific method' in that it is 'value free' (Robson, 2011, p. 21) and relies in its approach primarily on quantitative data. Scientific findings are based on 'facts' and hypothesis are tested against those facts. Positivism therefore rejects the human dimension that facts are relevant to individual perspective and sees the world as having a reality independent of the observer (Carson, Gilmore, Perry and Gronhaugh, 2001). Constructivists on the other hand would argue that meaning does not exist independent of humans' interpretation and attempts to understand the world of 'human experience' which is socially constructed (Cohen and Manion, 1994, p. 36). Constructivist research therefore tends to rely on participants view of the subject and therefore rather than starting with a hypothesis, a pattern of meaning emerges from the data (Creswell, 2003).

As this study does not claim the outcomes to represent an external reality, the researcher's position is very much of the constructivist paradigm. Although the multi method approach seeks to identify and explain the issues, this is from the perspective of the researcher's interpretation of the data and it is accepted that others may have differing perspectives.

3.3 Ethical Considerations and Access to Data - General

There were a number of ethical considerations in relation to the access to data and the fact that the researcher was working within the Home Office organisation when conducting the research. Although some publicly available information identifies individuals, where feasible they have not been referred to by name where general description of the point will suffice. However, where

[12] The four research paradigms referred to in the literature are a) Interpretivist/constructivist; b) Transformative; c) Positivist (and post-positivist), and d) Pragmatic.

high profile cases are referred to, individuals are named as this information is in the public domain. All cases which were used in this research have been anonymised; both names and references to identity and location have been removed. No participant had any relationship with the researcher except in the case of pathologists with whom there was clearly a professional relationship due to the role of the author. The researcher may have been known to other participants but not personally. The nature of the researcher's occupation was such that many within the arena of death investigation will have heard of or have some knowledge of the role which he performed.

No information or access to individuals was obtained which was not available to any other researchers, however it is acknowledged that familiarity with the system and how it operates was an advantage. Such a privileged position is somewhat inevitable with an 'insider researcher' (Rooney, 2005). All material collected and retained in connection with this study was kept securely either as password protected electronic data or if in hard copy form, under secure conditions and in a locked cabinet within an office environment at the researcher's home address.

3.3.1 Statistical Analysis of Death Investigation in England and Wales

All statistical data referred to and quoted within this research is publicly available, if not on line, through a Freedom of Information request and downloadable from various public websites which are attributed where necessary. Although this information is publicly available, this is the first time that forensic PM data has been used alongside mortality figures when analysing the range of disposal of death investigations. The data was entered onto an excel spreadsheet and manipulated to reflect the data discussed at chapter 5. It was decided to anonymise the data in order that individual police forces could not be immediately identified. The reason for this is that in some cases the narrative which identified shortfalls in practice can identify individual police forces and therefore individual persons. It is acknowledged that with some investigations, since the raw data is in the public domain, it is possible to identify those forces but this would take some effort on the part of the reader.

3.3.2 Case Study

The participants in the case study were police officers; police staff; pathologists and coroners. The research accessed data held by the Forensic Science Regulator (FSR) (Jones, 2015). This material

was published and was collected in a routine audit of forensic pathologist's reports. This annual data is published on the FSR website. The material was supplied on written authority from the FSR. Collection of some of the data was received routinely from returns submitted to the Home Office by Pathology Group Practices. Although publicly available, it is acknowledged that the researcher was clearly in a position of privilege in respect of interpreting and understanding this information due to his unique experience and knowledge. Participants were made aware that requests to contribute to this research was on the part of the University and not as a Home Office official.

All data received was anonymised at the point of receipt, and so no data protection issues were apparent. However, individuals could have been identified from the narrative of case summaries and so case summaries have been retained by the researcher and have not been published as an appendix within the thesis.

The outcomes of the research could identify practice which might be capable of future improvement and policies/practices which may require review. It was also recognised that it may also identify good practice for future development and practice advice. However, this research did not identify any individual or organisation which lead to any concern in relation to miscarriages of justice in accordance with undertakings at the commencement of the study and in line with the favourable ethical approval. It did however reveal practice which did require immediate remedial action which is discussed in chapter 8. It will be obvious to the reader that practice which might be capable of future improvement may be attributed generally to police; coroners or pathologists. This will be in the general interests of future development and there is no intention to attribute blame to any individual or organisation. It was therefore in the public interest to pursue this research. There were no known significant risks to the researcher or individuals.

3.3.3 Focus Groups and Interviews

All participants in the focus groups were crime scene managers/investigators, pathologists and senior investigators. All participants were asked permission to take part in the research and for the focus groups to be recorded using the documentation and processes detailed in an ethics application which was approved by the Portsmouth University Ethics Committee on date 3rd December 2014 (see Appendix 5).

There will always be a danger that if any individual participant *is* identified and they state something which may be controversial or subject to challenge, this could place both them and the

organisation which they represent in a difficult position. For this reason, the thesis was written not only omitting personal details, but also redacting any information from which the identity of the individual could be inferred, or through the triangulation of other data the individual could be attributed. It was made clear that anonymity could not be offered in respect of anything said which amounted to a criminal offence or circumstances where any person could be placed at harm or a miscarriage of justice go unheeded. For this reason, the final data was presented as general themes and not as a narrative indicating a particular case or individual. All consents will be retained for a period in accordance with University Regulations.

3.4 Practitioner Researcher

The researcher is a civil servant working within the Home Office for 8 years in a role which oversees the provision of forensic pathology services to the police and coroners in England and Wales. Prior to this role, he served 30 years in the police, retiring as a Temporary Chief Superintendent. He was in charge of Hampshire police Major Crime Team; Director of Intelligence and spent several years in a National Role developing national training courses for SIO's and detective officers of all ranks.

This experience and knowledge of the death investigation system in England and Wales inevitably gave him an advantage over other researchers without such experience. Consideration was given to how this position was likely to affect the data, especially responses from focus group and interviews. Although the position within the Home Office undoubtedly gave the researcher an advantage, he was not in a position of authority or management over any single participant in the research. Full consent was obtained in respect of all focus groups and interview subjects. Consideration was given to the possibility of identifying practice which was so errant in nature, or revealed a possible miscarriage of justice, that some intervention or some other action might be necessary. It was agreed at the onset that if this position did arise, that the researcher's supervisor would be informed together with Home Office management and that appropriate action would be taken and documented. In the event, no such situation arose. However, when case summaries were collated, as described in chapter 8, there was some initial concern regarding the apparent practice of one police force and correspondence with that force lead to a review of practice and a new policy being adopted.

As the Home Office funded the tuition fees, it could be said that they could either directly or indirectly influence the outcome of the research. However, the researcher undertook to keep a

private diary of any instances where this may be a factor and report such within the thesis if appropriate. In the event, there was no such interference, either direct or indirect. Researching within one's own professional context has attracted both positive and negative comment from within the literature concerning research methods (Rooney, 2005). Robson (2011, p. 7) describes that some consider that the inside researcher lacks credibility and objectivity. He points out that it is important for the employer to 'buy in' to the project and the best way to do this is if there is likely to be practical benefits to the organisation (Robson 2011, p. 296). This was a consideration in the current study, where it was easy to point out the clear benefits to the Home Office in identifying a potential cause for concern and making proposals for ameliorating the issues which were identified. This can act as a 'double edged sword' (Mercer, 2007) in that those in authority might expect positive outcomes and attempt to influence the research if outcomes do not concur with their expectations. Robson (2011, p. 403) identifies the advantages of researching within one's own work place, including: cost and time savings in travel; an intimate knowledge of the context of the study; the historical context of why the study is important; an understanding of the politics of the institution, and the hierarchy but also how it 'really works' (Robson, 2011).

The negative aspects of insider research are potential conflicts with colleagues; conflicts of interest; the possibility that outcomes may bring about conflict and challenge when the individual must continue working in that environment. The main issue is one of retaining objectivity. This is especially so if the study starts with a hypothesis and the intention from the outset is to set out to prove it. There may also be issues with the organisation if the intention is to publish the research which could paint it in a bad light (Bell, 1993, p. 55). The idea of 'academic knowledge' and 'professional competence' (Schon, 2006) are separate concepts and so conducting an academic study within one's professional environment can cause some conflicts between *academic* and *workplace knowledge* (Scott, Brown, Lunt and Thorne,2004, p. 152).

The insider researcher must be reflexive which means more than just reflecting. Reflexivity is used in the context of qualitative research and refers to the element of self-awareness in any such research, and to alert the researcher to the need to question that body of knowledge the researcher already has. That knowledge might be misplaced (Richards, 2011 p49; p57).

The issue for the practitioner researcher is that of validity of the process and outcomes. Validity usually refers to the degree to which the research was attempting to measure (Feldman, 2003). It also refers to the research instruments and the appropriateness of the chosen methodology. Positivists assume that science should produce objective knowledge or the 'truth' (Hammersley, 2000). Postmodernists reject the more traditional notions of validity as a concept, arguing that

'truth' and 'reality' do not exist but merely a perspective depending on the individual (Ellis and Bochner, 2000). It is not realistically possible to completely remove bias from social research and so although absolute truth is to be aspired to, postmodernists would argue that validity includes 'credibility'; believability' and 'reliability'. If these elements are missing, the study might be considered worthless (Cohen, Manion and Morrison, 2000). A way of testing validity is to build validity checks into the research design such as 'triangulation', which is the term widely used for research designs where different sorts of data or methods of handling data are brought to bear on the research question. This is particularly important where mixed method approaches are used, bringing quantitative data into play with qualitative, rigorous analysis of the qualitative data can result (Richards, 2011 p. 148). The definition of validity itself is open to interpretation depending on one's epistemological perspective. Therefore, Cohen *et al's* (2000) 'bility' tests are what is aimed for. Tierney (1994) argues however that insider research can increase validity due to the quality of the information acquired.

One of the most important strategies for the practitioner researcher therefore is to be aware of the pitfalls discussed and be aware of one owns limitations and potentials. Sjoberg, Williams, Vaughan and Sjoberg, (1991) state that:

> '*the researcher is a variable in the research design and consequently, the only way some form of objectivity can be sustained is through critical reflection, through recognition that one's research results may well be shaped by one's position in the power structure and by the ideological context within which one carries out social activities'* (Sjoberg *et al*, 1991, p. 36).

3.5 Preliminary Work: Forensic Science Regulator

The eventual outcome of an unexpected death investigation can be down to the opinion of a treating hospital or community doctor, a judicial decision on the part of the coroner, or ultimately a court in the cases where criminal homicide is alleged. There are clearly sensitivities involved in all three of these areas, such as patient confidentiality; judicial independence and of course the process of the jury itself which in law, cannot be challenged by a researcher[13]. It was therefore necessary to gain access to data concerning real cases and have an opportunity to collect data without breaching these three areas. To look at cases where police officers and doctors had attended the scenes of sudden and unexpected deaths would only show paperwork which was

[13] Section 8 of the Contempt of Court Act, 1981.

likely to be confirmatory of the eventual outcome. Police officers opinions about the likelihood of missing homicides was not likely to reveal any useful data as they would not be aware of the problem on the basis 'you never know what you never know' or as Donald Rumsfeld famously said:

> *"Reports that say that something hasn't happened are always interesting to me, because as we know, there are 'known knowns'; there are things we know we know. We also know there are 'known unknowns'; that is to say we know there are some things we do not know. But there are also 'unknown unknowns' - the ones we don't know we don't know".* (Rumsfeld, 2011, p. xii -xvi).

To investigate the quality of those decisions, it was necessary to identify cases where there was a confirmed issue which could be explored. An opportunity arose during the 2012 annual audit of forensic pathology reports, where suitable cases were identified to progress research into the research question by way of a number of case studies. The audit is conducted annually on behalf of the Forensic Science Regulator by the Forensic Pathology Sub Group (FPSG) which is set up to recommend standards in forensic autopsy practice in England, Wales and Northern Ireland. The primary purpose of the audit is to monitor the standard of the pathological examination. The pathologist's case report contains information which have the potential to offer some indication of the efficiency of this service provision. For instance, issues such as timeliness of the report and whether it contains the prescribed statutory declarations as well as whether the report is fit for purpose and whether the cause of death is consistent with the narrative within the report.

Audit is conducted in respect of all HORFP's in England and Wales, and each year a theme for the audit is identified and pathologists are required to submit a relevant recent report – usually within the last 12 months. The theme for the 2012 audit was *'a case in which the forensic pathologist had to take over a case already started by a non-forensic pathologist'*. Anecdotally such cases are often considered to give rise to difficulties in ascertaining the course of events leading to the death as a common scenario is that a non-forensic pathologist carrying out a 'routine' PM examination discovers something which appears unusual or suspicious; the examination will then be stopped and a forensic practitioner asked to take over the case. Again, as described in chapter 1, evidence suggests that in such circumstances homicide may be missed due to the varying quality of non-forensic PM's, with the consequent potential for miscarriage of justice (Furness, 2006).

There is a strict protocol of the audit which requires all submitted reports to be anonymised by an independent person and then sending the reports to an 'audit team' consisting of four forensic pathologists, responsible for scrutinising the material for its technical quality; a coroner and two police SIO's providing a lay perspective on the material, each from their own specific viewpoint. In total 33 cases were submitted for audit by pathologists fitting the audit theme. The task of the auditors was to map the reports against the Code of Practice and Performance Standards for Forensic Pathology (Forensic Science Regulator, 2012). The outcome of the audit is not relevant to this study, however suffice to say that all the auditors considered that all the 33 cases should in fact have been forensic cases from the outset. However, the auditors only had the benefit of the pathologists report and not the surrounding circumstances of each case. It was therefore decided that these 33 cases would be a focus of the study in the first instance as there appeared to have been prima facie evidence that decisions by the police and or coroner in each of these cases may have been questionable. As this information was available, it seemed to be the ideal vehicle to progress the study.

3.6 Quantitative Data regarding Death; Coroners and Homicide

The first stage of the research was to set out the statistical position regarding deaths in England and Wales and also the number of cases considered 'suspicious' as well as confirmed homicide. Official secondary sources of death data were therefore required to set the contextual background and to set out the size of the death investigation process in England and Wales.

Data was examined to look at the correlation between homicide numbers in England and Wales and the number of forensic PMs conducted by HORFP's. The Home Office routinely records homicide data and has done so since 1946. Homicide data is collected in two ways. Firstly, as part of the aggregate crime return, which is published by the Office of National Statistics (Office for National Statistics, 2014) on a quarterly basis in the 'Crime in England and Wales Statistical Releases'. Secondly, a record-level notification is returned to the Home Office statistical unit when a homicide is recorded by the police. The record-level information is held on the 'Home Office Homicide Index' and police forces update this initial notification at key stages during the investigation and court process. In this way, it is inevitable that the statistics change as case investigations develop. Sometimes, what was initially thought to be a homicide transpires not to be after pathological investigations and other developments during police enquiries, and so the statistics do fluctuate with time. Consequently, the Homicide Index produced by the Home Office will inevitably vary from the raw data recorded in the ONS statistics. The ONS figures were more

relevant to this study than the Homicide Index, as the latter can be influenced by many subsequent factors which are not relevant to this study. The Homicide Index could de-classify a homicide depending on the circumstances, such as if a person was acquitted at court, but that does not mean to say that the case should not have been treated as suspicious from the outset. That case would however remain as a homicide on the ONS data.

It was important to establish that the data was accurate, especially in the light of recent questions being raised concerning the efficacy of police recorded crime statistics (HMIC, 2014). The UK PEACE Index (Institute for Economics and Peace, 2013) describes homicide as the most reliable of all crime statistics, due to the fact that most occurrences are reported to the authorities. Without a doubt, some 'missing persons' cases are probably homicides but are not recorded as such. For instance, there are currently more than 60 unidentified bodies and body parts that have been washed up on the south coast around Hampshire, Sussex and the Isle of Wight (Jones, 2014, p. 64). Although many of these remains may potentially have originated from sea burial sites, each must be considered as a possible homicide until proven otherwise. There are also more than 30,000 missing persons in the UK annually. It is estimated that 750 of these will have been deceased (Missing Persons Bureau, 2012). Some might have met their demise through suicide or accident but inevitably some of these will be persons who have been murdered. Newiss (2006) examined historical data from the Metropolitan police and estimated that of missing persons found dead on an annual basis, one in fifteen were the subject of a homicide. This would equate to 50 persons nationally. This study does not consider the number of missing persons who may have been murdered but whose bodies have never been found. Since their bodies have never been discovered, and depending upon the circumstances of their disappearance, they will never be part of a homicide statistic. For the statistical analysis of the current study, this factor does not corrupt the outcomes of those cases where they have been treated as suspicious because if no cadaver has been found, this would be a case where no decision could have been made by police officers and therefore outwith the parameters of this study.

Quantitative data concerning deaths and coroners investigations was obtained from the Ministry of Justice website which publishes figures for the number of deaths in England and Wales together with those referred to a coroner for investigation.

In order to compare the numbers of forensic PM examinations with homicide data, it was necessary to collect data from each of the six pathology group practices. This data was used to analyse and compare the two sources to see if there was a changing pattern or correlation as anecdotally claimed by forensic pathologists, which had led to the original research question.

The analysis of both homicide data and forensic PM data was achieved by plotting both onto a graph using excel software, showing the respective forensic PM data as well as the homicide data from the ONS. These sets of data have never before been compared as the current study is unique, even though all this information is publicly available. Hakim (2000, p. 24) describes secondary data analysis as any re-analysis of data collected by another researcher or organisation. Fielding and Fielding (2000) used secondary data to analyse historical studies of crime and there are many other examples of producing new data from existing material, but with the examination of existing data Robson argues that the researcher must satisfy the question 'what light can this information throw on our research questions?' (Robson, 2011, p. 360). He goes on to describe that secondary data analysis may act as a starting point for unforeseen lines of enquiry.

Hakim (2000) makes the point that instead of designing the study and then collecting the data, by using secondary data sources one must first identify what data exists. The first part of the research was therefore a factual description of the data as described for the period covering 2012 to coincide with the audit dates.

3.7 Selection of Research Design – Case Study

The second and perhaps main part of the chosen design was to gather data in respect of the 33 cases which were identified following the Forensic Science Regulator's audit. It therefore appeared logical to treat each of the cases as a separate case study and to distance each from the opinions and views of the original audit team, but to independently collect more data on each case and to produce individual case summaries based upon the accounts of all decision makers. In that way, it was hoped to gather differing perspectives from which a more considered view could be obtained and which was not available to the FSR audit team. Clearly a case study consisting of one case will have little 'generalisability' to other cases. However, with a multi-case study, there is more likelihood of generalisation as it involves a larger selection. Bassey, (1981) states that the '*relatability'* is more important than its generalisability. In other words, the outcomes of the case study cannot claim to be the case for all other such events, but it may be able to 'relate' to other individual cases. Case study rarely involves the selection of a representative statistical generalisation typical of survey designs, however Ragin (1987) argues that this does not preclude generalisability beyond the specific context studied. The study may provide evidence for a set of mechanisms which operate to other similar contexts.

The obvious first consideration was to identify who the decision makers were for each of the cases and then conduct interviews with them to explore why decisions were made. It was necessary to think this through carefully as there were individual problems with this approach. The three main decision makers are clearly the coroner who is the only person who can authorise a PM and decide which sort it will be; the police because it is in reality their decision to make the initial call as they are at the scene and must make the initial assessment; and the pathologist who performs the PM. The problems with interviewing potentially what would be almost 100 persons scattered throughout England and Wales in terms of time and resource made the interview option non-viable.

Although the size of the task was too large for a single researcher, consideration was given to selecting a smaller number of the cases at random to use for the study, however this was dismissed as it was thought to be beneficial to have all the collected cases which would give a wider spectrum of material, thus making it a richer and more of a representative collection.

It was therefore decided to use all 33 cases but to gather the data by requesting each of the three decision makers in each case to submit documentation regarding their individual involvement in the case, using a data request form. This form was similar in nature to a questionnaire but differed as questionnaires usually seek responses as to views and opinions whereas the data request form sought to elicit facts and documents about each of the 33 cases.

The coroner, police and forensic pathologist in each case was therefore sent a data request form to complete and return by a set date. Documents such as case summaries and autopsy reports were also requested. The ethical and practical difficulties in requesting this information has been referred to, but by making such a request to a coroner, it could be perceived that their independent judicial decision was being questioned. To ensure that coroners were supported if they decided to respond to the request for information, the Chief Coroner was consulted and agreed to the research if it was made very clear to each coroner that it was a matter for them to decide if they wished to partake and that the process would be anonymous.

The issues with the police were slightly different. Requesting this information might make police officers believe that they could be subject to a disciplinary process and that the answers to the questions raised within the information request might be used against them. Again, permission was sought and granted from the National Police lead for Forensic Pathology, at Chief Constable level. The researcher undertook that the research was anonymous and there would be no issue of

discipline, subject of course to the ethical considerations discussed concerning possible miscarriages of justice.

The forensic pathologists were less problematic in that they had already submitted their PM reports for the original audit and so they in general terms had no difficulty in the process of submitting information, although some questioned whether they could submit this information without the consent of the coroners in each case. When they were assured that the study had been approved by the Chief Coroner they were generally content to provide the requested information. Even so, permission for the research was also gained from the Pathology Delivery Board (PDB) which is the oversight body for forensic pathology in England and Wales.

A decision was made not to include in this information gathering exercise the non-forensic pathologist or mortuary staff member who had highlighted that there were circumstances about the body that they were not happy with and which lead to the forensic PM being called. These cases only came to light where the PM examination was halted by the non-forensic pathologist as he or she had concerns that the case should be considered as suspicious due to the presence of injuries or other factors regarding the body or the surrounding circumstances of the case. The reason they were not included was that it was thought that they could not add any information to the case summary as their considerations and reasons for declining the PM or for ceasing the PM were documented within the coroner's paperwork.

Clearly, for the identity of the respective participant's subject of this study to be obtained, it was necessary to gain the approval of the Forensic Science Regulator who had the identities coded by an independent overseer of the original audit. Agreement was given on the condition that the study was anonymous. This was mainly because it was apparent that the outcomes of the research might inform practice in the future and therefore was in the public interest.

Separate data request forms, were prepared for each of the coroner, police and pathologist in each case. This was to reflect their differing roles within the investigation. The questions asked together with the rationale can be seen at table 5. They are all broadly similar and most of the questions are self-explanatory. There are therefore two academic method considerations in respect of this chosen way of gathering the data; data request and case study. The completed data request forms were piloted by using two SIO's who were nominated by the National Police lead. These SIO's were asked to consider the documents primarily for clarity and to ensure that the questions were understandable. The coroners data request forms were 'reviewed' by the Chief Coroner to ensure that they did not contain any inferences which might tend to challenge

the coroners independent judicial authority. A three-month return by date was given, which was in the autumn of 2014. Follow up emails and phone calls were necessary to chase those from whom there was no response.

Bryman (2012 p. 263-264) recommends pilot testing questions, particularly because there will not be an interviewer present for clarification purposes and so each question must be capable of being a stand-alone and unambiguous question. One problem with questioning is of sequencing. If questions are ordered in the wrong sequence, it might appear to the respondent that one question follows on from the previous one as a sub or ancillary question. Unless this is intended by the researcher, it should be clear that all questions are self-contained.

Some of the questions within the data request form were closed in nature as all that was required was a simple affirmation. Questions were constructed to elicit the maximum information. Questioning style is very important to the researcher as the over use of particular questioning styles can skew the answers given. Leading questions which inherently contain a degree of the questioners own bias can be particularly dangerous and research has shown that police officers, when interviewing adult witnesses, who use such questions risk obtaining erroneous information (Clarke and Milne, 2001; Shepherd, 2007 p183-193).

Table 5: Rationale for questions to Police, coroners and pathologists

No:	Constituency	Question	Rationale
1	All	Question to identify role in the case	Ensure that the respondent is the appropriate person
2	Police	What were the brief circumstances of the case?	Outline of circumstances as an abstract to the full case summary from police perspective
	Coroner	What were the brief circumstances leading to the death of the deceased?	Outline of circumstances as an abstract to the full case summary from the coroners perspective
	Pathologist	Were you requested to attend the scene by police, or otherwise briefed or consulted prior to the commencement of the post mortem examination by the non-forensic pathologist?	Establish whether the HORFP had been consulted prior to the decision that the case was non-suspicious by either the police or the non-forensic pathologist.
3	Police	What information was known at the time of the decision to treat the case as suspicious?	Identification of the circumstances and what was known by the police decision maker at the time the decision was made that the case was non-suspicious
	Coroner	What information was known to you at the time that the decision was made not to utilise the services of a HORFP?	Identification of the circumstances and what was known to the coroner at the time the decision was made that the case was non-suspicious
	Pathologist	What were the brief	Outline of circumstances as an abstract

		circumstances of the case?	to the full case summary from the pathologists perspective
4	Police	What was your assessment of the scene?	Establish what the police officer took into account and the factors which may have influenced their decision, including whether any real assessment was made at all
	Coroner	What part did you play in deciding whether or not the post mortem examination should be conducted by a Home office forensic pathologist?	The coroner is the prime decision maker in a death investigation but this question was posed in order to elicit whether the decision was truly that of the coroner or whether it was by a coroner's officer or just a routine acceptance of the police report
	Pathologist	When and by whom were you instructed to conduct the post mortem examination in this case	To establish at what stage the original decision to treat as non-suspicious was changed and to identify whether the person briefing the pathologist was the police, coroner or some other person
5	Police	Were any experts utilised in the assessment of the scene?	To establish whether the police called upon any assistance in making the scene assessment or whether this was done by the attending officers only
	Coroner	What was the rational for not referring the case to a HORFP in the first instance?	To understand the factors that influenced the coroners decision not to use a HORFP
	Pathologist	What led to the case being deemed suspicious prior to your involvement?	Establish what new information was discovered at post mortem leading to the decision to treat the case as suspicious
6	Police	If you were not the chief decision maker in this case, what rank and role was the chief decision maker?	To establish whether the decision was referred on, and if so to what level was the decision made and what role holder made it
	Coroner	What would you say was the main factor that influenced your decision making in respect of considering the case as non-suspicious?	Identify the factor which was the main influencer in the coroners decision making
	Pathologist	Do you know if police personnel had been deployed to the mortuary prior to your receipt of instructions? If so what were the circumstances?	To establish if the police, although having decided that the case did not warrant a HORFP, did however want to be present at the post mortem 'just in case'. If they were present, for what purpose were they at the non-forensic post mortem?
7	Police	What factors were considered in deciding whether to advise the coroner on having a routine post mortem examination as opposed to a forensic post-	Identification of other factors which may affect decision making as to whether to treat the case as a suspicious one

		mortem?	
	Coroner	Was the case referred for inquest? (Please see note above concerning ongoing inquests.)	If the case was referred for inquest, it suggests that there was some issue to be examined and an inquest could be the source of further information regarding the case.
	Pathologist	In your professional opinion, do you consider that the police/coroner should have declared this death to be suspicious (thereby requiring a forensic post mortem examination) from the outset?	Obtain the HORFP's opinion from the first examination of the body to see if there were any elements which should have been obvious to the police at the scene.
8	Police	What would you say was the main factor that influenced your decision making in respect of recommending a routine post mortem examination?	Identification of any issues which drove the decision of the police officer making the decision not to treat the case as suspicious
	Coroner	What was the eventual outcome of the case?	To identify the outcome as to whether the case was a homicide or whether the case transpired to be non-suspicious or whether it was unresolved
	Pathologist	Was the case referred for inquest?	If the case was referred for inquest, it suggests that there was some issue to be examined and an inquest could be the source of further information regarding the case. This was asked to all respondents in case this information was not forthcoming from the coroner
9	Police	Was the case referred for inquest?	If the case was referred for inquest, it suggests that there was some issue to be examined and an inquest could be the source of further information regarding the case. This was asked to all respondents in case this information was not forthcoming from the coroner
	Coroner	If the matter was referred for inquest but has not yet been heard; what date is the inquest scheduled for?	This is a follow on from the previous coroners question
	Pathologist	What was the eventual outcome of the case?	This question was included in case the information was not forthcoming from other respondents
10	Police	What was the eventual outcome of the case?	This question was included in case the information was not forthcoming from other respondents
	Coroner	In general terms, do you have any other comments concerning the decision making processes employed in determining whether or not to use the	A trawl for other data not included in previous questions

		services of a Home Office forensic pathologist as opposed to a hospital pathologist?	
	Pathologist	Please provide any additional comments or observations in respect of this case that you feel are relevant.	A trawl for other data not included in previous questions
11	Police	If the matter was referred for inquest but has not yet been heard; what date is the inquest scheduled for?	This is a follow on from question 9
	Coroner	If you are willing to, please supply a copy of the initial sudden death report submitted by the police*. (NOTE: This is a matter for each coroner to consider and you may feel it appropriate to gain permission of the family).	Requested in order to get all of the information on which the coroners decision was made
	Pathologist	Do you have any general comments of observations concerning the approach of the police and/or coroners in assessing the status of death cases and their relationship with forensic pathologists in this regard?	A trawl for other data not included in previous questions
12	Police	Please append a copy of the report which was sent to HM Coroner as part of the police investigation.	Requested in order to get all of the information on which the coroners decision was made
	Pathologist	If you have any further examples of cases where there was the potential for a 'missed homicide' please provide details.	Trawl for further cases of interest to this study
13	Police	Does your force have a policy in relation to the use of forensic pathologists? If so please attach and return a copy with this data request form, or signpost where this can be found.	Trawl for force policies in order that an examination could take place and to see whether the attending police officers complied with them. Also an examination of the quality of each policy
14	Police	Have you received any training in scene assessment such as the ABC principle or 5WH + H?	Establish what, if any training has been received by the officer

Foster, Newburn and Souhami (2005) used several case studies to assess the impact of the police murder review process. Case study is a well-established research strategy where the focus is on a case or multiple cases and taking its context into account. Case study typically involves multiple

methods of data collection and can include quantitative data, although qualitative data are almost invariably collected (Robson, 2011 p. 135). The use of case study in death investigation research is not new. Case study was used by Jones, Grieve and Milne (2008) to assess the quality of murder reviews. Stelfox (2006) used over 40 case studies to research the factors which lead to the successful conclusion of murder investigations within Greater Manchester Police. Greenwood, Chaiken and Pertersilia (1997) introduced a scientific model in investigating crime generally after case study research into a large number of crimes in the USA. Case study appeared therefore to be the appropriate means of conducting this part of the research.

Case study is described by Robson (2011, p. 79) as *'development of detailed intensive knowledge about a single case or of a small number of related cases'.* Yin (2009, in Robson (2011 p136) defines case study as '*a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real-life context using multiple sources of evidence*'. Although case study methodology was selected primarily as it emerged to be the obvious choice given the availability of the 33 cases, it was also evident that the literature indicated it to be the best approach where little is known about the phenomenon being researched (Yin, 1994 p. 13). Yin describes case study as 'an *empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clear'.* Where the relationship between context and phenomena is unclear, case study is ideal in that by looking at each case, the individual characteristics can be compared and contrasted with others in the set (Yin, 1974).

Two of the best known writers about case study are Stake (1995) and Yin (2013). They both base their approach to case study on a constructivist paradigm. In other words, that 'truth' is relative and that it is dependent on the individual's perspective. Recognition is made of;

> '*The importance of the subjective human creation of meaning, but doesn't reject outright some notion of objectivity. Pluralism, not relativism, is stressed with focus on the circular dynamic tension of subject and object'.* (Miller and Crabtree, 1999, p. 10).

According to Yin (2013) a case study design is particularly relevant when the purpose of the study is to answer 'how' and 'why' questions. This is because the events which constitute the case in question has already taken place, the researcher cannot manipulate the behaviours of those in the case study, although of course the findings can still be the subject of manipulation. Yin (2013) also describes what he calls 'contextual conditions' as the phenomenon will be dependent upon the context. Baxter and Jack (2008) used a case study to examine decision making in student

nurses, but the case could not be considered without the context, which was in a classroom environment, not in the clinical environment which may have skewed the outcomes (Baxter and Jack, 2008).

Yin (2003) suggests that the researcher must decide whether they are describing a case, exploring a case or comparing between case and the current research sought to do all three. Stake (1995) describes two types of case study; *intrinsic* is where the researcher is interested in a single and unique situation or event, whereby the researcher must acknowledge that the outcomes have limited transferability to other settings; and multiple case studies as *instrumental* where the research will seek to gain some insight and understanding of a particular situation or phenomenon. This research fits into both categories as it seeks to identify factors in each case, but also issues which may be transferable to unexplained death investigation more generally.

Bryman (2012 p74) states that the main argument in favour of multiple case studies is that they improve theory building and they also have the potential to play a crucial role in understanding causality. In multiple case study research, the first stage is to analyse each individual case before one can start to look across at others (Stake, 1995). In other words, all cases in a multi case study need to be subjected to an 'intrinsic' analysis before an 'instrumental' analysis of all cases (Stake, 1995 p. 3). The object of this intrinsic case study was to focus on the individual investigation as a unit of analysis. Of course, a single case study will be more akin to qualitative research, but the more cases examined in multi-case research, the research will tend to move towards quantitative research also. Table 6 is a description of this phenomena from Yin, (2003.)

Table 6: Yin, 2003

Quantitative Research	**Qualitative Research**
Explains and controls	Understanding of complex relationships
Simple causal relationships as observed	Empathetic/experimental understanding using thick description
Try to nullify context to generalise and arrive at a 'grand theory'. Here, uniqueness of the case is treated as an error.	Uniqueness of case is respected. Particularisation is an important aim. Multiple realities
Use of scales and measurements	Direct interpretations and observations
Research question seeks relationship between small number of variables	Seeking patterns of unanticipated and expected relationships
Correlation or covariance	Pattern
Seeking meaning from repetition of phenomenon	Seeking meaning emerging from a single instance

Case studies are important in social research as not only are they a method of generating hypothesis, but also for generating and testing theory. Patton and Appelbaum (2003) set out what they describe as a 'road map' which is explained at table 7.

Table 7: Patton and Appelbaum (2003)

Determine the Object of Study	The first crucial step is for the researcher to decide what topic the case will focus on. It is important for the object of study to be broadly defined so that the researcher will have room to manoeuvre and allow the case to lead him or her into new directions. However, it is important for the aims of the research to be outlined and tentative hypotheses to be constructed
Select the Case	Case study research does not rely on random sampling techniques. Rather, the case study researcher must strategically select a case that is pertinent to the object of study and that will allow the subject to be investigated fully
Build initial theory through a literature review	The existing literature on the object of study helps frame the case study and is important for establishing validity in the research and confidence in the findings. If the theories and hypotheses in the existent literature coincide with the findings of the case, then confidence in the findings will be increased. Still, if the results of the case do not coincide with the literature on the subject, then an excellent opportunity arises to determine why and perhaps develop new theory
Collecting and organising the data	To avoid being overwhelmed with mountains of data, instruments and protocols should be established for the collection of data. While data collection is a constant process of grasping good opportunities as well as setting structured plans for observing events, interviewing sources and reviewing documentation, it is important that the focus remain on the object of study
Analysing the data and reaching conclusions	The danger of being overwhelmed by the quantity of data exists during the analysis phase. The goal of the case study is to uncover patterns, determine meanings, construct conclusions and build theory. As previously underlined, rich description is a crucial step before conclusions can be offered. Once context is determined, the data can be examined properly and findings can be presented. The quality of the context description, creating links back to the literature and triangulation will all play a crucial role in determining the validity of the research

After the eventual cut-off date, prior to analysis, it was necessary to construct complete case summaries of each of the cases using the data contained within the completed data request form and also police and coroner's reports. Each case summary was then checked to ensure that all the material was included. The completed case summaries were used as a central document on which to base the analysis. To check the accuracy of each summary, they were given to a colleague of the researcher to check using all the material provided. Amendments were made if facts were missed or if mistakes made.

The second step was to carry out an *instrumental case study* (Stake, 1995 p3). This involved a cross case analysis with the objective of establishing common factors between them. On completion of the case summaries, one of the cases was excluded because the death was in fact a road traffic death. Although there is police guidance regarding such deaths (ACPO, 2007), there is

no prescriptive guidance concerning the use of forensic PM's and in fact most deaths of this nature do not involve forensic pathologists opinions. This left a final case study count of 32 cases.

Analysis of the collected data conducted using an excel spreadsheet and plotting the *relevant factors* or 'categories' across the horizontal axis, and each case was plotted onto the vertical axis. If the relevant factor was present, a score of one was placed in the appropriate cell. This was repeated several times as new relevant factors were identified. The outcome was a quantitative extraction of the number of relevant factors for each case and the number of cases for which each relevant factor was present.

The narrative of each case was then plotted into the Nvivo database and Nodes were identified as relevant factors. From this, qualitative data was selected which added depth and meaning to the quantitative data. In order to cross check the collected data and the subsequent entries onto the spreadsheet, the material was passed to three other individuals. Two were serving SIO's and one was a retired but experienced Special Investigation Branch (SIB) officer from the military. It was important that serving officers were used as they were current in the world of investigations and may have had a differing perspective in relation to the data. Opinions differed in some of the case studies and these are discussed in Chapter 8.

The 32 cases were divided into three broad areas by a process of verification detailed in chapter 3, but these were grouped as 'suspicious', 'non-suspicious' and 'grey'. Those in the 'grey' category were where there was some divergence of view from the assessors. Factors present in each of the cases, such as issues concerning the circumstances of the death and vulnerabilities of the deceased were identified and plotted using Excel software. There are several multivariate algorithms available to analyse case study data. Ragin (1989) encourages the epistemological rigour of combining both qualitative and quantitative methods in comparative research through 'Qualitative Comparative Research' (QCA). He rejects the use of correlation by which to compare factors in different cases (Ragin, 2006). Ragin claims that *'a theory that is formulated in terms of set relations should be evaluated on its own terms, that is, as statements about set relations, not about correlations'* (Ragin, 2006, p. 1). Ragin favours what he describes as 'fuzzy sets'; the process whereby instead of allocating a binary score to the factors within a case (where '1' equals that the factor is present and '0' equals where the factor is not present) he proposes degrees between the two extremes between 0 and 1 such as 0.5 would be between the two intervals. In this way, he combines case oriented methods which is a qualitative strategy with variable oriented methods which is quantitative (Vancea, 2006). Associations are compared using 'Boolean Algebra' instead of correlation. However, Ragin's QCA form of multivariate analysis was not possible in the current

study as from the data available in the case study material, insufficient detail was known about the cases to identify more discreet determinations than the presence (1) or absence (0) of factors in each case. Therefore, an alternative algorithm was chosen, namely Multidimensional Scaling (MDS). MDS was used to analyse the relationships between the variables as it seemed to be appropriate to show similarities and 'closeness of fit' between variables identified across the 32 case studies. MDS is a multi-dimensional scaling system which visually displays inter-correlations between each variable (Porter and Allison, 2006, p. 334). Associations between variables are represented by the closeness between points in Euclidean (geometric) space. The closer the points, the more similar the case (Garson, 2012). The technique has been applied in several fields, especially offender profiling (Canter, 1991; Canter and Heritage, 1990; Heritage, 1992; Canter, 2000). MDS was used to analyse a correlation matrix, pre-programmed using Pearson's Correlation Coefficient (r) between each variable. This treats correlation as a measure of similarity; the higher the correlation of variables, the closer they will be located on a visual representation in 'Euclidean Space'. Each variable was plotted onto a two-dimensional map in relation to their similarity or dissimilarity. MDS within SPSS[14] replaced 'Smallest Space Analysis' (SSA) which is commonly referred to in the literature. The MDS product is in the form of a scatterplot in which *'the axes are the underlying dimensions and the points are the products, candidates, opinions, or other objects of comparison'* (Garson, 2012, Kindle location 269). The purpose of plotting the data using MDS was to identify closeness of match between relevant variables to see whether there were commonalities for those cases which were deemed suspicious, grey or non-suspicious. Again, there are various algorithms capable of achieving this and so two different algorithms within the SPSS database were tried to see if there was a difference by using separate systems.

3.8 Focus Groups

To follow on from the 32 case studies, it was thought appropriate to conduct a series of focus groups to drill into the qualitative aspects of decision making at death scenes from a representative sample of those in attendance and at a more strategic level. An obvious option was to interview those individuals who were involved in the 32 cases, but as already mentioned, this would have been a massive task for a single researcher. This was also dismissed as it was possible that respondents may have been defensive and concerned as to the consequences. Thus,

[14] IBM *Statistical Package for Social Science*

to utilise focus groups seemed to be the most appropriate method to achieve qualitative data for the following reasons;

- Participants are anonymous from the case studies;
- A comparatively large amount of data can be collected in a short time;
- Allowed for a good cross section of views from different parts of the country;
- Sampled a range of perspectives from different levels of knowledge and experience; and
- The researcher was accessible to these pre-existing groups.

It was decided that the most appropriate participants for the focus groups would be police constables who would be most likely to be the first to attend death scenes. However, this option was not possible as many may never have experienced dealing with such a scene, and if they had, there was unlikely to be any with extensive experience. Therefore, Crime Scene Investigators (CSI's) who would attend many such scenes and would routinely engage and discuss cases with first attending officers were chosen instead. CSI's are the first line of forensic response to any incident and trained in crime scene assessment. Using CSI's would therefore guarantee a depth of experience from which data could be drawn. CSI's are a homogenous group with shared interests and roles.

The other 'police' focus group was SIO's as they are the lead decision makers in homicide cases (ACPO, 2006, p. 25). It was necessary to ensure that there was representation from all ranks from Detective Inspector, Detective Chief Inspector and Detective Superintendent. The third focus group was that of non-forensic pathologists who it was thought might be able to add a different perspective. Focus groups involving HORFP's were also convened in addition to the comments already received via the data request process. With all focus groups, it was necessary that they should be from a range of experience and from across the whole of England and Wales. Ideal opportunities were sought to get focus groups together. It was not possible to arrange a bespoke focus group due to the resource implications of getting several individuals together in one place from around England and Wales. Even the time of individuals engaging in a virtual video conference was ambitious, but such conferences can be confusing and where open dialogue is expected, non-face to face conversations can hamper discussion and exchange of views (Bryman, 2012 p. 663).

The College of Policing run a two-week Crime Scene Managers (CSM) Course for CSI's who have been selected for promotion. They hold two of these courses per year and delegates are from forces in England and Wales. The researcher presented on this course in relation to the role of the SIO and how homicides are investigated. The College of Policing were asked permission to use a

30 to 45-minute slot at the end of that presentation to convene a focus group. The class timetable was adjusted for this purpose. Consent was obtained in writing for all the focus groups held at the College of Policing at Harperley Hall, near Durham. Similarly, the College of Policing host a one week 'Criminal Justice Course for Pathologists' which is organised and run by the researcher. This was an ideal opportunity to use the class of 8 to 12 delegates who were all histopathologists and organ specific experts. The College of Policing host two of these per year and they are funded and managed by the Home Office. These courses were ideal opportunities to use part of the class time as focus groups.

The arranging of a suitable focus group for SIO's was more problematic. The national SIO course was considered as that is also hosted by the College of Policing, however all attendees on this course are junior SIO's about to embark upon the role and would therefore have little in the way of experience. Fortuitously, a focus group was about to be convened for the purpose of the Hutton review of forensic pathology services. It was due to be held at the Home Office and so an approach was made and granted to utilise this focus group to not only engage in the original purpose, but to use the last 30 minutes of it for the SIO focus group for the current study. Meetings of each HORFP group practice was arranged which constituted another six focus groups. It was necessary to decide upon a form of words to read to each focus group at the start. It was also necessary to have a basic structure to keep to in order that all the required points were covered and to avoid going off the subject. Prior to interview, it was important that the participant was aware of a number of factors, including the purpose of the interview; format; length of interview; confidentiality issues; purpose and permission for recording and note taking; assurance that the participant can ask questions and decline to answer questions (Rose 1994).

All participants were asked permission and given an opportunity to decline involvement. The focus groups took place at as per table 8.

Table 8: Focus Groups

Focus Group	Venue	Number of focus groups	Total number attended
CSI's	Harperley Hall (CoP)	4	44
Pathologists	Harperley Hall (CoP)	2	20
SIO's	Home Office (London)	1	18
HORFP's	Group Practices	6	27

To use a number of these opportunities when between 8 and 12 attendees are present in a group situation appeared to be ideal for the purpose of the focus groups. Morgan (1998) suggests that a focus group should consist of a minimum of 8 participants and each of the thirteen groups

achieved this minimum number. Krueger and Casey (2000) recommend 6 to 10. Bryman (2012 p. 505) states that there is no hard a fast rule in relation to the number of focus groups that should be used, but at least 2 would be the norm but enough focus groups have been achieved when the facilitator fairly accurately anticipates what the next group will say (Calder, 1977 in Bryman, 2012 p. 504).

There are therefore similarities between the process of running a focus group and conducting a semi-structured interview. Semi-structured interview principles were therefore used and a guide document was produced to assist in managing each of the focus groups at figure 5.

Figure 5: Semi-structured guide for focus groups

Form of words to be addressed to participants in focus groups:
"Thank you for attending this focus group. The purpose of the exercise is to gather information about the rationale employed by decision makers and other key personnel involved in any investigation where death occurs; and the decision whether to employ the services of a forensic pathologist to assist in the early assessment of such cases.
In a recent audit conducted by the Forensic Science Regulator, auditors looked at a number of cases, initially deemed to have been non-suspicious by police or the coroner. In these cases, post mortem examinations had been conducted by a hospital pathologist but subsequently taken over by a Home Office forensic pathologist.
The outcome of this research will be used for a doctoral study at the University of Portsmouth.
It is emphasised that all information provided will be treated in strict confidence and that any future report will ensure the anonymity of individual persons and organisations. However, the final report may make comment in general terms regarding the conduct and decision making of police; coroners and pathologists in unexplained death cases. It is not known what the outcomes may be, however there is a possibility that critical comment could be made in general terms regarding how these cases are dealt with.
I need to point out that if you do not wish to partake in this focus group, you are free to leave the room now. This will take no longer than 30 minutes and will be tape recorded. The recording will be destroyed after the product has been analysed.
Key points for discussion: (Focus Groups)
Pose question:

- What is the quality of the initial investigation of scenes of unexpected death by first police attenders?

Subsequent points to be elicited:

- Has your force a policy in relation to actions at the scene?
- What is the procedure for supervision of unexplained death investigations?
- What training do first attenders receive?
- Are there any factors which might encourage the practice of utilising a non-forensic post mortem instead of a forensic one?
- Examples of good and poor practice
- Contact me later if you wish to discuss further
- Any other comments from the group/person?

Record date and times

Semi-structured interviews are described by DiCicco-Bloom and Crabtree (2006) as 'guided conversations' which originate from ethnographic and anthropological traditions, where key informants are chosen and questions emerge as the researcher learns more about the issues. Hand (2003) highlights that within the interview process, the prejudices and values of the researcher must be acknowledged and so a degree of reflexivity is required. Spencer, Ritchie, Lewis and Dillon (2003) list the three components of reflexivity as:

- Demonstrating an awareness as to how bias may emerge;
- Attempt to minimise the impact of the researcher on the data; and
- Address bias through analysis; reflectiveness; and acknowledge the limitations of the study.

  (Spencer *et al*, 2003, p. 14).

Interviews are one of the most common methods of data collection and it is important to note that there is a difference between structured, semi-structured and unstructured interviews. Structured interviews tend to be set pre-determined questions and are designed to collect quantitative data. They are fixed regardless of the response.

The researcher relied upon the principles and skills intrinsic in the Investigative Interviewing PEACE model used by law enforcement and private companies charged with investigating and thereby interviewing people. Investigative Interviewing is defined within the context of generic interviewing, and it is important to outline the veracity of the technique as an aid to academic research in terms of questioning as it is argued that although developed for a law enforcement purpose, Investigative Interviewing is equally effective for academic research. A summary of the key features of investigative interviewing is at appendix 6.

Focus groups research is the organised discussion with a selected group of individuals to gain their perspectives and views in respect of a particular topic (Gibbs, 1997). They differ from 'group interviews'[15] in that the latter concentrates on individual responses from participants to questions posed by the facilitator, whereas the focus group is also concerned with the interaction and conversations within the group (Morgan, 1997), and can lead to a *'joint construction of meaning'* (Bryman, 2012, p. 502). There are several definitions of focus groups. Robson (2011, p. 293) describes focus groups as being similar to interviews but in a group situation and Bryman (2012, p. 501) describes them as group '*interviews in relation to a certain topic'*. The fact that the process of the focus group is in respect of a specific topic is where the word 'focus' is derived (Robson, 20011, p. 294). Powell and Single (1996, p. 499) define focus groups as *'a group of individuals*

[15] The term 'group interview' is sometimes confused with 'focus group' due to the latter's popularity (Robson, 2011).

assembled by researchers to discuss and comment on, from personal experience, the topic that is the subject of the research'.

Kitzinger (1994, 1995) sees a major value of focus group research because participants are able to ask questions of each other which can lead to re-evaluate and reconsider their own understanding of experiences, and participants can also probe each other's reasons for holding with a certain view (Bryman, 2012, p. 503). In this way, the interest is in how people respond to each other's views and form their own views from the interaction which takes place within the group (Bryman, 2012, p. 501). Differences of view and opinion can allow the facilitator to explore with the group these conflicts and the factors which underpin them (Kitzinger, 1994).

The main reason for focus groups is to draw upon respondents personal experiences and views in an environment where their comments and attitudes are capable of challenge and support from other members of the group which sets it aside from other forms of data collection methods (Gibbs, 1997). This process of challenge can result in a more realistic account of what people think and possibly revise their own views (Bryman, 2012, p. 503). Morgan (1998) describes focus groups as a method in their own right or (as in the current study) as a compliment to other methods, especially for triangulating mixed method studies. Perhaps one of the main benefits of the focus group is that it is invaluable for grounded theory development and the generation of theory rather than the testing of existing theories (Glaser and Strauss, 1967). Another benefit is that focus groups are capable of '*filling in gaps*' and helping to explain issues already identified by other methods in a mixed method study (Kitzinger, 1994, p. 116). This was particularly relevant to the current study and in assisting in the exploration of issues identified in the case study stage.

There are clear limitations on the focus group method, such as obtaining the views of less articulate and shy members of the group. The facilitator has an important role in encouraging those participants who are reticent to engage, by actively encouraging involvement by directly asking them their views (Bryman, 2012, p. 509). An over dominant character within a group can bring the whole group to share their point of view and to think uncritically, and thereby adopt an almost irrational attachment to a minority standpoint (Janis, 1982). However, the opposite can also be true, where individuals who would otherwise never be given an opportunity to express their view can be empowered (Gibbs, 1997), especially for minority groups (Madriz, 2000) and there is no discrimination against people who are reluctant to be interviewed or feel that they have nothing to say (Kitzinger, 1995, p. 299). The main disadvantage has to be acknowledged that '*group dynamics and 'power hierarchies' affect who speaks and what they say'* (Robson, 2011, p. 294). Another limitation is that the facilitator by virtue of the process relinquishes some control

over the debate (Morgan, 1988). Focus groups therefore take much more skill to manage and control compared with interviews. It is desirable to allow some discussion which departs from the focus of the group as such debate may provide new insights that the facilitator has not anticipated (Bryman, 2012, p. 512). The facilitator must also be careful not to show either approval or disagreement with comments made as this could skew what participants will say to please or even challenge the facilitator (Kreuger, 1998). The facilitator must strike a balance between an *active* role to control and bring the required 'focus' or leading the group to reinforce existing expectations, and a *passive* role in order not to influence the outcome (Robson, 2011, p. 296). The facilitator therefore must not be too intrusive (Bryman, 2012, p. 501).

There are also practical difficulties in using the focus group approach in that they are logistically problematic to arrange and there needs to be comprehensive recording of the process to extract the detail of what was said. This can be complicated by such factors as 'over talking' each other which is inevitable in such group discussions (Bryman, 2012). Particularly in respect of the current study, the use of CSI's as a homogeneous grouping which although facilitates communication and exchange of ideas and experiences, may result in 'groupthink' which is the *'unquestioning similarity of position or views'* (Robson, 2011, p. 295). Nevertheless, the use of such homogenous groups can bring about consensus into an identity which can provide a powerful argument for the research as being a collective viewpoint (Munday, 2006).

3.9 Evaluation of the data

Evaluation of the statistical data has been described above, however the qualitative data from both the case study and focus group interviews was assembled into the Nvivo database. The focus of this part of the research was to examine what people said to provide a 'richness' to the statistical findings. Maykut and Morehouse (1994) state that *'words are the way that most people come to understand their situations; 'we create our world with words; we explain ourselves with words; we defend and hide ourselves with words'*. Thus, in qualitative data analysis and presentation: *'the task of the researcher is to find patterns within those words and to present those patterns for others to inspect'* (Maykut and Morehouse, 1994, p. 18).

Although qualitative data analysis using Nvivo is a systematic process not designed to derive mathematical abstractions, but it can give numeric values. Some categories can be pre-determined, but it was the experience of the researcher that categories emerged from the data throughout the evaluation and coding process. The process was to populate the database with the source material and then categorise the text into 'nodes'. Lincoln and Guba (1985) describe

two sorts of categorisation; one that derives from the participant in terms of their customs and language, and one that the researcher identifies as significant to the focus of the enquiry. They describe that the first is intended to reconstruct the individuals own experience and their 'world view'; whilst the second is to assist the researcher in developing theoretical insights. This leads to both descriptive and explanatory categories (Lincoln and Guba, 1985, p. 334-341).

> *'the researcher simultaneously codes and analyses data in order to develop concepts; by continually comparing specific incidents in the data, the researcher refines these concepts, identifies their properties, explores their relationships to one another, and integrates them into a coherent explanatory model'* (Taylor and Bogdan, 1984, p126).

One of the advantages of using qualitative research software is that it leaves an auditable trail (Fielding and Fielding, 1998, p. 167). Krippendorff (2004) describes the coding of data as an iterative process where the researcher is learning new things about the data as it is analysed. He describes eight phases shown in figure 6 (Krippendorff, 2004).

Figure 6: Eight Stages of Qualitative Analysis

Phase 1 – Transcribing qualitative comments and demographic and other profiling information into a table for import into a computer aided qualitative data analysis system (CAQDAS) known as Nvivo.
Phase 2 – Open Coding will involve broad participant driven open coding of the chronological submissions supported with definitions so as to deconstruct the data into initial non-hierarchical general themes. These themes will have clear labels and definitions to serve as rules for inclusion of units of meaning (text segments) which will be coded from the content.
Phase 3 – Categorisation of codes will involve re-ordering themes identified and coded in phase 1 into categories of themes by grouping related themes under these categories and organising them into a framework that makes sense to further the analysis of the data. This phase also includes distilling, re-labelling and merging categories to ensure that labels and rules for inclusion accurately reflect coded content
Phase 4 – 'coding on' will involve breaking down the now restructured themes into sub-themes to offer more in depth understanding of the highly qualitative aspects under scrutiny such as divergent views, negative cases, attitudes, beliefs and behaviours coded to these categories and to offer clearer insights into the meanings embedded therein
Phase 5 –Data Reduction will involve consolidating and refining codes into a more abstract and conceptual map of a final framework of codes
Phase 6 – writing *analytical memos* against the higher level codes to accurately summarise the content of each category and its codes and propose empirical findings against such categories. These memos will consider 5 key areas:
1. The content of the cluster of codes on which it is reporting. 2. The patterns where relevant (levels of coding for example although this could be used to identify exceptional cases as well as shared experiences). 3. Situating the code(s) in the storyboard –meaning considering the relatedness of codes to each other and drawing and describing inferences, and their importance to addressing the research question and sequencing disparate codes and clusters of codes into a story or narrative which is structured and can be expressed in the form of a coherent and cohesive chapter. 4. Considering background information recorded against participants and considering any patterns that may exist in relation to participants' profiles 5. Considering primary sources in the context of relationships with the literature as well as identifying gaps in the literature
Phase 7 – Validation will involve testing, validating and revising analytical memos so as to self-audit proposed findings by seeking evidence in the data beyond textual quotes to support the stated findings and seeking to expand on deeper meanings embedded in the data. This process involves interrogation of data and forces the consideration of elements beyond the category itself; drawing on relationships across and between categories and cross tabulation with

demographics, observations and literature. This phase will result in evidence based findings as each finding must be validated by being rooted in the data itself and will rely on the creation of reports from the data to substantiate findings.
Phase 8 – synthesising analytical memos into a coherent, cohesive and well supported outcome statement or findings report. Finalising phase 8 will result in having produced two draft chapters; namely the findings and discussion chapters.

Each focus group discussion was recorded on digital media and which was then transferred to the researchers home computer which was password protected. Each focus group recording was transcribed fully and the transcripts were uploaded onto the Nvivo software system and analysed and sorted into categories. The categories are identified and explained in chapter 7.

In evaluating the data, Richards, (2011 p. 136) states that theories do not normally emerge themselves. Theories are constructed by researchers and although concepts may emerge from the data, a theory still must be constructed by the researcher (Turner, 1981). Research should answer three questions; the goals of the research; answering the research question and that the outcome should offer analysis and new theory or explanation, not just description (Richards, 2011 p. 138). With this thesis, it is description, analysis, theory and explanation with a view to changing behaviour which was the ultimate goal.

In analysing the data from this study, the intention was to reach saturation, which means to get to a stage where no new themes arise (Richards, 2011 p. 144). In practical terms, this meant going over old ground several times, as new themes emerged when new cases were analysed or when new topics were raised in focus groups or interviews.

The main problem encountered during the data analysis phase was the sheer volume of material. It was therefore necessary to reduce the data to that which was directly relevant to answering the research question. This was done by identifying the categories at an early stage by speed reading the material and also with a knowledge of what was likely to be a relevant topic. Although this did change to some extent during the detailed evaluation stage, it kept the data to a more manageable level.

Identifying these key themes was useful in allocating facts, comments and observations to each theme thus building a picture. The evaluation of the 32 cases and the material collected in respect of them was kept separate to the evaluation of focus groups and interview data. This was in order not to confuse the two and so that the 32 cases could be reported upon using the information provided, and then using the interview data as more general thoughts and views about the subject of how unexplained deaths are dealt with.

Key comments from participants are quoted directly where relevant, however more complex points made are paraphrased or interpreted by the author for the sake of clarity and brevity. It is acknowledged that the area of evaluation is one where the author's own bias can affect interpretation; in particular overload, influence of the bias of first impression and confidence in judgements are three areas to be aware of (Robson, 1993, p. 274-275).

3.10 Summary of Methodology

Gray (2013, p. 19) suggested that the methodology for any research should naturally emerge from the research question and this was found to be the case with this study. In summary, this was a multi-method study utilising a literature search; quantitative analysis of secondary data; case study and focus groups. The methodology used is summarised in table 9.

Table 9: Summary of Methods used

Method	Collection	Storage	Evaluation	Reliability check
Death and Forensic Autopsy rates	Homicide Index. ONS. Home Office.	Folders in Microsoft Office 2013	Material already in existence, but a secondary analysis was used comparing the data.	Checked by Homicide Index staff. Peer reviewed
Case Study	Data request sheets sent to relevant persons.	Electronic data stored on folders in Microsoft Office 2013. Hard copy material retained in folders in secure cabinet	Excel spreadsheet used to categorise and sort the quantitative data. Nvivo software used to categorise and summarise qualitative data.	Piloted by 2 SIO's and checked by Chief Coroner
Focus Groups	Tape recorded and transcribed	Folders in Microsoft Office 2013	Nvivo software used to categorise and summarise qualitative data.	Checked by a colleague

All material collected during the research will be retained in a form that is reviewable in order that it can be checked and the processes used can be replicated (Richards, 2011 p152). The outcome of the data evaluation is discussed in Chapters 6, 7 and 8.

Chapter 4: The Social Organisation of Death Work

4.1 Why Else Investigate Death?

Before describing the system of death investigation in England and Wales, it is necessary to outline why investigating death is important. Apart from the obvious reasons of identifying homicide cases and finding and prosecuting offenders, there are a number of public health reasons that are also important. Timmermans (2006, p. viii) describes the investigation as for *'the benefit of the living'*. Hutton (2015) describes the accurate identification of the causes of death as being important for:

- Trend data for public health planning;
- Detection of geographical differences;
- Assessing the success or otherwise of control measures and environmental policies in reducing occupational and environmental deaths;
- Detecting changes in the incidence and virulence of a disease;
- Assessing the impact of inequality and poverty;
- Reviewing targeted interventions; and
- Research.

Hutton (2015) also describes the 'personal' reasons for accurate death investigations;

- The peace of mind of relatives;
- Inform the future pathway to death;
- Providing information for the surviving relatives in case there are implications for them;
- The cause of death is important to those who remain: the genetic code of the dead can advise the living; and
- Religious shifts and the secularisation of society.

Perhaps one of the most important of these for blood relatives is that of genetic information which can be used to improve the health choices and prevent similar fates for those left behind. Death investigation is also important to settle such issues as inheritance and insurance matters, as some causes of death may exempt life insurance payments (Timmermans, 2006). Another reason for effective investigations is that of the effects of a failed homicide inquiry, which leads to the acquittal of a suspect which in turn can devastate families leading them never to recover (Thiel, 2015; Boelen, van Denderen and de Keijser, 2015). An example is the ongoing campaigning of Vicky Harper whose twin daughters were murdered in a barn fire in 1991, and to this day no one

has been brought to justice (Harper and Kay 1996). It is common for grieving families, particularly parents of homicide victims (Thiel, 2015; Armour, 2002) to dedicate their lives to the search for justice or to remedy a cause (Rock, 1998). They become 'secondary victims', especially if they are unsatisfied with the investigation either by the police or the coroner (Thiel, 2015).

4.2 Homicide Rates in England and Wales

The police are required to investigate cases of homicide in accordance with the Criminal Investigations and Procedures Act 1996 as; *'An inquiry to ascertain if an offence has been committed, to identify who is responsible and to gather admissible evidence to be placed before a judicial authority'*. This mirrors Innes (2002) three information needs. There is also a legal duty to investigate homicide under Article 13 of the European Convention on Human Rights, in that the Senior Investigating Officer (SIO) and investigators are trained and experienced, they are supervised, records are kept and that the inquiry is *reviewed* (ACPO, 2006, p 76). Grieve, Crego and Griffiths (2007, p. 580) also highlight this requirement. Therefore it can be seen that although the initial scene investigation by the first attending officers is part of the overall homicide investigation, the academic and indeed 'grey literature' concentrates on the process and structures which follow the identification of the homicide.

To see the development of the police investigation of homicide, it is useful to reflect on the history of murder in England and Wales. Spierenburg (2012) describes the long-term decline in the instances of murder from medieval times up until the 1970's when this decline started to reverse. Gurr (1981, p. 313) estimated high levels of murder in England dating back to 1200 A.D. but which has seen a continual decline. Although the historic murder rate can only ever be an estimate, it is based upon coroner records and records kept by the authorities but it clearly does not include the 'dark number' of unrecorded deaths which were never reported to the authorities, and so the numbers are likely to be higher (Gurr, 1981). Although coroners records date back as far as medieval times, medical records as to the cause of death only reach back 100 years (Spierenburg, 2012, p. 4). The high instances of historic murder are thought to be mainly male on male violence due to reasons of 'honour', revenge and feuding as well as violence over food and religion and the killing of new born babies if extra-marital relations were suspected. Spierenburg argues that in medieval times, violence tended to be more ritualistic in nature and therefore *'done for its own sake'* (Spierenburg, 2012, p. 7). Spierenburg puts the gradual decline of murder over the ages down to the reduction of honour based killing due to the introduction of the state and imposition of law and legal sanctions.

The actual homicide rate in England and Wales between 1800 and 1970 was the only reliable indicator of the rate of violence as there were no research surveys (Spierenburg, 2012, p. 167), although Taylor (1998) argues that budgetary constraints caused an under-investigation of murders by coroners and the police during much of the 19th century and early 20th century, mainly homicide of children and the elderly. He places the crime rate directly as a political tool of the police to secure better pay and conditions following the police strike of 1918. However other writers challenge this.

The 1970's saw a marked increase in violent crime which Spierenburg (2012) claims was due to several factors including large scale immigration and the emergence of night time recreation as well as ethnic and religious divisions. However, the most significant cause was that of the proliferation of organised crime connected with the trade in drugs and a greater willingness for the public to report cases (Spierenburg (2012, p. 209-211). Almost all the increase appears to have been cases of male on male violence, alongside no significant change on intimate or 'domestic' homicide which has remained consistent. Spierenburg relates this increase in homicide to the honour violence which had disappeared in the early part of the 20th century (Spirenburg, 2012, p. 214-215). Female perpetrated violence seems to have been historically consistent, and sometimes referred to as 'Verkko's Law' which states that the ratio of female homicide will always remain constant (Wilbanks, 1981). The drop in homicide during the 1990's in New York has widely been attributed to the policy of 'zero tolerance' which was adopted by the police, however Bowling (1999) argues that other factors may have caused the fall.

The homicide rate started to decrease after 2003, which was the year that 215 murders perpetrated by Dr Harold Shipman were added to official statistics (Smith, 2002). The trend since 1967 can be seen at figure 7. The reasons for this steady but real decrease has been the subject of several studies which include; efficiency in medical intervention (Shepherd, 1998); less alcohol consumption in public (Shepherd, Sutherland and Newcombe, 2006); issues affecting wealth and reduced poverty (Hannon, 2002); as well as other social issues, such as an increased use of information technology and social media diverting the youth from public nuisance activities (Ward, 2011). Other studies suggest that there is a direct correlation between the removal of lead in petrol in the 1970s to 90's and the resultant positive effect on human behavior stemming from the removal of harmful pollutants from the atmosphere (Gesch, 2014). There is a theory put forward that this reduction is a natural progression since medieval times of continuous 'civilianisation' in the western world (Pinker, 2011). Pinker plots the many reasons why violent crime has reduced over time but that human perceptions are that it is on the increase;

> *'The decline of violent behaviour has been paralleled by a decline in attitudes that tolerate or glorify violence, and often the attitudes are in the lead. By the standards of the mass atrocities of human history, the lethal injection of a murderer in Texas, or an occasional hate crime in which a member of an ethnic minority is intimidated by hooligans, is pretty mild stuff. But from a contemporary vantage point, we see them as signs of how low our behaviour can sink, not of how high our standards have risen'.* (Pinker, 2011, p. xxii).

The Home Office attempts to predict the longer-term trends in homicide and relies on a 95% confidence interval on the Poisson distribution error as at Figure 8 (Source Home Office, 2016). This shows an approximation as to whether the number of homicides in any two-year period are statistically different from one another. If the confidence intervals do not overlap, there is a presumption that there has been a shift in the underlying risk of homicide. One can see that there is a statistically significant reduction in homicides since 2003 and this reduction has remained stable since 2012. The vertical bar represents the range one might expect to record if the underlying risk of homicide was consistent.

Figure 7: Recorded Homicides in England and Wales, 1967 to 2012/13

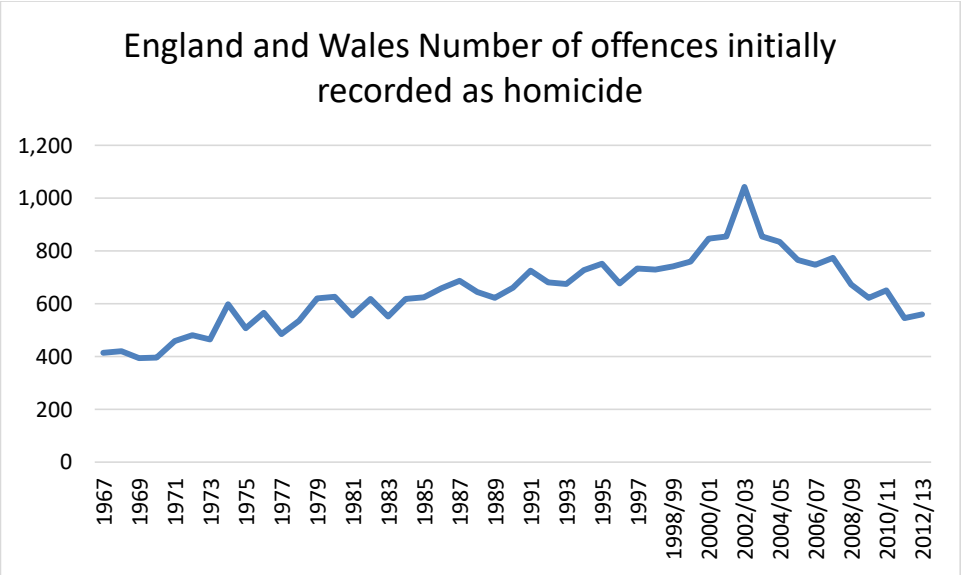
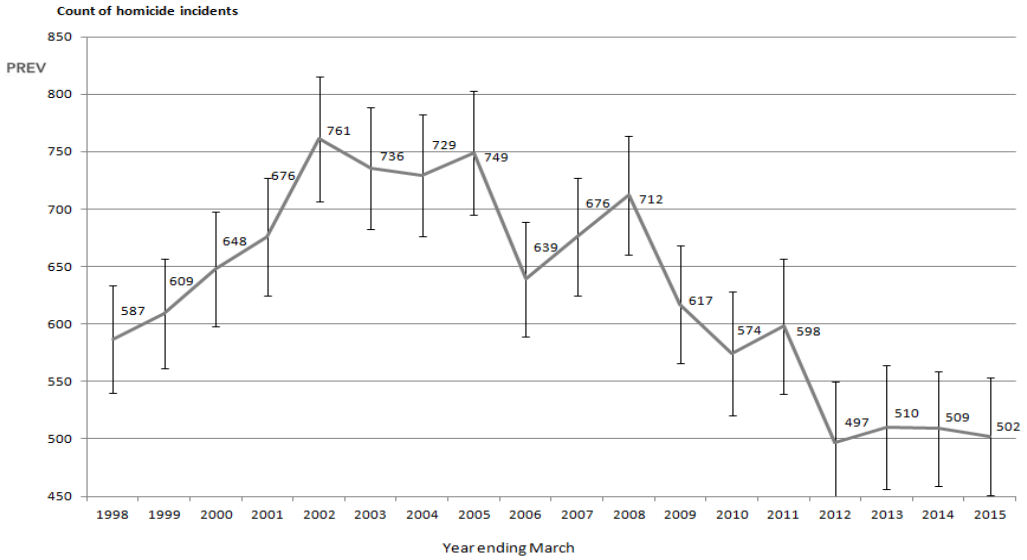
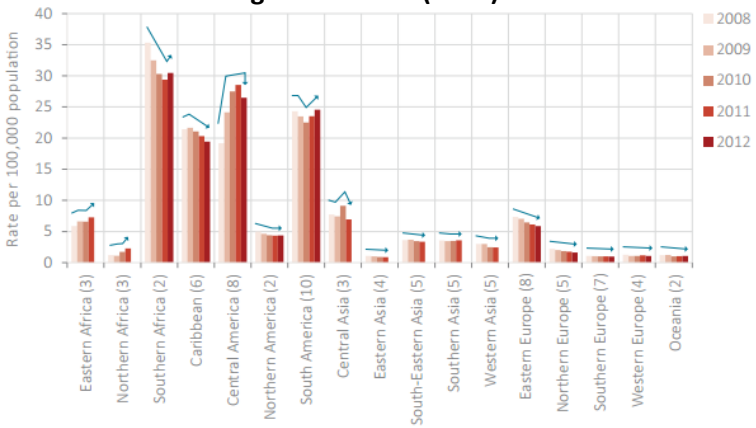


Figure 8: Homicide Incident and Trend Analysis using Poisson analysis



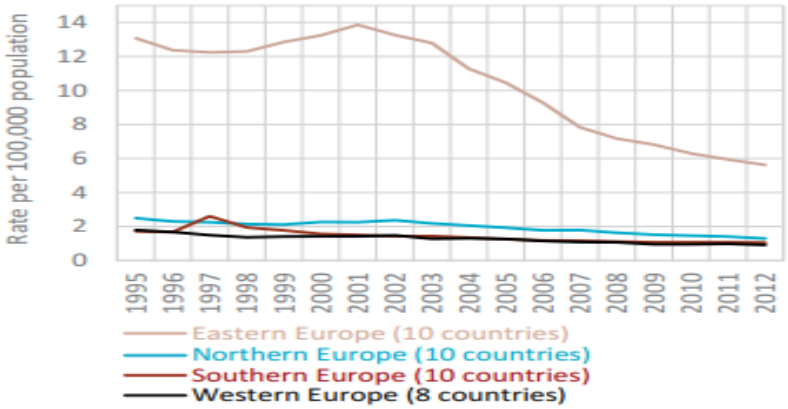
The reduction of homicide is however not restricted to the UK, it appears to be an international phenomenon which started in the early 1990's (Weiss, Santos, Testa and Kumar 2016). According to figures published by the World Health Organisation, the UK, with the exception of Japan has the smallest ratio of homicides per hundred thousand head of population (n = 0.75) out of all countries where statistics are available (Weiss *et al*, 2006, p. 5). Homicide is falling throughout the world with the notable exception of south and mid America and Russia (Weiss *et al*, 2006). As can be seen from figure 9 (United Nations Office on Drugs and Crime, 2013) world trends in homicide show a generally reducing picture.

Figure 9: United Nations Office on Drugs and Crime. (2013).



Whatever the situation in the rest of the world, there appears to be no question of an onward reduction in Europe as can be seen from figure 10 (United Nations Office on Drugs and Crime, Europe 2013) showing European trends in homicide.

Figure 10: United Nations Office on Drugs and Crime (Europe 2013).



Coupled with the reduction in homicide in England and Wales is the development and professionalisation of homicide investigation which has evolved over many years driven by the lessons of miscarriages of justice. One of the core elements of a homicide investigation which can direct whether it is dealt with as a homicide or a non-suspicious death is the medical examination of the body. So important is this element of the investigation, that it can sometimes be the single most important determinant of whether a homicide is identified as such, or missed. This part of the investigation falls to the forensic pathologist.

4.3 Homicide Investigation in England and Wales

> *'No greater honour will ever be bestowed on an officer or a more profound duty imposed on him than when he is entrusted with the investigation of the death of a human being. It is his duty to find the facts regardless of colour or creed without prejudice and to let no power on earth deter him from presenting these facts to the court without regard to personality… no other assignment has the watched potential for success or failure through individual effort. The actions bring enormous prestige and accolades, or deep discredit'* (Baca, 2001, p1-2).

Perhaps the first known murder was of 'the iceman' who was discovered in the Otzal Alps in 1991 and had died from an axe injury to the head some 3300 years BC (Müller, Fricke, Halliday, McCulloch and Wartho, 2003); and so the origins of homicide are as old as mankind. The collective word 'homicide' includes the three separate criminal offences of murder, manslaughter and infanticide which are defined at figure 11.

Figure 11: Definitions of Murder, Manslaughter and Infanticide

Murder

Murder is a criminal offence, surprisingly not defined in statute, but by common law. The legal definition is *'when a man of sound memory, and of the age of discretion, unlawfully killeth within any county of the realm any reasonable creature in rerum natura under the king's peace, with malice aforethought, either expressed by the party or implied by law*' (Smith and Hogan, 1996 p. 338). The only sentence available to a judge trying a convicted murderer is life in prison, the death sentence having been abolished by the Murder (Abolition of Death Penalty) Act 1965.

Manslaughter

Manslaughter, also a common-law offence is the unlawful killing of someone without the intent which is necessary for an offence of murder and divides into 'voluntary' and 'involuntary' manslaughter. Voluntary manslaughter occurs where a court is satisfied that the killing was committed due to loss of control, when the offender was suffering from diminished responsibility or in pursuance of a suicide pact. Involuntary manslaughter occurs where the killing is unlawful but there is no intention to kill the victim. Such offences are therefore unintended deaths resulting from an unlawful and dangerous act, or through gross negligence or recklessness.

Infanticide

Infanticide is a statutory offence defined under S1(1) of the Infanticide Act of 1938, *'Where a woman by any wilful act or omission causes the death of her child being a child under the age of twelve months, but at the time of the act or omission the balance of her mind was disturbed by reason of her not having fully recovered from the effect of giving birth to the child or by reason of the effect of lactation consequent upon the birth of the child, then, notwithstanding that the circumstances were such that but for this Act the offence would have amounted to murder, she shall be guilty of an offence of infanticide, and may for such offence be dealt with and punished as if she had been guilty of the offence of manslaughter of the child'.* This offence was introduced at a time when the death penalty was mandatory for offences of murder. In many cases where mothers killed their babies the only verdict available to juries was one of murder and they were often reluctant to convict, due to the specific circumstances of this offence.

The investigation of homicide is a fundamental and significant indicator of the competence of the police in general; and the police recognise that the community may use performance in this key area as a barometer of the ability to investigate all crimes (Innes, 2003, p276; Lowe, Innes and

Roberts, 2003, p. 67). Homicide is one area over the last 30 years which has brought the reputation of the police into focus. It has taken on a symbolic meaning as an index of professional competence (Innes, 2003, p. 277). The investigation of murder should set clear standards of excellence that all other criminal investigations should follow (HMIC, 2000, p. 115). Although there are very low volumes of homicide in the UK, those that do occur often lead to high levels of fear in the local area and can act as 'signal crimes' (Innes, 2014; Lowe *et al*, 2003, p. 67). One of the main drivers for the way homicide is investigated in England and Wales has been so- called miscarriages of justice (see chapter 2), which has had a major influence on police policy and legislation (Poyser and Milne, 2015).

4.4 The Role of Forensic Pathologists and Post Mortem Examinations

Pathology is the science of the causes and effects of diseases; especially the branch of medicine that deals with the laboratory examination of samples of body tissue for diagnostic or forensic purposes (Home Office, 2016). There are nineteen different specialities within the profession (Royal College of Pathologists, 2015), forensic pathology being just one. The relevance of pathologists to the investigation of death is that when the police or a coroner is attempting to determine the probable cause of death, the services of a pathologist is often required.

Pathologists are doctors who have specialised in this field. The majority of pathologists are 'histopathologists, who examine microscopic samples of human tissue to determine disease. However, there are several other specialties of pathology, which are concerned with the investigation of suspected homicide. These are primarily 'forensic pathologists', sometimes assisted by paediatric pathologists specialising in children. Organ specific pathologists, who specialise in examining brains, eyes and bones etc. are also used, depending on the complexity of individual cases. For ease of reference, histopathologists are referred to within this thesis as 'non-forensic' pathologists. Forensic Pathology is perhaps the most significant profession within the generic title of forensic medicine.

> *Forensic pathology is that branch of medicine which provides the investigation and interpretation of disease and injury for courts of law — the use of primarily pathological knowledge in criminal investigations and other enquiries, particularly in establishing the cause of injuries or death.* (British Association in Forensic Medicine, 2016).

The term 'Home Office List' of Forensic Pathologists was first introduced in 1944 and included only those who practiced for police forces outside of London. Those on the list were given a choice of either a retaining fee or a case fee payable by the respective police force (Home Office, 1989). Each pathologist was attached to an office of the Forensic Science Service (FSS). The Broderick Report (1971) endorsed the Home Office practice of maintaining a 'Home Office List' due to the dearth of universities training in forensic pathology outside of London. At the time the Broderick report was written, there were 25 pathologists on the list outside of London and about 15 within the London area. The small number of just 40 pathologists serving England and Wales was recognised as being vulnerable due to the small numbers (Broderick, 1971).

Today there are *circa* 35 HORFPs who work in group practices across England and Wales and they provide a 24/7 service to the police in suspicious death cases (Home Office, 2016). These specialist medical practitioners undergo over four years of extra training after they have fully qualified as doctors, must be a member of the Royal College of Pathologists and registered with the General Medical Council. They then apply to the Home Office for inclusion on the Home Office Register. Once on the register, they are subject to a strict Code of Practice[16] and a protocol[17]. If the police are dealing with a death scene and require medical advice concerning the death, or wish to retrieve forensic trace samples from the body, a forensic pathologist can be called to the scene to assist and advise. This is always done with the agreement of the coroner. The forensic pathologist can also advise on body recovery to ensure that vital trace evidence is not lost when the body is moved to the mortuary (ACPO, 2006). When the body is removed from the scene, the police will ensure that continuity exists from the removal, until the time that the body is identified to the forensic pathologist. Once identification takes place, the PM, which is sometimes also referred as an ‘autopsy’ or ‘necropsy’ will commence. The process of the PM examination is laid out in general terms within the Code of Practice for Forensic Pathologists (Forensic Science Regulator, 2012). The police guidance is contained within the Police Approved Professional Practice database held by the College of Policing which is based upon the Murder Investigation Manual, but the police will supply a Crime Scene Manager (CSM) to the mortuary, together with Crime Scene Investigators (CSI’s), one of which will act as the exhibits officer (ACPO, 2006). A history and development of forensic pathology is included at appendix 3.

The forensic pathologist will conduct the PM by firstly performing a detailed external examination of the body for signs of foul play (Forensic Science Regulator, 2012). They will also assist police

[16] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/115698/code-practice-forensic-pathology.pdf
[17] https://www.gov.uk/government/publications/protocol-for-home-office-registered-forensic-pathologists

forensic staff in the recovery of forensic trace evidence. They then eviscerate the body and take tissue samples for subsequent histological[18] examination to assist in determining the cause of death. Samples for toxicological examination will be taken to determine whether the deceased had consumed drugs or alcohol. Sometimes whole organs must be removed for later examination by other organ specific pathology experts. Throughout the process, the police will ensure that high quality imaging is taken at all stages of the process for later evidential purposes. Any item or body part removed from the body will be clearly marked with an individual identifier and handed to the police exhibits officer who will document everything taken (ACPO, 2006). Increasingly, a complete three-dimensional scan is taken of the cadaver prior to evisceration from which subsequent interpretation can assist in injury interpretation (Rutty, 2012). Once the PM has concluded, organs removed but no longer required for further tests are replaced within the body cavity and the body closed (Home Office, 2016). Before the body is released to the next of kin for burial or cremation, there will often be a second or 'defence' PM which will be undertaken on behalf of the defendant in the case, and conducted by a different pathologist (ACPO, 2006). This second PM can be either a physical check of the first by opening the body and re-examining the organs, or it can be a desk top review of the original pathologist's notes, report, histology and photographs taken (ACPO, 2006, p. 167). If at the time there is no suspect in the case, the coroner will usually hold a second PM by an independent pathologist and retain the pathologist's report for the benefit of an accused should one be identified in the future (ACPO, 2006, p. 168).

When all the results of tests are collated, the forensic pathologist will produce a report for the coroner and a witness statement for the police. Once this is done, it may not necessarily be the end of the case for the forensic pathologist. They may be asked to advise throughout the investigation by attending meetings and conferences as well as giving evidence at court (ACPO, 2006). A HORFP is an expert witness within the context of a criminal investigation. However, it is important to differentiate between a 'witness' and an 'expert witness'. An expert witness is broader in definition than a witness as to fact which is the traditional definition of someone who has witnessed a crime or event (Whitwell, Thorne, Kolar and Harvey, 2015, p. 378). Expert witnesses are important to the criminal justice system because there is not always a witness as to fact or forensic evidence available, and so to provide credible evidence, information may have to be collected and interpreted by a person who is an expert and with sufficient understanding, knowledge and training to satisfy a court of law that an opinion is a valid one (Whitwell *et al,* 2015, p. 378-381).

[18] Histology is the microscopic examination of tissue to diagnose disease.

A forensic pathological examination of a body is context based and it is not possible to determine all the relevant evidence from a non-context based examination alone (Timmermans 2006 p. 70; Forensic Science Regulator, 2012). This raises an important difference between laboratory based forensic examination and a forensic pathological examination of a body. Laboratory based forensic work should be conducted with minimal 'contamination' of contextual based information (Dror, 2013). This is to reduce the impact of bias into the results of forensic tests which is almost always opinion based, such as fingerprint comparison or DNA testing. Forensic pathology is always context dependent as an opinion as to the cause of death usually relies on the wider circumstances of the case. An example of this is that if a forensic fingerprint examiner was asked to compare two fingerprints, the context of the case would not be relevant to whether the two prints, in the opinion of the examiner matched. However, to ask a forensic pathologist to opine as to the cause and surrounding circumstances of death would be akin to expecting a general practitioner to diagnose an illness without asking questions as to the symptoms (Dror, 2013; Forensic Science Regulator, 2015). There will always be a risk of human error which many cases involving forensic pathologists have shown over the years (Rose, 2007; Foran, Wills, Kiley, Jackson and Trestrail, 2011; Goldsmith, 2007). Because the evidence of forensic pathologists is in part opinion, there are clear rules around what the expert must and must not do to satisfy the court. The CPS has issued guidance on expert witnesses in England and Wales, under the Criminal Procedure Rules[19], an expert witness is required to be independent and address his or her report to the court. They are not expected to have any loyalty to one side or the other (Whitwell *et al*, 2015, p. 381-382).

Forensic pathologists are trained in not only the medical and forensic elements of PM interpretation, but in criminal justice issues. Non-forensic pathologists are trained only in medical elements of PM work and so the issues with their opinion in coroners cases are even more concerning and so they are far more likely to miss identify a homicide (Furness, 2006).

4.5 The Non-Forensic 'Histopathologist' and Post Mortem Practice

Forensic pathologists on the Home Office Register are highly trained specialists who deal with suspicious death cases routinely (Home Office, 2016). Non-forensic pathologists deal with coroners' non-suspicious cases on an occasional basis and do not generally receive training in the interpretation of scene and body examination and the recovery of trace evidence. The practice of non-forensic PM pathologists is particularly concerning in the light of a report by the National

[19] Criminal Procedure Rules are updated regularly. The latest version is 2015.

Confidential Enquiry into Patient Outcomes and Death (NCEPOD), (Furness, 2006), which found that many non-forensic PM examinations were inadequate. Concerns were first highlighted by the Broderick Report in 1971 when discrepancies were found between clinical and PM diagnoses (Broderick, 1971).

Although the NCEPOD research is over 10 years old, the report was recently referred to the Royal College of Pathologists to establish whether its findings are still current. The unanimous view was that, if anything, the situation had worsened since 2006 (Hutton, 2015). One of the reasons given was the fact that the autopsy element of histopathology training was no longer compulsory leading to a reduced number of non-forensic pathologists willing or able to conduct coronial work. The NCEPOD auditors reviewed 1,877 autopsy reports and supporting documentation conducted in a one week period of 2005 in England, Wales and Northern Ireland. The report concluded that there was no improvement in the discrepancies identified since the 1960s (Harvard, 1960); that half of the cases produced findings which were unsuspected before death, and that at least one third of death certificates were likely to be incorrect. In 16 cases where the body was found in a decomposed state, where bodies were not examined and evaluated properly. A common denominator in these cases was that the deceased were either known alcoholics or drug users or found hanging from the neck. The following factors were also identified;

- One in four autopsy reports were judged to be poor or unacceptable;
- In one third of mortuaries, the mortuary technician opened the body and removed organs before the pathologist actually inspected the body contrary to guidance (Leadbeatter, Lucas and Lowe, 2014),
- In one in seven cases the brain was not examined;
- Histology was not taken when it was judged that it should have been in many cases;
- In a fifth of cases, the cause of death was adjudged to have been questionable;
- There was generally a poor quality of examination of the body and organs, and
- Communication between coroners and pathologists was poor and there was insufficient information passed to the pathologist by the coroner.

The report quotes;

> *'If one quarter of all surgical procedures undertaken on the living were deemed, by peers, to be poorly or unacceptably badly done, there would be a public outcry. The fact that there is no public outcry is a manifestation of the fact that families are unaware of the variable quality of the autopsy procedure'* (Furness, 2006).

When questioned about this, a common response from pathologists and coroners was *"what do you expect for £87.70?"*[20] (Furness, 2006, p. 117).

The NCEPOD report however did not review the actual PM examinations, but was a review of the paperwork, and so reliance on this report as empirical evidence of the poor quality of non-forensic PM examinations should perhaps be treated with some caution. Undoubtedly many histopathologists conduct PM examinations to a high standard, nevertheless reliance on a non-forensic PM is risky and potentially unlikely to identify a complex murder (Jones, 2014). This issue is further highlighted by a recent BBC news feature[21] explaining the role of a London based non-forensic histopathologist who claimed to do 50 autopsies a week on top of her full time 'day job', including complex baby deaths. In contrast, forensic pathologists on the Home Office Register are restricted to doing 95 cases in a year[22]. This demonstrates the difference in detail and expertise a forensic examination requires compared with a non-forensic procedure. Non-forensic PM's should be subject to the same audit regime as forensic PM's, because the outcomes are important and critical to grieving families who deserve to know the true cause of death (Rutty, 2006). Rutty points to the poor quality of non-forensic PM examinations from his considerable experience as a forensic pathologist in various parts of England.

Another study (Johnson, 1969) attempted to estimate the frequency of unnatural deaths discovered at autopsy by reviewing over 5000 death cases not considered as suspicious over a five year period between 1963 and 1967. Of these cases, 263 were found to be suspicious in that 174 were cases of poisoning; 34 were head injury cases; 14 had other injuries to the body; 11 asphyxia cases; 1 hanging; 1 cut throat; 1 electrocution; 18 definite homicides and 9 criminal abortions. This represented over 5% of all the original total number of cases. Johnson commented that although there was information which would bring these cases into the unnatural category they were missed as potential homicides, even though in some cases there were visible injuries. He identified that the main reasons were that the body had not been properly examined at the scene either by the attending doctor or the police officer, or because in some cases no examination had taken place at all. In other cases, no investigation appeared to have taken place at the scene of the death. There were also examples of deliberate deception and concealment of information by relatives in the deaths identified as being criminal. In many cases, assumptions had been made that because the deceased was either old or had been ill that death was due to natural causes.

[20] The fee then payable for a non-forensic 'routine' autopsy which is now £96.80. An enhanced fee of 276.90 is payable by the coroner for a post mortem requiring 'additional skills'. http://www.bma.org.uk/support-at-work/pay-fees-allowances/fees/fee-finder/fee-finder-coroners.

[21] http://www.bbc.co.uk/news/magazine-31536753

[22] Protocol for forensic pathologists on the Home Office Register at:
https://www.gov.uk/government/publications/protocol-for-home-office-registered-forensic-pathologists

This again highlights the importance of the initial scene investigation by the police. At the time of the study, there was no formal training for police officers in death investigation (Johnson, 1969).

Cases without an adequate medico-legal investigation of the person who has died a violent or sudden death of unexplained cause are fraught with danger (Harvard, 1960; Jones, 2014). Even the most competent physician if he or she attempts to certify the cause of such deaths on the basis of the available clinical history and external examination of the body, is likely to be proven wrong by a forensic PM in one out of every three cases (Harvard, 1960). This highlights the importance of a forensic PM in suspicious death cases. In 1942, the advisor to the Home Office on toxicology, Dr Roche Lynch reported that of eight exhumations he had examined, seven were homicide that had been missed due to inadequate investigation (Roche, 1942).

Failing to use the services of a HORFP is of concern, as there are specific examples of police placing undue reliance on the findings of non-forensic or 'routine' PM examinations, believing that a non-forensic PM will reveal foul play. Reliance on a non-forensic PM could lead, at best, to forensic evidence being lost during the PM by unqualified practitioners, and at worst, to missed homicides (Jones, 2014). In every case where homicide is a possibility, the police must request that the coroner appoint a HORFP. The most recent study in relation to the quality of non-forensic PM examinations, compared the non-forensic pathologists report with the results of cross sectional scanning of the bodies prior to the invasive PM. The study found that 27% of pathologists' reports were incorrect (Rutty and Morgan, 2016).

It can clearly be seen that any police and coronial practice of engaging a non-forensic pathologist to conduct a PM procedure is therefore dangerous in terms of missing or failing to identify the case as homicide or losing vital forensic evidence in cases where there may be the possibility of third party involvement. Thus, the decision as to whether to treat a death as suspicious *and* ensure that there is an appropriate medical determination of death by a HORFP is critical to the investigation. This again opens the question as to how many homicides may be missed by non-forensic pathologists conducting coronial PM examinations.

4.6 Cases of Missed Homicide

Stelfox, (2006, p. 108) found that 93% of the cases he examined were immediately recognised as homicide due to the existence of credible information including the offender present at the scene admitting to the offence. There were two cases within his study where the determination of homicide was not made by the first attending officers, but later identified as such. However, those

that may have been missed and never identified as a homicide would never have been included within the study as it only looked at confirmed homicide cases and so crime statistics on homicide although thought to be the most reliable of all crime statistics (Mawby and Walklate, 1994, p. 25) are likely to be higher than quoted in official sources.

Dr Harrold Frederick Shipman was probably the most famous example of missed homicides in the history of UK crime (BBC, 2014). He practiced as a general practitioner in the Lancashire town of Hyde. Although some estimate that he committed over 250 murders during his 27 years of practice, the official number was put at 215; 171 women and 44 men (Smith, 2002). The Shipman Inquiry found that the failure of the initial investigation was put down to;

- Inexperience of the investigating officer; and
- Failure of supervision and management

(Smith, 2003, p. 134).

If management and support by way of supervision and allocation of appropriate resources is poor, it will be inevitable that poor decisions will be made on the ground (Stelfox, 2006). The link between poor strategic decision making and poor investigative decision making is mirrored in various inquiries, particularly the Byford Report (Byford, 1982) and the Macpherson Report (1999). The majority of confirmed homicides are solved quickly, Innes (2003). 'Self-solvers' are where solving homicide cases is comparatively easy due to the evidence at the scene, the suspect at the scene or the presence of eye witnesses able to inform the police what happened (Innes, 2003, p. 198). It therefore follows that these types of cases are more likely to be identified as homicides by first police attenders due to the fairly obvious nature of the scene with possibly the offender present and admitting to the killing. Those homicides which are less obvious and described by Innes (2003) as 'whodunits' are likely to be the ones which are more difficult to detect as homicide at the scene. Stelfox (2006) cites three reasons for failure to identify a homicide as such; i) failure to collect information effectively; ii) failure to interpret information correctly and iii) failures of supervisors to check the validity of officers judgements.

Other cases where homicides were missed by those initially attending the scenes of sudden and unexpected death are numerous and some are reported within the press but most are hidden as the facts rarely emerge. The case of Ernest Andrew Brown - verses - HM Coroner for The County of Norfolk and the Chief Constable of Norfolk Constabulary, 2014[23] which was referred by the

[23] Ernest Andrew Brown - and - HM Coroner for The County of Norfolk and the Chief Constable of Norfolk Constabulary: [2014] EWHC 187 (Admin).

Attorney General was an appeal against a coroner's verdict where suicide or homicide was not considered by the original coroner. The circumstances of the case were that a police constable attended the scene of death of a 31 year old female. The officer came to a quick conclusion that the death was non-suspicious and information and evidence was therefore lost to the subsequent investigation. The judge in his summing up criticised the police constable and his supervisors for failing to have an open-mind at the scene and coming to a decision based upon biased opinion.

A more recent case of a clear homicide almost being missed was the death of infamous 'Brinks Mat' robber John Palmer[24] in 2015. So disturbed by the failure to recognise the presence of six shot gun wounds, the HORFP shortly after conducting the PM on Palmer telephoned from the mortuary to alert the researcher about what he had found to express his dismay. The deceased was shot in the stomach area whilst at home in his garden. The police and ambulance crew considered that it was bleeding from a recent surgical operation and the scene was cleared.

Another case where the police made decisions which were shown to be poorly judged was the case of elderly lady Una Crown who was murdered at her home and her body set on fire in 2015. The police originally assessed that she had collapsed and died of natural causes. The fact that she had been set alight was put down to an accident.[25] Like the Palmer case, the investigation into Una Crown's murder is still unresolved, partly because the crime scene was lost and could never be recovered.

Perhaps one of the most tragic cases was that of Anthony Hardy in Camden, London in 2002. Hardy was suffering from mental health issues and despite protests from local residents, he was deemed to be safe to live in the community. The police went to his flat to make an arrest for a minor criminal damage incident but found the body of a female in a bedroom at his home. This was initially thought to be suspicious but Dr Freddy Patel, who at the time was a HORFP, deemed the cause of death to be heart disease. Hardy was released from custody and went on to kill two women and rape several others over the next few months[26]. The over reliance on medical opinion, even that of a HORFP is therefore not enough to make decisions as to whether a homicide is disclosed; the whole case and context must be considered. In this case, it was not the police decision making which influenced the outcome; it was the CPS in the knowledge that the medical evidence did not support the homicide hypothesis.

[24] The BBC news report can be seen at http://www.bbc.co.uk/news/uk-england-essex-33361180 .
[25] Mirror Website: 31 March 2015 http://www.mirror.co.uk/news/uk-news/killer-who-slit-elderly-womans-5434997.
[26] Camden New Journal http://www.camdennewjournal.com/news/2011/apr/baffling-tragedy-how-camden-ripper-was-freed-murder-again.

Homicides are not only misidentified by the police but also by other agencies with responsibilities over vulnerable persons. There have been many such cases where criticism has been levied at social service departments. The latest was the case of 'baby P'[27] (BBC, 2014a) whose death at the hands of carers was missed by a litany of mistakes by medical professionals, social services and the police. Failures to properly identify and investigate deaths are not therefore solely a problem within the police service. In December 2015, there was wide national news coverage that the NHS had failed to properly investigate the deaths of over 1000 people since 2011 (BBC, 2015). Although the report commissioned by NHS England has not been published at the time of writing, according to the BBC coverage, the fact as to whether an investigation took place depended upon the profile of the deceased. Where the deceased had learning difficulties, only 1% of cases were investigated. For those over the age of 65, only 0.3% of cases were investigated. It is not known if any of the cases were homicide due to the fact that no investigation took place (BBC, 2015).

Of particular concern are reports in the literature in relation to deaths of young children and the increased chances of homicide being missed. Brookman and Nolan (2006) examined 298 cases of under 1 year of age child deaths over a seven-year period and found evidence that there was under recording of homicide due to the difficulties posed in differentiating between infanticide and sudden infant death syndrome (SIDS)[28] and sudden unexpected deaths in infancy (SUDI)[29]. This is due to the lack of clear cut physical injuries one might expect to see in adult victims. They also found some evidence that parents have been wrongly convicted (Brookman and Nolan, 2006, p. 869). Children under one year old are the most vulnerable group to homicide, being at least twice as likely to be victims than any other age group (Brookman and Nolan, 2006, p. 870). There have been other studies which support the claim that children are more at risk to homicide than any other category of person (Marks and Kumar, 1993)

There are many reasons why the number of child homicides remain a 'dark figure' (Vaughan and Kautt, 2009), not least of which is the ease of concealment of the body of a newly born child (Brookman and Nolan, 2006, p. 876; Fox, 2008), the fact that the death may be caused by a covert act such as neglect and the sheer vulnerability of young children. There is also a reported reluctance for paediatricians and pathologists to declare a death suspicious for fear of the consequences to the family (Brookman and Nolan, 2006, p. 877-881). A number of studies attempt to place an estimate on the number of 'missed child homicides' which range from 1.3% of cases to 40% of SIDS cases, however there is no empirical evidence to place a reliable figure, other

[27] The BBC new report can be seen athttp://www.bbc.co.uk/news/uk-11626806.

[28] Unexplained death, usually during sleep, of a seemingly healthy baby less than a year old undeterminable and was prior to 1971 referred to as 'cot death'.

[29] Sudden Unexpected Death of an Infant over the age of one year old.

than to say that there would appear to be some missed homicides annually. Brookman and Nolan (2006) postulate that out of their study cohort, 123 cases could have been missed homicide.

One of the reasons child homicides are missed may be the fact that there have been several high-profile convictions overturned on appeal and this has caused a practitioner reaction amongst medical professionals afraid of the consequences of being criticised in court (Vaughan and Kautt, 2009, p. 89). This shows the importance of having specialist forensic PM examinations in child death cases to assist in identifying homicide (Vaughan and Kautt, 2009, p. 90; Byard and Hilton, 1997). The problem is made worse by the reluctance of medical professionals to engage in police cases involving children (Fox, 2008: Reeder and Nichol, 2004; Hutton, 2015).

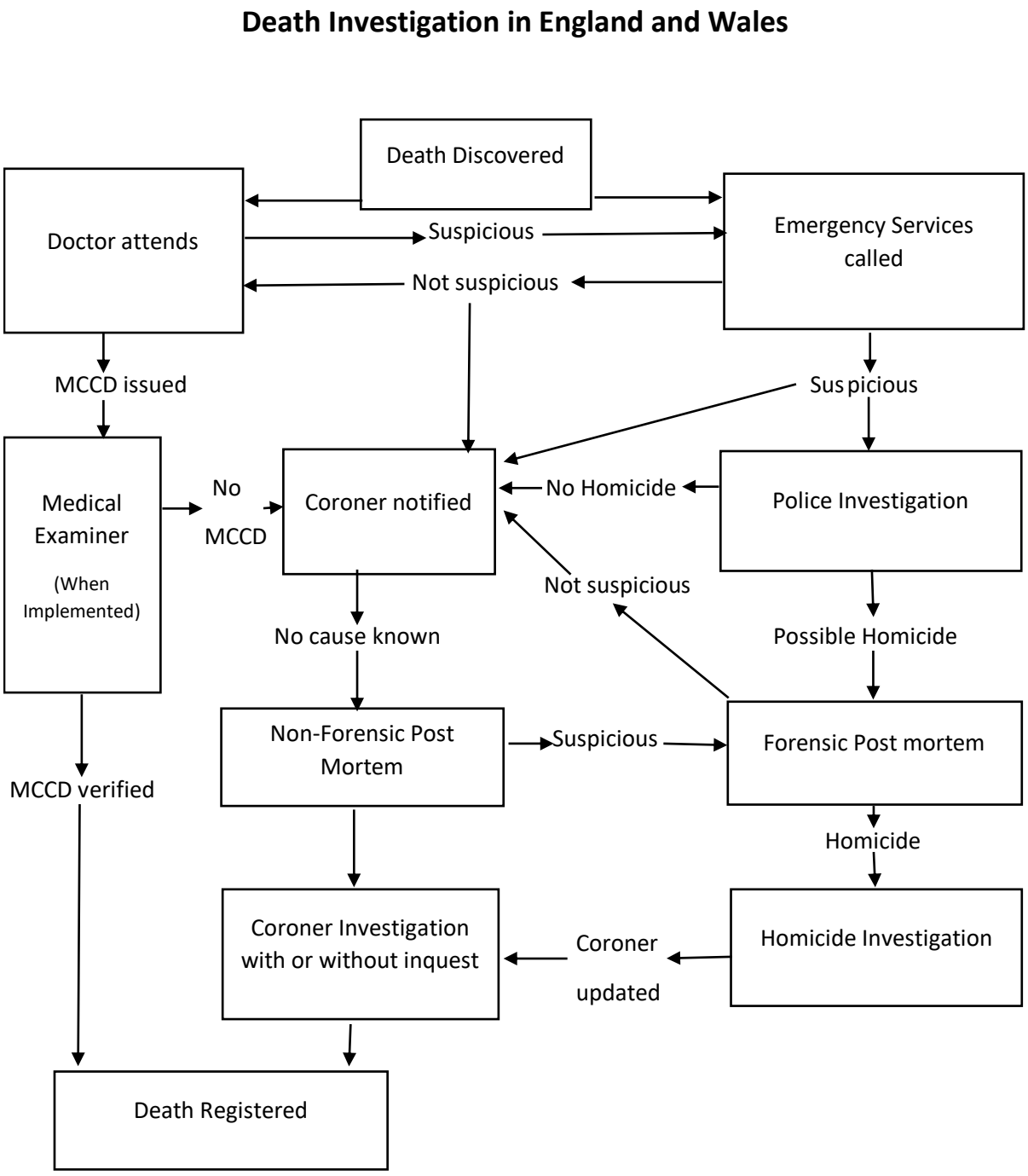
Chapter 5: Results – Forensic Post Mortem verses Homicides

5.1 Introduction

This chapter seeks to explain the outcomes of the research in terms of homicide statistics and their relationship and correlation with Forensic PM examinations. In order to add to the context of death investigation in England and Wales, using the information within the literature review, the chart at figure 12 was constructed which shows how homicide investigation fits into the whole picture of death investigation in England and Wales. This includes the positioning of the medical examiner[30] role which does not affect the investigation of suspicious deaths unless of course the medical examiner identifies issues which are referred back to the coroner for further investigation. The focus of this study is the top right section of the chart where the initial investigation takes place. As can be seen, if after the emergency services have been called and conduct an initial assessment, the case will either fall into the suspicious or non-suspicious category. If the latter it will be referred to either the coroner, or the general practitioner for issue of the MCCD, overseen by the medical examiner. There will be an opportunity for the suspicious death to be identified at this stage but as previously discussed, this is less likely due to the biasing effects of expectation that the attending police or ambulance personnel have declared the case as non-suspicious.

[30] Medical Examiners are due to be introduced in 2017 under the Coroners and Justice Act 2009.

Figure 12: Death Investigation in England and Wales



5.2. Statistical data analysis in respect of death investigation in England and Wales

In order now to look at the relationship between homicide numbers and the overall numbers of forensic PM's it was necessary to collect PM data from all forensic pathology group practices going back to the financial year 2009/2010 (when this data was first available), and comparing this with recorded homicide data for England and Wales. The contention is that the lower the ratio of forensic PM's to homicide, the risk of missing homicide will increase. In other words, if the investigation into a death is denied the detailed medico-legal examination of the body, relying instead on untrained non-forensic pathologists to perform the examination, it is not unrealistic to postulate that the likelihood of missing a homicide will increase. The ratio between these two sets of data is therefore very important to establish whether there has been a shift in the historic average which might indicate the presence of an unknown variable.

In a climate of reducing homicide rates, one might expect that forensic PM examinations would reduce to a consistent degree as homicides, as there would be a likelihood of a similar ratio of reducing numbers of suspicious death. However, if the falling number of homicides were to be inconsistent with the numbers of forensic PM's, it might indicate the existence of other factors affecting the forensic PM rate. If forensic PM's are not falling in numbers, it could indicate that the police and coroners are holding too many examinations leading to inappropriate use of public funds. If the number of forensic PM's is reducing more than homicide rates, it could be evidence that decisions are being made not to hold a forensic PM for other reasons. Failure of holding forensic PM's could be an independent variable affecting the homicide rate as suspicious deaths are not being dealt with properly and in accordance with practice laid out in police guidance such as the Murder Investigation Manual (ACPO, 2006).

The starting point therefore was to establish the *base rate ratio* of forensic PM's to homicides using historical data. The historic number of identified forensic PM's ordered by the coroner in consultation with the police can be seen in Table 10. (Source: ONS for Homicide; Home Office for Forensic PM's). In order to be comparable with the homicide data, the data are presented for financial years as opposed to calendar years.

Table 10: The number of forensic autopsies, recorded homicides and percentage of autopsies demonstrating a homicide, 2009 – 2015 –England and Wales

Financial Year	No. of Forensic PM	No. of Police Recorded Homicides	Ratio of homicides to Forensic PM %
2009/10	2047	626	30
2010/11	1857	639	34
2011/12	1740	553	32

2012/13	1797	558	31
2013/14	1742	533	31
2014/15	1664	534	32
Average	-	-	32

Put more simply, according to historical data, nationally, since 2009, the ratio appears to be a rounded average of 32, which means that 32% of all forensic PM's transpire to be a homicide, roughly one in three. This is interesting as it was always anecdotally stated by pathologists that the figure was about one in three, but this is the first-time analysis has shown this to be the case. It will be noted that for the period 2010 to 2011, the ratio goes to 34, indicating that another variable may have come into play, however the figures are small and so any inferences are limited. Using Pearson's Correlation Coefficient, there appears to be a correlation between forensic PM's and homicides [r(4) = .82, p = .44], however due to the small size of the sample, this is not significant.

Figure 13: Forensic PM cases and homicide from, 2009 to 2015

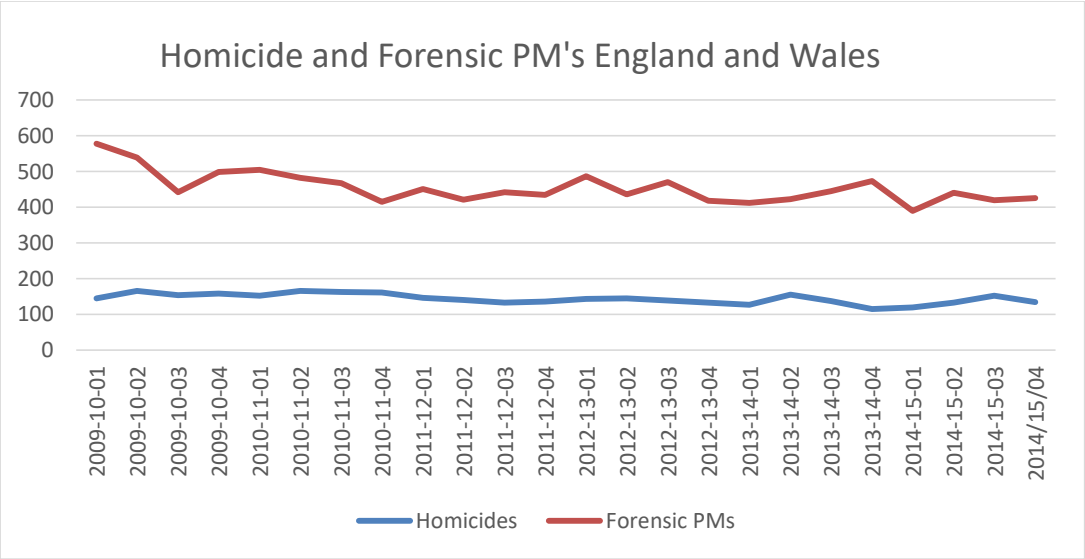
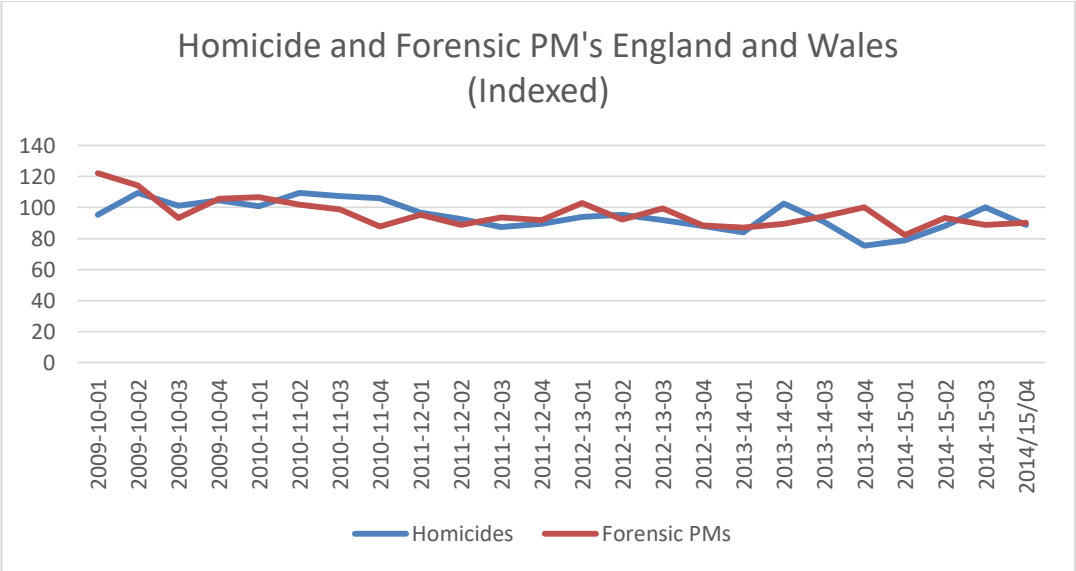


Figure 13 (source Home Office, 2016) breaks down the annual numbers of homicides and Forensic PM's into quarterly figures. This data shows the relationship between recorded homicide and forensic PM numbers per quarter.

As can be seen, although the two trend lines appear to be falling slightly at a consistent rate, in order to more clearly show the relationship between the two sets of figures, it is necessary to index the two sets of data. Clearly there are more forensic PM's than homicides but the process of indexing takes the first value = 100, then subsequent values relate to the first using the year on

year percentage differences. This produces a comparative chart between the two variables at figure 14.

Figure 14: Indexed chart Forensic PM cases and homicide from, 2009 to 2015



It can be seen from figure 14 that there is a fairly consistent relationship between homicides and forensic PM's. The trend lines between forensic PM's and recorded homicide appears from the available data to show a clear relationship although a non-significant correlation.

5.3 Regional Variations

The next stage was to look across individual police forces to see if they were all similarly consistent or whether the ratios of forensic PM to homicide data varied to any extent. However, many smaller forces have so few homicide and forensic cases that no real comparison was feasible, but by grouping forces regionally, it was possible to examine regional variations across England and Wales. The traditional ten Home Office police regions also proved to be too small in terms of the numbers available for comparison. Thus regions were combined geographically to make five 'super regions'. These five larger geographic combinations were as follows: A) North West and North East of England; B) Yorkshire, Humber and East Midlands; C) West Midlands and Wales; D) East of England and London; and E) South East and South West of England. The following data show the relationship between forensic PM's and homicides for the five identified regions. The raw figures appear as tables followed by two figures; the first showing those raw figures as a trend line and the second showing that data indexed to 100 in the same way as described in table 10, and figures 13 and 14 above.

5.3.1 Region A: North West and North East of England

This geographic region includes the police force areas of: Cleveland, Durham, Northumbria, Cheshire, Cumbria, Greater Manchester, Lancashire and Merseyside.

Table 11: Region A. North West and North East of England. The number of forensic autopsies, recorded homicides and percentage of autopsies demonstrating a homicide, 2009 – 2015

Financial Year	No. of Forensic PM	No. of Police Recorded Homicides	Ratio of homicides to Forensic PM
2009/10	613	120	20
2010/11	482	128	27
2011/12	512	106	21
2012/13	503	103	20
2013/14	466	89	19
2014/15	408	113	28
Average			23

Figure 15: Region A. North West and North East of England. Forensic autopsies and Homicides between 2010 and 2015

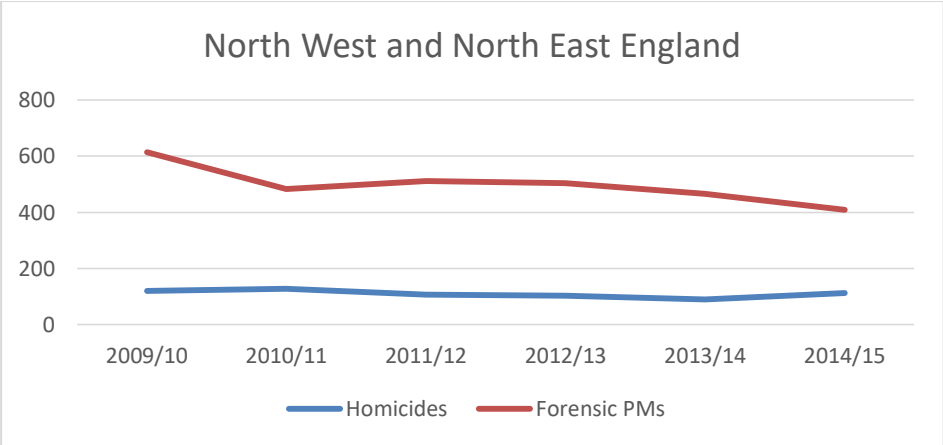
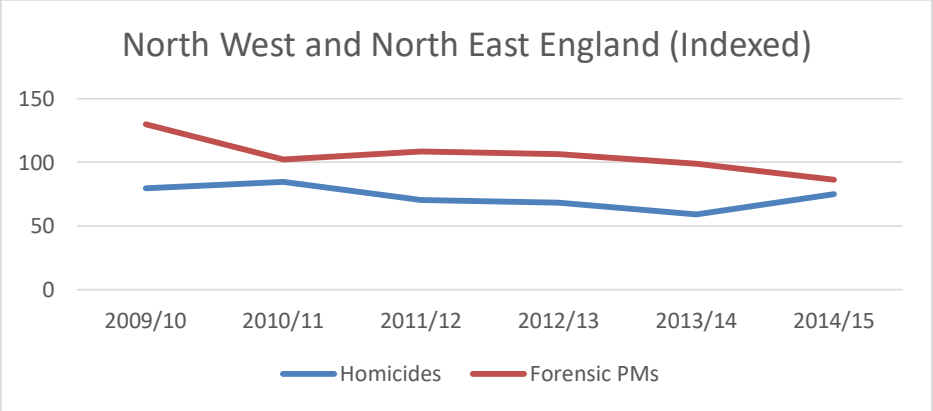


Figure 16: Region A. North West and North East of England. Forensic autopsies and Homicides between 2010 and 2015 (indexed)



As can be seen, the forensic PM's exceed the national average ratio to homicides in this region. This may indicate that there appear to be no reduction in the number of cases called as suspicious in comparison with confirmed homicide cases.

5.3.2 Region B: Yorkshire, Humber and East Midlands

This geographic region includes the police force areas of: Humberside; North Yorkshire; South Yorkshire; West Yorkshire; Derbyshire; Leicestershire; Lincolnshire; Northamptonshire and Nottinghamshire.

Table 12: Region B. Yorkshire Humberside and East Midlands. The number of forensic autopsies, recorded homicides and percentage of autopsies demonstrating a homicide, 2009 – 2015

Financial Year	No. of Forensic PM	No. of Police Recorded Homicides	Ratio of homicides to Forensic PM
2009/10	287	104	36
2010/11	355	110	31
2011/12	347	114	33
2012/13	357	90	25
2013/14	340	110	32
2014/15	350	90	26
Average			31

Figure 17: Region B. Yorkshire, Humberside and East Midlands. Forensic autopsies and Homicides between 2010 and 2015

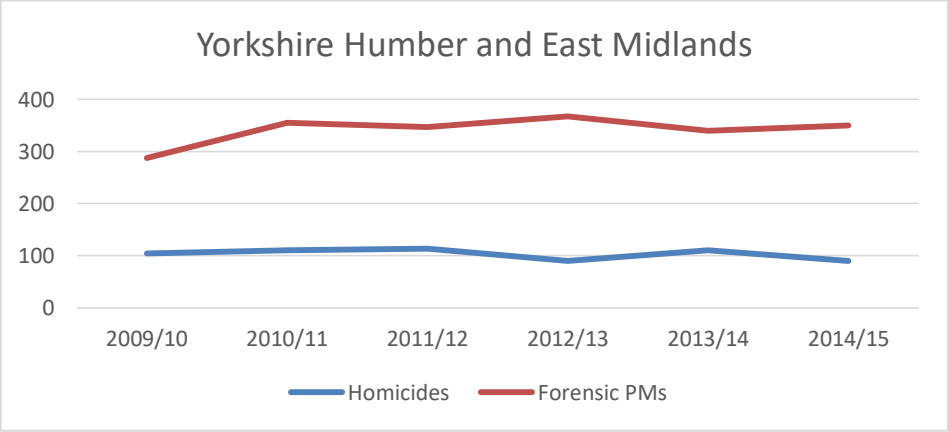
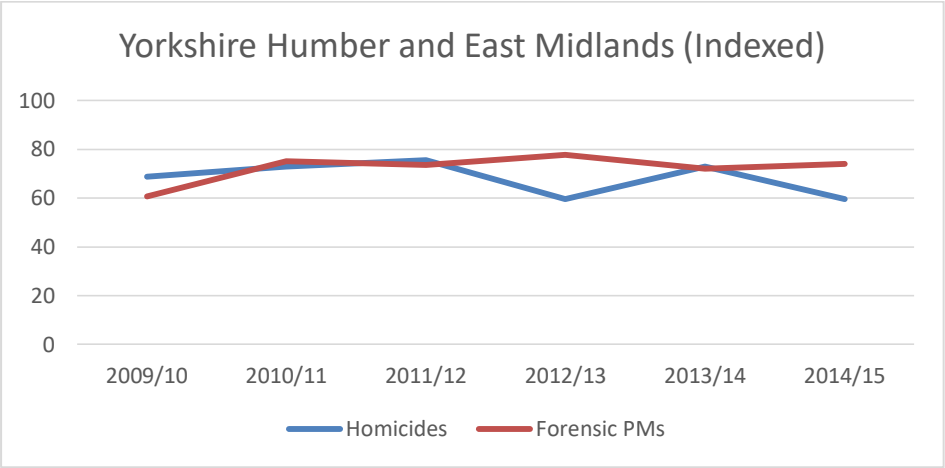


Figure 18: Region B. Yorkshire, Humberside and East Midlands. Forensic autopsies and Homicides between 2010 and 2015 indexed



It can be seen that the trend lines are reasonably consistent with the national average of one homicide per three forensic PM's.

5.3.3 Region C. West Midlands and Wales

This geographic region includes the police force areas of: Staffordshire; Warwickshire; West Mercia; West Midlands; Dyfed Powys; Gwent; North Wales and South Wales.

Table 13: Region C. West Midlands and Wales. The number of forensic autopsies, recorded homicides and percentage of autopsies demonstrating a homicide, 2009 – 2015

Financial Year	No. of Forensic PM	No. of Police Recorded Homicides	Ratio of homicides to Forensic PM
2009/10	303	109	36
2010/11	274	95	35
2011/12	213	76	36
2012/13	207	94	45
2013/14	230	72	31
2014/15	192	80	42
Average			38

Figure 19: Region C. West Midlands and Wales. Forensic autopsies and Homicides between 2010 and 2015

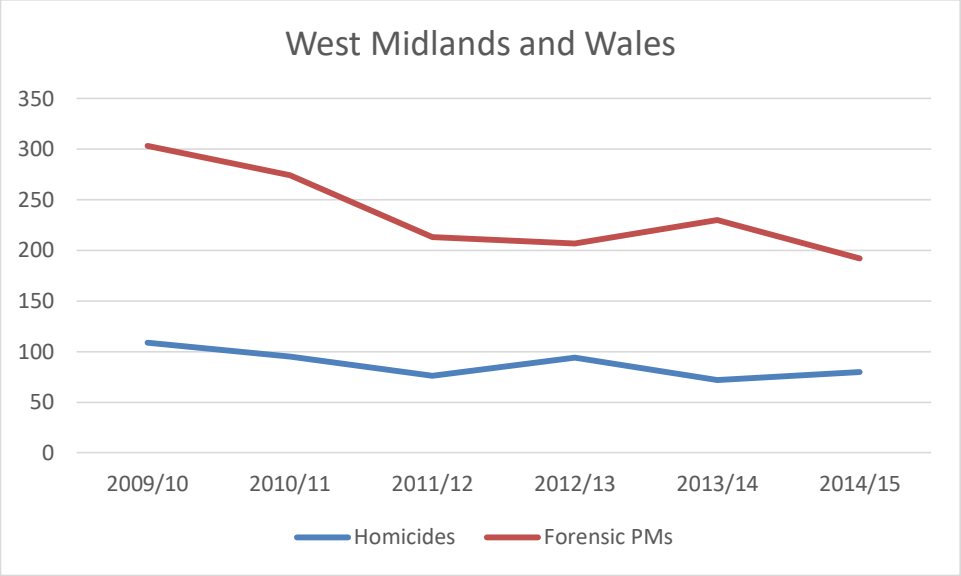
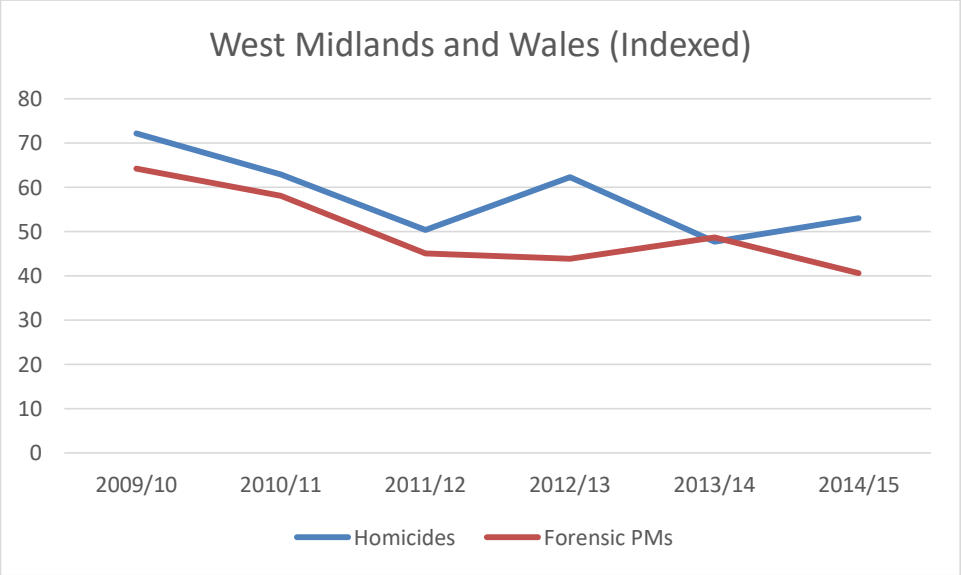


Figure 20: Region C. West Midlands and Wales. Forensic autopsies and Homicides between 2010 and 2015 indexed



Here it can be seen that prior to 2013/14, there was a lower ratio of forensic PM's per homicide, a trend which appears to have reversed after that date.

5.3.4 Region D: East of England and London

This geographic region includes the police force areas of: Bedfordshire; Cambridgeshire; Essex; Hertfordshire; Norfolk; Suffolk; City of London and Metropolitan Police.

Table 14: Region D. East of England and London. The number of forensic autopsies, recorded homicides and percentage of autopsies demonstrating a homicide,2009 – 2015

Financial Year	No. of Forensic PM	No. of Police Recorded Homicides	Ratio of homicides to Forensic PM
2009/10	452	169	37
2010/11	419	185	44
2011/12	398	152	38
2012/13	415	159	38
2013/14	401	154	38
2014/15	402	144	36
Average			37

Figure 21: Region D. East of England and London. Forensic autopsies and Homicides between 2010 and 2015

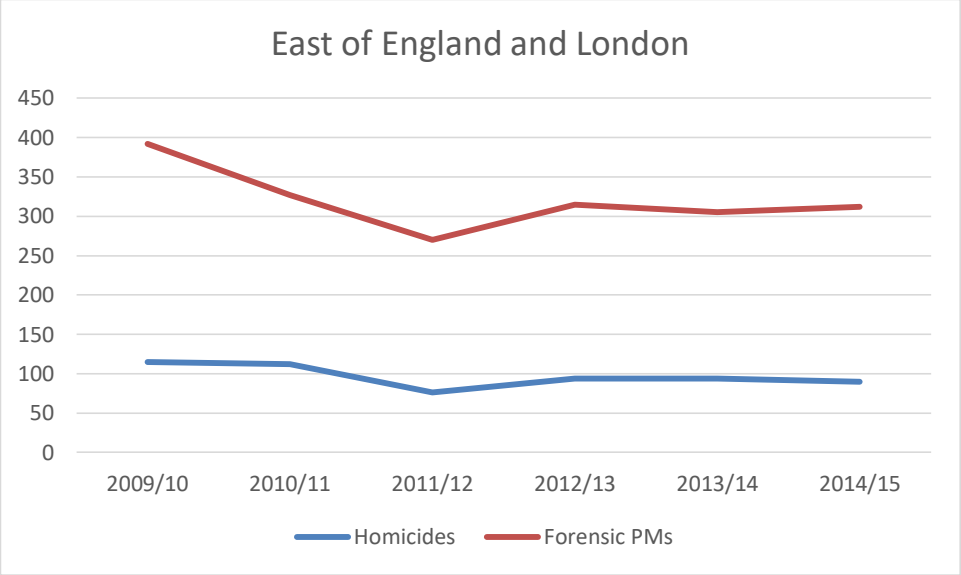
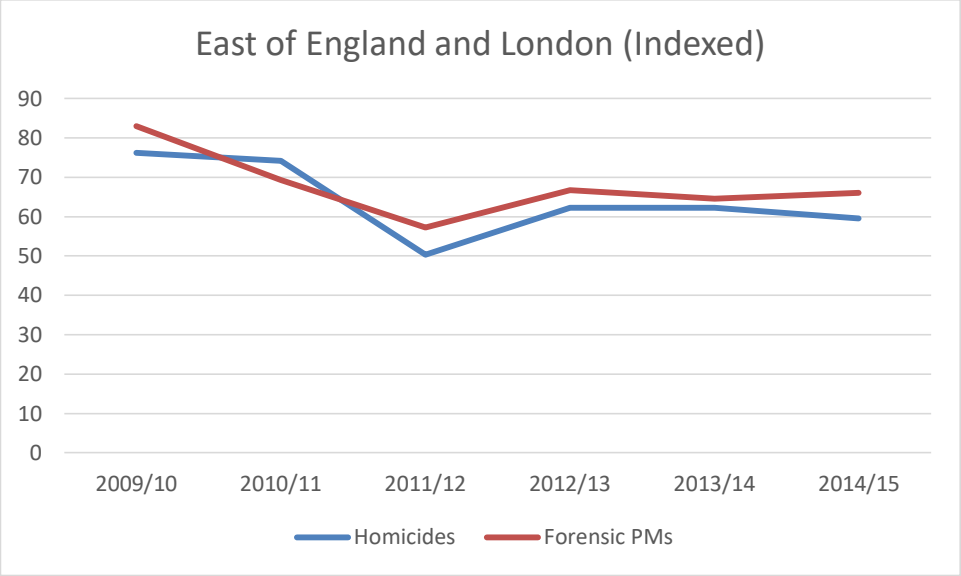


Figure 22: Region D. East of England and London. Forensic autopsies and Homicides between 2010 and 2015 indexed



There appears to be a fairly consistent ratio between forensic PM's and homicides in region D.

5.3.5 Region E: South East and South West of England

This geographic region includes the police force areas of: including the police force areas of: Hampshire; Kent; Surrey; Sussex; Thames Valley; Avon and Somerset; Devon and Cornwall; Dorset; Gloucestershire and Wiltshire.

Table 15: Region E. South East and South West. The number of forensic autopsies, recorded homicides and percentage of autopsies demonstrating a homicide, 2009 – 2015

Financial Year	No. of Forensic PM	No. of Police Recorded Homicides	Ratio of homicides to Forensic PM
2009/10	392	115	29
2010/11	327	112	34
2011/12	270	76	28
2012/13	315	94	30
2013/14	305	94	31
2014/15	312	90	29
Average			30

Figure 23: Region E. South East and South West of England. Forensic autopsies and Homicides between 2010 and 2015

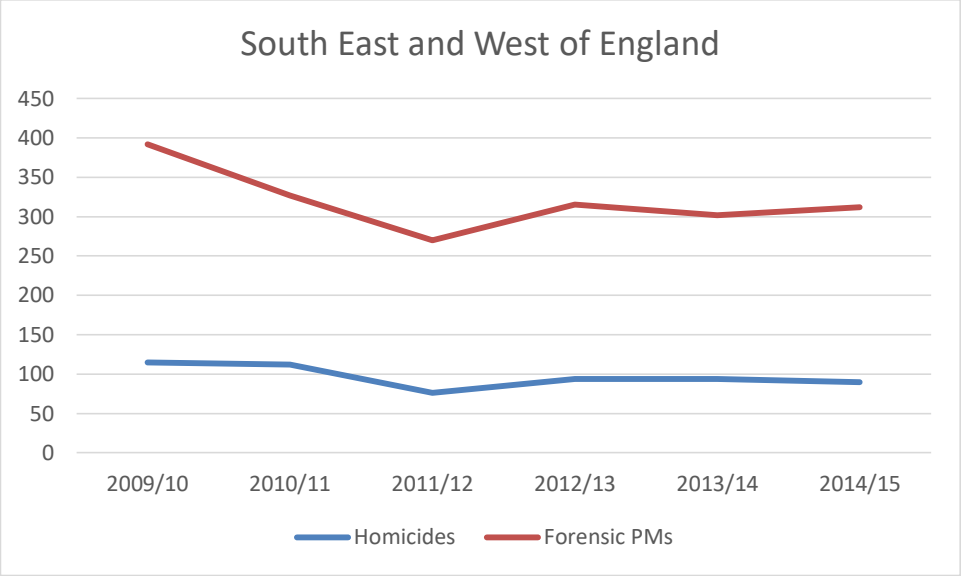
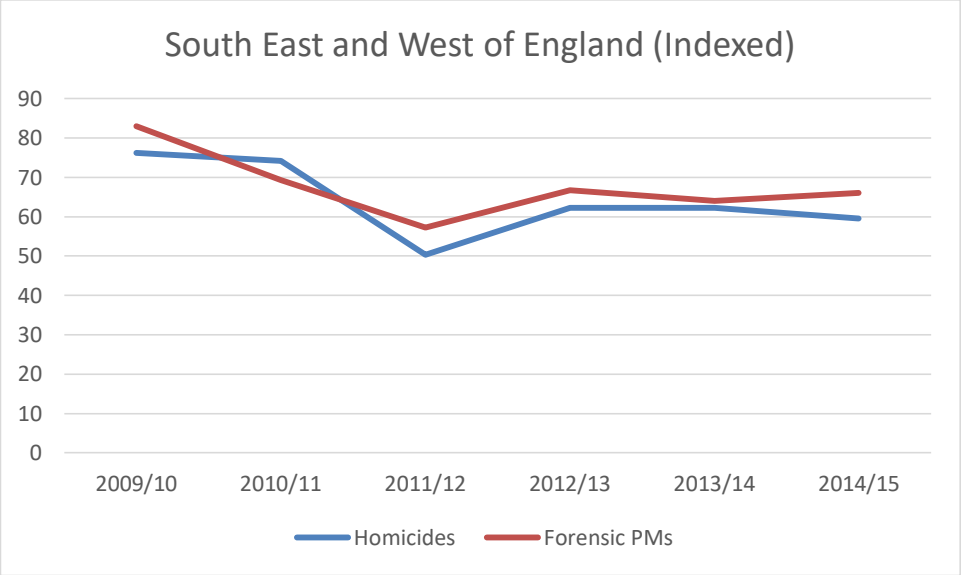


Figure 24: Region E. South East and South West of England. Forensic autopsies and Homicides between 2010 and 2015 indexed



There appears to be a fairly consistent ratio between forensic PM's and homicides in region E.

5.4 Individual Police Forces

There are a small number of police forces where there are sufficient numbers of both forensic PM's and homicides to provide analysis and so these were looked at individually to identify any force trends. These were anonymised as explained in chapter 2 and described as Police Force 1, 2, 3 and 4.

5.4.1 Police Force 1

Table 16: Police Force 1. The number of forensic autopsies, recorded homicides and percentage of autopsies demonstrating a homicide, 2009 – 2015

Financial Year	No. of Forensic PM	No. of Police Recorded Homicides	Ratio of homicides to Forensic PM
2009/10	150	35	23
2010/11	143	32	22
2011/12	149	30	20
2012/13	153	42	27
2013/14	158	29	18
2014/15	150	34	23
Average			22

Figure 25: Police Force 1. Forensic autopsies and homicides between 2010 and 2015

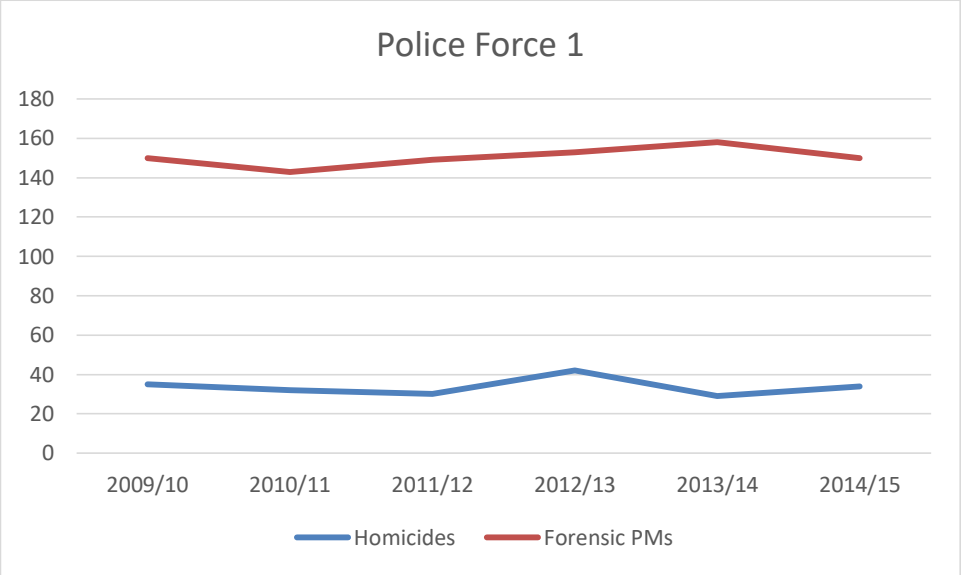
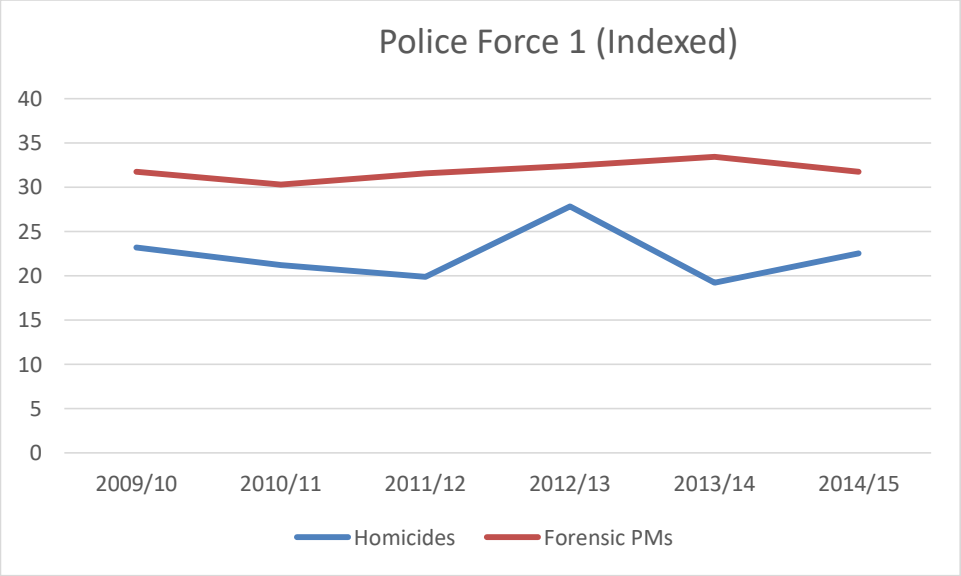


Figure 26: Police Force 1. Forensic autopsies and homicides between 2010 and 2015 indexed



The ratio between forensic PM's and homicide show that there are far more forensic examinations than the national average.

5.4.2 Police Force 2

Table 17: Police Force 2. The number of forensic autopsies, recorded homicides and percentage of autopsies demonstrating a homicide, 2009 – 2015

Financial Year	No. of Forensic PM	No. of Police Recorded Homicides	Ratio of homicides to Forensic PM
2009/10	77	32	42
2010/11	111	27	24
2011/12	116	42	36
2012/13	115	17	15
2013/14	97	26	29
2014/15	79	22	28
Average			29

Figure 27: Police Force 2. Forensic autopsies and homicides between 2010 and 2015

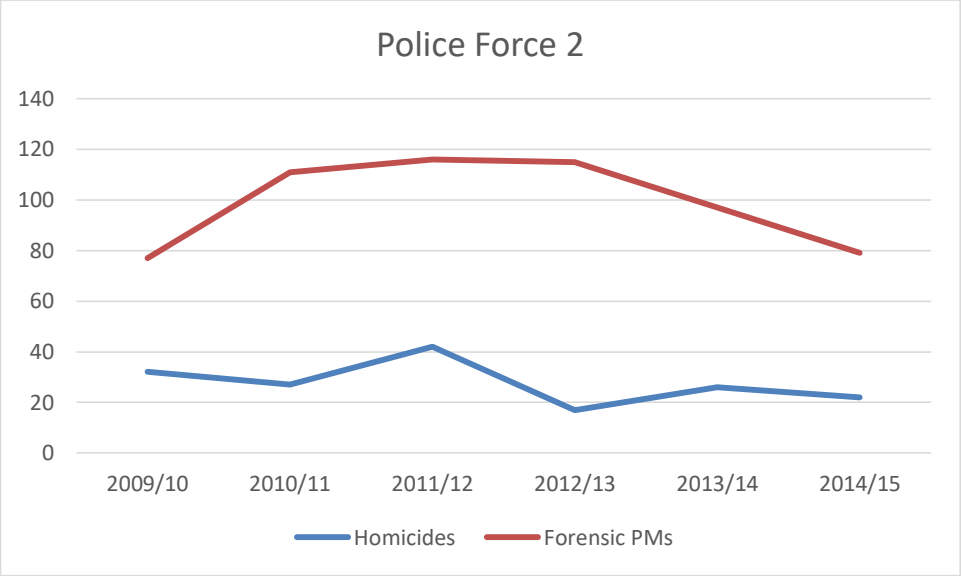
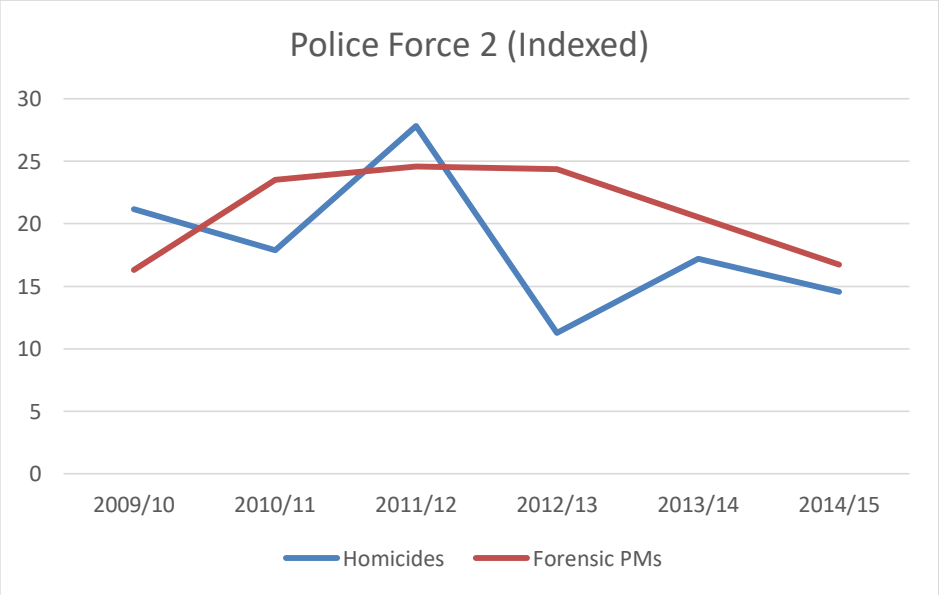


Figure 28: Police Force 2. Forensic autopsies and homicides between 2010 and 2015 indexed



This data shows a 'mixed bag'. Apart from 2011/12, generally there is an increase in the average ratio of forensic PM's to homicides than the national average.

5.4.3 Police Force 3

Table 18: Police Force 3. The number of forensic autopsies, recorded homicides and percentage of autopsies demonstrating a homicide, 2009 – 2015.

Financial Year	No. of Forensic	No. of Police Recorded	Ratio of homicides to

	PM	Homicides	Forensic PM
2009/10	300	120	40
2010/11	268	134	50
2011/12	258	100	39
2012/13	270	109	40
2013/14	253	108	43
2014/15	278	102	37
Average			42

Figure 29: Police Force 3. Forensic autopsies and homicides between 2010 and 2015

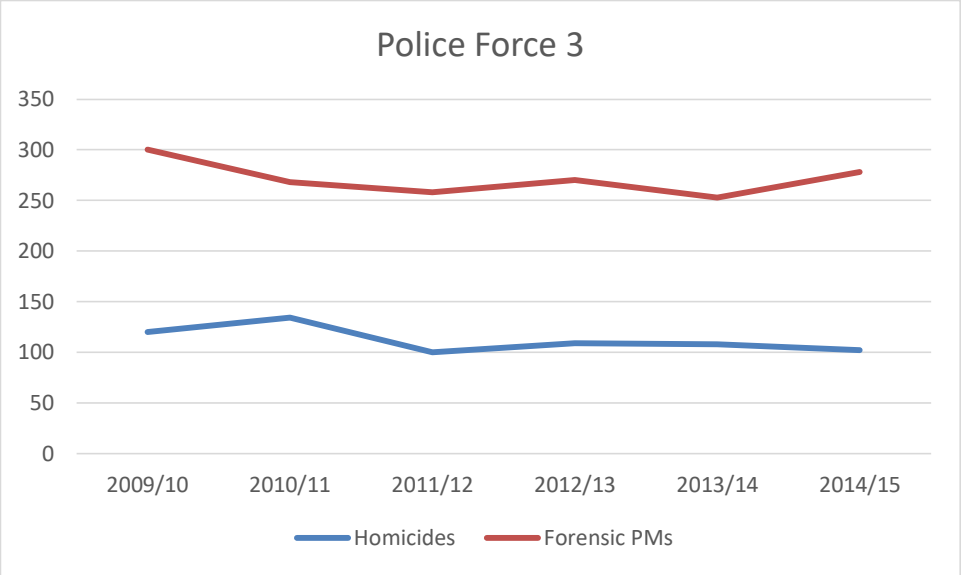
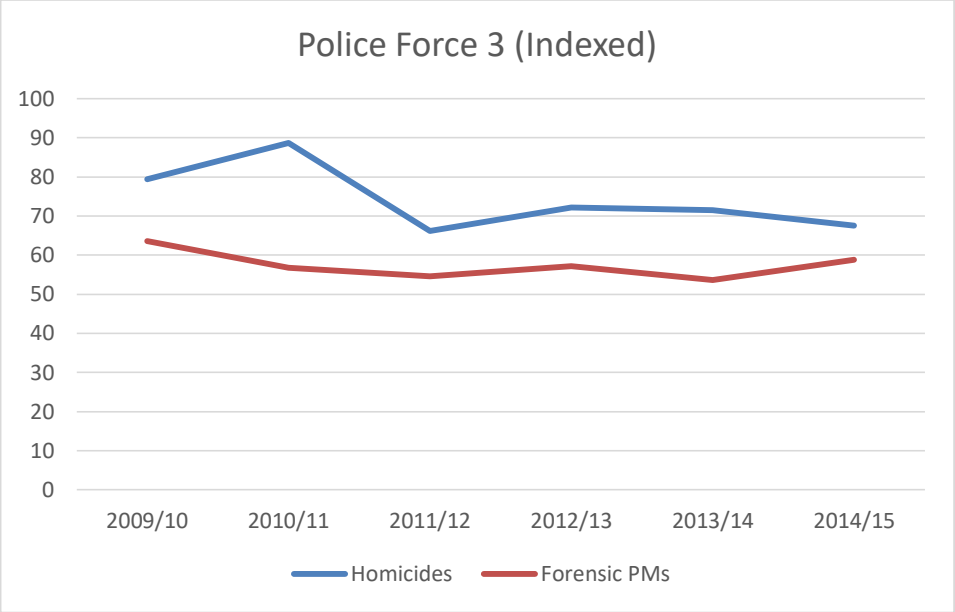


Figure 30: Police Force 3. Forensic autopsies and homicides between 2010 and 2015 indexed



The ratio of forensic PM's to homicide is well below the national average as depicted by the data.

5.4.4 Police Force 4

Table 19: Police Force 4. The number of forensic autopsies, recorded homicides and percentage of autopsies demonstrating a homicide, 2009 – 2015.

Financial Year	No. of Forensic PM	No. of Police Recorded Homicides	Ratio of homicides to Forensic PM %
2009/10	122	27	22
2010/11	98	42	43
2011/12	82	40	49
2012/13	81	43	53
2013/14	76	36	47
2014/15	75	24	32
Average	-	-	41

Figure 31: Police Force 4. Forensic autopsies and homicides between 2010 and 2015

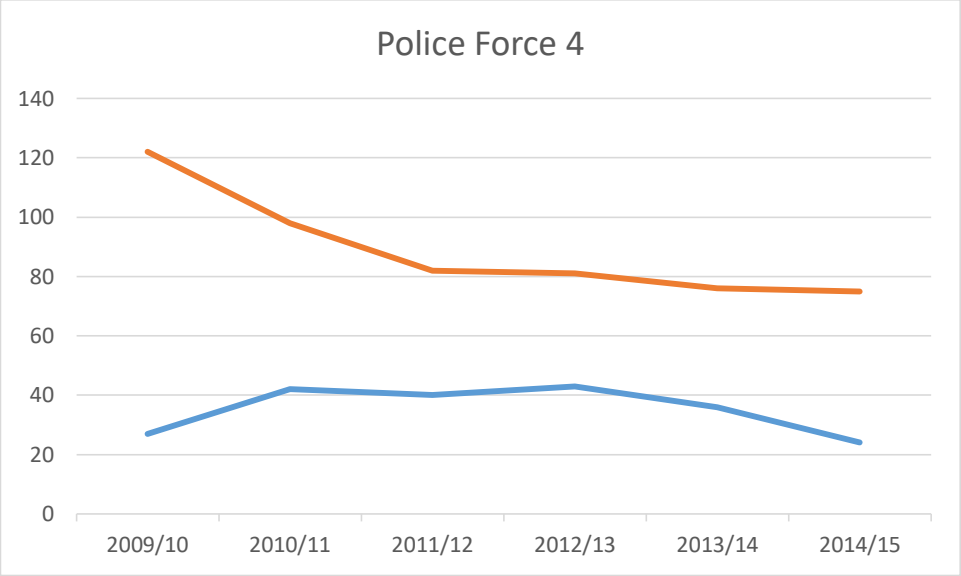
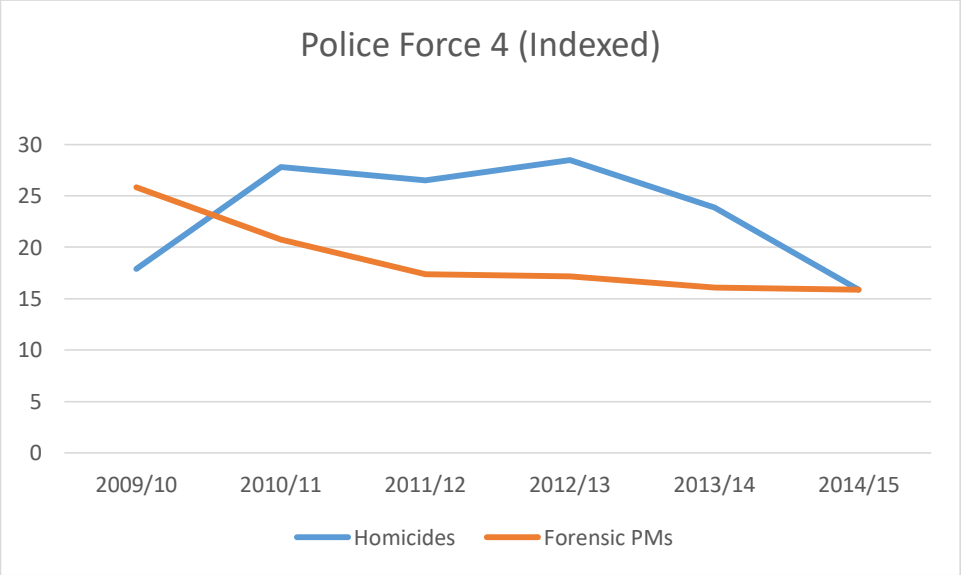


Figure 32: Police Force 4. Forensic autopsies and homicides between 2010 and 2015 indexed



As can be seen, between 2009 until 2014, the ratio was against the national average. The latest figures recorded show that the two lines have converged towards the end of 2014 when the trend is at the national average. This may indicate some kind of event or intervention which has been at play.

The findings for the Police Force 3 and Police Force 4 sit outside the national average and this will be discussed in Chapter 8.

Chapter 6: Results – Case Study

6.1 Case Study

As set out in Chapter 2, data collection sheets were sent to each of the coroner, police and pathologist identified and involved in the 32 cases. The response rate for each constituency is shown in table 20.

Table 20: Return Rate for Data Request Sheets

Constituency	No. Returned	% Returned
Police	30	94
Coroners	20	63
HO Pathologists	26	81

The process of the case study is described at chapter 2 and involved requesting data from each of the police, pathologist and coroner in the identified 32 cases. The response rate was excellent, especially from the police at 94%. It was not surprising that the response from coroners was just 63% as they hold independent judicial office and it was thought from the outset that some coroners might take the request for information as a challenge to their judicial authority, however it was probably down to workload and prioritisation as none complained about the research. Perhaps the lack of complaints was due to the support of the chief coroner which was clearly articulated in the request.

The first stage of analysis was to identify when in the PM process the HORFP became involved. This was to see if there was any significance in terms of obvious injuries spotted and the potential of lost trace evidence. Table 21 sets out these stages which are explored in Chapter 4.

Table 21: Point at which forensic pathologist became involved

No of cases	% of total	Involvement of forensic pathologist
3	9%	PM not started by coroners' pathologist because 'suspicious' marks noted on body by pathologist or mortuary staff
16	50%	Coroners pathologist terminated dissection when findings appeared to become suspicious, e.g. tears to liver
13	41%	PM completed. Forensic pathologist instructed at a later date when more information became available about the circumstances of death

In 30% of the cases the forensic pathologist noted that as they were not the first individual to examine the body, their own examination may have been compromised. The extent of this interference varied considerably, although in each case it potentially limited the conclusions to be drawn, for instance:

- Organs had already been harvested for transplantation and consequently only a very limited internal examination could be performed;
- The nature of the first examination prevented a full and detailed dissection of the neck;
- The provenance of samples taken at the first examination could not be proven;
- A mortuary technician had probed a deep hole in the skull prior to the first examination as he was demonstrating to a police officer the depth of a hole which transpired to have been the result of a gunshot wound to the head;
- Bodies had been washed prior to evisceration thereby denying the potential for trace evidence recovery; and
- Bodies had been eviscerated by mortuary staff prior to the arrival of the non-forensic pathologist and thus no visual examination of the whole body by the pathologist in accordance with Royal College of Pathologists guidance.

Assessment of the cases was made by the researcher and consolidated case summaries were produced for each of the 32 cases. The fifteen cases which were considered as suspicious from the outset were identified following an internal and external assessment process. Initially the researcher considered that 20 of the cases were suspicious from the outset, but as this was an opinion based upon the available data in respect of each case, and using his knowledge and experience in managing such cases, it was thought beneficial to seek independent verification. It was essential that the verification process involved currently serving and suitably experienced police officers who were not involved in the research. The two operational verifiers each had a slightly differing perspective on some of the cases. For this reason, a meeting was arranged to explore each case in turn. Interrater reliability for coding the accuracy of the assessment of the 32 cases measured by Cohen's Kappa was k = 0.573, indicating a moderate level of agreement between the coders.

The cases in which there was a variance of view were designated as 'Grey', leaving three distinct categories of cases labelled suspicious (n = 15); grey (n = 7) and non-suspicious (n = 10). Each of the case papers for the 32 cases were examined and factors identified and plotted onto a spreadsheet (see table 24). It was noted that the majority of cases involved deceased persons who were at the time of their death vulnerable by virtue of their age; use of alcohol or drugs; mental state of mind; poor physical health or subject of domestic violence. This perhaps is not

unsurprising in a person who is found dead, but the wider issues about how these factors may affect decision making by attending professionals is discussed in chapter 8.

6.1.1 Analysis of the outcomes of the Case Study

Upon analysis of the 32 cases, a total of 10 were confirmed as homicide by the police force and coroner. A further 5 were suspected homicide still under investigation and 17 were deemed by the subsequent investigation as non-homicides. These 17 cases were closed by the coroner and no further action is known to have taken place although at least two of these were closed as 'open verdicts', where no cause of death could be reached at inquest. As can be seen from Table 24, of the 10 confirmed homicides, 7 were in the 'suspicious' category. This means that these homicides should have been identified as suspicious from the outset with minimal investigation. Of the 5 possible homicides, 2 were in the suspicious category, 2 in the 'grey' category and 1 in the 'non-suspicious' category. Interestingly, of the 10 homicides, 3 fell into the non-suspicious category. The reason for this in all 3 cases was that there was no scene for the police to attend due to the fact that the victims had been conveyed to hospital prior to death and the fact that homicide was not identified until sometime later. Indeed, of the 10 cases to have been deemed non-suspicious, all but 1 had no scene visit by the police for the same reason that the deceased had died in hospital or the police were not initially called. To show these figures more clearly than the main table 24, these figures have been reproduced at table 22.

Table 22: Breakdown of main table 24 showing categories suspicious, grey and non-suspicious cases against the outcome of coroners and police investigations resulting in findings of homicide, possible homicide and non-homicide

	Suspicious	**Grey**	**Non-suspicious**	**Totals**
Homicide	7 Cases: 1/13/20/22/23/24/27	0	3 Cases: 12/18/26	**10**
Possible Homicide	2 Cases: 2/15	2 Cases: 3/14	1 Case: 19	**5**
Non-Homicide	6 Cases: 5/10/11/25/28/32/	5 Cases: 4/8/9/17/21	6 Cases: 3/6/7/16/29/31	**17**
Totals	**15**	**7**	**10**	**32**

The original key decision makers in each of the cases were identified from the available data. Table 23 breaks down the key decision makers in the 32 cases.

Table 23: Prime decision makers in each of the three categories of Suspicious, Grey and Non-suspicious

	Suspicious	Grey*	Non-suspicious	Totals
No initial police involvement	3 Cases: 1 (H)/10,25(NH)	0	6 Cases: 12,18.26(H)/19(PH)/3,29(NH)	**9**
Police Officer at Scene	9 Cases: 13,20,22,27(H)/2,15(PH)/5,11,28(NH)	0	1 Case: 7(NH)	**10**
Senior Police (SIO)	8 Cases: 13,22,23,24(H)/2,15(PH)/5,11(NH)	0	1 Case: 7(NH)	**9**
Coroner	10 Cases: 1,13,22,23(H)/2,15(PH)/5,10,11,28(NH)	0	1 Case: 1(NH)	**11**
Attending Doctor	6 Cases: 1,13,20,23,24(H)/2(PH)	0	0	**6**

Key: H=Homicide; P=Possible Homicide; NH=Non-Homicide.

**There was insufficient data in the case papers reviewed to identify the initial decision maker in the Grey category of cases.*

Most coroners stated that they made decisions not to treat cases as suspicious due to the information provided to them by the police. There is therefore a clear indication that coroners can be unquestioning and accept the information given without further enquiry in the cases examined. In one case, the decision was made by the coroner alone as the police had not been involved and on one other case the coroner and an attending doctor made the decision, again the police not having been involved.

The main category of case for the purpose of this study was the suspicious cases. Whether they transpired to be homicide was not material to the research as the focus was on whether regardless of outcome the case *should* have been treated as a homicide from the initial scene investigation. Therefore, taking just the decisions made in the suspicious category, the police made decisions not to treat the cases as suspicious in 13 of the 15 cases (2 were not referred to the police in the first instance). The attending police officer appeared to be the prime decision maker in 9 cases but had consulted senior police officers in 6 of the cases. There is no indication that the senior officer visited the scene and so a verbal briefing from the initial attending officer appears to have been the information on which the senior officer based their decision. Two cases were referred direct to a senior officer who made the initial decision not to treat the case as suspicious. It appears from these cases that the practice of referring sudden and unexpected deaths to senior supervisors is not universal practice and where this has happened, the supervision may be called into question.

In 6 of the cases, a doctor was called by the police and despite a medical assessment by the doctor, the decision was made not to treat the cases as suspicious, even though 4 transpired to be homicide cases and the remaining 2 cases were possible homicides. There was 1 case where there was no initial police involvement, the doctor had attended the scene and the decision to treat the cases as non-suspicious was made between the doctor and the coroner. This brings into question the practice of using an untrained medical opinion in these cases.

In 5 of the 32 cases, including 1 suspicious case and 2 grey cases, there appeared to be no inspection of the body at all. This was inferred from the extent of the visible facial injuries not reported by the attending police officers. This may indicate reluctance on the part of some police officers to examine dead bodies.

Perhaps the most striking finding in assessing the 32 cases and the suspicious category was the vulnerability of the deceased persons. All 15 suspicious cases were in circumstances where the deceased was vulnerable due to intoxication, by age, medical or mental health or situational circumstances such as subject to domestic abuse. Indeed, most of the grey and non-suspicious cases were of vulnerable persons. Of note was the number in this small sample of suspicious cases where the deceased was suffering at the time of their death from either medical (n=7) or a mental (n=6) condition. This is discussed further in chapter 8.

The most significant difference between both the suspicious cases and grey cases compared with the non-suspicious cases was that in nearly all of the non-suspicious cases the police had not attended a scene and suspicion had arisen without reference to the police by the non-forensic pathologist.

Of the 10 confirmed homicides, the failure to identify them as such was because of police decision making in 7 cases. Of the 5 possible homicides, failure to identify them as such was because of police decision making in 2 cases. Therefore, of the 15 cases in these two categories, police decision making accounted for the potential to miss a homicide in 9 of them. This equates to 60% of cases identified as homicide or possible homicide, and in 28% of all the cases represented in the study. However, if one also considers the cases that did not fall into the homicide or possible homicide categories, the overall number of cases where the decisions of the police was questionable was 47% of the cases submitted for audit.

Drugs and/or alcohol were factors in 13 of the cases, 6 of which were either homicide or suspected homicide. One force visited by the HOFPU during the research period had identified (during their own in-force research) that alcohol and drugs were a feature of some death scenes

which had influenced officers to make decisions that the cause of death was not suspicious. Officers appeared to presume that death was because of alcohol consumption leading to injury through falling or some other cause due to intoxication. Whereas in fact, the presence of alcohol/drugs ought to alert investigators that extra caution should be taken.

The 32 cases related to 23 different police forces, and the 15 suspicious cases related to 12 police forces. One force had 3 of the suspicious cases and one force had 2. This indicates that the issue is one which is not restricted to only a few forces and appears to be a problem throughout England and Wales. Continuity of approach between police forces was addressed during the focus group stages and the themes identified within the case study phase of the research were also explored by the focus groups and interviews.

Table 24: Abbreviated Spreadsheet showing factors identified in each of the 32 cases

	Case N0.	Homicide	Pos Hom	No Scene	No Police	Dec at Scene	SIO Dec	Coroner Dec	Doctor Dec	Drugs Alc	No Insp	Eld Male	Eld Female	Mid Ages M	Mid Aged F	18 to 40	C and YP	Infant	Mental	Medical	Dom Vio	Vulnerable
	1	Yes			Yes			Yes	Yes				Yes						Yes	Yes		Yes
S	2		Yes			Yes	Yes	Yes	Yes	Yes					Yes				Yes	Yes	Yes	Yes
U	5					Yes	Yes	Yes									Yes		Yes		Yes	Yes
S	10				Yes			Yes			Yes							Yes				Yes
P	11					Yes	Yes	Yes		Yes				Yes								Yes
I	13	Yes				Yes	Yes	Yes	Yes	Yes						Yes			Yes		Yes	Yes
C	15		Yes			Yes	Yes	Yes						Yes								Yes
I	20	Yes				Yes			Yes			Yes								Yes		Yes
O	22	Yes				Yes	Yes	Yes		Yes						Yes					Yes	Yes
U	23	Yes					Yes	Yes	Yes				Yes						Yes	Yes	Yes	Yes
S	24	Yes					Yes		Yes	Yes				Yes								Yes
	25			Yes	Yes							Yes								Yes		Yes
	27	Yes				Yes								Yes								Yes
	28					Yes		Yes								Yes			Yes	Yes		Yes
	32												Yes							Yes		Yes
Total	15	7	2	1	3	9	8	10	6	5	1	2	3	4	1	3	1	1	6	7	5	15

	Case N0.	Homicide	Pos Hom	No Scene	No Police	Dec at Scene	SIO Dec	Coroner Dec	Doctor Dec	Drugs Alc	No Insp	Eld Male	Eld Female	Mid Ages M	Mid Aged F	18 to 40	C and YP	Infant	Mental	Medical	Dom Vio	Vulnerable
	4									Yes				Yes					Yes	Yes		Yes
G	8									Yes	Yes				Yes							Yes
R	9										Yes		Yes									
E	14		Yes										Yes									Yes
Y	17											Yes							Yes			Yes
	21									Yes						Yes			Yes			Yes
	3		Yes							Yes				Yes								Yes
Total	7	0	2	0	0	0	0	0	0	4	2	1	2	2	1	1	0	0	3	1	0	6

	Case N0.	Homicide	Pos Hom	No Scene	No Police	Dec at Scene	SIO Dec	Coroner Dec	Doctor Dec	Drugs Alc	No Insp	Eld Male	Eld Female	Mid Ages M	Mid Aged F	18 to 40	C and YP	Infant	Mental	Medical	Dom Vio	Vulnerable
	3			Yes	Yes								Yes						Yes	Yes		Yes
N	6			Yes						Yes						Yes			Yes			Yes
O	7					Yes	Yes	Yes		Yes				Yes								Yes
N	12	Yes		Yes	Yes					Yes	Yes		Yes						Yes	Yes		Yes
	16			Yes									Yes									Yes
S	18	Yes		Yes	Yes						Yes	Yes							Yes			Yes
U	19		Yes	Yes	Yes											Yes					Yes	Yes
S	26	Yes		Yes	Yes					Yes						Yes				Yes		Yes
	29			Yes	Yes										Yes					Yes		Yes
	31			Yes										Yes								
Total	10	3	1	9	6	1	1	1	0	4	2	1	3	2	1	3	0	0	4	4	1	9

Legend to Table 24:

X axis

Suspicious	A case considered by the researcher and the independent verifiers to be a sudden and unexplained death where from the circumstances there was sufficient cause to believe that the death was as a result of third party intervention.
Grey	A case considered by the researcher to be suspicious as defined above, but for which the independent verifiers considered to be non-suspicious.
Non-suspicious	A case where from all the known circumstances, there is no reason to believe that the death was due to the intervention of a third party.

Y axis

Case Number	The number allocated to each of the 32 cases by way of identification of these anonymised cases.
Homicide	Confirmed by the police/coroner.
Pos Hom	Possible Homicide: A case where from the available evidence it appeared that a homicide may have been disclosed but neither the coroner nor the police could confirm at the time of the study.
No Scene	A case where the police were never called to the scene.
No police	A case where the police were not called until later in the coroners inquiry.
Dec at scene	Decision at the scene: A case where the initial decision as to whether the case was suspicious was made at the scene by the first attending officer.
SIO Dec	Senior Investigating Officer decision: A case which was referred to an SIO and/or a senior officer who was the final decision maker.

Coroner Dec	Coroner's decision: A case where the coroner made the final decision regarding whether a case was suspicious. NOTE: Only a coroner can order a PM and so in reality will always make the decision, but in these cases the coroner stated that he/she made this decision after consultation.
Doctor Dec	Doctor Decision: A case where the doctor attended the scene and gave a determination as to whether the case was suspicious.
Drugs/Alc	Drugs or Alcohol: A case where there was evidence at the scene that the deceased was under the influence of alcohol or had been consuming illegal controlled drugs prior to death.
No Insp	No inspection: A case where from the available data, there appears to have been no inspection of the body by the police.
Eld Male	Elderly Male.
Eld Female	Elderly Female.
Mid aged M	Middle aged male.
Mid aged F	Middle aged female.
18-40	A person aged between 18 and 40 years old.
C and YP	Child or Young person: a person between the ages of 5 and 18.
Infant	A child between the ages of 0 to 5.
Mental	A person at the time of death was suffering from a diagnosed mental health condition.
Medical	A person at the time of their death suffering from a diagnosed medical condition or was disabled.
Dom Vio	Domestic Violence: A person at the time of their death had been the victim of domestic violence or threats from a partner or ex-partner.
Vulnerable	The deceased at the time of their death was subject to vulnerability whether this be under the influence of alcohol or drugs, very young, very old or suffering from a mental or medical health condition.

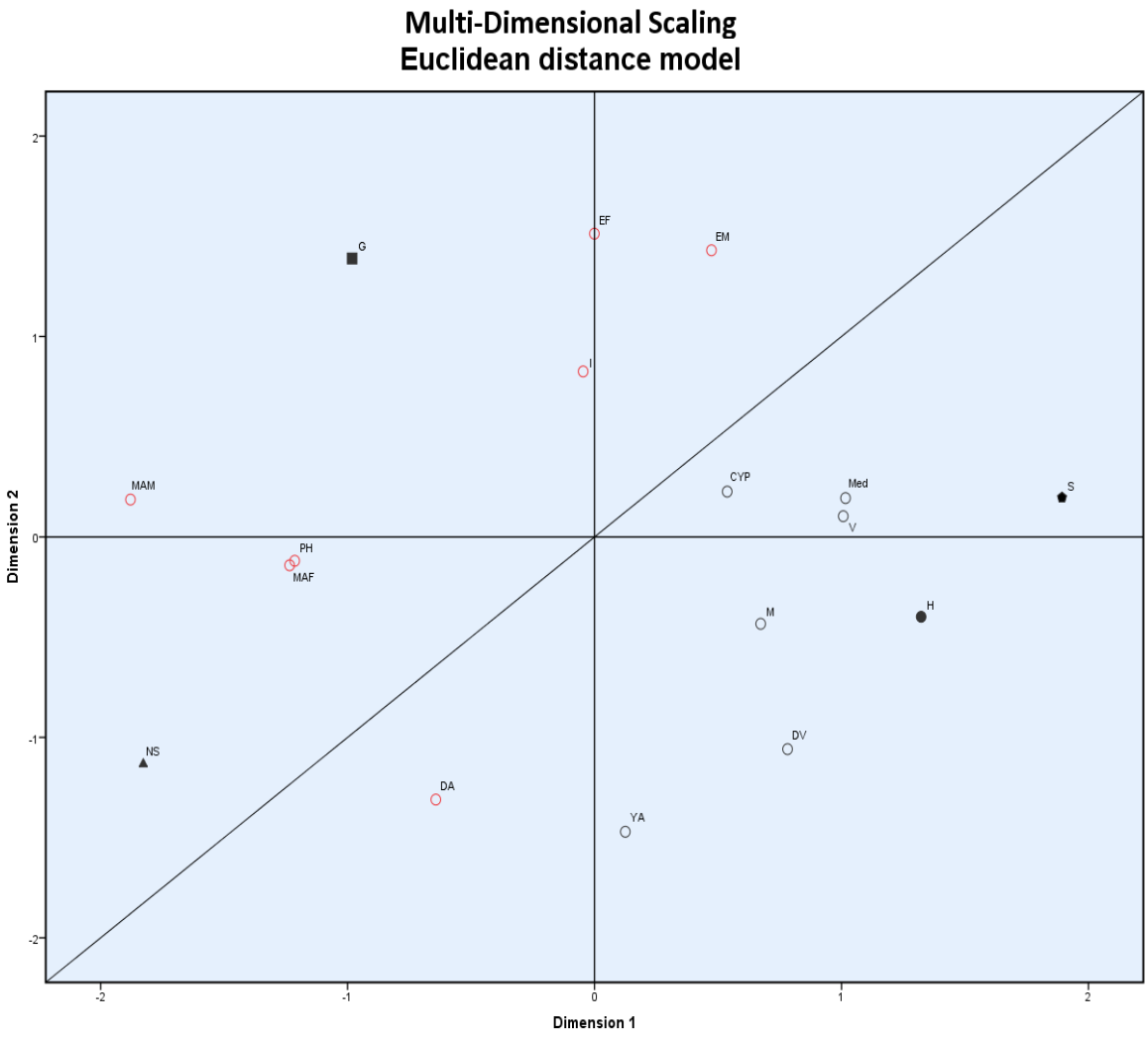
6.1.2 Other Analysis – Multi Dimensional Scaling

In order to plot the similarities between the factors or 'variables' in this study, multi-dimensional scaling (MDS) was used in accordance with methodology described at chapter 2. The variables were correlated with each other and then plotted in SPSS using the ALSCAL multi-dimensional scaling logarithm. Correlations between each of the variables were identified as can be seen in table 25. With the exception of those mentioned below, the correlations were not strong and so one must be cautious as to what claims can be made into the closeness of fit in respect of the variables in this exercise.

Not all the factors identified within the analysis of the case study were used in the MDS process. Only those factors which may have had a bearing on the situational circumstances of the death were relevant as anything occurring after the death will not have influenced the circumstances of the death. For example; who had made the decision to treat the case as suspicious or not, or the fact as to whether the body had been examined or not are not factors which had any relevance to the initial cause of the death. Therefore, only those that may be so relevant were included on table 25. These factors were tested for 'closeness of fit' using MDS as described in chapter 2. This produced a scatter chart showing the distance between factors which indicate a relative association between them. The output from this process can be seen at figure 32. There is a close association between the 'S' suspicious cases and 'H' homicide but also several of the vulnerabilities of the deceased persons in this case study, including 'Med' medical issues; 'V' vulnerable (as a general category); 'DV' domestic violence; 'M' mental issues and 'CYP' children and young persons. It is interesting to note the distance in space between the cases which were suspicious (S) and the cases which were not suspicious (NS) indicating that the factors vary. The negative correlation between non-suspicious and suspicious death at figure 33 is strong, indicating the distance between these two variables may be the most significant finding from the analysis. It will be noted also that the negative correlation between the 'grey' (G) category and both the suspicious (S) and non-suspicious (NS) is also fairly strong. This may indicate that these three categories are indeed different types of cases. Due to the fact of the negative correlation between suspicious and grey, it does tend to give some credence to the views expressed by the independent verifiers who opined that the 7 grey cases were not suspicious in contradiction to the opinions of the researcher. The output data from SPSS can be seen at appendix 7. One apparent anomaly is the positioning of the Drugs/Alcohol (DA) variable on the MDS chart. Whereas one might expect that this should be proximate to the 'suspicious and homicide' points as it is a 'vulnerability', it is in fact closer to the non-suspicious point. This is due to the fact that drugs and alcohol consumption prior to death was common in all categories of suspicious (n = 5),

grey (n = 4) and non-suspicious cases (n = 4). The latter figure of 4 is only out of 10 non-suspicious cases which is a greater percentage than the 5 cases where drugs or alcohol were consumed in the suspicious cases of which there were 15. Thus, the DA icon is closer to the non-suspicious icon on the chart. This would appear to indicate that the consumption of intoxicants prior to death is common in all categories of death. The outcomes of this analysis are further discussed in chapter 8. There are several algorithms available to analyse data in the way described and others were tried including PREFSCAL which uses different processes to examine the correlations. However, the ALSCAL algorithm produced the best model fit. The outcomes of the PREFSCAL analysis can be seen at appendix 8.

Figure 33: MDS showing Euclidean Distance between factors



Legend: S = suspicious; G = grey; NS = non-suspicious; H = homicide; PH = possible homicide; DA = Drugs/Alcohol; EM = elderly male; EF = elderly female; MAM = middle aged male; MAF = middle

aged female; YA = young adult; CYP = child or young person; I = infant; M = mental; Med = medical; DV = domestic violence; V = vulnerable.

Table 25: Matrix of factors correlated with each other factor

	S	G	NS	H	PH	DA	EM	EF	MAM	MAF	YA	CYP	I	M	Med	DV	V
Suspicious	1.000																
Grey	-.404	1.000															
Not Sus	-.728	-.333	1.000														
Homicide	.312	-.290	-.104	1.000													
Pos Homicide	-.059	0.52	.022	-.290	1.000												
Drugs/Alcohol	-.139	-.005	.148	.129	-.005	1.000											
Elderly Male	.024	.098	.098	.153	-.163	-.313	1.000										
Elderly Fem	-.108	.149	.000	.078	-.050	-.331	-.218	1.000									
Mid aged M	.036	.050	.000-	-.078	.149	.257	-.218	-.333	1.000								
Mid aged F	-.087	.157	-.028	-.217	.157	.171	-.122	-.186	-.186	1.000							
Young adult	-.043	-.228	.215	.133	-.020	.332	-.200	-.306	-.306	-.170	1.000						
Child/YP	.191	-.077	-.139	-.121	-.077	-.149	-.068	-.104	-.104	-.058	-.195	1.000					
Infant	.191	-.077	-.139	-.121	-.077	-.149	-.068	-.104	-.104	-.058	-.195	-.032	1.000				
Mental issues	-.012	-.005	.016	.129	-.181	.093	.072	.110	-.331	-.048	.178	.217	-.149	1.000			
Medical	.178	-.158	-.067	.174	-.156	-.115	.098	.298	-.298	.194	.098	-.139	-.139	.274	1.000		
Dom violence	.351	-.207	-.207	.194	.234	.092	-.182	-.092	-.277	.120	.327	.373	-.086	.255	-.041	1.000	
Vulnerable	.243	.111	-.333	.174	.111	.214	.098	.149	-.149	-.360	.137	.046	.046	.214	-.067	.124	1.000

Legend: S = suspicious; G = grey; NS = non-suspicious; H = homicide; PH = possible homicide; DA = Drugs/Alcohol; EM = elderly male; EF = elderly female; MAM = middle aged male; MAF = middle aged female; YA = young adult; CYP = child or young person; I = infant; M = mental; Med = medical; DV = domestic violence; V = vulnerable

Chapter 7: Results – Focus Groups

7.1 Focus Groups and Interviews

Focus groups and interviews were conducted with a broad range of stakeholders, but the main groupings were police, both front line crime scene investigators and senior officers; forensic pathologists; non-forensic pathologists and coroners. The outcomes of these interviews were divided into these disciplines. Common themes were identified for each discipline and these outcomes are further discussed in chapter 4. The themes are summarised at table 26.

Table 26: Categories and themes identified through Focus Groups

Identified Issues	CSI's	Senior Police	HORFP's	Non-Forensic Pathologists	Coroners
Failure to call CSI to scene	✓				
Inexperience/training of first attending officer	✓	✓	✓		✓
Inexperience/training of police supervisors	✓	✓			✓
Quality of scene investigation	✓		✓		✓
No standard operating procedure	✓	✓			
Fail to inspect body	✓				
Inappropriate use of doctor or other professional advisor	✓	✓			
Non- Forensic PM used to save money	✓		✓	✓	✓
Evisceration by Mortuary staff	✓		✓	✓	✓
Budgets and Resource constraints	✓		✓	✓	✓
Vulnerability of deceased	✓				
Mind-set of first attending officer	✓	✓	✓		
Coroners hold too many PM's		✓	✓	✓	
Quality of non-forensic PM	✓	✓	✓	✓	✓
Availability of non-forensic pathologist					✓

In total, there were fifteen themes which emerged from the focus groups and interviews. Each are examined in turn and presented in respect of five categories of interviewee. Other interested persons involved in the oversight of death investigation were interviewed and had views on the provision of forensic and non-forensic PM's and the quality of the police examination and investigation of the scenes of sudden and unexplained death. However, these views were not first-hand nor led by experience and tended to be anecdotal. They were therefore excluded from the study.

7.2 Focus Group Outcomes

Over 60 police and police staff were interviewed in accordance with the methodology in chapter 2. Unsurprisingly, there appeared to be a difference in perspective between senior police officers and SIO's to that of junior staff who deal with sudden and unexpected death scenes. The more junior staff were in the main CSI's. This group were interviewed in four focus groups. In total 18 senior police officers participated in the focus group ranging from SIO's at Detective Inspector level, up to Chief Superintendent rank.

Most of the HORFP's were spoken to during the course of the research at their group practice meetings which acted as a focus group when other issues were on the agenda. There are six such group practices and they are referred to here as groups 1 to 6.

Ten non-forensic pathologists were interviewed as part of a focus group as described in chapter 2. There was a consensus of opinion in respect of most of the issues which emerged, but it was clear that practice differs geographically across England and Wales.

Numerous coroners responded with comments for the purpose of this study. The overwhelming message they informed was that coroners in the main make decisions based upon the information they receive from the people that attend the scene of death, whether that be the police, paramedics or some other authority such as the hospital or care home. Therefore, they are not the prime decision makers at the immediate scene of death although by law they alone can determine the type of PM which takes place.

The outcomes of focus groups are described by individual theme below and discussed in chapter 8.

- Failure to use the CSI at the scene for the appropriate purpose

One of the common themes amongst CSI's was that they were not called to the scenes of sudden and unexpected death nearly as much as they think that they should be. Although in some forces CSI and supervisor attendance is policy, this was not the case in most forces and it was apparent that practice is not standard across the country (Focus groups 1, 2, 3 and 4). Whilst some CSI's regularly attend sudden and unexpected deaths, many attend rarely. All the groups reported that they felt particularly rushed at the scenes of suspected suicide and a general feeling that the main reason CSI's were called was to take imagery for the coroner's investigation, not utilising their crime scene assessment skills but doing a mundane process of photography. As an example, one CSI from a small force described a 'suspicious' scene as; *"…it could be something that is a very tidy well-presented house, and you may just be looking at little pockets of potential evidence."* (Focus group 2).

It was generally expressed however that apart from cases where they were asked just to take imaging, if they were called to provide an opinion, they were listened to and their input was valued; *"…when they do call us if they are not happy* (with the scene) *and its down to us to make the call"* (focus group 1). There was a clear perception that CSI's were underutilised in sudden and unexpected death cases and this appeared to be a phenomenon in the last few years (focus group 3). One CSI commented; *"It's interesting 'cos we get experts in court and they are not allowed to stray outside their area of expertise but we are doing it with PC s at the scenes"* (focus group 4).

- Inexperience of first attending police officers

CSI's felt that the real decision making was left to inexperienced police constables who were first attenders and that the way in which the investigation progressed was very much dependent upon those initial decisions made by this officer; *"…often the decision has been made so we don't have an input whether or not we think it is suspicious…"* (Focus group 1) was a common theme expressed in all four of the focus groups. They did state that some police officers were experienced and did a good job at scenes but described this as 'hit and miss'; *"You have some officers who investigate in full and then you get some who do little investigation and almost jump to conclusions without looking at background information*" (focus group 2)*; "I think* (of police officers) t*here are brilliant ones and not so brilliant ones as in any job, are thinking body cameras are good enough, lots of police officers are thinking what SOCOs do are to attend and take pictures"* (Focus group 3). The experience of the police officers attending sudden and unexpected death was perhaps one of the main themes above

all else identified by the CSI's. They identified that most officers may attend one or two such deaths in a year and thus had no experience base on which to draw in decision making (focus group 4). An example was;

> *'It's not consistent. PC's assess these cases on a different level. We had a lady who had a severe head injury which was written off as a fall but it could have been done by a claw hammer. It cost a lot of money we had an SIO and we had to recover the carpet'* (focus group 4).

During the interviews with CSI's, six cases were spoken of where wrong decisions were made at scenes which transpired to be homicides. Two were when homicides were eventually identified but forensic trace evidence was lost due to bodies being washed on arrival at the mortuary; *"…we've had 2 in the last couple of years … went to normal post mortem, has been stopped and restarted as a forensic and we have been trying to back track ever since. Those two cases have gone to full investigation"* (focus group 1). Another was described by a CSI from a large force of a man found dead in bed and the case was written off as non-suspicious but a week later more information came to light and it was realised the case should have been attended by CSI's in the first place (focus group 2).

In respect of training of first attenders at scenes, it was generally acknowledged by the SIO focus group that this was insufficient. It was suggested that there should be a 'triaged' approach to each case, whereby a considered assessment should be made by those with the skills to make a better decision. However, the point was made and supported by very many of those in the focus group, that; *"You can't change policy or strategy for odd instances which are totally off the wall"* (SIO focus group). It was generally the case that for child death cases, these were better investigated due to a national protocol and force policies insisting that a senior detective attend the scene to take control over decision making. This degree of consistency was not achieved in non-child cases and consistency it was agreed was what was required across England and Wales.

A HORFP commented:

> *'In my opinion everybody at the scene (if there is one) needs an experienced detective and/or crime scene investigator to attend before it is deemed non-suspicious. The police and some coroners have a misplaced faith in the ability of non-forensic pathologists to spot any homicide that slips through the investigative net. These pathologists on the whole assume that if a case is referred to them it is not suspicious or a homicide. They do not have the appropriate suspicious mind-set and they are not trained to deal with such cases. If the wrong call is made by the police/coroner the chances of things being retrieved are slim.*

- Poor quality of scene investigation

One experienced CSI stated *"But they fail to document things like body position; stuff at the scene such as drugs and alcohol, blood and vomit at the scene that helps the pathologist"* (focus group 2). Some CSI's however reported that the quality of scene investigation was high which they felt was down to the forms the officers fill out which guides them through the process. One CSI pointed out that in his experience, one of the problems with decision making was that there is sometimes no notice taken of the background information to a case, where even though the scene looks ok, the suspicion arises from the history. For instance, a history of domestic violence or threats (focus group 2).

Forensic Pathologists group 3 mentioned the quality of police scene investigations which can be variable depending on the police officer attending. One of the reasons they thought that this was the case was the squeeze on funding and downward pressures to save money both on police training and decisions not to hold forensic PM's as a cost saving measure. Group 5 stated that too many deaths were downgraded by the police to save money on forensic PM's. Group 3 had also in the past regularly attended police awareness training but in recent years this had ceased. Mention was made of the lack of experience of police officers on the front line, although there was general agreement amongst all HORFP's that the standard of detective who deal with homicides was high. Group 3 considered that all deaths should be attended by detectives and not left to uniformed officers. One HORFP commented;

> *'The current system does not allow for a staged investigation with the right expertise coming in at the right time. Well trained and experienced SOCO's and Detectives are very good at identifying cases where they are entirely happy with the background and circumstances – or where the circumstances are obviously suspicious. The problem area is when they are a bit unsure. When unsure they need to be able to call a forensic pathologist and discuss the case perhaps with transmitted images. Often this will be sufficient – it may be clear to the pathologist that concern is unwarranted or alternatively, a course of action will be decided on which allows further investigation or provision of further information that will address the concern whilst not affecting evidence retrieval. In other cases, the pathologist will want to attend the scene and it may be that suspicion can be allayed at this stage. Other cases will need the full involvement with post mortem examination. Most of the queries we get from Police (who we encourage to call us with questions about death scenes, at no charge) can be dealt with by directing them towards further information gathering'.*

Another describing one of the cases included within the case study commented;

> *'I am at a loss to understand how this death got as far as it did before suspicion was raised. The assault related injuries were not subtle and this is nowhere near a borderline case. Any cursory examination of the body should have picked this up at the various levels involved in the investigation. Clearly if cases of this extreme*

nature are being missed until later on, then it raises concern about the missing of more 'borderline' homicides'.

Coroners all agreed that the role of the first attender at the scene of a sudden and unexplained death was crucial to the eventual outcome. One coroner also stated that there was a reduction in the experience and knowledge of front line officers allocated to deal with these cases over recent years and certainly since the financial crisis. An example of a case where the experience and competence of the officer dealing in a recent case the coroner had heard at inquest was emailed to the researcher at figure 34 with full permission to quote within this research.

Figure 34: Email sent to researcher to highlight issues over police investigation of sudden and unexplained death

Forgive a few brief details but this one was in the national press and I was surprised there weren't adverse comments about a lack of police action at the initial scene.
2 uniformed officers despatched to an alert by family that daughter/sister had not been seen for several days. Police gained entry to locked and secure flat and went in first, family remained outside. Fully clothed, partially decomposed body found laid on side in bed. No signs of struggle or anything suspicious. (Police report*) specifically notes mobile phone on bedside cabinet and last call several days earlier.
Officer notes that in the kitchen there were a number of packets of tablets. I was told 3 packs of dihydrocodeine 30mg (28 tabs), 3 packs of Diazepam (28 tabs) and 100 Solpadine were found in the kitchen but all tidy and not indicative of lots of tabs having been taken. Uniformed sergeant attended and given lack of suspicious signs and no suicide note this was written off as a natural cause death.
PM gave cause of death as dihydrocodeine overdose (therapeutic level of other drugs too but hard to quantify as had to use liver sample). Family confirmed deceased had long history of mental illness and suicidal ideation as well as family history of suicide - 3 family members all by overdose. They told me at inquest that when they went into the flat there were empty packets all over the side of the sink but worse still there was an empty glass caked in white powder right next to the deceased's bed as well as a large carrier bag full of about 500-1,000 tablets. The officer sheepishly confirmed these items had not been seen and he couldn't recall if he seized the dihydrocodeine or not. No details of any medicines were recorded on the (police report*) so that meant the toxicologist was completely in the dark what to look for in the deceased's liver (too decomposed for blood).
The family were certain this was a suicide and all the signs were clearly visible in the house. So my conclusion was indeed suicide.
I appreciate this was not a suspicious death but if you look at the final box for non-suspicious death it just says complete coroner report. There is no reminder to seize obvious items like the glass in this case or record the drugs properly. It's just a question of flagging early that the officers who attend the first scene should also complete a quality coroner investigation as they are likely to be called to inquest if there is one.
*Name of the form was mentioned in the email which identifies the police area

- Lack of a standard operating procedure or clear national policy

There was discussion where suggestions of using a 'Standard Operating Procedure' may assist inexperienced officers (focus group 3). Another CSI said that*; "There is no clear guidelines or standard Op Procedure. I attend cases in other force areas and it is different. It depends on the officer who attends that day"* (focus group 4). There was however a conversation regarding the limitations of standard operating procedures which it was said could limit initiative (focus group 4).

The HORFP's did notice differing approaches between different police force areas. One commented;

> *'There is a variable relationship between police/coroner and forensic pathologist. In the main it is very good, but the fundamental flaws mean that under the current approach there Is no prospect of progression. There are clearly other issues - those that cover more forces identify differences'.*

- Inspection of the body by the first attending police officer

There was a degree of frustration expressed by some CSI's that by the time they get to the scene, sometimes the attending police officer has already made their mind up that it was not a suspicious death and has; *"been all over it (the scene), searched the body before I even got there, not preserved the scene … I want to see the scene as it should be"* (focus group 1). This was interesting as others complained that there has been no search of the body and so there is some conflict of opinion on whether to search the body. An example of failure to search the body was given as; *"elderly gentleman found outside of his house, paramedics had been, police officer went; oh no, he's had a heart attack. So the CSI goes and moves his arm and there is a knife sticking out of his chest and nobody had moved him or touched him"* (focus group 3). The point was made however that if the police service is too critical of officers decision making, they would become risk averse and *"we would get overwhelmed with death* (investigations) *as they will call everything as suspicious"* (focus group 3).

- Inexperience of police supervisors

An area of universal concern expressed was the competence of police supervisors. Police supervisors at sergeant level were reported to lack experience and knowledge. One senior CSI stated; *"…I have seen a difference in the last 10 years with a lot of supervisory sergeants, where they go to a scene of sudden death, they do not have a lot of experience and don't understand peoples roles"* (focus group 1). Similar comments were made in all focus groups

and this was a real area of concern as it was often police sergeants who the attending police constable relied on for advice and guidance.

It was stated by a Scottish officer that in Scotland, all such deaths must be attended by a supervisor and there was general agreement that this should be the case in England and Wales by the SIO focus group, but it was also realised that many supervisors had little experience or training in this area. One senior forensic manager stated that;

> *"What happens is that the first officer attends the scene and makes up his mind what has happened. His sergeant turns up and the PC briefs him by saying, it ok sarge, its natural causes. Then the sergeant takes on the bias and then the inspector is told the same thing and on it goes and so everyone is biased by the first officer who may not have done it properly".*

The SIO focus group was summarised and the main points were agreed that:

- The language used needed to be constructed with care around words such as 'suspicious', 'crime scene', and 'unexpected';
- The training of young police recruits was variable across the country;
- A common-sense approach is what is required, but starting from an open-mind which treated unexplained deaths in the community with a high index of suspicion and;
- Each case should be treated on its merits with a low threshold for escalation.
- Other issues which formed part of the conversation were that coroners tended to be 'idiosyncratic' and there was a lack of consistency in decision making across coronial areas.

❖ Role of the police surgeon (or attending doctor) and other attendees at the scene

Another area of universal concern was the role of the doctor called by the police. One senior CSI stated;

> *"The doctor will do all the investigation and I have seen it on our logs where it says the doctor has not found anything of a criminal nature, or suspicious. To me that is totally wrong because what the hell is the doctor doing looking at that, I have recently been to scenes where instead of working in conjunction with us the doctor will go and do his own Sherlock Holmes to try and work out the scenario whether he could have ambled this way and whether he done this or that and come out with his opinion and some of it is medical then that is fair enough but basically the new supervisors on the ground, people who are first arriving are allowing them to do the investigation"* (focus group 1).

Again, this was a common theme in all focus groups; an expectation that a doctor would provide the reassurance that the case was not suspicious although with no specialist training to be able to do so. Other professionals also were identified as unduly influencing police officer decision making. The following are two examples;

> *"Either you've got the ambulance crew saying, oh this is definitely suspicious and it is clearly not, or you've got the quite a high profile one recently where …was found with shooting injuries, 6 bullet wounds and the paramedic attending say they are keyhole surgery scars that have opened up somehow, and the police officer has just bought it and called the undertakers and only one police officer attended, fortunately he put his body camera on so we had something to go on but we didn't pick up for some time so the family had wandered around the scene and the press had wandered around the scene. That was quite high profile* (focus group 3).
>
> *"Another one, fire brigade saying they are the be all and end all and write off fire scene like that. A family of 5 dead and they said it was a cigarette. We had a family of 5 die and they tried to write if off in 1 ½ hours. We had to claw it back"* (focus group 3).

Some police forces have a policy where police officers do not routinely attend sudden death reports as this is left to the ambulance service who get no training at all (focus group 2).

The issue of doctors attending scenes and directing the investigation was recognised by the SIO/Managers focus group and they generally wanted detective officers to attend to ensure a thorough investigation. They did not all appear to have a great deal of awareness of this unlike the CSI groups.

- Non-forensic pathologists being used instead of a HORFP/ quality of a non-forensic PM

Perhaps one of the most concerning activities which was clearly commonplace from all four focus groups, is the practice of using a non-forensic PM as a 'filter' in case the death is a homicide where there is some uncertainty. This involves briefing the coroner that the case is not suspicious in order that a non-forensic pathologist conducts the PM, but securing the scene of the death until the outcome of the PM. This may sound like a sensible idea, but in fact if the case then transpires to be suspicious, although the police would still have a secure scene, trace evidence from the body will have been destroyed. Approximately half of the focus group participants had experienced cases where this had occurred. One experienced CSI stated; *"We often attend a non-suspicious post mortems to take the photographs in case it is suspicious"* (focus group 1). Another stated;

> *"It is either suspicious or it is not suspicious. I personally believe it is black or white. You either know what has happened or are pretty confident, or you are not. I know there are other arguments. If you can imagine you are a non-forensic pathologist; you go in with a mind-set that it is not suspicious, so you are not looking for anything suspicious. If a forensic team turn up then there must be something suspicious, they are looking for something suspicious"* (focus group 1).

This practice was not universal with some CSI's having never witnessed such a procedure but all clearly recognised the dangers of adopting a process which was sub-optimal. One CSI from a small force stated; *"… if you are not sure you call a forensic PM. You can have what you want… if I am not sure and the boss says yes"* (focus group 1). In the case of one region of police forces, a written proposal to formally adopt the practice of using non-forensic PM's was shared with the researcher. The stated reason for this was to save money on the case fee paid to forensic pathologists on the Home Office Register. Several of the CSI's stated the main problem of undertaking a non-forensic PM as a filter was the fact that the body was washed at the mortuary and thereby losing forensic trace evidence (focus group 2). One participant stated that she had not experienced this practice for five years due to the fact that non-forensic pathologists declined to conduct PM's if the police had an interest in the case (focus group 1). Cases were cited where the non-forensic pathologist reads the notes and then works out what happened even before looking at the body. One CSI commented that;

> *"I was at … hospital mortuary just a couple of weeks ago and they had 4 bodies laid out...there was a pathologist doing them all and it was really confusing moving between 4 bodies. It's nothing to have 8 bodies to do in a morning which is their spare time before they do their day job. It's a system set up to fail. Their objectives are different to forensic pathologists so it's like comparing apples and pears"* (focus group 4).

The issue of the variance in quality between a forensic and non-forensic PM was widely discussed in the SIO and senior manager's focus group. One SIO described as a comparison; *"It's like comparing a seaside donkey to Red Rum"* (SIO focus group). The difference between the two types of PM process was understood by some but it appeared that some SIO's were unaware of any significant difference. The 'derisory' fees paid to non-forensic pathologists were seen as part of the problem. A senior police officer commented that greater integration between forensic and non-forensic pathologists would increase the quality of the coronial cases.

There was universal agreement amongst forensic pathologists that the standard of non-forensic PM processes had much to be desired. The practice of the mortuary technicians conducting the evisceration and the failure of the non-forensic pathologist to properly inspect

the body which they described as commonplace. They gave the examples of practice in Northern Ireland and Scotland which had very different systems, where all PM's are carried out to forensic standards. Most mentioned the 'mind-set' of non-forensic pathologists, which is to *"assume an innocent rather than a malevolent cause which can lead to sub-standard findings and reports"* (group 1). All the HORFP's spoken to were aware of the NCEPOD report in 2006 into the quality of non-forensic PM's and expressed the view, almost universally that things had not changed in the last 10 years since the publication. They were also of the view that the minimum standards for coronial autopsy issued by the Royal College of Pathologists were not generally adhered to (group interview 1). Comments made were;

> *'A preliminary post mortem examination had already been made, but its standard was so poor as to have obscured rather than elicited any useful information';*
>
> *'…appallingly poor standard of first autopsy and cynical 'back covering' by reporting 'broken neck' led me to write in strong terms to the coroner'.*
>
> *'Histopathologists don't like doing PM's, particularly for the derisory sums the Ministry of Justice deems as adequate for professional services in this matter: there is a saying that if you pay peanuts, you get monkeys, and there is an element of truth in that one in some hospitals. I am (anecdotally) aware that in some hospitals, much of the dissection is done by the mortuary technician in 'routine' PM's. I would far rather a hospital pathologist decided at an early stage that they were worried and then STOP and call us (or properly, HM coroner in the first instance) rather than ploughing on, finishing a dissection (invariably without a proper neck dissection) and then deciding they are worried After which, the findings are invariably messed up and we cannot put the toothpaste back in the tube'.*
>
> *'There will always be cases that slip through the net when the link between a criminal act and a death is not recognised in the early stages. The Coroners pathologists should be encouraged to raise concerns when they are unhappy about any background information or findings. However, coroner's pathologists should not be considered a safety net as they are not trained to recognised features of forensic interest and are led by the information provided to them which are often exceptionally brief and usually states categorically that there are no suspicious circumstances'.*
>
> *'I believe that once the body was examined externally in the mortuary, concern should have been raised regarding the external injuries, particularly to the right eye area and the pathologist should have discussed this with the coroner's officer and halted the examination. This did not happen and the pathologist continued to dissect the organs. Even, given that the head may not have been dissected and the cranial contents examined until examination of the other organs, once the subdural haematoma was found, the pathologist should not have continued to dissect the brain. In other words, there were at least two opportunities to halt the examination that were missed. Instead the pathologist continued to complete the examination despite the initial information that the death was drug related, was at variance with the actual findings'.*

Group 2 mentioned that the quality of the PM results were sometimes compromised by the refusal of coroners to fund toxicology tests which they considered as one of the most important tests forming part of the PM process. Group 3 however felt that the standard of coronial autopsy practice in their geographic location was generally high, showing that standards vary across the country. Group 1 felt that the advent of cross sectional scanning[31] may improve the situation in the future. One of the issues identified was the 'derisory' fee of £96.80 paid by the coroner for a PM which would be insufficient to provide a salary to a full-time autopsy pathologist.

Most of the pathologists stated that some coroners tended to be idiosyncratic although they acknowledge that many were very good and supportive. There was a mixed view as to whether non-forensic pathologists should receive some forensic training. Whilst some considered this to be positive as it would aid the detection of suspicious cases, others thought that such training would give unqualified pathologists confidence to delve into cases where their skills were insufficient, thereby destroying medical and forensic evidence. Group 4 discussed that the number of PM's were because of coroners not wanting to miss a homicide, but this has inadvertently caused more likelihood of the opposite happening and will perversely increase the chances of homicide being missed.

The group felt that in general terms the quality of work they do for coroners PM's was good considering the 'derisory' payment they receive from the coroner. One commented *"what do you expect for £96.80?"* The attitude of the NHS employers was varied across the group. Some hospital employers dissuaded pathologists from doing coroners PM's but other areas there was support from employers. All reported that there are too many coroners PM's and that many are a waste of time as the cause of death is obvious from the history and circumstances. Sometimes this is because the deceased general practitioner cannot issue a certificate because they have not seen the patient for 14 days, and the coroners can be risk averse. A pathologist who was a senior manager at NHS England commented that the decision to carry out a forensic autopsy and what type it should be, both from coronial and police instructions can be variable. The decision as to what type of PM will take place carries with it significant cost implications for the service and remuneration differentials for the practitioners. She stated that funding and its anomalies remained a significant problem. Another senior person from the Royal College of Pathologists referring to the 2006 NCEPOD report (Furness, 2006) confirmed that the standard of coronial non-forensic autopsy had not improved, and in fact had probably

[31] Computerised Tomography (CT) and Magnetic Resonance Imaging (MRI) are the most common methods.

worsened. This was due to a number of factors, not just the case fee, but also many trainee histopathologists are opting out of the autopsy practice element of their training which used to be mandatory but is now optional. This was done to attract more doctors into the profession as autopsy is seen to be an unpleasant activity. Another senior pathologist commented that if coroners insisted that pathologists abided by the minimum standards issued by the Royal College of Pathologists, quality would increase but coroners are unwilling to do this as pathologists will refuse to do the work. A pathologist with experience of working under the Scottish system stated that the problems south of the border do not exist in Scotland, as PM's are conducted as part of the pathologists work plan and paid by the NHS.

In general terms, there was acceptance amongst coroners that the standard of coronial non-forensic PM's had not improved in quality since the 2006 NCEPOD report and there was evidence supplied which gave rise to believing that in fact the situation had worsened.

- Evisceration of the body by mortuary staff prior to the pathologists inspection

Many CSI's had witnessed non-forensic PM's where the bodies had been eviscerated prior to the pathologist attending and described the whole PM as lasting as little as ten minutes (focus groups 1,2,3 and 4). The CSI's spoke at length about the quality of a non-forensic PM and some stated that in their experience, it was common practice for mortuary technicians to eviscerate the body prior to the pathologist arriving in the mortuary. One comment was;

> *"The hospital pathologists, and all respect to hospital pathologists, if they are asked to do 7-8 PM's in the morning, and one of those is the old chap from the scene which is locked down, he's going to go, yeah it's ischemic heart disease, I'm happy. The hospital pathologist tends to have an idea what they are focusing on. It depends on what information they get from the coroner's officer about the body. You may get a 2-liner saying: body pulled out of water and the pathologist isn't wanting to know any more because he has 8 to do before lunch"* (focus group 2).

One HORFP explained the importance of a visual inspection of the body prior to evisceration which is denied by the practice of the mortuary staff;

> *Furthermore, many 'routine' P.M.'s are now eviscerated by APTs, and external examinations which are often of prime importance in suspicious cases- are of poor quality. It is not the obvious cases-such as stabbings- which are the problem but the more subtle cases.*

- Budgets and resource constraints

The subject of reduced budgets was cited as one of the factors for very little training being given to front line police officers. There were several examples of CSI's no longer having inputs

into initial police training as training time had been reduced. This also impacted on attachments of uniform officers to forensic teams which some stated used to take place but had stopped. Lack of training was cited as one of the main reasons for police officers not knowing how to deal with sudden and unexplained deaths. The consensus was that officers were given an average of a half day training on managing a crime scene at the beginning of their police career, and that a lot of training was now delivered using interactive distance learning methods whereas they considered that a more experiential method was required; *"It's not really death training, it's packaging training, this is how you see something, rather than, when you turn up at a death, this is what you should be thinking"* (focus group 3).

Finance was also seen to be a large factor into decision making as to whether to hold a forensic PM or not. The perception amongst CSI's was that this was one of the main reasons why there is a reduction in forensic PM's and that is driven from managers above. They stated that money would not be an issue for junior officers attending scenes, but it was definitely a consideration for SIO's and other bosses (focus group 1, 2, 3 and 4). One example given was a case where the body of a middle-aged man was found in a burned-out car and the CSI requested a forensic pathologist to attend the scene, but the SIO refused and decided on a non-forensic PM due to the cost (focus group 2). I t was generally accepted however that the police are required to save money; *"I am always weary because a Home Office Pathologist is very expensive. So you can't just give a nod to everything. You have to prioritise…otherwise you'll give a nod to everything and get expert opinion on everything"* (focus group 3). One CSI suggested that if forensic pathologists were paid a fixed sum for providing a service not dependant on the number of cases, the financial issues would be reduced (focus group 3). One area where some CSI's found that financial cut backs had an impact on being called out at night and that they were more likely to be called to scenes in the day time than at night as a consequence due to overtime restrictions (focus group 3 and 4).

In relation to the SIO and senior managers focus group, they were asked about funding and whether this was an issue in respect of dealing with sudden and unexpected death. Without exception, all stated that of course funding is an issue in the current financial landscape, but in terms of compromising a death investigation it would never be problem. One comment was that; *"Forensic pathology is not an area to save money when the force reputation is at stake"* (SIO focus group). Several discussed the benefits of having a scaled fee system for forensic PM's depending on whether the case transpired to be a homicide which would reflect the amount of work each case involved. Another view expressed was that with a mixture of

confirmed homicide and natural death cases being examined, the current fixed fee structure balanced out and there would be no benefit of a scaled fee. A senior police officer stated that there may be occasions when *"middle management budget holder may inadvertently create unintended decision making pressures on the lower ranks"* (senior police officer interview).

Several SIO's raised the anomaly of coroners insisting on forensic PM's for cases where prisoners had died in prison but where the deaths were expected and confirmed by prison doctors to be natural causes. This was a waste of police resources and had caused conflicts between police and coroners, especially in one police force area. The conflict of using police powers under the Police and Criminal Evidence Act to undertake a forensic examination where it was not believed to be a crime was a legal issue of misusing those powers and perhaps acting illegally in breach of the act. An example given was expected deaths in prisons of a diagnosed condition and deaths in health care settings where technically patients were 'detained' by the state[32] but coroners are obliged to conduct an inquest for which some insist on a forensic PM.

The HORFP's were convinced that there was a culture of 'cost cutting' generally in the police. One commented;

> *'There may also be a cost-cutting culture in the police. You could look at the percentage of cases that turn out to be homicide in each forensic pathologists workload. If it is a very high percentage then I suspect that police force is missing some. Probably should be no more than 1 in 3 to 1 in 4 being genuine homicide'.*

Others similarly commented;

> *'…police are now strongly motivated to save money. Obvious homicides get referred to HO pathologist but the obscure ones (the very ones that ought to come our way) often do not. During 2013 in particular, the proportion of homicides to other cases rose markedly in my personal practice'*
>
> *'…the right person to call would have been the Home Office Pathologist but I can understand – given the way the case fee works – why they would seek a less expensive opinion first, which might be sufficient'.*
>
> *'The case fee system is a big disincentive to Police and it doesn't encourage sensible working practices – which should be focused on investigative needs and priorities, the dignity of the deceased and sensitivity towards families'.*
>
> *'There has been a decline in the number of suspicious deaths over the last few years which seems to correlate with the start of the financial crisis. From my perspective and confirmed off the record by officers is that there is a push to*

[32] Deprivation of Liberty Safeguards (DOLS) where a person is in care for medical reasons but technically detained by the state.

> *reduce the PM numbers. This is being complicated by a slowly changing profile of Senior SOCO's[33] from people who have been promoted by experience and 'nouce' to those with qualifications and courses. There remains no understanding of the quality and destructive nature of the routine post-mortem'.*
>
> *'Coroners and their officers are generally dependent of the say so of the police as to whether a case is suspicious or not, but there have been a few cases in the … where the police have had no interest in a case but the coroner has insisted on a forensic examination and has funded one themselves due to their concerns. The decision on whether to have a forensic examination is clearly affected by financial constraints with some borderline cases that warrant a more detailed examination sometimes being passed to routine pathologists. These are not necessarily significant cases of missed homicide but cases that warranted more detailed consideration than that achieved by the average routine PM'.*

The non-forensic pathologist focus group similarly commented that budgetary considerations were an issue they encountered. Some had experienced pressure to conduct PM's where they thought from the outset that the case should have been conducted by a HORFP. They felt that the driver for this was financial and several specific accounts were given of this. One claimed to have been pressured to take on a child death case and in the end flatly refused to conduct the PM. The focus group consensus was that it was a regular occurrence to be asked to do cases which they considered should be forensic cases.

> *'I got to the point where I had enough and I mean admittedly it's a grey area … the coroner would phone and the police would come and we would do a single-handed police case with only a paediatric pathologist'* (non-forensic pathologist focus group).

One pathologist whose mortuary covered several police force areas considered that the question of money and availability of forensic PM's depended on which force was paying for the examination. The group gave many examples of being used for what they viewed as inappropriate cases.

Coroners were concerned that the finance available to fund the autopsy provision in England and Wales was problematic and that the downward pressure on police budgets was a strong disincentive to pay for forensic PM's which in turn would increase the risk of missed homicide. The funding of NHS mortuaries was also seen as being poorly provisioned. It was interesting to note that coroners pointed out that the use of terms such as 'coroners PM's' and 'forensic PM's' were used as common parlance, but in fact all PM's are authorised by the coroner and thereby 'coroners PM's'. One coroner felt that there was pressure from the police to downgrade cases to avoid the police case fee. There was general agreement that the coronial

[33] SOCO is a Scenes of Crime Officer, now described as a Crime Scene Investigator or 'CSI'.

fee of less than one hundred pounds was far too low and was a contributory factor to the standard of autopsy.

- Vulnerability of the deceased and mind-set of the police officer

Another general theme was that the CSI's perceived that they were more likely to be called the younger the deceased was. They thought that death was more expected amongst the elderly and so were less likely to be required to attend. All the focus groups considered that the vulnerability of the deceased such as the elderly, alcoholics or drugs users was a factor in sudden and unexpected death decisions. An experienced CSI speaking of a recent case stated;

> *'…she is 68 …It's not an age thing (*speaking of vulnerable people*) write it off... they go in and they are told it's a sudden death, they attend, their mind is set this vulnerable person has died, therefore... They are making them (*decisions*) fit'* (focus group 3).

An experienced CSI gave an example of the effect of vulnerability on decision making when describing an elderly female found dead in her bed;

> *'… when they peeled back the scalp a huge great big crack all the way down and because she had been in the flat for 2 weeks after death by the time the PM was done so when it was a huge back-peddling exercise trying to make up for lost ground and that caused a lot of issues'* (focus group 3).

There were a few comments about some police officers not beginning the investigation with an open-mind;

> *'They seem to take things at face value. Example; death in a care home, they automatically think it is a natural death and might not look any further into it. They don't consider medication, abuse etc. In care homes, there must be all sorts of unknowns there because they are all coming to light now. It is ridiculous.* (Focus group 3).

There was strong support amongst all six forensic pathology groups for the principle that all deaths should be considered as suspicious until otherwise shown. Not a single HORFP disagreed with this stance.

- Too many coronial autopsies

Another theme was that most HORFP's were of the view that there are too many coronial autopsies in England and Wales and these could be reduced by better non-medical-investigation which would show that a certificate could be issued without a PM (group 4). Group 5 considered that the number of coronial autopsies could be reduced by a third to a half. One HORFP commented:

> *'Usually there is a reasonable assessment of cases prior to PM. Occasionally there will be problems and the forensic pathologist is reliant on the coroner's pathologist to suspend any examination as soon as difficulties arise. The external assessment of cases by pathologists prior to any evisceration by technical staff is essential to avoid artefact in cases where suspicion arises following initial assessment of the case as non-suspicious. Pathologists without extensive experience of Coronial work and non-natural deaths in particular often have a low threshold for referral to a forensic pathologist but often the case has already been eviscerated by the technical staff and the case is then much more difficult to assess'.*

One HORFP commented that the mind-set of the non-forensic pathologist will guide him or her into believing from the outset that the case presented will be non-suspicious;

> *'The distribution of cases is changing as a result being homicide rich (which in the main is straightforward) and there is a decline in the borderline cases (which invariably are difficult). A circle of false reassurance develops. A routine pathologist will not touch a suspicious case so at the bottom of every coroner's report by the police is 'no suspicious circumstances' to reassure the* (non-forensic) *pathologist. The routine pathologist for his 90 pounds will be presented with a bucket of mentally non-suspicious organs and ultimately deem it non-suspicious in turn reassuring the police. Police happy. X walks into the police station years later and confesses. Police blame pathologist somewhat dishonestly'.*

A common theme amongst HORFP's was that non-forensic pathologists treat all autopsy examinations on the assumption that it will be a non-contentious coroner's PM;

> *'It could be argued that the first pathologist should not have started the post-mortem in view of the nature of the bruises present. This is perhaps a consequence of the common approach to coroner's post-mortem where a detailed external examination may not be undertaken prior to opening of the body. However, the coroner's history provided to the pathologist stated that there were no suspicious circumstances a non-forensic pathologist should not be expected to recognise marks of forensic importance. I would say credit is due to the pathologist for exploring her concerns as I suspect in many departments a case like this would just slip through the net completely'.*

A non-forensic pathologist gave an example of the pressure on them to continue with a non-forensic autopsy even when their suspicions were aroused that it should be a forensic case;

> *'…there was a case of a man in his 40's, a known drinker. I had been sent the case details, rocked up at 8am, looked at him and see that he has had a kicking. Having worked in A and E[34] and things before, I knew that he looked like a man who had had a kicking and I thought I am not going anywhere near this. I called down the supervising consultant and he said that the man probably has bad clotting, it will be fine, there won't be anything, don't worry about it. It could be demographics - known drink and drug problem, but it is that sort of person who would have had a kicking. There was a complete reluctance. The default position is that it will fine,*

[34] Accident and Emergency Department in a hospital.

> *we'll find something at the examination, we'll do it. Nothing mentioned that it would be anything else'* (non-forensic pathologist focus group).

One pathologist approached the researcher outside of the meeting and wanted to speak about a particular case that they did not wish to share with the rest of the group (although the interview was tape recorded and she was happy for it to be used in the study) at figure 35.

Figure 35: Case example from a Non-Forensic Pathologist

"When I was a histopathology trainee, I was asked to perform a PM on an elderly lady. My educational supervisor did not want to be present and so left the mortuary. There were no suspicious circumstances and the case looked quite straightforward. On external examination of the body, I noticed bruising on the arms which looked like fingertip bruises. I called the consultant who explained that this was probably caused when an attempt had been made to resuscitate her. I continued her evisceration and found the hyoid bone in the neck had been fractured and surrounded by haemorrhage. I therefore called the consultant again who insisted that I must have caused this during the dissection of the neck. I denied that this was the case as the haemorrhage would require flowing blood. I was told to get on with it and so uneasily continued my examination. However, when I examined the arm, I noticed it was fractured in two. I then went to see the consultant who became angry with me and insisted the death was due to natural causes which is what went into the coroner's report which he completed. There is pressure on pathologists to do a quick job which I feel uncomfortable with. It is in the interest of professionalism, the families and the court system, whether it be coroners or not, that it gets done properly. This is a human being still a human body and just because they are dead doesn't mean that they don't deserve the right to have a thorough examination. Many of the histopathologists I know turn up to work at 7.30 in the morning to bash out a few post-mortems before they get to 9 o'clock and have to start theirs days' work and that is the attitude, which you can kind of understand because that is how the system is set up, they can do that, but just as much as they would never send out a tumour diagnosis on live tissue unless they were absolutely sure because if that person got the wrong diagnosis, they got the wrong treatment, then the implications would be huge, they should allow the same level of scrutiny to the cause of death".

One non-forensic pathologist had noticed a shift in the types of cases coming to them. It was stated that all drugs related deaths used to go to HORFP's, but these cases seemed to be going to non-forensic pathologists now. The stated reason was again, financial and that no additional training was given to non-forensic pathologists to identify suspicious cases. People who are brought in as drugs deaths are thought of a 'tox'[35] cases which are quick as there is no real pathology. In relation to the number of cases non-forensic pathologists conduct in coronial cases, it was universally agreed that they were all in their own time and usually before they commenced their NHS work at the hospital. The practice of the mortuary staff eviscerating bodies was also commonplace. One pathologist commented;

[35]'Tox' refers to toxicology. The examination of tissue to identify the presence of substances absorbed into the body.

> *'You get the pathologist who comes down and fits in around other work, the APT[36] do eviscerations so that is done already; the pathologist has a cursory glance of the body and there is a little bucket of organs on the bench. They come down and do six* (PM's), *the body has already been eviscerated, not much importance to the external observation'* (non-forensic pathologist focus group).

Only one of this focus group could recall a case which they had spotted as a potential homicide which was eventually dealt with as such. This particular case was said to be non-suspicious because the deceased, although found dead in a bath and with head injuries, had no sign of break in at the house in which the body was found. He then called the coroner who in turn called the police but the police were insistent that it was a non-suspicious death, but eventually they agreed to pay for a forensic PM and it transpired that the deceased had been battered to death. This non-forensic pathologist commented that the police appear to be happy that it is non-suspicious if there is no sign of a break in to the property where the body is found. It was interesting to note that one pathologist stated that on average it took 20 minutes to perform a coronial PM. However, when he was spoken to later he changed this to about an hour. This may have been due to peer influence. A common complaint was the information and history about the death they receive from the coroner which they considered insufficient.

The results of the research will now be discussed in chapter 8.

[36]APT refers to Anatomical Pathology Technician.

Chapter 8: Analysis and Discussion

8. 1 The 'Perfect crime?'

It has long been the material of crime writers and mystery films to depict stories setting out the 'perfect crime' – a murder where due to meticulous planning and forensic awareness, the murderer can thwart the most skilled and observant detective. However, perfect murders cannot exist as once they are identified as a murder, the crime cannot be perfect. If they are not identified as a crime in the first place, they will never be investigated as such and someone will get away with murder. Without doubt these unidentified perfect crimes have taken place and will continue to do so in the future. These are impossible to research as we do not know whether they even exist. The research in this study does not consider these perfect crimes because it cannot. Though it does concern itself with those near perfect potential homicides which are not identified as such due to the quality of the initial scene investigation.

It is the experience of police officers spoken to that most homicides are obvious from the outset; such as a knife wound; gunshot; a body outside a night club with many witnesses; the husband walking into a police station confessing to killing his wife. These cases are not problematic and most would fit into Innes' (2003) 'self-solvers'. These are not the ones identified by the skilled forensic pathologist or the scientist called to the scene. In most cases where a forensic pathologist conducts a PM in these obvious cases of homicide, the process is to confirm what the police have already established or suspected. The forensic examination has a treble purpose: the first is to establish a cause of death; the second is to retrieve trace evidence from the body, including samples for histological and toxicological examination; and the third reason is to attempt to disprove and therefore eliminate any possible defence that the death was in fact due to other factors. This is one of the reasons why some police forces in England and Wales insist on a forensic PM for road death cases which is not necessarily required in policy (ACPO, 2007). It can therefore be seen that even in the clearest cut case of homicide, the necessity of a forensic medical examination is still present. It is the type of case Innes (2003) describes as 'whodunits' which are more likely to be the focus of this research. It is those less obvious homicides which are more likely to go unnoticed and become a perfect crime. Failure to identify a murder can represent a miscarriage of justice as demonstrated in chapter 2 (Milne *et al*, 2010; Grieve *et al* 2007).

Five overarching themes emerged from the three strands of the research:

- The lack of a national police policy in dealing with scenes of sudden and unexpected death;
- The lack of training for officers attending sudden and unexpected death;
- The mind-set of those tasked with making decisions in the early stages of a sudden and unexpected death investigation;
- The use of other professionals in advising the police as to whether the case is suspicious or not; and
- Financial considerations.

Each of these themes together with their constituent sub-themes will be discussed in turn.

8.2 National Policy

A clear national policy exists regarding the investigation, process and conduct of a homicide investigation as referred to in previous chapters in the form of the Murder Investigation Manual (ACPO, 2006) and the Guidance on Major Incident Room Standard Administrative Procedures (ACPO, 2005a). There are numerous supporting documents to these main manuals. There are also well documented processes within the grey literature and policy in respect of how a crime scene should be managed and processed from the time of the discovery of a crime to the time the scene of the death is released by the police. However, there is little or no national policy in respect of the stage prior to the confirmation that a crime has been committed as evidenced in chapter 2 and 7. This appears to be one of the most important shortfalls identified as part of the research. If the first actions at a scene are not performed correctly and in accordance with identified good practice, the risk of failing to identify homicides will continue as cases will be denied an expert medical opinion. Some police forces do have policies (Doyle, 2011) but as identified these are inconsistent and variable. A clear and standardised way of dealing with sudden and unexplained death is a natural extension to all the other measures adopted or imposed on the police service as outlined in chapter 2, such as the Murder Investigation Manual (ACPO, 2006), MIRSAP (ACPO, 2005a) and the Core Investigative Doctrine (ACPO, 2005b) as well as legislative changes into the way the police operate such as the Police and Criminal Evidence Act (1984) and the Criminal Procedures and Investigations Act (1996). Currently, the first of the 'key information needs' of an investigation as identified by Innes, (2002) and Maguire and Norris, (1992) of determining that a crime has taken place (see chapter 2) appears to be missing or at least unclear in policy.

The most important elements of a national policy appear to be the *process* of dealing with a sudden and unexpected death, and the *mind-set* of the persons charged with decision making. It

therefore appears appropriate to set out clearly what an attending decision maker needs to do at the outset of dealing with a sudden and unexpected death. There also needs to be systems in place to manage and overcome natural bias in coming to premature conclusions (Eyre and Alison, 2007; Sanders and Young, 2003; Hammond, Keeney and Raiffa, 1998).

To highlight the need for a national policy and to standardise decision making, one can look at the outcomes of the analysis of homicide and forensic PM data in chapter 5. The reason this ratio of forensic PM to homicide is important is that if police forces were deliberately reducing the number of forensic PM's to save money or for some other reason, one might expect that the ratio may alter to less than 1:3. This assumes regarding the relationship between homicide and the number of PM's. First, a reducing PM rate might result in a reduction of homicides as some would be missed. However, the numbers of missed homicides may be lessened by the fact that most homicides are obvious cases of 'self-solvers' and readily identified as such from the outset (Innes, 2003). Therefore, by reducing the number of forensic PM's, the police would still be holding autopsies for the obvious cases of homicide. The small numbers of the more 'borderline cases' which are the 'whodunits' (Innes, 2003) are more likely to be the ones missed. Because these less obvious cases are the ones more likely to be unidentified as homicides the numbers of missed cases will probably be less than the 1:3 ratio would suggest. The issue is that reducing the ratio to below 1: 3 is likely to increase the *risk* of missing homicides. If all cases were inquired into properly with high quality investigation and risk assessed at the scene in accordance with a national policy, the number of forensic PM's would probably reduce thereby saving the public purse. However, there does not seem to be any evidence that the quality of scene investigations is generally high across the country from focus group evidence. The second assumption is that the number of homicide cases is falling but this may not necessarily be relative to the number of instances where people die in circumstances where there is a degree of suspicion regarding the cause of death. There is however a reasonable assumption that the homicide and forensic PM's are relative to each other due to the historical and consistent ratio. The final assumption is that some police forces may have very different policies and practices (Doyle, 2011) whereby decision making is more robust in some police force areas compared with others which may account for a reduced number of forensic PM's in some geographic areas. The data from interviews and focus groups failed to reveal any evidence which indicated any police force having more robust practices and procedures. One force claimed that the ratio of PM's to homicide was low not because of money saving decisions or poor scene investigation, but due to close supervision of such cases. The force in question had the largest number of death investigations in the case study and continues to have further such cases reported where PM's were stopped by non-forensic

cases in favour of forensic ones. This would indicate that the perceptions of managers as to the efficiency of internal systems may not be as effective as they believe them to be.

The relationship between forensic PM's and homicide at chapter 5 shown as a ratio is significant but to see variations, it was intended to examine the ratios individually of each of the police force area in England and Wales. This was not possible however due to the very small numbers in most forces. The police forces were thus grouped into five regions, by combining the existing ten National Police Chiefs' Council (NPCC)[37] policing regions to achieve numerical significance. It was then possible to delve into each region to identify individual police forces where issues might be found. As can be seen from Region A, the ratio of forensic PM's to homicide was high in terms of there being far more forensic PM's per homicide than the national average. There would appear therefore to be a more cautious approach within all the forces in region A. Due to this, it is postulated that there is less likelihood of missing medical evidence leading to suspicion of homicide. Police forces having too many forensic PM's evidence a risk averse decision making regime where resources are potentially wasted and reveal possibilities of savings both in terms of finance and personnel. There may of course be other factors at play in region A, but further research would be needed to establish the reasons for the ratio to be significantly different to the national average.

The ratios of forensic PM's and homicide seem to be fairly stable and reflect the national average in regions B, D and E, although in region D there may be variations amongst police forces due to the slightly higher ratios there. Region C was outwith the national average to a significant degree from 2012 up until 2014, showing that forensic PM's had reduced as a ratio to homicides. This required more detailed analysis of each force within region C. It was also decided to look more closely at the forces in region D. It was interesting to note that police forces within regions C and D had been the subject of complaints from HORFP's which was the driver for commencing the research in the first instance.

Dealing first with region C, one force stood out as being the reason for the deviance with the national average. All other forces in that region, although numbers were low as to not be significant, did not reveal any clear evidence that they were at variance with the national average. The police force in question is referred to as 'police force 4'. Between 2010 and 2014, the ratio for police force 4 was at significant variance to the national average, with 2012 to 2013 showing a ratio of one homicide for every two forensic PM's. This force had several interesting factors which may relate to this. Firstly, the force was served by several HORFP's which did not enjoy positive

[37] Formerly Association of Chief Police Officers (ACPO).

three way relationships with the police and coroners. This was for a variety of reasons, but several complaints were received in 2008 regarding one of the pathologists which culminated in him being 'struck off' the Home Office Register in 2009. Further complaints were received regarding another pathologist in 2010 culminating in him being struck off in 2013. Three other pathologists resigned from the HO Register for various reasons. It could be that there was a breakdown in mutual trust between the police and the pathology team serving the police force 4 at that time which could have led to reduced usage of the pathologists. When the previous team of HORFP's ceased to operate for that force, the current cadre of HORFP's reported that they felt that their services were not be utilised appropriately. Because of this, in May 2013, the researcher contacted the force and explained the concerns of the HORFP's that they were not being used for cases which were clearly suspicious and that the HORFP's felt that this was for financial reasons and the force were attempting to save money. The information was received by the force which acted positively and set about reviewing their policy on the use of forensic pathologists. The situation continued to prevail with numerous complaints and examples of cases inappropriately being dealt with by non-forensic pathologists. The researcher therefore held another meeting in July 2014 between two HORFP's and a senior police officer in the force. The two HORFP's expressed their concerns and the situation was explained at length with statistical analysis and practical examples where homicides could have been missed. The researcher was informed that the new policy referred to after the 2013 meeting had now been implemented and that the force would ensure that the use of Home Office pathologists would be monitored and supervised. This action on the part of the force may be the reason for the fact that in 2015, the force was at exactly the national average and there have been no further complaints from the HORFP's serving the region. It is interesting to note that this change of policy was adopted by the force and there was tacit acceptance that they were not using HORFP's appropriately as evidenced by the change of approach. One wonders how many more homicides would have been identified as such in the five-year period from 2010 and 2014. It would be very difficult to research this further other than an estimate as it is notoriously difficult to recover reports and paperwork concerning deaths which were never recorded on the police crime recording database. It might be possible to use statistical data to form an estimate but due to the small numbers and the fact that homicide is not numerically constant, this exercise was not considered worthwhile.

Analysis of the police forces in region D showed a similar pattern with one force, 'Police Force 3' having a larger ratio of homicides to forensic PM's. The force was made aware of this and the ratio will be monitored going forward. However, the ratio is now nearing the national average. To see whether this phenomenon was to the two police forces, 3 and 4, which had attracted the

initial complaints from the HORFP's and which were largely urban, two other large urban force areas were similarly examined, 'Police Force 1' and 'Police Force 2'. Both were similar in make-up and demographics to police forces 3 and 4. As can be seen, police force 1 shows a very different picture with very low rates of homicide against forensic PM's (between 1:4 and 1:5). There is therefore a case to explore this issue with the force to see if financial and resource savings could be made. Police force 2 was slightly lower than the national average ratio although in 2011 and 2012, this situation reversed briefly. This may have been because of the initial impact of the spending cuts announced by the government just prior to that time, but this would need some further detailed analysis. The analysis of police forces 1 and 2 shows that the low ratio of forensic PM's to homicide does not tend to be due to the size or urban nature of the police force, but could be because of internal policies and management of different forces, or it could be because of some very busy police forces being under strain of resources or financial constraints.

To progress the formulation of a national policy a separate focus group was arranged in February 2016 with the full cooperation and agreement of the NPCC and the College of Policing. This focus group consisted of 28 attendees from a mixture of police forces and representing all ranks, including police constables, supervisors as well as police managers, SIO's and those responsible for managing forensic teams and holders of forensic budgets. All members of the group were sent a draft policy document prepared by the researcher consisting of all known aspects of dealing with an initial scene. This formed the basis of focus group activity and discussion. Views and experiences were fed into a plenary session facilitated by the researcher. The final draft document was agreed and can be seen at appendix 9.

The draft national policy covers all issues identified in the three strands of the research but also broader issues so that the policy document was an all-inclusive reference document which will form the basis of the initial death investigation. It covers the following areas in figure 36.

Figure 36: Contents of the proposed National policy in respect of dealing with sudden and unexpected death

ACTIONS AT THE SCENES OF SUDDEN AND UNEXPECTED DEATH
DEVELOPING THE STRATEGY
STRATEGY CONTENT
IMPLEMENTING THE STRATEGY
KEY ROLES
INITIAL RESPONSE AND PRE-POST-MORTEM EXAMINATION ACTIONS
CRIME SCENE ATTENDANCE
MAINTAINING CONTACT WITH THE PATHOLOGIST
VICTIM IDENTIFICATION
TIME AND CAUSE OF DEATH
THE POST MORTEM EXAMINATION
EXHIBITS
THE POST- MORTEM EXAMINATION REPORT
INTERPRETING POST-MORTEM EXAMINATION RESULTS
DEFENCE AND SECOND POST-MORTEM EXAMINATIONS
RELEASE OF THE BODY
RETENTION OF MATERIAL AFTER POST MORTEM EXAMINATION
DISPOSAL OF MATERIAL HELD ON THE AUTHORITY OF THE POLICE

These topic areas were identified from the focus group discussions conducted as part of this study, failure to call the appropriate personnel to the scene to assist with decision making. Many of the CSI's who participated in focus groups expressed the frustration of rarely being called to sudden and unexpected deaths. This same concern was not mentioned by any other of the categories of participants. The CSI's argued that they had the specialist skills to assess a scene and routinely attended crime scenes, including suspicious deaths. They felt they would be able to best judge whether scenes were suspicious using their specialist skills. This fits with the fact stated in chapter 2 in terms of the numbers of cases a police constable is likely to attend being very limited and the arguments by Eyre and Alison (2007) that with little experience, no memory structure is built up. CSI's would be more likely to develop a repertoire of responses as they would routinely attend sudden and unexpected deaths (Adhami and Browne, 1996). It appears therefore that one of the measures which could improve the quality of the scene assessment for sudden and unexpected deaths would be a policy of ensuring that CSI's attend as a matter of routine in order that they can assess the scene whilst the police officer deals with other issues such as intelligence checks and interviews of family members and witnesses. This of course has resource implications in sending two staff to these scenes.

There is a built-in irony therefore to this research. The initial driver for the research, namely a perception amongst HORFP's that there were fewer forensic PM's, may lead to the adoption of a national policy which if implemented, may lead to better quality scene investigation which may in turn lead to a reduced number of forensic PM's. The success or otherwise of such a national

policy cannot however be judged upon the process of scene investigation leading to a successful prosecution. It must be judged upon 'outcome success' as well as 'procedural success' and 'preventative success' (Brookman and Innes, 2013). It is hoped that the formation of a national policy will standardise and improve scene investigations; however, a national policy will achieve nothing unless its message is properly and efficiently trained to the front-line officers and supervisors.

8.3 Training

One of the most significant reasons cited for poor scene investigations from the focus groups was the lack of training given to front line officers who are the most likely to be deployed to sudden and unexpected deaths. This was supported by the findings of the case study. In some pockets of the country training was non-existent and in others at best patchy. It is fair to say therefore that training was reported as insufficient to equip those officers attending sudden and unexpected death to deal with the scene and make reasoned and informed decisions. Training therefore needs to be developed and given to all front line and supervisory police officers. This training needs to be standardised and consistent (Home Affairs Committee, 2016) in order that the quality of scene investigation is the same across England and Wales. Before a training package or learning descriptors can be developed, they must be based upon a standard and agreed national policy and also a standard operating procedure (SOP). The benefits of a SOP or *'check list'* is shown to improve performance in many professions as described in chapter 1 (Gwande, 2010; Kahneman, 2011; Meehl, 1954 and 1986). The importance of training to aid decision making is highlighted by Rossmo (2006) who identified the importance of study based training. Fahsing and Ask (2013) also identified that experience and training were the single most important safeguards against biasing influences which may affect decision making in the death investigation context. The specific issues which emerged during the research concerning the lack of training are summarised as follows:

Inexperience and lack of training of first attending police officer; the inexperience and lack of training of police officers was one of the most significant issues identified in interviews with coroners and police focus groups. There appeared to be a general acceptance that the training of new police joiners in death investigation is limited. There were pockets of good practice and some CSI's stated that they attend training sessions with police officers and teach them scene management. This was however a very mixed picture. The need to strengthen training provision echoes previous literature going back to Johnson (1969) who was critical of the lack of training in the 1960's. Rossmo (2006) describes the single most important measure to improve decision

making as the training of officers. It therefore appears entirely sensible that there should be a nationally approved training package delivered to all police attenders and refresher training, supplemented by a simple standard operating procedure (Meehl, 1954 and Gwande, 2010) which guides officers through the basic process.

The experience base of professionals was explored in chapter 2 and in particular Klein's (1993) 'Recognition Primed Decision Making (RPM)' was outlined. Experience enabled decision making by being able to allow clear assessment of the 'typicality' of the situation and act appropriately (Klein, 1993; Klein, 2008; Eyre and Alison, 2007, p. 215). In addition, those with experience made more correct decisions than those with less experience (Klein, 1993). See also Eyre and Alison (2007), Saunders (2001), Adhami *et al* (1996) and the Core Investigative Doctrine (ACPO, 2005b). Wright (2013) showed that skills, knowledge and experience influence the decision making of homicide detectives. Those with the greatest experience and knowledge base were better equipped to make intuitive decisions (Wright, 2013). Possibly more relevant to decision making at the scene of a sudden and unexpected death is the effect of 'framing' (Kahnamen, 2011), when the first attender is asked either *'do you want the body recovered from the scene by the undertaker?'* or *'what time do you want the body recovered by the undertaker?'* These two questions are addressing the same issue, but they are framed differently and under different pretences. The first, is framed in a more passive manner, leaving the decision to the officer, while the second implies that the body will be recovered from the scene by the undertaker which would not be the case necessarily in a suspicious death case. (A similar effect may be caused by 'priming' as discussed at chapter 2).

Inexperience and training of police supervisors; the inexperience and training of police supervisors was similar to that of first attending officers. In the context of critical incident management, Eyre and Alison (2007) found that less experienced managers do not possess a complex memory structure which contains a broad repertoire of typical situations from which to generate first and best options and are more likely to be prone to error. Saunders (2001, p226) also found that police officers did not rely on a formal decision making process, instead responded in ways that they had done in previous similar situations. The shortfall of this experiential learning model is that when dealing with a relatively rare event such as a homicide, the repertoire of responses is likely to be more limited (Adhami, Browne and Laycock, 1996). In respect of the supervision of first attending officers, Dror (2013) discussed the effect of 'base rate' on the cognitive mechanism whereby the human brain gets used to base rate regularities which adjusts cognitive attention and processing. In the context of this study, a supervisor effectively scrutinising a junior officer's

decision making by failing to objectively assess first decisions in favour of that presented on face value. A clear example of this was given at the senior officer focus group, where such base rate acceptance can affect the decisions of several layers of management. The supervisor can easily take on the hypothesis presented and through a process of confirmation bias, find evidence which supports that hypothesis to the exclusion of information that challenges that hypothesis (Brandl, 2009).

The lack of experience and training for police supervisors also referred to by Stelfox (2006), was postulated by CSI's to be in part because of the push for promotion speared on by a preference to recruit graduates who by definition hold expectations of early promotion, but have not been exposed to the operational setting long enough to equip them with the knowledge and experience to supervise sudden and unexpected death investigations. There appears to be no academic research which supports this view, but it poses an interesting subject for future research. With a few exceptions, such as the SIO program and the management of public order situations offered by the College of Policing, it would appear that the suite of available training given to police managers tends to be leadership and management focussed as there is an assumption that the operational aspects are already mastered. The reason for this is that there is an emphasis on maintaining professional ethics and standards as well as influencing the change of police culture which were key to the setting up of the College of Policing (Neyroud, 2011). To expect a nationally approved training package specifically aimed at death scene investigation to be delivered to police supervisors and managers in the light of the political agenda focussed on cultural change and ethical standards would be ambitious, but a standard operating procedure would be equally relevant to supervisors as it would to first attenders.

Quality of scene investigation; the two main areas concerning the scene investigation indicated by CSI's, HORFP's and coroners was the failure to preserve the scene and the failure to inspect the body for signs of trauma. The issue of reluctance to examine the body of the deceased was articulated by the CSI focus groups appeared commonplace (see Timmermans, 2006). This is possibly because of the lack of exposure that police officers have to the dead. It used to be standard for new probationer constables to attend PM's to familiarise themselves with dead bodies, but this is now seen as in bad taste and overly traumatic to new recruits. Failure to examine the body supports that which Johnson (1969) found and indicates that this is not a new phenomenon. Complaints regarding the practice of police officers attending PM's have led to it now being rare. Failing to preserve the scene again appears to come back to the issue of officer training. If the officer does not identify that the death may be suspicious, they will consider that

there is no scene to protect and therefore the question of investigative mind-set and keeping an open-mind (Tversky and Kahneman, 1981) is crucial. Failure to properly assess the scene can be as a result of time constraints, stress, ambiguity, emotion, fear of being criticised and organisational culture which can lead to 'premature closure' of the investigation and 'decision avoidance' (Eyre and Alison, 2007). 'Confirmation Bias' can also be a factor (Kersholt and Eikelboom, 2007; Brandl, 2009; Jones, 2014). This in turn can lead to 'case construction' or the opposite of 'case denial' where the investigation is led into 'premature closure' whereby an officer may rely on confirmatory evidence of an existing hypothesis (Sanders and Young, 2003) rather than objectively assessing all new evidence on its own merits.

Failure to conduct background intelligence checks; a general observation was made concerning the lack of background intelligence checks made when police officers attended sudden and unexpected deaths. The failure of police officers to conduct background intelligence checks when dealing with cases was evident from the case study. Such checks are essential as intelligence can alert the attending officer as to factors which may influence the extent of the investigation at the scene. It is important that both the attending officer and the call takers are alert to the need to conduct such checks, not only to inform of known threats to the deceased, but also for health and safety reasons such as dangers inherent at the location of the body.

The single most critical stage of the investigation into a death is the first 'golden' hour (Cook and Tattersall, 2010) where key decisions are made and actions put into train but these are down to the least experienced and trained officers. There are several examples of when training was shown to improve police performance in the past. The adoption of investigative interviewing (Clarke and Milne, 2001; Clarke and Milne, 2016) which has improved the quality and ethical standards in suspect interviews.

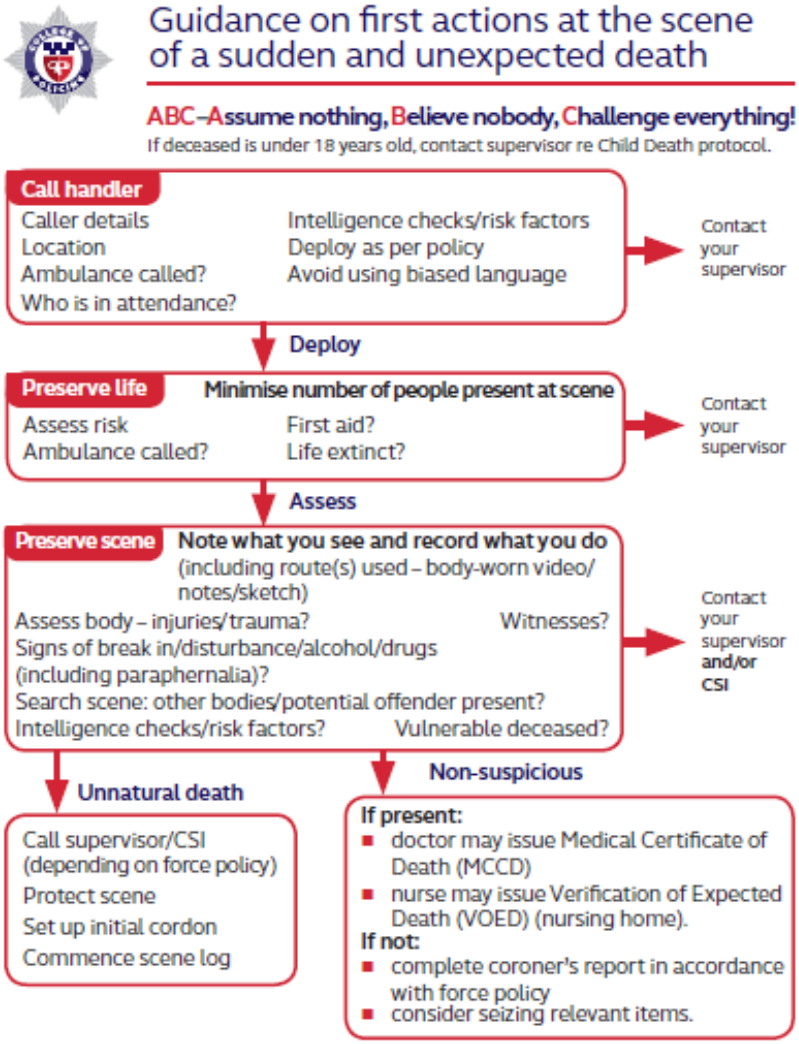
Before a training package can be developed, it is necessary to have something on which to base the training and so the first stage was to write the national policy and from that develop the SOP. The use of guides to take a decision maker through the process of dealing with such incidents as sudden and unexpected deaths is described within the literature at chapter 2, but the work of Meehl (1954; 1986) who argues that the use of a 'system' is superior to that of relying on experience. Algorithms may be more reliable in that they are not susceptible to the 'frailties of system 1 thinking' (Kahneman, 2011). From examination of a variety of professions, the use of 'check lists' prevents poor decision making by limiting the chances of making simple errors of judgement (Gawande; 2010). List however must be simple, with no more than nine items which Gawande (2010) claims is the maximum the average person can recall and reflect the language of

the relevant professional context. The use of such guides commonly referred to as a 'standard operating procedure' has been shown to be effective within police (for example Cook and Tattersall; 2010 and Jones *et al*; 2010).

It is the SOP which is the focus of training. At the focus group formed to review the draft policy written by the researcher, the issue of a SOP was addressed and much of the time was spent in discussing the requirement of such a document. The plea from uniformed officers was for simplicity and brevity. The overwhelming opinion was that a SOP should be contained on a one page document and be linear in form or consistent with a simple phone app. The draft SOP was developed from the discussion and sent to all attendees at the focus group. It was sent out for consultation and refined. The final draft can be seen at figure 37. It is intended that this will be widely distributed to police forces and will form the basis of a training package being developed by the College of Policing. One will note the inclusion of the 'ABC rule' described at chapter 2 (Cook and Tattersall, 2010).

One of the major issues which must be addressed with any measures to improve the investigation of sudden and unexpected death was the mind-set of police officers which attend and deal with these cases. This is a difficult area to address but one which figured significantly in the findings of the research.

Figure 37: Standard Operating Procedure; Guidance on first actions at the scene of a sudden and unexpected death.



8.4 Mind-set

The influence of factors which can affect the 'mind-set and thus decisions is well documented in the literature (see chapter 2). However, the seminal work of Kahneman (2011) and Dror (2013) in describing a number of biasing effects show that the mind set of police officers dealing with sudden and unexpected death are equally susceptible to external factors (see also Appendix 4). Heuristics can play a pivotal role in the outcome of these cases and no profession is exempt from the effects of bias, which includes 'framing' and 'priming' (Kahneman, 2011; Tversky and Kahneman, 1981; Schvaneveldt, 1971). The taxonomy of biasing factors is described by Dror, Thompson, Meissner, Kornfield, Krane, Saks and Risinger (2015) as 'Linear Sequential Unmasking', a hierarchy of biasing influences which decision makers should attempt to restrict access to as low a level as possible within the taxonomy to reduce the biasing affect.

The overriding issue which has emerged from the analysis of the 32 cases was that all the deceased in the suspicious category were vulnerable in some way. Whether that vulnerability was through alcohol or drugs, was medical through physical or mental illness, older adults or situational through domestic violence. The fact that vulnerability in all the suspicious cases was a factor bears some comment. The multi-dimensional scaling analysis demonstrated a close association of vulnerability with both the confirmed homicide cases and the suspicious cases as well as the 'grey' cases. The analysis also showed a large spacing between the vulnerability factors and non-suspicious cases tending to suggest that there is a closer association between vulnerability and the suspicious cases than the non-suspicious cases. The sample size is too small to make claims that the police are more likely to treat a death as non-suspicious if the deceased was already a vulnerable person, and most of the correlations between factors are not strong but in this study vulnerability seems to be a factor which may affect the way an attending police officer views the death. This supports the findings of Harvard (1960) and Johnson, (1969). The existing vulnerability being the cause of death is not an unreasonable conclusion for the attending officer to make, as although dead people tend to have a vulnerability prior to death which may expose them more readily to the risk of death, a pre-existing vulnerability may also be a reason assumptions are made by those investigating the death. It is suggested that vulnerability instead of being the most obvious cause of the death, should in fact be an indicator signalling suspicion contrary to the principle of just going with the more likely explanation (O'Connor and Robertson, 2005).

Timmermans (2006) describes that there appears to be positive assumptions about death amongst most people. People are basically good human beings and therefore they have the benefit of the doubt as to whether a death involves a third person unless the circumstances of the death reveal an obvious homicide. It is therefore unsurprising that attending police officers at the scenes of these deaths may start with the presumption that they are not dealing with a homicide. There is a clear indication therefore that dealing with sudden and unexpected death is ripe for biasing effects where suspicious circumstances are not expected or assumed as a starting place for the investigation. This was further explored during the focus group stage of the research.

Most sudden and unexpected deaths are quickly diagnosed as non-suspicious events and these tend to be people who are already ill in some way or that are under the care of either the health service or carers. These persons are probably considered to be the most vulnerable both in terms of their general standing in life and their life expectancy. As most deaths occur to this vulnerable group it is unsurprising that an estimated 75% of deaths are amongst cared for people

(Timmermans, 2006). People whose personal circumstances make them vulnerable may also make them the most likely to be the victims of homicide. Death by non-suspicious means is the most probable and the easiest explanation for a death. The attending doctor attends, issues a certificate and the disposal of the body, usually by cremation. The evidence of foul play is therefore lost forever.

There are several categories of vulnerable persons who it is argued are more susceptible to being victims of undiagnosed homicide. This includes people who die under medical care who may be subject to medical negligence or poor practice; people in the care of family or institutions through old age or medical and mental disability may be subject of abuse, assault and victimisation through potential gain from the inherited estate. Also, young children are totally dependent upon parents who can be inadequate carers, or subject to neglect or assault (Brookman and Nolan, 2006; Marks and Kumar, 1993; Vaughan and Kautt, 2009) albeit unintentional. Drugs users and addicts whether it be controlled substances, alcohol or 'legal highs' place themselves in self-induced vulnerability exposing the possibility of death. These groups share an increased likelihood of death due to their vulnerability, but also they all share the increased chance of their death being written off because of that same vulnerability, and homicides being missed.

A police officer attending a sudden and unexpected death is charged with investigating the circumstances of the death and identifying whether there may be third party involvement. The officer will be looking for any evidence to explain the death. The presence of a vulnerability will therefore be an explanatory factor in making a decision as to the cause of death. It is suggested that instead of a vulnerability being sought to explain the death, the mind-set of the officer should be such that the existence of a vulnerability should be a signal of suspicion. Rather than explaining the death, the vulnerability should be a reason to question the death. The maxim should be *'the higher the vulnerability of the deceased prior to death, the higher the index of suspicion'*. This is a big shift in the psyche and culture of the police service, which will not be easy to achieve. There are precedents for changing culture within the police service. The change of culture in the context of Investigative Interviewing (Clarke and Milne, 2001) regarding the purpose of the suspect interview from obtaining a confession to that of obtaining an account took many years and some may argue is still not fully embedded (Clarke and Milne, 2016). This change in the way a sudden and unexpected death is approached must be core to the training that police officers receive and must act as a signal for further inquiry.

It is not only police officers involved in the investigation of sudden and unexpected death. Other professionals have inputs into the decision making process and issues identified in their practice has also been identified within this research.

8.5 Other Professionals

Analysis was conducted as part of the case study to determine at what stage during the non-forensic PM process was it halted in favour of a forensic PM. Expectations were that most would not even commence due to the non-forensic pathologist conducting an external examination of the body and discovering injuries. In fact, this was the case in only 12% of the cases. In almost half the cases the non-forensic PM was halted after the commencement of dissection but as soon as the pathologist realised that there were issues which they were not happy with. Perhaps most surprising was that in almost 40% of cases it was not until a later date that the forensic PM was ordered by the coroner due in the main to further information coming to light, either because of medical evidence or the coroner's inquiry. In all but four cases forensic trace evidence on the body had been contaminated or lost due to the PM process and washing of the body. This is further evidence that even if the case is eventually identified as homicide, the consequences of identifying a suspect through forensic evidence are severely reduced as in the case of Una Crown and John Palmer as described in chapter 4.

The main 'other person' involved in the case study part of the research was the non-forensic pathologist. It must be stressed that in the 32 identified cases, there were examples where the 'back-stop' of the coroner's PM worked. The pathologist identified that the cases were not straightforward and brought this fact to the attention of the coroner. There is a question as to how many cases occur in England and Wales every day where due to the quality of the PM process (Furness, 2006), and the lack of training given to non-forensic histopathologists leads to a homicide being missed? It is not possible to estimate the numbers of missed homicides that occur in England and Wales each year from the data collected in this study. It is possible to highlight that due to the current system of pathology delivery in England and Wales the *risk* of missing homicides is high. This heightens the importance of the police investigation at the scene and one is drawn to making the link that if the police make a wrong call, the homicide is highly likely to be missed by the non-forensic pathologist (Furness, 2006; Leadbeatter, Lucas and Lowe, 2014; Rutty, 2006; Rutty and Bruno, 2016). The example stated in chapter 3 of a CSI describing multiple bodies eviscerated prior to the arrival of the pathologist who then conducts a superficial examination of organs is evidence of the dangers in reliance on the coroner's PM. The practice of mortuary staff

eviscerating the body prior to an external examination by the non-forensic pathologist is one which should cease (Leadbeatter, *et al*, 2014). The Human Tissue Authority conducts audits at licensed mortuaries and does discourage the practice, but some non-forensic pathologists may take the view that if they have to do the evisceration as well as the organ examination they will be dissuaded due to the small coroners fee payable. There is no incentive for coroners to insist that the practice of mortuary staff eviscerating the body no longer takes place through fear of losing what is now a limited resource with non-forensic pathologists increasingly unwilling to do coronial work (Hutton, 2015). The use of a non-forensic pathologist to undertake a PM poses a significant threat to the criminal justice system (Jones, 2014).

The current system of autopsy service provision compounds the problem (Hutton, 2015) in that the current two tiers of forensic and non-forensic pathology brings inconsistencies in what is a fragmented service. Hutton (2015) recommended a National Autopsy Service overseen by the Department of Health and run within the National Health Service. However, in the current financial climate such a service is unlikely to be funded. The real short fall is that no one ministry within the government 'owns' the problem of coronial non-forensic autopsy provision (Hutton, 2015). Consequently no one organisation with governmental oversight is responsible for the issues identified in this research (Hutton, 2015). The first step in ensuring that there is a good quality coronial PM service in the future is ownership by a government ministry as only then will there be the political will to address the issues of recruiting, training and quality control of coronial pathology provision through a national system, which encourages histopathologists and rewards them for their work with a reasonable fee structure.

Only the coroner can authorise a PM. Therefore, one might suggest that the coroner bears responsibility for all the cases which were suspicious and not treated as such. In reality however, the coroner acts only on the information he or she is fed by the police and so if the coroner is assured that the case is not suspicious, the coroner will usually take this at their word. There were three cases within the study where coroners questioned the police about their advice that the case was not suspicious. On all three cases the police assured the coroner and the coroner went with the police advice. Coroners were very quick to point out their reliance on the police for the decisions they have to make.

Another professional involved at death scenes other than those invited by the police is fire service personnel and in particular fire investigation experts in cases where death occurs due to fire or contaminants. Although it is accepted that fire personnel are highly professional and trained, it was expressed by the CSI focus groups that their advice can be flawed and no substitute for the

presence of a forensic fire scientist. In such cases where fire is the likely cause of death, it is recommended that a scientist is called to the scene and in every case a forensic PM takes place. The reason for having a forensic PM is the possibility that the fire was caused in order to destroy the body and therefore evidence that death occurred due to foul play.

A difficult area and one which police officers seem to misunderstand is the role of the police doctor, sometimes called a Force Medical Examiner (FME) when attending sudden and unexpected deaths. It is custom and perhaps for good reason, for FME's to be called to all sudden and unexpected deaths for the prime reason to certify that life is extinct. That is not to certify death at that stage due to the fact they cannot issue a MCCD if they have not satisfied the criteria for doctor certificated deaths (Furness *et al*, 2015). In many sudden and unexpected cases, the fact of death is obvious to even a non-medically trained person. Such cases include bodies found which are decapitated or in a state of decomposition. Police officers seem to insist on calling the FME 'in case they are not dead'. It appears that in cases where the officer is unsure that death has occurred, they should be calling an emergency ambulance as it could take over an hour for the FME to arrive at the scene. It is also evident from the case studies and from speaking to officers, that they seem to assume that the FME has forensic training which equips them to advise the police whether the death is suspicious or not. In fact, the FME will have no specialist training in forensics other than a general awareness of evidential contamination issues. The curriculum for FME training run by the College of Policing was examined and confirmation made that no scene forensic training is given or indeed appropriate. The training they receive equips them only for their main function to advise police of the suitability for questioning of arrested persons, and to obtain body fluid specimens under the Police and Criminal Evidence Act. In five of the suspicious cases within the study, the advice of the attending FME was unquestioned by the police and led to the wrong outcome. It is advised therefore that FME's should not be routinely requested to attend the scenes of sudden and unexpected death. The police should confirm death using emergency ambulance staff if indeed such confirmation is required in the first place. It is accepted that the FME can be a useful liaison doctor to doctor with the deceased general practitioner who may be able to issue a death certificate due to known illness, but beyond this, it is recommended that the FME is not involved in sudden and unexpected death investigations. One might consider that it would be desirable for FME's to be trained in forensic issues. However, the complexity of this together with the cost is prohibitive. The cost considerations in the current financial climate will always be a determining factor and was certainly raised in this research.

8.6 Financial Considerations

In making the assessment of each case within the case study and as described in chapter 3, the three categories of 'suspicious', 'grey' and 'non-suspicious' were arrived at due to a collaboration; the conjoining of the views of the researcher and a colleague with two operational SIO's. As part of the process, those cases where there was a divergence of view were discussed at some length and the main area of contention were those cases where the researcher considered to be suspicious but the SIO's stated that from the circumstances their opinion was that from a resource perspective, they would not consider them as such. This may demonstrate a differing perspective from a retired officer who has been outside the world of policing for several years, and operational detectives who have been forced to prioritise in the light of budgetary restrictions caused by the recession from 2008 to the present time. This may also be an indication that financial pressures will and have inevitably influenced all areas of policing, including the investigation of death. Financial considerations may have been a factor in not treating some of the cases in the case study as suspicious as these were determined as such by more senior officers, although most SIO's spoken to claimed that financial constraints were not a consideration in a death investigation. Cost however is unlikely to have been a factor in the cases where the officers at the scene made the decision that the case was not suspicious. They would not have an awareness of budgetary issues as the authority for the forensic PM in all forces comes from a senior officer. Clearly the HORFP's were unanimous in their view that police budgetary savings were a major factor in decision making as to whether to hold a forensic PM. Indeed, all other groups forming part of the research considered that budgetary considerations were a major factor except the SIO's who are at the end of the day the decision makers in respect of authorising forensic PM's and hold the budget to pay the major part of the pathologists' fee. It is perhaps unsurprising that the SIO's stated that budgets were not an issue, but they are in a difficult situation being required to ensure cases are properly investigated using forensic PM's but at the same time being required to stay within tight forensic budgets. The overwhelming view stated by SIO's was that death investigation was not an area to seek to save money due to the increased risk. There is some evidence in the cases analysed and certainly the perceptions of all other focus groups that money is a significant factor in decision making in some force areas. One can sympathise with police forces who are expected to save money due to cuts and it is therefore legitimate to look at savings in all spheres of police work. There is a difference in taking an informed decision as to whether to hold a forensic PM and taking a risk. It is recommended that the annual police force budget for forensic PM's is ring fenced to remove the risk factor of saving money in cases of human death investigation. During discussion with both the CSI's and the SIO

focus groups, the subject of a 'staged fee' system for PM's was raised whereby the HORFP would be paid a smaller figure if the case did not transpire to be a homicide. This was immediately dismissed as it could be seen to be an incentive, real or perceived, for cases to be deemed homicide due to financial gain and which the defence could use in their favour.

8.7 Other issues identified

One of the ancillary issues which very strongly emerged was the view of almost all the participants in focus groups other than the CSI's, that there are too many coroners non-forensic PM's in England and Wales. The reason for this was not subject of the research but when one compares the numbers of PM's in England and Wales, there are far more PM's as a percentage of mortality than any other western country (Hutton, 2015; Cooper *et al*, 2007). The reasons for this were postulated as being due to non-medically qualified coroners wanting the reassurance of a medical expert (Tait, 2010) and a risk averse mentality not wishing to miss identify a homicide case (Cooper *et al*, 2007; Tait, 2010; Luce, 2003; Smith, 2004). There appears to be more reliance upon the medical report from the pathologist than the scene investigation from the police (Carpenter and Tait, 2007), which could be because of a lack of confidence in the police investigation. Perversely, the fact of coroners wishing to ensure no homicides are missed could actually increase the risk due to base rate cognitive regularity leading to expectations that cases are non-suspicious (Dror, 2013). Too many PM's may lead to a mind-set that coroners PM's are never suspicious and the vast majority are routine non-suspicious deaths. In addition, in these cases, if the police have no concerns one can see that the non-forensic pathologist will not expect or be prepared to identify a potential homicide (Dror, 2013).

It emerged during the background research for the study that the statutory power of the coroner to take tissue at the PM had been omitted from the Coroners and Justice Act, 2009. In the previous legislation, there was a statutory power for coroners to take tissue at the PM for analysis for the purpose of the coronial inquiry into a death. The new act which came into force in July 2013, repealed all previous coronial legislation but no such power for coroners was included. Technically therefore there remains no statutory power for the coroner to take tissue to assist in the determination of the cause of death. The police rely on section 19 of the Police and Criminal Evidence Act 1984 for the power of seizure and so forensic cases are unaffected. Nevertheless, it appears to be a gross omission on the part of legislators to have missed the point that coronial power of seizure does not exist. This is especially so since the 1998 Human Rights Act whereby

powers exercised by the state are deemed to be permissive whereby any act not allowed by law is deemed to be unlawful.

It is worthy of mention that the purview of homicide has of recent years extended beyond that which was traditionally described as such. A good example of this is the relatively new concept of corporate manslaughter and the increasing instances of investigation of death where negligence and breach of care are considerations. Homicide is therefore broader than was hitherto the case. Historical reviews such as the Hillsborough Inquiry (Panel, 2012) are now interpreted in the light of both new evidence but also a differing legislative and social understanding of what is deemed to be an acceptable level of service by police and the authorities. The role of the forensic pathologist is therefore likely to increase to include these corporate and historical cases, if not at a PM, by a historical review of these types of cases.

New forms of homicide also include the increasing number of allegations against professionals such as doctors in respect of a whole range of issues such as assisted suicide, euthanasia, mistaken medical treatment, negligence and experimentation with new techniques. In the USA, it is estimated that 44 to 98 thousand people die of medical malpractice per year (Timmermans, 2006) and so the number of homicide investigations could increase. The role of the homicide investigator and the forensic pathologist is made more complex by such cases commencing with internal investigations within health care settings, self-regulation and lack of external scrutiny but also an assumption that if the death is in a medical setting the death must have been non-suspicious (Timmermans, 2006).

An interesting debate with the SIO focus group concentrated on the 'idiosyncratic' nature of some coroners. This was also commented on by Hutton (2015). This leads to a whole discussion beyond the scope of this thesis which is the role of the coroner. The role of the coroner as described by Knight (2008) is steeped in history (Palmer, 2012) for reasons connected with revenue collection and a system shared with many countries of the old British Empire. In the USA, there is a move away from appointing coroners towards medical examiners (Timmermans, 2006). Although, the American version of medical examiners is very different from the version that will operate in England and Wales (Furness 2012). The role could develop in North America creating a debate about the need for coroners in England and Wales, but coroners remain a very powerful group and so any real reform is not on the immediate horizon. It certainly appears that there could be more efficient systems of managing death investigations (Cooper *et al*, 2007; Berry and Heaton-Armstrong, 2005) in England and Wales. As independent judicial appointees, coroners are without any performance or regulatory oversight short of judicial review, but the individualistic nature of

their decision making is likely to prevail (Carpenter and Tait, 2010; Mclean, 2015). The coronial system's fitness for purpose in the twenty first century has been challenged repeatedly (Luce, 2003). The Constitutional Affairs Committee[38], when reviewing the draft bill that became the 2009 Coroners and Justice Act was similarly critical in 2006 and the act itself, it is argued, failed to ameliorate the shortfalls in the system. There remains some significant cause for concern regarding the current coronial system (Hutton, 2015).

In some parts of the country, especially the East Midlands area, it is commonplace for the police not to attend sudden and unexpected death. Several police forces have service level agreements in place with the ambulance service whereby paramedics called to the scene will make the assessment using a check list and if no pre-defined factors are found, the police are not involved. The paramedic will complete the coroner's report and leave the body for the undertaker to collect. This raises more issues regarding the process and training of police officers as of course any such training must include paramedic and ambulance crew in those police areas where this policy prevails.

There was debate amongst all the focus groups about the mind-set of the attending officer at scenes of sudden and unexpected death. The views differed between an 'open-mind' to that where suspicion should be assumed until proven otherwise. The consensus was that it should be the latter – assume the case is homicide until proven otherwise. The only group which tended albeit not unanimously, to prefer the attending officer to be open-minded as opposed to assuming homicide were the SIO's. They considered that if all cases were commenced as suspicious, it would cause a risk averse element in decision making and would present a drain on resources. The SIO view appears to be well founded. The appropriateness of treating all deaths as suspicious from the outset when there are grieving families and a sensitive supporting authority figure is needed appears to be disproportionate. The mind-set is paramount, but to go into a situation with a pre-determined starting position that the case is suspicious appears to be as flawed as going in with believing the case to be non-suspicious. To start with either mind-set appears as dangerous for the outcome as the other. It is therefore recommended that the starting point for an investigation into a sudden and unexpected death is one of an 'open-mind'. Although one might argue strongly that there is no such thing as an open-mind (Tversky and Kahneman, 1981) in the context of the investigation of sudden and unexpected death, the nearest we can

[38] Reform of the coronial system and death certification: Available at: http://www.publications.parliament.uk/pa/cm200506/cmselect/cmconst/902/902i.pdf

aspire to is reliance on a standard operating procedure and better training rather than a 'gut feeling'.

8.8 Answering the Research Question

This research set out to answer the following question; a*re decision makers at the scene of unexpected deaths utilising the services of Home Office Registered Forensic Pathologists appropriately, thereby reducing the possibility of missed homicides?* The sub questions were;

How are decisions about whether to undertake a forensic post-mortem made, and what are the key influences upon these?

Why aren't forensic post-mortems commissioned when they should be?

What are the implications for policy and practice that can be distilled from the findings?

This question is an important one; as Baca (2001) identified, the investigation into the death of a fellow human being is surely one of the most fundamental responsibilities and legal[39] responsibilities for the authorities to fully investigate. There can be no greater priority for the police, the criminal justice system and indeed society than to identify crimes of homicide and bring those responsible to justice.

This research was concerned with the initial scene investigation in a sudden and unexpected death and the quality of that investigation in identifying homicide cases. Without a high quality initial scene investigation, there may be no homicide investigation, and no justice for families and indeed exposing the public to further threat from killers potentially at large amongst the community. There is a dearth of research into the pre-homicide death investigation (Stelfox, 2006), which is left to junior officers or non-police, untrained individuals.

This thesis has demonstrated that there is significant evidence that the services of HORFP's are not being utilised in all cases appropriately. Whether 'appropriate' is deemed to be failing to use their services in cases where their expert medical opinion would have identified suspicious cases, but also where from the divergence of practice throughout forces in England and Wales, there could be over-use thereby expending public resources unnecessarily. The thesis is primarily concerned with the former, because the over use of forensic opinion in cases does not increase the risk of missed homicides and thereby miscarriages of justice. All three elements of the mixed method study indicated that there is a significant risk of missing to identify cases of suspicious death. The statistical analysis at chapter 5 shows inconsistencies in decision making between

[39] Criminal Procedures and Investigations Act 1996 and Human Rights Act 1998.

police forces whereby some under use of HORFP's heightening the risk, whereas some are indicative of over use. The case studies show clear evidence from real cases of flawed decision being made in almost half of the cases identified in the sample and the focus group interviews demonstrate clear differences in approach between police forces together with a lack of structure as to how decisions are made.

This research has demonstrated that 'how' decisions are made at the scenes of sudden and unexpected death are subject to a number of key influences which include the mind set of decision makers whether that be through the various biasing effects the human mind is subject to, including 'framing' and 'priming' as well as simple lack of training and a standard way of operating. These influences undoubtedly affect the decision made at the scenes of sudden and unexpected death and those flawed decisions are accountable for why HORFP's are not utilised when they should be. In addition, the more sinister and concerning influence of financial considerations were clearly evidenced by the focus group interviews.

The implications for policy and practice are therefore clear. The formation of a standard national policy with a simple but comprehensive standard operating procedure which overcomes the influence of bias in its many forms as well as removing the temptation of using death investigation as an area for financial savings is essential. The case also to introduce standardised and quality training for officers dealing with death scenes is also overwhelming. This thesis puts forward the case for these measures to be put into place immediately.

This research using the methodology described in chapter 3 is the first of its kind in respect of dealing with death and the factors which can affect decision making, in particular the biasing effects investigators are subject to. It therefore provides a unique insight into death investigation and adds to the body of knowledge not previously researched. If the investigation at the early stages is insufficient, poor or ill-considered, the possibility of missing a homicide will exist; if the wrong call is made, someone may get away with murder – a fatal call.

8.9 Limitations of the Research

As with much research, there will be limitations as to what can be claimed as being the truth and thus applicable to the wider world. It will always be the case that police forces fail to inform the Homicide Index of cases, and it will always be the case that pathology group practices fail to notify the Home Office of PM numbers. Therefore, the statistical data produced from official statistics are the best that are available.

The case study consisted of 33 original cases. Since the commencement of the research further instances where non-forensic PM's have been stopped in favour of forensic PM's have been identified. Up until the time of writing, a further 230 cases have been identified but not yet analysed. From this study, it is estimated that there are approximately 100 cases per year. Therefore 33 cases are a small sample and not necessarily representative of all the additional cases. If it were representative, taking the percentage of the 32 cases used in the case study, extrapolating this over 100 cases per year, this would reveal almost 50 cases of potential missed homicide per year where the police could have made erroneous decisions. This would also indicate amongst the 100 cases at least 30 confirmed homicides. No such claim is made however in this study, but these additional cases must be examined to see if the same issues prevail. It will be interesting to analyse these cases and to see whether with the training and the implementation of a national policy, the numbers of such cases reduce in time.

The main limitation with the case study element was the fact that it was not possible to interview the *actual* decision makers in each case. Doing so would have potentially revealed specific data in respect of each case and would have enhanced the intimate knowledge with those who were faced with decisions. Interviewing the actual decision makers could also have revealed a defensive response which could have clouded the real issues identified. It may be that the analysis of the additional 230 cases might include interviews with the actual decision makers. For this to happen, each of these additional cases might have to be sent back to the respective forces to review internally. However, the analysis of these additional cases is beyond the scope of this thesis. Another limitation of the case study was that the decisions on the part of the researcher as to what was a suspicious case and what was not was that of opinion. Although an independent verification process was used, another researcher using the same cases may form different views and thus altering the outcomes.

Focus groups will always have limitations as to whether participants say what they believe or think or whether they go along with the crowd. This research using this method is no different. However, the use of multiple focus groups using different participants for the CSI groups does go some way to mitigate the limitations and increasing the significance of the general themes which emerged.

8.10 Future Research

There are a number of areas which this research has identified which require further inquiry and already referred to within this thesis. One of these is *an in-depth analysis of those police forces which have a below average number of PM's to homicide to identify factors which have caused this.* The contrary is also an area of future research whereby *an in-depth analysis of those police forces which have an above average number of PM's to homicide to identify factors which have caused this.* Particular to the financial issues identified within this study were the effect on investigations and therefore research is required into *an analysis of the spending cuts within police forces on forensic budgets to establish the effect and the risk.* It is pointless in introducing a new initiative without properly evaluating whether it is working or whether it needs adjusting. Therefore, should the proposed national policy and standard operating procedure be implemented there should be a timely *review of the impact of the National Policy and Standard Operating Procedure on the quality of initial investigation of sudden and unexpected death.* Similarly, there should be a *review of the effectiveness of the new training given to front line officers and supervisors to assess whether it is appropriate to skill them in the management and supervision of dealing with operational decision making and especially death investigation cases.* Finally, *the additional 230 cases identified since the original 33 in the case study should be reviewed and reported upon and future such cases monitored to see if over time, the instances of cases being referred to a non-forensic pathologist inappropriately reduce.* This will provide perhaps the best barometer for assessing the effectiveness of the measures taken to improve the investigation of sudden and unexpected death.

8.11 Recommendations

Because there is no governmental oversight of non-forensic pathology services in England and Wales, the profession operates in a vacuum and as Hutton (2015) identified, it will continue to diminish, denying coroners with the ability to properly function. *The system of delivery of non-forensic pathology services in England and Wales therefore needs to come under the ambit of a Government Department with Ministerial responsibility.* Coupled with this, the government should consider the recommendations within the Hutton Report (Hutton, 2015) of *forming a National Autopsy Service and combining the two strands of forensic and non-forensic pathologists.* Only with a national service will there be proper oversight and strategic planning of the service for the future. The government through the Ministry of Justice *should review the omission of coronial powers from the Coroners and Justice Act 2009,* and seek to implement by legislation powers of

coroners to take tissue from the deceased to assist with their investigation into the cause of death in non-suspicious deaths. There is a convincing case that *the practice of mortuary staff eviscerating the body of the deceased prior to the visual inspection by the pathologist should cease.* This practice can have the effect of removing any possibility of identifying homicides and will certainly destroy trace evidence from the body prior to visual inspection by the non-forensic pathologist. In addition, the use of *untrained doctors and force medical officers should not routinely be deployed to scenes of sudden and unexpected death and should play no part in the investigation.* On the theme of attendance at scenes *in cases where fire or contaminants is a contributory cause of death which remains suspicious, a forensic scientist should be called to the scene instead of reliance on fire scene examiners.* In order to protect the current forensic budget from the temptation to reduce expenditure of police forces, *the annual forensic budget for forensic pathological examination of the dead in suspicious cases should be ring fenced by each police force in accordance with annual average calls for service.* Current police policy and practice advise on dealing with sudden and unexpected deaths should be reviewed and the *new policy identified as part of this thesis in the form of 'Practice Advise' at appendix 9 should be adopted by the National Police Chiefs' Council and the College of Policing and become national policy on how to deal with sudden and unexpected deaths.* Coupled with this practice advice *all police joiners and supervisors should receive training in how to deal and manage the scenes of sudden and unexpected death.* This training should be based upon a Standard Operating Procedure for dealing with such cases.

8.12 Final Comments

In conclusion, although the system of homicide investigation in England and Wales appears robust, well trained and embedded into policy, the investigation at the initial scene of a sudden and unexpected death is variable and will lead to the potential to miss a homicide. It cannot be estimated how many homicides are missed each year, but this study has shown that it is not unreasonable to assume that some will be missed and become 'perfect crimes'. By not dealing with the scene appropriately and making well informed unbiased decisions, the investigation is denied the expert opinion of a Home Office registered forensic pathologist and therefore increases the risk of missed homicide. The adoption of a national policy on how to deal with death cases, along with a standard operating procedure and good quality training to front line officers will hopefully improve the investigation by giving police officers the tools to make better judgements and decisions – to make a *fatal call* and stop people *getting away with murder*.

Appendices

Appendix 1: History of the Coroners System in England and Wales

The Coronial System: A Short History

The system of death investigation in England and Wales is complex and its origins based in history and commonly referred to as the 'coronial' system (Knight, 2008). The coronial system was established in England during the reign of Richard 1st (Knight, 2008). The word 'Coroner' was derived from the original title of 'Crowner' and their purpose was primarily the collection of revenue to support King Richard's conquests in the Holy Land. This was done by establishing an inquisition into the death of a person and recovering any assets due, but also enquiring as to the cause of death with a view of identifying cases of murder and in particular suicides. Suicide was an offence against god and therefore all assets of the deceased were taken by the state and became the property of the King (Knight, 2008, p. 3).

The origins of the ancient office of 'coroner' appears to be lost in time, but the standard textbook about the law and practice of coroners known as 'Jervis on Coroners', states at the beginning *'the office is of such great antiquity that it's commencement is not known'* (Jervis, 1829). The first known reference to the office of coroner was formally established in England by Article 20 of the 'Articles of Eyre' in September of 1194 to 'keep the pleas of the Crown' which effectively meant to investigate a criminal offence against the crown which included murder and suicide (Knight, 2008, p. 5). A description of the coroners duties at the time Edward I became King in 1272 was as follows:

> *"The office and power of a Coroner are also like those of a Sheriff, either judicial or ministerial, but principally judicial… and consists, first, in inquiring, when a person is slain or dies suddenly, or in prison, concerning the manner of his death. And this must be upon sight of the body; for if the body be not found, the coroner cannot sit. He must also sit at the very place where death happened, and the inquiry must be made by a jury from 4, 5, or 6 of the neighbouring towns over which he is to preside. If any be found guilty by this inquest of murder or other homicide, the coroner is to commit them to prison for further trial and must certify the whole of his inquisition, together with the evidence thereon, to the Court of King's Bench, or the next assizes."* (Blackstone, 1879, p. 347).

Due to the fact that the coroner could not try a person for a crime, the suspect would have to await the next time the 'assizes', or in other words, the judges and their court visited the

coroners jurisdiction. This was the periodic visit of the Kings judges or what would now be referred to as 'Circuit Judges' to visit that part of the country which was often a wait of many years. The job of the coroner was to record the facts of each case, examine the body and report this to the Judges, a process known at the time of 'keeping of the pleas' (Knight, 2008). The Latin for this term was *custos placitorum coronas* which is where the word 'crowner' and 'coroner' was derived. When a body was found, the person who was the 'first finder' was required by law to commence a 'Hue and Cry', which was the commencement of the search for the murderer. However, complex rules emerged and the coroner fined those who had not obeyed them, thus securing another source of revenue for the King. This led in many cases to people hiding, burying or even dragging bodies to another area in order that no fines were levied in the community where the body first lay (Knight, 2008). There was a requirement that all males over the age of 12 years had to come to the coroner and assist with the decision as to what had happened to cause the death. This was later amended to include nominees of communities and was the basis of the jury system we have now (Knight, 2008). Part of this process was to establish the ethnic origin of the deceased, or as was known as 'Presentment of Englishry'; or in Wales 'Presentment of Welshry'. This was to identify whether the victim was a Norman or Saxon. If the deceased was a Norman, the Saxon community had to pay a 'murdrum' fine. Clearly the word 'murder' is linguistically derived from this expression (Knight, 2008).

By the 1700's coroners were severely underpaid; they were not required to be medically or legally qualified and received no additional fee for conducting an inquest unless the case was a murder where a conviction was secured. Only on conviction was a coroner entitled to a proportion of the convicted persons goods and chattels. This system naturally encouraged corruption and neglect. Many murders were never investigated at all (Forbes, 1978). However, from 1738, a fee was payable to coroners for an inquest 'Duly Held' but an inquest was not considered duly held unless there were obvious signs of violence. The medieval system of death investigation invited the concealment of murder (Harvard, 1960 p. 38) but it was not until 1836 that coroners were permitted to pay for a medical opinion as to the cause of death (Knight, 2008). However, the costs of autopsy and the inquest was from the coroners own pocket for which he had to request reimbursement (Harvard, 1960). The reimbursement process required the coroner to provide evidence of his expense under oath. Justices were reluctant to award reimbursement in cases other than homicide and so there was a built-in motivation for cases to be disguised as murder. Child homicide was commonplace due to the poverty of the time and burial clubs emerged which further encouraged the murder of children by parents with the favourite method of child killing at

the time was laudanum and other opiate preparations. There was little risk of detection (Forbes, 1978).

In 1860, the County Coroners Act placed coroners on a salary and the number of inquests and counts of murder at the behest of coroners increased significantly. In 1874, medical practitioners became legally obliged to fill out a death certificate if they attended a patient at their last illness. The call for coroners to be suitably qualified either in law or medicine was championed by Thomas Wakely, who was the first medically trained coroner for London in 1839 (Forbes, 1985). The responsibility of collecting revenue for the King ceased in the 12th century, but little changed in the role until the middle of the 19th century when it became almost exclusively concerned with the investigation of the cause of death.

The primary role of a coroner in modern times therefore, is to enquire into the death of a human being within their jurisdiction. Their role was directed by several statutes and rules but has now been consolidated into current legislation under the Coroners and Justice Act 2009. Section 1 of the Act defines the primary role of the coroner to investigate a death where the body lies within their jurisdiction if:

a) The deceased died a violent or unnatural death,

b) The cause of death is unknown, or

c) The deceased died while in custody or otherwise in state detention.

In practical terms, this is any death where a medical practitioner cannot issue a Medical Certificate of Cause of Death (MCCD).

The purpose of the coronial investigation is to establish who the deceased was, how, when and where the deceased came by his or her death, and the particulars (if any) required to register the death (Fairbairn, 2014). The detailed guidance as to the role of the coroner is set out in the 'Guide to Coroners Services' (MoJ, 2014a).

Coroners are independent judicial appointees and are paid and funded by local authorities. Their governmental oversight lays with the Ministry of Justice and since July 2013, all newly appointed coroners must be legally qualified. This new requirement may be counterproductive as it may lead to unnecessary autopsies being ordered by legally qualified coroners, nervous about calling the cause of death because they are not knowledgeable about medical issues (Carpenter and Tait, 2010, p. 207). Carpenter and Tait (2010) claim there is an over reliance on the medical reports from the pathologist rather than the scene report outlining the circumstances of the death, resulting is more focus on the science rather than the investigation. This is due to the perceived

superiority of the 'scientific' medical evidence verses what is seen as less scientific circumstantial and physical evidence from the police investigation at the scene (Carpenter and Tait, 2007, p. 209-10).

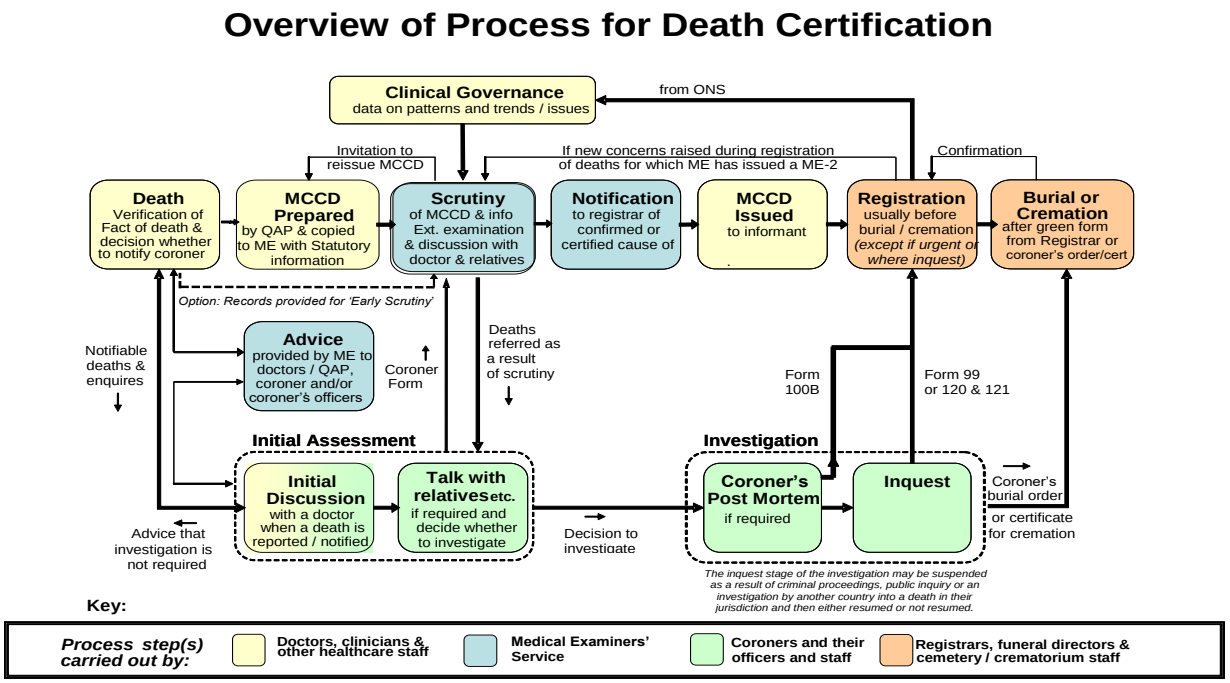
This over reliance on autopsy demonstrates a risk averse approach which is driven partly by a fear of missing homicides. If the coroner makes the call without the PM, and it is wrong, it is the coroners fault. If a post mortem is conducted and the outcome is wrong, it is the pathologists fault (Carpenter and Tail, 2010, p. 214). The existence of this risk averse attitude of coroners is supported by Luce, (2003, p. 70) and Smith (2004, p. 284). Over reliance on the medical cause of deaths can lead to less consideration as to *why* the death occurred, which the medical evidence cannot reveal (Carpenter and Tait, 2010, p. 216).

The 2009 Coroners and Justice Act created the post of 'Chief Coroner' whose main responsibility is to provide support, leadership and guidance for coroners in England and Wales. The 2009 Act also introduced the concept of Medical Examiners. This was due to recommendations of Dame Janet Smith in the 2003 public enquiry which took place following the conviction of Dr Harrold Shipman for murdering what is estimated to be at least 215 of his patients dating back to the 1970's (Smith, 2003). The necessity for Medical Examiners was reinforced by the Francis Inquiry into Mid Staffordshire Foundation Trust (Francis, 2010) and the Kirkup Inquiry into the Morecambe Bay disaster (Kirkup, 2015). It was recognised that the quality of the MCCD reports completed by doctors was flawed (Fernando and Nottingham, 2012; James and Bull, 1996; Roulson, Benbow and Hasleton, 2005; Slater, 1993 and Swift and West, 2002). The Medical Examiners system, unlike the system of the same name in other jurisdictions[40], will not replace coroners, but acts as an oversight second opinion for all deaths except those which are deemed to be suspicious from the outset. It is still unclear how Medical Examiners when appointed will interact with coroners but speculation was made by the interim National Medical Examiner, Professor Peter Furness for which the title of his lecture to the Medico-legal Society in 2012 sums up the possibilities; 'Mutualism, Commensalism or Parasitism?' (Furness, 2012). The system of Medical Examiners has been piloted in various parts of the country and a review of these pilot studies found that the quality of death certification by doctors improved, there was more consistency of reporting to coroners where a doctor could not issue a certificate and a better liaison with next of kin. In one pilot area, the medical examiner altered the MCCD in 83% of cases and in another site 33% required 'major changes' (Furness, Fletcher, Shepherd, Bell, Shale and Griffin, 2015, p. 11). Figure 1.1 appears complex but in fact the medical examiners system will improve the quality of death

[40] Medical examiners in the USA take on a dual role of pathologist and decision maker replacing the coroner.

investigation and assist to reduce the potential for missed homicide and will take place prior to registration of the death.

Figure 1.1: Medical Examiners system.



Abbreviations & Notes: QAP = Qualified attending practitioner. ME = Medical examiner. Statutory information required with the copy of the MCCD may be documented in records. External examination may be delegated in certain conditions. The Coroner Form is issued by a coroner for deaths that have been reported, notified or referred, but do not need to be investigated.

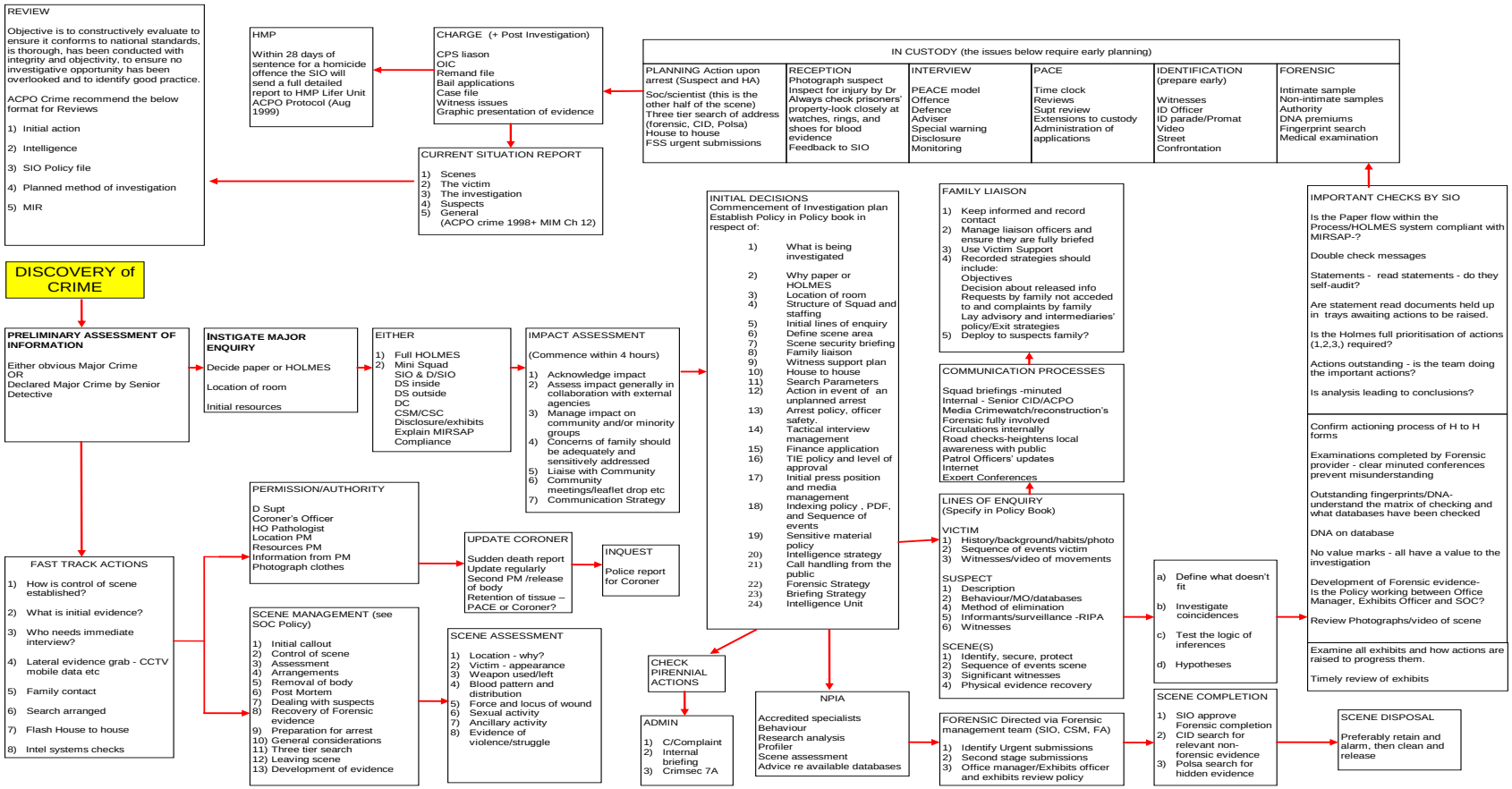
The reason that the coroner is an important figure in the potential for homicides to be missed, is because of their gate keeping and decision making role in death investigations which are not certified by an attending doctor. Because only the coroner can authorise a post mortem examination under Section 14.1 of the Coroners and Justice Act (2009), any erroneous decision leading to a missed homicide may be shared between the police and the coroner. However, the coroner does rely on the police report and opinion in making directions as part of their investigation. If the police investigation at the scene is inadequate, the decision making thereafter may be flawed (Carpenter and Tait, 2010, p. 206). There are political influences which can shape the decisions of professional death investigators, especially when suicide is suspected where there is great pressure to reclassify for the sake of grieving relatives (Timmermans, 2006, p. 75). Another area of external influence relates to terminally ill people where the euthanasia debate is often encountered. It can therefore be seen that there are outside influences to decision making other than the actual evidence from the scene and at autopsy. There are also social issues which can affect an investigation into a death such as a reluctance of some police officers to examine a

dead body or do not know what to look for (Timmermans, 2006 p. 41). There may be objections to the invasive post mortem process on ethical or religious grounds (Hutton, 2015).

There have been a number of academic studies in relation to shortcomings in the current coronial system, none of which have been 'fixed' by the 2009 Coroners and Justice Act, which introduced largely cosmetic changes and has been viewed by many within the system as a missed opportunity (Cooper, Leigh, Lucas and Martin, 2007). The deaths caused by Dr Harold Shipman, the Marchioness disaster and the Alder Hay tissue scandal all highlight that the system is not water tight (Berry and Heaton-Armstrong, 2005). Although there have been several reviews dating back to 1920, there has been no significant change in a system which is embedded in history (Palmer, 2012, p. 64).

Whatever the shortfalls of the coroner system, the main reason for the coronial investigation is to identify suspicious deaths where third party involvement is suspected, in other words 'homicide'. If the coroner's inquest cannot identify a cause of death, the jury will normally return what is termed and 'open verdict' – this means that the cause of death cannot be established and doubt remains as to how the deceased came to their death. There were over 1700 open verdicts in England and Wales (MoJ, 2016, p. 23) and although the majority tend to be possible but unproven suicides, this is the arena where unidentified homicides are most likely to be found.

Appendix 2: Murder Investigation Process (ACPO, 2000)



Appendix 3: History and Development of Forensic Pathology in England and Wales

History and Development of Forensic Pathology

in England and Wales

Background and definition

Forensic Pathology is perhaps the most significant profession within the generic title of forensic medicine. All forensic pathologists in England and Wales must be medically qualified and registered with the General Medical Council. Forensic pathologists have a background in science as well as medicine and their discipline brings together the three areas of medicine, science and the law. Forensic physicians ('police surgeons') as well as other medical professionals such as histopathologists who deal with the microscopic examination of tissue, neuropathologists (disorders of the brain) and paediatric pathologists (disorders of infants and children) may also work within the criminal justice system.

Pathology has origins in the ancient Greek word 'Pathos' which means *'suffering'* and 'Ology' which translates to mean *'science or other knowledge'*. 'Forensic' is defined in the Oxford English Dictionary as *'Relating to or denoting* the *application of scientific methods and techniques to the investigation of crime'.*

The British Association in Forensic Medicine which is the professional association for forensic pathologists in the United Kingdom and Ireland define forensic pathology thus;

> *Forensic pathology is that branch of medicine which provides the investigation and interpretation of disease and injury for courts of law — the use of primarily pathological knowledge in criminal investigations and other enquiries, particularly in establishing the cause of injuries or death.* BAFM from http://www.bafm.org/#!about/c240r

Sir Sidney Smith the famous Professor of Forensic Medicine at the University of Edinburgh defined Forensic Medicine *'...as consisting essentially of that body of medical and paramedical scientific knowledge which may be used for the purposes of administration of the law'* (Smith, 1951).

Alfred Swaine Taylor defines medical jurisprudence as *'that science which teaches the application of every branch of medical knowledge to the purpose of the law'* (Madea and Argo, 2014). However perhaps the most succinct definition is from Schmidtmann (1905) as '*forensic medicine is*

a cross sectional discipline of medicine and natural sciences dealing with all medical evidence that is relevant for law'.

Origins of forensic medicine

Forensic Pathology probably originated from the first time that civilianisation was reached with, on one hand a recognisable legal system, and the other an integrated body of medical knowledge and opinion (Madea and Argo, 2014). However, the earliest records of the two coming together probably date back some five thousand years, when early records began.

The ancient Egyptians were probably the earliest known exponents of medicine as depicted in Papyri. From these it can be seen that there was a system of law and a body of medical knowledge as early as 2500 B.C.

Possibly the first medico-legal 'expert' may have been Imhotep who was the Grand Vizier, Chief Justice and Physician to King Zozer. He was also the architect of the first Great Pyramid at Sakkara. There is evidence that bodies were medically examined to identify the cause of death, and an extensive knowledge of toxicology was apparent (Smith, 1951). Imhotep is argued by some historians to be the same person as the Bible describes to be Joseph, son of Abraham (Sweeney, 2001).

The ancient Greeks added significantly to the body of scientific medical knowledge largely due to Hippocrates (460-377 BC), and driven by such issues as would have been of concern to the courts of the time, such as the viability of children born before full term pregnancy and culpability in terminating life in both the born and unborn child. Hippocrates was an ancient Greek physician, and regarded as the 'Father of Medicine.' He is thought to have written a collection of treatises, which were organised into a single work called the Corpus Hippocraticum. This is believed to be the oldest surviving medical book. It describes dissections of animals, the results of which permitted analogies to the human body to be drawn. In his attempt to describe the human body, Hippocratic's made use of external observation only as autopsies at this time were not permitted as the body of the deceased was regarded as sacred.

A Greek physician, Herophilus of Chalcedon (335-280 BC) is regarded as the first physician to do autopsies on a regular basis, performing some of them in public,

One early documented medico-legal opinion of death was the assassination of Julius Caesar in 44 B.C. when a physician gave a view that of the 23 wounds inflicted by the assassins, only one which

penetrated the chest was of a fatal nature. Another such case was that of Germanicus who died in the year A.D. 19 where medical opinion differed, one side claimed that he was poisoned whist the other contended that he had died of heart failure.

The Byzantine post Roman era brought the Justinian enactments between A.D. 529 and A.D. 564. These were known as the 'Justinian Codes' and provided for *inter alia* the regulation of the practice of medicine; surgery; midwifery; proof and competence by way of medical examinations; classes of physicians that were to be recognised; limitations on the number allowed to practice in each town and penalties for medical malpractice. This was the first known time that the medical profession was regulated with recognised standards and competency. These laws created the principle still relevant in the UK today of '*Medici non sunt proprie testes, sed majus est judicium quam testimonium'.* This translates to mean that the medical expert is not affiliated to either side but there to assist the court by impartial interpretation and opinion. (Smith, 1951; Madea and Argo, 2014).

In the thousand years following the demise of the Roman Empire, there appears to have been no real development in forensic medicine or any development in medicine generally or in scientific thought throughout the western world. Indeed, this period saw the religiously motivated legal resolution of 'crimes' by widespread use of torture and trial by ordeal.

Later development-European and Eastern Asia

In Italy during the 12th century, physicians were used to determine medical issues for the courts and in the case of murder, three experts were sent to examine the body to determine the cause of death and the type of instrument used to inflict the injuries; a physician, an apothecary and a surgeon (Madea and Argo, 2014).

Town charters were issued for Italian Towns between the 11th and 13th century which determined that two experts, generally a physician and a surgeon were responsible for post mortem examinations.

In Bologna, the town charter directed that a medical expert must be at least 40 years of age and a citizen for at least 10 years. This seems to be the earliest formal process in the medical investigation of death (Madea and Argo, 2014).

In the first half of the 13th century, a volume was produced in China which documented the procedure to be followed in the investigation of death. This was called *'Hsi Yuan Lu'* which meant the 'washing away of wrongs' and translated by Prof H A Giles (1905). This text has been updated several times over the ages but it is understood that it remains a comprehensive medico-legal set of instructions for the determination of the causes of death, including signs of violence. It is unclear as to whether the early manuscripts are a true reflection of modern interpretations, however it is clear that the ancient Chinese were far more advanced in the medical determination of death than other cultures. The translation by Giles quotes:

> *'A forensic medical doctor must be serious, conscientious, and highly responsible, and must also personally examine each dead body or that of a wounded person. The particulars of each case must be recorded in the doctor's own handwriting. No one else is allowed to write his autopsy report. A coroner must not avoid performing an autopsy because he detests the stench of corpse. A coroner must refrain from sitting comfortably behind a curtain of incense that mask the stench, let his subordinates do the autopsy unsupervised, or allow a petty official to write the autopsy report, leaving all the inaccuracies unchecked and uncorrected."* In addition, he also wrote: *"Should there be an inaccuracy in an autopsy report, injustice would remain with the deceased as well as the living. A wrongful death sentence without justice may claim one or more additional lives, which would in turn result in feuds and revenges, prolonging the tragedy. In order to avoid any miscarriage of justice, the coroner must immediately examine the case personally.'*

In Europe, the first state to introduce a systematic penal code was probably Germany. In 1507 the Bishop of Bamberg introduced the 'Bamberger Code' and pronounced that the code was to be followed within the early Germanic Empire. It directed that medical testimony must be obtained for the guidance of judges in cases of murder, wounding, poisoning, hanging, drowning, infanticide, abortion and all cases involving injury. (Smith, 1951. p 602).

The first course at a University Centre in Forensic Medicine was taught at the University of Lepzig in 1642 but in the 17th and 18th centuries it was mainly within German Universities that development of forensic medicine took place, followed by France and Italy where forensic medicine developed along with the foundation of Universities with medical faculties. Bertrand Ludes (2008) claims that modern forensic medicine was born with the creation of three new Faculties of Medicine in Paris, Strasbourg and Montpellier after the French Revolution.

Development of Forensic Pathology in Britain

In the United Kingdom, the development of forensic medicine lagged behind that of France and Germany. The reason for this may be because there was a reluctance to put technical evidence to a jury who it was thought might not understand it. On the continent of Europe which generally operated a different legal system, judges were vested with the investigation under the inquisitorial system and were in a better position to make use of the expert opinion (Madea and Argo, 2014).

By the end of the 18th century, Scotland lead the way in the UK by establishing professorships in forensic pathology at Edinburgh and Glasgow Universities and by 1837, no less than 37 British medical schools provided courses in forensic medicine. The subject was made obligatory for each medical school in 1836. The first known English language book on legal medicine was published in 1787 by Samuel Farr. It was entitled 'Elements of Jurisprudence'. In 1789, Professor Andrew Duncan of the University of Edinburgh gave the first lectures in an English-speaking University on legal medicine. His son, Andrew Duncan jnr. was appointed to the first Regius (appointed by the Crown) chair in Forensic Medicine at the University of Edinburgh in 1807. In 1857, a chair of Medical Logic and Medical Jurisprudence was established at the University of Aberdeen in Scotland. Francis Ogston, who had been lecturing on Medical Jurisprudence since 1839, was appointed to the chair. He was the author of 'Lectures on Medical Jurisprudence' published in 1878.

The most prominent early name in forensic medicine was that of Alfred Swaine Taylor who was appointed as the first Professor of Medical Jurisprudence at Guy's Hospital and St Thomas' Medical School in 1834. He was the author of "Principles and Practice of Medical Jurisprudence," which was published in 1865. This textbook was considered the standard of its time and remained so for years through continued revisions.

The most famous forensic pathologist in the UK was Sir Bernard Spilsbury. Born in 1877, he received acclaim for many cases and the strong way in which he delivered his expert evidence to the courts. In October 1905, he was appointed resident assistant pathologist at St Mary's Hospital when the London County Council requested all general hospitals in its area to appoint two qualified pathologists to perform autopsies following sudden deaths.

His first case which made him into a household name as the 'Great Pathologist' was the case of Hawley Harvey Crippen also known as Dr Crippen. He was accused of the murder of his wife Cora Crippen in January 1910. Crippen was convicted of the murder in October 1910 and later hanged largely on the evidence of Spilsbury who had testified to the court that a piece of abdominal skin

recovered from their home in Camden Road, London was that of Cora's, and identified due to a scar. Another of his many cases was the infamous Brides in the Bath case when three women had died mysteriously in their baths; in each case the death appeared to be an accident. George Joseph Smith was the suspect in all three murders and was brought to trial for the murder of one of them, Bessie Mundy and later hanged on conviction. Spilsbury testified that since Mundy's thigh showed evidence of goose skin, and since she was, in death, clutching a bar of soap, it was certain that she had died a violent death. This was the first time that the death of two other women in similar circumstances was used as 'similar fact' evidence in English law.

Spilsbury was the pathologist in the Brighton trunk murder cases. Although the man accused of the second murder, Tony Mancini, was acquitted, he confessed to the killing just before his own death, many years later, and vindicating Spilsbury's evidence. Spilsbury also played a crucial role in the development of Operation *Mincemeat*, a deception operation involving the planted body in Spain of a servicemen with fictitious details of an allied invasion in Southern Europe, thereby deceiving the enemy during World War II which saved thousands of lives of allied service personnel (Macintyre, 2010)

His cases were documented in the book 'Bernard Spilsbury, Famous Murder Cases of the Great Pathologist' (Browne and Tullett, 1982), although there are many other texts on Spilsbury and his cases.

The Home Office historical register of forensic pathologists lists Spilsbury as the first Home Office Pathologist, although it believed that there were several before him but not documented on the register. Spilsbury gained much of his experience from three of his colleagues at St Mary's hospital and who are believed to be the founder members of modern forensic medicine; Dr A. P. Luff; Dr William Willcox and Dr A.J. Pepper.

In order to properly investigate murders, the police required expert medical advice and to this end, Spilsbury was paid a retainer by the Home Office to assist with scene visits and conducting the autopsies in murder investigations not just in London, but also the rest of England and Wales. The fee varied from case to case but he received £100 per year retainer for upkeep of his laboratory. The coroner’s fee at that time was 2 guineas but Spilsbury averaged an annual salary of around £3000.

In later years, Spilbury's dogmatic manner and his '*unbending belief in his own infallibility*' (Goldsmith, 2007) gave rise to criticism. Concern was expressed about his invincibility and unwillingness to alter his opinion in court and it is now clear that his dogma lead to miscarriages

of justice. Many of his cases were exposed in a book by Andrew Rose called 'Lethal Witness' (Rose, 2007). He found that Spilsbury would come to conclusions regarding a case and would resist a change of opinion, even in the face of contrary evidence. However, he was such a respected and charismatic character that few judges challenged him. Lord Goldsmith, the then Attorney General gave a speech to the Academy of Expert Witnesses on 25th January 2007 entitled *'Expert Evidence - the Problem or the Solution?'* when he referred to the Spilsbury cases;

"One particular issue was whether we should accord to experts the deference that in the past we had. There is nothing new in this. Some will remember, at least by account, Sir Bernard Spilsbury, who acted in the case of Dr Crippen, the Brides in the Bath Murders and the Brighton Trunk murders, amongst many very famous cases. Juries were in awe of him and he was considered invincible in court. Yet, even in the later years of his life (he died in 1947) judges began to express concern about this. His dogmatic manner and unbending belief in his own infallibility gave rise to criticism and some research has indicated that his inflexibility led to miscarriages of justice." (Goldsmith, 2007).

Burney and Pemberton (2010) commented how Spilsbury's performances in the mortuary and the courtroom *'threatened to undermine the foundations of forensic pathology as a modern and objective specialism'.* Their criticism centres around his insistence on working alone, his refusal to train students, and an unwillingness to engage in academic research or peer review. These features today are recognised to be detrimental in medical practice. This they claim, '*lent him an aura of infallibility that for many raised concerns that it was his celebrity rather than his science that persuaded juries to credit his evidence over all others'.* Spilsbury held himself in such high esteem that he is reputed to have once said *'I have never claimed to be God—but merely his locum on his weekends off'* (Dalrymple, 2010).

Dr David Foran and a team of researchers at the Michigan State University re-examined Spilsbury's slides taken from the remains found beneath the cellar floor in Crippen's home and concluded that they were not those of Cora Crippen. Writing in the Journal of Forensic Sciences, he quotes;

> *'In this study, genealogical research was used to locate maternal relatives of Cora Crippen, and their mitochondrial haplotypes were determined. Next, one of the pathology slides of the scar was obtained, DNA was isolated, and the haplotype was determined. That process was then repeated. Finally, both DNA isolates were assayed*

> *for repetitive elements on autosomes and repetitive elements specific to the Y chromosome. Based on the genealogical and mitochondrial DNA research, the tissue on the pathology slide used to convict Dr. Crippen was not that of Cora Crippen. Moreover, that tissue was male in origin'.* (Foren *et al*, 2011).

Sir Sydney Smith, another great contemporary and forensic pathologist of the time described Spilsbury as *'very brilliant, and very famous but fallible and very obstinate'.* He later also commented *'One might almost hope that there will never be another Spilsbury'.*

Spilsbury committed suicide in at his laboratory 1947 having been for some time in a depressed state as well as in poor health.

Development of training and structure

A significant development in the training of doctors occurred in 1933 when forensic training became obligatory in the medical curriculum. This ensured that there was a degree of knowledge amongst all doctors and provided a sound base on which qualified doctors could consider a career in forensic medicine if they decided to specialise.

The term 'Home Office List' (of Forensic Pathologists) was first introduced in 1944 and included only those who practiced for police forces outside of London. They were given a choice of either a retaining fee or a case fee payable by the respective police force (Home Office, 1989). Each pathologist was attached to a laboratory of the Forensic Science Service (FSS).

More famous pathologists succeeded Spilsbury in the post war years. Professor Keith Simpson of Guy's Hospital and Professor Francis Camps of the London University hospital, both holding the position of 'Home Office Pathologists'.

Simpson in 1950, along with Francis Camps and Donald Teare, also a Home Office pathologist formed the Association of Forensic Medicine which was later to become the British Association in Forensic Medicine (BAFM). Professor Sydney Smith of Aberdeen University, was asked to be the first president of the Association.

Simpson authored his biography in 1978 'Forty Years of Murder' (Simpson, 1978) in which he documents some of the many famous cases in which he was involved. These include the 1949 Acid Bath Murders committed by John George Haigh and the murder of gangster George Cornell,

who was shot dead by Ronnie Kray in 1966. A plaque to his memory was erected outside his Simpson's London home in 2012 by the Royal college of Pathologists.

Francis Camps of the same era also dealt with many famous cases including the 1953 exhumation of Beryl Evans after John Christie confessed to her murder and when many other bodies were identified at 10 Rillington Place. He reported on numerous deaths from carbon monoxide poisoning, which had accounted for nearly half of all suicides in Britain in the 1950s when coal gas was widely available in many homes until in the 1960s when it was progressively replaced by the less toxic natural gas: the suicide rate in Britain fell by almost a third and has not risen since. Camps also had a biography written about his cases and in it he claims to have conducted over eighty-eight thousand post mortems (Jackson, 1975)[41].

One pathologist who served in London with Camps time in the late 50's and early 60's describes him *'with fag in his mouth, did 40 PMs a day. He never saw many of the bodies he conducted PMs on. The mortuary staff eviscerated the body and he just examined the organs!'* This pathologist describes that he did not get paid anything for PM's at that time, *'the police called you out and the University got the coroner's fee'*. He describes much professional jealousy existing between the pathologists at the time, especially between Camps and Simpson and *'it was fairly well known in fact that they hated each other'.*

A retired pathologist also working in London recalls what remains the worse train disaster in British history, the Harrow and Wealdstone Railway crash in 1952. In all, 122 passengers and crew perished when a London-bound express train from Perth ploughed into the back of the 0731 Tring-Euston commuter train as it was about to leave Harrow and Wealdstone station on the London Midland region line. Seconds later, a third train coming from Euston crashed into the wreckage. He recalls how he was having dinner with Camps at the time when Francis Camps was summonsed to attend the mortuary. The bodies were piled up outside. Camps had his secretary 'Stella' take notes whilst Camps performed a perfunctory PM on each one. He had completed all the PM's by the following morning. He was insistent that he did not require any assistance and claimed afterwards that his fee would pay off his tax bill.

However, by the time of the Lewisham Train Disaster in 1957, the authorities had learnt from their mistakes in dealing with large scale fatalities and one of the pathologists serving at the time describes the way in which the victims were managed and the mortuary run due to the efforts of the police and the coroner. Another retired pathologist who worked with Camps described that

[41] It is interesting to note that the claim of 88000 post mortems assuming a career of 40 years equates to mean average of 6 post mortems per day working every day in that 40 years without a day off.

he never took notes and would stay awake by using amphetamine. However, this appears to have been commonplace at the time amongst the pathologists as well as many other professionals. It was not a controlled drug in those days. He recalls that Camps always use to *say "crime does not pay. At least it does not pay the pathologist!"*

Another retired trainee of Camps describes leaving the police force as a medical practitioner and wanted to be a forensic pathologist. He did so without any specialist qualification and was employed by Camps on the spot. He indicated that the courts tended to accept the evidence a pathologist *'pretty much without question unlike these days'.* Describing what it was like serving as a forensic pathologist in London in the early 60's he recalled that it was extremely busy. To his knowledge, no less than seven forensic pathologists had committed suicide during his career, including Spilsbury.

Home Office Register

In the 1950's, forensic pathology services were delivered by 10 specialists in London together with about 30 other pathologists who covered the rest of England and Wales. Those outside London were all associated with a branch of the then Forensic Science Service which had been set up in 1935/6. They were not employed by the FSS but the Director of each FSS establishment would nominate local pathologists to go onto the Home Office list. Collectively they examined an average of 1400 dead bodies thought to have died in circumstances which were 'suspicious'. Roughly half of the forensic pathologists in England and Wales were drawn from University departments and half from the Health service and appeared on a 'list' held by the Home Office and known as 'Home Office Pathologists'. For this they were paid a retainer of about £1000 per year (Knight, 1985). This figure had risen to £1685 by the mid-eighties. There was reluctance from the London based pathologists to go on such a list, preferring to be paid on a fee per case basis. In that way, there was at that time a two-tier system, however the list was necessary for England and Wales outside London to document and identify those pathologists with sufficient knowledge and training to assist in police cases. Speaking to other retired pathologists from the 60's, notable comments were *"We were called Home office pathologists but I don't think there was a register as such, the Home Office register was an invention of the media I think'.*

Speaking of the quality of the police investigation and in particular the quality of the post mortem process; *'There were probably many missed homicides, because the standard of coroner's autopsies was very poor. Not much better now I think'.*

Another famous pathologist of the period from the 60's to the early 90's was 'Taffy' Cameron. Cameron was another protégé of Camps and was involved in many high-profile investigations including the death of Rudolph Hess in Spandau Prison in his capacity as Senior Honorary Consultant in Forensic Medicine to the Armed Forces; the Turin Shroud and Maria Caldwell, which was one of the most significant early cases highlighting the plight of abused children. He was pathologist for several the East End gangland murders of the time involving infamous gangs such as the Kray's and the Richardson's. One controversial investigation in which he was involved was the so called 'Dingo Baby' case in which Lindy and Michael Chamberlain claimed their baby had been killed by a dingo near Ayres Rock, Australia in 1982. Lindy was eventually convicted in connection with the death but her conviction was eventually overturned when Cameron's evidence was brought into question. Cameron too has a biography written about his cases (Tullett, 1986).

Until the abolition in 1969[42], judicial hanging for murder was mandatory in accordance with Section 1 of the Offences Against the Person Act 1861.[43] It was practice for the forensic pathologist to attend the prison immediately after a hanging to perform the post mortem on the deceased. Contrary to what was believed to have been a 'clean and instantaneous death' there was evidence at the post mortem that this was often not the case. Dr Ryk James of Cardiff University conducted research which was published in 1992 where he examined the remains of 34 'victims' of judicial hanging between 1882 and 1945 when bodies of those hanged were exhumed from three prisons where re-development was to take place. The findings were compared with the PM reports made at the time and those reports were found to be 'grossly inaccurate', particularly regarding the fractures of the spine (James and Nasmyth-Jones, 1992).

Training and education

At the time of the 50's Knight (1985) wrote of the turmoil the profession faced due to no formal structure in the delivery mechanism and feared that the ageing profile of the practitioners was such that it faced extinction unless action was taken. This problem was compounded by the start in the decline of UK Universities teaching forensic medicine. According to Madea, by 1944 the amount of instruction given in forensic medicine was excessive. Therefore, Universities made claim that the provision of forensic medicine as a speciality in its own right was neither necessary

[42] Hanging was suspended in 1965. The last hanging took place in 1964 and finally abolished by parliament in 1969.
[43] Murder was abolished by the Murder (Abolition of Death Penalty) Act 1965

nor important. Since 1953, forensic training was no longer obligatory in the trainee doctor's curriculum and thus the delivery of forensic medicine as a subject in UK Universities declined significantly. Curriculum allocations diminished, formal examinations were not compulsory and the subject became mainly of interest to postgraduates. This was highlighted in the 1980's when the European Commission were looking to standardise autopsy practice throughout member states and set up the 'Sevilla Working Party on the Harmonisation and Standardisation of Forensic Medicine' to make recommendations. At that time in the European Community, the teaching of forensic medicine was a very important part of the medical curriculum and the members of the Sevilla Committee considered that the standards of proficiency in the UK fell far below that of the other member states (Home Office, 1989).

The Council of Europe - Recommendation 1159 (1991) 'On the harmonisation of autopsy rules' made the following recommendations:

> *i. Promote the adoption of harmonised and internationally recognised rules on the way autopsies are carried out and the adoption of a standardised model for autopsies:*
> *ii. Support the proposals that states world-wide formally accept and implement the obligation to carry out autopsies in all cases of suspicious deaths;*
> *iii. Invite the member states to apply the Interpol guidelines on disaster victim Identification;*
> *iv. Invite those Council of Europe Member states which have not yet done so to ratify the Council of Europe Agreement on the Transfer of Corpses;*
> *v. Invite the five Council of Europe member states which have not yet done so to ratify the European Convention for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment.*

The Royal College of Pathologists was founded in 1962 and received its Royal Charter in 1970. Its Patron is Her Majesty Queen Elizabeth II. The College is a professional membership organisation and all forensic pathologists must be a member in order to be entered onto the Home Office list. The College is committed to setting and maintaining professional standards and to promoting excellence in the practice of pathology. It is a registered charity and is not a trades union. Its members work in hospital laboratories, universities and industry worldwide. It is responsible for maintaining standards through training, assessments, examinations and professional development and sets the curriculum for all pathology disciplines including forensic pathology.

However, the formation of the College was not a cure for the issues facing the profession as the main delivery of training was via Universities, the College being more concerned with oversight and standards.

One of the most respected pathologists of the 80's and 90's was Dr Iain West. West was involved in many famous cases. In 1984 West helped to establish that the shot that killed WPC Yvonne Fletcher was from the Libyan embassy in London. He helped recover and identify bodies from several terrorist bombings, including the Hyde Park (1982) and Harrods (1983) incidents in London, and the IRA bombing of the Grand Hotel, Brighton during the Conservative Party conference. West was involved in the 1988 Clapham rail disaster and also the Paddington rail disaster in 1999 and it was his work which suggested improvements in carriage design and other safety aspects (Anscombe, 2001). In 1978 he took up a post in the forensic medicine department at Guy's hospital where he remained for the rest of his career. He was deeply concerned about the future provision of forensic pathology services in England and Wales and proposed that the future provision of the forensic pathology service in England and Wales should be regionally based. Again, a book was written about some of West's cases (Stern, 1996). Unfortunately, he died aged just 57 in 2001.

Reviews into the Forensic Pathology Service

Broderick Report-1971. The first of several reports into the future of forensic pathology was produced in 1971. The Broderick report made recommendations on the coronial system as it existed at the time but it also commented on the state of forensic pathology. One of its recommendations was that there should be direct financial support for University Departments of Forensic Medicine to ensure their survival and indeed expansion. However, this recommendation was never implemented. Fearing the imminent demise of the profession, the Home Office funded three trainee posts at Leeds, Sheffield and Cardiff. These were intended to give senior registrars a year’s forensic experience in order that they became potential entrants onto the Home Office list. This became the starting point for the current practice of the Home Office funding universities and the NHS to train forensic pathologists. There are now normally six to eight trainee positions in England and Wales. Other recommendations of the Broderick report were that all police forces should have access to forensic pathologists to help in the investigation of murder and other serious crimes against the person. It quotes at section 22.18;

'This person should be a pathologist with sound training in morbid anatomy who has added to his general knowledge some additional skills, most notable the ability to detect and give authoritative testimony about unusual features of the dead body and the surrounding circumstances which may be of evidential value. He should be able to command the facilities of a well-equipped pathological laboratory, be readily available on call to police and courts and be prepared to travel at short notice anywhere in the area which he serves'. (Broderick Report, 1971)

The report endorsed the Home Office practice of maintaining a 'Home Office List' due to the dearth of universities training in forensic pathology outside of London. At the time the Broderick report was written, there were 25 pathologists on the list outside of London and about 15 within the London area. The small number of just 40 pathologists serving England and Wales was recognised as being *'...particularly vulnerable to death, illness, retirement or withdrawal of any one of the men on the current Home Office list'.*

It will be noted that the reference in the Broderick report is to 'men' as at that time there were no female forensic pathologists. In fact, the first female forensic pathologist on the Home Office register was in 1987. In all there have been 16 female members of the register there being eight on the current register.

The report went on to acknowledge that the profession was declining and considered the arguments at the time as to whether forensic pathology should be its own speciality or whether it should be a sub speciality of histopathology. On the one hand, some within the medical profession considered that it was too generalist in nature and that the issues identified during the course of a post mortem examination could be adequately dealt with by a specialist within that particular field. The contrary view was that forensic pathology was a service which needed specialists in suspicious death investigation to give an overall opinion in this field and that it was unrealistic to harvest opinion from diverse experts without the advice of a guiding medical expert with an overview of all disciplines. In any event, it was recognised that the service was in decline partly due to anomalies of remuneration, imperfectly organised training, the absence of a standard professional qualification, lack of career structure, but most of all was the controversy regarding whether there should be a specialist branch of forensic pathology.

The report recommended that the service should be part of the National Health Service, based in major hospitals and that forensic pathology is made a sub speciality to the 'main division of pathology' (histopathology). The additional cost of the service borne by the Health Service was to

be sourced by the Home Office. It recommended that 40 pathologists were required to serve the needs of England and Wales. At section 24.11, the report states;

'We also expect that cases would occasionally occur where evidence of a suspicious nature was found during a routine pathological investigation of what appeared to be an innocent death. In such circumstances, the right course would be for the pathologist to inform the nearest forensic pathologist and give him the opportunity to take part in the examination...'

The Merrison Report 1975 recommended that postgraduate medical education and training needed a regulatory framework. This included pathology training. The 1977 EEC Recognition Order provided for the GMC to issue Certificates of Specialist Training (CSTs) to doctors who completed the minimum period of training specified in the Medical Directive. Holders of CSTs could have their name included on the GMC's Specialist List. Forensic pathology was designated as a sub-speciality to Histopathology.

An eminent Home Office forensic pathologist on the register (list) from 1979 to 1999 described that the forensic pathology profession in the first half of the 20th century was healthy, because the subject was on the curriculum for all pathologists, not just forensic pathologists. However, it declined throughout the 70's because the universities were in decline as far as forensic pathology was concerned. He described that most forensic pathologists on the Home Office list were employed either by a University or the NHS. Both institutions increasingly discouraged pathologists working for the police as this activity was clearly a distraction from the main work of their employer. It was in the 80's that some pathologists started to leave their employment and start up as private individuals. The first to do so was a forensic pathologist from the West Midlands who had the support of the then coroner for Birmingham. Private arrangements were put in place to pay for services from local police forces. Others followed.

The income from supporting police cases was insufficient to pay the university and Health Service employers costs and so the system was in danger of collapsing in the mid-term. The situation was even worse in the London area where unlike in the provinces, no fee was payable by the police to pathologists or their employers. Pathologists had to subsidise their income by doing routine coronial work which at that time attracted a tiny fee. It is interesting to note that the fee today is only £96.80 for a routine case and £276.90 for a post mortem examination requiring 'additional skills'. The definition of additional skills is set by the British Medical Association as per figure 1.

Figure 1. Definition of 'additional skills'

> These are usually cases involving suspected homicide, road or other accidents likely to lead to serious charges, deaths during anaesthesia and deaths involving allegations against the medical profession or another third party. Criteria that distinguish this type of examination from those in 'routine' cases are:
>
> Added responsibility carried by the pathologist e.g. in relation to possible criminal proceedings arising from his or her findings.
> Frequent need for the pathologist to travel long distances at any time of the day or night at short notice, to make preliminary examination of the body, and to wait while photographs are taken before the body can be removed to the mortuary for the autopsy.
> Need for special tests involving liaison with, for example, bacteriologists. As a consequence of the protraction of the investigation the pathologist may suffer a loss of other work.
>
> But the decision as to whether a particular case is potentially one requiring a post-mortem examination involving additional skills, must be a matter for the coroner's discretion.
>
> British Medical Association

In July 1984, the then Home Secretary Leon Brittan informed Parliament that there would be a review of forensic pathology services headed by a senior Civil Servant Mr Gordon Wasserman (now Lord Wasserman) who held Home Office responsibility for police science and technology. The Committee included representation from all key stakeholders including the police, coroners and the representative organisation of forensic pathologists the British Association in Forensic Medicine (BAFM). The terms of reference were to 'review the arrangements for providing a forensic pathology service in England and Wales'. The group was to consider the whole gamut of provision including organisation, funding, the appointment of practitioners and their training. Importantly, the group was also to consider standards. Leon Brittan announced the review in an answer to a Parliamentary Question on 17th April 1984:

"To review the arrangements for providing a forensic pathology service in England and Wales with particular reference to:

i. Organisation and funding;
ii. Appointment and conditions of service;
iii. Training and quality assurance; and
iv) To make recommendations."

(Hansard, 1984).

The Working Party publicly invited representations by individuals or organisations and received written evidence from 37 persons and 19 organisations and The Working Party published its report on the 25th July 1989.

On the 19th July 1990, the Home Secretary David Waddington in a written response to the House of Commons stated:

> *"I have now carefully considered the report of the working party which had been examining the provision of forensic pathology services to police forces and coroners in England and Wales together with the comments which I have received on it from 23 interested individuals and representative bodies. Without exception, those consulted have endorsed the report's principal findings and recommendations, particularly in relation to funding, accreditation, training and research, and have urged me to implement these urgently in order to reverse the recent decline of the service and ensure an adequate supply of forensic specialists in the future. The main proposal of the report is that the supply of forensic pathology services should be regulated through the market--that is, the main users of these services, police forces, should contract with the suppliers, the pathologists, for the services they need at prices and on conditions to be agreed between them. The role of the Home Office would be to maintain the high quality of the service through new arrangements for accreditation, training and research. I have decided to accept the working party's proposals and to introduce the new arrangements straight away, including the establishment of a policy advisory board to oversee the development of this vital part of our criminal justice system."*

Wasserman recommended the creation of a Home Office Register which would form the basis of formal accreditation as a practitioner. Possession of appropriate qualifications would be required for appointment to this Register and the standard of those on the list would be regularly monitored. A new body was to be set up by the Home Office to oversee the profession – effectively this was to be a regulatory body for forensic pathology. The Policy Advisory Board for Forensic Pathology (PABFP) first met in 1991, its composition being similar to that of the Working Party. Initially Gordon Wasserman was the chair of the PABFP.

The PABFP enjoyed some limited success. It standardised entry qualifications and ensured that appointees to the Register possessed adequate experience. It secured Home Office funding for senior lecturer posts in the three remaining academic departments of forensic pathology,

Sheffield, Cardiff and Guys Hospital. Perhaps the most important initiative was the formation of the Scientific Standards Committee, which produced the first code of practice for the performance of post mortem examinations. This group also introduced regular audit of pathologists' reports.

The Wasserman Report did not address the issues around the employment status of Home Office Pathologists and it is reported that most of the Working Party members, would have liked to have seen the Home Office introduce an 'employed' service; essentially a parallel service to the Forensic Science Service as it then existed.

The report recommended that police forces pay a fee for each post mortem examination, to be negotiated in individual service level agreements. At the time of institution of the PABFP the employment status of forensic pathologists was mixed. Some were hospital pathologists employed by the NHS; others were University employees. A growing number of practitioners moved from employed status into the private sector because employers were reluctant to allow their practice in assisting police cases to continue, and also because there were financial attractions to working as a private company or contractor. Over time more than 80% of Home Office pathologists elected for the private option. At the time the Wasserman Report was published in 1989, there was believed to have been about 45 Home office pathologists. There is no certainty in that figure as there was no actual centrally published 'list' as such. The 'Register' as it exists today was only produced as a result of the Wasserman recommendations.

In spite of the problems identified with Forensic pathology as a service, the Wasserman Report acknowledged at 1.13 that 'it was amongst the best in the world'. A number of recommendations were never implemented. One was that new appointees to the register should be for an initial period of one year allowing the PABFP to assess performance (a six-month assessment period has now been implemented in 2012). It also recommended that registration should be for five years at a time and that it should cease at 65. This again was never implemented and members of the register are appointed until they resign, retire or are removed for some other reason. Recommendation 12 of the Wasserman Report states that *'The Home Office should issue a circular strongly advising coroners to use only accredited pathologists (i.e. those that are on the Home Office List) in cases of suspicious death. In due course the Coroners Rules should be amended to that effect'.* The Coroners Rules were never so amended and the 2009 Coroners and

Justice Act similarly did not include this provision although there is a requirement on coroners to 'consult'[44] with the chief officer of police.

It has long been talked about as to whether there should exist an 'Institute of Forensic Pathology'. This was first proposed by Lord Trenchard in 1936 who was at the time the Commissioner of the Metropolitan police who saw the need *'to put the whole subject of Jurisprudence in this country on a higher plane.'* The proposal was that it should exist as a school within the University of the London Faculty of Medicine. However, the proposal was rejected by the then Home Secretary Sir Samuel Hoare on the grounds of cost (Home Office, 1989). This idea was again considered as part of the Wasserman enquiry but was not pursued due to objection from the BAFM and the Royal College of Pathologists on the grounds that a single research Institute might stagnate and that too much power would be in the hands of a few, but proposing that there be three Institutes. Instead the Wasserman recommendation was that the Home Office should devote at least £50k per year towards Research and Development. Although the Home Office has recently supported research by way of grants no money was ever dedicated for this purpose.

Some of the London pathologists, proposed the creation of a London institute of forensic pathology. In broad terms the operation would have resembled the organisation of barristers' chambers, with practitioners self-employed but acting together as a cohesive group. The institute would negotiate service level agreements with police forces and be responsible for managing the service. It would provide a base within which practitioners could liaise regularly with colleagues, and offer structured training for new recruits. It would set up stable regular contracts for laboratory services and other specialist work. Suffice to say that this did not happen, again on cost grounds.

In 2000, the structure of forensic pathology provision was that of eight loosely structured group practices of pathologists as follows;

Table 1: Deployment of forensic pathologists in 2000 in England and Wales

Area	No: of Pathologists	Description
North East	3	One trainee in place. Fee arrangements were a mixture of a retainer plus a case fee as well as a call out fee payable by the police. A problem of timeliness of reports was identified caused by reporting time of toxicology results. Pathologists do coroners work as well as forensic cases.

[44] Part 3 Section 12 of the The Coroners Investigations Regulations 2013

Humberside and Yorkshire	4	Pathologists were based at the Sheffield Medico-Legal Centre which was part of the University. In addition, a pathologist based in Leeds did some forensic work although not on the register. The police paid an annual fee plus a fee per case on top if the cases exceeded 340.
West Midlands	4	Police paid an annual retainer plus a case fee. A problem existed with timeliness of toxicology results which took between 3 to 12 months.
East Midlands	3	Pathologists were paid an annual retainer plus a case fee. Toxicology results were obtained within two or three weeks. Most homicide scenes were visited by the pathologists unlike other areas.
Greater London and Western South East	7	The service had been provided by a recently formed partnership called Forensic Pathology Services (FPS). This arrangement replaced the previous service which was supplied from Teaching Hospitals. There was a mixed payment regime depending on the force. Reports that the major limiting factor was timeliness of toxicology which can take at best 3 months. The other issue was the standard of the mortuaries.
Greater London and Eastern South East	3	Two pathologists acted as a partnership and one was employed and provided a service for part of London and counties of Kent Norfolk and Suffolk. A retired pathologist not on the Register was used in Kent at the insistence of the coroner. Kent insisted on all scene visits whereas the Met police have almost none. There are no official records of this group practice.
Mid-South Wales and Gloucestershire	3	All three pathologists were employed as senior lecturers in Cardiff. There was an annual retainer plus a case fee. 50% of the fee was retained by the University and 50% is paid to the pathologist.
West and South West	2	The two pathologists covered as far as Hampshire and Devon and Cornwall when the local pathologist there is unavailable. There was a mixed model of annual retainer plus a case fee. Toxicology could take between 3 weeks but up to 9 months.
Devon and Cornwall Police	1	One pathologist was employed under a full-time contract

There were reported to be 36 pathologists on the Register in 2000, but only 30 are accounted on the above table. In all probability, the other 6 were effectively unused or semi-retired but on the list without having been removed. In 2002, pathologists on the Register performed between 66 and 1,240 post mortem examinations each (not all forensic cases). The most forensic cases conducted by Home Office Pathologists was 135. The national average payment by case fee was £1500.

In 2000 the BAFM set up a working party which produced a report to inform the debate regarding the future of forensic pathology services in England and Wales. The working party was chaired by

Iain West and included well known pathologists of the time William Lawler, Alan Anscombe and Professor Helen Whitwell. The opening of their report entitled 'Towards a Unified Forensic Pathology Service for England and Wales' painted a depressing picture of the then current state of forensic pathology;

> *'In 1990 the recommendations of the Wasserman Committee of the Home Office were implemented in England and Wales. Details of contracts and the manner in which the users paid for the service varied from region to region. The sense of optimism that accompanied the Wasserman recommendations and their acceptance by the then Government led us to believe that the profession and its clients would gain by the establishment of a uniform, well-funded service with proper career opportunities and training. In reality, the opposite has occurred.*

*The number of university departments has diminished and those departments that remain are finding it difficult to survive. The attitude of most Universities to forensic medicine has changed. The number of forensic pathologists has decreased partly due to early retirement and to resignation. There is a dearth of trainees and fewer trainers than there were 10 years ago. The rising demand for forensic pathology services is already creating difficulties of supply and there are signs that the efficiency of police investigations may be affected. he workload has doubled from 1990 to 2000. The standard of forensic pathology service is fragmented and there is considerable variation in organisation and in standards' (*West *et al*, 2000).

The recommendations of the report were that forensic pathology should be an employed service, regionally based in either University or NHS sites but independent from University or NHS management. The report suggested a 'hub and spoke' model where pathologists who worked remotely from the regional centre but were associated to it (West *et al*, 2000).

There remained considerable concern about forensic pathology, in particular recruitment, and a further review reported in 2003. This review known as the Leishman Enquiry (Home Office, 2003)[45] indicated that one solution to the professions problems might be to create an employed status within the Forensic Science Service. One of the drivers for this review was that the Home Office register had gone from 52 members since Wasserman down to 35 in 2001.

At that time, the average work load per pathologist was as follows;

[45] Ralph Leishman of 4-Consulting (a private company)

Table 2: Numbers of Homicides and Forensic Autopsies in England and Wales (Home Office (2003)

Homicides v forensic cases	1998	1999	2000
Recorded homicides England and Wales	750	765	850
Average number of cases per pathologist	64	68	73

As can be seen, the number of homicides was increasing along with the average number of cases per pathologist while the overall number of pathologists on the Register was reducing. The Leishman review proposed that accreditation be achieved through the Council for the Registration of Forensic Practitioners (CRFP) which was at the time being developed to register and regulate forensic scientists and others providing a service to the Criminal Justice System. This was never implemented and was also unpopular. The accreditation by the CRFP would obviate the need for a Home Office register and thereby remove the prestigious title of 'Home Office Pathologist' which has been vested in medico-legal history since the time of Spilsbury.

In the event the CRFP itself failed and no longer exists. The Leishman Enquiry also made the following recommendations:

1. There should be executive management of the service overseen by the Home Office.
2. Home Office pathologists should be employed and managed as part of an 'arm's length' Executive Agency'[46] of the Home Office and proposed the FSS as the most appropriate existing such organisation. This would provide a career structure and would be more likely to attract new entrants into the profession.
3. Regional delivery centres across England and Wales.
4. The provision of funding to establish specialist regional delivery centres where mortuaries were based and where pathologists could work from - in other words 'Centres of Excellence'.
5. Increased support for existing training centres (Cardiff, Leicester, Liverpool, Newcastle and Sheffield).
6. The setting up of a new Executive body in *'debating, clarifying and agreeing identified professional issues requiring the application of informed judgement'* (Home Office, 2003 p3).
7. Consider encompassing paediatric and other pathology disciplines within the ambit of the new agency (FSS).

[46] An Executive Agency is also known as Non-Departmental Public Body and defined by the Cabinet Office as 'Bodies which have a role in the process of National Government but which are not Government Departments (or part of one) and which operate to a greater or lesser extent at arm's length from Ministers.

8. Engage with the police and other forensic professionals to ensure better definition of the forensic pathologists role.
9. Standardised national case fee.
10. Consideration should be given to video recording forensic post mortems

The FSS was set up in 1935/6 and operated by the Home Office and provided scientific services to all 43 police forces in England and Wales. The FSS could have provided management and administration, and created a proper career structure. The proposal, put forward by Leishman however was very unpopular amongst the profession and so the recommendations were considered by a steering group set up by the Policy Advisory Board for Forensic Pathology. Although the steering group appeared from their report to accept what Leishman had said, it then put forward alternative recommendations on the basis that it had 'undertaken further work' since the draft Leishman report had been written.

The group therefore rejected the main Leishman recommendations of forensic pathology being subsumed into an arm's length body. This was largely due to the objections raised by pathologists themselves in part because pathologists felt more affinity to the medical profession than forensic science. They rejected the possibility that forensic pathology should be its own 'quango' but there was pressure by government to reduce the numbers of such organisations. One other consideration was to set up a company limited by guarantee or a private company but the set-up costs and objections from the Association of Chief Police Officers (ACPO) meant that this option was not viable.

Consideration of employing pathologists as civil servants in the Home Office was made but again the pathologists did not want to be seen as government employees. Therefore, the re-formed Policy Advisory Board was the chosen option and agreed by Ministers. The main recommendation of the steering group was that rather than forensic pathology becoming part of an Executive Agency such as the Forensic Science Service, that there should be an altered Policy Advisory Board with Executive powers. The recommendations were put to a meeting of the BAFM on 30th June 2002 and following this finally decided on the altered PAB model. They proposed that the functions of the national body would be to:

- Maintain the Register and establish procedures for regular monitoring and revalidation
- Establish regional service delivery centres

- Promote relationships with users of forensic pathology services to ensure that their requirements are addressed and that practitioners play an appropriate part in the investigative process
- Negotiate fee structures and contractual arrangements
- Establish and maintaining national standards of practice and performance including the promotion of national and local quality management initiative
- Develop career structures including a recruitment and retention strategy
- In conjunction with the Royal College of Pathologists, develop a comprehensive national training strategy and programme, including continual professional development for practicing forensic pathologists
- That the Policy Advisory Board should endorse the planning and of a national body, based upon the Board being reconstituted and given executive powers.
- That the Board should set up a programme team to report to the Board its detailed proposals for the policy, functions and procedures of the new executive body.
- The programme team should report to the board within 3 months of its appointment and to Home Office Ministers as soon as possible thereafter. A full report should be produced within 6 months, whereupon the Board should reconstitute itself and embark upon an implementation programme.

There was clearly a difference of view from the Leishman recommendations and the final recommendations of the Steering Group. This was put down not to disagreement but to a *'result of the passage of time since the Leishman research was conducted and the time the Steering group considered it'*.

The main recommendations to the Leishman report; that of an employed service under a public body, in particular the Forensic Science Service was considered to be too controversial amongst Home Office pathologists, and politically difficult to achieve to have a realistic prospect of success.

In March 2003, John Denham, the then Minister for Policing, Crime Reduction and Community, stated as follows in an address to the House of Commons;

> *"I commissioned an independent review into the provision of forensic pathology services and have accepted the key recommendations of that independent review. There is clearly a need to establish a unified forensic pathology service to deliver the needs of the police service, coroners and the wider criminal justice system. The Government intend to: enable a standard high quality service to be offered across*

> *England and Wales; ensure availability of service by providing the framework of a career structure to retain existing practitioners and to attract new entrants to the field; facilitate the provision of specialist regional service delivery centres; introduce improved management and budgetary controls for the provision of forensic pathology services. I have instructed my officials to implement the key recommendations of the review as quickly as possible, with the intention that by autumn 2003 we will: move to new accreditation and disciplinary procedures based on model competencies; and have two centres prepared to deliver a training programme against the improved standards. By summer 2004, we will aim to have more newly trained, and operational forensic pathologists; an agreed career structure for the future national forensic pathology service; and developed contracts of employment. I will continue to take a close interest in progress and will receive regular reports on progress from the Programme Delivery Board established to take this work forward. The delivery board will include representatives of both users and providers of forensic pathology services.*
> Hansard: 17 Mar 2003: Column 35WS

These changes lead to a formalisation of the Pathology Delivery Board (PDB) as a replacement to the Policy Advisor Board.[47] The PDB had no formal constitution but was formed under the principle of 'Royal Prerogative'[48]. The PDB was made up of ex-officio members from the Home Office, Crown Prosecution Service, Royal College of Pathologists; Ministry of Justice[49]; Coroners' Society and ACPO as well as representation from the group practices.

The PDB was given executive power to add, remove or suspend a pathologist from the Register on behalf of the Home Secretary. The constitution of the Board was not formalised until a formal constitution was drafted and agreed by the then Home Secretary Alan Johnson in 2010. It was further amended in 2012 (see https://www.gov.uk/government/publications/constitution-of-the-pathology-delivery-board).

The implementation team introduced a protocol as a condition of membership of the Register which set out the expectations of membership and administered the spending of £15 million on the upgrading of mortuary facilities.

[47] Issues of quality were not allocated to the PDB as these were the responsibility of the Forensic Science Regulator

[48] Prerogative powers or the royal prerogative are defined by Dicey as being "…the remaining portion of the Crown's original authority, and it is therefore… the name for the residue of discretionary power left at any moment in the hands of the Crown, whether such power be in fact exercised by the King himself or by his Ministers". Dicey, A. V. (1959) Introduction to the Study of the Law of the Constitution, 10th edition. Palgrave Macmillan: London.

[49] Was called the Department for Constitutional Affairs at that time

Each group practice was formalised with clear regional boundaries and a condition was set that each had to be constituted of at least three pathologists; have a contract with at least one police force; have a 'rota coordinator', committed to undertake at least 180 forensic cases per year; meet storage requirements agreed by the Board; ensure that preliminary reports were produced to the coroner and police within 14 days; ensure that all reports were subject to checking by a colleague; all members were adequately security cleared and disclose to the Board annually its strategy for workforce planning.

Current Model of Delivery

Little is known about how the Forensic Pathology Service was administered centrally by the Home Office throughout the early part of the last century. However, since the 70's there has been a dedicated unit responsible on behalf of the Home Secretary for the oversight and management of the Home Office register. This function changed post Leishman when the Home Office unit doubled in size to eight civil servants. Half were responsible for the general administration of the service and half for implementing the Steering Group recommendations.

In 2007, responsibility for the central administration of the forensic pathology service was transferred to a new agency of the Home Office; the National Policing Improvement Agency (NPIA). Government thought it appropriate to devolve the responsibility for forensic pathology to this 'arm's length' body. It was felt appropriate to distance a number of functions from central government for administrative and political reasons and this included a whole range of functions including forensic pathology. The current administrative unit within the Home Office is known as the 'Forensic Pathology Unit' (FPU).

One seminal event occurred in April 2009. Ian Tomlinson a newspaper vendor who collapsed and died in the City of London on his way home from work after being struck by a police officer during the G-20 summit protests. An inquest jury found in May 2011 that he had been unlawfully killed. A police officer was subsequently acquitted of the murder but the issue throughout the case was the original cause of death had been that of natural causes from the Home Office pathologist Dr Freddie Patel. Subsequent post mortem examinations and reviews of Dr Patel's original post mortem revealed that it had been inadequate and that the true cause of death was connected to the original striking with a baton by the police officer.

Dr Patel was suspended from the Home Office register and subsequently removed. However, he was not removed because of the quality of his post mortem examination on Ian Tomlinson. He

was in fact removed because on examination, Dr Patel had not complied with the conditions of membership of a group practice. In fact, he had not complied with several conditions of membership of the register.

Other pathologists were then removed for similar reasons and the 'protocol' reviewed to ensure future compliance. Changes included the limiting to the number of forensic cases to between a lower limit of 20 and an upper limit of 95 per rolling year to ensure standards of practice. Further reviews of processes were also undertaken and strict case numbers and outcomes are now monitored together with statistical data as to how many forensic cases transpire to be homicide for each pathologist and each of the police forces in England and Wales.

The discipline rules were also re drafted into 'Suitability Rules' to ensure that complaints were dealt with in a less adversarial manner. A six-month period of assessment upon entry onto the register was introduced (as proposed in the Wasserman Report) akin to a 'probationary' period in order that pathologists who failed to reach the high standard of professional knowledge, training and practice could more easily be either mentored or removed.

The NPIA was responsible for general administration, dealing with complaints, and funding trainees. However, in 2009, the Forensic Pathology Unit started to take on projects akin to the recommendations in the original Leishman report.

There was the dearth of specialists in the fields of paediatric pathology neuropathology bone pathology, and ocular pathology as well other specialist pathology disciplines willing to support police cases. These are required in some cases to provide the forensic pathologist with expert opinion in areas outside of the forensic pathologists field. They are particularly necessary in complex cases such as child death, head injuries and cases where other medical causations may need to be disproven. In 2012, a conference was arranged and a number of paediatric and neuro pathologists were invited to discuss the reasons why there was a reluctance to engage in police cases. One of the many reasons put forward was that there was a lack of training in expectations of the Criminal Justice System and giving evidence in court.

Of course, the other main reason for reluctance to engage in police cases was the issues faced by specialists especially in child death cases such as those which lead to the disciplinary actions against Professor Sir Roy Meadow. Meadow's whose reputation was severely damaged after he appeared as an expert witness for the prosecution in several trials. The General Medical Council (GMC) struck him from the Medical Register after he was found to have offered 'erroneous' and 'misleading' evidence in the case of Sally Clark who was convicted of killing her two sons largely

on the evidence of Meadow. Her conviction was quashed in 2003 after she had spent three years in prison for the alleged murders. In another case of Angela Cannings, a mother convicted on Meadow's evidence was freed on appeal. Her conviction of murdering two of her three babies, both of whom had died in their first few weeks of life, was deemed to have been unsafe by the Court of Appeal. Meadow was struck off the GMC medial register after a tribunal found him guilty of misconduct. He appealed to the High Court[50] and the GMC finding was overturned, however the case effectively finished his career.

This case and others will have no doubt dissuaded other medical experts from engaging in police cases, as well as certain pressure groups which have campaigned against doctors especially in so called 'shaken baby syndrome' where there is differing medical opinion as to the mechanism of death. This lead the CPS policy directorate in the framing of the current CPS prosecution policy which has received general acceptance across the various opinions on this very divisive issue.

In 2013, revalidation was finally introduced by the GMC for all doctors on the medical register with a requirement for annual appraisal and a revalidation process on a five-year cycle following recommendations from the Shipman Enquiry chaired by Dame Janet Smith. However, the original regulations did not consider many groups of doctors outside of NHS, university or in employed status and therefore they were changed such that the PDB is now the 'Designated Organisation' for the purpose of appraisal and revalidation under the Medical Profession (Responsible Officers) (Amendment) Regulations 2013. This is the only reference to the PDB in statutory regulations. The first and to date only Responsible Officer under the Act appointed by the PDB was Professor Jack Crane CBE, State Pathologist for Northern Ireland.

In 2012 also on application from a group of forensic pathologists and the PDB, the Department of Health agreed to grant forensic pathology ‘Speciality Status’ in its own right. Hitherto it had been a sub speciality of Histopathology. The benefit to the profession was that due to changing GMC rules, it avoided the necessity for a doctor to qualify in histopathology first and then train for a further three or four years as a forensic pathologist. If it had not become its own speciality, the fear was that few recruits would be attracted by the addition of four extra years training before becoming a consultant.

Recently there are on average about 34 to 38 members on the Register at any one time. The PDB try to ensure that there are about eight trainees in the system. This is on the basis that the profession will need one new consultant per year on average considering that there is a 50% fall

[50] Meadow v GMC [2006] EWHC 146 (Admin)

out of trainees due to withdrawal from training; resignation and more significantly successful completion of training and obtaining alternative employment abroad. In October 2012, following the demise of the NPIA, forensic pathology was returned to the Home Office where it currently sits.

The latest review of forensic pathology services in England and Wales was conducted by Professor Peter Hutton who was appointed by the Home Secretary in 2014 to conduct a fundamental and independent review. Amongst the numerous recommendations was a call for there to be a national autopsy service in England and Wales. Surprisingly, although starting as a review of forensic pathology alone, it soon became apparent that forensic pathology was comparatively healthy compared with non-forensic autopsy practice. Coroners are finding it increasingly difficult to secure the services of non-forensic pathologists and also the quality of some non-forensic autopsies is variable (Hutton, 2015). Non-forensic pathologists deal with coroners' non-suspicious cases on an occasional basis and do not generally receive training in the interpretation of scene and body examination and the recovery of trace evidence. The practice of non-forensic post mortem pathologists is particularly concerning in the light of a report by the National Confidential Enquiry into Patient Outcomes and Death (NCEPOD), (Furness, 2006), which found that many non-forensic post mortem (PM) examinations were inadequate. Concerns were first highlighted by the Broderick Report in 1971 (Broderick, 1971) when discrepancies were found between clinical and PM diagnoses.

Although the NCEPOD research is over 10 years old, the report was recently referred to the Royal College of Pathologists to establish whether its findings are still current. The unanimous view was that, if anything, the situation had worsened since 2006 (Hutton, 2015). One of the reasons given was the fact that the autopsy element of histopathology training was no longer compulsory leading to a reduced number of non-forensic pathologists willing or able to conduct coronial work. The NCEPOD auditors reviewed 1,877 autopsy reports and supporting documentation conducted in a one week period of 2005 in England, Wales and Northern Ireland. The report concluded that there was no improvement in the discrepancies identified since the 1960s (Harvard, 1960), that half of the cases produced findings which were unsuspected before death, and that at least one third of death certificates were likely to be incorrect. In 16 cases where the body was found in a decomposed state, the bodies were not examined and evaluated properly. A common denominator in these cases was that the deceased were either known alcoholics or drug users or found hanging from the neck. The following factors were also identified:

- One in four autopsy reports were judged to be poor or unacceptable;

- In one third of mortuaries, the mortuary technician opened the body and removed organs before the pathologist actually inspected the body contrary to guidance (Leadbeatter, Lucas and Lowe, 2014);
- In one in seven cases the brain was not examined;
- Histology was not taken when it was judged that it should have been in many cases;
- In a fifth of cases, the cause of death was adjudged to have been questionable;
- There was generally a poor quality of examination of the body and organs, and
- Communication between coroners and pathologists was poor and there was insufficient information passed to the pathologist by the coroner.

  The report quotes;

'If one quarter of all surgical procedures undertaken on the living were deemed, by peers, to be poorly or unacceptably badly done, there would be a public outcry. The fact that there is no public outcry is a manifestation of the fact that families are unaware of the variable quality of the autopsy procedure' (Furness, 2006).

When questioned about this, a common response from pathologists and coroners was *"what do you expect for £87.70?"*[51] (Furness, 2006, p. 117).

The NCEPOD report however did not review the actual post mortem examinations, but was a review of the paperwork, and so reliance on this report as empirical evidence of the poor quality of non-forensic post mortem examinations should perhaps be treated with some caution. Undoubtedly many histopathologists conduct PM's to a high standard, nevertheless reliance on a non-forensic PM is risky and potentially unlikely to identify a complex murder (Jones, 2014). This issue is further highlighted by a recent BBC news feature[52] explaining the role of a London based non-forensic histopathologist who claimed to do 50 autopsies a week on top of her full time 'day job', including complex baby deaths. In contrast, forensic pathologist on the Home Office register are restricted to doing 95 cases in a year. This demonstrates the difference in detail and expertise a forensic examination requires compared with a non-forensic procedure. Non-forensic PM's should be subject to the same audit regime as forensic post mortems as the outcomes are important and critical to grieving families who deserve to know the true cause of death (Rutty, 2006). Rutty points to the poor quality of non-forensic post mortem from his considerable experience as a forensic pathologist in various parts of England.

[51] The fee then payable for a non-forensic 'routine' autopsy which is now £96.80. An enhanced fee of 276.90 is payable by the coroner for a post mortem requiring 'additional skills'. http://www.bma.org.uk/support-at-work/pay-fees-allowances/fees/fee-finder/fee-finder-coroners.

[52] http://www.bbc.co.uk/news/magazine-31536753

Another study (Johnson, 1969) attempted to estimate the frequency of unnatural deaths discovered at autopsy by reviewing over 5000 death cases not considered as suspicious over a five-year period between 1963 and 1967. Of these cases, 263 were found to be suspicious in that 174 were cases of poisoning; 34 were head injury cases; 14 had other injuries to the body; 11 asphyxia cases; 1 hanging; 1 cut throat; 1 electrocution; 18 definite homicides and 9 criminal abortions. This represented over 5% of all the identified unnatural deaths from the original total number of cases. Johnson commented that although there was information which would bring these cases into the unnatural category they were missed as potential homicides, even though in some cases there were visible injuries. He identified that the main reasons were that the body had not been properly examined at the scene either by the attending doctor or the police officer, or because in some cases no examination had taken place at all. In other cases, no investigation appeared to have taken place at the scene of the death. There were also examples of deliberate deception and concealment of information by relatives in the deaths identified as being criminal. In many cases assumptions had been made that because the deceased was either old or had been ill that death was due to natural causes. This again highlights the importance of the initial scene investigation by the police. At the time of the study, there was no formal training for police officers in death investigation (Johnson, 1969).

Cases without an adequate medico-legal investigation of the person who has died a violent or sudden death of unexplained cause are fraught with danger (Harvard, 1960; Jones, 2014). Even the most competent physician if he or she attempts to certify the cause of such deaths on the basis of the available clinical history and external examination of the body is likely to be proven wrong by a medico-legal post mortem in one out of every three cases (Harvard, 1960). This highlights the importance of a forensic post mortem in suspicious death cases. In 1942, the advisor to the Home Office on toxicology, Dr Roche Lynch reported that of eight exhumations he had examined, seven were homicide that had been missed due to inadequate investigation (Roche, 1942).

Failing to use the services of a HORFP is of concern, as there are specific examples of police placing undue reliance on the findings of non-forensic or ‘routine’ PM examinations, believing that a non-forensic PM will reveal foul play. Reliance on a non-forensic post mortem could lead at best to forensic evidence being lost during the PM by unqualified practitioners and at worst to missed homicides (Jones, 2014). In every case where homicide is a possibility, the police must request that the coroner appoint a HORFP.

It can clearly be seen that any police and coronial practice of engaging a non-forensic pathologist to conduct a post mortem procedure is therefore dangerous in terms of missing or failing to identify the case as homicide or losing vital forensic evidence. Thus, the decision as to whether to treat a death as suspicious *and* ensure that there is an appropriate medical determination of death by a HORFP is critical to the investigation. This again opens the question as to how many homicides may be missed by non-forensic pathologists conducting coronial PM's.

Hutton (2015) considered that if both coronial and forensic pathology were joined together into one service, it would raise standards of non-forensic autopsy practice and ensure a structured career path for forensic pathologists. The outcome of the Hutton recommendations is awaited but being the third major review recommending employed status for forensic pathologists, it is doubtful in the current economic landscape the recommendation of a national autopsy service will come to fruition. Things may change when there is public outcry that the lack of pathologists willing to do the important work of coroner's autopsies will result in deaths not being properly investigated.

Since the time of Bernard Spilsbury, the first 'Home Office Pathologist' there has been in total 142 known[53] forensic pathologists who have members of this very exclusive and famous Register or 'List'.

The current Register can be viewed online at the following link:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/303730/RegisterForensicPathologists.pdf

[53] This figure represents only known members of the Register from Home Office records. There may have been others where documentation no longer exists

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Appendix 4: Biasing Effects

Forensic Science Regulator's description of bias. (FSR, 2015).

Bias	Definition
Anchoring or focalism	The tendency to rely too heavily on one piece of information when making decisions.
Blinding	Shielding the forensic examiner from information about the case that is not required in order to conduct the examination.
Cognitive bias	A pattern of deviation in judgement whereby inferences about other people and situations may be drawn in an illogical fashion.
Confirmation bias	The tendency to test hypotheses by looking for confirming evidence rather than potentially conflicting evidence.
Contextual bias	The tendency for a consideration to be influenced by background information.
Debias	The reduction or elimination of the impact of bias in decision making and problem solving.
Expectation bias	Also known as experimenter bias, where the expectation of what will be found affects what is *actually* found.
Photogrammetry	The practice of obtaining reliable information about physical objects through the processes of recording measuring and interpreting photographic images.
Psychological contamination	Exposure to other information that is irrelevant to the assessment but that introduces subconscious bias into the findings.
Reconstructive effects	The tendency when people rely on memory to fill in gaps on recall with what they believe should have happened.
Role effects	The tendency for individuals to identify themselves as part of a team with common goals, which may introduce subconscious bias.

There is much literature which aims to understand what causes investigations, particularly homicides to go wrong and miscarriages of justice. One of these is if the first stage of the investigation fails to reveal that a crime has been committed (Jones, 2014). The academic literature describing the role of bias in failed investigations is summarized by DeJong (2015):

Terms and Concepts Associated with Confirmation Bias. (DeJonge, 2015).

Type of Confirmation Bias	Explanation
Anchoring Effect	Refers to people within a group tending to agree with others' beliefs creating an 'anchor' of an original set of hypotheses that refuses to be challenged Rossmo, 2006; Findley, 2009.
Asymmetrical Scepticism	A preference for information that confirms, rather than disconfirms, an already existing belief. (Rossmo, 2006; Ask and Granhag, 2007; Ask, Rebelius and Granhag, 2008).
Belief Perseverance	Maintaining one's belief (e.g. that the suspect is guilty) even when strong evidence (including DNA) is presented. (Findley and Scott, 2006; Savage and Milne, 2007)
Case Closure	A case may close due to lack of evidence or perceived lack of evidence; may also refer to finding a fast end to a case by believing (wrongly) in the guilt of a suspect. (Lean and Lynn, 2012; Fahsing and Ask, 2013) aka premature closure (Savage and Milne, 2007)
Case Denial	Refusing or failing to accept there is a case to investigate (e.g. due to prejudice towards the victim) (Savage and Milne, 2007; Lea and Lynn, 2012)
Cognitive Bias	Predetermined set of psychological characteristics that sets a person up to be biased in investigations (e.g. belief in racial characteristics or ones based on gender etc.). Rossmo, 2014.
Cognitive Closure	Desire for a clear-cut conclusion – to reach closure as quickly as possible (Ask and Granhag, 2005)
Fundamental Attribution Error	Explaining the behavior of others (e.g. a suspect) by reference to their character or characteristics (with or without looking at other evidence) (Richardson, 2012)
Freeze	Maintaining a steadfast position even when evidence to the contrary comes to light (Ask and Granhag, 2007)
Hindsight Bias	A 'we-knew-it-all-along' belief in the guilty party; aka outcome bias (Findlay, 2006; Salet and Terpstra, 2014)
Hypotheses Bias	A set of hypotheses stating possible explanations for an event by ignoring or failing to consider others to the contrary ("closed mindedness") (Findley and Scott, 2006; Rassin, Erland and Kuijpers, 2010; O'Brien, 2009; Wastell, Weeks, Wearing and Duncan, 2012)
Implicit Bias	Judgments made based on a person's ambiguous behavior often interpreting people of different ethnicities (who exhibit the same behavior as others) in a more negative light (e.g. racial bias) (Richardson, 2012)

	Institutional Incompetence	Pressures from an institution to find a suspect even if insufficient evidence is gathered or other possibilities exist (Grieve, Crego and Griffiths 2007; Jones, 2011)
	Tunnel Vision	Refers to holding onto one's belief even when faced with evidence to the contrary; confirmation bias may be a symptom of tunnel vision or vice versa or regarded as equivalent. Aka investigator bias (Findley, 2006; Rossmo, 2006; Salet and Terpstra, 2014; Price and Dahl, 2014)
	Verification Bias	Any instance of creating a narrative based on 'perception' rather than, or prior to, 'open evidence' which considers all viewpoints; often regarded as synonymous to confirmation bias (ACPO, 2005b; Rossmo, 2006; Vrij, 2000; Jones, 2011)

Appendix 5: Ethical approval letter

Mr Dean Jones
Professional Doctorate Student
Institute of Criminal Justice Studies
University of Portsmouth

REC reference number: 14/15:19
Please quote this number on all correspondence.

3rd December 2014

Dear Dean,

Full Title of Study: Fatal Call: A study into the use of forensic pathology in the early stages of an unexplained death investigation

Documents reviewed:
Ethics self-assessment
Letters
Participant Information Sheet
Protocol
Questionnaires

Further to our recent correspondence, this proposal was reviewed by The Research Ethics Committee of The Faculty of Humanities and Social Sciences.

I am pleased to tell you that the proposal was awarded a favourable ethical opinion by the committee.

Kind regards,

FHSS FREC Chair
Dr Jane Winstone

Members participating in the review:

- Margaret Clarke
- Geoff Wade
- Jane Winstone

Appendix 6: Key Features of Investigative Interviewing

Investigative interviewing

The term '*Investigative* Interviewing' separates the particular skills of generic interviewing to that whereby evidence or intelligence is gathered as part of a criminal investigation. There are many reasons to 'interview' another person prospective employees are interviewed for occupational vacancies, doctor's interview patients in order to conclude a diagnosis, and a bank manager may interview a hopeful loan applicant. Interviewing is in fact a part of everyday life. One could argue that everyday conversation between two or more individuals constitutes 'interviewing'. It is the interaction between two or more individuals with an aim of gaining comments or information.

Milne defines investigative interviewing as:

'In the context of policing, the purpose is the gathering of information, to feed into the investigative process and to later be considered as evidence' (Milne, 2005, p. 3).

The main difference between normal human interaction and interviewing within the context of a criminal investigation, is that the process of investigative interviewing must be capable of withstanding the rigours of a judicial process. Within this context there are clear legal requirements. This is similar in many ways to expectations of fairness and objectivity in the interviewing of participants in academic research. However, there are also clear 'rules' dictated by psychological research which have perhaps been even more impactive upon how witnesses and suspects should be interviewed to secure reliable and ethical interviewing, (Milne and Bull, 1999). It is argued that the same principles of Investigative Interviewing should be applied in relation to the obtaining of information from any person, including academic research.

Table 2.5 – The PEACE Model

	Explanation	Commentary
P	Planning and Preparation	The planning and preparation is when the researcher will organise and plan for the interview and make mutually agreeable arrangements with participants in relation to the interview. This will also require a semi-structured interview questionnaire to guide the researcher into various generic issues which are required to be covered.
E	Engage and Explain	Engage and explain is the phase of the interview where rapport is built. This is often overlooked but is a very important part of the process as this could determine the relationship with the

		participant and therefore builds trust and eventually the amount of information and data obtained.
A	Account	The account phase is the actual interview itself. It is essential that open questions (TED questions, Griffiths and Milne 2006) are used to elicit the maximum information. Questioning style is very important to the researcher as the over use of questioning styles can skew the answers given. Leading questions which inherently contain a degree of the questioner's own bias can be particularly dangerous and research has shown that police officers, when interviewing adult witnesses, who use such questions risk obtaining erroneous information. (Clarke & Milne, 2001). It is equally important to allow the interviewee plenty of time to answer the question and for the interviewer to use silence to their advantage. Research in the United States in the early 90's revealed that police officers on average allow an interviewee just 6 seconds to answer a question and in this way, the interviewee becomes accustomed to answering with short factual responses and not then elaborate the wealth of other information which a researcher seeks (Fisher and Geiselman, 1992).
C	Closure	Closure of the interview describes the ending of the process and informing the interviewee what will happen next, thanking them for their participation and arranging any follow up processes.
E	Evaluation	Evaluation is twofold. Firstly, it is to reflect on the process of the interview itself – what went well, what went not so well and what can I learn from it for the next interview? Secondly is the actual process of evaluation of the collected data and deciding on issues such as transcription, content analysis and deriving meaning from the assembled material.

There are alternative models: Whiting (2008) describes an alternative model for the research interview starting with *rapport building* and engaging in general conversation prior to the main focus of the interview commencing. This then develops into the *exploration phase* in which more in depth discussion of the issues takes place. Once comfort levels are reached, the interview enters the *co-operation* phase where there is free discussion and the interviewee should show signs of enjoying the process. The penultimate level is the *participation phase* where the interviewee is fully engaged and actively 'guiding and teaching' the interviewer and the final stage is concluding the interview.

There are precedents for the use of semi structured interviews in criminal justice enquiries. Savage and Milne (2007) used semi-structured interviews with a range of individuals associated with miscarriages of justice. Interviewees included representatives from campaigning

organisations, lawyers, journalists, victims and relatives of victims of miscarriages of justice. The research aimed to determine both the 'critical failure points' across a range of past cases of miscarriages of justice. One of the principles of Investigative interviewing is the type of questions used when speaking to the focus groups. Historically the use of 'open questions' were those preceded with what are sometimes referred to as 'Kipling's wise men' which prefix any question with *what, when, where, why, who and how.* This is sometimes referred to as '5WH' (Kipling, 1902) see figure 11 (Kipling, 1902).

> I Keep six honest serving-men: (They taught me all I know)
> Their names are What and Where and When and How and
> Why and Who.

Kipling (1992)

Although these types of questions are preferable to closed questions which tend to elicit a one word answer, open questions are now considered to be those which prefix with 'Tell me..., Explain to me... and Describe to me...'. These are referred to as TED questions (Griffiths and Milne 2006; Oxburgh, Myklebust and Grant 2010). The use of open questions will elicit the maximum information from an interviewee as it does not encourage a yes or no answer and allows the respondent to explain their answer thus gaining more information on which to base further questions.

Appendix 7: SPSS output for Multi-dimensional Scaling

```
PROXIMITIES  S G NS H PH DA EM EF MAM MAF YA CYP I M Med DV V
 /PRINT NONE
 /MATRIX OUT('C:\Users\Dean\AppData\Local\Temp\spss357180\spssalsc.tmp')
 /MEASURE=EUCLID
 /STANDARDIZE=NONE
 /VIEW=VARIABLE.
```

Notes

Output Created		
Comments		
Input	Data	
	Active Dataset	
	Filter	
	Weight	
	Split File	
	N of Rows in Working Data File	
Missing Value Handling	Definition of Missing	
	Cases Used	
Syntax		
Resources	Processor Time	
	Elapsed Time	
	Workspace Bytes	
Files Saved	Matrix File	

Notes

Output Created		25-MAR-2016 09:32:03
Comments		
Input	Data	C:\Users\Dean\Desktop\Draft THESIS\SPSS Output\SSA Chart.1.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	17
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on cases with no missing values for any variable used.
Syntax		PROXIMITIES S G NS H PH DA EM EF MAM MAF YA CYP I M Med DV V /PRINT NONE /MATRIX OUT('C:\Users\Dean\AppData\Local\Temp\spss357180\spssalsc.tmp') /MEASURE=EUCLID /STANDARDIZE=NONE /VIEW=VARIABLE.
Resources	Processor Time	00:00:00.00
	Elapsed Time	00:00:00.00
	Workspace Bytes	1432
Files Saved	Matrix File	C:\Users\Dean\AppData\Local\Temp\spss357180\spssalsc.tmp

Case Processing Summary[a]

Cases					
Valid		Missing		Total	
N	Percent	N	Percent	N	Percent
17	100.0%	0	0.0%	17	100.0%

a. Euclidean Distance used

Proximities

```
ALSCAL
 /MATRIX=IN('C:\Users\Dean\AppData\Local\Temp\spss357180\spssalsc.tmp')
 /LEVEL=ORDINAL
 /CONDITION=MATRIX
 /MODEL=EUCLID
 /CRITERIA=CONVERGE(0.001) STRESSMIN(0.005) ITER(30) CUTOFF(0) DIMENS(2,2)
```

/PLOT=DEFAULT ALL
/PRINT=DATA HEADER.

Alscal

Notes

Output Created		25-MAR-2016 09:32:03
Comments		
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	Active Dataset	DataSet1
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	Weight	<none>
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	N of Rows in Working Data File	17
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Resources	Processor Time	00:00:00.50
	Elapsed Time	00:00:00.50

Alscal Procedure Options

Data Options-
Number of Rows (Observations/Matrix). 17
Number of Columns (Variables) 17
Number of Matrices 1
Measurement Level . . . . . Ordinal
Data Matrix Shape . . . . . Symmetric
Type . . . . . Dissimilarity
Approach to Ties . . . . . Leave Tied
Conditionality . . . . . Matrix
Data Cutoff at 000000

Model Options-
Model . . . . . Euclid
Maximum Dimensionality 2
Minimum Dimensionality 2
Negative Weights . . . . . Not Permitted

Output Options-
Job Option Header . . . . . Printed
Data Matrices . . . . . Printed
Configurations and Transformations . . . Plotted
Output Dataset . . . . . Not Created
Initial Stimulus Coordinates . . . . . Computed

Algorithmic Options-
Maximum Iterations 30
Convergence Criterion 00100
Minimum S-stress 00500
Missing Data Estimated by . . . . . Ulbounds
Tiestore 136

Appendices

Raw (unscaled) Data for Subject 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	.000																
2	2.291	.000															
3	2.694	2.055	.000														
4	1.353	2.146	2.056	.000													
5	1.954	1.568	1.770	2.040	.000												
6	2.091	1.852	1.623	1.653	1.605	.000											
7	1.782	1.586	1.995	1.506	1.896	2.080	.000										
8	2.016	1.562	1.923	1.678	1.815	2.168	1.760	.000									
9	2.026	1.813	1.825	1.985	1.496	1.501	1.974	2.167	.000								
10	2.056	1.517	1.791	2.027	1.415	1.596	1.828	1.895	1.865	.000							
11	1.945	2.144	1.608	1.485	1.753	1.234	1.954	2.066	2.107	1.875	.000						
12	1.491	1.824	2.064	1.738	1.669	1.876	1.697	1.800	1.904	1.727	1.756	.000					
13	1.543	1.726	1.981	1.771	1.647	1.875	1.616	1.755	1.724	1.703	1.832	1.573	.000				
14	1.799	1.825	1.889	1.402	1.914	1.669	1.583	1.544	2.261	1.782	1.390	1.360	1.848	.000			
15	1.677	1.924	1.937	1.373	1.934	1.934	1.523	1.312	2.223	1.550	1.661	1.797	1.799	1.244	.000		
16	1.367	2.135	2.211	1.495	1.554	1.672	1.983	1.975	2.191	1.709	1.319	1.166	1.804	1.344	1.734	.000	
17	1.469	1.695	2.280	1.382	1.661	1.619	1.600	1.616	2.000	2.115	1.577	1.569	1.605	1.370	1.748	1.497	.000

Iteration history for the 2 dimensional solution (in squared distances)

Young's S-stress formula 1 is used.

Iteration	S-stress	Improvement
1	.34179	
2	.29967	.04212
3	.29306	.00661
4	.29140	.00167
5	.29079	.00061

Iterations stopped because
S-stress improvement is less than .001000

Stress and squared correlation (RSQ) in distances

RSQ values are the proportion of variance of the scaled data (disparities)
in the partition (row, matrix, or entire data) which
is accounted for by their corresponding distances.
Stress values are Kruskal's stress formula 1.

For matrix
Stress = .21727 RSQ = .71372

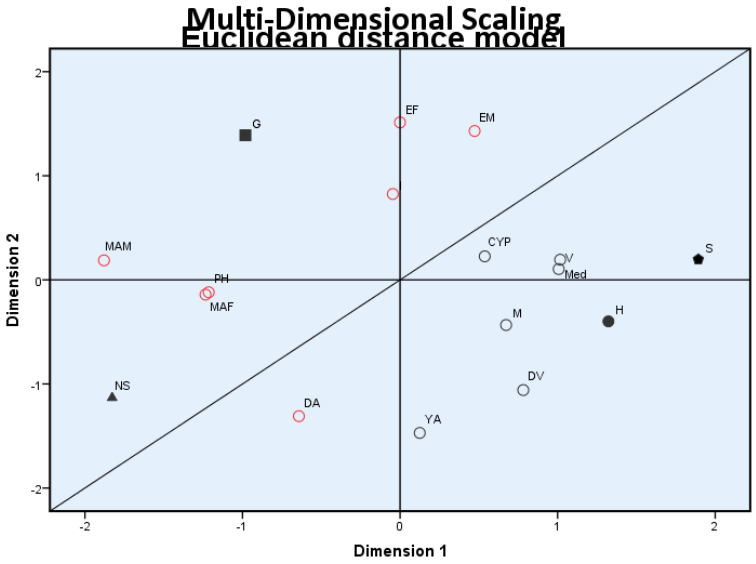
Configuration derived in 2 dimensions

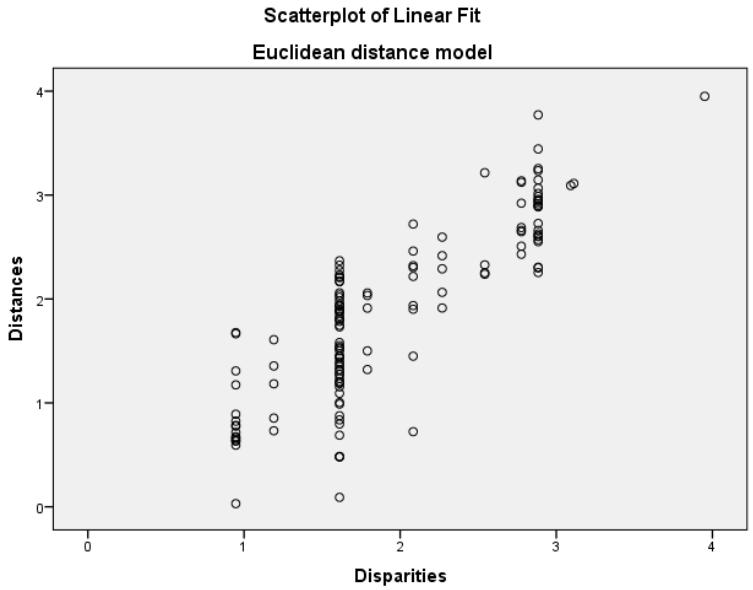
Stimulus Coordinates

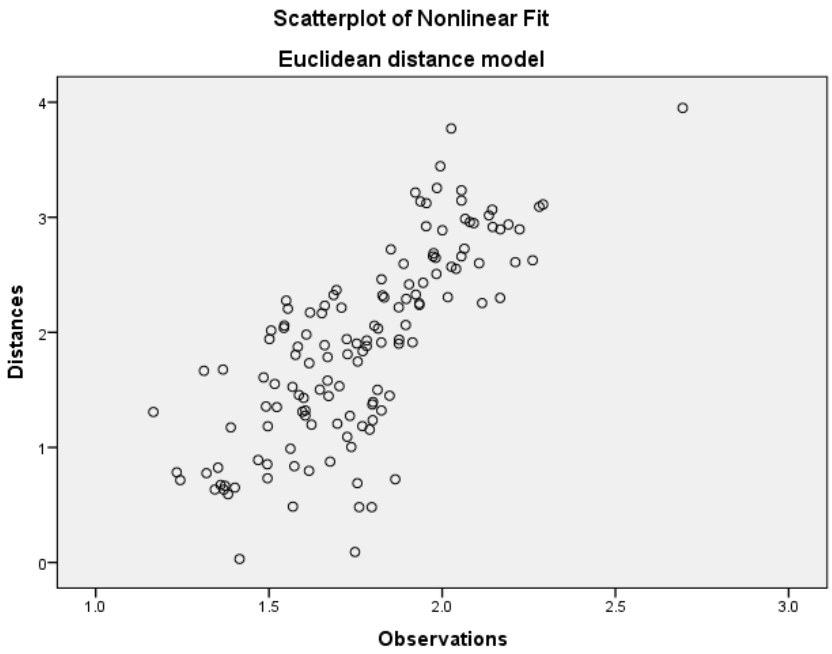
Stimulus Number	Stimulus Name	Dimension 1	Dimension 2
1	S	1.8926	.1970
2	G	-.9816	1.3893
3	NS	-1.8273	-1.1330
4	H	1.3225	-.3984
5	PH	-1.2141	-.1190
6	DA	-.6426	-1.3101
7	EM	.4731	1.4302
8	EF	-.0007	1.5129
9	MAM	-1.8792	.1866
10	MAF	-1.2348	-.1417
11	YA	.1244	-1.4711
12	CYP	.5369	.2264
13	I	-.0464	.8255
14	M	.6727	-.4336
15	Med	1.0163	.1938
16	DV	.7815	-1.0584
17	V	1.0067	.1035

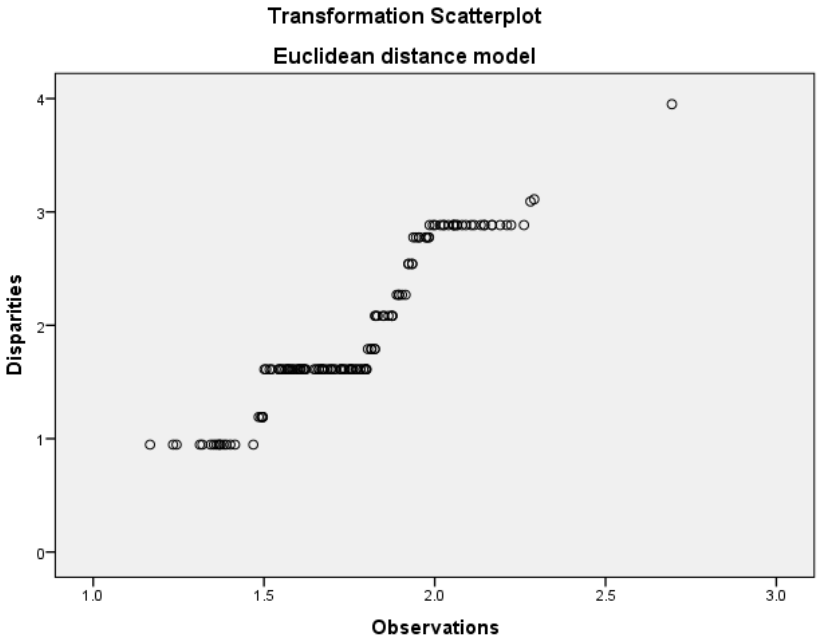
Optimally scaled data (disparities) for subject 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	.000																
2	3.112	.000															
3	3.951	2.884	.000														
4	.947	2.884	2.884	.000													
5	2.776	1.612	1.612	2.884	.000												
6	2.884	2.083	1.612	1.612	1.612	.000											
7	1.612	1.612	2.884	1.612	2.269	2.884	.000										
8	2.884	1.612	2.542	1.612	1.790	2.884	1.612	.000									
9	2.884	1.790	1.790	2.884	1.191	1.612	2.776	2.884	.000								
10	2.884	1.612	1.612	2.884	.947	1.612	2.083	2.269	2.083	.000							
11	2.776	2.884	1.612	1.191	1.612	.947	2.776	2.884	2.884	2.083	.000						
12	1.191	1.790	2.884	1.612	1.612	2.083	1.612	1.612	2.269	1.612	1.612	.000					
13	1.612	1.612	2.776	1.612	1.612	2.083	1.612	1.612	1.612	1.612	2.083	1.612	.000				
14	1.612	2.083	2.269	.947	2.269	1.612	1.612	1.612	2.884	1.612	.947	.947	2.083	.000			
15	1.612	2.542	2.776	.947	2.542	2.542	1.612	.947	2.884	1.612	1.612	1.612	1.612	.947	.000		
16	.947	2.884	2.884	1.191	1.612	1.612	2.776	2.776	2.884	1.612	.947	.947	1.790	.947	1.612	.000	
17	.947	1.612	3.092	.947	1.612	1.612	1.612	1.612	2.884	2.884	1.612	1.612	1.612	.947	1.612	1.191	.000


Multi-Dimensional Scaling
Euclidean distance model
G
EF
EM
I
MAM
CYP
V
Med
S
PH
MAF
M
H
NS
DV
DA
YA
Dimension 2
Dimension 1


Scatterplot of Linear Fit
Euclidean distance model
Distances
Disparities


Scatterplot of Nonlinear Fit
Euclidean distance model
Distances
Observations
0
1
2
3
4
1.0
1.5
2.0
2.5
3.0


Transformation Scatterplot
Euclidean distance model
Disparities
Observations
0
1
2
3
4
1.0
1.5
2.0
2.5
3.0

Appendix 8: SPSS output for Multi-dimensional Unfolding

```
PREFSCAL VARIABLES=S G NS H PH DA EM EF MAM MAF YA CYP I M Med DV V
/INITIAL=CLASSICAL(TRIANGLE)
/CONDITION=ROW
/TRANSFORMATION=ORDINAL(KEEPTIES)
/PROXIMITIES=SIMILARITIES
/CRITERIA=DIMENSIONS(2,2) DIFFSTRESS(.000001) MINSTRESS(.0001) MAXITER(5000)
/PENALTY=LAMBDA(0.5) OMEGA(1.0)
/PRINT=MEASURES COMMON
/PLOT=COMMON.
```

Prefscal

Notes

Output Created		11-APR-2016 11:14:54
Comments		
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	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	17
Syntax		PREFSCAL VARIABLES=S G NS H PH DA EM EF MAM MAF YA CYP I M Med DV V /INITIAL=CLASSICAL(TRIANGLE) /CONDITION=ROW /TRANSFORMATION=ORDINAL(KEEPTIES) /PROXIMITIES=SIMILARITIES /CRITERIA=DIMENSIONS(2,2) DIFFSTRESS(.000001) MINSTRESS(.0001) MAXITER(5000) /PENALTY=LAMBDA(0.5) OMEGA(1.0) /PRINT=MEASURES COMMON /PLOT=COMMON.
Resources	Processor Time	00:00:00.91
	Elapsed Time	00:00:00.94

Warnings

Negative proximities found.

Credit

Prefscal
Version 1.0
by
Data Theory Scaling System Group (DTSS)
Faculty of Social and Behavioral Sciences
Leiden University, The Netherlands

Case Processing Summary

Cases	17
Sources	1
Row Objects	17
Column Objects	17

Analysis Diagnostics

History of Iterations

Iteration	Penalized Stress	Difference	Stress	Penalty
0	.9391690		.5415626	1.6286916
5000[a]	.2488918	.0000006	.0161926	3.8256498

a. Maximum number of iterations (MAXITER) exceeded.

Measures

Iterations		5000
Final Function Value		.2488918
Function Value Parts	Stress Part	.0161926
	Penalty Part	3.8256498
Badness of Fit	Normalized Stress	.0002622
	Kruskal's Stress-I	.0161925
	Kruskal's Stress-II	.2290840
	Young's S-Stress-I	.0315057
	Young's S-Stress-II	.1724638
Goodness of Fit	Dispersion Accounted For	.9997378
	Variance Accounted For	.9664407
	Recovered Preference Orders	.7154587
	Spearman's Rho	.8369317
	Kendall's Tau-b	.7563974
Variation Coefficients	Variation Proximities	.3913715

	Variation Transformed Proximities	.3028881
	Variation Distances	1.0788147
Degeneracy Indices	Sum-of-Squares of DeSarbo's Intermixedness Indices	1.4495751
	Shepard's Rough Nondegeneracy Index	.4584775

Common Space

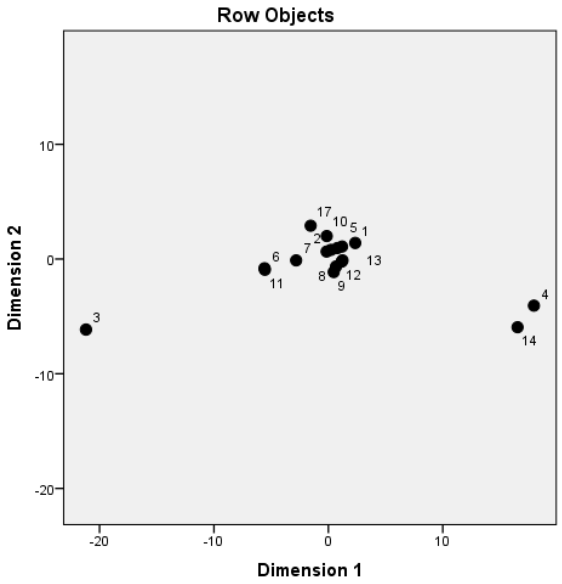
Final Row Coordinates

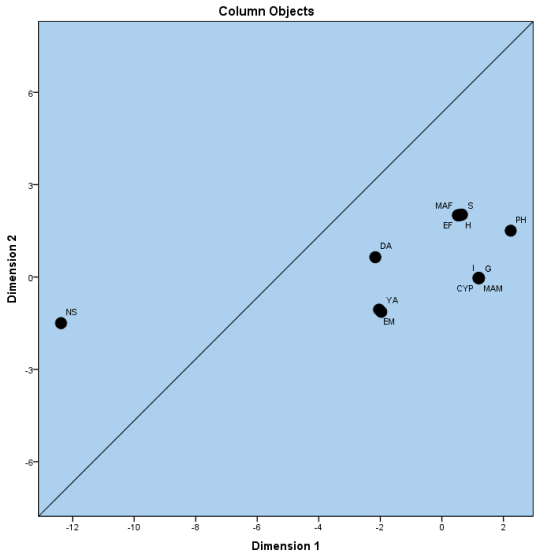
	Dimension	
	1	2
1	2.343	1.401
2	-.157	.654
3	-21.185	-6.151
4	17.961	-4.065
5	1.199	1.085
6	-5.581	-.807
7	-2.820	-.116
8	.220	.795
9	.469	-1.135
10	-.142	2.000
11	-5.553	-.936
12	1.172	-.218
13	1.230	-.117
14	16.535	-5.948
15	.783	.961
16	.665	-.654
17	-1.550	2.905

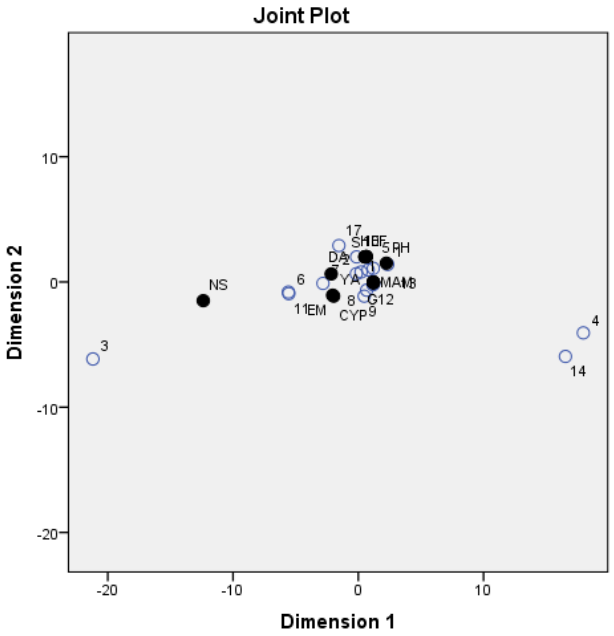
Final Column Coordinates

	Dimension	
	1	2
S	.652	2.027
G	1.199	-.029
NS	-12.375	-1.498
H	.614	2.019
PH	2.237	1.504
DA	-2.162	.643
EM	-2.043	-1.057
EF	.522	2.006
MAM	1.201	-.034

MAF	.532	2.006
YA	-1.967	-1.133
CYP	1.192	-.035
I	1.204	-.040
M	.597	2.018
Med	1.201	-.029
DV	1.195	-.036
V	.612	2.016






Joint Plot
Dimension 2
Dimension 1
10
0
-10
-20
-20
-10
0
10
NS
3
4
14
6
11
EM
8
CYP
9
G12
17
5
RH
YA
MA
M8

Appendix 9: Police Practice Advice

DRAFT

Prepared by Dean Jones as part of suggested practice advice to police for the investigation of sudden and unexplained death. This is part of a far larger document considering all aspects of the scene management and pathology considerations in a 'suspicious death investigation.

PRACTICE ADVICE FOR DEALING WITH UNEXPLAINED DEATH AND THE MEDICAL INVESTIGATION

Section 1: INTRODUCTION

This document provides advice on dealing with the initial stages of a sudden and unexplained death; for those cases where a decision is made that medical assistance is required; and on the role and provision of forensic pathology assistance in police death investigations. Dealing with the death of a human being is one of the most fundamental of police roles, and one that over the years has brought much criticism to the police service in England and Wales.

A report published by the Forensic Science Regulator in November 2015;

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/484298/Report_into_the_2012_FSR_FP_Audit_Publication_copy_pdf.pdf

highlights the potential to 'miss' a homicide. In order to reduce the likelihood of such an eventuality, it is essential that the police service deal with death in a systematic and professional manner.

Forensic pathology is an essential element in most suspicious death and homicide investigations. Senior investigating officers (SIOs) require a clear knowledge of how pathology can assist the investigation, and of the varied issues that are associated with the discipline.

Home Office Registered Forensic Pathologists are appointed in each suspicious death case by the Senior Coroner for the relevant district, in consultation with the local Chief Officer of Police (although in practice this will be the Senior Investigating Officer (SIO). In such cases, the pathologist receives a small fee from the coroner, but the main case fee is paid by the police.

Forensic pathology in England and Wales is overseen by the Home Office Pathology Delivery Board (PDB), which is responsible for the maintenance of the Home Office Register of forensic pathologists, and issues connected with the medical investigation of death in police cases.

ACTIONS AT THE SCENES OF SUDDEN AND UNEXPLAINED DEATH

Police involvement in a sudden and unexplained death will usually commence with a call into the command and Control centre. This may lead to the deployment of an officer to the scene of where the body lies. This is an important phase of the investigation and it is essential that the call handler ensures that the following actions are completed:

Caller details are obtained

Location of the body is ascertained

Establish if an ambulance has been deployed

Establish who is present with the body

Ensure intelligence checks are made in respect of the deceased and the address at which the body is located

Risk assessment is undertaken prior to deployment of resources

Deployment of resources is made in accordance with force procedures

Language use when deploying officers is non-judgemental and unbiased in order that the attending officer does not pre-judge whether the death is suspicious or not.

The overriding priority for the attending officer is firstly their own health and safety, and secondly to preserve life. The person may not in fact be dead so the question as to whether life is extinct will need to be established. The officer should consider first aid and other life saving measures as a priority. They should also confirm with the control room whether an ambulance has been deployed. If there is any doubt whether the person is alive or dead, an ambulance should be deployed (a FME/Nurse/police surgeon should not normally be called as they are not trained to deal with potential crime scenes).

If the case appears to be non-suspicious, the General Practitioner who has treated the deceased within 14 days of death may attend and issue a Medical Certificate of the Cause of Death form (MCCD). Once this has been issued, there may be no further need for police involvement other than security of any property.

If a MCCD cannot be issued, the case will have to be referred to the coroner for investigation, who should be informed as soon as possible after the discovery of the body. If the cause of death cannot immediately be ascertained from the available medical evidence, the case should be considered a 'suspicious' death and the attending police officer will need to conduct the following enquiries;

- Note what you see and what you do (consider Body Worn Video/notes sketch etc.)
- Assess body – injuries/trauma?
- Sign of break in/disturbance/alcohol/drugs (including paraphernalia).
- Search scene for other bodies/offender present or hiding?
- Establish if the deceased was vulnerable
- Intelligence checks on deceased and on property
- Identify witnesses
- Consider the death as suspicious until identified otherwise – keep an open mind
- If third party insolvent is suspected, protect the scene, set up a cordon and scene log. Call for assistance and maintain a scene log.
- ABC – Assume nothing; Believe nobody; Challenge everything!
- Ensure a supervisor is informed
- Call the on-duty CSI

Appendix 10: Form UPR 16

FORM UPR16

University of Portsmouth

Postgraduate Research Student (PGRS) Information			**Student ID:**	15040
PGRS Name:	Dean Jones			
Department:	ICJS	**First Supervisor:**	Prof Becky Milne	
Start Date: (or progression date for Prof Doc students)		**Sept 2014**		

Appendices

Study Mode and Route:	Part-time	☒	MPhil	☐	MD	☐
	Full-time	☐	PhD	☐	Professional Doctorate	☒

Title of Thesis:	Fatal Call: Getting away with murder?
Thesis Word Count: (excluding ancillary data)	49532

Appendices

If you are unsure about any of the following, please contact the local representative on your Faculty Ethics Committee for advice. Please note that it is your responsibility to follow the University's Ethics Policy and any relevant University, academic or professional guidelines in the conduct of your study

Although the Ethics Committee may have given your study a favourable opinion, the final responsibility for the ethical conduct of this work lies with the researcher(s).

UKRIO Finished Research Checklist:

(If you would like to know more about the checklist, please see your Faculty or Departmental Ethics Committee rep or see the online version of the full checklist at: http://www.ukrio.org/what-we-do/code-of-practice-for-research/)

a) Have all of your research and findings been reported accurately, honestly and within a reasonable time frame?	YES ☒ NO ☐
b) Have all contributions to knowledge been acknowledged?	YES ☒ NO ☐

c) Have you complied with all agreements relating to intellectual property, publication and authorship?	YES ☒ NO ☐
d) Has your research data been retained in a secure and accessible form and will it remain so for the required duration?	YES ☒ NO ☐
e) Does your research comply with all legal, ethical, and contractual requirements?	YES ☒ NO ☐

Candidate Statement:
I have considered the ethical dimensions of the above named research project, and have successfully obtained the necessary ethical approval(s)

Ethical review number(s) from Faculty Ethics Committee (or from NRES/SCREC):		14 15:19
If you have *not* submitted your work for ethical review, and/or you have answered 'No' to one or more of questions a) to e), please explain below why this is so:		
Signed *(PGRS)*:		**Date:** 22/8/2016

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