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THE CORONER IN ENGLAND AND WALES;  
CORONIAL DECISION-MAKING AND LOCAL VARIATION IN CASE OUTCOMES

Maxwell Mclean

A thesis submitted to the University of Huddersfield in partial fulfilment of the  
requirements for the degree of Doctor of Philosophy

The University of Huddersfield

March 2015

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## **ABSTRACT**

### **THE CORONER IN ENGLAND AND WALES;**

#### **CORONIAL DECISION-MAKING AND LOCAL VARIATION IN CASE OUTCOMES**

The investigation and classification of deaths in England and Wales relies upon the application by medical practitioners of diverse reporting standards set locally by coroners and thereafter upon the effectively unconstrained decision process of those same coroners. This research, using extensive analysis of Ministry of Justice (MOJ) and Office for National Statistics (ONS) data, presents comprehensive analysis of local variation in coronial outcomes across the three decision-making stages of whether to report the death, to advance to inquest, and the choice of inquest conclusion.

Substantial local variation was found in reporting rates to the coroner over time (12-87%) and in rates of advancing reports of death to an inquest (6-29%). The profiles of inquest verdicts varied widely between coroner areas with some verdicts more prone to varied levels of use. Individual coroner areas were consistent over time in their rates of reporting, advancing to inquest and use of verdicts. The gender of the deceased was a major factor with all coroner areas reporting proportionately fewer female deaths than male, and female deaths being overall half as likely as that of a male to proceed to an inquest. Once at inquest, a woman's death was more likely to yield a verdict of natural causes than that of a man. Coroners seemed *prima facie* to be 'gendered' in their approach to verdicts; that is, they were consistently more likely to favour a particular verdict when dealing with a death, according to the gender of the deceased.

Decision Board Analysis (DBA), comprising three typical coroner case scenarios, was utilised to analyse the decision-making style of incumbent coroners. The DBA allowed for an examination of the way in which available case information was managed prior to coming to a conclusion, and free text respondent comments were captured.

Coroners were found to vary widely in their choices of outcomes yet they managed the available information in a similar way, reading concordant amounts of information and agreeing on the relative salience of the available information. Coroners sometimes robustly defended chosen outcomes against alternatives with dichotomous positions being taken. Variation in coronial outcome could not be explained by any variation in decision-making style. Further analysis of coroners' local practices and their determinants seems necessary.

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The study could not have been undertaken without the assistance of statistics and analytical staff at both the Ministry of Justice and Office for National Statistics. The particular help offered early in the study by Mr. Richard Allen, previously of MOJ, was crucial to the viability of the research.

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<b>List of contents</b>	p.6
<b>List of Figures</b>	p. 13
<b>List of Tables</b>	p. 15
<b>List of Appendices</b>	p. 17
<b>List of recommendations</b>	p.262
<b>Bibliography</b>	p.267
<b>Appendices A-K</b>	p.277

## **CONTENTS**

<b>CHAPTER 1 INTRODUCTION</b>	p.19
<b>CHAPTER 2 THE ROLE OF THE CORONER - REVIEWING THE LITERATURE</b>	p.30
2.1 The evolution of the coroners' court	p.30
2.2 The role of the coroner in the 21 <sup>st</sup> century	p.32
2.3 Coroner powers – a legal framework	p.34
2.4 Three stages of coronial decision-making – reporting a death, taking to inquest, conclusion	p.36
2.5 The coroner's caseload	p.40
2.6 Death in England and Wales – the overall picture	p.41
2.7 Inquests and decision-making	p.43
2.8 Consistency, idiosyncrasy and decision-making – a review of the literature	p.45
2.8.1 Inconsistency – reporting deaths to the coroner	p.46
2.8.2 Inconsistency – inquest procedures and verdicts	p.49
2.8.3 Inconsistency – decision-making and heuristics	p.54
2.8.3.1 The Origins of the Decision Board	p.58
2.8.4 Inconsistency – structural reform	p.59
2.8.5 The investigation of death by gender of the deceased	p.61
2.8.5.1 Gender and the age of the deceased	p.64
2.8.5.2 Gender and suicide	p.64
2.8.6 Interpreting the data- a cautionary note	p.66
2.9 The present thesis	p.71
2.10 A changing landscape?	p.74
<b>CHAPTER 3 METHODOLOGY</b>	p.77
3.1 Introduction	p.77
3.2 Aims and objectives	p.77
3.2.1 Stage 1: Reporting a death to the coroner	p.78
3.2.2 Stage 2: Advancing to inquest	p.78
3.2.3 Stage 3: What verdict?	P.78

3.3	Method	p.78
3.3.1	Where coroner data are held	p.78
3.3.2	Quality and consistency of the data	p.79
3.3.3	Accessing the data	p.81
3.3.3.1	Stage 1: Reporting a death to the coroner	p.81
3.3.3.2	Additional data	p.82
3.3.3.3	Stages 2 and 3: Advancing to inquest; and what verdict?	p.83
3.4	Weaknesses and limitations in the data	p.84
3.5	Data cleaning	p.86
3.6	Data analysis	p.87
3.6.1	Data analysis – prioritising analysis of variation between coroner areas	p.88
3.6.2	Data analysis by gender	p.89

#### **CHAPTER 4 REPORTING DEATHS TO THE CORONER IN ENGLAND AND WALES**

		p.90
4.1	Introduction	p.90
4.2	Duty to report deaths	p.90
4.2.1	The 'fail-safe' system	p.92
4.3	Results – Analysis of reporting rates of deaths to coroners in England and Wales	p.94
4.3.1	Reporting deaths to the coroner, England and Wales	p.94
4.3.2	Local variation in reporting deaths to the coroner	p.94
4.3.3	The reporting of death to the coroner according to the gender of the deceased	p.101

#### **CHAPTER 5 ADVANCING TO INQUEST AND CHOICE OF VERDICT**

5.1	Introduction	p.102
5.2	The inquest – legal framework	p.102
5.3	Results – analysis of advancing to inquest, and what verdict?	P.106
5.3.1	Stage 2: Advance to inquest?	P.106
5.3.2	Advance to inquest? Local disparity	p.107
5.3.3	Stage 3: What verdict?	P.108
5.3.4	What verdict? Local disparity in verdict choice	p.110

5.3.5	Verdict substitution	p.114
5.4	Using the narrative verdict	p.116

**CHAPTER 6** CORONIAL DEATH INVESTIGATION AND THE GENDER OF THE DECEASED p.121

6.1	Introduction	p.121
6.2	Analysis – disparity and the three stage decision process	p.122
6.2.1	Stage 1: Report the death? Disparity and gender	p.123
6.2.2	Stage 2: Proceed to inquest? Disparity and gender	p.125
6.2.3	Stage 3: What verdict? Disparity and gender	p.126
6.2.3.1	Inquest verdicts and gender	p.128
6.2.3.2	Verdicts of death by natural causes	p.130
6.2.3.3	Dying ‘unnaturally’: An unequal affair?	P.131
6.2.4	Local disparity and gender	p.132
6.2.4.1	Stage 1: Report the death? Local disparity and gender	p.133
6.2.4.2	Stage 2: Advance to inquest? Local disparity and gender	p.135
6.2.4.3	Stage 3: What verdict? Local disparity and gender	p.137
6.2.5	The gendered coroner?	P.143

**CHAPTER 7** METHODOLOGY FOR DECISION BOARD ANALYSIS p.149

7.1	Introduction	p.149
7.2	Aims and objectives	p.150
7.3	Research design	p.150
7.3.1	Research ethics	p.152
7.4	Decision Board Analysis: Developing a decision-making research tool	p.152
7.4.1	Participant selection criteria	p.153
7.4.1.1	The semi structured interview; an alternative participant research tool	p.153
7.5	Research methods	p.155
7.5.1	Decision Board Analysis – the origins	p.155
7.5.1.1	Limitations of the Decision Board	p.157

7.5.2	Decision Board Analysis in the 21 <sup>st</sup> century	p.158
7.6	Developing a decision board for coronial decision-making	p.159
7.6.1	The generation of coronial scenarios	p.159
7.6.2	The categories of information	p.160
7.6.3	Measuring the difficulty in reaching a conclusion	p.165
7.7	The pilot	p.166
7.8	Distribution of the Decision Board	p.171
7.8.1	Participant sample demographics	p.172
7.9	Method for analysis of responses	p.173
7.9.1	MouselabWEB	p.173
7.9.2	Coroner test 0 page	p.173
7.10	Quantitative research	p.174
7.10.1	Hypotheses	p.174
7.10.2	The quantitative research variables	p.175
7.10.3	Statistical techniques to explore relationships among variables	p.177
7.11	Qualitative research	p.180
7.11.1	Qualitative content analysis	p.180
<b>CHAPTER 8 RESULTS OF DECISION BOARD ANALYSIS</b>		<b>p.182</b>
8.1	Participant sample demographics	p.175
8.1.1	Decision-making style	p.183
8.2	Results	p.185
8.2.1	Would the choice of conclusion vary between coroners?	P.186
8.2.1.1	Scenario 1 – choice of conclusion	p.186
8.2.1.2	Scenario 1 – coroner gender and conclusion chosen	p.187
8.2.1.3	Scenario 1 – coroner experience and conclusion chosen	p.187
8.2.1.4	Scenario 1 – the modal conclusion	p.188
8.2.1.5	Scenario 1 – alternative conclusions	p.188
8.2.1.6	Scenario 1 – qualitative analysis	p.189
8.2.1.7	Scenario 2 – choice of conclusion	p.191
8.2.1.8	Scenario 2 – coroner gender and conclusion chosen	p.192
8.2.1.9	Scenario 2 – coroner experience and conclusion chosen	

		p.193
8.2.1.10	Scenario 2 – the modal conclusion	p.193
8.2.1.11	Scenario 2 – alternative conclusions	p.194
8.2.1.12	Scenario 2 – qualitative analysis	p.195
8.2.1.13	Scenario 3 – choice of conclusion	p.198
8.2.1.14	Scenario 3 – coroner gender and conclusion chosen	p.199
8.2.1.15	Scenario 3 – coroner experience and conclusion chosen	p.200
8.2.1.16	Scenario 3 – the modal conclusion	p.200
8.2.1.17	Scenario 3 – alternative conclusions	p.201
8.2.1.18	Scenario 3 – qualitative analysis	p.202
8.2.1.19	All three scenarios - coroner characteristics and choice of conclusion	p.205
8.2.1.20	All three scenarios – first and alternative conclusions	p.206
8.2.1.21	Summary – would the choice of conclusion vary between coroners?	P.207
8.2.2	Would the number of information categories read before arriving at a conclusion vary between coroners?	P.210
8.2.2.1	Scenario 1 – number of information categories read	p.211
8.2.2.2	Scenario 2 – number of information categories read	p.212
8.2.2.3	Scenario 3 – number of information categories read	p.213
8.2.2.4	All three scenarios – differences between coroners in reading information	p.215
8.2.2.5	Summary – would the number of information categories read before arriving at a conclusion vary between coroners?	P.216
8.2.3	Would the order in which information was read vary between coroners?	P.217
8.2.3.1	Scenario 1 – order of reading information categories	p.218
8.2.3.2	Scenario 2 – order of reading information categories	p.221
8.2.3.3	Scenario 3 – order of reading information categories	

		p.223
8.2.3.4	All three scenarios – tendency to the same three categories	p.225
8.2.3.5	Summary – would the order in which information was read vary between coroners?	P.227
8.2.4	Would which information categories were read prior to a decision vary between coroners?	P.228
8.2.4.1	Scenario 1	p.229
8.2.4.2	Scenario 2	p.230
8.2.4.3	Scenario 3	p.231
8.2.4.4	All three scenarios – information salience	p.232
8.2.4.5	All three scenarios – information categories and frequency of access	p.233
8.2.4.6	Summary – would which information categories were read prior to a decision vary between coroners?	p.236
8.2.5	Would the difficulty expressed in arriving at a conclusion vary between coroners?	P.237
8.2.5.1	All three scenarios – difficulty scores	p.237
8.2.5.2	Relationship between difficulty in making a decision and amount of information accessed	p.238
8.2.5.3	Relationship between difficulty in making a decision and the gender of the respondent	p.239
8.2.5.4	Summary – would the difficulty expressed in arriving at a conclusion vary between coroners?	P.240

## **CHAPTER 9 KEY FINDINGS AND DISCUSSION** p.242

9.1	Key Findings and Discussion - a summary	p.242
9.1.1	On reporting deaths to the coroner (p.91)	p.242
9.1.2	On inquests and choice of verdict (p.103)	p.242
9.1.3	On coroners and gender (p.122)	p.245
9.1.4	On decision-making measured by DBA (p.187)	p.243
9.1.4.1	The choice of outcome	p.244
9.1.4.2	The number of information categories read	p.246
9.1.4.3	The order in which information was read	p.247

9.1.4.4	The information categories which were read	p.246
9.1.4.5	The difficulty expressed in arriving at a conclusion	p.247
9.2	Discussion	p.247
9.2.1	On reporting deaths to the coroner	p.249
9.2.2	On advancing to inquest	p.249
9.2.3	On the choice of verdict	p.250
9.2.4	On the gender of the deceased	p.252
9.2.5	On coronial decision-making	p.254
9.3	Limitations of the research	p.255
9.3.1	Age of the deceased	p.255
9.3.2	Coroner characteristics	p.256
9.3.3	Case by case detail	p.257
9.4	Implications for policy and practice	p.257
9.5	Further research	p.259
	<b>List of recommendations</b>	p.262
	<b>CHAPTER 10 CONCLUSION</b>	p.264

## FIGURES

FIGURE 1 Coronial process for dealing with a reported death	p.38
FIGURE 2 Deaths registered, deaths reported and inquest numbers, England and Wales, 2013	p.43
FIGURE 3 Conclusions recorded at inquest, by category, England and Wales, 2013	p.45
FIGURE 4 Reporting rates of deaths to coroners, all coroner areas, England and Wales, 2001-2010	p.97
FIGURE 5 Map of coroner areas in England and Wales – ten year reporting rates (2001-2010)	p.99
FIGURE 6 How registered deaths progress through the coronial process, England and Wales, 2013	p.106
FIGURE 7 Total of all inquests concluded by calendar year, England and Wales, 1995-2013	p.108
FIGURE 8 Other (narrative) verdicts, England and Wales, 1995-2013	p.117
FIGURE 9 Attrition in the system – how death investigation has different outcomes for women and men, England and Wales, 2001-2010	p.122
FIGURE 10 'Attrition line' – how women drop out of the system of death investigation, compared to men, England and Wales, 2001-2010	p. 123
FIGURE 11 Inquest verdicts recorded by gender of the deceased (excluding natural causes), all areas England and Wales, 2001-2010	p.127
FIGURE 12 Proportion of all male deaths taken up by the 6 common verdicts, England and Wales, 2001 – 2011	p.129
FIGURE 13 Proportion of all female deaths taken up by the 6 common verdicts, England and Wales, 2001 – 2011	p.129
FIGURE 14 Share of all verdicts by gender of the deceased for the six common verdicts, England and Wales, 2001-2011	p.138
FIGURE 15 Screen shot – scenarios	p.162

FIGURE 16 Screen shot – instructions to participants	p.165
FIGURE 17 Screen shot – difficulty scale	p.166
FIGURE 18 Screen shot page 2 – as distributed (identical for p3, p4 other than scenario number)	p.167
FIGURE 19 Scenario 1 – choice of conclusion	p.186
FIGURE 20 Scenario 1 – conclusion by coroner gender	p.187
FIGURE 21 Scenario 1 – first choice of alternative conclusion	p.189
FIGURE 22 Scenario 2 – choice of conclusion	p.192
FIGURE 23 Scenario 2 – conclusion by coroner gender	p.193
FIGURE 24 Scenario 2 – first choice of alternative conclusion	p.195
FIGURE 25 Scenario 3 – choice of conclusion	p.199
FIGURE 26 Scenario 3 – conclusion by coroner gender	p.200
FIGURE 27 Scenario 3 – first choice of alternative conclusion	p.202
FIGURE 28 Scenario 1 – number of information categories read	p.212
FIGURE 29 Scenario 2 – number of information categories read	p.213
FIGURE 30 Scenario 3 – number of information categories read	p.215
FIGURE 31 Order of reading information boxes – scenario 1	p.219
FIGURE 32 Order of reading information boxes – scenario 2	p.222
FIGURE 33 Order of reading information boxes – scenario 3	p.224
FIGURE 34 Three scenarios, information categories scored by order and frequency	p.232

## **TABLES**

TABLE 1 Data gathered from MOJ and ONS	p.88
TABLE 2 Deaths registered and reported to the coroner, England and Wales, by gender of the deceased, 2010 and 2001 (n='000)	p.94
TABLE 3 Ten highest reporting rates of registered deaths to coroners, England and Wales, 2001-2010	p.95
TABLE 4 Ten lowest reporting rates of registered deaths to coroners England and Wales, 2001-2010	p.96
TABLE 5 Recorded verdicts, all areas England and Wales, 1995 – 2013	p.110
TABLE 6 Mean percentage score for proportion of all verdicts taken up by individual verdicts, England and Wales, 2001-2011, n = 112	p.112
TABLE 7 Range of use of the six common verdicts across coroner areas, England and Wales, 2001-2011	p.114
TABLE 8 Coroner areas with the greatest difference in reporting rates of deaths to the coroner for males and females, all areas England and Wales, 2001-2010	p.134
TABLE 9 Coroner areas with the greatest difference in rates of proceeding to inquest for males and females, all areas England and Wales, 2001-2010	p.136
TABLE 10 Range of use of six common verdicts by gender of the deceased, all areas, 2001-2011	p.140
TABLE 11 Disparity in proportionate verdict use between male and female inquest outcomes, all areas, 2001-2011	p.141
TABLE 12 Degree of 'genderdness', all areas, all verdicts, 2001-2011	p.145
TABLE 13 Verdicts and degree of 'genderedness', all areas, 6 common verdicts, 2001-2011	p.147
TABLE 14 Quantitative research variables	p.175
TABLE 15 Statistical techniques used to analyse DBA responses	p.175
TABLE 16 Numbers of respondents who completed free text qualitative questions	p.185

TABLE 17 Outcomes and coroner characteristics – all three scenarios	p.206
TABLE 18 First/Alternative conclusion choices, all three scenarios	p.207
TABLE 19 Number of different conclusions chosen for three coronial scenarios	p.209
TABLE 20 Respondents who chose (2) Cause of death first in scenario 1 – what did they access second? (n=8)	p.220
TABLE 21 Respondents who chose 4 (Information revealed by investigation) first in scenario 1- what did they access second? (n=8)	p.220
TABLE 22 Respondents who chose 4 (Information revealed by investigation) first in scenario 2 - what did they access second? (n=12)	p.223
TABLE 23 Respondents who chose (2) Cause of death first in scenario 3 – what did they access second? (n=9)	p.225
TABLE 24 Proportion of 'first three choices' taken up by three most prevalent information categories	p.226
TABLE 25 Scenario 1, nine information categories scored by order and frequency	p.229
TABLE 26 Scenario 2, nine information categories scored by order and frequency	p.230
TABLE 27 Scenario 3, nine information categories scored by order and frequency	p.231
TABLE 28 Three scenarios, mean percentage of respondents selecting information category, by frequency	p.234
TABLE 29 Difficulty scores recorded for three scenarios	p.238
TABLE 30 Relationship between reported difficulty level and number of information categories accessed	p.239
TABLE 31 Mean difficulty scores recorded by respondents, by their gender	p.240

## Appendices

Appendix A	Ten coroner areas over ten years – a case study
Appendix B	Deaths which should always be reported to coroners (Luce 2003)
Appendix C	Coroner collection form and notes for completion (MOJ 2010)
Appendix D	Ten year reporting rates 2001-2010, all areas England and Wales
Appendix E	Degree of genderedness, all areas England and Wales, 2001-2010
Appendix F	DBA Test 'Page 0', demographic information sought from respondents
Appendix G	Coroner participation sheet/consent form, University of Huddersfield
Appendix H	Mr T. Ratcliffe – first summary of recorded discussion on decision-making methods in borderline cases for the coroner
Appendix I	Introductory e-mail contact with Mr Andre Rebello, Honorary Secretary, The Coroners Society of England and Wales
Appendix J (i)	Screen shot of datalyser file for test 1 – (identical variables for tests 2 and 3)
Appendix J (ii)	Coroner tests 1, 2 and 3 – explanation of variables in datalyser file
Appendix K (i)	Screen shot of datalyser file test 0
Appendix K (ii)	Coroner test 0 – explanation of variables in datalyser file

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## Chapter 1

### Introduction

In the year 2000 Harold Shipman, a doctor in general practice in Hyde, Cheshire, England was convicted of killing fifteen of his patients by lethal injection of controlled drugs. The subsequent Judicial Inquiry by Dame Janet Smith (Smith, 2003) made a finding of unlawful killing in a further two hundred and fifteen cases and identified another forty five cases where there was a suspicion that Shipman had been responsible for the deaths. This elevated Shipman to the status of Britain's most prolific mass murderer. The Shipman Inquiry made it clear that current coronial death investigation systems did not provide adequate protection against malpractice and made sweeping recommendations for reform described as a complete break from the past.

However, concerns soon began to emerge that the recommended changes were not happening, for example there was a lack of a coherent NHS management framework to absorb the necessary recommendations around issues such as the ability of staff to raise clinical concerns or effective managerial control of medical practitioners, and a murmuring has continued that Shipman persists as an example of very serious misconduct, up to and including murder, that might still go undetected (Field and Scotland, 2004). Luce, the author of the most recent review of coroner services in England and Wales (Luce, 2003) wrote in a British Medical Journal Editorial critical of the Government's response to the Shipman Inquiry that "*a crucial defect in the present system is the lack of any independent means of ensuring that deaths that should be reported to the coroner are reported*" (Luce, 2007 p.338). In his Fundamental Review of Coroner Services, Luce (2003) pointed out the need for change by identifying that the systems for certification by doctors and investigation by coroners had been seriously neglected over many decades. He stated that two changes were essential, first to restore public confidence in the protection afforded by the death certification process and second, to improve the response of the coroner service to families. However, the omens were not good. There had been reviews of the coroner system in 1936 and of death certification and coroner services between 1965 and 1971, and little action had been taken after either review (Luce, 2003 p.278).

There is no statutory duty placed upon a medical practitioner (e.g. general practitioner) to report a death to the coroner. The legal duty resides with the coroner to hold an inquest when defined circumstances apply, for example, deaths which are violent or unnatural and of unknown cause, or take place in prison (Coroners and Justice Act 2009, Section 1).

A coroner is an independent judicial officer, responsible only to the Crown. The coroner's legal and professional autonomy is unmatched in other judicial settings. This 800 year old role (The Coroners Society of England and Wales, 2014), so embedded in the way England and Wales has addressed sudden, unnatural or unexplained deaths for centuries is shrouded in a little mystery for even its closest engaged professionals. There is no single national coroners system. A diverse set of local area jurisdictions are in place, 114 at the beginning of this research, and 99 coroner areas at the time of writing, December 2014 (Ministry of Justice (MOJ), 2014 *Coroners Statistics 2013*). These 99 areas apply the legislative framework, the Coroners and Justice Act 2009 (and previously, during this research period, the Coroners Act 1988 and the Coroners Rules 1984) according to individual post-holder interpretation of the facts and without formal or prescriptive oversight.

The beginnings of this thesis arose from the sense of a coroner service crying out for reform and the scope for unconstrained variation in practice and outcomes across England and Wales. This led the writer to conduct an exploratory area-comparative analysis using the Ministry of Justice statistics bulletin for the year 2009. This is an annual bulletin published in the May following the relevant calendar year (so May 2010 for the data examined), and was the latest available at that time. Initial analysis revealed that, as an example, open verdicts (a verdict in its own right, used where the evidence is insufficient to satisfy any of the other conclusions), had ranged in 2009 from representing one in three total verdicts in one area (Western Dorset 24/82) to less than one in a hundred in another (Greater Norfolk 4/458). Comparable variation could be seen in other verdicts too, such as narrative verdicts in Birmingham and Solihull which accounted for half of all inquest cases in 2009 (466/962) compared with some areas which did not record a single narrative verdict that year (Western Dorset 0/82 and Carmarthenshire 0/81). Consideration of these initial findings from the MOJ statistics bulletin strengthened the realisation that astonishingly little literature was published on disparity in coroner investigation outcomes across the country (see Chapter 2 for further discussion on the dearth of relevant literature). The MOJ annual statistics bulletin made no reference to any comparative analysis of coroner areas, its focus at that time being entirely on general trends across England and Wales.

Some ten years earlier Pounder (1999 p.1502), a Professor of Forensic Medicine at the University of Dundee, had written about the coroner service as being "*a relic in need of reform*". He contended that there was a general over-reporting of deaths to the coroner, variation between coroner areas (148 at that time in England and Wales) in the rates of post-mortem examinations conducted by pathologists and authorised by coroners, and variation between areas in the rates at which investigations might come to inquest.

Pounder concluded that the inter-area variation reflected the fact that the coroner service is not a single entity, but rather "*a set of local services*" (p.1502), using a phrase which unbeknown to the writer at that time, was to become a central theme of this thesis.

Pounder's work strengthened the writer's confidence that examination of how coroners carried out their duties was an important topic for research. Would coroners differ in the number and apparent nature of deaths they would accept for investigation? Would coroners differ in which cases they might take to inquest? Would they vary in their opinion as to what constitutes a death from natural causes? Would they vary in the case characteristics they regard as salient in arriving at a choice of verdict (now 'conclusion'). Of particular interest was whether coroners would differ in their use of the available short-form and narrative conclusions? Would a fairly consistent approach be found despite the lack of national oversight and prescriptive direction?

The present thesis undertakes a review of coroner data in a comparative format and over time, presenting new information on local variation in coroner investigation outcomes across a suggested three stage decision-making process for those working within coronial investigations. The three elements are; (1) whether to report the death for investigation, (2) whether to advance the death to an inquest and (3) what conclusion to choose at the close of inquest proceedings. The research then explores the decision-making processes of coroners in the third decision-making stage (choice of conclusion) through an empirical study conducted with coroners in the form of an online Decision Board Analysis using web-based computer software known as MouselabWEB.

Coroners were asked to consider three deaths being reported to them by accessing information through a Decision Board and to report their primary conclusions, alternative conclusions and difficulty in coming to a decision. Free text comments were also captured. The software allowed an analysis of the way in which the scenario information was accessed and managed by participants. The personal preferences and opinions of coroners as decision-makers are thereby revealed and implications for policy and practice are discussed.

**Chapter Two (the role of the coroner and a review of the literature)** outlines the duties of the coroner, contrasting the ancient position as the King's representative with a view of the coroner in the 21<sup>st</sup> century. The present and previous relevant legal frameworks are discussed and a flowchart representing the coroner's process for dealing with a death is presented. An introduction to the coroner areas of England and Wales is

followed by examples of typical caseloads nationally and locally. Inquest conclusions are shown in practice to be one of only six alternatives, five short-form conclusions and the (numerically fast-rising) narrative verdict. Implications for death coding practice are discussed. A review of the literature pertinent to the coroner's decision-making role is discussed and evidence is presented to support the contention that coroners are independent post-holders working without oversight within a self-contained judicial system which is poorly understood by engaged professionals. There is noted concern at an apparent lack of consistency of approach and standards between coroner areas (Thornton, 2012), persuasive evidence (due to confused reporting arrangements) that some suicides and drug related deaths, including adverse reactions to prescribed drugs, are not being identified (Luce, 2003) and a characterisation of the coroner system as poorly understood to the point of widespread ignorance even by engaged professionals (Berry and Heaton-Armstrong, 2005).

Theoretical and conceptual support for coroner idiosyncrasy in decision-making is presented from an empirical study in which coroners were invited to supply verdicts and explanations for sixteen borderline 'natural cause' cases. Personal viewpoints of respondents, leading to a lack of concordance in chosen conclusions, were said to underline the flaws of the present system (Roberts, Gorodkin and Benbow, 2000). Studies of suicide are particularly noted for their incidental examination of the decision-making role, and for their potential to refer to coroners' personal viewpoints without further exploration (see for example Sainsbury and Jenkins, 1982). Decision-making in other contexts is briefly explored with particular reference to heuristics for decision-makers who are cognitively busy (Kahneman and Tversky, 1979) and decision-making in other investigative fields such as policing (Rossmo, 2009; Mclean and Roach, 2011).

The chapter concludes by reflecting on the importance of this research, by reference to recent high profile cases of concern in the Coroner Court and by considering the role of the newly recruited Chief Coroner, HHJ Peter Thornton, to bring quality and uniformity in to the coroner system (The Coroners Society of England and Wales, 2014). Recent legislative, political and administrative system changes are discussed and very recent amendments to the reporting format of the MOJ annual statistics bulletin are noted. They now include some local comparative analysis.

**Chapter Three (Methodology for data collection and analysis)** outlines the methodological approach to the study of available coroner data, which included open source web-based material and specific data requested and provided for this research by the Ministry of Justice and Office for National Statistics. Methods of contact made with

data holders, the limitations and compromises in data requests, and the necessary data cleaning and manipulation to allow time-series analyses are set out. The primary research aim to identify and measure local variation in coronial outcomes is reinforced, with research questions outlined across the three stages of decision-making for coronial investigation.

Methods adopted for data analysis are discussed, including the calculation of *local rates* (of reporting deaths and advancing to inquest) which allowed for comparison between coroner areas. The measurement of an area *verdict profile* is also discussed, defined by calculating the proportion of all verdicts in a coroner area taken up by each individual verdict category. Finally, the analysis of coronial outcomes by gender of the deceased is outlined and a concept of 'genderedness' explored which seeks to measure the extent to which a coroner might favour a particular verdict according to the gender of the deceased person.

**Chapter Four (Reporting deaths to the coroner in England and Wales)** analyses the first of the three stages of decision-making, namely whether to report a death to the coroner. Although this is almost always a decision for the clinician, often a general practitioner, the case is made that they will always be working to rules set locally by the incumbent coroner within the general legislative guidelines. Those rules differ between local coroner areas causing some difficulty and confusion for medical practitioners, who have been shown to be very poor at identifying those deaths that should be reported to the coroner (Start, Delargy-Aziz, Dorries, Silcocks and Cotton, 2003; Start, Usherwood, Dorries, Carter and Cotton, 2005). A specific recommendation of Start et al (2005) was that "*coroners should provide hospital doctors and general practitioners with a regularly updated guide to indications for referral, including information about local variations*" (writer's emphasis).

The clinician's confusion is exacerbated by coroners who disagree regarding what constitutes a death from natural causes (Roberts, et al., 2000). Analysis of Ministry of Justice and Office of National Statistics data is presented, calculating local reporting rates over time for all 114 coroner areas in England and Wales. Reporting rates were found to vary widely between 12% of all deaths and 87% of all deaths. Coroner areas were found to be consistent over time in their relative reporting behaviour with no obvious demographic reasons for variation apparent. As things stand, it seems that cases similar in all relevant respects may be reported to the coroner in some areas and not in others.

The chapter introduces the first signs of disparity in coronial outcome according to the gender of the deceased. However, in every coroner area throughout England and Wales, deaths of men were more likely to be reported to the coroner than deaths of women. Wide local variation was again found. Differences according to gender were found across all stages of the coronial process and are reported specifically at Chapter Six.

**Chapter Five (Advancing to inquest and choice of verdict)** examines the second and third stages of coronial decision-making; whether to advance an investigation to inquest and what choice of verdict is appropriate at inquest conclusion. The available literature, such as it is, is explored. In stark contrast to significant research being undertaken into decision-making in other legal contexts (e.g. the criminal courts), next to nothing is available in respect of the coroner.

Some research on suicide rates is explored and the prospect of verdict substitution is raised (where coroners might prefer a particular verdict over another in similar case circumstances), particularly between open verdicts and suicide (Linsley, Shapira and Kelly, 2001), which is contrasted with findings from data analysis conducted as part of this thesis. The progress of a death through the coronial process in England and Wales is analysed and results demonstrate just how few registered deaths are eventually classified as being of an unnatural cause, only 2% of the total. The analysis provides support for Luce's (2003) assertion that too many deaths are entering the coronial process by demonstrating that over a ten year period, on average across England and Wales, almost nine in ten coroner-reported deaths did not proceed to inquest. Again, wide local differences were found with the proportion of deaths reported which proceed to inquest varying between areas from 6% to 29%.

As data analysis moves on to inquest verdicts recorded by coroners, local areas are shown to vary widely in their verdict profile, with certain verdicts more prone to variation in use. Narrative verdicts are shown to be the fastest growing of all available verdict choices and are discussed in the context of the Fundamental Review of death certification and investigation (Luce, 2003) which implicitly criticised the short-form verdict by recommending that all outcomes should be a factual account of the cause and circumstances of the death. Differences in outcomes of the latter two decision-making stages according to gender are again revealed with deaths of men proceeding through the transition points in greater proportions than women, and in the differing proportionate use of certain verdicts apparent according to gender.

**Chapter Six (Coronial death investigation and gender)** presents the disparity in coronial outcome for death investigations according to the gender of the deceased. The analysis demonstrates that there are significant differences between the procedural journeys taken according to deceased gender. For example, all areas report more male deaths than female for investigation, and female reported deaths are overall half as likely to proceed to inquest. Once an investigation has been taken to inquest, deaths of women were found to be 27% more likely to receive a verdict of natural causes. This relative attrition, throughout the three stages, towards disposal of a woman's death as being of natural causes is discussed in the context of the history of the coroner's role, a male dominated ancient jurisdiction which did not include women until the middle of the twentieth century. Issues of patriarchy and emergent social gender norms are examined with a view to considering how coronial decision-makers may be influenced by cultural definitions of femininity and masculinity (Bradley, 2013). Questions are raised about the development of the short-form verdicts in an industrial and post-industrial society and whether they meet the needs of a modern coronial service trying to explain how and in what circumstances a death of a woman has taken place. Analysis reveals that almost three-quarters of all 'unnatural death' inquest verdicts for women are accounted for by just two verdicts, accidental death and the narrative verdict, calling into question the usefulness of the short-form verdict in providing a basis for appropriate classification of deaths.

The chapter concludes by defining a concept of 'genderedness', in that coroners could be shown to favour a particular choice of verdict according to the deceased's gender and that it was possible to measure this degree of 'genderedness', thereby identifying which coroners (and which verdicts) were most prone. Recommendations for further gender-based research, including the analysis of crucial missing data, are proposed.

**Chapter Seven (Methodology for Decision Board Analysis)** outlines the methodological approach to the coroner-participant study, a web based three-scenario Decision Board Analysis circulated to all coronial post-holders in England and Wales with the assistance of The Coroners Society of England and Wales. This chapter provides an explanation of the research questions for this part of the thesis, together with the methodologies and techniques employed in order to achieve the necessary insight. The design of the key technique, Decision Board Analysis (DBA) aided by a web-based software tool, is the major focus, but alternative methods eventually rejected (such as unstructured interviews with participants gaining information by questioning the researcher, face to face interviews and postal questionnaires) are also discussed. The

method of scenario selection is outlined as is the way those cases were broken down into nine manageable information categories to be accessed by participants. The importance of pilot testing is once again recognised, with significant changes to the language used and the nature of the participant questions being subsequently adopted on the basis of experience with the pilot. The chapter briefly outlines how many coroners took part and 'who' (given their anonymity) those participants were. A full explanation of the MouselabWEB software tool used is offered. The final part of the chapter is devoted to the methodology adopted for the analysis of the responses, detailing the different types of quantitative and qualitative data, and the strategies used for analysis.

**Chapter Eight (Results of Decision Board Analysis)** presents the findings of the empirical study with coroners. Thirty-five respondents completed the scenarios with experience in role ranging from one year in post to 41 years. Twenty-four men and eleven women completed the scenarios. Most were legally qualified (as opposed to medically qualified). If all respondents were senior coroners (according to the brief personal details provided all respondents were properly qualified to conduct the inquest scenarios posed) then the response rate represents a third of all post-holders in England and Wales at the time (n=98). Five research questions were addressed in respect of each of the three scenarios as follows; what conclusion was reached, how many information categories were used before making the decision, in what order was the information accessed, which information categories were preferred, and what difficulty in making a decision was expressed. The focus of the analysis was whether and to what extent coroners would vary across those five aspects of decision-making.

For the first question, whether coroners would vary as to the choice of conclusion, the answer was a resounding yes. Faced with the *same information* with which to come to an inquest conclusion, coroners chose a minimum of four different conclusions and a maximum of eight. In general, coroners experience and gender made no difference to the conclusion they favoured, and in particular did not lead to a tendency to choose the modal conclusion. A respondent's choice of conclusion was sometimes defended vigorously although alternatives (some favoured by their colleagues) were plentiful.

In terms of how many information categories were read, there tended to be a clustering at a total of between nine and 12. This was in keeping with respondents checking each of the nine information boxes once and then returning to between one and three boxes as a reminder of the content. The three scenarios did have a range of boxes accessed by participants from a lowest of just five boxes (meaning that four information categories were discounted without being read) to 34 boxes (meaning multiple repeat box checks).

The analysis of how respondents sequenced information revealed that coroners inclined towards prioritising three particular information categories in this order; cause of death, information revealed by investigation, and medical history. There was significant agreement as to what information ought to be prioritised such that it can be eliminated as a possible cause for the variation in outcome decision identified here. No significant relationship was found between information prioritisation and coroner experience. Coroners did not differ greatly in the order in which they read the information categories available.

The software also offered an opportunity to examine which information was *repeatedly accessed* (frequency) as an indication of relative importance or 'salience', as respondents reminded themselves of the information content. This established beyond doubt that for this research those three information categories prioritised in *sequence* were also the most *frequently* accessed – cause of death, information revealed by investigation and medical history. Coroners thus tended to agree on which information was most important to them when faced with a decision based on available facts and were applying a similar approach to the way in which they managed information during their decision-making. Further, there was evidence that as coroners moved through the scenarios they increasingly tended to access information boxes just once, perhaps reflecting an increasing familiarity with the task.

Finally, difficulty in coming to a decision was measured by asking respondents to score on a Likert scale of between 1 and 5 (1 being very easy to 5 being very difficult), how difficult they found the decision. In general, coroners reported that they did not find any of the three scenarios difficult. Most scores were in the easy or neutral zones with scenario 2, which was similar in some aspects to scenario 1, scoring slightly lower at a mean of exactly 2 (easy) than scenarios 1 and 3. Possible relationships between expressed levels of difficulty and the experience or gender of the respondent, and with the amount of information accessed before reaching a conclusion, were investigated and rejected as not present. The fact that (to illustrate) two coroners both deemed the task easy but reached different conclusions is an important and intriguing result.

**Chapter Nine (Discussion)** considers the findings of the research across the three decision-making stages in the context of the extant literature and of the role and purpose of the modern coroner. Wide area disparities in outcome are discussed alongside the striking divide revealed when comparing the deceased journey according to gender.

Turning to the coroner's decision-making role, participants to the Decision Board Analysis scenarios in this study were found to manage the available information in a similar way yet returned widely different inquest outcomes. A range of free-text comment was offered regarding the scenario information, coroners sometimes expressing polar opposite positions for how they would proceed.

Important limitations of this research are identified and their implications discussed; including that of the missing variable of the age of the deceased which is not routinely recorded or analysed by the Ministry of Justice, the methodological inability to identify the personal characteristics of those coroners who made the 'real-life' decisions subject of analysis here in Chapters 3 to 6, and the acceptance by the writer that, despite area disparity, it is entirely possible that each and every case (there were over five million deaths registered during the research period) was subject of the correct coronial outcome given its particular circumstances.

The implications of this research for coronial policy and practice are considered alongside the potential for further research, all intended to assist the newly appointed (September 2012) Chief Coroner towards his stated aims of providing consistency of standards and coronial outcome throughout England and Wales. Eight specific recommendations are proposed, three related to improvements in policy and practice and five suggestions for urgent further research designed to understand better the process of decision-making by coroners.

**Chapter Ten (Conclusion)** revisits the accusation that extant literature pays only passing attention to the process of coronial decision-making. Some examples are provided which identify disparity of coronial outcome and where comment is made upon the influence of the coroner's personal opinion. However, evidence is rarely provided in the literature to substantiate this link.

The writer contends that the ways in which coroners make decisions are not well understood. He presents a first attempt to demonstrate that variation in coronial outcomes do not appear to be a product of the application of different decision-making styles by coroners (the way in which information is approached, managed or prioritised), or of differences according to their experience or gender. Instead, variation may be rooted in the varied personal perspectives of coroners as to how to translate the same information into an officially mandated category. The result may be disparate, sometimes dichotomous, outcomes for the bereaved.

While similar services within the criminal justice system are subject to extensive national guidance in an attempt to constrain idiosyncratic or capricious decision-making, there seems every reason why this should also apply to the process of death investigation and classification. Further analysis of coroners' practices and their determinants seems necessary. Statistics of unforeseen deaths shape both medical priorities and public concerns. They merit disambiguation.

**Appendix A (Ten coroner areas over ten years – a case study)**, presents a case study in which ten coroner areas with almost identical caseloads, measured by the number of inquest verdicts recorded in 2011, are compared and contrasted under the assumption that there would be less variation in outcome where similar caseloads were being managed. In fact, variation broadly mirrored that found nationally in reporting behaviour and verdict choice with similar coronial caseloads being no guarantee of similar proportionate outcomes. However, similar proportions of the deaths reported in these areas were taken to inquest by the ten coroners. The chapter concludes by analysing, within the context of comparative analysis for the ten areas, the concept of coroner 'genderedness', discussed in detail at Chapter Six.

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## Chapter Two

### The role of the coroner and a review of the literature

#### 2.1 The evolution of the Coroner's Court

The office of coroner in England and Wales dates back to the Norman reign of Richard 1 in 1194 and was originally devised to raise money for the Crown. The Articles of Eyre in September 1194 decreed: "*In every county of the Kings Realm should be elected three Knights and one Clerk to keep the pleas of the Crown*" (Dorries, 2004 p.2). The pleas were the records of local misdemeanours and were handed by the Knights to the travelling Judges when they rode into town: *Custos placitorum coronas*, hence, crowner or coroner. Dead bodies, too, meant cash for the Crown. A myriad of fines and penalties grew up; for violent death and suicide, for failing to prove that the body was Saxon and therefore not Norman (known as a murdrum fine, from which the word 'murder' is derived – the Norman conquerors were particularly vulnerable). Fines were also royally imposed for an unclaimed body and for burial before the coroner arrived – "*anything to enrich the royal coffers*" (Thornton, 2012 p.3). It was in this context that the medieval coroner enquired into deaths and for a long time the ambit of a coroners work was homicide, suicide, infanticide and all manner of unnatural deaths.

Of relevance to modern inquests is the fact that the coroner, from the start, had a particularly close relationship with the local community. He, for they were always men, was usually a local nobleman who would have been elected by a meeting of the freemen of the county, fostering independence of established authority and creating a legacy of local appointment and remuneration which continues to this day, rather than being appointed by the Lord Chancellor's office and funded centrally.

The development of improved systems of justice, such as the Magistrate system introduced by the 1361 Justice of the Peace Act, meant that by the 15<sup>th</sup> century the role of coroner in relation to misdemeanour was almost obsolete, save for his duties related to the investigation of sudden unexpected death. In 1751 parliament provided for the better ordering of the office of coroner with a Coroners Act which provided proper payment to coroners for inquests and for the removal of neglectful post-holders. By 1829 the first edition of the standard text book for coroners, Jervis on Coroners, was far from positive in its assessment of coroners. The preface begins with the lines "*That the office of coroner is of great antiquity and was originally of high dignity, all writers agree [but] the office, whether in consequence of the rust and relaxation inseparable from ancient jurisdictions, or the inefficiency of its officers, has fallen from its pristine dignity*"

*into the hands of those, who are, in some instances, incompetent even to the discharge of even their present limited authority” (Thornton, 2012 p.4).*

In England and Wales, as industrialisation grew, and the possibilities of unnatural death increased, a need for the formal and proper recording of births and deaths resulted in the first Births and Deaths Registration Act in 1836. The Coroners Act of the same year pushed the system towards what could properly be described as a medico-legal investigation for the first time by authorising payments to medical witnesses, although the qualification for coroners was still only to be an elected freeholder. This election was eventually abolished by the Local Government Act of 1888 where provision was made that they be appointed by the local authority.

By 1926 the police service had developed sufficiently to take responsibility for the investigation of homicide and, as a result of the Coroners Amendment Act of that year, inquests could be adjourned in the event that criminal proceedings were to take place. This was the Act that introduced legal or medical qualifications for the appointment of coroners and required that they had at least five years experience in their legal or medical field. Coroners were now to be paid on a salaried (rather than inquest to inquest) basis, thus becoming the first full time post-holders.

As society developed through the 20<sup>th</sup> century, so proposals for reform continued and remain relevant today. The Wright committee of 1936 (National Archives, 1936) proposed a reduction in the 309 (mostly part time) coroners by merging smaller jurisdictions, an amalgamation process which continues to this day and presents some research challenges when comparing coroner areas over time. When the present research began (2009) there were 114 different coroner areas, and by 2015, the time of writing, 99 areas in England and Wales.

The Brodrick committee of 1971 (The National Archives, 1971) conducted a six year investigation into the role of coroners, and made a number of recommendations that have not been implemented. These included compulsory legal qualifications, appointment by the Lord Chancellors office, the full provision of legal aid for the representatives of interested persons, and a requirement that pathologists should not be chosen by the coroner but provided by a Pathology Service. The committee also argued that police officers should not act as coroners’ officers (Thomas, Straw and Friedman, 2008). The Brodrick committee raised concerns at the lack of a focus on bereaved families and failures in patience, understanding and sympathy on the part of coroners. Their conclusion was that coroners had become isolated individuals who appeared to lack a clear idea of their role in contemporary society. The discretion given to each coroner by the law was seen to be problematic because the coroner was left largely beyond

challenge; such flexibility was held to lead to variations in standards as well as in procedures.

The fundamental review of Death Certification and Investigation in England, Wales and Northern Ireland (Luce, 2003) followed; Dame Janet Smith's Shipman Inquiry Reports (Smith, 2003) were also published that year. Progress since then has been slow prompting Luce (2007, p.46), in response to the draft bill published at that time to reform the coroner service, to conclude that (seven years after Shipman's conviction and four years after publication of the two reform reports commissioned in its wake), "*no one can accuse the Government of excessive haste*".

One fundamental recommended change has never been introduced. Luce and Smith (and to a lesser degree Brodrick), called for a national coroner service, not just a national framework as at present, but a national scheme, a coroner judge scheme paid for and run by the Ministry of Justice, just like judges in Crown Courts. This has not happened, hence the continuing local nature of the coroner jurisdiction and the feeling that some coroners have of isolation (Thornton 2012). Yet, during the course of this research has come one of the most fundamental changes to the role of coroner in all its 800 year history. The Coroners and Justice Act 2009, mostly implemented in 2013, has produced for the first time a Chief Coroner, HHJ Peter Thornton, who has stated upon his appointment to the role that he would work to provide quality and uniformity in the coroner system, with a national consistency of approach and standards between coroner areas (Courts and Tribunals Judiciary, 2012). The Act has provided for a number of structural changes to the coroner system such as creating the new national head, merging smaller areas to form larger ones, introducing the concept of 'investigations' (rather than inquisitions/inquests) into deaths, replacing the language of 'verdict' with 'conclusion' and making provision for supervision by the Chief Coroner of suitable appointments to the role of senior coroner.

## **2.2 The role of the coroner in the 21<sup>st</sup> century**

Today the coroner is an independent judicial officer responsible only to the Crown. He or she must be a barrister or solicitor of not less than five years standing (Coroners and Justice Act, 2009 Schedule 3 Part 1). Most are lawyers rather than doctors and their legal and professional autonomy is unmatched in other judicial settings. There remains no right of appeal in the coroner's court. At the time of writing there are 97 coroner areas throughout England and Wales (Ministry Of Justice, 2015). The coroner is

frequently confused by the public with the pathologist (who will conduct a post-mortem medical examination on behalf of the coroner). The coroner will rarely have cause to see a body (Dorries, 2004).

The present research is timely in that a programme of reform is currently underway in England and Wales with a view to addressing problems acknowledged within the coronial service. These include an inconsistent approach and application of standards, the service itself not being (bereaved) family friendly and suffering from frequent lengthy delays. The statistics on the delays in recording deaths are striking. They often result from the fact that deaths in England and Wales cannot be registered until a cause is established. Around 10,000 deaths a year are not registered for six months and the average delay in recording suicides is 255 days; while in Scotland, where a death can be registered before its cause is established, the average delay is just seven days (Hawkes, 2014). The present coalition Government had been expected to introduce measures which will reform the process of death certification, namely by appointing medical examiners to provide independent scrutiny of the cause of any deaths not reported to the coroner. The Minister for Health at the time, Andrew Lansley, stated in 2012 that reform was needed to simplify and strengthen current death certification arrangements, improve the quality and accuracy of data on cause of death and prevent patterns of multiple deaths going unnoticed and unchallenged, as had happened in the Shipman case (Department of Health, 2012: *letter dated 11<sup>th</sup> April 2012*). The new medical examiners are expected to have the discretion to report a death to the coroner according to an agreed national protocol setting out the minimum level of scrutiny that must be applied. Perhaps unsurprisingly, progress has been slow and at the time of writing (December 2014) consultation is ongoing. The Honorary Secretary of The Coroners Society of England and Wales has stated that "*the system is unlikely to be rolled out before the next General Election*" (Rebello, personal communication (e-mail), 3<sup>rd</sup> July 2014).

The new Chief Coroner (Thornton, 2012) has offered his view that the purpose of the 21<sup>st</sup> century coroner system is to provide justice to the public, in two ways. First the bereaved, and the wider public, need to know what happened, how the deceased came by his or her death. This applies equally to all deaths where there is a real element of uncertainty and should be open and transparent. Secondly, the coroner system exists to not only identify causes of death but to prevent future deaths of a similar nature. Hence, coroners are under a duty to central and local government, agencies and institutions so that lessons can be learned. During the course of this research such coroner reports have been known as 'Rule 43' reports (from the Coroners Rules, 1984). However, following the introduction of the Coroners and Justice Act 2009, the reports are now

termed 'Prevention of Future Death Reports' and are published on the Ministry of Justice website (Ministry of Justice, 2013: *Prevention of Future Death Reports*)

### **2.3 Coroner powers – a legal framework**

The coroner's power to inquire into a death were set out in Section 8 of the Coroners Act 1988 (repealed in July 2013 by the Coroners and Justice Act 2009), which stated;

*8(1) where a coroner is informed that the body of a person (the deceased) is lying within his district and there is reasonable cause to suspect that the deceased –*

*(a) has died a violent or unnatural death*

*(b) has died a sudden death of which the cause is unknown*

*(c) has died in prison or in such a place or in such circumstances as to require an inquest under any other act;*

*then whether the cause of death arose within his district or not the coroner shall as soon as practicable hold an inquest into the death of the deceased.*

The law has developed over the years to provide advice on specific practical matters not explored in detail here, but worthy of mention, such as defining human remains, remnants of a body, or a foetus, the legal meaning of 'death', the procedure where no corpse exists, deaths abroad, and indeed what constitutes 'violent' or 'sudden' deaths.

The Coroners Act 1988 reinforced the Coroners Rules 1984 which governed the way in which coroners carried out their duties, and in particular, at Section 36, set out the matters to be ascertained at inquest;

*36 - (1) The proceedings and evidence at an inquest shall be directed solely to ascertaining the following matters, namely –*

*(a) who the deceased was;*

*(b) how, when and where the deceased came by his death;*

*(c) the particulars for the time being required by the Registrations Acts to be registered concerning the death.*

- (2) *Neither the coroner nor the jury shall express any opinion on any other matters.*

Thus, an inquest was and remains a fact finding inquiry conducted by a coroner with or without a jury to establish reliable answers to just four important but limited factual questions. The first of these relates to the identity of the deceased, the second to the place of death, the third to the time of death. In most cases these three questions present little difficulty but in a minority of cases the answers may be problematical. The fourth question, and that to which evidence and inquiry are most closely directed, relates to how, that is by what means and in what circumstances, the deceased came by his death. Rule 36 required that the proceedings and evidence should be directed solely to ascertaining these matters and forbid any expression of opinion on any other matter (*R v HM Coroner for North Humberside ex parte Jamieson*, 1995).

The major provisions of the Coroners and Justice Act 2009 came into force on 25 July 2013. From this date, all investigations, including deaths which were already being investigated by a coroner including those which had reached the inquest stage, have been subject to the new regime. The Decision Board Analysis (DBA) conducted with coroners, and presented at Chapters 7 and 8 of this thesis, took account of the provisions of the new Act, in particular by adopting the new language of 'conclusion' as opposed to 'verdict' as the appropriate term for bringing an inquest to a close. Participants to the DBA were therefore asked to consider that the three scenarios (for which inquest conclusions were requested) were being conducted under the legislation post-July 2013.

In terms of a legal framework, the relevant changes introduced by the Act include the appointment of the Chief Coroner in a supportive and advisory role, the use of the terminology coroner 'areas' (and not the previously used coroner 'districts'), the introduction of a post-holder hierarchy from senior coroner (one per coroner area) through area coroner to assistant coroner, that all coroners subsequently appointed must now be *legally* qualified, the introduction of the concept of the coroner's *investigation* of which the inquest forms only part (thus recognising that much of the coroner's work takes place before the formal inquest hearing), the removal of the term 'sudden' from the deaths that a coroner is required to investigate, new arrangements for the disclosure of information to interested persons and the replacement of the term 'verdict' with 'conclusion' as the preferred endorsement to the record of an inquest.

## **2.4 Three stages of coronial decision-making – reporting a death, taking to inquest, conclusion**

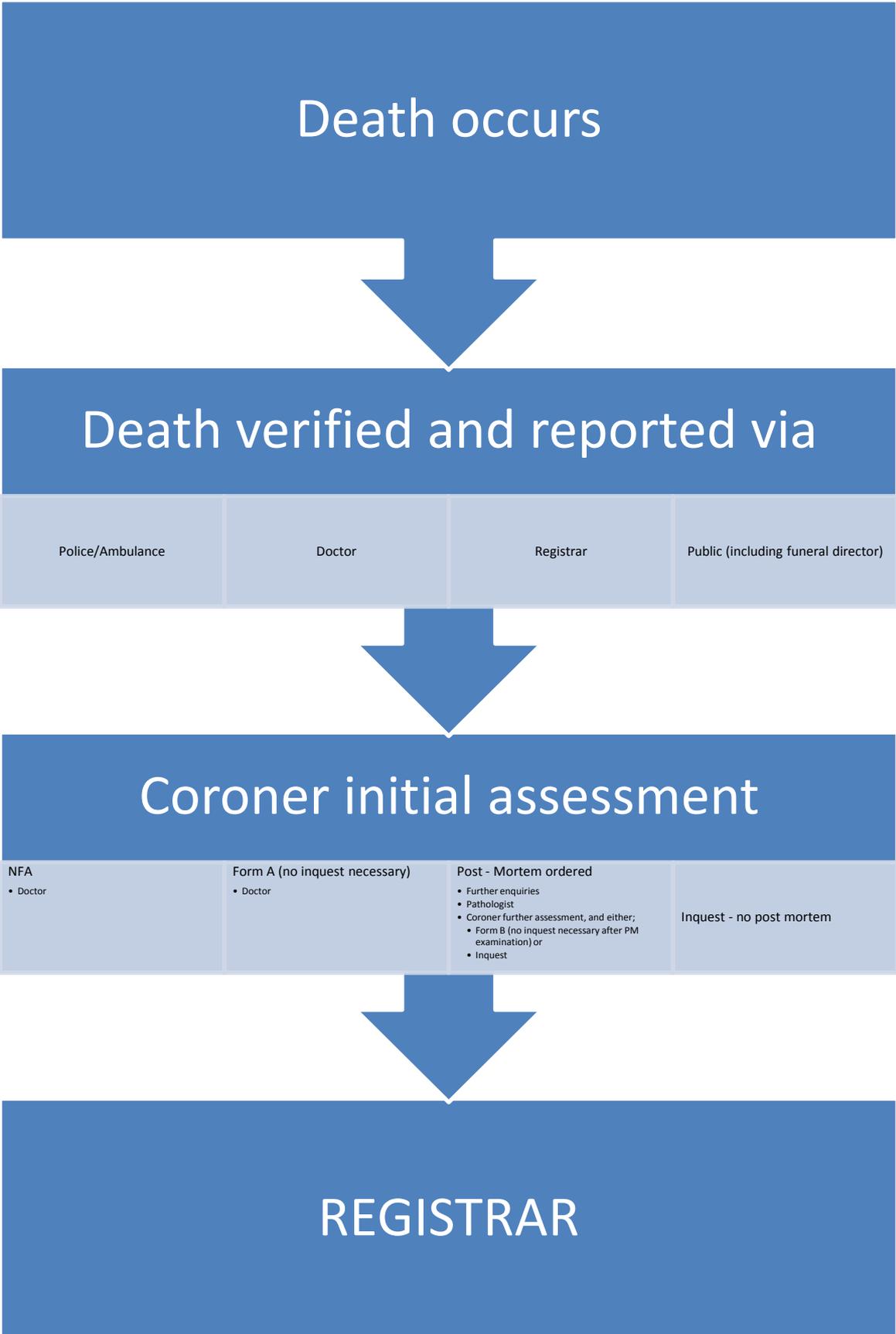
Coroners will be made aware of a death, believed to fall within their remit, generally via four sources, although just two account for most reports – doctors and the emergency services, primarily police and ambulance. Registrars and the general public will occasionally be the source of a first report of a death to the coroner. According to Luce (2003 p.41) only 3.4% of reported deaths come from the registrar. Direct reports from the public are very rare. An Office for National Statistics perspective is provided by Coleman (1996) who states that only some 2% of reported deaths come from the registrar with the other 98% of reports arising from doctors (60%) and other sources, mainly the police (38%).

There is no legal duty to report a death to the coroner, the statutory (investigative) duty resides solely with the coroner, and engaged professionals communicate according to varying guidelines set locally by the incumbent coroner. The primary link between engaged professionals, the bereaved and the coronial process is provided by the coroner's officer. Coroners' officers come from a variety of professional backgrounds, often seconded police officers but increasingly bespoke appointments. They work under the direction of the coroner and liaise with bereaved families, pathologists, the police, doctors, witnesses, funeral directors and many others. They receive reports of deaths and make inquiries at the direction, and on behalf, of a coroner. The current annual average reporting rate to the coroner for England and Wales at the time of writing (2013 Jan-Dec) is 45% of all registered deaths, which has remained fairly consistent for the last ten years (MOJ, 2014 *Coroners Statistics 2013*). The decision whether to hold an inquest lies with the coroner alone.

One might consider the reporting of a death to the coroner as the first stage in a three stage overall decision-making process which characterises the system of death investigation for England and Wales (illustrated in Figure 1). This flowchart was constructed for the thesis with the kind assistance of HM Coroner for South Yorkshire (West), Mr. C. Dorries.

The first decision is whether to report the death to the coroner and is normally taken by the clinician, working to guidelines set locally by the incumbent coroner. Once a death has been reported, it is subject to investigation and to the second and third decision stages, whether to proceed to inquest (or discontinue enquiries) and finally what the inquest verdict (now 'conclusion') should be.

Each of these three decision outcomes will be the result of complex processes comprised of smaller, inter-related decisions such as whether to order a post-mortem examination, the nature and scope of enquiries to be made, and which witnesses ought to be heard at any inquest. However, on occasions that decision-making can be somewhat limited; Luce (2003, p.70) states for example that *"in about 50% of deaths reported to coroners the relevant decisions or advice given to Doctors involve essentially medical judgements about the cause of death and how these should be expressed in writing"*.



**Figure 1 Coronial process for dealing with a reported death**

It is prudent to outline some of the terminology used in the 'coroner initial assessment' (the third box in the decision-making process depicted in Figure 1). Reading from left to right, the 'NFA' box here would result from a coroner advising a doctor that no further enquiries are considered necessary and that the doctor can proceed to issue a Medical Certificate of Cause of Death (MCCD) under the Births and Deaths Registration Act 1953. This is usually handed to the relatives, whereupon it would be taken to the registrar who will issue the formal death certificate. These NFA circumstances will often be where in the coroner's opinion the doctor can quickly move to issue the MCCD, for example where the death was thought to be entirely natural and the doctor could accurately state the cause of death because he or she had recently attended to that patient in their illness. Typically, these circumstances would involve the doctor wishing to discuss some aspect of the case with the coroner, perhaps how best to express their medical judgement in writing, as there is no obligation on any doctor to discuss or refer the death where they believe they can properly issue the MCCD without so doing.

The second box from the left refers to a 'Form A'. This form is used throughout England and Wales in order to notify the Registrar that the coroner is concluding enquiries without either a post-mortem examination of the body or an inquest, because the (natural) cause of death is evident and the MCCD issued by the deceased's doctor is deemed to be accurate and sufficient. When the Registrar has both of the two documents (Form A and MCCD), the death can be formally registered. There is no statutory format for the Form A (or for the Form B, to follow) but the process suggests a greater degree of investigative input by the coroner than 'NFA' which generates no coronial paperwork other than the record of the report. It might typically involve a situation where the doctor knows the cause of death but cannot issue a MCCD because, for example, the deceased has not been seen recently in illness.

The third box from the left introduces the coroner's post-mortem examination, a surgical examination of the deceased body conducted by a pathologist to determine the cause and manner of death. Once a death has been reported to the coroner, a decision will be taken as to whether a post-mortem examination is needed to establish the cause of death. If the examination discloses a natural cause of death, such that an inquest is not required, the coroner will sign a Form B which brings enquiries into the death to an end. The Form B replaces the MCCD that would otherwise be issued by the doctor and instead certifies the cause of death found at the post-mortem examination. It further states that the coroner is satisfied that an inquest is unnecessary. In this instance the Form B will be sent directly from the coroner to the registrar.

The results of a post-mortem examination may of course provide information that leads a coroner to decide that an inquest is necessary (because one or more of the criteria outlined at Section 8 Coroners Act 1988 above, are satisfied). However, it is more usual for the coroner to feel that an inquest is necessary in the first instance probably as a result of the circumstances in which the death was reported. The pathologist's examination may reveal an unexpected injury, or a disease thought to have originated in the deceased's workplace, or evidence of self-harm for example, all of which would lead the coroner to hold an inquest.

The fourth and final box, 'inquest – no post-mortem', although possible within the medico-legal framework, is very rare. Examples might include an elderly person suffering a fall which subsequently causes pneumonia because it becomes impossible to move around and clear the fluid from the chest. The fall being the primary causal factor, this death would be unnatural and require an inquest but little would be gained from a post-mortem examination as the medical cause of death is clear. Of course, an inquest may on rare occasions be held where a body has not been recovered, precluding the possibility of an examination. Such cases are so rare they do not merit further discussion within the context of this thesis.

All enquiries, including those resolved at inquest, are for the purposes of the Registrar, who is solely responsible for the Register of Deaths in England and Wales. The Registrar is, despite a confusion of terminology, the only person permitted to issue the actual 'death certificate', which will in practice be a certified copy of an entry in the Register of Deaths, pursuant to the Births and Deaths Regulations Act 1953.

## **2.5 The coroner's caseload**

During the period when the bulk of this research was undertaken there were 114 coroner 'jurisdictions' or 'districts' or 'areas' in England and Wales, served by 98 coroners. Fifteen of those coroners act for two or more areas. The terms are interchangeable but 'coroner area' is now to be used following the introduction of the Coroners and Justice Act 2009.

Coroner areas vary widely in terms of caseload as defined by the numbers of deaths reported to them, and by the numbers of inquests held in those areas. The number of deaths reported to coroners in the calendar year 2013 (MOJ, 2014 *Coroners Statistics 2013*) varied within the range of eight deaths in the Isles of Scilly to 6,373 deaths in Essex. Over 6,000 deaths were also reported in the Nottinghamshire coroner area

(6,252). The number of inquests held in coroner areas in 2013 (MOJ, 2014 *Coroners Statistics 2013*)<sup>1</sup> varied between 16 in the City of London to 1,049 in Birmingham and Solihull, (the next highest number being 855 in Avon).

227,984 deaths, some 45% of all registered deaths, were reported to coroners in 2013 (MOJ, 2014 *Coroners Statistics 2013*), a slightly lower proportion than was found in 2012 (MOJ, 2013 *Coroners Statistics 2012*). Over the past ten years the overall proportion of registered deaths referred to coroners in England and Wales has been relatively constant, at between 42% and 47%. However, as will be discussed later in this thesis, reporting rates to coroners vary widely across coroner areas.

In his first annual report to the Lord Chancellor dated 30 June 2014, the Chief Coroner, refers repeatedly to calls for coroner reform and varied caseloads (Thornton, 2014). He opens the report by repeating his pledge upon appointment to provide quality and uniformity in the coroner system, with a national consistency of approach and standards between coroner areas, pointing out that the calls for reform have stemmed from "*the less good practice of some coroners and the inconsistency which a local system can sometimes produce*" (Thornton, 2014 p.10). Thornton makes the link between widely varying workloads across local areas and inconsistency of outcome by pointing out that a reduction in coroner areas in England and Wales from the present 99 to about 75 in number would produce areas with an annual reported caseload of around 3,000 to 5,000 deaths each, and he expresses concern that 60% of current coroner areas have fewer than 2,000 reported deaths with many having part-time coroners. The annual report makes clear that the Chief Coroner considers his role is to bring consistency, good practice and good justice to the coroner service. "*Structural changes*", he states, will ensure that "*good practice can flourish above a firm foundation*" (Thornton, 2014, p.15).

## **2.6 Death in England and Wales – the overall picture**

It is appropriate to provide a context for the present research by outlining the overall numbers involved in the investigation of death in England and Wales. It should be noted that due to delays in the inquest procedure, not all deaths will be registered in the year in which they occur. Similarly, not all inquests will be concluded in the year in which the death occurred. According to the Ministry of Justice (2014, p. 4 *Coroners Statistics 2013*) the estimated average time taken to process an inquest in 2013 was 28 weeks. This has

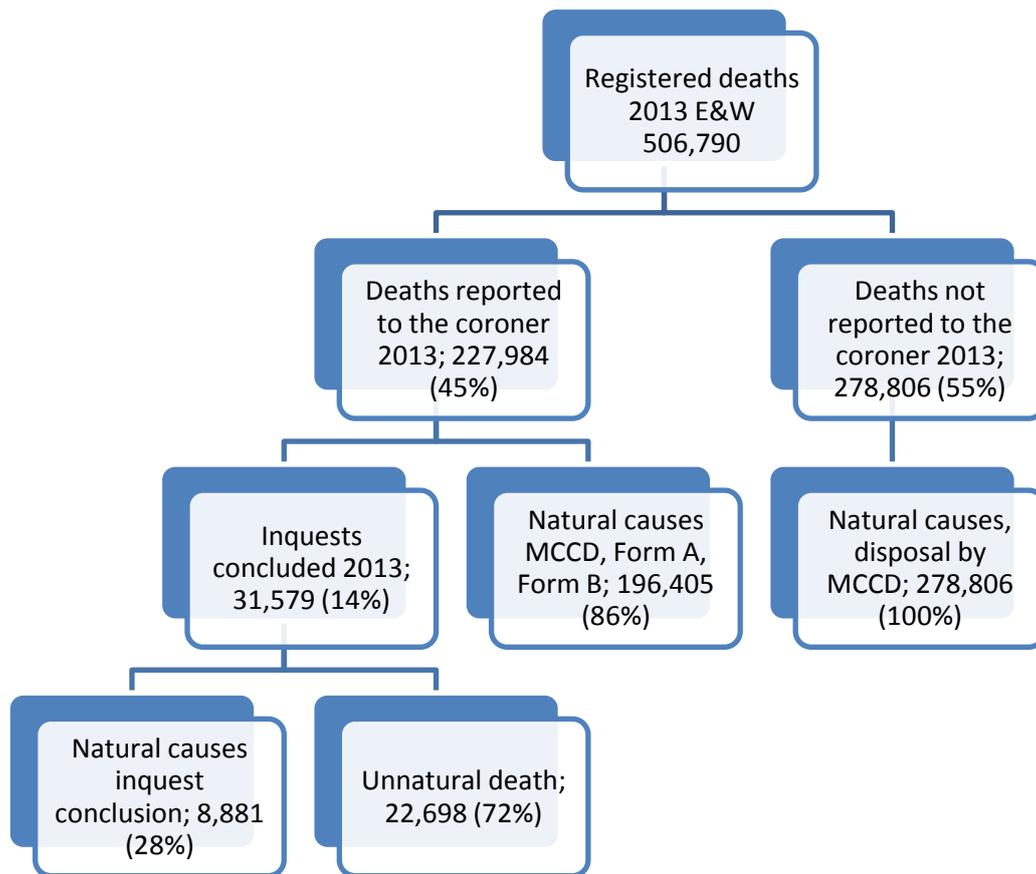
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<sup>1</sup> excluding Queens Household and Isles of Scilly for very small overall numbers

profound implications for any research, as for this thesis, which is based upon calendar trends in deaths and is discussed later as relevant results of the analyses are reported.

Each year, about 500,000 people die in England and Wales – the actual figure for registered deaths in 2013 was 506,790, for comparison there were 698,512 live births in England and Wales in 2013 (ONS, 2014 *Births in England and Wales, 2013*). Some 227,984 deaths (around 45%) were reported to coroners in 2013 (MOJ, 2014 *Coroners Statistics 2013*). Conclusions were recorded at 31,579 inquests in 2013 (MOJ, 2014 *Coroners Statistics 2013*), representing 14% of deaths reported to coroners (and 6% of all registered deaths). The relatively low number of conclusions, perhaps, is the most surprising figure to the lay observer. Some 86% of deaths that are reported to the coroner are disposed as being of natural causes after enquiries have been conducted. The scope of such enquiries varies from a cursory discussion with the deceased's doctor to an extensive coronial enquiry involving post-mortem examination and forensic tests. The breakdown of the nature of coronial enquiries conducted are not routinely available, but as an indication, in 2013 there were 128,702 cases reported to coroners where there was neither an inquest nor a post-mortem (which therefore had to have been concluded to the Registrar by way of by MCCD or Form A). This represents 56% of all cases reported to coroners (MOJ, 2014 p. 14 *Coroners Statistics 2013*).

There has been a steady upward trend in inquests over recent years – in the year 2000 fewer than 20,000 inquest conclusions were recorded. The cause of the increase, although not specifically analysed here, is likely to be that advances in medical science have allowed a more accurate explanation of natural deaths and so inquests are opened and adjourned whilst forensic tests are undertaken to determine the precise cause of death. Figure 2 shows these general numbers for England and Wales in 2013 in terms of a process of 'case disposal'. Unnatural deaths (i.e. any death yielding an inquest conclusion other than natural causes) can be seen to form just 10% of all deaths reported to the coroner (22,698/227,984) and just 4.5% of all registered deaths (22,698/506,790). This is the crux of the matter. The whole purpose of the coronial system in England and Wales is to identify that small percentage of all deaths deemed unnatural and to appropriately dispose of the investigations at inquest.



**Figure 2 Deaths registered, deaths reported and inquest numbers, England and Wales, 2013**

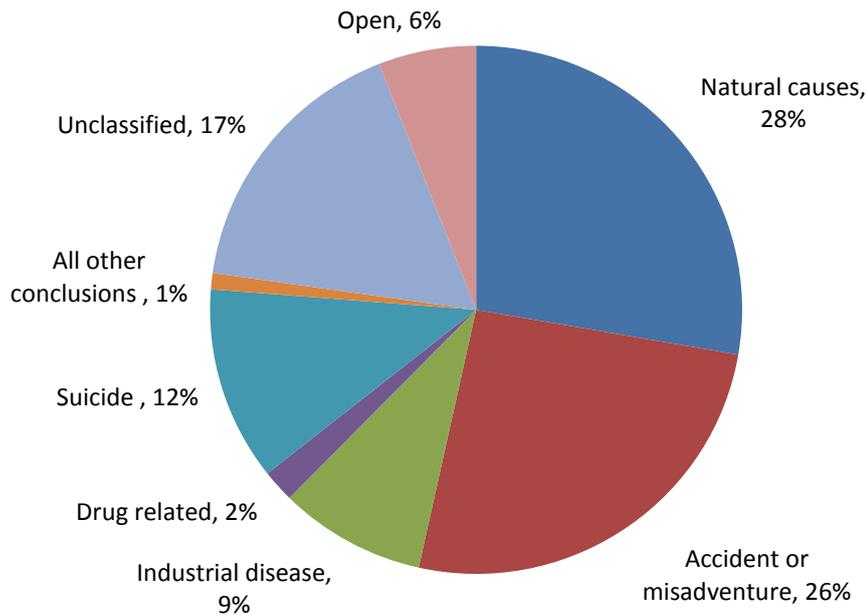
## 2.7 Inquests and decision-making

There are a number of choices for the coroner at inquest in terms of conclusion. In practice almost all recorded conclusions are one of six choices; natural causes, accident/misadventure, unclassified (which include narrative conclusions), suicide, industrial disease and open verdicts. Figure 3 (below) shows the proportion of the total for each conclusion recorded for inquests in 2013 (MOJ, 2014 p.18 *Coroners Statistics 2013*), indicating the most prevalent to be death due to natural causes, closely followed by accident/misadventure.

The third category of 'unclassified' includes narrative conclusions. These are subjected to detailed scrutiny later in this thesis. A narrative conclusion is one in which a 'short-form' conclusion has not been thought appropriate and the coroner has chosen to produce a brief factual account as to how the deceased came by his or her death. It has been described to the writer as often used where a "threshold of issues" around the

circumstances of the death has been crossed (Whittaker, HM Coroner West Yorkshire (West), personal communication, 28<sup>th</sup> June 2011), such that a 'short-form' verdict might not meet the needs of the bereaved in properly explaining the circumstances. The narrative verdict is the fastest growing of all the categories of conclusion (MOJ, 2014 p.18 *Coroners Statistics 2013*) and its recent rise in use prompted a review by the Office for National Statistics (Hill and Cook, 2011) about its potential to undermine national statistics on the causes of death. Hill and Cook (2011) paid particular attention to the narrative verdict's potential substitution for suicide verdicts and concluded that the increase in the use of narrative verdicts had not had a statistically significant impact on published suicide rates in England and Wales and so no revision to these rates was presently needed. However, the authors offered two significant caveats to their findings of interest to this research; if the rise in narrative verdicts were to continue at the same rate then the accurate reporting of injury and poisoning deaths, including suicides, is likely to be affected; and that the use of narrative verdicts by individual coroners varies throughout England and Wales. Where a high percentage of narrative verdicts are used by a small number of coroners this could have an effect on analysis of local mortality rates leading to misleading effectiveness measures to reduce intentional self harm.

This endorsement of current mortality coding practice as not being in need of revision was challenged by Carroll, Hawton, Kapur, Bennewith and Gunnell (2012) who compared suicide rates in coroner areas against their use of narrative verdicts. They found that those coroners who were more likely to use narrative conclusions recorded fewer suicides and concluded that changes in suicide rates over the last decade should be interpreted with caution. Although the focus of their research was the impact of the growing use of narrative verdicts on suicide verdicts, the authors also noted that there was wide geographic variation in coroners' use of narrative verdicts - they comprised between 0% and 50% (median = 9%) of verdicts given by individual coroners in the years 2008-2009. The authors did not further explore the reasons for this wide geographic variation and used a methodology that comprised analysis of published data only, rather than an exploration of the reasons behind the decision to use a particular verdict type. The present writer seeks to build upon that work already conducted on the impact of choosing one inquest verdict against another by exploring the reasons why coroners might choose different conclusions.



**Figure 3 Conclusions recorded at inquest, by category, England and Wales, 2013**

This research explores whether significant local variation exists across coroner areas in terms of their choice of verdict at inquest. That is, whether the average overall verdict trend for England and Wales shown at Figure 3 might conceal local variation across coroner areas. Different outcomes across the process depending upon the gender of the deceased are also explored, for example whether reporting rates and rates of advancing to inquest differ for women and men, and whether differences exist in recorded inquest verdicts according to the gender of the deceased.

It is to this question of consistency of outcome of the coronial process to which we now turn, in particular to explore the limited available literature in respect of decision-making by the coroner.

## **2.8 Consistency, idiosyncrasy and decision-making – a review of the literature**

To repeat, on appointment as Chief Coroner in September 2012 HHJ Thornton promised to provide quality and uniformity in the coroner system, with a national consistency of approach and standards between coroner areas (Courts and Tribunals Judiciary, 2012).

The implication of such a promise was that current practice lacked consistency. Justice Minister Helen Grant was more forthright, asserting that "*we need to end the postcode lottery that has plagued the coroner system for too long*" (Ministry of Justice, 2013, *Ending the postcode lottery for inquests*) before listing plans to reduce death-inquest time periods, improve technology and coroner training, to release bodies to families more quickly, and to improve access for families and their representatives to case material.

As ever, the independence of those who administer justice is in tension with the search for consistency, which may of course emerge as a consequence of consultation and common perspectives, but cannot be assumed to do so without evidence. The remarks of Ms Grant MP and the promise of HHJ Thornton suggest that reporting, investigation and actions at inquest are taken not to be consistent across the country. Great efforts are continually made in other segments of the justice system in England and Wales to deliver similar outcomes in cases with similar case-relevant features. This applies, *inter alia*, to judicial sentencing, CPS decision-making and police responses to victims of crime. "*Proper investigation of death is a service to the living*", the mantra of the coronial service in Toronto (Berry and Heaton Armstrong, 2005 p.459) surely incorporates consistency of outcome.

### **2.8.1 Inconsistency – reporting deaths to the coroner**

The first source of possible inconsistency comes with the decision of medical practitioners to refer a case to the coroner. In England and Wales doctors are charged with a responsibility either to report a death to the coroner or issue a medical certificate specifying cause of death (MCCD). The decision whether or not to report the death is theirs and theirs alone, a position which the Shipman Inquiry (Smith, 2003) concluded was unsatisfactory, noting that some doctors never report a death to the coroner and proposing that the decision might be better made by coroners or their officers who daily deal with the issue of 'reportability' (Smith, 2003 Section 5.53). Thus, the investigation of death continues to rely upon the integrity, knowledge and professional standards of individual doctors. There is strong evidence that many doctors get this crucial decision wrong.

Two Sheffield studies from 1993 and 1995 were particularly effective in demonstrating the clinicians' inability to recognise reportable deaths. The first (Start et al., 1993) was claimed by the authors to be the first formal testing of doctors' knowledge of the categories of case that should be referred to the coroner. Postal questionnaires

describing sixteen fictitious hospital deaths (fourteen of which contained, according to the authors, a clear indication for referral to the coroner) were sent to 200 clinicians and four senior staff of the local coroner's office. A total of 135 clinicians completed the questionnaire and the mean recognition score (number of correct assessments) was found to be nine with a range between three and fourteen. All of the coroner's staff recorded maximum recognition scores of sixteen. The discussion identified particular categories of case which presented the greatest difficulty for clinicians, such as accidental death where there was respondent confusion over whether an accident had to be suspicious, and deaths associated with medical treatment, where there was confusion regarding the need for a definitive clinical diagnosis. The authors concluded that doctors lacked proper training in the coronial system and that further confusion arose as a result of local variations in coroner practices, which thereby shaped the doctors' subsequent decision to report. This confusion among clinicians has been shown to have potentially devastating effects on appropriate reporting practices. There is persuasive evidence in the Fundamental Review of Coroner Services (Luce, 2003) that the present system fails to identify some suicides, drug related deaths and deaths to which adverse reactions to prescribed drugs may have contributed. These failures were attributed primarily to a culture of clinician under-reporting.

The 1995 paper (Start et al., 1995) reported the findings of a similar study in which 196 clinicians (61% response rate) and four coroners' staff were invited to complete a postal questionnaire describing twelve fictitious cases, ten of which contained a clear indication through national guidelines for referral to the coroner to be appropriate. Only 3% (n=6) of general practitioners managed to recognise all those deaths which should have been reported. In contrast all four participating coroner staff again correctly identified all the reportable cases in the study. Start and colleagues concluded that some doctors held disturbing misconceptions in relation to the coronial system with implications for the evasion of medico-legal investigation and having consequences which could include serious crime going undetected to the loss of industrial pension or other appropriate compensation for relatives of the deceased. Two respondents even indicated that recording a natural cause of death would be preferable to reporting a possible suicide in order to avoid possible financial loss to the family, prompting the authors to point out that such actions cannot be justified in law. An earlier publication, (Maudsley and Williams, 1993) demonstrated that there was a lack of sufficient instruction for doctors in death certification practice and that knowledge did not improve with experience as a clinician. Incredibly, the authors found that almost one in five respondent doctors to their postal questionnaire admitted that they would alter what they knew to be the true cause of death in order to avoid the involvement of the coroner or to cause further distress to relatives.

Berry and Heaton Armstrong (2005) reviewed the coroner system. They characterised it as a flawed process which requires comprehensive revision and is poorly understood to the point of widespread ignorance by the medical practitioners who provide its input and make inferences about decisions processed on the basis of that input. They point out that the distinct systems dealing with both conventional and coronial deaths are internally fragmented and deal with individual deaths and not patterns or trends. The coroner has no responsibility for a death not reported yet no alternative authority is charged with assurance regarding the death certification process. There is no system of audit or review of those cases where the doctor certifies the cause of death and does not report the death to the coroner, a flaw also identified by the Shipman Inquiry (Smith 2003, *Section 5.52*). Essentially the death certification process and the process leading to a completed coronial investigation are carried out in isolation from the mainstems of medicine and justice administration. The unscrupulous doctor remains able to certify his or her way out of trouble, a position exacerbated by variable reporting regimes set by local coroners. Berry and Heaton Armstrong (2005) charged coroners collectively with an inability to agree on the case attributes properly leading to a decision that a death arises from natural causes, thereby causing confusion amongst engaged professionals and consequent local differences in reporting behaviour. Dorries (2014) recognised this confusion by highlighting the lack of a statutory duty for a doctor in England and Wales to report a death to the coroner and contrasting it to the position in Scotland where the Crown Office issues very specific guidance for doctors on which deaths should be reported to the Procurator Fiscal, with the inference that ignoring such advice would be at the clinicians peril.

Roberts et al. (2000) demonstrated considerable variation in the way coroners approach possible natural cause cases, by exploring what they termed borderline cases. The authors recognised that many deaths in practice fell into a grey area and that in the absence of guidelines to help doctors, a national consensus was needed. They wished to initiate debate and thereby sought the views of coroners in England and Wales who were invited to supply verdicts and explanations for sixteen clinical scenarios. Sixty-four coroners replied. There was near total consensus as to verdict (>80% concordance) in only two of the sixteen cases and considerable variation was shown in the way in which coroners approached these borderline cases, many of which were said to be common in clinical practice. The results suggested that differences reflected the varying personal attitudes of each coroner, with the authors able to make reference to (unpublished) free text comments given by coroner respondents in support of their decisions. As the authors note: "*The disparity between viewpoints held by different coroners underlines the flaws of the current verdict system*" (Roberts et al., 2000 p.372).

Booth, Wilkins, Smith and Park (2003) published another study based upon a postal questionnaire, conducted from July to October 1999, to assess the ability of intensive care unit directors and *Her Majesty's Coroners* to recognise deaths that should be reported to the local coroner. The survey questionnaire consisted of twelve hypothetical case scenarios and had a 66% response rate from ICU directors (n=148) and 52% from coroners (n=68). Coroners were better at identifying reportable deaths than the intensive care unit directors (median correct recognition scores of 11 vs. 8). The results were said to show that significant numbers of deaths on intensive care units in England and Wales may not be being referred for further investigation and that wide variation in local coroners' practices exists. Repeating the conclusions drawn by Start et al. (1993) the authors felt that a lack of training and preparation of student doctors for death certification and coronial investigations was compounded by wide variation in the opinions of local coroners. In this study however, the authors were able to demonstrate that it was not only clinicians who experienced difficulty in identifying reportable deaths, but that coroners too could err. Berry and Heaton-Armstrong (2005) pointed out that doctors certifying deaths do so as a statutory duty under the Births and Deaths Registration Act 1953, and not as a condition of their employment in the National Health Service (NHS), since certification of death is not a NHS responsibility. The completion of death certificates is therefore treated as an independent activity for which there is no answerability to the NHS or other employer.

Luce (2003 p.41) was clear that a stronger statutory framework was needed to comprehensively identify the types of death that should be reported to the coroner and who should report them, and suggested that a coronial council should be responsible for creating the list. The review team produced a suggested list as to which deaths should be reported (Luce, 2003 p.43), reproduced here at Appendix B. The recommendation has not been implemented.

### **2.8.2 Inconsistency – inquest procedure and verdicts**

Moving on to the inquest procedure and the coroner's choice of possible conclusions, very little published literature is available by which to understand the decision-making process of the Coroner's Court. The writer is unaware of any literature which has sought to examine the decision-making process applied by coroners specifically when choosing whether to advance a case to inquest. This may be considered surprising given the fact that, as reported above, some 86% of deaths reported to the coroner will be disposed without inquest, thereby being recorded as deaths due to natural causes.

Of all the available conclusions as to cause of death, suicide tends to be of greatest interest to researchers. Comparative patterns in suicide conclusions are often examined from a psychiatric perspective where deaths among vulnerable groups are retrospectively examined in the hope of developing preventive strategies. Such publications tend to concentrate on the examination of cultural issues and recording practices, rather than on the decision-making processes of coroners. For example, Neeleman, Mak and Wessely (1997) concluded, by surveying all unnatural deaths of residents in an urban area irrespective of verdict, that suicide classification in a coroner's verdict was biased with respect to ethnicity and national origin. Relatively few ethnic minority and white immigrant researcher-identified suicides had received a suicide verdict, compared with the indigenous population. That study, in common with others, focussed on societal attitudes (to suicide) as a potential source of disparity rather than a specific examination of decision-making by the coroner.

The matter of the verdict of suicide could fill a thesis alone. Many studies (for example Sainsbury and Jenkins 1982; Douglas 1976; Atkinson, Kessel and Dalgaard 1975; Barraclough 1970) explore the potential for under recording of this verdict and discuss the sociological implications. More recently, Palmer et al., (2014) investigated the variation between coroners in twelve English areas for verdicts given to deaths in 2005 considered by the researchers to be possible suicide (open, accidental and narrative verdicts were the alternative verdicts collected), and analysed factors associated with the coroners' verdict. The researchers classified 593 deaths as suicide, of which 385 (65%) received a suicide verdict from the coroner. Factors identified as strongly associated with the suicide verdict were as diverse as whether a note had been left; the deceased's age being over 60 years and whether the deceased was married or widowed compared with being single. The authors concluded that coroners varied considerably in the verdicts they recorded for individuals who probably died by suicide. This was said potentially to compromise the usefulness of suicide statistics for assessing local area differences for public health surveillance. A similar earlier study by Linsley, Shapira and Kelly (2001), demonstrated in a study of open and suicide verdicts in Newcastle Coroners Court from 1985 to 1994, that the majority of open verdicts recorded were in fact, on the balance of probability, suicides. They noted that factors such as suicide note, method used and age of the deceased were significant in decision-making. Thus the prospect of verdict substitution was raised, what might make a suicide on one occasion might on another be an open or narrative or accidental verdict according to individual interpretation of factors revealed in the investigation. Linsley et al. (2001) pointed out that no objective criteria existed by which open verdicts should be included or excluded in suicide studies and that epidemiology was thus weakened. The authors concluded that open verdicts should be included in all suicide research after excluding cases in which

suicide was unlikely. Their study would have been enhanced by the inclusion of other coroner areas to determine whether local variation existed in open and suicide verdict outcomes and what factors might have influenced that variation, and the researchers may also have benefitted from expanding their methodology to include other verdict types capable of masking suicide (such as accidents, misadventure or narrative verdicts). The authors themselves noted as limitations that they had not systematically evaluated changes in coronial practices in Newcastle upon Tyne over the period and did not state whether there had been a change of coroner during the period studied.

Suicide research does occasionally refer to the coroner's decision-making role in choosing the appropriate conclusion. For example, Sainsbury and Jenkins (1982) tested the assertion that changes of coroners led to changes in suicide verdict patterns (and see Douglas, 1967 for a critical review of official data as unreliable for epidemiological studies). Sainsbury and Jenkins (1982) correlated the suicide verdict rates of all the coroners districts in England and Wales at two periods of time, 1950 and 1960; and then repeated the process, contrasting districts where the same coroner was in post in both years and those where the coroner in post had changed. They found that a change of coroner had no effect on the proportion of cases yielding a suicide verdict. Sainsbury and Jenkins (1982) went on to undertake a similar study for open verdicts and found that a change of coroner did in fact change the rate of open verdicts. It was inferred that coroners agree quite closely about which deaths they class as suicides, but less about open verdicts.

Their conclusion was erroneous. The data simply meant that areas using the suicide verdict stayed that way over time. It is entirely possible that no case labelled suicide in one high rate area would attract a similar verdict in another high rate area. Importantly though, Sainsbury and Jenkins (1982 p.44) did add that "*the idiosyncrasies of coroners have little practical effect on the differences reported between districts*". Unfortunately, their reference to *idiosyncrasies* in coroner decision-making remained without further investigation or comment.

So, how might we challenge such accusations of coroner idiosyncrasy? The obvious route, as taken by Sainsbury and Jenkins (1982), is through consistency in the profile of verdicts when a coroner changes. This is a flawed approach for three reasons;

- Even if a verdict profile remains the same, it does not guarantee that the same deaths would yield the same verdict, for example 50% verdicts of accidental death can be consistent over time while none of the individual verdicts remain the same.

- Cases reported to the coroner shape the profile of verdicts, and this may be slow to change.
- New coroners may have been socialised in the area which they now lead, or become socialised by the Court staff that remain in post across the transition.

As stated, literature pertaining to patterns in coroners' courts verdicts is sparse. The main source of official data is the yearly statistics bulletin produced each May by the Ministry of Justice. This contains some brief statistical reporting at a national level, such as numbers of registered deaths (which are estimated from ONS calculations) and those reported, inquests held, post-mortems conducted and time taken to complete enquiries. Comment is made on general numeric trends in a consistent format year on year but there is little comparative analysis (although the first limited signs of local comparative data appeared in the 2012 MOJ statistics bulletin, published May 2013), thereby forgoing the opportunity for detailed comment on local trends.

The main publications in common use in coroners' offices as guides to law and practice are Jervis on Coroners (Matthews 2011), Coroners Courts (Dorries, 2004) and Inquests (Thomas, Straw, Friedman and Machover, 2014). Matthews and Dorries books are very much the essential texts of the courtroom, containing detailed legislative pointers and procedural advice. 'Inquests' offers similar practical advice generally from the lawyer's perspective but also includes a great deal more critical analysis of the coroner's processes. However, rather than identifying inconsistency or indeed idiosyncrasy, in these formal texts there is often much appreciation of the importance of the independence of the coroner's role, even from those quite critical of the unreformed nature of coronial process. Thomas et al., (2014) for example, call for change within that independent system rather than a completely different approach citing security of tenure and autonomy from outside influence as important factors in the ability of the coroner to remain impartial. In a highly critical introductory text to the book, the authors claim that the historical development of the coroner's court has created a system that has often proved to be inadequate in enabling families and friends to discover the truth and that practitioners will be amazed at just how difficult a basic search for the truth can be, due to the legal framework and its varied interpretations.

In Chapter 4 of this thesis such varied interpretations will be explored in relation to deaths reported to the coroner. Wide variation across England and Wales in local reporting rates will be shown, deemed attributable to coroners setting local rules for reporting deaths which vary. Booth et al (2003 p.1205) showed how the variation in

practice led to confusion among doctors, and even some coroners, about which deaths are reportable. That point is repeated here because it is the fundamental duty of a coroner to identify those deaths which are unnatural and to hold an inquest. Booth demonstrated through the results of a postal questionnaire that coroners could not entirely agree on what constitutes an unnatural death. Only 18% of participating coroners and just 3% of the ICU directors gave correct answers to all 12 of the case scenarios. The authors argued that their study confirmed that "*wide variation in the opinion of local coroners exists and occasionally they too can be wrong*" (Booth et al., 2003 p.1206). Such variation in the coroners' opinions was said to be a possible cause for the confusion among doctors.

Coroners cannot know of deaths that are not reported to them. According to the National College of Pathologists, up to 10,000 deaths annually are certified by doctors that should have been investigated at inquest (Meikle, 2014). The estimate was extrapolated from trials of the medical examiner system and included examples of a cluster of infections in a hospital department; previous falls of elderly patients linked to the present circumstances of death; and missed treatments and medical observations of critically ill patients before their deaths. The cases were said to be examples of deaths which might be missed under the present system of reporting decisions lying with the individual clinicians. The president of the Royal College of Pathologists, Archie Prentice, is quoted as saying "*If we don't know the cause of death, we can't help those who are alive*" (Meikle, 2014).

Such concerns have been identified before. For example Roulson, Benbow and Hasleton (2005) carried out a meta-analysis of English language articles published between 1980 and 2004 documenting discrepancies between clinical and autopsy diagnoses, and found that at least a third of death certificates were likely to be incorrect and that half of all autopsies yield findings unsuspected before death. The Office for National Statistics publishes an annual analysis of leading causes of death by age and gender, the most recent of which at the time of writing was released in December 2013 relating to deaths from the calendar year 2012. From this it can be seen that heart and lung disease are the most common causes of death in men, together accounting for 23% of all male deaths, and that dementia and heart disease are the most common causes of death for women, accounting for 23% of all female deaths (Office for National Statistics, 2013, *What are the top causes of death by age and gender?*). Studies such as that of Roulson et al (2005) suggest that this official published data may be misleading through inaccurate diagnosis of cause of death.

One of the functions of the death certification process is to provide mortality statistics essential for public health, and there is a need for improvement in this area (Luce, 2003). It is therefore incumbent on coroners to work to clear and consistent guidelines in order that those deaths that ought to be subject to further investigation are indeed scrutinised. However, those clear national guidelines do not exist at the time of writing and the gap is filled by local directions and the varied personal opinions of key post-holders in the coronial system.

### **2.8.3 Inconsistency - decision-making and heuristics**

The Chief Coroner (Thornton, 2014 p.10) in his first annual report to the Lord Chancellor, states that there are many coroners who investigate thoroughly, act with compassion and understanding and who are hard-working judicial office holders, proud of their independence and acting for the public good. He continues, "*But the calls for reform have stemmed from the less good practice of some coroners and the inconsistency in practice across England and Wales which a local system can sometimes produce*". So it is accepted that there are recognised differences in standards and expected outcomes between individual post-holders.

A potential route to study a lack of consistency in coronial process may be to look more closely at *heuristics* in decision-making by individual coroners. Kahneman (2011 p.98) defines heuristic as a simple mental procedure that helps the decision-maker find adequate, though often imperfect, answers to difficult questions. Kahneman and Tversky (1979) propose that decision-makers subjectively and disproportionately frame an outcome in their mind to do with their prior experience, relevant knowledge, personal perception and stereotypes. Such heuristics have been shown to lead to systematic cognitive bias among decision-makers. Although those authors were focussing on economic theory they suggested that those heuristics could equally apply to decisions in law and especially where decision-makers are cognitively busy. Kahneman (2003; and 2011) developed these ideas to describe two systems of decision-making processes: the intuitive and the rational. System one, intuition, is automatic and effortless, fast and powerful. It can be influenced by emotion (surely a powerful driver in the coroners' courts) and may be error prone due to the use of heuristics - those mental shortcuts that help to make sense of complex or uncertain information. Simplified information processing techniques, typically applied at an intuitive level, can lead to distorted judgements and faulty analyses. By contrast system two, the rational, is slow and requires mental effort in the application of reasoning, careful analysis and sound logic. Kahneman proposes that decision-makers can easily be diverted from the mental effort

required for the application of system two thinking and revert to heuristics and cognitive biases through the application of intuitive thinking. Decision-makers are human, not super-computers and any system involving human nature will be prone to some error.

Not all intuitive thinking is bad. When decisions are required under chaotic or uncertain conditions, intuitive decisions can be preferable. The first police officer on the scene for example, who instinctively stops anyone from leaving the area of a discovered dead body, or who covers the corpse on arrival to preserve forensic opportunities is likely to be acting intuitively and under a great deal of cognitive pressure whilst taking command of a stressful situation. Snook and Cullen (2009) make the case that, for police investigations, heuristics are *essential* for success. They point out that it simply is not feasible to eliminate intuition completely given the constrained context of criminal investigative decision-making and the processing limitations of the human mind. In what is essentially a 'real-world' argument, the authors outline a psychological framework termed *bounded rationality*, and they illustrate how it applies to investigative decision-making. Absolute rationality, or the 'optimal' decision, is deemed unrealistic. It is impossible for police officers to investigate *all* possible suspects, or explore *all* possible avenues concerning the circumstances of a crime. Although the authors specifically cite investigative time pressures and the adversarial criminal justice system as reasons why optimal decision-making strategies are unrealistic (they are referring to police work), it is worthwhile to reflect upon whether the coroner's court could survive on a model of absolute rationality. The coroner's court is not an adversarial theatre, nor are time constraints an obvious issue for coroners' investigations. However, bounded-rationality may provide coroners with adaptive strategies that allow their investigation to function in a complex world. The investigation of a death requires an understanding of the world we live in developed through a mixture of presented papers (statements) and crucially, real-life experience. In Chapter 8 the results of a scenario-based Decision Board with coroners in England and Wales will be reported. The application of heuristics and biases by coroners will be apparent from the free text comments recorded by respondents on that exercise. But, just as Snook and Cullen (2009) point to a lack of empirical research to link the use of heuristics in police decision-making to a 'bad outcome' (i.e. a wrongful conviction or acquittal), who is to say that their use in a coroner's investigation will similarly lead to 'the wrong result'? Decision-making through heuristics is not inevitably flawed.

Heuristics must surely be personally applied according to one's life experience: "*What we remember depends on what we believe*" (Begley, 2005 cited in Rossmo, 2009 p.9). People appear to use past experience more than logic and rationality to guide their decision-making (Dror and Fraser-Mackenzie, 2009 cited in Rossmo, 2009). If this is so,

then in the context of an organisation based upon 114 local business units dealing with the emotional processes of investigating the death of a fellow human being, then the potential for varying conclusions according to one's view of the world through repeated past experience is obvious. Such experience is an oft-quoted respondent justification for taking a particular view. This is a theme to which the writer will return in Chapter 8 when discussing the results of the DBA.

The application of heuristics in an investigative context has been taken up over the years by a significant number of authors and has indeed influenced decision-making and interview styles in policing and investigative work, perhaps most strikingly by Rossmo (2009). He demonstrated how competent and dedicated police investigators make avoidable mistakes by falling for three main investigative pitfalls; cognitive biases, such as tunnel vision, that lead to mistakes in reasoning; organisational traps, such as group-think, to which investigators fall prey within their agencies; and probability errors such as the prosecutors' fallacy in forensic science and criminal profiling, also known as *transposing the conditional* – where the probability of the evidence given guilt is equated to the probability of guilt given the evidence (e.g. all cows are four legged animals, but not all four legged animals are cows).

Rossmo (2009) gives a comprehensive account of heuristics and biases relevant to investigative work and which therefore, the writer contends, might influence the outcome of a coroner's investigation into a death, either by the coroner in reaching a conclusion from the evidence presented or in the gathering phase of the investigation, usually carried out by the coroner's officers. The investigative process is essentially a decision-making one involving numerous and constant decisions designed to lead to an outcome, in this case the appropriate conclusion to an inquest. Decision-making is the cornerstone of effective investigation – to identify, to determine, to direct, to understand and to review is *to decide*. Pitfalls in investigation can thus be seen as pitfalls in decision-making.

Examples of heuristics in investigative decision-making include the *anchoring heuristic*, where the prevailing information available at the start of the investigation strongly influences the final estimate (inflexibility to evidence obtained later in an investigation would be an example: '*it's always looked like a drugs death*'); *tunnel vision* whereby there is a narrow focus on a limited range of alternatives ('*all my drugs deaths are accidents*' for example); *satisficing* is the selection of the first identified alternative that appears good enough (failing to look more closely at the knot in a rope used in suicide for example – '*could this really have been completed alone?*'); *availability* refers to the ease by which previous examples come to mind ('*I've dealt with hundreds of these* –

*they are always misadventure*); *framing* whereby the presentation of information influences its interpretation (*'the driver of the lorry was distraught and is genuinely remorseful'* – but did he or did he not drive dangerously?); and the *representativeness* heuristic where experience of a previous similar event can lead to a desire to categorise the new event as the same thing (*'the hospital doctor did all he could, the patient always knows the risks of an operation'*). The core duty of the coroner is to investigate and they are vulnerable, as any investigator, to the pitfalls of heuristics and biases applied at any stage of their investigation.

Mclean and Roach (2011) outlined various cognitive traps for investigators and reported a small scale real-life study of sixteen witness interviews obtained by police officers in England which established, by comparison of the tape-recorded discussion to the final written statement, that not one of the witness accounts completed by the police investigators contained all the relevant pieces of information offered by the witnesses. On average, fourteen items of information, or clues, were missing from the final account, left out by investigators often working to their own frame of reference. Coroners, like police Senior Investigating Officers in major crime investigations, are to a great extent reliant on the written information that is gathered and presented to them and may be unaware of the potential application of heuristics by their officers.

Coroners will therefore be susceptible to differences in decision outcomes dependent on their experience, knowledge, perception and stereotypes, and of course to the abilities of their own investigative staff. Coroner opinions will differ. The Ministry of Justice Statistics bulletin for the year 2012 (MOJ, 2013 p.28) included at Annex A an analysis of unclassified verdicts, in which two independent assessors, who were retired coroners, analysed a random sample of the previous five years' narrative verdicts with a view to unpacking the reasons behind the large increase in this category of inquest conclusion. The coroners were independently asked to categorise the cases into one of six categories, for example 'could indicate suicide' or 'medical or surgical intervention unsuccessful' or 'error – verdict should be in one of the existing short-form categories'. It is of interest to the present research that the MOJ recognised that such categorisation was based upon the assessors own opinions and they noted the subjectivity of the analysis. There was a large difference between the numbers of verdicts classified as "Error" by the two assessors. Coroner 1 recorded 25 per cent of verdicts in this category, compared to only seven per cent so recorded by Coroner 2. This was taken to highlight the subjective nature of the analysis and is perhaps the first indication recorded in the official Statistics bulletin of the idiosyncratic nature of a coroner's decision-making. The implications of this analysis are discussed later in the thesis at Chapter 5.4 where the use of the narrative verdict is considered in detail. The potential for different decision

outcomes to arise from a consistent set of facts presented to coroners is explored through the DBA and is presented at Chapters 7 and 8.

### **2.8.3.1 The origins of the Decision Board**

A technique devised and described originally by Wilkins and Chandler (1965) as the 'information board' was used by them to study the decision-making processes of probation officers in relation to whether they considered a specific period of probation for their clients to be a suitable recommendation to the Court. At this time, studies of information handling in decision-making suffered from a lack of techniques designed to minimise the control of the experimenter, or to replicate 'real-life' conditions for the decision-maker. The authors describe the information board as a simple piece of apparatus enabling observation of the use of information and offering the capacity to relate the type and quantity of information used by a participant to the decision eventually reached. The information board was essentially a board containing a number of index cards (49 in this case), each of which had only a title visible to the participant until it was flipped over to reveal the information content relevant to the title. Participants could read the information in any order they chose but were asked to come to a decision quickly and using as little information as possible. Having arrived at a decision, probation officer participants were asked to record two ratings scores, one for the ease or difficulty in making the decision, and one for the degree of confidence the officer felt in the decision being correct. In fact, the authors subsequently recommended that similar studies abandoned the use of the two ratings of difficulty and confidence in favour of just one, due to the respondent scores for the two scales being almost identical. Subjects had found difficulty with expressing levels of confidence and preferred to use the ease-difficulty continuum. The authors concluded that this method had great potential in identifying types of decision-maker, pointing out that *"the way people go about their search for information is related to the way they go about their work in dealing with problems to which the information relates"* (Wilkins and Chandler, 1965 p.34).

Carter and Wilkins (1976) developed the Decision Board technique further in the United States in relation to parole guidelines. The context was that the Federal Parole Board, under challenge to articulate its decision-making principles in a context of concerns about racial disparity and war protest, were unable to do so beyond stating that they sought to treat every case on its merits. Analysis of the past decision-making of the Parole Board had led to the clear emergence of two factors which accounted for the bulk of the variance in the timing of prisoner release decisions. These were the seriousness of

the offence, and the 'salient factor score', the latter being essentially a summary of a prisoner's criminal history. Carter and Wilkins found that decision-makers were genuinely unaware of the criteria which they were using when making their decisions, and were vulnerable to criticism as a consequence. There were two ways of addressing such a problem, both pioneered particularly by Leslie Wilkins. The first was an empirical analysis of past decisions, and this was the route taken in the 'guideline approach'. The second was the close and structured contemporaneous tracking of individual decision-making as a training tool, and this led to Wilkins' development of the Decision Board Analysis method.

The 'guideline approach' is only possible when a detailed repository of data about factors leading to past decisions is available. This does not appear to be the case with extant coroner research, where decision outcomes are only recorded succinctly as short-form or narrative verdicts, and hold little by way of detailed information; and Statistics bulletins such as those produced by the Ministry of Justice deal only with the national figures (for England and Wales) without reference to the detail behind the figures. Thus a central insight which underpins this research is that coroners, if they resemble other groups studied, are unable to introspect on the factors which are central to their decisions, or to compare how fellow coroners might deal with such factors. The lack of any systematic review process or relevant research material, previously outlined here, compounds the isolation in which coroners presently make their decisions.

A modern computerised form of the Decision Board, known as MouselabWEB, has been used for the DBA conducted with coroners for this research. Further detail regarding this information process-tracing tool is outlined at Chapters 7 and 8.

#### **2.8.4 Inconsistency – structural reform**

As ever, absence of evidence (of coroner consistency) is not evidence of absence. It is important to establish whether the coronial postcode lottery apparently conceded by Government extends beyond the accepted weaknesses of timescales, releasing bodies, case materials, technology and training; to the fundamentals of coronial decision-making, and whether 'the system' is essentially consistent in process and outcome.

It may not be reasonable to refer to a coronial 'system' at all, for example Pounder (1999, p.1502) points out that "*the coroner service is not a single entity, but rather a set of local services*". The Chief Coroner clearly believes that a significant package of reforms to achieve greater consistency is necessary and in the absence of a national service he remains the central focus to drive reform. It is his role to establish national

standards in what remains an essentially local service. In his first Annual Report (Thornton, 2014) he states that it is too early in the reform process to give a clear assessment of consistency of standards between coroner areas and offers to return to that subject in his 2015 report. He outlines how he is working towards greater consistency in a number of ways such as making training for coroners compulsory for the first time. HHJ Thornton has produced no less than fourteen pieces of separate written formal advice and guidance to coroners during his short period in post (Thornton 2014, p.14). For example, guidance has been produced on the following topics: mergers of coroner areas, coroner appointments, the cadre of coroners who investigate service personnel deaths, where to hold inquests, opening inquests, recording hearings, reports to prevent future deaths and the use of post-mortem imaging as an alternative to invasive post-mortem examinations. Reforms are outlined in the report in other areas, pertinent to this research, such as his personal involvement in the forthcoming local appointments of senior coroners and practical advice on decision-making in investigations and inquest management.

Thus, the promotion of coroner reforms, the spreading of good practice and the development of greater consistency across England and Wales, can fairly be said to be uppermost in the Chief Coroner's mind. The concluding words of his first annual report state this; *"The Chief Coroner will continue to develop and encourage reform, through training, guidance, advice, encouragement and support. He will monitor the reforms so that he can report to the Lord Chancellor about consistency of standards between coroner areas next year"* (Thornton, 2014, p. 23).

Examples of reform, training and guidance for consistency in a similar context include ACPO's national decision model (ACPO, 2012) to guide police officers in decision-making, investigative or otherwise. The model has five key elements all based upon the service's statement of mission and values and which incorporate gathering information, assessing threats and risks, considering powers and policy, identifying options and contingencies and taking action with consequence review. This guidance is said not to be about stifling creativity or discretion; indeed it claims that adopting the national decision model is part of a supportive drive to ensure a greater focus on delivering the policing mission in accordance with values, enhancing the use of discretion, reducing risk aversion, and supporting the appropriate allocation of limited policing resources as demand increases. The application of such a logical and transparent approach, in a context where complex decisions may be subject to challenge, may be helpful within the context of the coronial process. Other examples of the analysis of decision-making models, focussed on standards and consistency of outcome, may also be found in nursing (Lewinson and Truglio-Londrigan, 2008; Husted and Husted, 1995; Jasper, Rosser and Mooney, 2013);

social work (O'Sullivan, 2011; Taylor, 2010); and probation work (Carter, 1967; Rosecrance, 1985); but almost nothing appears to be available for the coroner.

In summary, the available literature points to the coroner as an independent post-holder who works without oversight within a self-contained judicial system which is poorly understood by engaged professionals. It should be noted that the Coroners and Justice Act 2009, largely implemented in July 2013, contains some provisions intended to bring about greater consistency of practice between areas. One such provision is the appointment of the Chief Coroner to provide support, leadership and guidance and to set national standards for all coroners, and the intention to move towards fewer and larger coroner areas, each of which will support a full-time coroner caseload. Consistency of standards and approach is clearly the aim, but Thornton has not yet referred, in documents seen by the writer, to consistency of outcome. The writer contends that a bereaved family should have the same access to the coronial process with a transparent decision-making process employing the same criteria and yielding the same probability of outcomes, irrespective of where in the country they live. This is not to suggest stagnation. When procedures change, as they will do over time, they should do so in lockstep. As things stand, cases similar in all relevant respects may be reported to coroners in some areas and not others, and if so reported yield different decisions in different areas. There may be untested and undocumented decision-making by coroners variably applying their own interpretation to legislation and rules, and contributing to wide variations in local reporting rates and inquest outcomes, with unreliable mortality statistics for epidemiological purposes downstream. No comparative analysis in choice of inquest conclusion is routinely undertaken and, despite significant research into decision-making in other contexts, next to nothing is available in respect of the coroner.

### **2.8.5 The investigation of death by gender of the deceased**

The preference for the use of the word gender rather than sex throughout this thesis is an acknowledgement that the factors contributing to the disparity in coronial decision-making *may* be a function of ascribed social roles rather than differences in age at death or other biological variables.

Bradley (2013, p.16) offers this definition; "*gender refers to the varied and complex arrangements between men and women, encompassing the organisation of reproduction, the sexual divisions of labour, and cultural definitions of femininity and masculinity. It therefore is, at one and the same time, a set of social arrangements determining how women and men live, and a way of thinking which divides people up into two (or*

*sometimes more) social categories*". For Bradley, 'gender' is culturally defined and socially constructed, while 'sex' is biological. She offers her definition in the context of what she calls 'second wave feminists' thinking around patriarchy where social arrangements determining how men and women live are typically hierarchical and asymmetrical so that men are the dominant gender and women are those (inferior) people who are not men (Bradley, 2013 p.16). This concept of gender as inequality and oppression of women is rooted in the theory of patriarchy, the social system of male dominance (Walby, 1990). As Witz (1992) observes in her examination of the (gendered) development of the professions, desirable workplace attributes such as detached objectivity have been culturally coded as male. Using medicine as an example where the gender of the professional tends to be male, Witz argues that patriarchal approaches to gender segregation tend to focus on the problem as one of female adjustment within an assumed given "*sex role theory*" (Witz, 1992 p.2).

This thesis does not include a detailed analysis of patriarchy but it would be remiss not to reflect upon the male-dominated ancient role of the coroner operating in a social system which separates the roles of men and women based upon emergent social norms. Walby (1990) describes patriarchy as a system of social structures and practices, in which men dominate, oppress and exploit women through social relations found within six structures; production, paid work, the state, male violence, sexuality and cultural institutions. She argues for the specification of several patriarchal bases, pointing out their causal effects upon each other and takes issue with single-base feminists (reproduction or rape are given as single-base examples of patriarchy) as being unable to account for historical change or cultural variation. For Walby, patriarchy is public and private; private being based upon household production as the main site of women's oppression and public being based principally in public sites such as those of employment and the state sector. Two of the six structures identified by Walby might be considered close to the office of coroner – the state, which she claims has a systematic bias towards patriarchal interests in its policies and actions, and cultural institutions, which, for Walby, create the representation of women within a controlling patriarchal gaze.

Walby, in defining the six structures, takes an all-embracing position regarding the development of (primarily western) society and living. What does she not include? Society's structures, such as the Courts, will emerge from society's practices. Any specific empirical instance will embody the effects of patriarchal structures, and thereby the Coroner's Court, in examining the life and death of women and men will inevitably reflect the underlying structures of social life. Certainly until the middle of the twentieth century, only men determined how an unnatural death might have occurred (and indeed

whether or not the death was unnatural), and chose a verdict from an emerging short-form list designed to meet the needs and reflect the roles of industrial and post-industrial society. Dorries (2014, p.5) points out that “*as the possibilities of unnatural death increased (through industrialisation) so the value of the coroner became more apparent*”. The coroner’s court was developing as a forum at which issues concerning conditions and liability, predominantly for men employed in heavy industry, could be raised following an individual’s death. At the time of writing (December, 2014), the gender of the personnel involved in the role of coroner appears to be moving rapidly (certainly in the context of the last 800 years) towards a more balanced position, with 19 coroners of 98 now female. Any suggestion, however, that this may be advantageous for women, in the sense of more enlightened investigative policies or appropriate inquest conclusions, might be problematic. According to Walby (1990), structural pressures are more important than personal background in determining the patterns of decision-making by the state. The state is systematically structured in a way which makes it appropriate to regard it as patriarchal and its actions are more often in men’s interests than women’s.

Analysis for this thesis will show that deaths of men and women are treated differently across the three transition points of the coronial process (reporting, advancing to inquest and choice of verdict), and that there is some tentative evidence that coroners may be ‘gendered’ in their approach to decision-making in the sense that they are consistently more likely to favour a particular verdict according to the gender of the deceased. However, the notion that if all case-relevant factors were alike the disparity would disappear cannot be discarded at this time without further case-based research.

The results of the DBA appear to demonstrate that coroner idiosyncrasy and a lack of supervisory oversight promulgate inconsistent decision-making between post-holders. When the personal views are overwhelmingly those of men, and reflect societal norms of the roles of men and women, then the cycle can be hard to break. Over-representation of men in deaths due to industrial disease and suicide, for example, may not be a true representation of the actual balance between the genders if those engaged *at any stage in the coronial system* are, perhaps unwittingly, applying gender-based biases in their thinking. So the clinician who fails to recognise a woman’s medical cause of death as a possible industrial disease and thereby does not report the death, or the coroner’s officer who fails to identify her previous occupation as exposing her to industrial risks, or the coroner who prefers a narrative verdict (rather than industrial disease) as offering a more complete and sensitive explanation for the bereaved family, may all contribute to differences in outcome based upon personal biases in decision-making.

### **2.8.5.1 Gender and the age of the deceased**

There is a crucial key variable missing from this research study and, as far as the writer can ascertain, any analysis of difference in coroner outcome by gender – that of the age of the deceased. It has not been possible, because the data are not routinely available; to analyse according to age and to determine whether there may be any relationship between decision outcomes and age upon death. Important issues for this research are that more women die every year and that more women die older than men. In 2010, for example, 237,916 male deaths and 255,326 female deaths were registered in England and Wales, 63% of all women who died were aged 80+, but just 44% of men reached that age (ONS, 2010, *Mortality Statistics: Deaths Registered in England and Wales, 2010*). Across the three stage coronial process described here, the deceased's age is not routinely recorded or analysed by MOJ, so that without specific case-based study we cannot compare the relative ages of those reported to the coroner against those not reported, those who advance or do not advance to inquest, or those where deaths yield particular inquest conclusions. Such analyses conducted by the gender of the deceased are indispensable in testing hypotheses regarding possible gendered decision-making throughout the process. The need for research into the variable of age in relation to the coronial process is further discussed at Chapter 9, and is, in the writer's opinion, urgently needed to determine whether it might explain some or all of the disparities to be described. The elimination, or otherwise, of the age variable is crucial to the investigation of whether different outcomes according to gender can be attributed to disparities from gender-neutral decision-making.

### **2.8.5.2 Gender and suicide**

Palmer et al (2014) investigated the variation in verdicts given to deaths in twelve English coroner areas in 2005, thought by researchers to be probable suicides and analysed the factors associated with the coroners' verdicts. In keeping with the research reported later in this thesis, they found marked variation between areas in recorded verdicts that were other than suicide, such as open, accident/misadventure and narrative verdicts, where the researchers had considered, by reference to the case papers, that a suicide verdict would have been appropriate. Further, they established that poisoning was an unlikely method to yield a suicide verdict (42% of those poisoned received suicide verdicts, compared with 80% of those who hanged or suffocated). However, poisoning was found to be the most common method used by a woman to commit suicide (45% of all researcher-defined suicides).

Surprisingly, the authors concluded that gender was not associated with the likelihood of receiving a suicide verdict. Suicide notes; being married or widowed as against being single; advancing age and some other factors were most associated with use of the suicide verdict. However, the authors did outline the potential for underestimates in suicides according to the method used. Thus death due to poisoning, more common in women, may be disproportionately missed as a suicide by the coroner and the consequent under-recording of the verdict may have a gender bias. The unique status and implications of a suicide verdict in the coroners court is reflected in the number of studies exploring the potential for under-reporting and under-recording of this verdict with the limitations of official suicide statistics usually the main focus. Occasionally these studies do look at gender disparity, for example Sampson and Ruddy (1999) in a South Yorkshire study examined all suicide and open verdicts for a six year period recorded in one coroner area. They found that some deaths believed to be suicidal in nature had not been recorded as such (21% of their sample) although there was little difference in the proportion of verdicts returned according to the gender of the deceased, 80% for men and 76% for women. Self-poisoning was the second most common mode of death overall and was the most common for women ("45% compared to less than one-quarter of males", p.75). The authors noted that the self-poisoning method had received suicide verdicts in only 66% of cases and that death from poisoning appeared particularly difficult to establish as suicide in coronial practice, with one-third of cases being declared an open verdict, thus identifying the potential for gender based under-recording of the suicide verdict. Older females received fewer suicide verdicts than any other group, and the authors compared their findings to those of Neeleman and Wessely (1997) who found that women were 1.35 times more likely to receive *open* verdicts than *suicide* verdicts. It does appear then that poisoning is a suicide method more commonly used by women and that coroners are less likely to record a suicide verdict in poisoning cases than with other methods such as for example hanging, jumping from a high place or the use of firearms. The particular interest for this study is the potential for disproportionate under-recording of suicide for a particular mode of death (poisoning) known to be more commonly used by women. Available data on suicide in England and Wales were analysed for the purpose of this thesis and found to account in England and Wales for 15% of all male inquest verdicts over the period 2001-2011 and for 10% of all female inquest verdicts over the same period.

In terms of violent deaths, violence against women dominates much of the available literature on death and gender. Studies of murder, domestic homicide, dowry deaths and wife burning are readily available (see for example: Dobash & Dobash, 1998; Dobash & Dobash, 2010; Belur, Tilley, Daruwalla, Kumar, Tiwari and Osrin, 2014) but will not be considered further in this research as those cases do not typically involve decisions for

the coroner other than the inquest being adjourned for police investigation and subsequent disposal by a criminal court. That is not to say, of course, that there will not have been such deaths – unlawful killings – missed by a coroner’s investigation, but that has to be the subject of further focussed research beyond the scope of this thesis.

### **2.8.6 Interpreting the data – a cautionary note**

This thesis has two main parts. The first (the ‘what’) is an analysis of available coroner data from the Ministry of Justice, provided to the centre by local coroner offices, and deaths data from the Office for National Statistics; and the second (the ‘why’) is a scenario based study of coroner decision-making style through Decision Board Analysis for three typical cases that might come to inquest. Certain inferences will be drawn from both data sets which reveal new and perhaps controversial insights into varying coronial outcomes for the bereaved across England and Wales and which highlight local variation in practice and opinion held by incumbent coroners. Specific limitations regarding the various data sets are discussed later in the thesis but a cautionary note concerning interpretation is offered here in the light of literature regarding available data in a similar field, that of crime and punishment.

Specifically, the writer has drawn upon the work of Bottomley and Pease (1986) who examined in detail the statistics of crime and punishment in England and Wales over the two decades prior to their publication (thus providing the writer with an opportunity to explore literature covering the same national jurisdictions as this thesis, England and Wales, and over a similar limited time-series), and who examine the mechanisms by which those statistics are created and the uses to which they can usefully be put. Their extensive analysis was both optimistic; in the sense that they were clear much could be gleaned from a careful viewing of available data, but also pessimistic, in that the authors illustrated ways in which the information contained in official statistics could be used to mislead.

The writer has drawn six key themes from the authors’ important contribution to understanding and interpreting official (crime and punishment) statistics and considers them in the light of this (coronial investigations) study;

*“The way in which data are collected and organised depends on what you want to do with them” (Bottomley and Pease, 1986 p.159):*

MOJ official statistics bulletins are changing. There are the first signs appearing of comparative data between areas, although as yet no discussion as to the findings.

Thornton (2014), as Chief Coroner, has promised to report upon local inconsistency of standards in his next annual report, due June 2015, and therefore one might expect that variation between coroner areas will continue as an analytical theme. Previous analysis has focussed on general trends across England and Wales by summing the product of all coroner area outcomes. However, the statistics remain the product of an isolated service. As Berry and Heaton Armstrong (2005, p.455) point out "*no formal linkage to or communication with other public health services and systems exists, minimising its epidemiological value*", and that "*a major disgrace in the view of one of the authors is that the medical profession has not sought linkage between birth and death records*" (p.459). The data are available for MOJ to analyse and report upon consistency of outcome between local coroner areas should it so wish.

*"Committed believers in the present and future value of official statistics do not, because of their commitment, have to surrender their critical faculties"*  
(Bottomley and Pease, 1986 p.169):

All the data surveyed in this thesis are records of decisions made in local area professional contexts and are the products of personal interactions made in a social and legal framework. These interactions cannot be fully understood in a broad statistics based analysis such as was available for this thesis. Although variation in local practice and outcomes should rightly be questioned, in the sense that the bereaved should expect a consistent approach anywhere in England and Wales, it is entirely possible that given the full case detail of the many thousands of deaths included here, nobody would argue with any individual outcome. Every single coroner case disposal has a back story unknown to the researcher and may indeed have yielded an appropriate conclusion. Analysis of the data can only allow questions to be raised – 'why does your area have so few deaths reported for coronial investigation, when the adjoining area has so many more?'; or 'why do you dispose of so many reported deaths without inquest compared to the neighbouring area?'; or 'why does your area record so few suicides, yet so many narrative conclusions?'. It is in seeking, and comparing, answers to these questions that will reveal reasons for variation and inform policy decisions to minimise inconsistency and improve service to the bereaved and wider public.

*"Despite the lacunae in and deficiencies of the available data ... It is our belief that citizens should be aware of what the state does on their behalf in the area of crime and punishment"* (Bottomley and Pease, 1986 Preface p. x)

This thesis and the analysis contained herein have only been possible because of the publication and dissemination of regular statistics in this area and the willingness of researchers employed by HM Government to respond to requests for information. There are deficiencies in the data, the lack of comparative area analysis being an obvious weakness, the fact that calendar year reporting may not always reflect the product of that year's coronial output due for example to delays in bringing inquests to a conclusion, and strategically the failure to link data on deaths with live medical records constitutes a fundamental flaw in public health policy. However, publication of the available data offers the citizen the opportunity to explore prevailing practice and to identify trends, albeit on a national, rather than local level.

*"System needs override rates of misbehaviour outside"* (Bottomley and Pease, 1986 p.141)

By this the authors meant, and accepted the risk of being labelled as cynical, that police and the penal system need a relatively steady and plentiful supply of crimes and criminals to justify their continued existence or expansion. Agents of criminal justice, faced with possible reductions in crime, would draw more events and people into the criminal justice net. Whilst this is not the place to argue whether the authors have been proved right (but increased rates of anti-social behaviour and child sexual exploitation might provide good supportive examples), the challenging idea that system volumes in some way reflect system needs is worthy of consideration here. In England and Wales, rates of reporting deaths to the coroner are, on average, considerably higher than comparable international jurisdictions (Luce, 2003). Yet as shown in this research, almost nine in every ten of those reports do not proceed to inquest and are therefore eventually considered to be deaths from natural causes. Why are those reporting rates so high? Local coroners will be shown in this thesis to be implementing their own area arrangements for reporting, some for example adding a local practice of 'any death within 24 hours of admission to hospital' (Start et al., 1993). By this and diverse other local requirements, the 'supply' of deaths to the coroner can be influenced within a wide range.

Other commentators dispute the legitimacy of these local rules and ask whether they might represent a coroner acting in excess of his jurisdiction (Leadbeatter and Knight, 1993). Another systems issue for coroners is the potential for pigeon-holing deaths into one or other of the short-form developed choice of conclusions. System categorisation needs have resulted in the classification of some 98% of all unnatural deaths in England and Wales as one of just six verdict conclusions (see Chapter 5), and in the case of

deaths of women (see Chapter 6) three-quarters of all unnatural deaths are classified into just two verdicts. The system needs, of a steady flow of reported deaths or of a desire to categorise according to extant conclusions, may be distorting the true picture of how people die in England and Wales.

*"The problem of the denominator"* (Bottomley and Pease, 1986 p.155)

This is the problem that the total in relation to which coronial actions are expressed is highly selected from the total available for inclusion in the equation. The first stage of the process is not particularly affected by a moving denominator in that the expression of the reporting rate as a proportion of all registered deaths in any coroner area tends to be reliable, as coroners probably do not have a large direct effect on the number of people who die in their area (although note the previously discussed problems of analysis by calendar year). Taking the second and third stages of the coronial process, proceeding to inquest and choosing a conclusion, proportions of those deaths which either proceed to inquest or yield a particular conclusion depend upon the stability of the number deemed reportable – the qualifying criteria for which is strongly influenced by the incumbent coroner. Thus, if a coroner takes a particular view that deaths of a certain type should not be reported because they are to his or her mind natural deaths, for example in hospital following surgery, or through 'old age', then the number of reported deaths will fall, resulting in a higher inquest *rate* and inevitably a smaller proportion of inquest conclusions of natural cause (because a restriction has been placed upon reports). The coroner, in effect, manipulates the size of the denominator. This is important in any data analysis, because the answer to the reason for variation may lie, in process terms, long before the identified disparity. The problem of the denominator is particularly acute in this thesis' discussion of gender differences. Chapter 6 will show significant deceased gender differences in journeys taken across the three transition points of reporting a death to the coroner, advancing to inquest and the choice of inquest verdict, that appear to inflate male numbers – more men are reported to the coroner, more men advance to inquest and more men yield conclusions of unnatural death. However, a lack of available data on, specifically, the age of the deceased means that inference is not easy to draw. Proportions of those persons who cross each transition point depend upon the number who die – but if the number who die is skewed in terms of age (which it is, for men die younger), then a process designed to identify those who have not died naturally may not treat the genders in the same way. Women continue to live longer than men, but the gap has been closing. Although there have been annual improvements in the life expectancy at birth of both males and females,

over the past 31 years the gap has narrowed from 6.0 years to 3.8 years (ONS, 2014 *National Life Tables*).

Herein lies the problem, do men really die in significantly greater numbers than women for reasons other than natural causes? Or has a process developed over time which is shaped by the gender of its personnel, the nature of its investigation, the rules applied by those engaged in the process, organisational language and its categorisation of the final outcome (and so on) to yield gender disparities? This thesis will explore apparent gender disparity in greater detail, but without a case-based study in which all case relevant and non-case relevant variables are exhaustively explored in order to understand the denominator, the complete answer is unlikely to be reached.

*"Until principles (of the process under review) are fully clarified, the task of full assessment remains impossible, and any search for consistency can achieve only the empty shell of unprincipled uniformity"* (Bottomley and Pease, 1986 p.170)

The authors highlight the potential for statistics on decision-making to stimulate further investigation into apparent disparities but remind us of the importance of not allowing statistics to make us forget the people behind the numbers. Coronial decisions are made by people and are about people, whether deceased or bereaved. They are made in the context of society's objectives, principles and policies reflected in the staff working in a coroner area seeking to serve their public. In the criminal justice system, the authors claim, those objectives and principles remain unarticulated, creating a stumbling block to a coherent evaluation of current practice. The writer is reminded of a conversation, early in this research period, with a coroner now retired, who posed the rhetorical question *"Do coroners make a difference"*? (Whittaker, personal communication (conversation), 13<sup>th</sup> May 2011).

Do coroners make a difference to what, or to whom? What is the overriding purpose of the coroner system? A Guide to Coroner Services (MOJ, 2014 *Guide to coroner services and coroner investigations*) is available to the bereaved which sets out what a coroner will do when a death is reported and what one might expect from the investigation. But what is the fundamental purpose of the coroner system today? Is it to identify avoidable risks to life, to find means of avoiding such risks, to expose wrongdoing or bad practice, to curb the excesses of rogue employers, or agents of the state?

The Chief Coroner (Thornton, 2012) outlined a worrying chronology by describing the Brodrick report of 1971 as having expressed the view that not many coroners appear to have a clear idea of their role in contemporary society, that the Lancet carried an article

in 1994 which concluded that the coroner system was suffering from the absence of a clear purpose, that Luce in 2003 had concluded that there were no agreed objectives or priorities, that the Shipman enquiry of the same year had expressed the view that the purpose of an inquest was unclear, that The Coroners Society in 2006 had complained of the lack of a clearly defined purpose for the coroner service and finally, that neither the present Coroners Act nor the next one (*Coroners and Justice Act 2009, implemented July 2013*) states a fundamental purpose for the coroner system. Thornton goes on to offer his own advisory view that the coroner system might fulfil two main objectives in the future – the public need to know of how the deceased came by his death, and the prevention of future deaths.

As Bottomley and Pease (1986) point out, the value of statistical information can only be assessed against the objectives it is meant to reach and the principles and policies which inform its scope and focus. This thesis will discuss disparity of outcome and the desire for consistency but sadly it is the case that the overriding principles of the coroner system in England and Wales remain unqualified and that we risk that “*empty shell of unprincipled uniformity*” (Bottomley and Pease, 1986 p.170).

## **2.9 The present thesis**

The role of the coroner and the proper investigation of death remain high in the public interest of contemporary society. As stated, the Chief Coroner has identified the role of the coroner in the 21<sup>st</sup> century as two fold; the need for the public to know, by which he means the opportunity for bereaved family and friends to understand transparently and openly how the deceased came by death, and second, for the prevention of future deaths, giving examples such as identifying defects in railway crossings, or a systemic failure in custody treatment in prisons or police stations, or a lack of warning signs against a special danger for the public, or inadequate post operative care in a hospital (Thornton, 2012).

Recent high profile coroner cases have kept the role of coroner in the public conscience and have often included an element of controversy. For example, the death of Ian Tomlinson in April 2009, who had been pushed to the ground at the London G20 summit protests by a police officer. The inquest was presided over by the Chief Coroner himself (prior to his appointment to that role) and reached a conclusion of unlawful killing. The police officer was eventually acquitted at trial in the criminal courts (BBC, 2012).

In 2005 a young Brazilian man, Jean Charles de Menezes, was shot dead by London police officers after he was misidentified as one of the fugitives involved in the previous days bombing attempts in the capital. An open verdict was the inquest outcome. This provoked some controversy about the role of the police and their operational failures in bringing him to harm. The de Menezes family had hoped to secure an unlawful killing verdict to expose wrongdoing by the police, as they perceived it. The Metropolitan Police was later convicted under Health and Safety laws of endangering the public (BBC, 2007).

More recently the global recording artist Amy Winehouse was found dead at home in July 2011 after having consumed alcohol in large quantities. The coroner's inquest conclusion was one of misadventure, although sadly the matter was not to end there. A second inquest became necessary when it was established that the original deputy coroner who had dealt with the case did not have the necessary qualifications to act as coroner. She had been appointed by her husband, the incumbent senior coroner at the time. She was dismissed, the incumbent senior coroner resigned and Ms Winehouse's family received a second verdict of misadventure at a fresh inquest (BBC, 2013).

Against this contemporary background has been a growing call for change – "*a relic in need of reform*" (Pounder, 1999 p.1502) and a recognition that the coroner's role needs to better meet the needs of bereaved people (see for example Berry and Heaton Armstrong, 2005), perfectly captured by the new Chief Coroners first announcements and Annual Report. Indeed, the Chief Coroner seems to have calculated a twenty-five year period during which reform has been advocated, pointing to the last major legislative reform, the Coroners Act 1988 as a starting point for continued calls for (but little research to inform) change (Thornton, 2014 p.90, *Coroner reform*). It was in this context that the present research was proposed with a hypothesis that a lack of coroner oversight had resulted in the promulgation of local, rather than national, reporting and investigating regimes for the investigation of death. Wide local variations had therefore developed in reporting, investigation and choice of conclusion at inquest through possible idiosyncratic decision-making by autonomous local coroners.

Berry and Heaton-Armstrong (2005) point out that very little research is available on the existing relationships between the distinct processes of death certification and coroners enquiries. They assert that the certification of deaths and its investigation is flawed and has not been subject to comprehensive revision for many decades. Despite its historical stability, the coronial process is poorly understood by those who use it and the lack of supervisory structures within the system means that there is no leadership (they were writing before the appointment of the first Chief Coroner), accountability or quality assurance. Both conventional and coronial deaths are internally fragmented too, dealing

with individual deaths and not concerning themselves with patterns or trends nor linking with other public health services and systems. Essentially the death certification process and the process leading to a completed coronial investigation are carried out in isolation from the mainstreams of medicine and justice administration. No public authority has to see that the certification process is being carried out properly and that deaths which ought to be investigated by the coroner are indeed reported for investigation.

Much of Berry and Heaton Armstrong's arguments arise from their participation in the 2003 Fundamental Review of Death Certification and Investigation in England, Wales and Northern Ireland, (Luce, 2003) in which the authors call for a national coronial service; a coronial council to provide consistency and interaction with public health services; and the abandoning of the current short-form inquest verdicts in favour of narrative and analytical outcomes. The authors believe that a change in verdict types would allow, where necessary, the traditional narrow scope of inquiry at inquests to be extended in order to enjoy public and family confidence in complex or contentious cases, including those which currently often lead to calls for ad hoc judicial inquiries. They point to examples, contemporaneous with their publication, such as Harold Shipman<sup>2</sup>, the Allitt enquiry<sup>3</sup>, the Bowbelle/Marchioness disaster<sup>4</sup> and the revelations of the Bristol and Alder Hey enquiries<sup>5</sup>. These yield evidence that current systems do not always provide adequate protection against malpractice or proper support for the bereaved. Their report was published before the additional controversial case examples referred to earlier in this section, which tend to reinforce their view that standards for the treatment and support of the bereaved within the coronial process can be woefully inadequate, having contributed in a major way to certain cause celebres (Berry and Heaton Armstrong, 2005). Thus, there is a need for reform and for appropriate research, such as presented here, to support evidence-based changes in coronial policy.

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2 Harold Shipman was convicted in the year 2000 for killing fifteen of his female patients. His murderous activities only came to light when a vigilant daughter of one of his victims spotted an attempt by Shipman to forge her mother's will. (BBC, 2004)

3 Beverley Allitt was convicted of murdering four children whilst employed as a hospital nurse in Grantham in 1991. The area coroner declined a request by a hospital consultant for a specialised post-mortem examination on Allitt's first victim. (Foster J. and Pillinger C.,1994)

4 The pleasure boat Marchioness sank in the river Thames in London in 1989 after being run down by the dredger Bowbelle. Fifty-one people died by drowning. Two years after the accident, families learnt that 25 of the victims had their hands removed for purposes of identification and some had not been returned to the bereaved. (BBC, 2000)

5 Enquiries surrounding the unlawful removal, retention and disposal of human tissue, including children's organs, by hospitals in the United Kingdom during the 1980's and 1990's, which criticised the respective coroners for a lack of supervisory oversight. (BBC, 2001)

## 2.10 A changing landscape?

The first Annual Report of the Chief Coroner published in June 2014 represents the culmination of an incredible period of recent change for the coronial process in England and Wales, and is clearly just the beginning in terms of changes in structure and role of the coroner, as outlined above. The recent appointment of the Chief Coroner nearly did not happen. In May 2010 the newly elected coalition Government introduced Schedule 1 of the Public Bodies Bill 2010 (Public Bodies Act, 2011), known as the bonfire of the quangos, which placed the proposed new role and all its powers as a candidate for disposal. Lobbying in the House of Lords first led to an amendment in which the powers would be retained but pass to the Lord Chief Justice and Lord Chancellor. In November 2011 the post of Chief Coroner was reprieved. The Chief Coroner himself states that he has not been told why the decision was made, although he does recognise that lobbying at the time by groups such as the British Legion, concerned about the proper investigation of the deaths of service personnel abroad would have been influential (Thornton, 2012). HHJ Peter Thornton took up his appointment as the first Chief Coroner on 17 September 2012. His appointment followed debate in Government and the production of various consultation reform proposals by the Ministry of Justice intended better to meet the needs of bereaved people. The consultation activity recognised the accusation of a 'postcode lottery' in local standards of service referred to by Helen Grant MP (see for example, Ministry of Justice (2009) *Coroner Reform bulletin no.1*).

One major change that continues to be subject of debate, and delay in implementation, is the introduction of medical examiners, a proposed role for appropriately trained senior doctors who would assess clinical information on MCCD's in order to ensure only appropriate referrals to the coroner and thereby the accuracy and consistency of MCCD content. The examiners would be responsible for the scrutiny of the documentation and circumstances arising from the majority of deaths in England and Wales. The aim is to simplify and strengthen current certification arrangements, improve the quality and accuracy of data on cause of death and prevent multiple deaths going unnoticed and unchallenged (Department of Health, 2012 *Death Certification Reforms in England and Wales Update for Coroners*). It is envisaged that in future medical examiners will have the discretion to report a death to the coroner according to an agreed national protocol which sets out the minimum level of scrutiny that must be applied. In an update produced for coroners (Department of Health, 2012 *Death Certification Reforms in England and Wales Update for Coroners*), the proportion of deaths reported to the coroner are said to be expected to decrease from the present 46% national average to around 35%, although this is likely to differ in each area depending on its current baselines and local factors. Further, the initiative is expected to reduce conclusions of

natural causes at inquest by up to 20% due to the reduced number of reports to the coroner (Thornton, 2014 p.95, *Coroner reforms*). According to Luce (2003 p.26), this decrease in coroner involvement would be desirable. Rates of reporting deaths to coroners in England and Wales are between double the rates and 50% higher than the rates of other jurisdictions. Scotland, for example, manages with a death investigation system that has no more than a quarter of all deaths reported for further investigation by the Procurator Fiscal. However the potential for unnatural deaths to be missed through averting the eye of the coroner highlights the importance of a robust system of triage by the medical examiners. Progress of reform is slow in this area though and it is unlikely that any further work towards implementation will take place before the next general election (May 2015).

Literature pertaining to patterns in coroners' courts verdicts is sparse, with the main source of information being the yearly statistics bulletin produced by the Ministry of Justice. This brief statistical report at a national level includes such information as the numbers of registered and reported deaths, inquests held, post-mortem examinations conducted and the time taken to complete inquiries. Comment is made on general numeric trends in a consistent format year on year but until very recently there was no local comparative analysis undertaken, precluding any opportunity for comment on local trends. The MOJ Coroners Statistics bulletin published in May of each year has been the writer's staple data source and has changed almost beyond recognition since the beginning of this research period. At the time of writing, the latest bulletin had been published in May 2014 and refers to statistics from the calendar year 2013. The 2012 bulletin, published May 2013, saw the first signs of comparative data analysis between areas.

The potential for comparative local analysis had been a regular topic of conversation between the writer and the statistics team at the Ministry of Justice. Their tentative published beginnings have included a map of the England and Wales coroner areas shaded according to deaths reported as a percentage of the population; post-mortems and inquests as a proportion of deaths reported to coroners; suicide verdicts as a proportion of all inquest verdicts and average time taken to process inquests. The shaded map format appeared after the author had been unable to obtain permission to use the coroner jurisdiction map from MOJ for the same purpose (local reporting rates as a proportion of local registered deaths) when preparing an article for publication (Mclean, Roach and Armitage, 2013), due apparently to licence conditions imposed on Ordnance Survey data (Nauth-Misir (MOJ), personal communication (e-mail), 20<sup>th</sup> February 2013). The shaded map format has continued into the calendar year's 2013 bulletin with the addition of average, minimum and maximum data points to illustrate the range of

variation between local areas. The 2013 bulletin includes an Annex (MOJ, 2014 p.28 *Annex C*) in which death rates reported to the coroner as a proportion of registered deaths have been analysed for the first time. They reveal, in line with the results reported later in this research, a range of 20% to 99% of registered deaths having been reported to local coroners that year.

The statistics bulletin now includes an Excel 'statistical tool' in which comparative analysis can be undertaken between any two coroner areas across England and Wales using data going back ten years. So, local comparisons can now be made for example in deaths reported, proportions of post-mortem examinations and inquests, timeliness of inquests, the number and percentage of most common conclusions recorded by coroners at inquest and percentage of conclusions by gender of the deceased, with the exception of the post-mortem examinations, precisely the topics that the writer has been focusing on since April 2009.

The Coroners and Justice Act 2009 introduced new rules for investigations and inquests which came into force on 25<sup>th</sup> July 2013 (*The Coroners (Investigations) Regulations, 2013* and *The Coroners (Inquests) Rules 2013*). The rules and regulations thus did not apply during the period of the data analysed in this thesis but seem intended to make for a more consistent future approach by coroners. They introduce the concept of the coroner's *investigation*, which may or may not include an inquest. They recognise that much of the coroner's work will take place *before* the formal inquest hearing. Advice is given on the nature of that pre-inquest investigation and, where appropriate, how the inquest itself might best proceed. Previously contentious issues at inquest such as pre-hearing disclosure of information to interested parties is dealt with and a new set of suggested 'conclusions' (short-form or narrative) replace the term 'verdicts' which was felt to be inappropriately close to the terminology used in criminal proceedings. Participants to the DBA reported in this thesis (see Chapters 7 and 8) were asked to apply these new rules and regulations (post 2013) because they were in force at the time the DBA instrument was circulated to coroners.

## **Chapter 3**

### **Methodology for data collection and analysis**

#### **3.1 Introduction**

The central purposes of this thesis were to first establish whether wide variation exists in the decision outcomes reached by those involved in the coronial process of investigating death in England and Wales, and where any variation could be noted, to identify the most probable reason(s) for this. The focus was on the coroner as the person who sets the tone for the three major decision-making stages within the coronial process described above.

This chapter outlines the nature of the data sought and subsequently used for the analysis of outcomes across those three coronial decision-making stages. Methods of contact with the data holders are explained, data limitations and compromises in requests are identified, and the need for data manipulation and cleaning to allow time-series analysis is discussed.

The data were required in order to explore the 'what' question of this thesis. What, if any, was the local variation between coroners in decision outcomes at the three stages of their investigation? If variation was found then further consideration would be given to addressing the 'why' question of this thesis: what are the probable reasons for varied outcomes? The 'why' question could not be answered by analysis of the outcome data alone and so required a different approach. To address the issue of 'why' variation might be apparent, this research chose Decision Board Analysis (DBA) with serving coroners in the form of an online instrument comprising three death scenarios that could be reported today to an incumbent coroner. The methodology for that DBA, and aims of that 'why' part of the research, are outlined at Chapter 7.

#### **3.2 Aims and objectives**

The primary aim of the research was to determine whether local variation existed in the three main outcomes of a coroner's role, and if it could be established, to provide comprehensive analysis of the nature of that variation. The data would allow for general comment across the countries of England and Wales in terms of national trends, both currently and over time, but the particular interest was whether coroners would vary locally in their decision-making and thus deliver different coronial outcomes. Taking each

of the three stages in turn, the following general research themes were constructed around hypothesised variation, consistent local application and outcomes according to the gender of the deceased;

### **3.2.1 Stage 1: Reporting a death to the coroner**

- Do the local area rates of reporting deaths to the coroner for England and Wales vary?
- Are coroners consistent in that rate and do they vary according to the gender of the deceased?

### **3.2.2 Stage 2: Advancing to inquest**

- Do coroners vary in the rate at which they advance reported deaths to inquest?
- Are coroners consistent in that rate and do they vary according to the gender of the deceased?

### **3.2.3 Stage 3: What verdict?**

- Do coroners vary in their use of particular verdicts, as a proportion of their total verdict count?
- Are coroners consistent in their proportionate use of verdicts and do they vary according to the gender of the deceased?

## **3.3 Method**

### **3.3.1 Where coroner data are held**

Ministerial and policy responsibility for the office of coroner in England and Wales was transferred from the Department for Constitutional Affairs to the Ministry of Justice (MOJ) upon its formation in May 2007. Prior to 2005, the Home Office held responsibility for coroners and published annual statistical bulletins based on coroners' annual returns from 1980 (MOJ, 2014 p.31 *Coroners Statistics 2013*). The publication of coroners' work

by calendar year, based upon standard returns from the coroners themselves, has continued and includes statistics regarding coroner workload, throughput of cases, and proportions of post-mortems and inquests. The statistics from 2007 onward are available to the public at <https://www.gov.uk/search?q=coroner+statistics><sup>6</sup> and are published by the MOJ in May each year, presenting the previous year's data. The majority of data for this research was compiled from coroner returns by the MOJ statistics team in response to the writer's specific requests.

The Office for National Statistics (ONS) is responsible for the collation and presentation of statistics pertaining to deaths registered in England and Wales. Published figures represent the number of deaths registered in a reference period (week, month, and year); calendar year has been used for the purposes of this research to match MOJ data. The registration of deaths is carried out by the Local Registration Service in partnership with the General Register Office and a Registration Online system (RON) is used by registrars to send details to ONS. Deaths in England and Wales should be registered within five days of the date of the death but will be delayed until enquiries are complete if the death is referred to the coroner. Once on the database, data are passed through a series of automatic validation processes designed to help the registrar to highlight any inconsistencies. Completeness checks are also conducted by ONS to ensure that all death registrations have been received.

Thus, analysis was performed on Ministry of Justice (MOJ) data pertaining to the numbers and proportions of deaths reported to the coroner by local area over a ten year period (2001-2010). Office for National Statistics (ONS) data provided the numbers of deaths registered in England and Wales over the same period to serve as a denominator for the calculation of proportions and thereby the identification of local reporting rates of deaths to the coroner. Data were also made available to the writer regarding the sex of the deceased allowing calculations by gender.

### **3.3.2 Quality and consistency of the data**

MOJ data are collected by means of statistical returns completed annually by coroners. For the latest publication, 2013 data, returns were received from all areas electronically in a standard coroner collection form. The forms are individually quality assured by MOJ statisticians in a process that highlights inconsistencies between years, and across areas. Checks are made to ensure that each return is arithmetically correct, including sub-totals and grand totals being correctly summed. Unusual values encountered in a return are

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<sup>6</sup> Accessed 28th January 2015

queried with the data supplier (MOJ, 2014 p.29 *Coroners Statistics 2013*). Thus, all data provided for the purposes of this research were drawn from the MOJ coroner collection form (accompanied by notes for completion by the coroners' staff) used to collate the annual returns from all coroners across England and Wales (2010 example replicated at Appendix C). Coroners are independent office-holders, and the statistics bulletin includes a caveat that there is considerable variation in the way each coroner area is structured and managed, and in the mechanisms in place for discharging their duties under the Coroners Act (MOJ, 2014 p. 30 *Coroners Statistics 2013*). One of these differences relates to the way 'NFA' cases were approached in the past (pre 2004) in terms of whether a coroner considered the death to have been formally 'reported' where no further action was required by that coroner.

Notes for completion on the collection form now stipulate that *'deaths reported to the coroner should include all cases in which coroner investigated the circumstances of a death personally or by his officer, by letter or telephone'* (Appendix C). The recording rules are therefore clear that all relevant cases should be recorded; making subsequent analysis valid in terms of how many deaths had been reported. There should be no case, for example, for coroners' officers to reject reports of death for further investigation without recording the fact of the report. However, there is a caveat on those figures before 2004. According to MOJ, before that date, *"coroners sometimes included 'trivial' enquiries (such as telephone enquiries from doctors) as part of their caseload, and sometimes they did not. From 2004 onwards an 'all-in' policy was adopted, and all such enquiries (whether or not there was any subsequent paperwork) were included as part of the 'no inquest, no post-mortem' cohort of the coroner's intake as a reported death. So care must be exercised for figures before 2004 where there was neither an inquest nor a post-mortem"* (Allen (MOJ), personal communication, 9<sup>th</sup> March 2012).

ONS mortality statistics are based on the deaths *registered* in the calendar year, rather than deaths *occurring* in that period. Since ONS has no information about a death until it is registered, there can be a delay between the date the death occurred and when the death is added to the ONS database, particularly if the death is subject to inquest. However, ONS consider these differences to be relatively small, since in most cases deaths occur and are registered in the same calendar year. An example has been included in the ONS mortality statistics information paper (ONS 2014 *Mortality Statistics*) which calculates that in 2012 the difference between registered deaths and deaths which had occurred was (-) 4.1%. There will also be a number of late death registrations for previous years that will be included in the annual extract of death registrations.

### **3.3.3 Accessing the data**

#### **3.3.3.1 Stage 1: Reporting a death to the coroner**

A formal request was made to staff at the Justice Statistics Analytical Services, Ministry of Justice, the address and contact details for which are included in the annual publication of Coroners Statistics, for the provision of MOJ data regarding deaths reported to the coroner. Such data were provided as an Excel spreadsheet for the ten year time series 2001-2010. A longer series was not available due to the amalgamations of coroner areas having been more complex prior to 2001 and the potential therefore, according to the providing MOJ statistician, for inaccuracy in the data. For example, in 2001 three Lincolnshire jurisdictions had existed (Grantham, Lincoln and Sleaford) that by 2002 had been merged into a single coroners jurisdiction, West Lincolnshire. The reported deaths were as follows; 2001: Grantham 322, Lincoln 958, Sleaford 75 (=1355); 2002: West Lincolnshire=1477. Therefore deaths reported to the coroner(s) for the area rose from a total of 1,355 across three jurisdictions for 2001 to 1,477 for the new single jurisdiction in 2002 (the following year). On receipt of the database from MOJ, the potential for analysis by gender was realised and a further request led to data on deaths reported to the coroner being provided by the sex of the deceased person. Again, these data were compiled by MOJ as an Excel spreadsheet for the purposes of this research.

In order to calculate proportions of deaths reported to the coroner by area, the denominator had to be the number of registered deaths in that coroner area. MOJ did not hold data regarding registered deaths, which is in the domain of the Office for National Statistics (ONS). A further Excel spreadsheet was therefore provided by MOJ entitled 'District Composition' which detailed how each coroner district was constructed in terms of local authorities and their areas, and what amalgamations of previous coroner areas, if any, had taken place. This could be used to compute coroner areas by local authority areas by summing relevant ONS mortality data, and thereby determining the denominator – the number of registered deaths per coroner area. Not all coroner areas were coterminous with local authority boundaries however and some consisted of parts of second tier local authority areas (i.e. districts or boroughs), thereby denying a simple process whereby ONS local authority area data could have been matched to their respective coroner area (see 3.4 Weaknesses and limitations in the data).

Contact was made with the ONS Mortality Section Research Team. The original request to the Research Team was for the number of registered deaths, by coroner area, for each year from 2001 to 2010, in the hope that the denominator could be provided from an existing database to match the MOJ data already held. As noted above, it was

established that data by coroner area were not held by ONS. In fact, although 'coroner area' was a free text field on the ONS registered death database "*it was not always completed*" (Fearn [Senior Research Officer], personal communication, 7<sup>th</sup> December 2011). There followed a protracted exchange of correspondence in which negotiations took place regarding available ONS variables such as deaths by local authority area or postcode, deaths broken down by the sex of the deceased and deaths by banded age group. The negotiations also involved an attempt to find a compromise between what could be provided free of charge and which information extraction might incur a purchase order<sup>7</sup>. The application was ultimately settled with a request for the provision of data regarding registered deaths by local authority area, including gender of the deceased, and from 1995 to 2010 inclusive. ONS agreed to the compilation of a database for the purposes of this research which was received by the writer in Excel format entitled 'Deaths by LA 1995-2010 FINAL' (Holley, personal communication, 30<sup>th</sup> January 2012).

### **3.3.3.2 Additional data**

During the course of initial analysis relating to the reporting of a death to the coroner, it became apparent that wide differences in outcome between local areas would be found. Possible factors were mooted as potential causes of the variation, which included demographic features such as population size and levels of deprivation.

It was clearly desirable to analyse demographic features for any relationship with reporting rates. Population size was calculated by analysing the statistical population bulletins published on the ONS website (ONS, 2011) and summing the relevant areas contained within a coroner area. Local authority areas were again matched with coroner areas by using the district composition file. For a deprivation score, the Government website <https://www.gov.uk/government/statistics/english-indices-of-deprivation-2010> was accessed for English indices of deprivation 2010 (Gov.uk. 2011<sup>8</sup>). Deprivation scores include a number of indicators such as employment, income, deprived 'hot spots' and proportion of populations living in the most deprived areas. The data include an average of all deprivation score ranks for each local authority district, which allows for an overall score based on all the measured factors, and so this average indicator was selected for use. As the data were again published by local authority area the most deprived local authority area included in the coroner area composition was taken as the indicator

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7 To extract data including banded age breakdown was estimated to cost in the region of £330 (Holley, personal communication, 30 January 2012)

8 accessed 28th January 2015

subsequently used for the comparative analysis. This meant that coroner areas were being considered by their most severe pockets of deprivation when considering any relationship with rates of reporting deaths. At the time of writing, deprivation indicators for Wales were not available and have therefore not been calculated for this research.

There will be much speculation as to the causes of local variation in coronial outcomes identified in this research, beyond distinct demographic features. The analysis of population sizes and deprivation indices were intended only as a limited indicator towards possible demographic characteristics within coroner areas. In order to analyse these two indicators across all coroner areas, compromises had to be made in calculating appropriate values (as stated, local authority areas and coroner areas are not coterminous); and the latest data available at the time the analysis was conducted - 2010 only - was taken as a reasonable indicator to be compared with reporting rates over the ten year time series.

### **3.3.3.3 Stages 2 and 3: Advancing to inquest; and what verdict?**

Verdict data were to be required for the calculation of rates of advancing to inquest, i.e. the number of inquests held divided by the number of *reported* deaths (as provided for each area by MOJ, see 3.3.3.1); and for the comparison of verdict use across the local coroner areas of England and Wales.

The starting point for inquest verdict data was e-mail and telephone contact with staff at the Justice Statistics Analytical Services, Ministry of Justice (MOJ). A request for verdict data was the first contact with the MOJ statistics team for the purposes of this research, although for presentational purposes related to the three stage coronial decision process, the data related to deaths reported to the coroner has been outlined first here.

Data regarding inquest verdicts recorded by coroners in England and Wales, including by sex of the deceased, were requested. This was provided in Excel format for all coroner areas in England and Wales from 1995 to 2010 inclusive. The initial sixteen year time frame for verdict data was agreed with the MOJ statistician who felt that going back beyond 1995 would have been disproportionately challenging in terms providing accurate details of coroner area amalgamations and relating previous jurisdictions to current area composition. As stated, this was subsequently amended to a smaller time frame (2001-2010) by MOJ statisticians when providing details of deaths *reported* to coroners by coroner area. The verdicts database had a separate Excel sheet for each year which differed at the Y axis to varying degrees reflecting the changing composition of coroner areas over time. According to the MOJ statistician, for the previous twenty years (in

some cases longer) there had been continuous progress towards larger coroner districts, run by full-time coroners, and away from the smaller districts. Usually amalgamations had been simple, often happening when a coroner retired and a neighbouring coroner in the same county took over the retiring coroner's district as well as his or her own. However, occasionally amalgamations had not been simple, such as when three coroner districts became two (Allen, personal communication, 25<sup>th</sup> May 2011). A list of the amalgamations which had occurred since 1995 was therefore also provided in order that extant recorded data could be summed according to present coroner area composition.

As some 97% (see Chapter 5.3.4) of all verdicts were found to be one of the common six (accident, natural, suicide, industrial disease, open and narrative), analysis of patterns of verdict use were occasionally restricted to these types, particularly when considering local variation in verdict choice. Verdicts other than the common six can be rarely used at single area level. In May 2012 the data for inquests completed in 2011 became available allowing for its inclusion, where verdict data only were being considered, in order to extend the analysis to an eleven year period. This allowed a longer comparison period and inferences to be made incorporating more recent data. This 2011 verdict data were obtained online from the annual Ministry of Justice (MOJ, 2012) published Statistics Bulletin. Registered deaths data could not be extended in a similar way as it would have required a re-working of local authority boundaries to apply ONS death data to current coroner areas, and a further request to MOJ to provide details of deaths reported to coroners, by area, for 2011. Reporting rates to coroners (calculated by dividing reports to coroners by registered deaths) therefore remain as a ten year analysis. Each analysis and presentation of results in this thesis is accompanied by a clear statement of the time-series being analysed.

### **3.4 Weaknesses and limitations in the data**

As stated, coroner areas and local authority areas were found not always to be coterminous; the data required careful re-alignment in accordance with details of coroner areas provided by MOJ. This was achieved by using the District Composition File provided by MOJ (which outlined the local authority make up of each coroner area) to sum the ONS registered death data for relevant areas and thus arrive at a registered death profile for each coroner area, as those areas existed in 2010. The process had to be repeated for each year, working backwards between 2010 and 2001, taking into account the changes in coroner area composition throughout the period. An example of a

straightforward calculation, without composition changes during the period under review, would be **West Yorkshire**, where there are two coroner areas. The coroner area **West Yorkshire (West)** comprises Bradford, Kirklees and Calderdale local authority areas and **West Yorkshire (East)** comprises the local authority areas of Leeds and Wakefield. Data here could be quite simply collated by summing the deaths registered in the relevant areas according to the annual ONS totals for the respective local authority area, representing a deaths registered total for each coroner area.

Absolute accuracy in registered deaths could not be achieved for 13 coroner areas due to MOJ composition being based on parts of parishes. A standard approach was taken whereby ONS data were allocated to the area which the MOJ composition file suggested had much the greater part of a district or borough. An example of this was **Derbyshire**, which is made up of two coroner areas **Derby and South Derbyshire**, and **North Derbyshire** (formally Scarsdale and High Peak). **Derby and South Derbyshire** is an aggregation of one unitary authority: Derby City, two districts: Erewash and South Derbyshire, and part of two other districts: Amber Valley borough and Derbyshire Dales. **North Derbyshire** is comprised of an aggregation of four districts: Bolsover, North East Derbyshire, Chesterfield and High Peak and parts of the same two districts as also featured in Derby and South Derbyshire, namely Amber Valley borough and Derbyshire Dales. Thus, the two coroner areas include *parts* of two districts. For Amber Valley borough, the MOJ district composition file lists four parishes as being within **North Derbyshire's** coroner area and states that parishes not included in North Derbyshire are to be considered part of **Derby and South Derbyshire**. For Derbyshire Dales the district composition file lists 38 parishes which form part of the **Derby and South Derbyshire** coroner area. The file likewise states that any other parishes not listed will be included in **North Derbyshire**. The standard approach taken in all such areas was to include ONS registered deaths data within the coroner area which had named parishes in their composition as the file suggested this was much the greater part of the respective districts.

No coroner area was composed in this way alone. The vast majority were a combination of unitary authorities or metropolitan boroughs and thereby could be matched with ONS data. Where coroner areas (and local authorities) had been amalgamated during this period the combined reported and registered death figures were included in accordance with the current area composition.

Additionally, deaths registered in the 'City of London' were not available as they were included in the total figure for 'Inner North London' and could not be extracted separately by ONS. This meant that local analysis of rates of reporting deaths to the

coroner and advancing to inquest for the City of London, both of which require the denominator of registered deaths by coroner area, have been included in the wider area of Inner North London. Thus, analysis relating to reporting rates and advancing to inquest will refer to coroner areas as n=111, rather than n=112 (and as previously stated refer to a time series of ten years, 2001-2010). Analysis of inquest verdicts data only (i.e. not involving the number of registered deaths as a data variable) has allowed City of London to be included as a separate area, hence n=112 (and as previously stated refer to a time series of eleven years 2001-2011).

### 3.5 Data cleaning

Four key data sources were now available for analysis;

1. **MOJ reported deaths**; all deaths reported to coroner by calendar year 2001-2010 by sex of the deceased by all coroner areas (114 in 2010), England and Wales
2. **ONS registered deaths**; all deaths registered by calendar year 1995-2010 by gender of the deceased by local authority, England and Wales
3. **MOJ district composition file**; detail of nature, make up and extent of all 114 England and Wales coroner areas at 2010, supported by details of historic amalgamations noted from previous years
4. **MOJ verdicts file**; every coroner's inquest verdict by calendar year 1995-2010 by gender of the deceased by coroner area

A master file was then created in SPSS to incorporate all four data sets using the Excel database for verdicts (1995-2010) as the starting point. This was to be used as the basis for most, but not all, of the research conducted across all three decision-making stages of the coronial process. 2011 verdict data were added from the MOJ website published data (MOJ, 2012). Two coroner areas, the Queens Household (a separate coroner area subsequently abolished by the Coroners and Justice Act 2009) and Isles of Scilly were removed at this point for almost no returns were made during the period. Five *verdicts* were also removed at this point on the basis of extremely low numbers over the period – abortion, self-neglect, want of attention at birth, stillborn and disasters.

To permit comparative analysis over time, the data had to be amalgamated to fit the present composition of the 112 coroner areas (i.e. all areas except the Queens Household and Isles of Scilly). This involved using the MOJ district composition file to work backwards in time through the list, adding data for defunct jurisdictions to their new areas as they became amalgamated, and was conducted by hand. Generally, smaller jurisdictions had merged to become larger coroner areas, often coterminous with unitary authority jurisdictions. The process of calculating amalgamations was stopped at 2001 as many more had taken place prior to that and advice from MOJ was that to continue working through numerous amalgamations would create difficulties for accurate data merging. The database containing the amalgamated coroner areas 2001-2011 was saved as an Excel file, checked for accuracy of the data rows, and converted to a SPSS data file. All subsequent analysis was conducted using SPSS.

### **3.6 Data analysis**

Table 1 contains basic descriptive detail for the data gleaned from MOJ and ONS and painstakingly manipulated as described above. The data covered a total of 114 coroner areas in England and Wales accounting for over 2 million reported deaths from over 5 million registered deaths. Almost 300,000 of those reported deaths advanced to coroners' courts and received an inquest verdict. There were large differences in local area caseload sizes across the three stages of the coronial process, reflected in large ranges and standard deviations.

**Table 1 Data gathered from MOJ and ONS**

<b>Data</b>	<b>Data parameters</b>	<b>Total data</b>	<b>Minimum in any coroner area</b>	<b>Maximum in any coroner area</b>	<b>Mean</b>	<b>Standard Deviation</b>
<b>Registered deaths</b>	2001-2010 (111 coroner areas)	5,114,511	7,581	124,448	46,077	27,073
<b>Reported deaths</b>	2001-2010 (111 coroner areas)	2,295,736	1,468	61,122	20,682	12,365
<b>Verdicts</b>	2001-2011 (112 coroner areas)	296,526	176	9,968	2,648	1,702

### **3.6.1 Data analysis - prioritising analysis of variation between coroner areas**

The data provided many opportunities for analysis across the three stages of coronial decision-making. In particular, an opportunity was afforded, for the first time to the writer's knowledge, for outcome comparisons to be made across those three stages for all coroner areas in England and Wales. Although general trends in reporting, advancing to inquest and choice of conclusion both nationally and locally were of interest, those trends in coronial behaviour were considered secondary to the opportunity to analyse *variation* in the coronial outcomes by area.

The first step was to calculate *rates* of reporting, advancing to inquest and choice of verdict over the relevant period for all coroner areas. The 'reporting rate' was calculated by dividing the number of deaths reported to coroners (according to the MOJ file) by the number of registered deaths (now calculated by coroner area by matching ONS and MOJ data). This produced reporting rates by coroner area by calendar year which were then capable of analysis for variation (a range of 12-87% was found). Similarly, rates of advancing to inquest were calculated by dividing the number of inquest verdicts according to the MOJ file by the number of *reported* deaths (a range of 6-29% was

found). A further measure of the rate of advancing to inquest was also conducted by dividing the number of inquest verdicts recorded by the number of *registered* deaths in a coroner area (a range of 1-14% was found). Rates of verdict use were calculated by dividing the number of verdicts recorded of any one type by the total number of verdicts in a coroner area, giving an area 'verdict profile' which could be compared across England and Wales. Consistency over time in rates of reporting, advancing to inquest and verdict use were calculated by correlation of year with each of the derived variables described above.

The statistical tests utilised to identify possible relationships between data variables were conducted in SPSS and in accordance with the advice set out by Pallant (2010) according to the nature of those variables. All data collected and manipulated within Chapters 4, 5 and 6 were continuous variables capable of analysis through a parametric technique. Pearson product-moment correlation coefficient was used for all tests (a total of 19 times) throughout the three chapters. The correlation coefficient range interpretation labels stated in this thesis (five were used from very weak to very strong) are those outlined by Rowntree (2000, p.170).

### **3.6.2 Data analysis by gender**

As data by sex of the deceased were available it was also possible to analyse for trends and local variation by gender. Rates of reporting, advancing to inquest and proportionate verdict use by gender of the deceased were calculated. Analysis by gender proved to be a productive exercise with notable differences found across all three stages of the coronial process. Deaths of men were found to be more likely to be reported, advance to inquest and yield a verdict other than natural causes, than were deaths of women.

For the last stage of the process, the choice of verdict, this research extended the analysis to a concept of 'genderedness' - defined as the extent to which a coroner might favour a particular verdict according to the gender of the deceased. An index formula is proposed (see Chapter 6.2.5) which can be used to measure degrees of 'genderedness' in the use of particular verdicts, allowing comparison between individual decision-makers. It should be stressed that the identification of gender differences does not connote discrimination. It may simply be a proper response to gender differences in case-relevant features such as age at death.

The following three chapters (Ch. 4 to 6) present the results of data analysis across the three stages of coronial decision-making.

## **Chapter 4**

### **Reporting deaths to the coroner in England and Wales<sup>9</sup>**

#### **4.1 Introduction**

Under Section 15 Birth and Deaths Registration Act (1953) all deaths occurring in England and Wales must be reported to the Registrar of Births and Deaths for the sub-district in which the death occurred. The Act places a duty upon a 'qualified informant' (in practice, usually a close relative of the deceased) to give the registrar the required particulars. The registrar will register the death in the manner required by The Registration of Birth and Deaths Regulations (1987).

Section 22 of the 1953 Act requires a registered medical practitioner, for example a general practitioner, attending a person in his or her last illness to sign and transmit to the Registrar of Births and Deaths a certificate in the proper form stating, to the best of his/her knowledge and belief, the cause of death. Thus a registered medical practitioner fulfils this requirement by issuing a medical certificate as to the cause of death (MCCD) and sending it, usually via the relatives, to the registrar.

Before a death can be registered, there must be either a properly issued MCCD or a certificate from the coroner issued after appropriate investigations. A registered medical practitioner should not issue a MCCD if there are reasons to suspect that an inquest should be held by the coroner, i.e. that the deceased has died a violent or unnatural death, or that the cause is unknown. As discussed in Chapter 2, clinicians have been found to have difficulty in recognising which deaths are violent, unnatural or of cause unknown (see for example Start et al., 1993 and Start et al., 1995). This is a central paradox of the system. If a clinician could make these judgements, there would be little need for coroners. In so far as they cannot, the cases referred to coroners will include and exclude deaths inappropriately.

#### **4.2 Duty to report deaths**

There is no statutory duty placed upon a medical practitioner to report a death to the coroner, nor is there any definitive list of which deaths ought to be reported. The legal

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<sup>9</sup> This chapter was partially reproduced for Mclean, M., Roach, J., Armitage, R. (2013). Local variations in reporting deaths to the coroner in England and Wales: a postcode lottery? *Journal of Clinical Pathology* (66) 933-936

duty resides with the coroner to hold an inquest when defined circumstances apply (Section 8(1) Coroners Act 1988). Limited *advice* as to which cases should be reported is to be found within blank medical certificate booklets, in Office of National Statistics Advisory Group publications (ONS, 2010), in bespoke advice leaflets such as that issued by the Medical Protection Society (Medical Protection Society, 2013) and tellingly, in locally produced guides issued by some coroners to medical practitioners working in their areas (for example Meadows, 2003). In many locally produced guides, coroners go beyond spelling out national provisions and seek to impose additional local rules, for example instructing doctors to report to the coroner all deaths within 24 hours of admission to hospital, after late diagnosis of treatment, or fractures or falls or dementia.

Those lists have been broadly based on Regulation 41 of the Registration of Births and Deaths Regulations (1987) which governs the categories of death that *the registrar* is obliged to report to the Coroner;

*41(1) Where the relevant registrar is informed of the death of any person he shall, subject to Paragraph (2) report the death to the coroner on the approved form if the death is one;*

- In respect of which the deceased was not attended during his last illness by a registered medical practitioner*
- Or in respect of which the Registrar;*

*Has been unable to obtain the delivery of a duly completed certificate of cause of death or*

*Has received such a certificate with respect to which it appears to him from the particulars contained within the certificate that the deceased was not seen by the certifying medical practitioner either after death or within 14 days before the death*

- Or the cause of which appears to be unknown*
- Or which the Registrar has reason to believe to have been unnatural or caused by violence or neglect or by abortion, or to have been attended by suspicious circumstances;*
- Or which appears to the registrar to have occurred during an operation or before recovery from the effects of an anaesthetic*

- *Or which appears to the registrar from the contents of any medical certificate of cause of death to have been due to an industrial disease or industrial poisoning.*

*The registrar must refrain from registering any death;*

- *Which he has himself reported to the coroner or*
- *Which to his knowledge it is the duty of some other person or authority to notify to the coroner or*
- *Which has been notified to the coroner*

*Until he has received a coroner's certificate after inquest or a notification from the coroner that he does not intend to hold an inquest.*

#### **4.2.1 The 'fail-safe' system**

Thus the 'fail safe' system of death certification in England and Wales (Smith, 2003 p.8) is entirely at the mercy of the abilities and motives of individual clinicians charged with correctly identifying deaths that should be reported. The final say on disposal of any death is with the registrar. This final check can fall at the first hurdle should, for example, an unscrupulous doctor dishonestly certify his or her way out of trouble to avoid the glare of the coroner. The Shipman case is a devastating example, in which the Inquiry found that Registrars were ill equipped as the only form of scrutiny of the judgement of a certifying doctor, due to their lack of training or medical knowledge (Smith, 2003 p.141). That this unacceptable state of affairs still exists was confirmed to the writer in conversation with a senior Registrar in the North of England who advised that the only way to spot an unscrupulous doctor was "*intuition for patterns in certification*" and who, when asked whether registrars had a good understanding of the coronial system replied clearly "*No, they know their bit*" (Registrar, personal communication, February 2<sup>nd</sup> 2012).

The lack of formal prescriptive or presumptive oversight of the process should not be taken to mean necessarily that too few deaths are reported to the coroner. In fact, with referral rates of all deaths to the coroner in the range of 42% to 47% over the last ten years, England and Wales continue to be high reporters overall when compared with foreign jurisdictions. Rates at between double and 50% higher than other jurisdictions were identified in the Fundamental Review of the coroner system and death certification

(Luce 2003 p.18). Pounder (1999 p.1502) pointed out, when just a third of all deaths were reported to the coroner, that the increasing trend to report being noted at that time was largely accounted for by natural deaths voluntarily referred by a doctor, accounting for 60% of a coroner's caseload. He expressed the view that the great majority of the new referrals could be certified on the previously known facts, questioning the rationale for reporting in the first place and contending that to direct such a large number of natural deaths into the medico-legal investigative system was both intrusive and costly.

This chapter will present the findings of the analysis of data pertaining to **reporting deaths to the coroner in England and Wales**. A key theme of the analysis has been to explore whether the proportion of registered deaths reported to the coroner (the 'reporting rate') would vary between coroner areas across the countries. The wide variation in reporting rates outlined here suggest that, at best, not all coroner areas can be striking an appropriate balance between the needs of the state and the rights of the bereaved.

In accordance with the general research themes outlined at **3.2.1**, specific research questions for this part of the process were as follows;

- Overall, what are the rates of reporting deaths to the coroner for England and Wales, and how have they changed over time? Are there differences according to the gender of the deceased?
- Do coroner areas vary in their rates of reporting deaths to the coroner, and if so, to what extent? Are coroner areas consistent in their reporting profiles?
- What demographic, or other, features of coroner areas might explain variation in rates of reporting deaths to the coroner?
- Do coroner areas vary according to the gender of the deceased in the rates at which deaths are reported to the coroner?

### 4.3 Results - Analysis of reporting rates of deaths to coroners in England and Wales

#### 4.3.1 Reporting deaths to the coroner, England and Wales

In the 1950's, fewer than 20% of registered deaths were reported to the coroner. That figure is now 45% (MOJ, 2014 p.11 *Coroners Statistics 2013*). The overall picture shows an upward trend in reporting rates to coroners with reductions in registered deaths and a rising tendency to report. Overall, more women die each year than men in England and Wales, but fewer are reported to the coroner.

Table 2 shows the number of registered and reported deaths in England and Wales for the first and last years of the analysis period reported here, and the proportions of male and female deaths reported to the coroner.

**Table 2 Deaths registered and reported to the coroner, England and Wales, by gender of the deceased, 2010 and 2001 (n='000)**

<b>Year</b>	<b>Total Deaths registered '000 (Male) (Female)</b>	<b>Total Deaths reported to coroner '000 (Male) (Female)</b>	<b>% of deaths reported to coroner by gender (Male) (Female)</b>
<b>2010</b>	493 (238) (255)	231 (123) (107)	47% (52%) (42%)
<b>2001</b>	530 (252) (278)	224 (121) (103)	42% (48%) (37%)

#### 4.3.2 Local variation in reporting deaths to the coroner

Tables 3 and 4 show the reporting rates of deaths to the coroner by coroner area in England and Wales. They were developed by comparing data held by ONS and by MOJ on deaths reported in all coroner areas. They show local reporting patterns for the ten year period of 2001-2010 inclusive. The number of areas analysed is 111 (from a total of 114) as the areas of 'Queens Household' and 'Isles of Scilly' have been excluded for very

low numbers. The 'City of London' is also excluded as the numbers of deaths registered could not be obtained separately from ONS and are included in 'Inner North London'.

Table 3 shows, for presentational purposes, the ten areas in England and Wales with the highest reporting rates for the period (2001-2010), and Table 4 shows the ten areas with the lowest reporting rates. Where coroner areas (and local authorities) have been amalgamated in the last ten years the registered and reported deaths figures have been incorporated into the *current* coroner area. While the results reflect the practices in an area over the decade, they may not accurately reflect current practices in so far as they are shaped by the incumbent coroner rather than his or her predecessors in jurisdictions swallowed up during the period. Reporting rates for all other coroner areas are shown at Appendix D.

**Table 3 Ten highest reporting rates of registered deaths to coroners, England and Wales, 2001-2010**

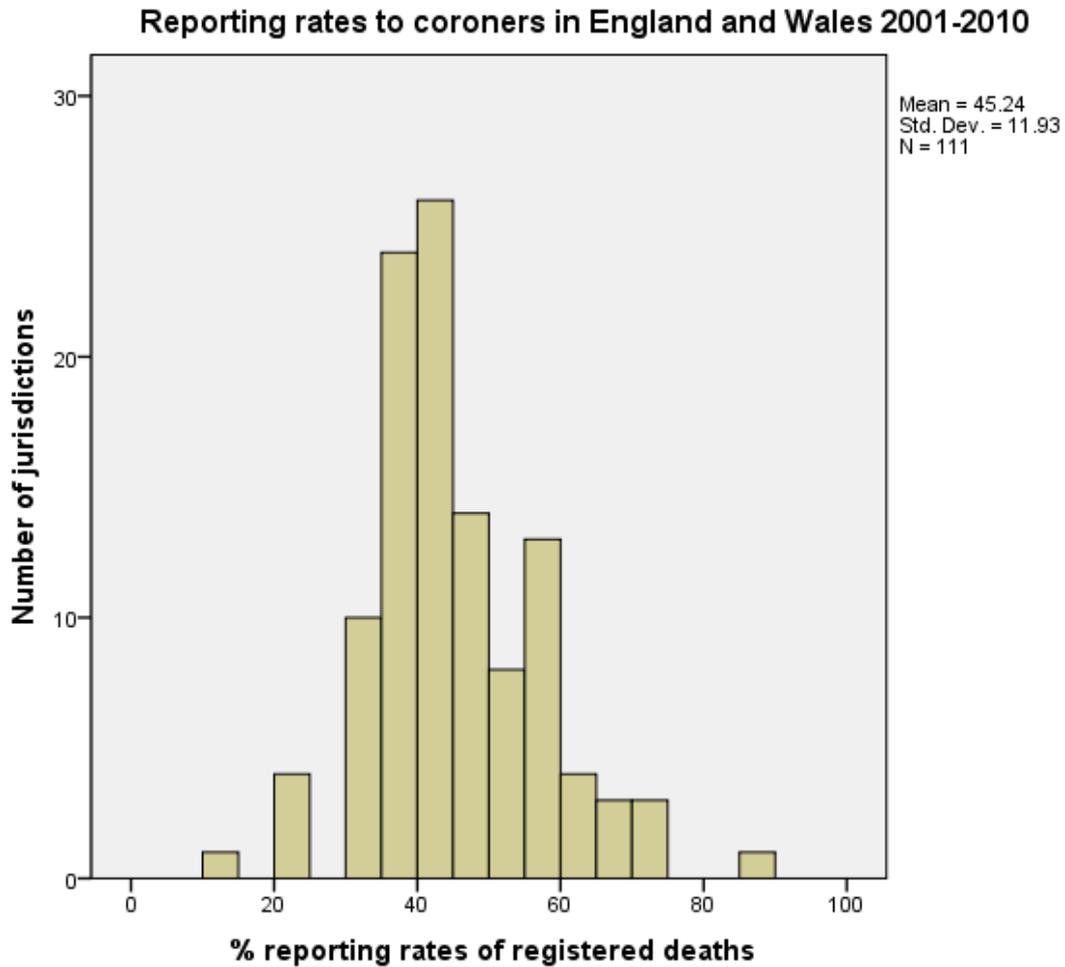
<b>Coroner Area – Highest Ten</b>	<b>2001 – 2010 overall reporting rates of registered deaths</b>
Plymouth and South West Devon	87%
Leicester City and South Leicestershire	71%
Blackburn, Hyndburn and Ribble Valley	70%
Inner North London	70%
Manchester City	70%
Newcastle upon Tyne	69%
Peterborough	68%
Torbay and South Devon	63%
Liverpool	62%
Stoke on Trent and North Staffordshire	62%

**Table 4 Ten lowest reporting rates of registered deaths to coroners, England and Wales, 2001-2010**

<b>Coroner Area – Lowest Ten</b>	<b>2001 – 2010 overall reporting rates of registered deaths</b>
Gloucestershire	32%
South Northumberland	31%
North Yorkshire Western District	31%
Neath and Port Talbot	31%
East Lancashire	31%
South Shropshire	22%
Powys	22%
North and East Cambridgeshire	22%
Rutland and North Leicestershire	21%
Stamford	12%

Reporting rates thus ranged widely from just 12% of registered deaths in one area to 87% in another with no obvious explanation by way of demographic features which distinguish high and low reporting areas. An obvious question is whether high rates are consistently so. This was checked by calculating a correlation coefficient comparing reporting rates in the first and last year of the period under study using Pearson product-moment correlation coefficient. **All correlations which follow are of the same type except where stated otherwise.** There was a strong positive association between the reporting rates for the years 2010 and 2001 suggesting that the relative rates are stable over time ( $r = .77, n = 111, p < .0005$ ). This was further checked by correlating rates for comparison of data nine years apart and eight years apart and so on which indicated that relationships remained strong or very strong throughout the period, supporting the conclusion that areas have stable relative rates of reporting. Reporting rate differences must therefore be attributable to some combination of local demography or local medico-legal practice which is consistent over time.

Figure 4 shows the total reporting rates to the coroner for 2001-2010 for all areas<sup>10</sup> plotted in 5% bands. The mean (SD) reporting rate is calculated at 45% (12) of all registered deaths.



**Figure 4 Reporting rates of deaths to coroners, all coroner areas, England and Wales, 2001-2010**

<sup>10</sup> With the exception of Queens Household and Isles of Scilly for very low numbers and City of London, for which deaths registered could not be obtained separately (included in Inner North London)

Eighty-three areas (75%) have reporting rates between 33% and 57% (one SD above and below the mean), with 11 areas having reporting rates of less than 33% and 17 areas having reporting rates of above 57%. The findings were placed on the MOJ geographic map of jurisdictions at Figure 5 with areas placed in three categories;

Red – a reporting rate of less than 33% (greater than one standard deviation below the mean)

Green – a reporting rate of 58% or more (greater than one standard deviation above the mean)

Not coloured – the middle band of 33% - 57% (within one standard deviation of the mean)

Reporting rates of deaths to the coroner, England and Wales, 2001-2010

Red: < 33% (greater than one STDEV below the mean)  
 Green: > 57% (greater than one STDEV above the mean)

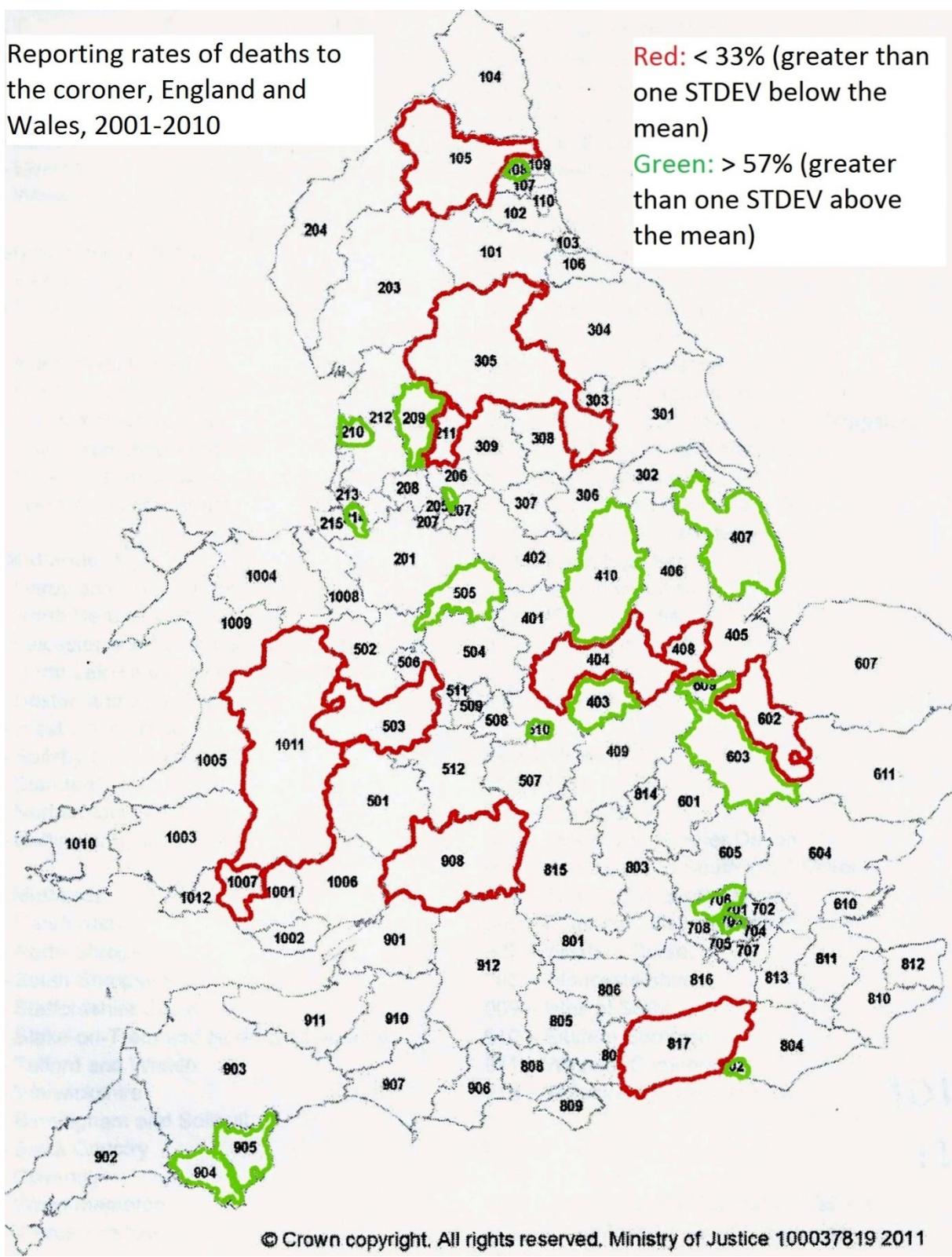


Figure 5 Map of coroner areas in England and Wales – ten year reporting rates (2001-2010)

There does appear, albeit tentatively at this juncture, to be a probable inverse relationship between larger coroner areas and lower reporting rates to the coroner. Contributory factors might include distance from a coroner's office, or necessary self-sufficiency in large rural communities, or indeed the relative lack of supervisory or peer oversight in less densely populated areas.

Highly populated areas reported more deaths (a larger coroner caseload), but no relationship was found between the reporting *rate* and the size of the population. This was investigated using the variables *10 years reporting rate* and *2010 population figures* (calculated by summing local authority area populations according to the current area composition provided by MOJ); ( $r = .02, n = 111, p = .82$  ns). To illustrate, the two coroner areas that had the highest populations (Essex & Thurrock and North London) had reporting rates to the coroner of 36% and 59% respectively.

There was a moderately strong relationship found between levels of deprivation and reporting rates to the coroner, whereby more deprived areas had higher *rates* of deaths reported. This was investigated linking variables *10 years reporting rate* and *2010 IMD data for local authorities E&W only*, (IMD data calculated by highest ranked deprivation score within each area published by the Department for Communities and Local Government 24/03/2011) ( $r = -.40, n = 99, p < .0005$ ). This is likely to reflect a population less well known to general practitioners through health inequalities and therefore less capable of certification (MCCD) without referral to the coroner. Of course such a correlation coefficient accounts for only a small proportion of the variation (16% in this case). To illustrate, in Blackburn and Manchester North respectively, areas sharing similar levels of deprivation, reporting rates of deaths to the coroner of 70% and 41% were found.

The post-mortem (PM) examination rate was also explored for any relationship with levels of reporting deaths to the coroner. The mean PM rate for 2010 was found to be 46%, ranging from 20-66%. As expected, more reported deaths brought more post-mortem examinations but a moderate negative correlation was found between higher reporting rates and post-mortem rates. This was investigated using the variables reporting rate for ten years and PM rate for 2010 (*in MOJ 2011 Statistics Bulletin p. 20*) ( $r = -.42, n = 111, p < .0005$ ). That is to say, areas in which a greater proportion of registered deaths were reported tended to conduct proportionately fewer post-mortem examinations on those deaths. This would tend to suggest that the additional deaths being reported in those areas were not deaths which caused the coroner to conduct significant local enquires and may for example be a product of the recording processes of local staff dealing with enquiries from clinicians.

The admittedly partial search for demographic reasons for the wide disparity found in reporting rates of deaths to the coroner across England and Wales left most of the variation unexplained.

#### **4.3.3 The reporting of death to the coroner according to the gender of the deceased**

When death reporting rates in coroner areas of England and Wales (2001-2010) were examined by the gender of the deceased a mean of 49% of male deaths (range 13-81%) were reported to the coroner compared to 39% of female deaths (range 11-70%). Coroner areas with high (or low) reporting rates for men were found to have matching high (or low) reporting rates for women. Ten year male and female reporting rates were investigated. There was a very strong positive association ( $r = .98, n = 111, p < .0005$ ).

Thus, in this study deaths of men were found on average across all coroner areas to be 26% more likely to be reported to the coroner than deaths of women (49% vs. 39%). This direction of difference held for all areas in England and Wales. At the extreme, in Bridgend and Glamorgan Valleys reporting rates over the ten year period were found to be 68% of registered male deaths and 46% of female deaths (men 48% more likely to be reported).

Area reporting rates for males and females specifically appeared quite consistent over time when the first and last years of the data sets were compared. The association for male deaths between 2010-2009 and 2010-2001 ranged from very strong to strong ( $r = .97 / .74, n = 111, p < .0005$ ) and for female deaths from very strong to a moderate positive association ( $r = .97 / .67, n = 111, p = < .0005$ ).

Since women generally die older than men it is crucial to examine age-specific reporting rates. Frustratingly, these data are not readily available. Doctors may generally feel more comfortable in stating the cause of death and certifying the fact of death, without report to the coroner, the older the deceased person is. Without further research there remains the alternative possibility that the investigation of (unnatural) death does not operate as rigorously for women as for men. Differences in coronial outcome according to the gender of the deceased are discussed in detail at Chapter 6.

## Chapter 5

### Advancing to Inquest and choice of verdict

#### 5.1 Introduction

In the previous chapter the first-stage decision of whether to report a death to the coroner was analysed. This chapter will analyse the second and third stages of that decision-making, **advancing to inquest and the choice of verdict**. For rates of reporting deaths and rates of advancing to inquest, analyses were performed using MOJ and ONS data (outlined in Chapter 3). The data required careful realignment in accordance with details of coroner area composition provided by MOJ.

For verdict decisions, MOJ data were made available for all inquest returns over a 16-year period (1995-2010) by gender of the deceased. 97% of all verdicts were found to be one of the 'common six' (accident, natural, suicide, industrial disease, open and narrative); analyses of patterns of verdict use were restricted to these types except where otherwise stated (see 5.3.4).

Legislation relevant at the time of data collection included the Coroners Act 1988 and the Coroners Rules 1984, now replaced by the Coroners and Justice Act 2009. This chapter uses language contemporaneous with the data collection; in particular the term 'verdict' is preferred to 'conclusion' as that was the prevailing language in the Coroners Act 1988 at the time this data analysis was conducted.

#### 5.2 The inquest - legal framework

The legal framework, under Section 8(1) of the 1988 Act is that an inquest *shall* be held if any of the following grounds are met;

- If the person died a violent or unnatural death;
- If the person died a sudden death of which the cause is unknown;
- If the person died in prison or in such circumstances as requires an inquest under another Act<sup>11</sup>

Although the legislation requires that words should be treated as ordinary words in the English language and given their ordinary meaning, the word 'unnatural' has raised great

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<sup>11</sup> 'other acts' refers to the previous Capital Punishment Amendment Act 1868

legal debate due to the question of whether an ostensibly natural death could have been significantly contributed to by an unnatural cause such as foul play, wrongdoing or culpable human failure (Jervis, 2002). The debates have spawned much case law with the definition of 'unnatural' regularly stretched and tested; however a detailed examination of such legal aspects is beyond the scope of this text. It is important to recognise, especially in a thesis which examines a possible lack of consistency in coroners' decision-making, that the question of whether a natural death might be attributed to any unnatural cause frequently taxes both coroners and the higher courts (Thomas et al, 2014 p.110) making it difficult to set absolute rules for reporting, and indeed whether the death should advance to inquest.

Clinical examples of the natural/unnatural debate have included the unreasonably late arrival of an ambulance for an asthma attack (R v Inner North London Coroner ex p Thomas, 1993) and several hours of unmonitored care in a hospital after giving birth by caesarean section, death following an unseen doubling of blood pressure (R on the application of Touche, 2001). Thus, deaths can fall into a 'grey area' between those that are clearly natural and those that might be unnatural, through, for example, some suspicion of medical or other negligence.

Roberts et al (2000) captured the essence of this grey area in a study of how coroners in England and Wales approached borderline cases, reporting near consensus (> 80% concordance) in only two of 16 cases completed by sixty-four coroners in a postal survey. The 16 clinical scenarios, with causes of death, fell into three groups based upon the authors' personal experiences as potentially difficult areas, (1) postoperative, (2) a combination of trauma and natural disease, and (3) infectious disease. The authors reported considerable variation in the way in which coroners approached these cases and called for a national consensus on what constituted a natural death. The local dilemma for clinicians faced with the decision of whether to report a death to the coroner was obvious. Without clear guidance it was left to the personal viewpoints of each coroner, making nonsense of local public health surveillance and analysis. The authors gave the example of disparity in recorded deaths after femoral fractures, being a result of different reporting practices rather than a true reflection of the incidence of fatalities. The possible consequences of variation in how coroners approached borderline cases of death were said to be confusion for medical staff, added distress to relatives of the deceased and gross distortion of national and regional mortality statistics.

This thesis seeks to extend those findings a step further into the later stages of the coroner's investigation and to demonstrate how variation in decision-making approach can also result in variation of outcome in the subsequent choice of verdict. Roberts et al

(2000) demonstrated powerfully how the differing personal opinions of coroners will affect stages 1 and 2. This chapter explores those findings further to analyse decision-making at stages 2 and 3 – taking an investigation to inquest and the choice of verdict. Will coroners vary regarding the rate at which they take reported deaths to inquest and in the profile of their choices of verdict?

The purpose of an inquest, for the period analysed here, was set out by Rule 36 of the Coroners Rules (1984);

*Matters to be ascertained at inquest*

*36. – (1) The proceedings and evidence at an inquest shall be directed solely to ascertaining the following matters, namely –*

*(a) who the deceased was;*

*(b) how, when and where the deceased came by his death;*

*(c) the particulars for the time being required by the Registrations Acts to be registered concerning the death.*

*(2) Neither the coroner nor the jury shall express any opinion on any other matters.*

According to Dorries (2014 p.139) in all but a few inquests the questions of identity, date and place of death merit little discussion. The overriding question for the inquest, and therefore the key issue in choice of verdict, is usually *how* the deceased came by his or her death. There is no definitive list of verdicts from which the coroner must choose, but suggestions appended to the Coroners Rules (1984) in the prescribed form. In practice, just ten verdicts tend to have been used by coroners to finalise an inquest and some of the following analysis is therefore based upon those ten verdicts. Further analysis found that almost all recorded verdicts in England and Wales (98%) were one of just six verdicts (McClean et al, 2013 p.935) and therefore much of the following comparative analyses focus on those six common verdicts.

This chapter will explore the rates at which coroners take reported deaths to inquest and will present the findings of analysis of verdicts recorded in coroners' inquests in recent years. Substantial local variation in outcome of the investigation of deaths is identified.

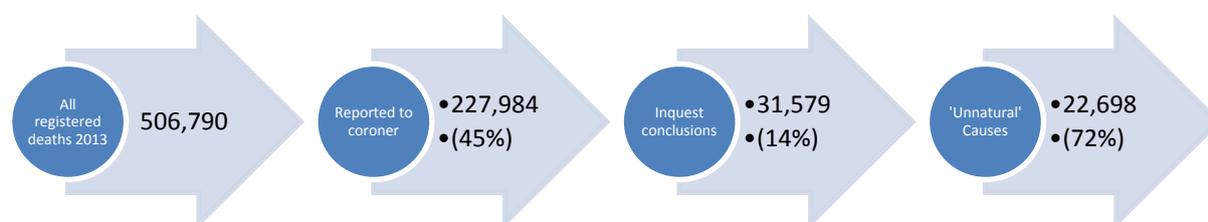
In accordance with the general research themes set out at **3.2.2** and **3.2.3**, specific research questions for this part of the process were as follows;

- How many reported deaths proceed through the stages of advancing to inquest and receive a concluding verdict confirming an unnatural death? Do these overall patterns vary by the gender of the deceased?
- Do coroners vary in the rate at which they advance reported deaths to inquest?
- Are coroners consistent in the rate at which they advance reported deaths to inquest?
- Do coroner areas vary according to the gender of the deceased in the rates at which reported deaths are advanced to inquest?
- How many inquests are concluded each year in England and Wales, and how has this varied over time? Are there differences according to the gender of the deceased?
- Which inquest verdicts have risen or fallen in use?
- What proportion of inquest conclusions is accounted for by which verdicts?
- Does the proportion of verdict use in different coroner areas vary according to the gender of the deceased?
- Do coroners vary in their use of particular verdicts, as a proportion of their total verdict count?
- Are coroners consistent in their proportionate use of verdicts?
- Which verdicts are most prone to varied use, and which coroner areas are outliers in proportionate use of particular verdicts?
- Do coroners substitute one verdict for another?
- Which verdict has risen in use over time at a higher rate than any other?
- Do coroners vary according to the gender of the deceased in their choice of verdicts?

## 5.3 Analysis – advancing to inquest, and what verdict?

### 5.3.1. Stage 2: Advance to inquest?

Figure 6 below shows the number of deaths which make their way through the coronial process during the course of a calendar year. The data used here is for the year 2013 (MOJ, 2014), as it is the latest available data at the time of writing, but this does not reflect a typical annual caseload for the period under review. Whenever possible the latest available data has been used in this research to conduct analysis and present findings. On some occasions, for example due to the unavailability of comparative data by coroner area, changes to the analysis period have been necessary. All results presented here will include a clear indication of the period of time being analysed.



**Figure 6 How registered deaths progress through the coronial process, England and Wales, (2013)**

It can be seen from Figure 6 that just fewer than one half of all deaths registered in 2013 were reported to the coroner. Conclusions were recorded at 31,579 inquests in 2013. These may relate to deaths reported in 2013 or earlier years. In fact, inquests were *opened* on 29,942 deaths reported to coroners in 2013, representing 13% of all deaths reported to coroners that year (MOJ 2014 p.14). This is an important point for the following data analysis as numbers of inquests *opened* will be different to the number of inquests *concluded*. Inquests *concluded* have been used as the denominator in calculating inquest rates for coroner areas by calendar year, as data on inquests *opened* were not available. The difference between opened and concluded in this example makes a change to the calculation of just the one percentage point. The final arrow in the process is included to demonstrate the number of cases that were appropriately taken through inquest, thus the identification of (22,698) deaths with an unnatural cause. This is not to say that inquests which recorded a conclusion of natural

causes were erroneously held, but to show the true number of reported deaths deemed unnatural, being the primary purpose of the inquest, in a calendar year. The final figure of 22,698 represents just 10% of all deaths reported to the coroner and only 4.5% of all deaths which occurred (were registered).

### **5.3.2 Stage 2: Advance to inquest? Local disparity**

This research looked at variation in the decision whether to advance a reported death to inquest across coroner areas of England and Wales. Coroners can only deal with deaths reported to them (although note the writer's contention that coroners manage this reported caseload by setting a local tone for reporting, but not, for example, by sampling unreported deaths). Over the ten year period 2001-2010, deaths that were reported to the coroner and which advanced to inquest ranged across the coroner areas of England and Wales from 6-29% ( $\bar{x}=12.4$ ,  $SD=3.7$ ,  $n=111$ ). Pounder (1999 p.1502), in the only other example of an analysis of the range of local rates of proceeding to inquest found by the writer, reported 5-25% across 148 coroner districts in 1996. Thus, coroner areas analysed for this research ranged from taking fewer than one in ten (6%) of all reported deaths through to inquest to almost three in ten (29%). The overall proportion of inquest verdicts to *registered* deaths in coroner areas of England and Wales was found to range from 1-14% ( $\bar{x}=5.4$ ,  $SD=2.1$ ,  $n=111$ ).

Coroner areas tended to be quite consistent over time in the rate at which reported deaths were taken to inquest. To illustrate this, the 2010 figures were correlated with the equivalent area figure for each earlier year. There was a strong positive correlation with 2009 ( $r = .85$ ,  $n = 111$ ,  $p < .0005$ ) gradually reducing to a moderate positive correlation in 2001 between the two variables ( $r = .53$ ,  $n = 111$ ,  $p < .0005$ ).

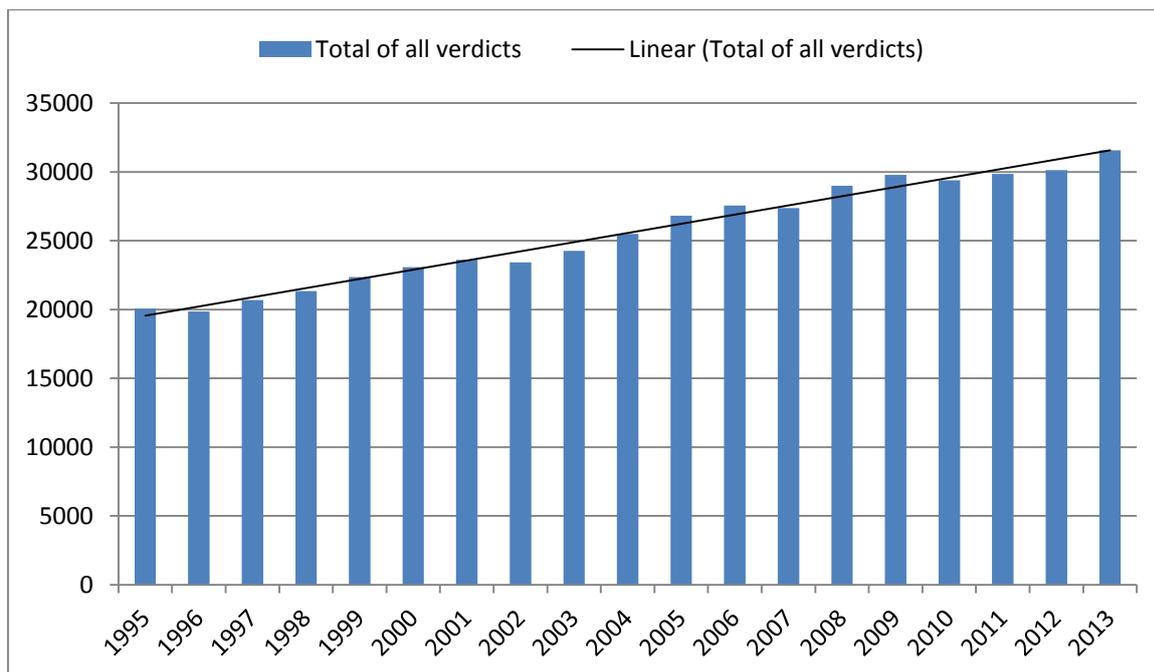
The findings raise two key issues, discussed later. On average, almost nine in ten deaths reported to the coroner did not advance to inquest, raising a question mark about how many deaths may be unnecessarily entering the coronial process. Second, disposal of reported cases without inquest has been shown to vary across local coroner areas as between seven in ten reported deaths to over nine in ten raising questions about where the appropriate balance between the needs of the state and the rights of the bereaved might be.

Reported deaths of males were twice as likely to advance to inquest as reported deaths of females, with 16% of all male deaths so advancing over the period, compared to 8% of all female deaths. Detailed analyses related to differences by the gender of the deceased are presented at Chapter 6.

### 5.3.3 Stage 3: What verdict?

There has been a slight but steady rise in the number of inquests concluded as a proportion of deaths reported to coroners over recent years, from 11% in 1995 to 13% in 2013 (MOJ 2010 p.5 & MOJ 2014 p.14). Given that the number of reported deaths has also risen over the period, this is likely to reflect an increasing vigilance on the part of the medical profession post-Shipman, causing more deaths subsequently deemed natural to be reported to the coroner. Those natural deaths may require inquests to be opened in order that forensic tests, occasionally taking some time, might establish the true cause of the (natural) death<sup>12</sup>.

The small rise in the proportion of reported deaths that proceed to an inquest conclusion represents (due to the increase in reports to the coroner) a large rise in the number of coroner inquests held. Figure 7 shows the trend by calendar year for the period 1995 to 2013 and illustrates an increase of 50% in inquests concluded over the period, from roughly 20,000 a year to over 30,000.



**Figure 7 Total of all inquests concluded by calendar year, England and Wales, 1995-2013**

<sup>12</sup> 2001: 42% reporting rate England and Wales, 2013: 45% reporting rate; 2001: 17% of all verdicts England and Wales 'natural causes', 2013, 28% of all verdicts 'natural causes'

Two particular verdicts stand out over the period as having risen greatly. Other (narrative) verdicts were recorded at a mere 136 inquests in 1995 (less than 1% of that year's total verdict count of 20,051), yet accounted for 17% of total verdicts by 2013 (5,343 of 31,579 inquest conclusions), the largest proportionate rise of any verdict. The narrative verdict is considered in more detail later in this chapter. Second, the largest rise in absolute terms has been seen in the use of the natural cause inquest verdict. In 1995, natural causes accounted for 12% of all recorded inquest verdicts (2,483 of 20,051 total verdicts) and by 2013 had risen to 28% of all recorded inquest conclusions (8,881 of 31,579 total conclusions).

Other rising verdicts of note have been industrial disease (although this verdict has reduced as a proportion of all recorded verdicts) from 1,878 in 1995 (9.4% of total verdicts) to 2,766 in 2013 (8.8% of total verdicts) and, in much smaller numbers, dependence on drugs, from 139 in 1995 (0.7% of total verdicts) to 332 in 2013 (1.1% of total verdicts). Fewer verdicts of accident/misadventure are now recorded, from 9142 in 1995 (46% of total verdicts) to 8166 in 2013 (26% of total verdicts) and open verdicts have fallen from 2257 in 1995 (11% of total verdicts) to 1920 in 2013 (6.1% of total verdicts). Table 5 shows the differences in the ten commonly used verdicts over the period with 1995 and 2013 data as anchor points. Verdicts are ranked according to their rise in use as a proportion of all recorded verdicts<sup>13</sup>.

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<sup>13</sup> Not shown for very small overall numbers (amounting together, for example, to less than 0.1% of the total verdict count 2013: MOJ 2014, p.18); Disasters, Want of attention at birth, killed lawfully, stillborn and abortion.

**Table 5 Recorded verdicts, all areas England and Wales, 1995 - 2013**

<b>Verdict</b>	<b>1995 verdict count (% of total verdicts)</b>	<b>2013 verdict count (% of total verdicts)</b>	<b>Increase in verdict count 1995-2013</b>	<b>Increase in percentage of total verdicts 1995-2013</b>
Other (narrative)	136 (0.7%)	5,343 (16.9%)	5,207	16.2%
Natural causes	2,483 (12.4%)	8,881 (28.1%)	6,398	15.7%
Drugs dependence	139 (0.7%)	332 (1.1%)	193	0.4%
Neglect	35 (0.2%)	31 (0.1%)	-4	-0.1%
Drugs non-dependence	162 (0.8%)	208 (0.7%)	46	-0.1%
Killed unlawful	217 (1.1%)	154 (0.5%)	-63	-0.6%
Industrial Disease	1,878 (9.4%)	2,766 (8.8%)	888	-0.6%
Open verdict	2,257 (11.3%)	1,920 (6.1%)	-337	-5.2%
Suicide	3,579 (17.8%)	3,754 (11.9%)	175	-5.9%
Accident/misadventure	9,142 (45.6%)	8,166 (25.9%)	-976	-19.7%

### **5.3.4 Stage 3: What verdict? Local disparity in verdict choice**

As noted in Table 5, six main verdicts dominate the Coroner's Court. Table 6 shows those six verdicts (and the four others that are recorded in any quantity) in rank order of proportionate use over the eleven year period 2001-2011<sup>14</sup>. A coroner area's proportionate use of a verdict has been calculated by summing the total recorded numbers for any particular verdict type and dividing by the total number of all inquest conclusions for the area, expressing the fraction as a percentage. Standard deviation of proportionate verdict use is shown to indicate the disparity between local coroner areas for each verdict. Changes in disparity over time are thus clear. It is of note that narrative

<sup>14</sup> Full recorded inquest verdicts, England and Wales. Period was chosen for availability of data through MOJ for all coroner areas. England and Wales, 2001-2011, n = 112. Queens household and Isles of Scilly excluded for very low numbers.

verdicts, despite being the sixth most common verdict to be recorded, has a standard deviation higher than three of those six verdicts, perhaps indicating a variable tendency by coroners to adopt this increasingly used verdict. Also shown is the range for each verdict by all coroners' areas for the period, by indicating the minimum and maximum percentage of any area's total verdict count taken up by each verdict. These ranges are also presented at Table 7 in the context of identifying outlying coroner areas who have recorded the highest and lowest proportionate verdict counts.

Table 6 shows which verdicts have tended to be recorded by coroners at inquest conclusion over the period, i.e. the most common verdicts. It will be noted that the six common verdicts have accounted for some 97% of all verdicts recorded during the period and that accident/misadventure and natural cause verdicts have predominated when all coroner areas are combined. When the latest available data are analysed, 2013 at the time of writing, these two verdicts remain the highest used overall in England and Wales, although as shown at Table 5 (above) the natural causes conclusion has risen above accident/misadventure to become the most common inquest verdict returned.

**Table 6 Mean percentage score for proportion of all verdicts taken up by individual verdicts, England and Wales, 2001-2011, n = 112**

<b>Verdict type</b>	<b>Mean percentage of all verdicts recorded 2001-2011</b>	<b>Standard Deviation</b>	<b>Minimum percentage of area verdict count</b>	<b>Maximum percentage of area verdict count</b>
Accident/misadventure	34.9%	8.3	10.4%	51.7%
Natural causes	23%	9.3	2.7%	51.8%
Suicide	13.5%	4.7	3.8%	27.1%
Industrial disease	9.4%	5.5	2.4%	26.8%
Open	9%	4.8	2.9%	25.3%
Other (narrative)	7.1%	6	0.3%	46.1%
<i>Drugs dependence</i>	<i>1%</i>	<i>1.4</i>	<i>0</i>	<i>7.3%</i>
<i>Drugs non dependence</i>	<i>1%</i>	<i>1.3</i>	<i>0</i>	<i>7.1%</i>
<i>Killed unlawfully</i>	<i>0.8%</i>	<i>0.7</i>	<i>0.8%</i>	<i>5.5%</i>
<i>Killed lawfully</i>	<i>0.02%</i>	<i>0.03</i>	<i>0</i>	<i>0.2%</i>

The primary focus for this thesis is the variation between coroner areas in outcomes of the death investigation process. Recorded inquest verdicts were analysed for all coroner areas in England and Wales for the eleven year period 2001-2011.

Areas were found to be consistent over time in their choice of verdicts at inquest. Of the six common verdicts, this consistency of choice was particularly strong when the use of narrative verdicts were analysed. The weakest relationship of the six, in terms of a diminishing positive association between the years, was found to be natural causes, although the lowest positive relationship over time for that verdict still remained at a moderately strong level. When 2011 proportionate usage data were correlated with equivalent data from preceding years the strongest positive relationships were found for narrative verdicts ( $r$  between .97 and .83,  $n = 112$ ,  $p < .0005$ ) and suicide ( $r$  between

.86 and .76,  $n = 112$ ,  $p < .0005$ ); with wider ranges of correlation level being found for natural causes ( $r$  between .95 and .61,  $n = 112$ ,  $p < .0005$ ) and industrial disease ( $r$  between .91 and .63,  $n = 112$ ,  $p < .0005$ ).

The data were further analysed to determine whether all areas would have a similar proportionate share of verdict use. Each area was thus analysed for its 'verdict profile'. The proportion of an area's total verdict count taken up by each of the six common verdicts was calculated and a range of proportionate use for each verdict was therefore established across the coroner areas. This demonstrated local disparity in the use of verdicts and allowed for the identification of those verdicts most liable to differences in frequency of use by coroners.

Table 7 shows the outlier coroner areas in proportionate use of the six common verdicts over time. To illustrate, those coroner areas which have recorded the highest and lowest use of each verdict as a percentage of their total verdict count are shown, together with the standard deviation for each verdict's range across the coroner areas.

Verdicts of natural causes and accident/misadventure stand out as prone to variation in terms of their larger standard deviations, with other (narrative) verdicts close behind. Narrative verdicts show a particularly large range of use across the coroner areas from almost zero use in Carmarthenshire to just below half of all recorded verdicts in Birmingham and Solihull. Ranges in proportionate use for the six verdicts by coroners during this period may be listed in descending order as follows; natural causes (49%), Other (narrative) 46%, accident/misadventure (42%), industrial disease (25%), suicide (23%) and open verdicts (22%).

**Table 7 Range of use of the six common verdicts across coroner areas, England and Wales, 2001-2011, n = 112**

<b>Verdict (2001-2011)</b>	<b>Highest use</b>	<b>Lowest use</b>	<b>SD</b>
Accident/Misadventure	52% (North Yorkshire Eastern district)	10% (Sunderland)	8.3
Natural causes	52% (Sunderland)	3% (South Shropshire)	9.3
Suicide	27% (South Shropshire)	4% (Birmingham and Solihull)	4.7
Industrial disease	27% (Hartlepool)	2% (Inner West London)	5.5
Open verdict	25% (Southend on Sea)	3% (South and West Cambridge)	4.8
Other (narrative)	46% (Birmingham and Solihull)	0.27% (Carmarthenshire)	6

Coroner areas differed widely in their use of all verdicts over time, resulting in different verdict profiles according to area. However, they remained relatively consistent over time in maintaining their unique local verdict profiles.

### **5.3.5 Verdict substitution**

Analysing the verdict profile of coroner areas over time, i.e. the proportion of the total verdicts recorded by an area taken up by any single verdict, allowed for an examination of whether it was likely that high users of one particular verdict might be low users of another verdict, that is to say whether the coroner might be substituting the use of one verdict for another. Hill and Cook (2011) investigated the impact of rising narrative verdicts on trends for deaths attributed to injury and poisoning between 2001 and 2009 in England and Wales with a view to determining whether suicide rates in particular were affected. The authors noted, without further explanatory comment, that "*the use of*

*narrative verdicts by individual coroners varies throughout England and Wales*" (Hill and Cook, 2011 p.4). All causes of death where a narrative verdict had been returned were investigated and the authors concluded that the increasing proportion of narrative verdicts had not significantly affected published mortality rates for suicide, but, that a continued rise in narrative verdicts was likely to affect the accurate reporting of injury and poisoning deaths. This view was challenged by Carroll et al (2012) who compared suicide rates in coroner areas against their use of narrative verdicts. They found that those coroners who were more likely to use narrative verdicts were recording fewer suicides and concluded therefore that changes in suicide rates over the last decade should be interpreted with caution. Carroll et al further noted that there was wide geographic variation in the use of narrative verdicts by coroners. This thesis has built upon that premise by analysing the relationship between the proportions of total verdicts taken up by each of the six common verdicts, by local coroner area. Would areas which were high (or low) users of one particular verdict be high (or low) users of another verdict? For example, would a high user of narrative verdicts be a low user of suicide verdicts (and vice versa)?

The present research did reveal a moderately strong negative association between the proportions of total verdicts taken up by suicide and the proportions taken up by narrative verdicts ( $r = -.43, n = 112, p < .0005$ ). Data were the proportion of all verdicts taken up by any single verdict, for the period 2001-2011 inclusive. There were even stronger negative relationships between the proportionate use of accident/misadventure verdicts and natural cause verdicts ( $r = -.62, n = 112, p < .0005$ ); and suicide and natural causes ( $r = -.46, n = 112, p < .0005$ ). That is, high users of the natural cause verdict tended to be low users of accident/misadventure and suicide verdicts and vice versa. There was also a moderately strong positive relationship between accident/misadventure and suicide ( $r = .44, n = 112, p < .0005$ ). Those areas with high (or low) proportionate use of accident/misadventure tended to have equally high (or low) use of suicide.

A brief glance at Table 7 indicates that at the extremes, low users of one verdict may be high users of another. Birmingham and Solihull, for example, have the lowest proportionate rate of suicide in England and Wales, yet are the highest proportionate user of the narrative verdict. This may suggest that the coroner in Birmingham and Solihull is substituting narrative verdicts where others might record a suicide, although case-based research would be necessary to eliminate other factors, such as a genuine low level of suicide in the Birmingham area. A similar argument, by reference to Table 7, might be made for the coroner in Sunderland substituting deaths due to accident/misadventure by natural cause verdicts and in South Shropshire for finding

deaths to be suicide which may have been considered natural causes in other areas. This research allows for focussed discussion with coroners about their verdict profile, by reference to distance from the mean, in order to investigate differences in choice of verdict at inquest. For example, the coroner at Birmingham and Solihull has returned data for other (narrative) verdicts over the period which are more than six standard deviations above the mean for all coroner areas (Birmingham and Solihull narrative verdicts 46% of all their verdicts, mean narrative verdicts all areas  $\bar{x} = 7.1\%$ , SD 6).

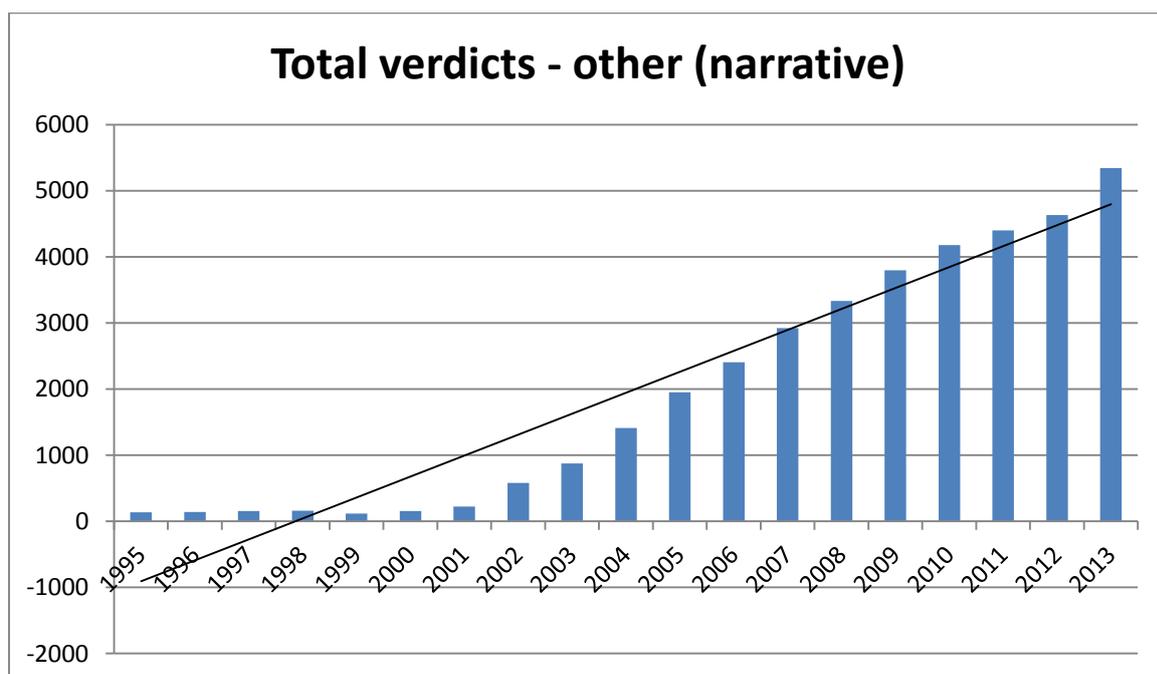
It is to the rapidly rising narrative verdict to which we now turn.

#### **5.4 Using the narrative verdict**

Perhaps unsurprisingly in some cases, there is an overall gender disparity in the recording of inquest verdicts. Deaths of men accounted for two-thirds of all inquest verdicts during the period 2001-2011 with inquest verdicts for male deaths totalling 223,638 and for female deaths, 102,746 ( $n = 223,638/326,384$  - 69% of all verdicts are for male deaths). When all inquest verdicts were totalled by gender of the deceased for the period under review, deaths of men were found to be greater represented in industrial disease and suicide verdicts. Male deaths accounted for 93% of all industrial disease verdicts ( $n=26,122/27,909$ ) and 78% of all suicides ( $n=27,889/36,073$ ). Women were notably represented in the other (narrative) category, accounting for 39% ( $n=10,162/26,084$ ) of all narrative verdicts, compared with 31% of total verdicts.

What is a narrative verdict? According to Thomas et al (2008 p.300) a narrative verdict *"has come to mean the coroner or jury's conclusions on the main issues arising in the circumstances by which the deceased came by his or her death"*. The verdict has been variously described to the writer as, *"a defensive approach – can take the heat off"* (Whittaker, personal communication, 13<sup>th</sup> May 2011), *"a softer approach more acceptable to the bereaved"* (Ratcliffe, personal communication, 23<sup>rd</sup> January 2013), *"useful when a threshold of issues arise"* (Whittaker, personal communication, 28<sup>th</sup> June 2011), and *"are addictive – all verdicts should be narrative really"* (Ratcliffe, personal communication, 23<sup>rd</sup> January 2013). Certainly, ECHR case law has contributed to the rising use of narrative verdicts in cases where Article 2 (the right to life) is being challenged. The approach to short-form verdicts under domestic law has been found to be inadequate in dealing with deaths in custody, for example, where those responsible should properly be held to account and lessons learned to avoid similar deaths in future (see particularly R on the application of Middleton v HM Coroner for West Somerset

2004, para.47). In his fundamental review of death certification and investigation Luce (2003, p.223), implicitly criticised the short-form verdict by calling for the outcome of an inquest to be “*primarily a factual account of the cause and circumstances of the death and an analysis of whether there were systemic failings*”. Berry and Heaton Armstrong (2005, p.457) went further by recommending “*that the short-form ‘verdicts’ used in England and Wales as inquest outcomes should be given up in favour of narrative and analytical outcomes*”. It is likely that a combination of case law, the reviews and comments on coroner procedure around the time of the 2003 Fundamental Review and a drive to reform the coroner’s court in accordance with a more bereaved friendly process, has led to the significant increase in the use of the narrative verdict. Figure 8 shows how the use of this verdict has grown up to the time of writing. No other verdict has exhibited a similar proportionate increase in use, the nearest being natural causes, significantly behind at 2,483 verdicts in 1995 to 8,881 in 2013.



**Figure 8 Other (narrative) verdicts, England and Wales, 1995-2013**

It can be seen that the narrative verdict was rarely used prior to the early part of the new century. Recorded numbers in 1995 of 136 narrative verdicts represented less than 1% of total inquest verdicts but have risen steadily to account for 17% of conclusions in 2013 (1995: narrative verdicts n=136 of 20,051 total verdicts (0.7%); 2013: n=5343 of 31,579 total verdicts (16.9%)). In terms of the gender of the deceased, women have

been consistently greater represented at 37.5% of all narrative verdicts in 1995 and 38% in 2013, whilst accounting for 33% of total conclusions recorded in 2013 (MOJ, 2014 p.19).

Using the available full verdict data (2001-2011), analysis was conducted to establish the proportion of total verdicts by gender of the deceased represented by the narrative verdict. Over the eleven year period, the narrative verdict was found to account for 6.4% of all male verdicts for the period and 8.8% of all female verdicts (ranging across coroner areas from 0.1% to 44% of all verdicts for males, SD 5.6; for females from 0.5% to 50%, SD 7). The overall gap is widening too, in 2001 the relative proportions of narrative verdicts to the total verdict count by gender were 0.9% for males and 1.1% for females, whilst by 2011 they were 10.5% and 14.8% respectively. In 2011, 76% (n=83) of the 109 coroner areas which returned narrative verdicts recorded higher narrative conclusions as a proportion of total verdicts for females than for males, compared with 59% (n=36/61) such areas in 2001.

This greater representation of women in the narrative verdict compared to men merits further research. It is not a product of reporting behaviour, at Chapter 4 it was established that in all areas of England and Wales deaths of men are more likely to be reported to the coroner (49% vs. 39%). If narrative verdicts have grown in order to deal with deaths that present a threshold of issues then the inference might be drawn that deaths of women present increasingly more difficulties at inquest than those of men. Why might that be the case? State involvement in deaths such as fatalities during police contact or deaths in prison, for example, are expected to be rare and overwhelmingly male orientated so the greater representation of female deaths is likely to be in 'domestic' inquests, and one would expect the narrative verdict, unlike suicide or industrial disease, to be gender-neutral. Matters for case-based examination should include deaths in care homes and post-operative procedures, as speculative hypotheses would be that these affect women more than men due to advancing age. Further, perhaps legal or family representations are being made more often to the coroner when women are concerned, resulting in the threshold of issues that trigger the narrative verdict. Women may be dying disproportionately in circumstances requiring issues to be resolved, and increasingly so.

Narrative verdicts are an under-researched area and, as discussed, raise particular questions in relation to the gender of the deceased. The potential for the rise in such verdicts to skew the official mortality statistics (by being difficult for ONS statisticians to code a cause of death due to the nature of the recorded narrative) has been recognised of late. Hill and Cook (2011) concluded that suicide rates, in particular, had not been

impacted significantly by this rise in use but that the continued increase in narrative verdicts were likely to affect accurate future coding. As stated earlier, Carroll et al (2012) noted that coroners who tended to use narrative verdicts more often were recording fewer suicides. Neither of the studies cited here examined the data by gender of the deceased.

An opportunity was missed by the MOJ statistics team in the 2012 bulletin (MOJ, 2013 p.25) where at Annex A an analysis of narrative verdicts was included. This was aimed at unpacking the reasons behind the noted rise of narrative verdicts over the previous five years, and the impact of that rise on national statistics relating to causes of death. Two independent assessors (retired coroners) were asked to analyse a random sample of just over two thousand such verdicts recorded between 2007 and 2011. The results of that research are discussed elsewhere in this thesis (see 6.2.3.3) but there was evidence of differing opinions between the two assessors as to which verdicts had been incorrectly classified, particularly affecting verdicts of accidental death and suicides. This caused the researchers to note the subjective nature of the analysis. Surprisingly, the gender of the deceased was omitted as a variable for research consideration, thereby denying the researchers the opportunity to seek understanding of the greater representation of female deaths in this category. The assessors had been asked to place each death reviewed into one of six groups including, for example, 'could indicate suicide', 'medical or surgical intervention unsuccessful' or 'error'. The results were reported in a grid containing the relative percentages for how each coroner had categorised the deaths but made no reference to the gender of the deceased. Had this been done, the research may have revealed clues as to the nature of narrative verdicts, particularly for women, and drawn inferences about the relative proportions of types of death that attract a narrative verdict for males compared with females. Correspondence from the author with MOJ, in trying to obtain a breakdown of the research by gender of the deceased, confirmed that no such analysis was available (Nauth-Mair, personal communication, 28<sup>th</sup> August 2013). Thus the question of why proportionately more deaths of women than men receive a narrative verdict remains unquestioned.

Finally, the MOJ researchers conducting the study on narrative verdicts concluded that there was scope for introducing a new short-form category: "*Medical or surgical intervention unsuccessful*", which had been included for consideration by the assessors due to it being a recurring theme within the unclassified verdicts category. It was stated, following the assessors' considerations that such a new category would account for around 25% of the total current recorded narrative verdicts, varying between 17-33% depending on assessor opinion (MOJ, 2013 p.25).

The writer considers that this conclusion was somewhat of a bombshell for two reasons; first it is likely that this proposed new category may affect women more than men by reason of their more advanced age at death and a consequent greater need for geriatric hospital treatment. The lack of a bespoke classification denies the opportunity for pattern identification and clinical research. Second, the research presented in this thesis has shown the difficulties experienced by, and differing opinions of, clinicians and coroners alike when trying to determine whether a death may be natural, and highlights post-operative deaths as a particularly challenging area<sup>15</sup>. Death following medical or surgical intervention is precisely the area in which there is substantial disagreement between coroners as to whether such deaths constitute natural causes, and may therefore be non-reportable. Roberts et al (2000) highlighted the subjective nature of coroners' decision-making in this area by including five *postoperative* death scenarios from a total of sixteen scenarios in their questionnaire based study of what is a natural cause of death. The responding coroners ranged in their findings of natural causes between 54% and 80% depending on the example case with most alternative verdicts being accident or misadventure. The study invited coroners to supply a verdict and, perhaps reflective of practice at the time, no coroner recorded any narrative verdict, instead choosing a short-form in each case. The disparity between viewpoints held by different coroners was said to underline the flaws of the current verdict system.

The creation of a new 'short-form' category of verdict choice such as '*medical or surgical intervention unsuccessful*' may at least assist in encouraging clarity and consistency across England and Wales as to which of those deaths should be reported to the coroner, and may particularly benefit investigations into deaths of women. The rising use of narrative verdicts, towards one in five of all recorded verdicts at the time of writing, is generally seen as a positive move by commentators seeking to provide an improved service to the bereaved (e.g. Berry and Heaton-Armstrong, 2005). However, it is crucial that a method be implemented to bring consistency of format and of coding of such verdicts in order that patterns of deaths are not missed and that epidemiological studies are not disadvantaged.

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<sup>15</sup> And see also Chapter 8, for results of DBA analysis conducted on post-operative death scenarios

## Chapter 6

### Coronial death investigation and the gender of the deceased

#### 6.1 Introduction

This chapter focuses on the hypothesised gender differences in journeys taken across the three transition points of coronial process.

A higher proportion of male than female deaths are reported to the coroner. The same is true for the proportion of referred cases advancing to inquest. For deaths reaching a coroner's inquest, analysis of verdict outcomes over a ten year period (2001-2010) suggests that the likelihood of a woman's death being recorded as due to natural causes is significantly greater than that of a male death. Several factors are identified which could account for the disparity.

At the time when these analyses were conducted, December 2013, there were 98 coroners in post in England and Wales, 79 men and 19 women, serving 114 areas. Thirty one of those areas were served by a coroner presiding over more than one area – all of these coroners were male. The first woman coroner appointed in England was Miss Lilian Hollowell of Norfolk in 1951 (History of Women.org, 2009<sup>16</sup>), and the first in Wales, Ms Mary Hassall appointed as recently as 2005 (BBC, 2005). Given that the office of coroner is over 800 years old (Coroners Society, 2014) then it would not be unreasonable to describe the post historically as a bastion of male authority.

Over the ten year period analysed here (2001-2010) the relative percentage of reported deaths by gender of the deceased has been consistent at about 49% for male deaths against 39% female. Therefore, across England and Wales, almost half of all male deaths are reported to the coroner compared with about one in three of all female deaths. Areas that were high (or low) reporters for male deaths were also high (or low) for females (ten year male and female reporting rates were investigated. There was a very strong positive correlation between the two variables of male and female,  $r = 0.98$ ,  $n = 111$ ,  $p < .0005$ ).

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<sup>16</sup> accessed 28th January 2015

## 6.2 Analysis – disparity and the three stage decision process

Figure 9 shows the comparative rates for men and women across the three coronial transition points for the ten year period (2001-2010). The probability of the death of a woman crossing all three transition points to an inquest verdict of unnatural death was found to be about one third of the equivalent probability for the death of a man, with 2.2% of all female deaths yielding such a verdict compared with 5.9% of male deaths.

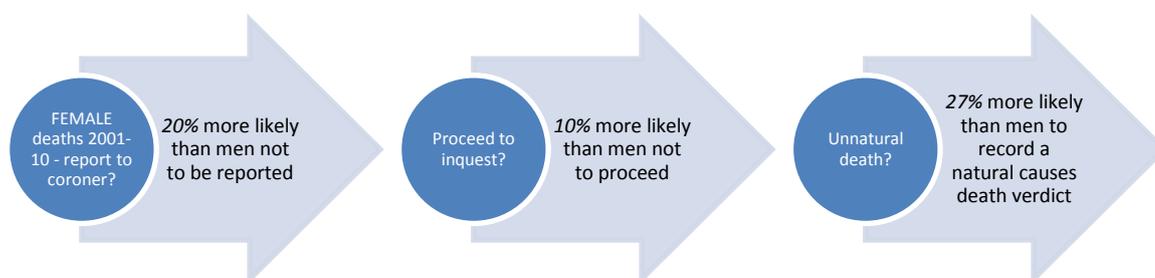


**Figure 9 Attrition in the system – how death investigation has different outcomes for women and men, England and Wales<sup>17</sup>, 2001-2010**

The finding of death by natural causes, as the only pre-eminent reason for a death to be omitted from the investigation process, is not equally prevalent by gender. Figure 10 indicates that smaller proportions of female deaths (expressed as a percentage in the figure) make each transition. This 'attrition' in the system is considered in more detail for each of the three transition points. Analysis of all data for the ten year period 2001-2010 found that at Stage 1 62% of deaths of women had not been reported to the coroner compared with 51.5% deaths of men; at Stage 2 that 92% reported deaths of women had not advanced to inquest compared with 84% of deaths of men; and at Stage 3 that

<sup>17</sup> n = 111 areas

deaths of women taken at inquest were to yield 28% natural causes verdicts compared with 22% for men.



**Figure 10 'Attrition line' – how women drop out of the system of death investigation, compared to men, England and Wales, 2001-2010**

Each of the three decision-making stages will now be examined in further detail.

### **6.2.1 Stage 1: Report the death? Disparity and gender**

Every coroner area in England and Wales annually records proportionately more reports for the deaths of men than of women (Mclean et al, 2013 p.936). In some areas over the ten year period, for example in Bridgend and Glamorgan Valleys, deaths of men have been as high as 48% more likely to be reported to a coroner than the deaths of women. During 2001-2010 the male reporting rate in Bridgend was 68% (n=14,886/21,880) and the female reporting rate 46% (n=11,101/24,375), calculated by dividing the number of reported deaths to the coroner by the numbers of registered deaths in the area, according to the gender of the deceased.

Analysis of local reporting rates by gender of the deceased over a ten year period found wide variation among coroner areas with different proportions of registered deaths reported to the coroner varying from, for deaths of men, 13% in Stamford to 94% in Plymouth and South West Devon to ( $\bar{x}$  all areas England and Wales = 49%) to 11-81%

( $\bar{x}$  = 39%) for females in those same areas<sup>18</sup>. Local reporting rates appeared quite consistent over time in the relative proportions of male and female deaths reported. Adjacent years showed highest associations but even comparing proportions of male and female deaths reported in the first (2001) and last (2010) years of the period showed a statistically reliable association. There was a strong correlation between the two male variables ( $r = .74, n = 111, p < .0005$ ) and a moderate correlation between the two female variables ( $r = .67, n = 111, p < .0005$ ), signifying that gender disparities across the different coroner areas of England and Wales in reporting rates are indeed stable over time.

At this first stage in the process a decision is normally taken by a clinician, who chooses whether to report the death to the coroner in accordance with local guidelines. Where a decision is taken not to report the death, doctors must certify the cause of death and satisfy themselves that all other criteria for reporting (such as they are, given local differences) are not met. This study identifies wide variation in local reporting practice with deaths of women consistently less reported in all areas compared to deaths of men.

One hypothesis is that at Stage 1 women are more often known to their doctor than men. For women therefore, their doctor may feel more certain as to the cause of death through knowledge of their clinical records. Also, as on average women live longer than men, a woman's death may be more easily explained by virtue of her age and consequently of less concern to the investigator (clinician or coroner) than that of a man. However, unless and until variation in reporting can be attributed to such factors not captured in the official statistics, an alternative explanation that deaths of women are not analysed as carefully at the outset as those of men, cannot be excluded. One current coroner, when speaking about differences in outcomes according to gender, posed the following question, *"I also suspect (but how will you prove this?), and I'm intrigued, also, to wonder whether women's deaths are not analysed as carefully as men's' - right from the start, including the medical assessment, which of course pre-determines the route of investigation (or none! so no inquest either!) at present. Are mens' deaths still in society given a higher status and this subconsciously affects all decisions thereafter (even ones made by female medics and coroners)?"* (Ratcliffe, personal communication, 23<sup>rd</sup> January 2013).

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18 2001-2010, male 94% reporting rate Plymouth and S West Devon (n=10812/11494), male 13% reporting rate Stamford (n=748/5911) SD 13; female 81% reporting rate Plymouth and S West Devon (n=10287/12767), female 11% reporting rate Stamford (n=639/6378) SD 11. Analysed 111 coroner areas.

### 6.2.2 Stage 2: Proceed to inquest? Disparity and gender

To re-state, the initial reason for reporting a death to the coroner will be that a doctor (or other reporting person) considered at the time of reporting that grounds to hold a coroner's inquest *may* exist. This means that the reporting person believes that the death may be violent or unnatural, or of unknown cause, or that the deceased had not been seen by the doctor either after death or within 14 days before (Coroners Act, 1988). Once reported, one would assume that a similar proportion of deaths of male or female persons would cross the second transition point and proceed to inquest. The initial assessment is the same irrespective of the gender of the deceased, which is that a threshold has been met such that an investigation by the coroner is deemed appropriate.

Twice as many reported deaths of men make it to inquest as deaths of women. For the ten year period 2001-2010, the mean total inquest rate (inquest verdicts as a proportion of reported deaths) for males was found to be 16%, and for females 8%. This was calculated by dividing the number of inquest conclusions recorded by deaths reported to the coroner, by gender of the deceased, 2001 – 2010, for 111 areas. The range for male deaths was found to be 8-32% ( $\bar{x}$  =15.9% SD = 4); for female deaths 4-25% ( $\bar{x}$  =8.3%, SD = 3.4). This gender difference, amplified by the reporting differences, might be considered surprising given that the deaths, whether male or female, would have been reported on objective grounds giving cause for concern as to whether the death was unnatural. This merits further research, beyond the scope of this present analysis, to establish why – looked at another way - proportionately more female deaths, subsequently considered natural and not requiring an inquest are reported to the coroner. As previously stated, it should always be borne in mind that men do not live as long as women and that this may be an influential factor in decision-making consequent upon a death. With the data to hand it was not possible to compare age-equivalent cohorts of men and women as would be necessary to clarify the picture.

At this second stage of coronial decision-making, the reasons for such gender disparity are difficult to explain. Having passed an initial threshold of sufficient concern, why would there be a difference between the proportionate numbers of women or men proceeding to inquest? Does this reflect a less rigorous investigation of the circumstances of death for women than men? Turning the argument on its head (as above) why would proportionately more women than men first appear to meet the threshold for further investigation, but do not proceed to inquest? Over the ten year period 92% of reports of women's deaths were returned without inquest compared with 84% of reports of men's deaths – that is the coroner, having conducted their enquiries

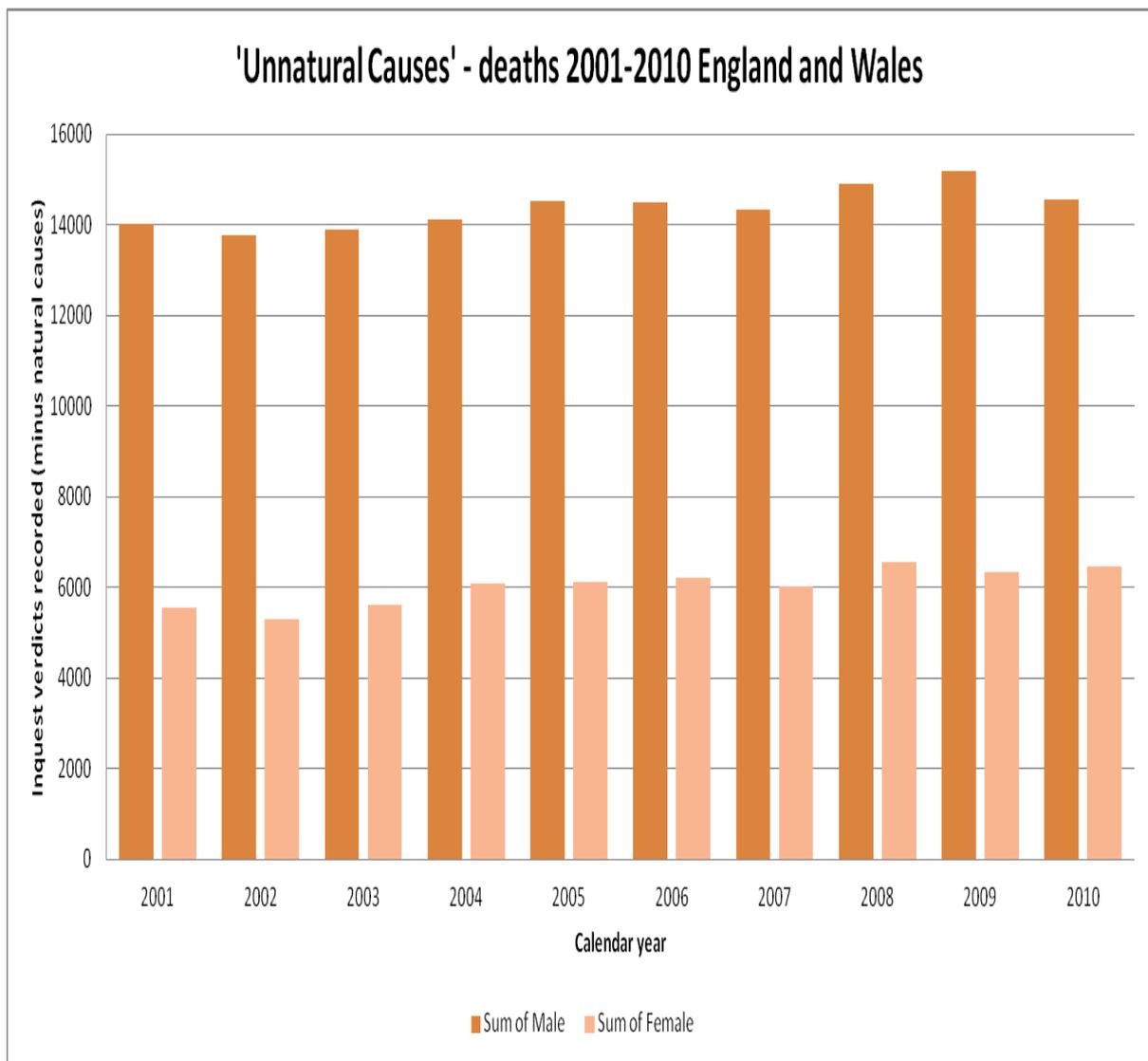
with or without a post-mortem examination, was satisfied that the reported death had been due to natural causes and thereby ineligible for an inquest.

### **6.2.3 Stage 3: What verdict? Disparity and gender**

The third stage of investigation concerns the verdict recorded by the coroner at inquest. A number of verdict outcomes are possible, but in practice most coroners tend to conclude their inquests by using one of five 'short-form' verdicts – natural causes, accident/misadventure, suicide, industrial disease, and open verdicts, or instead the increasingly used 'narrative' verdict where the decision of the court is delivered in the form of a short written narrative to express the cause of death following the inquest. As an example, analysis of the inquest verdicts recorded for the calendar year of 2011 show that of 29,858 total verdicts recorded, the named six verdicts accounted for 29,150 of the total, or 98% (MOJ, 2012 p.15). There will always be reported deaths where, after forensic examinations or tests, the cause is determined as natural but it is useful to reflect that the purpose of the coronial process, certainly according to the Chief Coroner, is to identify those deaths of *unnatural cause* with a view to providing justice for the bereaved and preventing future deaths (Thornton, 2012 p.8).

It is apparent that a coroner is more likely to reach a verdict of natural causes for a woman than for a man. For the ten year period under review (2001-2010) 28% (n=22,397/83,112) of all coroners inquests for women in England and Wales returned a natural causes verdict, whereas for men that figure was 22% (n=39,758/183,556). As discussed previously, women generally die older than men and may therefore be expected to be more prone to natural disease and therefore to a natural causes verdict. However, do the traditional short-form verdicts favour male deaths? Certainly, we know that some verdicts, such as industrial disease, drugs deaths and suicide, are more frequently recorded for male deaths. Analyses of the MOJ statistics for the calendar year 2012 (MOJ, 2013 *Coroners Statistics*), for example, reveal that deaths of men accounted for 92% of all verdicts of industrial disease (2,542/2,756), 80% of all drugs related verdicts (324/403) and 79% of all suicide verdicts (2,790/3,515). Do the extant short-form coroners' verdicts serve men well, but not women, by men being easier to categorise within the existing parameters? If short-form verdicts do not fit well in terms of satisfactorily describing the circumstances of a woman's death, this may lead to a greater representation (as reported at Chapter 5) in narrative verdicts for women where a fuller explanation can be recorded without the constraints found within a short-form phrase.

When all *unnatural* deaths (i.e. any inquest verdict other than natural causes) were calculated and then summed for the ten year period (2001-2010) a consistent approximate ratio of 1: 2.5 was apparent in favour of verdicts for male deaths. Figure 11 shows that there has been little change over time in relative counts by year (2001-2010) of unnatural death verdicts. That is, deaths which have advanced to inquest according to the possibility that the cause was violent, unnatural or unknown have consistently reflected one of those outcomes in a greater proportion of male deaths than female deaths.

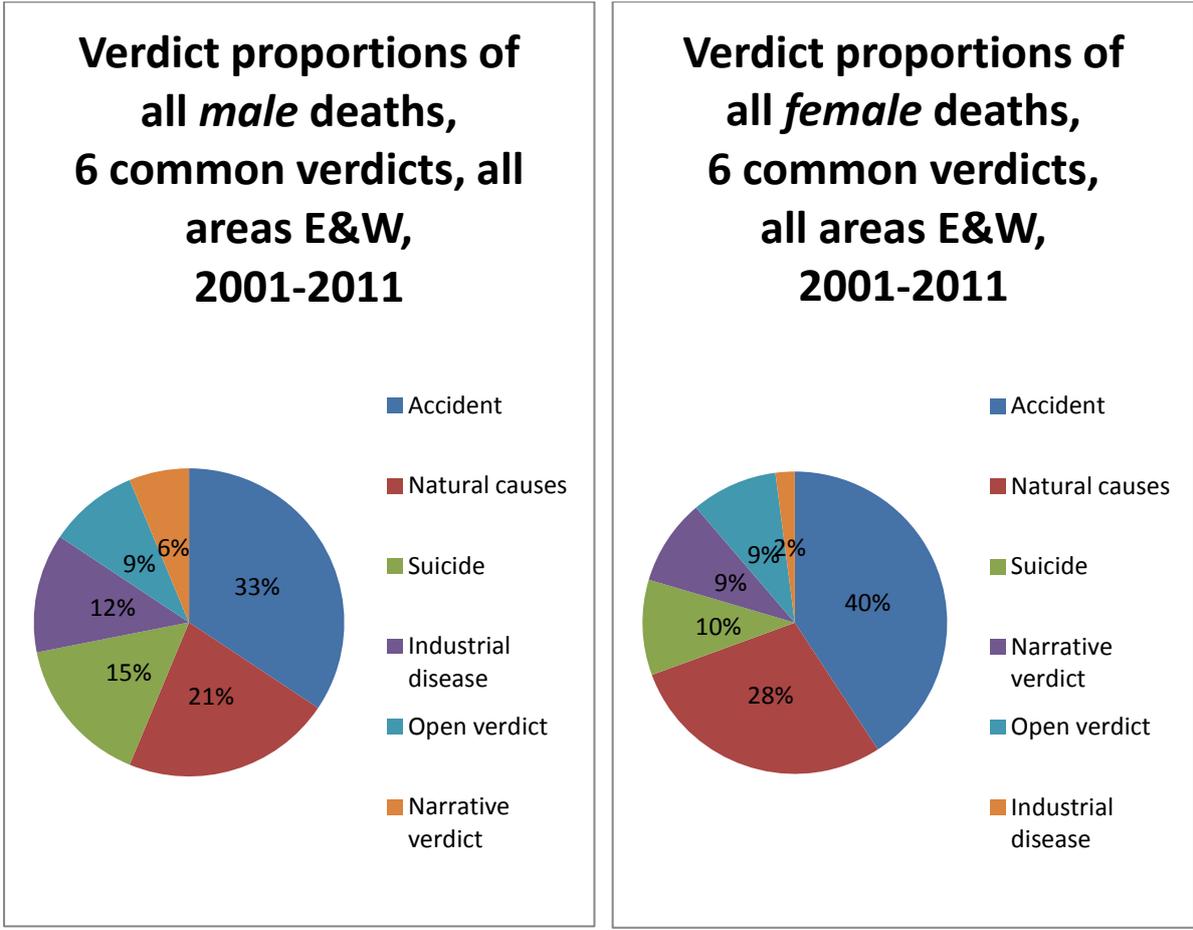


**Figure 11 Inquest verdicts recorded by gender of the deceased (excluding natural causes), all areas England and Wales, 2001-2010**

### **6.2.3.1 Inquest verdicts and gender**

In 2011 there were 29,858 total inquest verdicts recorded in England and Wales, 67% male verdicts (n=20,041) and 33% female (n= 9'817) (MOJ, 2012), a 'two thirds/one third' split that has remained consistent over recent years despite increasing inquest verdict returns. All verdicts in the years 2001 to 2011 were summed according to the gender of the deceased and divided by the total number of recorded verdicts (female and male) for each year. The analysis showed a consistent pattern that has ranged over time between 32-68% (F/M) and 29-71% (F/M) of all recorded verdicts. In terms of the choice of verdict recorded at inquest, for 2011 only, natural causes and accidents were the top two recorded verdicts for both men and women, followed by a change according to the gender of the deceased whereby suicide is the third most recorded verdict for men, and for women the third most common inquest outcome is the narrative verdict.

In the present analysis all recorded verdicts in England and Wales from 2001 to 2011 were analysed and the relative proportions of the most common verdicts over that period were calculated by the gender of the deceased. Figures 12 and 13 below show the results for, respectively, all male inquest verdicts and all female inquest verdicts for the period.



**Figures 12 and 13 Proportion of all male deaths taken up by the 6 common verdicts, England and Wales, 2001 - 2011**

As can be seen from Figures 12 and 13, for the eleven years taken together accidental death, natural causes and suicide formed the top three verdicts in that order for both men and women, although in different proportions. However, the relative prevalence for men of industrial disease (12% of all male verdicts vs. 2% of all female verdicts) and suicide (15% vs. 10%) and for women of accidents (40% of all female verdicts vs. 33% of all male verdicts), natural causes (28% vs. 21%) and narrative verdicts (9% vs. 6%) is apparent. There are differences in verdict choice according to the gender of the deceased.

The recent growth of the narrative verdict in particular has had a continuing impact on verdicts for women, for example in 2012 narrative verdicts accounted for 22% of all female verdicts compared with 15% of all male verdicts. Deaths of women are generally more liable to yield narrative verdicts, in 2012 41% of all recorded narrative verdicts

were female compared with 33% of verdicts overall (MOJ, 2013 *Coroners Statistics* p.18). Deaths of women are also more liable to yield a verdict of natural causes.

### **6.2.3.2 Verdicts of death by natural causes**

Inquests are intended to determine the cause of death where it is previously unknown or unclear after initial investigation. Natural cause verdicts at inquest are used typically where a medical cause of death could not be definitively determined at the initial post-mortem examination and toxicology or histology are required to assist the pathologist with their decision-making. As laboratory testing often takes some weeks or months to yield a result, an inquest is opened and immediately adjourned after taking the appropriate evidence in order to rule out suspicion of foul play. This can allow for the body to be released to the family for burial or cremation. When the cause of death is confirmed a verdict of death by natural causes is eventually returned on resumption of the inquest.

For the eleven year period of this study (2001-2011) proportionately more deaths of women than men were concluded by a verdict of death by natural causes. Natural causes accounted over this period for some 21% of all male verdicts and 28% of all female verdicts (Figures 12 and 13), second only in both cases to accidental death. Again, this finding may be a result of women generally dying at an older age than men and more frequently going through hospital procedures common in the elderly such as to repair broken bones after a fall. In time, this can often lead to decline and death, perhaps coupled with an infection, and the coroner is left to consider, after enquiries, whether a death occurring after a hospital procedure can be attributed to natural causes. Roberts et al (2000) demonstrated that coroners hold differing views as to what constitutes a death from natural causes either as an appropriate disposal prior to inquest or indeed as an inquest verdict. The authors stated from their analysis of comments received from a scenario-based questionnaire that significant levels of discord between coroner's choices of verdicts could be attributed to differing viewpoints held by their coroner respondents (Roberts et al, 2000 p.367).

This lack of concordance between coroners as to what constitutes natural causes is important when considering an individual coroner's verdict profile. Does the coroner have high or low levels of taking reported deaths to inquest? If high, does the coroner show high levels of natural causes verdicts (because they take a 'lenient' view of those borderline deaths reported and therefore a higher caseload to inquest) and indeed if a low rate of advancing to inquest is apparent, is that because the coroner makes an early

decision as to cases they consider to be natural causes and do not advance those cases to inquest? This decision-making according to a definition of natural cause cases is discussed in further detail at Chapter 8 (DBA analysis). Having established that women feature in greater proportions in inquest verdicts of natural causes what are the implications for other available verdicts?

### **6.2.3.3 Dying 'unnaturally': An unequal affair?**

When verdicts of death by natural causes were discounted in the analysis (the remainder being all *unnatural* deaths), clear patterns of limited verdict choice emerged for women. In 2012 for example, from a total of 30,123 total recorded inquest verdicts, 20,317 were male and 9,806 were female (MOJ, 2013 *Coroners Statistics*). Natural causes formed 33% (n=3,207) of all inquest verdicts for women, whereas it was 28% (n=5,642) for men. However for women, 74% of all *unnatural* death verdicts were accounted for by just two outcomes - either a verdict of accidental death (45%: n=2,987/6,599) or a narrative verdict (29%: n=1,928/6,599), with a further fifth receiving verdicts of suicide (11%) and open verdicts (9%). Men, by comparison, had a much more uniform distribution of the common verdicts, with accidents amounting to 32% of the total without natural causes and then suicide 19%, narrative verdicts 18%, industrial disease 17%, and open verdicts 10% respectively (MOJ, 2013).

This analysis has therefore established that when women are deemed (by dint of referral to the coroner) to have died an unnatural death, just two inquest outcomes will account for three-quarters of all such deaths, namely a verdict of accidental death or narrative verdict. According to the more uniform range of use, the short-form verdict appears to serve men better than women. That only two inquest verdicts account for such a high proportion of all unnatural deaths of women calls into question the present system's usefulness in terms of understanding and categorising how women die unnaturally, and for official coroner statistics to drive demographic, public health or epidemiological analysis. There may be a lack of appropriate short-form options for the coroner to select from when dealing with the unnatural death of a woman, as the verdict choices available reflect the traditional circumstances of death more appropriately for men. This may have resulted in a narrowing of the suitable verdict choices available to coroners in cases of female death, reducing their options to a single short-form verdict - accidental death, and an over-reliance on the narrative verdict. The implication is that some deaths that are categorised as narrative verdicts may be better described by the use of other verdicts or even short-form verdicts not currently in use (e.g. medical or surgical intervention unsuccessful). Further research, in the form of a case-based audit of

recorded accidental death and narrative verdicts for women, is urgently needed in order to examine the validity of the respective categorisation.

As stated, in the case of narrative verdicts, special analyses included in the 2012 MOJ statistics bulletin, Annex A (MOJ, 2013 p. 25 *Coroners Statistics*), missed the opportunity to explore differences in the use of this verdict type according to the gender of the deceased. A further analysis, by the gender of the deceased, to also include inquest verdicts of natural causes, would be valid as would a detailed examination of those deaths reported post-surgery that do not advance to inquest. The MOJ analysis (MOJ, 2013) identified substantial disagreement between the two assessing retired coroners as to the number of narrative verdicts they considered to have been recorded in error, providing some evidence of the idiosyncratic nature of a coroner's decision-making role and the likely variation in decision outcome thereby evidenced. Coroner 1 recorded 25% of verdicts in the error category using 2011 data, compared to only 7% recorded by coroner 2. This issue of local disparity in coronial decision outcomes, by gender of the deceased, will now be explored in greater detail.

#### **6.2.4 Local disparity and gender**

To restate, when death reporting rates for the coroner areas of England and Wales (2001-2010) were looked at according to the gender of the deceased, 49% of male deaths (Range 13-94%) were reported to the coroner compared with 39% of female deaths (Range 11-81%). With wide variation in reporting rates across areas came consistency over time within those individual areas reporting rates according to gender.

The decision whether to advance to inquest appears to vary according to the gender of the deceased with 16% of reported male deaths (Range 8-32%) going on to inquest compared with 8% of female deaths (Range 4-25%). Again individual areas were found to be consistent in their approach over time. There was a strong positive correlation for overall inquest rates 2009-2010, ( $r = 0.85, n = 111, p < .0005$ ) and a moderately strong positive correlation for 2001-2010, ( $r = 0.53, n = 111, p < .0005$ ). For the decision to proceed according to the gender of the deceased (using the variables male inquest rate and female inquest rate), for male deaths a strong positive correlation between the two years 2009-2010 was found ( $r = 0.79, n = 111, p < .0005$ ) and for 2001-2010 a weak positive correlation ( $r = 0.38, n = 111, p < .0005$ ). For female deaths 2009-2010 there was a strong positive correlation between the two variables ( $r =$

0.84,  $n = 111$ ,  $p < .0005$ ) and for 2001-2010 a moderately strong positive correlation ( $r = 0.48$ ,  $n = 111$ ,  $p < 0.0005$ ).

Coroner areas with high or low reporting rates showed moderately corresponding high or low inquest numbers as a proportion of their *registered* death profile. This was to be expected, as more reported deaths will likely bring more overall deaths to inquest. The relationship between the male reporting rate for the ten year period, as measured by the proportion of male *registered* deaths reported to the coroner, and the male inquest rate, as measured by the proportion of male *registered deaths* proceeding to inquest was investigated. There was a moderate positive correlation between the two variables ( $r = .67$ ,  $n = 111$ ,  $p < .0005$ ) with high levels of reporting associated with high levels of inquests. For females too the relationship was moderately strong ( $r = .53$ ,  $n = 111$ ,  $p < .0005$ ). However, no relationship was found between the *reporting rates* of male or female deaths and inquest rates calculated upon *the number of reported deaths* - so more reported deaths did not equate to a higher *proportion* of those reported deaths proceeding to inquest (male  $r = -.16$ ,  $n = 111$ ,  $p = .10$  ns); (female  $r = -.11$ ,  $n = 111$ ,  $p = .27$  ns).

Thus, high or low reporting rates did not mean correspondingly high or low inquest rates. There was therefore no 'balancing effect' found of a coroner whose area might record more (or less) deaths of any particular gender and subsequently make up for (or exacerbate) any reporting pattern by their decision to proceed to inquest according to gender. Coroners in this study appeared consistently to apply reporting and advancing (to inquest) regimes that tended to be quite similar for males and females in their area, although some still showed significant gender disparity (see 6.2.4.2 below). As previously stated, they also varied widely between local areas in those reporting and proceeding behaviours.

This chapter will now examine local disparity across the three transition points.

#### **6.2.4.1 Stage 1: Report the death? Local disparity and gender**

Table 8 shows the individual areas that had the *greatest gender disparity* in reporting rates to the coroner i.e. the areas where deaths of men were substantially more reported than deaths of women. The areas shown are all more than one standard deviation above the mean difference of 10% (SD 3) when their female reporting rate is subtracted from their male reporting rate (Range 2-22%,  $n = 111$ ). In all areas more male deaths than female deaths were reported as a proportion of their respective registered deaths.

Sixteen areas (of 111 examined and shown at Table 8) were found to have a disparity of more than one standard deviation above the mean difference of 10%.

**Table 8 Coroner areas with the greatest difference in reporting rates of deaths to the coroner for males and females, all areas England and Wales, 2001-2010**

<b>Coroner area</b>	<b>Male reporting rate %</b>	<b>Female reporting rate %</b>	<b>Difference (M-F) %</b>
Bridgend and Glamorgan Valleys	68.0	45.5	22.5
Manchester City	76.0	56.8	19.2
Newcastle upon Tyne	75.0	56.3	18.7
Inner North London	78.1	60.5	18.7
York City	65.0	49.4	15.7
Liverpool	70.4	54.8	15.6
Spilsby and Louth	66.5	50.9	15.6
Hartlepool	64.2	48.6	15.6
West London	49.5	34.2	15.4
Inner West London	61.0	46.1	14.9
Inner South London	59.8	45.0	14.9
Cardiff and Vale of Glamorgan	50.2	35.5	14.6
South Yorkshire Eastern District	51.4	36.8	14.5
Nottinghamshire	66.3	52.1	14.2
Gwent	43.0	28.9	14.1
Sunderland	53.4	39.6	13.8

It has not been possible within this study to analyse further the possible demographic reasons why the sixteen areas listed above appear to report proportionately more deaths of men than women for coroner investigation and stand out as outliers - many factors may be at play here including local area practice, deprivation, population sizes, and historic context. It is reasonable to note that the named areas are predominantly (but not entirely) urban and industrial and that therefore deaths related to the workplace or substance abuse might be more common, or have been more common historically. Certainly, if compared with the bottom ten areas, that is to say those ten areas where the reporting profile between men and women is most closely matched, the outlier areas seem comparatively highly populated and featuring in heavy industry<sup>19</sup>. This research has uniquely identified that local disparity in the reporting of deaths to the coroner by gender of the deceased does occur and is applied consistently in coroner areas over time. Further research is recommended to identify the possible reasons for that and to explore whether that disparity might mean that the deaths of women in some areas are not being investigated as rigorously as those of men.

#### **6.2.4.2 Stage 2: Advance to inquest? Local disparity and gender**

The coroner will decide after receiving a report of death whether the initial investigation has determined the death to be of natural causes, in which case the investigation will cease and the death can be registered. Where the coroner cannot be sure of the cause of death, an inquest will be held.

Table 9 shows the coroner areas with the biggest difference between male and female inquest rates as a proportion of their respective reported deaths over the ten year period. All areas in England and Wales take proportionately more male deaths to inquest than female deaths. The areas shown are all more than one standard deviation above the mean of 8% (SD 2) when their female inquest rate is subtracted from their male inquest rate (Range 4-15%, n = 111). Twelve areas were found to have a gender disparity of more than one standard deviation above the mean difference of 8%. Again, further detailed local research, beyond the scope of this thesis, would assist in identifying the factors at play that cause these areas to take a higher proportion of reported male deaths to inquest than female deaths.

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<sup>19</sup> For comparison, the ten areas with the lowest gender disparity in reporting rates were found to be East Sussex, Rutland and North Leicestershire, North East Hampshire, West Lincolnshire, Bournemouth Poole and Eastern Dorset, Eastern Somerset, Manchester South, North and East Cambridgeshire, South Shropshire and Stamford (bottom)

**Table 9 Coroner areas with the greatest difference in rates of proceeding to inquest for males and females, all areas England and Wales, 2001-2010**

<b>Coroner area</b>	<b>Male Inquest Rate %</b>	<b>Female Inquest Rate %</b>	<b>Difference (M-F) %</b>
Central Hampshire	22.2	6.7	15.4
North Derbyshire	19.8	7.0	12.8
South Shropshire	20.4	8.1	12.3
Sunderland	23.0	10.7	12.3
Wirral	20.5	8.8	11.7
Rutland and North Leicestershire	24.2	13.1	11.1
Plymouth and South West Devon	20.9	9.8	11.1
Carmarthenshire	18.1	7.3	10.8
Wiltshire and Swindon	19.5	8.6	10.8
North and East Cambridgeshire	20.0	9.2	10.8
West Yorkshire Eastern District	18.9	8.2	10.7
North Northumberland	22.1	11.5	10.6

There is a less obvious identifiable pattern to these particular areas. They do not appear to be as industrial as those areas who recorded more male *reports* of death over female. For comparison the bottom ten areas, where rates of advancing to inquest are most closely aligned between males and females, are noted below and on this occasion appear

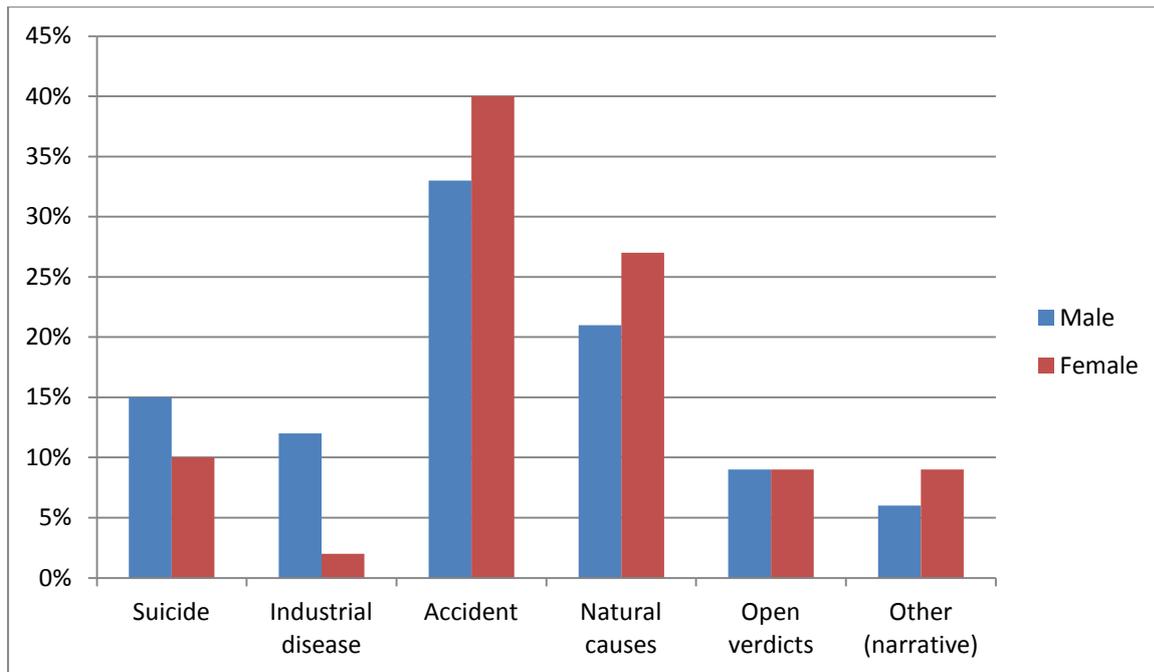
to have fewer obvious demographic differences with the more extreme outliers<sup>20</sup>. To look at their decision-making another way, the coroner areas in Table 9 are those that most regularly receive reports of deaths of women and then dispense with those deaths, compared with deaths of men, to the registrar without proceeding to inquest (by NFA, Form A or Form B). They have a higher fall-out or 'attrition' rate for women than for men. There will be a number of different factors at play which should only be properly analysed by detailed case-based studies and discussion with the decision-makers themselves. As it is, this research demonstrates that coroners are vulnerable to the charge that their personal viewpoints and decision-making style may be a cause of variation leading to different death investigation outcomes according to the gender of the deceased.

#### **6.2.4.3 What verdict? Local disparity and gender**

National disparity was apparent in terms of prevalence of verdict according to the gender of the deceased, notably industrial disease and suicide for men and accidents, natural causes and narrative verdicts for women. Figure 14 shows the proportionate share of the six common verdicts in all coroner areas in England and Wales by gender of the deceased over an eleven year period. So for example, for the period 2001-2011 inclusive, the inquest verdict of suicide has accounted for 15% of all recorded verdicts for deaths of males and 10% of all verdicts for deaths of females.

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<sup>20</sup> Manchester South, Peterborough, North London, Black Country, Boston and Spalding, Torbay and South Devon, Manchester City, Stamford, Inner West London, Manchester North (bottom)



**Figure 14 Share of all verdicts by gender of the deceased for the six common verdicts, England and Wales, 2001-2011**

For individual coroner areas, analysis was undertaken to identify the proportion of male and female verdicts taken up by any one verdict over the eleven year period (2001-2011) and to calculate the range of that share for each verdict. So for example, what proportion of an area's total verdict count over the period would be taken up by say, natural causes, for men and for women? This would identify high and low users of the six common verdicts according to the gender of the deceased. The wider the range across coroner areas, the more a particular verdict might be said to be more vulnerable to local decision-making practice based upon gender.

A range of proportionate verdict use, shown at Table 10 below, was found according to the gender of the deceased notably with natural causes featuring as having the highest range for both men and women (Range = 45% and 58% respectively). Natural causes was also found to be the highest used single verdict, recorded for 64% of all female verdicts in Sunderland over the period compared with a highest use for men of 47%, also in Sunderland. Decision-making in Sunderland, therefore, has led to a high proportion of reported deaths (both male and female), subsequently established as natural, yet still proceeding through to inquest. If approximately half of all deaths taken to inquest in Sunderland are deaths by natural causes then why are they proceeding to

inquest in the first place? More than any other area, something in their local process over time appears to be failing to identify those natural deaths at an earlier stage without the need to proceed to inquest.

It is apparent that patterns emerge even when looking only at the highest and lowest outliers from an analysis of 112 areas (excluding the Queens Household and the Isles of Scilly, for very low numbers). For example, Table 10 shows that over the period under review South Shropshire has been a rare user of the natural cause verdict – and incidentally the area has not recorded any death of a woman as being due to industrial disease. Similarly Birmingham, for example, has been a very high user of the narrative verdict for both genders (44% of all male verdicts and 50% of all female verdicts).

**Table 10 Range of use of six common verdicts by gender of the deceased, all areas, 2001-2011**

<b>Verdict</b>	<b>Highest Male %</b>	<b>Lowest Male %</b>	<b>Highest Female %</b>	<b>Lowest Female %</b>
<b>Suicide</b>	29% (South Shropshire)	4% (North Derbyshire)	23% (Torbay and South Devon)	2% (South and East Cumbria)
<b>Industrial Disease</b>	35% (North Derbyshire)	4% (inner West London)	9% (Sunderland)	Zero use (Bridgend and Glamorgan Valleys, Carmarthen, South Shropshire, Neath and Port Talbot)
<b>Accident</b>	50% (Powys)	10% (Sunderland)	62% (North Yorkshire East)	11% (Sunderland)
<b>Natural Causes</b>	47% (Sunderland)	2% (South Shropshire)	64% (Sunderland)	6% (South Shropshire)
<b>Open verdict</b>	25% (Spilsby and Louth)	2% (South and West Cambridgeshire)	25% (South London)	3% (Gateshead and South Tyneside)
<b>Other (narrative)</b>	44% (Birmingham and Solihull)	0.1% (Carmarthenshire)	50% (Birmingham and Solihull)	0.5% (Pembrokeshire)

The question that now arises is which of the 112 areas analysed shows the biggest *difference* for men and for women for each of the six common verdict types as a proportion of their total respective count. That is, for each verdict, which area appears most skewed towards one gender? This was calculated by subtracting the female

proportion of total verdicts from the male proportion of total verdicts for each of the six common verdict types. Coroner areas could then be listed (see Table 11 below) by the relative size of the gender disparity for each verdict, a '+' figure representing a skew towards male verdicts and a '-' figure representing a skew towards female verdicts. To take an example, from the top row, of North and East Cambridgeshire\*, *Suicide verdicts, 2001-2011 - the total proportion of all male inquest verdicts for the period taken up by suicide verdicts was 23%. For all female verdicts, suicide represented 9%.* Therefore the difference between the two (23%-9%) is (+) 14%, a skew towards deaths of men and in this case the largest difference of all the coroner areas.

**Table 11 Disparity in proportionate verdict use between male and female inquest outcomes, all areas, 2001-2011**

<b>Verdict</b>	<b>Mean difference %</b>	<b>Range %</b>	<b>Largest difference %</b>	<b>Coroner area with largest difference</b>
<b>Suicide</b>	+5	17	+14 (male)	North and East Cambridgeshire*
<b>Industrial Disease</b>	+10	33	+33 (male)	North Derbyshire
<b>Accident</b>	-8	37	-24 (female)	Staffordshire South
<b>Natural Causes</b>	-6	25	-21 (female)	Stamford
<b>Open verdict</b>	+0.04	12	-7 (female)	Powys
<b>Other (narrative)</b>	-2	13	-11 (female)	South Yorkshire (West)

Thus, Table 11 shows the disparity in proportionate use of the six common verdicts between male and female inquest conclusions. It can be seen from the mean figures across all areas that industrial disease is the verdict most likely to be skewed towards male deaths. Indeed all areas displayed that pattern for industrial disease to a greater or lesser extent (between 1-33%). Accidents are the most likely to be skewed towards

female verdicts, with only 11 of the 112 areas being skewed towards men. The most closely gender-aligned of all the common six verdicts is the open verdict where, in fact, 56 areas have proportionately more male verdicts than female and exactly 56 have more female than male.

Again, case-based detailed research would be needed to understand the reasons for the local disparities identified above. The present research demonstrates that areas vary in their patterns of verdict use according to the gender of the deceased. It identifies those areas which differ most widely between men and women in their use of any particular verdict. An opportunity is thus afforded by which to explore with outliers the reasons for apparent gender disparity, a question for the senior coroner in North and East Cambridgeshire would be *'why do almost one in four of all your inquests for men result in a suicide verdict, when less than one in ten inquests for women return that verdict?'*

Detailed examination may, of course, reveal the difference to be an accurate reflection of how men and women die in North East Cambridgeshire, but a range of factors should be explored which will include possible substitution of verdicts (for example narrative verdicts are used by many coroners rather than suicide – see Chapters 2 and 5), case-relevant factors associated with the likelihood of a suicide verdict, through to the personal viewpoints of the incumbent coroner, in this example whether women might be thought to lack the propensity to deliberately take their own life.

Having demonstrated that coroner areas will vary in how much they appear to favour a particular verdict depending on the gender of the deceased, the next section of this chapter attempts to identify an appropriate method by which to quantify that local disparity. A methodology is proposed which takes into account, by weighting, the difference in numbers for men and women. Deaths of women are multiplied by the appropriate ratio factor according to overall inquest numbers (M/F) in order to produce a comparable denominator with men. A weighted index can then be calculated which shows the degree of difference in proportionate use of verdicts according to whether the deceased is male or female. The writer has chosen to name the output of this index as *'genderedness'*.

### 6.2.5 The gendered coroner?

The research has established that, for the three-stage decision process, a smaller proportion of women than men cross each transition point. Further, it has been shown that there are disparities identifiable in choice of verdict coincident with the gender of the deceased. There is thus a priori evidence of an overall pattern of decision-making guided by factors which co-vary with gender throughout the processing of deaths.

What evidence do we have of local variation in genderedness? As shown, analysis of difference in proportionate use of verdicts suggests that coroners are variably gendered in their approach in that they are consistently more likely to favour a particular verdict when dealing with a death, according to the gender of the deceased.

The relationship between gender and the choice of verdict can be measured by determining **the degree of difference in proportionate use of verdicts according to whether the deceased is male or female**. Data were inquest verdict counts by gender by area and by year for the period 2001-2011. The stages in the analysis were as follows;

1. As noted, deaths of females result in inquests less often than is the case for males. The total number of female deaths coming to inquest was weighted, for every verdict type, to produce a comparable denominator for men and women. This was achieved by calculating the ratio of the total inquest count for each area (male to female inquests) and multiplying the female count by that ratio.
2. Total verdict counts were re-calculated using the weighted female numbers.
3. For each area-verdict-year count the difference between males and females attracting that verdict was calculated, ignoring sign of the difference
4. The differences were summed across verdicts and years and expressed as an index with a range from 0 (no gender difference) to 1 (maximum gender difference).

A worked example is as follows: ***Suicide verdicts, West Yorkshire (East) 2010.***

1. *Total inquest numbers in that area for 2010 have a ratio of 2.5:1 in favour of male deaths (384 male verdicts / 155 female verdicts).*
2. *Recorded suicide verdicts in that area 2010=56, 46 Male and 10 Female; weighting applied to female verdicts (10 x 2.5) =25; new total verdict count (46 Male + 25 Female) = 71.*

3. *Half new verdict count = 35.5; subtract weighted Female verdict count (35.5 – 25) = 10.5.*
4. *Express that difference as a proportion of the half new verdict count (10.5/35.5) = 0.30.*

Suicide verdicts for this area and year are therefore skewed according to gender by 30%, towards male deaths in this example.

The resulting index has provided the measure of genderedness by area, as outlined in Table 12. In keeping with previous presentational style, only coroner areas beyond one SD above the mean are shown ( $\bar{x}$  = 0.39; SD = 0.07; Min score = 0.25, Max score = 0.57). The full genderedness table for all coroner areas of England and Wales is shown at Appendix E.

**Table 12 Degree of 'genderedness', all areas, all verdicts, 2001-2011**

<b>Coroner area</b>	<b>Gendered score</b>
North and East Cambridgeshire	0.57
South Yorkshire Eastern District	0.51
North and West Cumbria	0.51
South Yorkshire Western District	0.50
North Lincolnshire and Grimsby	0.50
West Yorkshire Eastern District	0.49
Plymouth and South West Devon	0.49
Sefton, Knowsley and St. Helens	0.49
Derby and South Derbyshire	0.49
Black Country	0.49
Staffordshire South	0.49
North Durham	0.48
Coventry	0.48
Bedfordshire and Luton	0.48
Manchester City	0.47
Worcestershire	0.47
Stoke on Trent and North Staffs	0.47
York City	0.47

When all coroner areas in England and Wales were analysed the mean genderedness score, taking into account all verdicts, ranged from 0.25 to 0.57. The analysis does therefore show that all coroners are consistently more likely to favour a particular verdict according to the gender of the deceased but cannot at this stage answer the question, why?

The above eighteen areas are those that lie above one standard deviation from the mean. They are the coroner areas most likely to favour particular verdicts according to the gender of the deceased. These findings invite cautious investigation (due to the need to identify co-variables which may vary with gender, such as age) with the incumbent coroners to establish whether their verdict profiles truly reflect the ways in which men and women die in those areas or whether it is possible that their personal preferences relating to the gender of the deceased are influencing the verdict choice.

The question that then follows both nationally and locally is which of the six common verdicts were the most gendered? This was analysed for England and Wales by summing the mean score for the eleven year period for each *verdict's* genderedness (rather than each *area*) and revealed, perhaps unsurprisingly, industrial disease to be higher than any other verdict in being chosen according to the gender of the deceased.

The analysis means that even when total verdict numbers are weighted to provide a comparable gender balance there is still to varying degrees a gender disparity in verdict choice. This may be a natural consequence of the way that men and women die in England and Wales but may also be a reflection of the decision-making style of incumbent coroners, or as discussed previously, a limitation in the traditional short-form verdict options available to coroners. Of the six common verdicts it may be easier to understand why a skew (towards male deaths) might exist for industrial disease and, although perhaps less so, for suicide but why would there be an imbalance after weighting of expected gender-neutral verdicts such as the narrative verdict or natural causes?

Table 13 lists the six common verdicts in order of the likelihood that the choice of a particular verdict will be favoured according to the gender of the deceased. As stated, a lay view of the degree of genderedness shown across the six common verdicts might expect to see a skew in some verdicts over others. This research has not undertaken such a study, but it would have been interesting to have invited practitioners within the coronial system to rank the six common verdicts in order of expected degree of any genderedness, and to compare the results both against results reported here, and between respondents. The relative level of genderedness found for the narrative verdict, a 33% skew, may be a surprise to coroners. This research has found overall use of narrative verdicts among coroners in favour of deaths of females.

**Table 13 Verdicts and degree of 'genderedness', all areas, 6 common verdicts, 2001-2011**

<b>Verdict</b>	<b>Mean 'genderedness' score</b>	<b>Standard Deviation</b>
Industrial disease	0.74	0.15
Other (narrative)	0.33	0.13
Suicide	0.29	0.12
Open verdict	0.28	0.13
Natural causes	0.20	0.11
Accident	0.15	0.07

Consideration was given as to whether a caseload that featured a high proportion of 'gendered' verdict types would automatically mean that a coroner area would feature highly in a 'genderedness' index score. So, would an area recording high levels of industrial disease or narrative verdicts, for example, emerge as an outlier in comparative 'genderedness' index scoring? The relationship between overall caseload for a particular verdict and degrees of 'genderedness' for that verdict was investigated, correlating the six common verdict types and showed moderately strong negative relationships. Thus, some evidence emerged of higher verdict-specific caseloads leading to reduced 'genderedness' in those verdicts, particularly for suicide and open verdicts, suggesting that the busy coroner was less likely to make decisions based on the gender of the deceased; e.g. suicide ( $r = -.56, n = 112, p < .0005$ ). Higher levels of verdict-specific caseload were found to be associated with lower levels of 'genderedness'. This may mean that a coroner, who records higher levels of verdicts prone to genderedness, may be less likely to choose a verdict according to the gender of the deceased.

To summarise the concept introduced here of genderedness, coroners could be shown to favour a particular choice of verdict according to the gender of the deceased and it was possible to identify which coroners were most prone. Further investigation is needed to explore the reasons why this might be so but coroners are vulnerable to the suggestion that disparity is a product of a decision-making model at inquest where patterns of

verdict choice are variably preferred according to whether the deceased person is male or female.

## **Chapter 7**

### **Methodology for Decision Board Analysis**

#### **7.1 Introduction**

To re-state, the central purpose of this thesis was first to establish whether variation existed in the decision outcomes made by those involved in the coronial process of investigating death, and where any variation could be noted, to identify the possible reason(s) for this. The focus is on the coroner as the person who sets the tone for the local reporting of deaths for further investigation, accepts or rejects reports of deaths for investigation, chooses whether to take the reported death to inquest and finally brings enquiries to a close in the form of an inquest conclusion. Such local variation across the coroner areas of England and Wales was shown in Chapters 4, 5 and 6 of the present thesis by analysis of the data obtained from the Ministry of Justice and the Office for National Statistics in relation to all aspects of the three-stage process. Evidence of local variation is demonstrated in reporting rates of death across England and Wales, the rates at which reported deaths advance to inquest and in the varied use by coroners of the verdicts (which, since implementation of the Coroners and Justice Act 2009 in July 2013, are now known as 'conclusions') available to them at inquest.

The results of that data analysis revealed rich opportunities for further empirical research across the entire process whose results would have profound practical implications. However, the third and final decision-making stage only, i.e. the conclusion recorded by the coroner after inquest, was chosen for this decision analysis for the following two main reasons;

- i) An examination specifically of reporting rates of deaths to the coroner would necessarily involve testing clinicians on their ability correctly to identify those deaths which ought to have been reported, perhaps suggesting more about the individual clinicians than the coroner who sets the local tone for reporting,
- ii) There can be no doubt that the decision as to conclusion after inquest is one for the coroner alone, and that analysis which might demonstrate variation between coroner areas may be inferred to be a consequence of the coroner's decision-making style

Previous chapters have demonstrated a context of professional autonomy on the part of coroners in England and Wales and wide variation in outcomes following the investigation of deaths. The obvious question that arises is 'why?' This chapter and the next chapter attempt to address this by means of a methodological framework known as

Decision Board Analysis (DBA). This was employed with a sample of coroners in England and Wales, both male and female and varying widely in experience in role. All coroners in England and Wales were invited to respond to a Decision Board task comprising of three typical reported deaths advancing to inquest. Their task was to determine an inquest conclusion based upon the available limited information. The method used allowed the writer to explore not only the conclusions recorded, but also the way (i.e. the decision-making style) in which the available information was approached and managed by participants. In the light of the outcome variation identified in previous chapters, the decision-making style of individual coroners seemed crucial. In the present chapter the methodological framework is outlined and in the following chapter the results are reported.

## **7.2 Aims and objectives**

The overall aim was to provide systematic evidence of how decisions are made by coroners faced with identical case information. The three-scenario DBA was developed to reflect realistic (but fictitious) cases coming to the coroner's attention. The data yielded would include the conclusions chosen by coroners for the three scenarios, and also (crucially) the information coroners used to make decisions, the order and frequency by which such information was sought, the importance, or salience, accorded to the various pieces of information in the decision-making process, and the comments written in free text at various stages of the exercise by coroners who were all dealing with identical information for the three fictional reported deaths. Moreover, levels of difficulty in reaching a decision were reported by the participants, and free text explanations were requested for any comments by respondents on alternative conclusions, persuasive or missing facts, and any further discussion regarding the conclusion chosen.

## **7.3 Research design**

The expectation, based on the earlier analyses of variation, was that coroners faced with identical case scenarios would vary widely in their outcome decisions. For example, faced with a set of circumstances coroners may be torn between say, an accidental death or natural causes (or indeed other conclusions). The research design developed allows for (quantitative) analysis of the proportion of respondents choosing a particular conclusion,

most obviously by the measurement of variation between respondent's choices and for (quantitative) analysis of the information categories chosen and ordered by the decision-maker in order to arrive at their conclusion, as well as the scale of difficulty they reported in making that decision. This was augmented by (qualitative) free text comments as to the decision-makers explanation for so choosing their conclusion, any possible alternatives, and why a particular difficulty level was chosen, thus providing a further insight into underlying explanations. The distinction between quantitative and qualitative is often cited as "numbers vs. words" (Bryman, 2001 p.284). This notion of conflict is misleading. In this investigation the choice of information elements (quantitative) and verbally expressed commentary (qualitative) are complementary. The writer's ability to test the hypotheses and structure the investigation accordingly, a suggested feature of quantitative research (Bryman, 2001 p.284) has been augmented by the point of view of the respondent, a feature of qualitative research, where "*the perspective of those being studied – what they see as important and significant - provides the point of orientation*" (Bryman, 2001 p.284).

A small amount of personalised demographic information was sought in standardised form from participants, who remained anonymous throughout the process. The specific information sought from participants was their stated conclusion to three case scenarios, after a prioritised consideration of provided case information, together with explanatory notes where desired. Coroners in post were accessed through the assistance of The Coroner's Society, with all coronial post-holders in England and Wales receiving the web link to the DBA instrument from the Society with a request to consider their participation in the research. An accompanying letter informed participants that the target audience was primarily senior coroners and it is thereby inferred that the respondents were indeed coroners in post who were authorised to take the decisions in real-life that the instrument was designed to access. The three personal questions asked of respondents were 'What is your gender?' 'What is the length in years of your experience as a coroner?' and 'What is your qualification to practice as coroner?' and were all asked at the first page (known as page 'Test 0' and further discussed at 7.9.2) accessed by participants. A screen shot copy of this first page 'Test 0' is shown at Appendix F. It was anticipated that it would be difficult to encourage busy coroners to participate in research, hence a short online questionnaire being thought more palatable to a potential respondent than a longer face to face interview at the request of an unknown researcher.

### **7.3.1 Research ethics**

Anonymity on the part of the respondent was essential in encouraging participation and is in keeping with the British Psychological Society's Code on Human Research Ethics (British Psychological Society, 2010). A survey of this nature could be seen by coroner participants as testing their ability to find the 'right' answer (whereas of course a lack of prescriptive guidance means there is not necessarily any 'right' answer) and that identifying those who strayed from, for example, the modal answer would potentially place careers in jeopardy, particularly following the recent appointment of the Chief Coroner who is striving for consistency of standards. It was considered that the research would benefit greatly from the free text opportunities provided to respondents and so there was also a concern that coroners might not be as forthcoming with their opinions were they to be identified as they could be with a guarantee of anonymity. The participant's information sheet which accompanied the link from The Coroner's Society is shown at Appendix G. This made it clear that participants would remain anonymous, that all information disclosed within the questionnaire would be kept in a password protected database, that no personal information was to be sought and that the researcher had no way of identifying individual respondents.

### **7.4 Decision Board Analysis: Developing a decision - making research tool**

The central hypothesis for the DBA, based upon the findings from previous chapters, was that coroners, faced with identical case information at an inquest, would vary in different outcome conclusions. The hypothesis required scrutiny in terms of testing whether the variation in conclusions presented in this research would be replicated in a DBA, and to seek to examine the decision-making styles employed and the salience of information accessed in making that decision. Given the dearth of research into the way in which coroners make their decisions it was necessary to look at possible research methodologies from other areas of the criminal justice or legal system. The distinctive attribute of DBA is the examination of the route to decision rather than the decision itself; the information which respondents failed to access (and hence regarded as irrelevant), the information they sought early and returned to (the most salient to their decision-making) and information sought later in the process (hence contingently salient or confirmatory or exception searching).

### **7.4.1 Participant selection criteria**

Inviting all post-holders throughout England and Wales (i.e. covering all 114 coroner areas at that time) to participate was desirable in terms of accessing the widest possible contribution throughout the countries. Quantitative analysis of available data had shown significant local variation with no obvious geographical factors so data collection from anywhere in England and Wales was considered most appropriate in terms of drawing inferences from the subsequent analysis. Consideration was given to the alternative of selecting just a few coroners to receive the online instrument, perhaps those with outlying or interesting features revealed by the results of earlier analyses, but it was considered that this would be unnecessarily restrictive in terms of both focussing on specific types of case that the targeted coroners may have featured as outliers in, and also in denying this research the opportunity for a comparative analysis with all MOJ coroner areas included. Future research, discussed later, might consider a targeted approach to identify the decision-making styles of incumbent coroners in areas found to be outliers in the use of (or lack of use of) particular conclusion types. The potential for the Decision Board to be used as a training tool for coroners should be explored with a view to determining whether variation in use of conclusions arises from differences in information management by decision-makers. Where differences in information management can be identified, then consideration might be given to analysing the way in which coroners investigations are carried out and information is presented to the coroner. Where variation in conclusions applies despite similar decision-making styles, then the outcome variation is more likely to be a product of the personal viewpoint of the individual decision-maker regarding the different inferences they make from identical information.

#### **7.4.1.1 The semi-structured Interview; an alternative participant research tool**

Consideration was given to conducting a limited number of face to face semi-structured interviews. The idea was that the interviewer would be in possession of a number of pre-written scenarios, not seen by the interviewee, relating to deaths that might result in a coroner's inquest. The interview process would begin in a structured way by asking questions such as 'I have details of a death, I will only reveal what you ask of me, ask anything, accept what I tell you as firm evidence, and when you feel able please tell me what your conclusion will be'. The coroner interviewee would then be asked to select a number at random in order to identify the scenario and could then proceed to ask any questions, unprompted, of the interviewer (for example how old was the deceased,

where did they die, what does the post-mortem examination report say etc). At any point in the conversation the interviewee coroner could stop the process and offer a conclusion, whereupon the interviewer would seek an explanation for the choice of conclusion and any further comment, for example what might have caused them to change their mind? A discussion would then be possible regarding the order in which the information had been sought. The whole process was to be recorded to preserve the integrity of the conversation and so that information salience could be explored in detail as well as any themes of questioning that might have arisen.

This interview method was piloted with a serving coroner and a transcript of the conversation, which lasted 50 minutes, is shown at Appendix H. Four scenarios were chosen by the participant coroner and conclusions were offered in each case with rich qualitative discussion about their merits against other conclusions depending on the circumstances, although time pressures on the participant coroner became obvious as the interview progressed. Ultimately, a face to face interview approach was rejected in favour of a method incorporating participation from coroners anywhere in England and Wales, rather than a small opportunity sample, and who could contribute at their own pace and when convenient to them.

It was felt that this exploration of a face to face methodology, albeit with only a single individual coroner, had been an important and useful decision-making exercise which had revealed matters of interest around possible narrow short-form verdict thinking by coroners (where categorisation of the death into existing conclusion parameters might become the main goal), over-reliance on coroners' officers investigations, the potential for different conclusions in identical scenarios and a potential gender bias in investigative thinking. However, the exercise had a methodological flaw in that it was unrealistic for a coroner to be starting with a blank page. Coroners receive reports from their officers' investigations in a form which would always cover certain categories (such as the deceased's age, gender, place of death, post-mortem report) and so the 'I'm not telling unless you ask' approach was not thought to properly replicate a coroner's real-life investigation style.

Further, on reflecting upon the outcome of the exercise, the writer felt that it might have been better to have concentrated on one scenario with more post-hoc questioning on each of the choice points, i.e. 'if your information had differed would that have changed your thinking and what you might have asked next?' This detailed single case semi-structured interview may have offered an understanding of the effect of each of the choice points or variables on the coroner's decision-making style. However, such an approach would have been labour intensive in terms of seeing a sufficient sample of

coroners face to face, and would not have allowed comparative analysis over more than one scenario.

Ultimately, the potential for wide geographical participation and computer assisted analysis of participant information gathering prior to making a decision led to favouring a research method of DBA through web based software, facilitated by an online link.

## **7.5 Research Methods**

### **7.5.1 Decision Board Analysis – the origins**

A technique devised and described originally by Wilkins and Chandler (1965) as the 'information board' was used to study the decision-making processes of probation officers in relation to whether or not they considered a specific period of probation for their clients to be a suitable recommendation to the Court. At this time, studies of information handling suffered from a lack of techniques designed to minimise the control of the experimenter, or to replicate conditions that the decision maker would experience in an actual working environment. The authors describe the 'information board' as a simple piece of apparatus enabling observation of the use of information and the ability to relate the type and quantity of information used to the decision eventually made. The information board was essentially a board containing a number of index cards (49 in this case), each of which had only a title visible to the participant until it was flipped over to reveal the information content relevant to the title. Participants could choose and flip cards and read the more detailed information in any order they chose but were asked to come to a decision quickly and using as little information as possible. Having arrived at a decision, probation officer participants were then asked to record two ratings, one for the ease or difficulty in making the decision, and one for the degree of confidence the officer felt in the decision being correct. The authors subsequently recommended that similar studies abandoned the use of the two ratings of difficulty and confidence in favour of using just one, due to the respondent scores for the two scales being almost identical. Subjects had found difficulty with expressing levels of confidence and preferred to use the ease-difficulty continuum. The authors concluded that this information board method promised great potential to identify types of decision makers, pointing out that it was likely that "*the way people go about their search for information is related to the way they go about their work in dealing with problems to which the information relates*" (Wilkins and Chandler, 1965 p.34).

Carter and Wilkins (1976) developed the Decision Board technique further in the United States in relation to parole guidelines. The context was that the Federal Parole Board, under challenge to articulate its decision-making principles in a context of concerns about racial disparity and war protest, were unable to do so beyond stating that they sought to treat every case on its merits. Analysis of past decision-making of the Parole Board had led to the clear emergence of two factors which accounted for the bulk of the variance in the timing of prisoner release decisions. These were the seriousness of the offence, and the 'salient factor score', the latter being essentially a summary of a prisoner's criminal history. Carter and Wilkins found that decision makers were genuinely unaware of the criteria which they were using when making their decisions, and were vulnerable to criticism as a consequence. There were two ways of addressing such a problem, both pioneered by the authors. The first was an empirical analysis of past decisions, and this was the route taken in the 'guideline approach' where procedural codes were drafted. The second was the close and structured contemporaneous tracking of individual decision-making, particularly to be used as a training tool, and this led to the development of the DBA method.

The 'guideline approach' is only possible when a repository of data about factors leading to past decisions is available, which unfortunately does not appear to be the case with extant coroner research, due to decision outcomes being only recorded succinctly as short-form or narrative verdicts. These hold little by way of detailed information. Thus a central insight which underpins this research is that coroners are unable to introspect on the factors which are central to their decisions, or to compare how fellow coroners might deal with such factors. The lack of any systematic review process or relevant research material, outlined here, compounds the isolation in which coroners presently make their decisions.

Carter and Wilkins (1976) describe the two major components of DBA as gathering information preparatory to making a decision and arriving at a decision, thus providing a useful framework for this research. The Decision Board involves presenting a decision-maker with a set of information headings intended to exhaust (or virtually exhaust) the range of factors likely to be involved in making a decision and arrived at through content analysis of case records. Thus the decision-maker is faced with a set of categories (e.g. for this research, medical history, location of death, gender of deceased), choosing which categories to select as relevant and in which order of priority. When the decision-maker is ready, he or she is invited to record a decision (in this case as free text) and to add any explanatory notes that they wish to include.

Due to the strength of its application in previous research with decision-makers in professional settings (see for example Smith (1999 and 2008) and Pease, Billingham and Earnshaw et al (1975)), DBA was considered the most appropriate way by which to explore how coroners make inquest conclusion decisions (i.e. how they make specific choices). DBA was selected as a means of clarifying decision-making which acknowledges the professional expertise of the decision maker but which, in the light of the known heuristics and biases, would serve to advance understanding by breaking down the process of preparatory information gathering.

#### **7.5.1.1 Limitations of the Decision Board**

This thesis will celebrate the use of the Decision Board as a form of decision analysis, and indeed makes recommendations for its future use with coroners as an invaluable training tool. However, as with any assessment of decision-making there are weaknesses inherent in the method, particularly where the respondent and researcher are apart. In this case, the desire of the writer to reach as wide an audience as possible across the countries of England and Wales led to the adoption of an online Decision Board tool, MouselabWEB.

This remote methodology meant that there was no opportunity to conduct face to face discussions with respondent coroners and that they could not be observed during the process. Thus, the assessment of decision-making style could not include, for example, expansion or discussion regarding the thinking or nuances behind assumptions being made on receipt of the scenario information. Respondents may have wished to question the source of available information or to request more detail, although opportunity was afforded to comment on incomplete detail. The DBA might suggest, by the nature of opening a box and accessing a short factual statement, an equal weighting to the strength or veracity of the accessed information which may not reflect real life uncertainties. This 'salience weighting' of presented information may be a useful addition to future Decision Board developments, perhaps by assigning 'value' or 'probability' to the information presented. Similarly, the effects of a change of information could not be explored such as 'had the gender of the deceased been different might that have affected your thinking or your prioritisation of further information?'

The potential for alternative conclusions to be applicable in the circumstances revealed by the information categories was highlighted by the wide choice of alternatives proffered, and, in some cases, by free text comments indicating possible alternative conclusions. A personal interview approach may have offered an opportunity to measure

how closely an alternative conclusion might have been thought acceptable within the given information or to what extent a change to the presented information might have been needed to bring about an alternative decision. Without personal observation it was impossible to check whether respondents were indeed prioritising their access to the information categories in accordance with their structured thinking. Further, some respondents (n = 23) opened up the online Decision Board, entered their personal details but did not then go on to complete the exercise. Given their anonymity, it has not been possible to explore why this occurred.

Thus, the limitations of DBA are not dissimilar to other forms of decision analysis, particularly those using a remote methodology where the researcher cannot observe the decision-maker. However, the opportunity to examine the management of decision-relevant content by exploring styles for gathering and sequencing information as well as measuring the amount required and difficulty experienced in arriving at a decision makes the technique a powerful and appropriate decision-making research tool.

### **7.5.2 Decision Board Analysis in the 21<sup>st</sup> Century**

Refinements to the original Decision Board idea have included a move away from the traditional use of cards to the complete computerisation of the process and open-source web based software tools such as MouselabWEB, accessed here <http://www.mouselabweb.org/>.

MouselabWEB was found to be a straightforward programme for any respondent to use irrespective of the research context. Submitting the online questionnaire causes participant responses to be automatically sent to a 'datalyser' (the name used by the software developers) held by the researcher to access respondent answers and comments. The datalyser was password protected to preserve its integrity and details for this survey can be found at [www.ml.sjcox.co.uk/data](http://www.ml.sjcox.co.uk/data)

Using the MouselabWEB resource to develop a coroner specific DBA facilitated the development of the instrument as it allowed the use of the built in writing tools to create three scenarios as web pages following each other. The link to the survey was e-mailed by The Coroners Society (detail of how this became possible is outlined at 'distribution of the online questionnaire' following) to coronial post-holders in the following form - [www.ml.sjcox.co.uk/coroner](http://www.ml.sjcox.co.uk/coroner)

## **7.6 Developing a Decision Board for coronial decision-making**

### **7.6.1 The generation of coronial scenarios**

Having established that DBA was the most appropriate way in which to explore decision-making behind the inquest conclusions chosen by coroners, an immediate task was to develop valid inquest scenarios on the basis of which they would be asked to arrive at a conclusion.

Roberts, Gorodkin and Benbow (2000) examined the decision-making of coroners in relation to borderline natural cause cases. Here the authors circulated sixteen clinical scenarios, with causes of death, to all coroners in England and Wales. For each case they were asked to provide a verdict ('conclusion' is now the term used), with explanation. The deaths were arranged into three themes, postoperative; a combination of trauma and natural disease; and infectious disease, according to the authors' experiences of cases which could be difficult for practitioners to define as natural or otherwise. Considerable variation was found in the outcomes chosen by coroners for these cases, many of which were said to be common in clinical practice. There was near consensus (> 80% concordance) in only two of the sixteen cases and comments made for each case were said to indicate differences in the personal attitudes of each coroner.

Contact was made by the present writer with the authors in support of the development of research tools for this study. Discussions took place about the production of their questionnaire and what they had learnt from it in order to help develop the research tool presented here. A full copy of their respondent free text comments was shared, with permission to undertake secondary analysis if desired. That analysis does not form part of this thesis but was used to inform the research design, particularly in relation to the qualitative analysis of respondent comments. The writer is grateful for the openness and helpfulness of Roberts et al.

The sixteen clinical scenarios produced by Roberts et al (2000) provided a good starting point for this research. They were all based on cases from the authors' professional experiences as either a pathologist (Roberts, Benbow) or coroner (Gorodkin). The scenarios were succinct examples of cases that fell close to the borderline between natural and unnatural causes of death, causes of death were expressed in the standard pathologist's format, and the scenarios had been clustered into three major groups - deaths after surgery, deaths resulting from a combination of trauma and natural disease, and deaths resulting from infectious disease. The opportunity to replicate the published scenarios for this research meant that the scenarios here would be dealing with familiar ground ('common in clinical practice') and importantly, that the causes of death as

reported by the pathologist would be reproduced faithfully in the appropriate language of the pathologist as expected by the coroner. The sixteen scenarios had been used in exploring the potential for the alternative methodology of face to face interviews through a pilot study and had worked well (see Appendix H for a summary transcript of interview with serving coroner). Thus, it was decided to use the scenarios to produce the categories of information that would be necessary to create the Decision Board for this research.

It was decided to settle on three scenarios. This was for two main reasons, first, it would allow for selecting one scenario from each of the three clinical themes identified in the previous research (Roberts et al., 2000), thereby offering a range of different types of death, and second, that three scenarios could be replicated concisely enough for a web based survey whereby busy coroners would only be asked to spare a minimum of their time completing it. On the estimation that it would entail some five minutes per scenario, it was felt that potential respondents would be more likely to agree to a fifteen minute task, and that any more would be risking a poor response rate. This fear proved later to be well founded when the secretary of The Coroners Society confirmed that the online link had been circulated to coronial post-holders but warned "*I cannot guarantee the response on a recent survey I have conducted after a week we had 24 responses out of 400. Coroners are busy and only a limited few will have the time and inclination to assist given the priority to our statutory duties*" (Rebello, personal communication (e-mail) 3<sup>rd</sup> December 2013). This research actually fared slightly better with the responses to the three scenarios varying from 35 to 32 respondents.

### **7.6.2 The categories of information**

Three scenarios were selected, one from each of the three clinical themes. The selection of one scenario from each theme was truly random, in the sense that this research had no requirement to explore any particular type of clinical scenario to the exclusion of others, but the opportunity to select from the three different themes meant the survey could cover different typical case scenarios expected at inquest. The information contained within the scenarios could be reproduced in full by using six information categories with the following titles;

- Age of deceased;
- Gender of deceased;
- Location of death;

- Background information (later changed to 'medical history' after pilot testing);
- Investigation Outcomes (later changed to 'information revealed by investigation' after pilot testing);
- Cause of death given by pathologist.

From discussions with coroners, and to properly reflect all the categories of information a coroner's inquest might deal with in reality, three further categories were added, making nine in total;

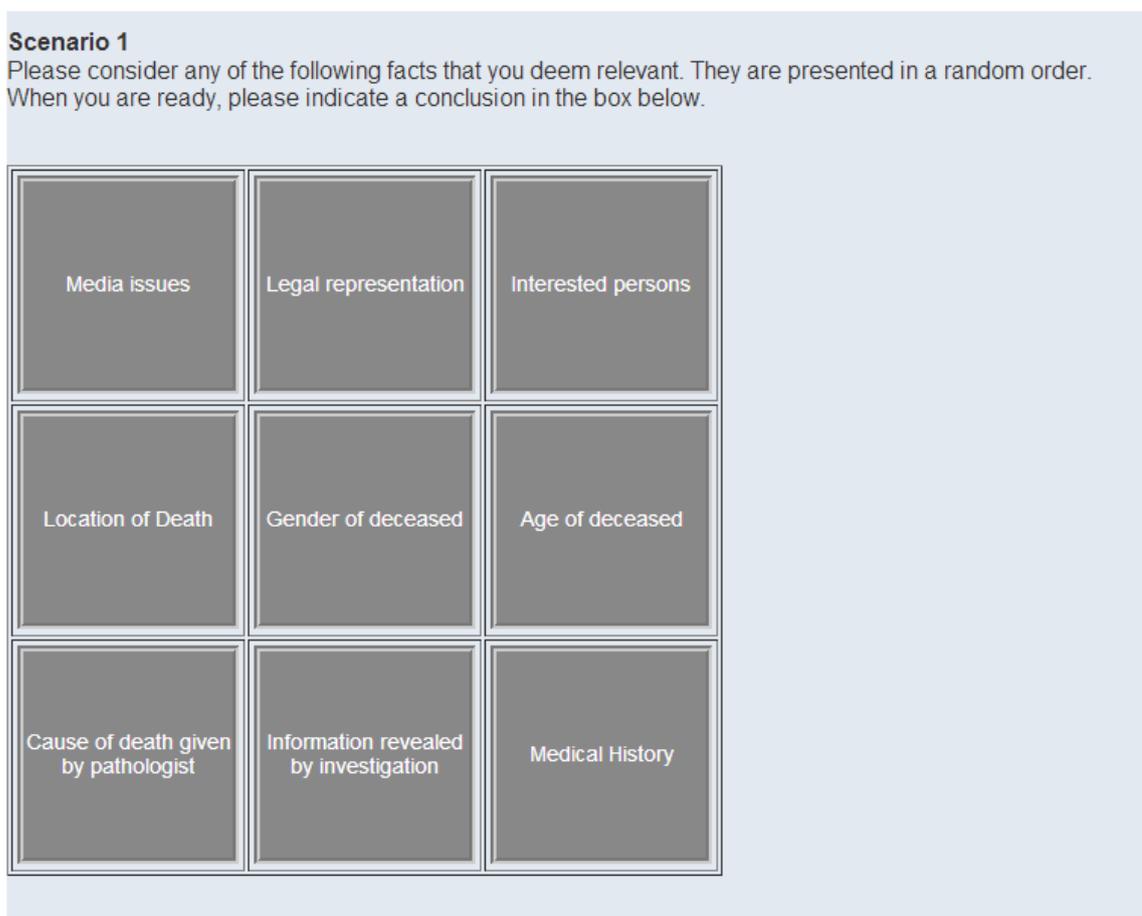
- Interested persons;
- Legal representation;
- Media issues.

The particular interest was that the three added categories represent what might be called 'external factors' in coronial decision-making. They were not thought relevant in the previously published paper (Roberts et al. 2000), which did not seek to break down information management prior to making a decision, and there is no doubt that a conclusion can be arrived at without reference to the additional three categories. However, this research aimed to replicate all the information categories to be considered by a coroner in a typical inquest and following discussions with coroners it was felt that the additional three factors were important normal factors commonly experienced in an investigation. The scenarios were thus to have a total of nine identical information categories (titles) each.

The coronial scenarios are therefore thought to be internally valid, in that they faithfully reproduce the range of issues previously used to test a coroner's decision-making and published in a relevant professional journal, supported by some additional material that is likely to feature in such investigations. They were developed and chosen from both empirical research and discussions with coroners and no suggestions were made at any time to add any further categories during subsequent pilot testing. Indeed, when final responses were received there were no suggestions from respondents of further information categories being required, despite the opportunity in free text to state whether any information may have been missing. However, necessary brevity is accepted as a weakness of the methodology given that respondents had no opportunity to delve further into the detail of information provided. Some respondents did comment on how brief the provided information was and this issue is explored later in the thesis.

The remote online style of data collection did also mean that there was no opportunity to engage the participant in discussion although this was a necessary compromise to achieve a geographic spread and access to a large number of respondents.

The content of the information did not change through pilot testing, although it should be noted as above that two of the nine information category 'box titles' were changed after pilot testing (see 'The Pilot' section following). The information contained within each of the three scenarios is reproduced in full below the following screen shot (Figure 15) which shows how the screen appeared to respondents;



**Figure 15 Screen shot - scenarios**

**Scenario 1**

**Box title**

**Information revealed**

Age

61 years

Gender	Female
Location	Hospital
Medical History	Died 4 days after having a total hip replacement for severe osteoarthritis
Information revealed by investigation	No evidence at post-mortem of operative mismanagement
Cause of death given by pathologist	1a; bronchopneumonia, 1b; immobilisation, 1c; Total hip replacement for osteoarthritis
Interested persons	Family are upset at what they see as a cover up by the hospital
Legal Representation	None
Media issues	Family active in local newspaper expressing distress at what they see as a cover up by the hospital

## **Scenario 2**

<b>Box title</b>	<b>Information revealed</b>
Age	84 years
Gender	Female
Location	Hospital
Medical history	Dies of bronchopneumonia 3 days after admission to hospital with fractured neck of femur
Information revealed by investigation	Fell at home and suffered a fractured neck of femur. At post-mortem examination they were found to have severe osteoporosis

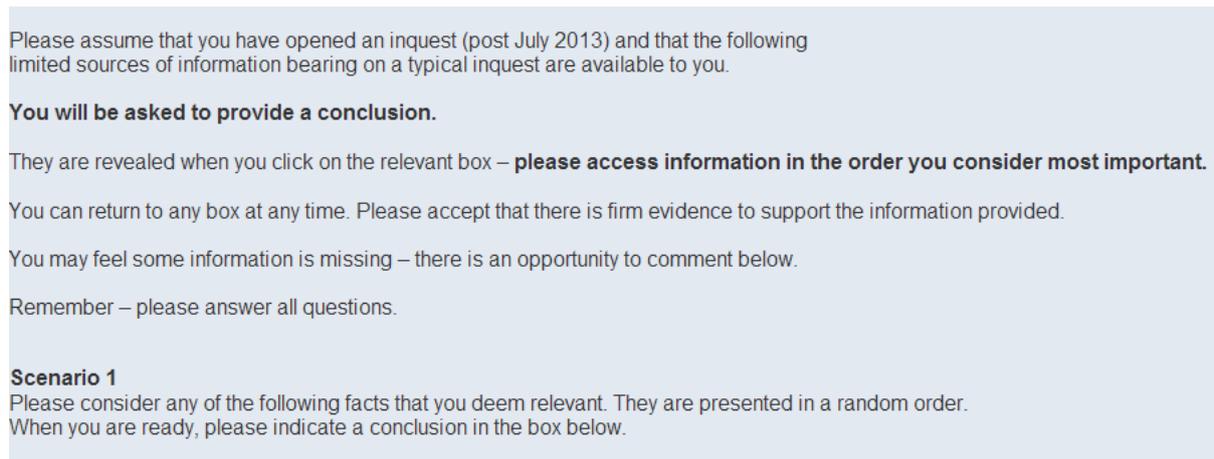
Cause of death given by pathologist	1a; bronchopneumonia, 1b; immobilisation after femoral fracture, 1c; osteoporosis and fall
Interested persons	Family in court, no issues
Legal Representation	Nil
Media issues	Nil

### **Scenario 3**

<b>Box title</b>	<b>Information revealed</b>
Age	38 years
Gender	Male
Location	At home
Medical History	Dies from hepatitis B virus associated cirrhosis of the liver
Information revealed by investigation	Known to have been an intravenous drug addict in the past and this is believed to be the source of the hepatitis B infection
Cause of death given by pathologist	1a; hepatic cirrhosis, 1b; Hepatitis B virus infection, 1c; intravenous drug abuse
Interested persons	None apparent
Legal representation	Nil
Media issues	Local press in Court – nothing raised

It is important to note here that the order of information boxes was randomised and therefore appeared differently for each scenario and each participant. Randomisation

was considered to be very important in terms of drawing any inference from the order in which information was accessed by respondents. The software allowed a randomising of the nine information boxes every time the web link was accessed on screen or when the screen was refreshed. The instructions to participants were also clear that they were being asked to **access information in the order you consider most important**. The following screen shot (Figure 16) shows the instructions to participants which were repeated above each of the three scenarios;



**Figure 16 Screen shot – instructions to participants**

### **7.6.3 Measuring the difficulty in reaching a conclusion**

Participants were asked to state how difficult they had found arriving at a conclusion for each of the scenarios. To quantify this difficulty a Likert scale was used ranging from 1 (very easy) to 5 (very difficult), operated by the respondent's choice of radio button, shown at Figure 17. This had the advantage of making coding and subsequent computer analysis "a fairly simple task" (Bryman, 2001 p.134). Opportunities for in-depth qualitative analysis were also afforded by the inclusion of a follow up free text question inviting respondents to explain the difficulty rating they had selected.

On a scale of 1 to 5, where 1 is very easy and 5 is very difficult, and based on the facts alone, how difficult did you find this decision?

1                      2                      3                      4                      5  
                                                                                          
Very easy                      Easy                      Neutral                      Difficult                      Very difficult

Do you have any comments that might explain your difficulty rating?

**Figure 17 Screen shot – difficulty scale**

The use of such a rating scale and free text answer provided much scope for further analysis. First, a simple mean of the difficulty scores by scenario would identify which of the three scenarios had been the most challenging for a coroner to determine a conclusion. It is accepted that with a scenario sample size so small, conclusions are difficult to draw. In the event, there was little to choose between the three with very similar mean difficulty scores being calculated for each scenario. Further analysis, reported at Chapter 8, included the opportunity to explore relationships between respondents reported experience, their gender, the number of boxes they opened and their choice of particular conclusions with reported difficulty ratings. Free text comments in relation to difficulty tended to range from the identification of missing or insufficient detail to expressions of confidence, on occasions based on the stated experience of the respondent in dealing with such scenarios.

## **7.7 The Pilot**

Existing coroners were approached and some agreed to informal discussions about their role and the nature of coronial decision-making. One option therefore was to spend more time with those few individuals in seeking to understand decision-making in their professional capacity. However, there was a disadvantage in that conversations with the writer had taken place with all of them at some time during this research in an effort to seek guidance on methods of working and factors that played into their personal decision-making styles. In those informal discussions, aspects of particular interest would have been revealed which were arising from the writer's research. It was felt important to avoid the potential for an in-depth discussion where a coroner, through previous discussions, might anticipate a challenge or seek to impose a particular view formed from what the coroner might believe the research was seeking. An example of

this could have been the suggestion that deaths of men and women might be treated differently. An interviewee particularly attuned to that hypothesis may not have reacted to information or questioning as naturally as they might otherwise.

Pilot testing the MouselabWEB scenarios was imperative, particularly in terms of making sure the language used was appropriate and that the scenarios presented were realistic and common enough for participants to identify with them. A decision was taken to run two different pilot tests, one with a coroner and one with a very experienced coroner's officer who fully understood the nature of a coroner's work. The web links were sent and face to face appointments made in order that the two pilot participants could be observed while completing the DBA and that their feedback would be immediate.

There were no amendments suggested by the coroner's officer. The pilot testing with the coroner proved extremely productive with regard to significant additions and amendments being made as a result of a run through of the instrument. The amendments are set out below in the order in which they appear on the instrument which has four pages in total – one for the introduction and gathering of brief personal detail from the respondent and the following three, one for each of the coronial scenarios with instructions for completion. There were no amendments to page one but the following changes (shown below Figure 18, and discussed in the following text) were made for pages two, three and four;

Please assume that you have opened an inquest (post July 2013) and that the following limited sources of information bearing on a typical inquest are available to you.

**You will be asked to provide a conclusion.**

They are revealed when you click on the relevant box – **please access information in the order you consider most important.**

You can return to any box at any time. Please accept that there is firm evidence to support the information provided.

You may feel some information is missing – there is an opportunity to comment below.

Remember – please answer all questions.

#### **Scenario 1**

Please consider any of the following facts that you deem relevant. They are presented in a random order. When you are ready, please indicate a conclusion in the box below.

Age of deceased	Location of Death	Gender of deceased
Medical History	Cause of death given by pathologist	Information revealed by investigation
Interested persons	Media issues	Legal representation

Given the circumstances at inquest outlined in scenario 1, what is your conclusion?

Please add any comments that might explain your conclusion

On a scale of 1 to 5, where 1 is very easy and 5 is very difficult, and based on the facts alone, how difficult did you find this decision?

1 Very easy     
 2 Easy     
 3 Neutral     
 4 Difficult     
 5 Very difficult

Do you have any comments that might explain your difficulty rating?

Are there any alternative conclusions open to you? if so, what?

Do you have any further comments? Were any facts particularly persuasive? Were any facts missing?

**Figure 18 Screen shot page 2 – as distributed (identical for p3, p4 other than scenario number)**

The pilot coroner pointed out that, as new coroners rules and regulations had just come into force in July 2013 (The Coroners (Investigations) Regulations 2013 (SI no.1629) and The Coroners (Inquests) Rules 2013 (SI no. 1616)), the questionnaire should advise the participant that current legislation should apply. In particular the new Rules referred to 'conclusions' rather than 'verdicts' and had created a new set of nine short-form conclusions as well as the narrative conclusion. Hence the beginning of the scenario web page was amended to read '*...opened an inquest (post July 2013) and that the following .....*' The next line was amended to state '*conclusion*' rather than verdict, thus '*You will be asked to provide a conclusion*'.

The coroner also felt that the participant should be advised before accessing the scenario that they might feel some information was missing, hence the line was added '*You may feel some information is missing – there is an opportunity to comment below.*'

Moving then to the information boxes, it was suggested that the information behind each box for 'background information' was in fact more likely to be perceived by a participating coroner as '*medical history*' and this observation led to the box title being changed accordingly. Further, the coroner felt that the box title 'Investigation outcomes' would be better recognised by his colleagues as '*Information revealed by investigation*' hence that change of box title was also made.

Following consideration of the section of the page which invites respondent answers and comments, the first question '*...what is your conclusion*' was changed from 'verdict', and similarly with the replacement of 'verdict' in the second question – '*...explain your conclusion*'. The text of the question and the radio buttons with which to express the level of difficulty were not changed nor was the invitation to provide comments to explain the difficulty rating.

The original design then had just one further box inviting 'any further comments?' whereas the pilot coroner suggested additional free text questions might be appropriate. It was felt that there was an opportunity here to explore what the alternative conclusions might be, hence the penultimate question shown above. This fitted well with the aims of the research given that it was about the propensity of coroners to arrive at different conclusions despite having the same facts before them and had the potential to make the quantitative analysis richer as well as encouraging possible comment from coroners on why more than one conclusion might be appropriate with the given facts. This feedback led to the additional question of '*Are there any alternative conclusions open to you? If so, what?*' being eventually included.

Finally, the last question of 'Do you have any further comments?' was expanded to include (as above) '*Were any facts particularly persuasive?*' and '*Were any facts missing?*' again with a view to teasing out potentially rich data in terms of thought processes and decision-making styles. The pilot testing was invaluable as of course a balance had to be struck between seeking rich detailed responses and not over-stepping the mark to a point beyond which a coroner respondent would not remain interested in completing the Decision Board fully. By default, the software required that any included questions must have an answer inserted. Therefore there was always a trade-off between simple one-word answer questions and those inviting greater detail in response. The view of a practising coroner was crucial in achieving this balance. It was felt that the whole questionnaire could be completed in something around fifteen minutes which felt appropriate in terms of maintaining interest with a potential participant.

A decision had to be made as to whether to include a practice test at the beginning of the instrument in order to orientate the potential participants. The DBA software had an example test on its website that was given due consideration but its disadvantage was that it presented a choice of only two options, 'item A' or 'item B', after revealing a series of facts about the two items by clicking on the box titles. Thus it was a straight choice between two variables after having considered a number of facts about those variables (the example is a choice between two cameras with varying technical specifications and prices). This 'A' or 'B' choice did not reflect the nature of the decisions coroners were being asked to undertake here. Participants here were being invited to complete in free text what decision they would make rather than a choice between variables already provided (which, as one or another choice of conclusion, would clearly not have been appropriate). The example embedded in the software website was therefore discounted, due to the risk that respondents would in fact be orientated to a survey with limited defined choices and without free text options. The research design therefore required a decision as to whether to develop and include a bespoke 'practice test' for participant orientation purposes. After discussion with the piloting coroner, it was agreed that the Decision Board was suitably clear and straight-forward enough for respondents to go straight into the scenarios and accompanying questions. Further, there could have been a temptation to include any 'example case' in subsequent analysis given that exactly the same considerations would be tested as the actual scenarios that followed. It may have been a source of real frustration had the example case revealed more issues around decision-making than the actual cases under analysis, with ethical problems following about the appropriateness of analysis and inference from a test example. Hence, the decision was taken not to include a test example and to orientate coroner participants straight to the three scenarios under review.

## 7.8 Distribution of the Decision Board

Initial contact had been made by e-mail to the Honorary Secretary of The Coroners Society on 8<sup>th</sup> October 2013 in the form of an introduction and a query as to whether the Society would be prepared to send out an e-mail link to all senior coroners introducing the research. The full text of this initial contact is reproduced at Appendix I. There were 98 senior coroners in England and Wales at that time and it was envisaged that they would be the recipients of the DBA with responses being anonymous and held securely by the University of Huddersfield. The secretary responded in the following terms "Yes – *happy to circulate this but I have no control over whether anyone replies – coroners are very busy – if you send me the link I will do the rest*" (Rebello, personal communication (e-mail) 8<sup>th</sup> October 2013).

Following University of Huddersfield (School of Human and Health Sciences) Ethics Panel approval and final amendments as above, as well as producing the participant's information sheet/consent form (see Appendix G), the completed link and information sheet was sent to The Coroners Society on the 1<sup>st</sup> December 2013 with a request for circulation to coroners in England and Wales. A final response date of Monday 16<sup>th</sup> December 2013 was included in an effort to encourage participants to undertake the Decision Board Analysis on receipt rather than leaving it until later. On the 3<sup>rd</sup> December the secretary responded by e-mail in the following form – "*Max, this is now circulated – I cannot guarantee the response on a recent survey I have conducted after a week we had 24 responses out of 400*". Mr Rebello was referring here to all coronial post-holders - around 400 - rather than the senior coroners in each area which at the time were 98 individuals covering 114 coroner areas. He continued "*Coroners are busy and only a limited view will have the time and inclination to assist given the priority to our statutory duties*". A copy of the circulation was requested but the response was that the Society had in effect circulated the writer's e-mail of 1<sup>st</sup> December and that "*it went from our website to every coronial office holder 400+ there is no list.*" (Rebello, personal communication (e-mail) 3<sup>rd</sup> December 2013)

To increase participation it was decided to extend the finalisation timescale from Monday 16<sup>th</sup> December to Friday 20<sup>th</sup> December and with a request to consider re-circulating the online link and participant information sheet as a reminder to coroners that they had the rest of the week to participate if they so chose. The Secretary responded the same day to confirm that he had indeed done this. However, analysis does show that only one more response was received beyond the 16<sup>th</sup> December 2013 and so the vast majority of those coroners wishing to participate had already done so by the time of the original deadline. The first participant submitted responses at 1825 on Tuesday 3<sup>rd</sup> December

2013 and the last at 2113 on Tuesday 17<sup>th</sup> December 2013. Results are reported in full at Chapter 8.

### **7.8.1 Participant sample demographics**

The focus of the original request to the Honorary Secretary was that senior coroners should be the main recipients (although colleagues authorised to act as deputy coroners were also encouraged to participate) and the information sheet/consent form attached to the e-mail link also pointed the survey towards senior coroners in the section 'why have I been approached?' As the survey was anonymous there is no way of telling who actually filled in the forms and pressed submit, although all participants did provide the three personal details at page 1 of their gender, length of experience as a coroner and qualification to practice. Of the 58 who opened up the survey and completed page 1, only 35 went on to complete at least question 1, with 34 of those 35 completing question 2 and 32 of those 35 completing question 3. It is not possible to establish why this reduction in the completion rate occurred. One possible reason is that a proportion of those who originally intended to complete the survey, and began by filling in personal information at page 1, then decided against proceeding further once the scenarios were accessed. Unfortunately, the writer is unable to exclude other reasons such as a failure of the software to capture responses from a proportion of respondents, although there is nothing to suggest that this may have happened. All coroners who accessed the survey had the writer's contact details on the participant information sheet and no contact with the writer was sought by any participant. Details of the personal characteristics reported by respondents are shown at Chapter 8.

Ninety-eight senior coroners were in post at the time the survey was circulated, if all respondents are senior coroners then the usable response rate is a third of all those incumbent post-holders. However the link was sent to all coronial post-holders by the Coroner's Society, numbering 400 + according to their Honorary Secretary, therefore a response rate of just under 10% is reported at Chapter 8 for those fully completing the questionnaire.

## **7.9 Method for analysis of responses**

### **7.9.1 MouselabWEB**

MouselabWEB is a freeware web-based process tracing instrument that can be used to monitor the information acquisition process of decision makers. Users can design their own scenario/questionnaire using the software tools and the experiment can then be sent to participants as a web link for online completion, as in this case. The responses are collated in a 'datalyser' available online to the researcher and which in this case was password protected. Participants to this study were not asked to identify themselves and they remain anonymous to the researcher.

The Decision Board had four web pages; the first (Test 0 page) contained basic details of the experiment and asked for brief details of participants' gender, number of years as a coroner and their qualification to act as a coroner. The second, third and fourth pages contained the three scenarios that participants were asked to consider and respond to.

Appendix J (i) shows a screen shot of the datalyser file containing, for illustration purposes, the first six actions recorded for the first respondent to complete Scenario 1 and Appendix J (ii) contains an explanation of each field in the datalyser files for page 1 (participant details) and pages 2, 3 and 4 (the three scenarios). The screen shot has been split into two in order to show all the fields, which stretch beyond a single computer screen page. Data were subsequently exported from the datalyser for analysis in Excel.

### **7.9.2 Coroner test 0 page**

'Test 0' is the first page of the experiment containing some basic information about the survey and asking for some brief non-identifiable demographic details from the coroner participant. To illustrate, Appendix K (i) shows a screen shot from the datalyser file with the first five participants to open up the survey and complete page 1 (in the event only three of those five shown here went on to complete the scenario questions). Second, Appendix K (ii) shows an explanation of all the datalyser fields for page 1 of the survey (coroner decision 'test 0').

As previously stated the experiment ran for a two week period, 3<sup>rd</sup> December 2013 to 17<sup>th</sup> December 2013, and captured responses from 35 coroner participants to question 1, of which 34 completed question 2 and 32 completed question 3. The responses offered opportunities for both quantitative analysis and qualitative analysis, the methodologies for which are addressed next.

## 7.10 Quantitative research

### 7.10.1 Hypotheses

The previous data analysis reported at Chapters 4, 5 and 6, showing evidence of local variation in coroner decision outcomes, had led to a desire to replicate a coroner's typical real-life decision factors over more than one case scenario in order to identify any outcome variation (particularly between coroners for the same case scenarios), measure it and, if possible, compare with the previous analysis. Additionally (and crucially), the writer wanted better to understand the way in which coroners approached their decision-making to see whether a difference in approach might explain a difference in outcome. The focus therefore was about **variation between individual coroners**, rather than an exploration of difference between scenario types.

Thus, the quantitative analysis was structured in terms of addressing the following five questions;

1. Would the **choice of conclusion** vary between coroners?
2. Would the **number of information categories read** before arriving at a conclusion vary between coroners?
3. Would the **order in which information was read** vary between coroners?
4. Would **which information categories were read prior to a decision** vary between coroners?
5. Would the **difficulty expressed** in arriving at a conclusion vary between coroners?

The source of data was the datalyser response files which met the information requirements of the five questions and allowed for additional analysis in support of the overall aim of gaining a better understanding of the coroner's decision-making style. The key quantitative variables which could be drawn from the datalyser are explained at Table 14.

### 7.10.2 The quantitative research variables

**Table 14 Quantitative research variables**

<b>Variable</b>	<b>Further detail</b>
The respondents	All coroners capable of making the decisions requested of them in this test. Self-reported on their gender, experience in role and nature of their qualifications to act as coroner. Otherwise anonymous, although IP addresses are recorded by the software. Accessed through The Coroners Society who confirm the link was posted personally to all coronial post-holders
The 3 scenarios	Three different fictitious scenarios requiring the coroner's conclusion (verdict), all chosen as realistic depictions of a coroner's typical caseload. Case 1 involved a 61 year old lady dying in hospital of bronchopneumonia after a hip operation, case 2 an 84 year old lady dying in hospital of bronchopneumonia after a fall had precipitated a broken hip, and case 3 a 38 year old male dying at home of hepatic cirrhosis after intravenous drug use. The coroner was asked to consider that they had opened an inquest (post July 2013) and that information following was available to them
The 9 categories of information	9 limited sources of information bearing on a typical inquest available to the respondent if they wished, and intended to assist them to come to a conclusion at inquest. Categories were age, cause of death, gender, information revealed by

	investigation, interested persons, legal representation, location of death, media issues and medical history
The conclusion	The decision taken in each case by the respondent. In the form of either a 'short-form' conclusion or a narrative. Very occasionally a respondent chose not to provide a conclusion on the basis of missing information. Where desired on the part of the respondent they were also able to provide alternative conclusions which were captured
The number of categories selected	The total number of categories each respondent selected before arriving at a conclusion on each case
The actual categories selected	The categories that were most often selected by respondents before arriving at a conclusion on each case. Repeat selections of the same information category were often made
The order of categories selected	The order in which the categories of information were selected by the respondents during the decision-making process for each case
Difficulty of decision-making	Position indicated on a scale of 1 to 5 by each respondent regarding how easy or difficult the decision for each case was to make

### 7.10.3 Statistical techniques to explore relationships among variables

All statistical tests intended to identify possible relationships between data variables were conducted in SPSS and in accordance with the advice set out by Pallant (2010) according to the nature of those variables. Chapter 8 contains five such statistical tests conducted a total of 19 times. Table 15 outlines each test used, the justification for the use of each of those tests and its location within the chapter.

**Table 15 Statistical techniques used to analyse DBA responses**

<b>Statistical technique</b>	<b>Data Variables</b>	<b>Justification</b>	<b>Paragraph</b>
<b>Chi Square test for independence</b> <i>Relationship between two categorical variables</i>	Scenarios (S) 1,2,3:  1. Gender of respondent  2. Choice of conclusion	1. Gender is a categorical variable (M/F)  2. Conclusion is a categorical variable (between 5 and 8 results)	8.2.1.2 (S1)  8.2.1.8 (S2)  8.2.1.14 (S3)
	S1, S2, S3:  1. Gender of respondent  2. Choice of modal verdict?	1. Gender as above  2. Modal verdict is a categorical variable (Y/N)  <i>(phi coefficient used for 2 x 2 table)</i>	8.2.1.3 (S1)  8.2.1.10 (S2)  8.2.1.16 (S3)
	S1, S2, S3:  1. First choice of information category  2. Choice of conclusion	1. 'First choice of information category' (numerically represented) is a categorical, but not ordinal, variable	8.2.3.5 (S1, S2, S3)

		2. Conclusion as above	
	S1, S2, S3: 1. Gender of the respondent 2. Reported difficulty level	1. Gender as above 2. Difficulty level is a categorical (ordinal) variable	8.2.5.3 (S1, S2, S3)
<b>One – way analysis of variance</b> <i>Comparing the mean scores of more than two groups</i>	S1, S2, S3: 1. Choice of conclusion 2. Respondent experience in years	1. Conclusion as above 2. 'Respondent experience in years' is a continuous variable ranging from 1 year to 41 years with 22 different responses	8.2.1.4 (S1) 8.2.1.9 (S2) 8.2.1.15 (S3)
	S1, S2, S3: 1. First choice of information category 2. Respondent experience in years	1. 'First choice of information category' as above 2. 'Respondent experience in years' as above	8.2.3.5 (S1, S2, S3)
<b>Independent-samples t-test</b> <i>Comparing the mean scores, on some continuous variable, of two different groups</i>	S1, S2, S3: 1. Respondent experience in years 2. Choice of modal verdict?	1. 'Respondent experience in years' as above 2. 'Choice of modal verdict?' as above	8.2.1.4 (S1) 8.2.1.10 (S2) 8.2.1.16 (S3)
<b>Pearson product-moment correlation</b>	S1, S2, S3: 1. Number of	1. Number of information items chosen is a	8.2.2.4 (S1, S2, S3)

<p><b>coefficient</b></p> <p><i>Strength and direction of linear relationship between two continuous variables</i></p>	<p>information items chosen <i>for each scenario</i></p>	<p>continuous variable ranging from 5 to 34</p>	
	<p>S1, S2, S3:</p> <p>1. Number of information items chosen</p> <p>2. Respondent experience in years</p>	<p>1. 'Number of information items chosen' as above</p> <p>2. 'Respondent experience in years' as above</p>	<p>8.2.2.4 (S1, S2, S3)</p>
<p><b>Kendall's Tau-b non-parametric correlation coefficient</b></p> <p><i>Strength and direction of linear relationship between two variables not continuous</i></p>	<p>S1, S2, S3:</p> <p>1. Number of information items chosen for each scenario</p> <p>2. Reported difficulty level</p>	<p>1. 'Number of information items chosen' as above</p> <p>2. 'Difficulty level' as above</p>	<p>8.2.2.5 and 8.2.5.2 (S1, S2, S3)</p>
	<p>S1, S2, S3:</p> <p>1. Respondent experience in years</p> <p>2. Reported difficulty level</p>	<p>1. 'Respondent experience in years' as above</p> <p>2. 'Difficulty level' as above</p>	<p>8.2.5.3 (S1, S2, S3)</p>

## 7.11 Qualitative research

The Decision Board afforded opportunities for free text comment by the respondents if they so chose. With the exception perhaps of the first free text question: '*given the circumstances at inquest outlined in scenario 1 (or 2 or 3), what is your conclusion?*' the four other free text questions were opportunities to elucidate on the respondent's decision-making process. The first free text question referred to as above might more properly be considered quantitative in that the respondent is restricted in terms of their answer and the question is posed in a structured manner to "*examine the precise concepts and issues that are the focus of the study*" i.e. the decision outcome (Bryman, 2001 p.285). The third question below, inviting the respondent to state an alternative conclusion if appropriate, might also be considered quantitative for the same reasons, however some respondents used this question as an opportunity to expand on their thinking around alternatives and useful qualitative insight was therefore gained.

Thus, the qualitative research questions for each scenario are as follows;

- Please add any comments that might explain your conclusion
- Do you have any comments that might explain your difficulty rating?
- Are there any alternative conclusions open to you? If so, what?
- Do you have any further comments? Were any facts particularly persuasive? Were any facts missing?

In practice respondents tended to take the opportunity to add comments for the first and third questions, i.e. comments to explain their chosen conclusion and possible alternatives. The number of respondents who completed free text comments for each of the four questions and over the three scenarios is shown at Chapter 8, Table 15.

### 7.11.1 Qualitative content analysis

Regarding variation between individual coroners, the free text was most useful in drawing out the reasoning behind the decision-making processes of the coroner participant. The focus was on how difference in approach to decision-making might affect the outcome. The free text comments were grouped by the writer according to the conclusion reached by the participant and examined for themes to be compared against comments leading to other conclusions. A separate Excel spreadsheet was created for all responses to each question according to the first choice of conclusion. All free text comments could then be examined (by conclusion chosen) and distinguishing themes

identified. A theme was defined for the purposes of this research as *“any linked issue being raised by more than one respondent, according to the writer’s recognition of significance in the context in which an item being analysed appeared”* (Bryman, 2001 p.180). So for example, for Scenario 3 (the death involving intravenous drug use), four coroners, of nine in total, who chose ‘drugs death’ as the appropriate conclusion specifically referred to the *“evidence of drug use”* as being relevant to their final decision, thus providing a *theme* in support of that conclusion.

In order that the product of free text comment could be respondent led, this qualitative content analysis approach was not rigid in the sense that categories of extracted themes were pre-determined by the writer, nor was every free text comment required to be placed in any particular pre-determined thematic category. The hypotheses had no specific evidence of any information-handling bias by coroners to seek to identify or discount. Themes were allowed to emerge as a result of the careful reading and comparison of all free text comments in the context of the scenario detail, on occasions recognising that some comments were more nuanced than others (e.g. *“if the evidence establishes on the balance of probability that the Hep B and the cirrhosis arose from drug abuse then this is a straightforward case”*). Such flexibility between conceptualisation, data collection, analysis and interpretation with potential for the constant refinement of categories is described by Altheide and Schneider (2013) as ethnographic content analysis, differing from traditional quantitative content analysis in that the researcher is constantly revising the categories distilled from the examination of documents by searching for context and underlying meanings. In this research, no face to face contact with respondents was possible and so the information collated in the datalyser was analysed in the form of an independent document. This content analysis revealed salient information factors as reported by coroners in relation to their outcome decision. The results are reported at Chapter 8.

## **Chapter 8**

### **Results of Decision Board Analysis**

#### **8.1 Participant sample demographics**

The Decision Board Analysis (DBA), comprising three scenarios for decision as to inquest conclusion, was circulated to participants via The Coroners Society as described in Chapter 7. A request was made that senior coroners should be the main recipients. As the survey promised anonymity there was no definitive way of knowing who completed and submitted the response, although all participants did complete the three personal questions requested on the first page of their gender, length of experience as a coroner and qualification to practice.

Fifty-eight participants initially opened the link to the DBA and at least completed the first page. Of these, 72% (n=42) were male and 28% (n=16) female. The stated average years experience as a coroner ranged from one year to 41 years with a mean of 11.6 years (Mdn=8, SD 10.3) for male participants and 8.6 years (Mdn=8, SD 6.5) for female participants. Of the 58, 78% (n=45) stated they were legally qualified (12 women), 5% (n=3) stated they were medically qualified (1 woman) and 17% (n=10) stated they were qualified by both legal and medical criteria (3 women).

However, of the initial 58 that opened the survey, only 60% (n=35) went on to complete at least question 1, with 97% (n=34) of those 35 completing question 2 and 91% (n=32) of those 35 completing question 3. Analyses of those who went on to at least partially complete the exercise revealed 69% were men (n=24) and 31% (n=11) women with 71% (n=25) legally qualified (9 women), 9% (n=3) medically qualified (1 woman) and 20% (n=7) qualified by both criteria (1 woman). The stated average years experience as a coroner for those 35 respondents ranged from one year to 41 years with a mean of 15 years (Mdn=14, SD 11.2) for male respondents and 7.4 years (Mdn=6, SD 6.5) for female respondents.

Ninety-eight senior coroners were in post at the time the survey was circulated, if all respondents are senior coroners then the return is a third of all those post-holders. However the link was sent to all coronial post-holders by The Coroners Society, numbering 400 + according to their Honorary Secretary, so a response rate of just fewer than 10% is reported for those fully completing the questionnaire. The distribution method used was aimed at the entire available coroner population, in the sense that every coronial post-holder in England and Wales capable of making the decisions subject of this research was invited to respond. In the event, response rates were always at the mercy of the individual coroner who would have received the e-mail invitation to

consider participation. The online link was forwarded by The Coroners Society which, although the Society could not require participation, may have helped establish the legitimacy of the research request in the recipient's mind.

Bryman (2012, cited in Baker and Edwards, 2012) proposes five factors for reflection when considering (or indeed justifying) a sample size: *Saturation*, in terms of theoretical insights, which was attempted here by a circulation to every coronial post-holder in England and Wales; a suggested *minimum requirement* which, he points out, varies between different authors (and examiners) as somewhere between 20-30 versus 60-150 (a study by Mason (2010, cited in Baker and Edwards, 2012) found a mean of 31 interviews by examining doctoral thesis abstracts in Great Britain and Ireland – this research achieved 35); the *theoretical underpinnings* of the study, which for this research related to the real-life decisions that coroners would be expected to make in post and thereby defines the overall population to incumbent post-holders; the *heterogeneity of the population*, which for this research as a study of variation was crucial to capture, hence the distribution of the DBA to every coronial post-holder rather than a selected cohort, and the capture of varied respondent characteristics in terms of gender, experience in role and qualification to hold the position; and finally the *breadth and scope of research questions*, which for this research narrowed the participant pool to coroners in post.

For sample size, Adler and Adler (2012, cited in Baker and Edwards, 2012) propose an adequate 'best bet' in the broad range of between a dozen and 60 (this research had 58 initial participants), with 30 being the mean (this research had 35 - 32 respondents completing in full). The variation in analysed responses reported later here, and additional qualitative respondent comment, is presented as sufficient to consider that the sample size of 35 - 32 respondents may be representative of coronial post-holders as a whole.

The responses were all submitted from computers with different IP addresses. Whilst this does not rule out that senior coroners and their deputies from the same area were the actual respondents, it does at least suggest that coroners were responding from their own computer terminal and had the authority to make the decisions on behalf of their jurisdiction.

### **8.1.1 Decision-making style**

Analysis of responses sought to answer five questions in an effort to better understand the decision-making processes of the coroner participant.

To re-state, the five questions were as follows;

1. Would the **choice of conclusion** vary between coroners?
2. Would the **number of information categories read** before arriving at a conclusion vary between coroners?
3. Would the **order in which information was read** vary between coroners?
4. Would **which information categories were read prior to a decision** vary between coroners?
5. Would the **difficulty expressed** in arriving at a conclusion vary between coroners?

The DBA instrument offered opportunities for free text comment by the respondents if they so chose. With the exception perhaps of the first free text question: '*given the circumstances at inquest outlined in scenario 1 (or 2 or 3), what is your conclusion?*' the four other free text questions were opportunities to elucidate on the respondents decision-making process.

Thus, as stated at Chapter 7, the four qualitative questions for each scenario are as follows;

- (1) Please add any comments that might explain your conclusion
- (2) Do you have any comments that might explain your difficulty rating?
- (3) Are there any alternative conclusions open to you? If so, what?
- (4) Do you have any further comments? Were any facts particularly persuasive? Were any facts missing?

In practice respondents tended mostly to take the opportunity to add comments for the first and third questions, i.e. comments to explain their chosen conclusion and possible alternatives. For the four qualitative questions mean response rates were, in descending order, 93% for question 3, 78% for question 1, 56% for question 4 and 42% for question 2. The fact that less than half of respondents chose to add comments to explain their choice of difficulty rating (Question 2) may be due to a belief on the part of respondents that other answers captured the essence of any problems (i.e. difficulty) foreseen with the scenario, but does also reflect previously reported participant lethargy with confidence and difficulty scales (Wilkins and Chandler, 1965 p.32). The number and percentage of respondents, who completed free text comments for each of the four qualitative questions and over the three scenarios, is shown at Table 16;

**Table 16 Numbers of respondents who completed free text qualitative questions**

<b>Scenario</b>	<b>Explain your conclusion</b>	<b>Explain your difficulty rating</b>	<b>Alternative conclusions?</b>	<b>Further comments?</b>
<b>Case 1</b>	29/35 (83%)	16/35 (46%)	34/35 (97%)	21/35 (60%)
<b>Case 2</b>	28/34 (82%)	16/34 (47%)	33/34 (97%)	19/34 (56%)
<b>Case 3</b>	22/32 (69%)	11/32 (34%)	27/32 (84%)	17/32 (53%)

Given the focus on variation between coroners, content analysis of the free text was most useful in drawing out the reasoning behind the decision-making processes of the coroner respondent. The aim was to explore whether difference in approach to decision-making might affect the eventual outcome, therefore the free text comments were grouped together in relation to the conclusion chosen by the participant and the content then analysed for themes to be compared against those from other chosen conclusions (See Chapter 7 Para. 7.11.1 for methodology notes). This qualitative information revealed an understanding of the salient information factors as reported by coroners in relation to their outcome decision.

## **8.2 Results**

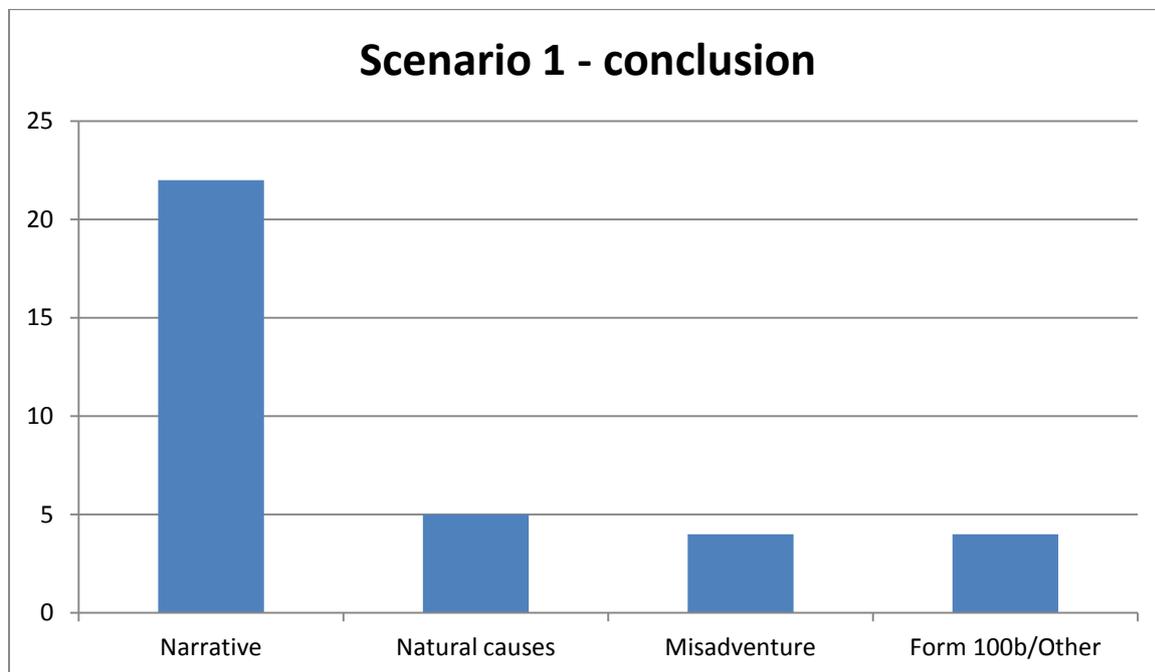
It should first be stressed that the smallness of the sample, however laboriously acquired, makes statistical significance unlikely and conclusions tentative. To present the DBA responses each of the five research questions listed above will be considered in turn, for the three separate scenarios:

## 8.2.1 Would the choice of conclusion vary between coroners?

### 8.2.1.1 Scenario 1 – Choice of conclusion

Scenario 1 concerned a 61 year old lady who died in hospital of bronchopneumonia four days after having had a hip operation for severe osteoarthritis. It was completed by 35 respondents, 69% male (n=24) and 31% female (n=11). 71% (n=25) respondents identified themselves as legally qualified, 9% (n=3) medically qualified and 20% (n=7) both legally and medically qualified. The mean self-reported experience in role of the respondents was 16 years for men and 7 years for women with a range of experience of 1 to 41 years for men and 2 to 25 years for women.

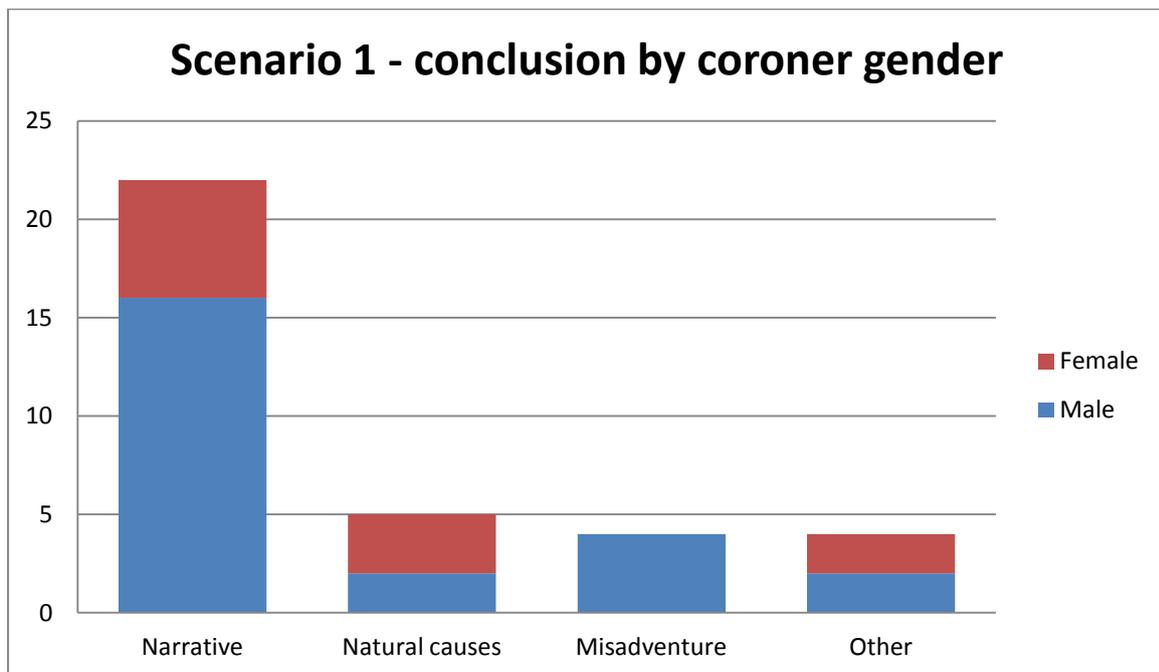
Overall, this first scenario had the greatest level of agreement among the respondents, shown at Figure 19, with 63% (n=22) choosing a narrative conclusion. The majority of the remaining respondents (n=9) were divided between conclusions of natural causes and misadventure. This left just four respondents, who stated that they would not hold an inquest either choosing to therefore dispose of the death by way of Form 100b after the post-mortem examination (n=2) or that there was insufficient information here to make a decision (n=2)



**Figure 19 Scenario 1 – choice of conclusion**

### 8.2.1.2 Scenario 1 - Coroner gender and conclusion chosen

Analysis was undertaken to identify whether the gender of the responding coroner might have been associated with their conclusion reached. For Scenario 1, 24 male and 11 female coroners responded. No statistically significant relationship was found between the gender of the responding coroner and their choice of conclusion ( $X^2(3, n = 35) = 4.5, p = .21$  ns, Cramer's  $V = .36$ ). However, it may be of interest (but was not statistically significant, see 8.2.1.3) that all four coroners choosing a misadventure conclusion were vastly experienced male coroners. Free text comments, analysed in more detail below, suggested that historically this kind of case may previously have returned a misadventure verdict – '*the unintended consequence from an intended act*'. Figure 20 shows the respective proportions of conclusions chosen according to the gender of the respondent.



**Figure 20 Scenario 1 – conclusion by coroner gender**

### 8.2.1.3 Scenario 1 - Coroner experience and conclusion chosen

Analysis was undertaken to see if the experience of the responding coroner was associated with the conclusion chosen. For Scenario 1, experience varied between 1 year and 41 years in role with a mean of 13 years. No statistically significant relationship

between experience and choice of conclusion was found. A one-way analysis of variance was conducted ( $F(3, 31) = 1.89, p = .152$  ns).

#### **8.2.1.4 Scenario 1 – The modal conclusion**

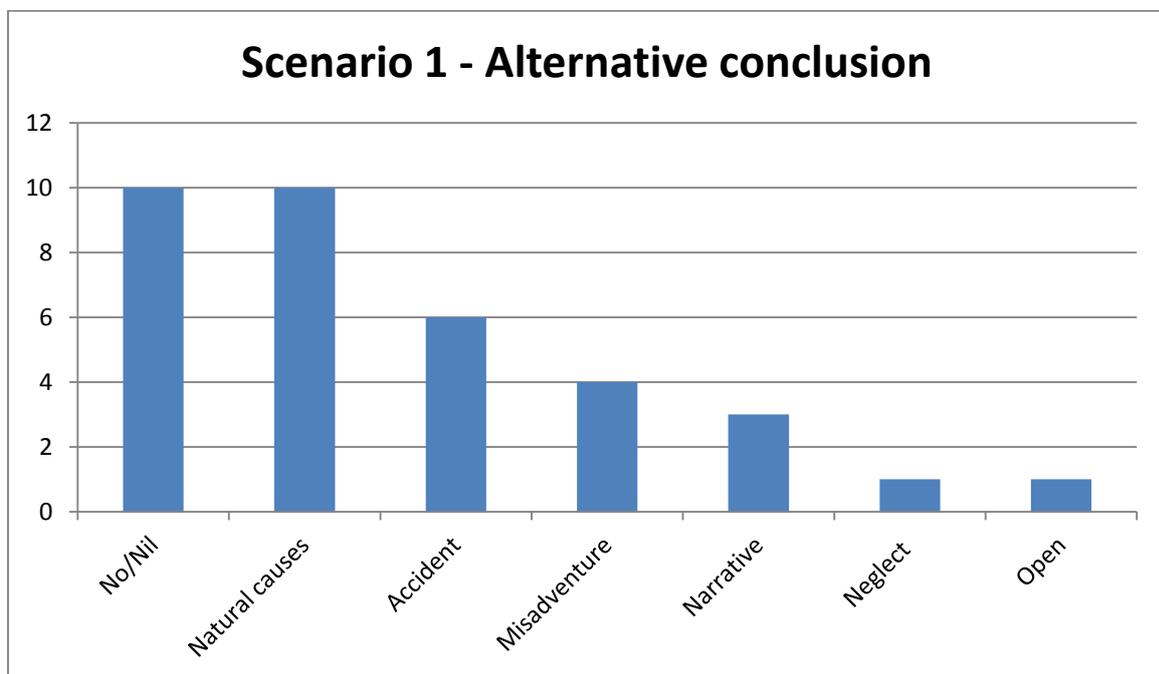
One way of looking at the data is to consider whether coroners converge on a decision as they become more experienced, or whether there is a difference by gender in following the coronial 'party line', i.e. to examine whether there was any association between choosing the most common conclusion (the modal conclusion) and the coroner's gender or experience. As stated, the most common choice for Scenario 1 was a narrative conclusion with 63% (22/35) of coroners choosing this verdict. When analysed according to coroner gender, it was found that 67% of male coroners and 55% of female coroners had chosen this conclusion. However this was not a statistically significant relationship based on the gender of the responding coroner ( $\chi^2(1, n = 35) = .475, p = .491$  ns,  $\phi = .116$ ). Similarly for this scenario, no significant relationship between experience and the most common verdict was found. An independent-samples t-test was conducted to compare experience in years for those who chose the modal verdict and those who didn't. There was no significant difference in scores for those who chose a narrative conclusion ( $M = 12.3, SD 9.2$ ) and those who did not, ( $M = 14.5, SD 12.4$ ); ( $t(33) = .584, p = .563$  ns).

In sum, the choice of conclusion by coroners for scenario 1 could not be explained by individual respondent characteristics of gender or experience in role.

#### **8.2.1.5 Scenario 1 - Alternative conclusions**

Figure 21 shows the first choice alternative conclusions for Scenario 1 chosen by the 35 coroner respondents. On occasions respondents did state other potential alternative conclusions, for example 14% (n=5) of respondents for this scenario offered more than one alternative conclusion, however for the purposes of this analysis only the first stated alternative was analysed. 29% (n=10) of respondents stated that there was no alternative conclusion open to them. For the remainder of the respondents, natural causes was found to be the most chosen alternative conclusion, perhaps not surprising given that the basis of the scenario explored the difficulties in determining an unnatural from a natural death. Accident or misadventure conclusions then made up a further 29% (n=10) of respondents' alternative conclusions with repeated free text comments regarding the normal course of events in years gone by (before narrative verdicts were

commonly used) and the references to unintended consequences of intentional acts. A further three respondents recognised that a narrative conclusion was possible and the benefits of greater explanation to the bereaved achieved by that conclusion was noted. Given the high proportion of respondents choosing a narrative conclusion as their first choice it was perhaps surprising that only three of the possible thirteen respondents who had not chosen a narrative conclusion as their first choice chose a narrative verdict as their alternative. Two of those selecting narrative as the alternative conclusion had chosen misadventure as their first choice while the other respondent had made a first choice of natural causes.



**Figure 21 Scenario 1 – first choice of alternative conclusion**

#### **8.2.1.6 Scenario 1 - Qualitative analysis**

The main themes to be raised in free text answers came primarily from the majority of coroners who had chosen a narrative conclusion. Although Scenario 1 hinted that a distressed family was concerned at the level of care provided in hospital, it was made clear that there was no evidence of post-operative mismanagement. Nevertheless, 49% of respondents (n=17), the vast majority of whom had chosen a narrative verdict, stated that they would require further detail of post-operative care in terms of reports from the relevant clinicians. This was the most prevalent theme to emerge from comments for this scenario. Coroners choosing a narrative conclusion justified that in terms of the

detail that such a verdict can bring to the family (7 respondents) with comments such as “*setting out full circumstances of death to reassure family*” (Male, 1 year<sup>21</sup>, legally and medically qualified), “*tells story better for family*” (Female, 3 years, legally qualified) and “*help the family understand*” (Male, 22 years, legally qualified), providing the second main theme. The third and last theme that emerged from those coroners choosing the narrative conclusion was the fact that the surgery was considered to be appropriate and that an assumption was being made that the patient had consented to it (6 respondents). This suggested that coroners were probably ruling out inappropriate intervention by clinicians that might suggest an unlawful killing conclusion, but also touches upon the possible conclusion of misadventure, in that the surgery was an intended act carried out with (the deceased’s) consent.

Misadventure was mentioned on nine occasions by respondents, either as the preferred alternative conclusion (4 respondents) or in free text comment. The point being made was that before the rise in use of narrative conclusions, misadventure would have been the chosen verdict. One of the coroners stated, “*I have used such short-form narrative type conclusions (verdicts) for some years. Families understand this better than the previously used ‘Misadventure’ and I think it better reflects what happened. In this case the lady had surgery for a condition which warranted it but died from the immobility which followed*” (Male, 29 years, legally qualified). Two of those choosing misadventure as their alternative conclusion pointed out that it would previously have been their first choice, “*years ago I might have found misadventure*” (Male, 22 years, legally qualified) and “*possibly misadventure if this had been conducted several years ago*” (Male, 11 years, legally qualified). Providing a link to those four coroners who chose misadventure as their preferred conclusion, one of the coroners choosing a narrative conclusion stated that; “*However, the decision could just have easily been misadventure*” and (choosing misadventure as his alternative conclusion) “*Misadventure as this is an intended act (surgery) with an unintended outcome*” (Male, 9 years, legally and medically qualified).

This point about the intended act (of the surgery) and its unintended consequences was noted by all four coroners who chose a misadventure conclusion as their primary reason for so choosing. One noted his support of the chosen conclusion of misadventure thus, “*ex parte Benton*”<sup>22</sup> and continued “*Non life threatening condition. Surgical treatment has lead to death*” (Male, 22 years, legally and medically qualified). Three of the four who chose misadventure mentioned a narrative conclusion as a possible alternative and all four who chose misadventure as their conclusion were male.

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21 This refers to the respondent’s answer to the question “What is the length in years of your experience as a coroner?”

22 By which the respondent was referring to R v Birmingham Coroner ex parte Benton (1977) which gives guidance on natural and unnatural deaths that *if the person was not suffering from a life threatening condition but the treatment, for whatever reason, caused death, the proper verdict was accident or misadventure, unless there was a question of unlawful killing*

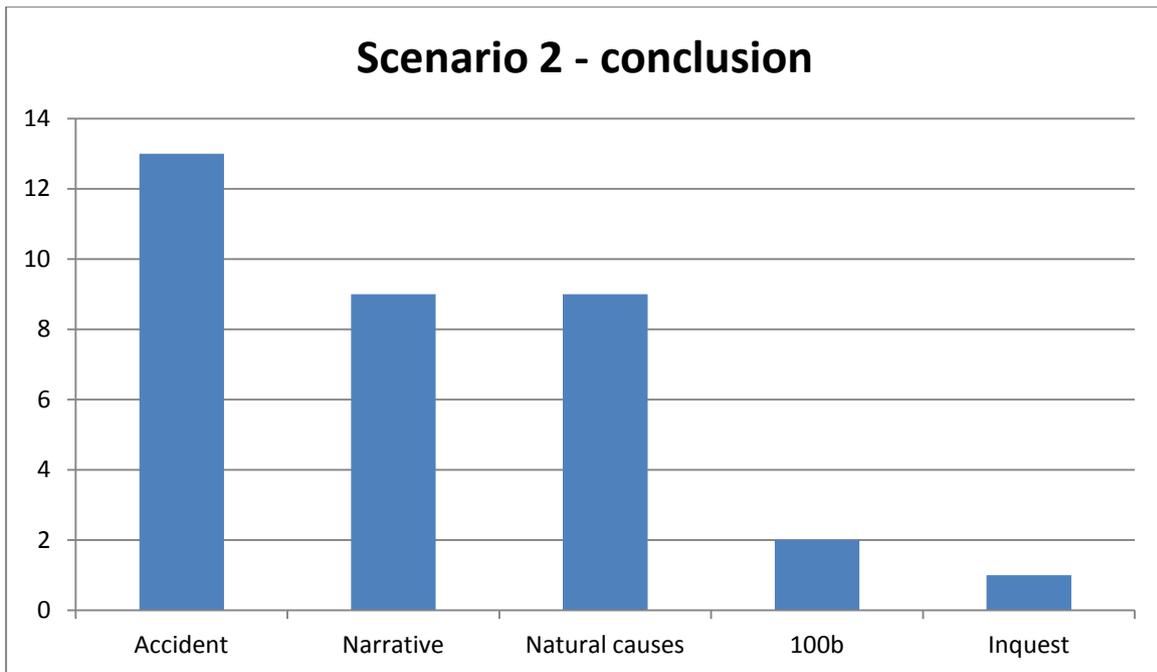
Two of the five coroners who chose a natural causes conclusion did not expand on their thinking. A further two expressed a wish to know more about the family concerns, and the third noted there was no evidence of poor care. The clearest insight into why a natural cause conclusion had been chosen came from one coroner thus, "*No suggestion that there was an accident. Natural cause led to need for operation and no neglect so natural causes*" (Female, 3 years, legally qualified).

Two coroners did not believe an inquest to be appropriate in this case, seeing the death as being of natural causes from the information available, but did not expand on this other than to confirm case disposal by Form 100b. The final two in the 'other' category also speculated around the need for an inquest in this case and the lack of detailed information with which to make a decision.

#### **8.2.1.7 Scenario 2 – Choice of conclusion**

Scenario 2 concerned an 84 year old lady who died in hospital of bronchopneumonia three days after admission for a broken neck of femur suffered in a fall at home. There were no family, legal or media issues being raised. It was completed by 34 of the 35 respondents who completed scenario 1, 68% (n=23) male and 32% (n=11) female. 71% (n=24) of respondents identified themselves as legally qualified, 9% (n=3) medically qualified and 20% (n=7) both legally and medically qualified. The mean self-reported experience in role of the respondents was 16 years for men and 7 years for women with a range of experience of 1 to 41 years for men and 2 to 25 years for women.

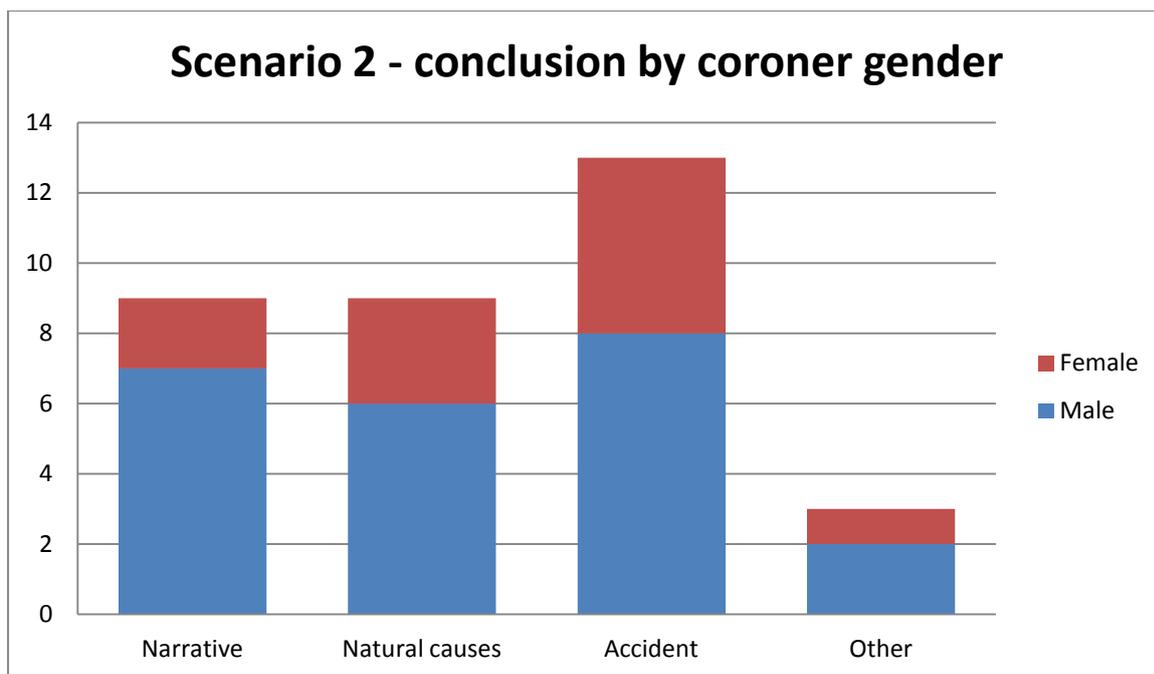
This second scenario had a much more even split of chosen conclusions with a three-way choice emerging between accidental death, a narrative conclusion and natural causes. One of the two respondents who would not have taken the matter to inquest had chosen the same (Form 100b) option in the first scenario and indeed made the same choice for the third (Male, 35 years, legally qualified), whilst one coroner simply stated '*inquest*' and it was not possible for the writer to categorise her conclusion by reference to her comments. Figure 22 shows the numbers of all conclusions chosen by respondents for Scenario 2.



**Figure 22 Scenario 2 – choice of conclusion**

#### **8.2.1.8 Scenario 2 - Coroner gender and conclusion chosen**

Analysis was undertaken to see if the gender of the responding coroner might have been associated with their conclusion reached. For Scenario 2, 68% (n=23) male and 32% (n=11) female coroners responded. No statistically significant relationship between the gender of the responding coroner and the choice of conclusion was found ( $\chi^2 (3, n = 34) = .65, p = .88$  ns, Cramer's  $V = .138$ ). Figure 23 shows the respective proportions of conclusions chosen by coroner gender.



**Figure 23 Scenario 2 – conclusion by coroner gender**

#### **8.2.1.9 Scenario 2 - coroner experience and conclusion chosen**

Analysis was undertaken to see if the experience in role of the responding coroner was associated with the conclusion chosen. For Scenario 2, the experience in years varied between 1 year and 41 years in role with a mean of 13 years. There was a statistically reliable difference in experience according to conclusion reached. A one-way analysis of variance was conducted  $F(3, 30) = 3.77, p = .02$ . This could not be attributed to differences between any particular pair of verdicts (Student-Newman-Keuls test), but see 8.2.1.10 for analysis of those who chose the modal conclusion of accidental death.

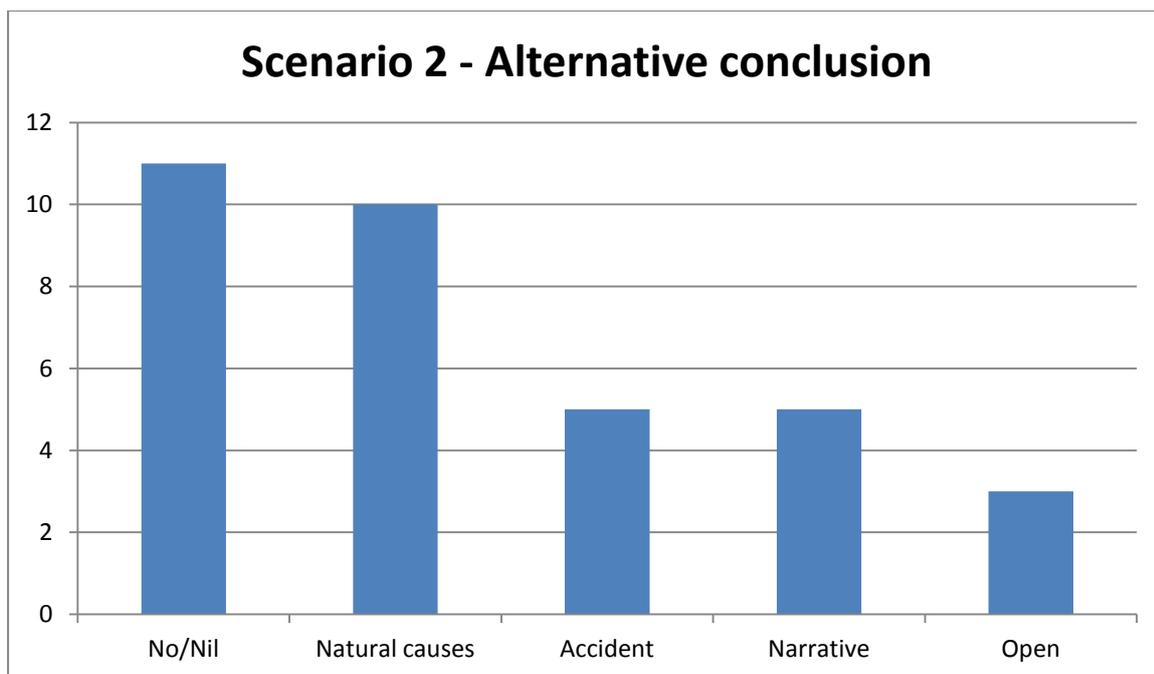
#### **8.2.1.10 Scenario 2 – the modal conclusion**

A further analysis was undertaken to see if there was any association between choosing the most common conclusion and the coroner's gender or experience. Did coroners of a particular gender, or who were particularly experienced, cluster towards the same modal conclusion? The most common conclusion in Scenario 2 was accidental death (13/34 = 38%) which was chosen proportionately by slightly more female coroners than male (46% vs. 33%). However this was not a statistically significant relationship based on the gender of the responding coroner ( $\chi^2(1, n = 34) = .475, p = .491$  ns,  $\phi = .116$ ). For this scenario though, many more experienced coroners chose the conclusion of

accidental death. A statistically significant relationship between experience and the most common conclusion was found. An independent samples t-test was conducted to compare experience in years for those who chose the modal conclusion and those who did not. There was a significant difference in scores for those who chose an accident conclusion ( $M = 17.7$ ,  $SD 10.9$ ) and those who did not, ( $M = 10.4$ ,  $SD 9.3$ ); ( $t(33) = -2.1$ ,  $p = .043$ ), with higher levels of experience having a significant tendency to choose an accidental death conclusion. The magnitude of the differences in the means (mean difference =  $-7.3$ , 95% CI:  $-14.3$  to  $-.229$ ) was of a moderate to large effect ( $\eta^2 = .12$ ). Therefore, on the evidence of scenario 2, 12% of the variation in conclusion choice by coroners could be explained by experience in role with experience in role having a moderately large effect on the conclusion decision.

#### **8.2.1.11 Scenario 2 – Alternative Conclusions**

Thirteen respondents chose not to offer an alternative conclusion. Of those who did, almost half (10/21) chose natural causes. However, those ten were divided as to choice of first conclusion, 60% ( $n=6$ ) to accidental death and 40% ( $n=4$ ) to a narrative conclusion. Further evidence that this scenario revolved for most around whether the death was an accident or of natural causes was revealed by the fact that, of the five respondents who chose accidental death as an alternative conclusion, four of them had chosen natural causes in the first place. One coroner summed it up thus, "*the precise circumstances of the 'fall', which came first: the break and then the fall or the fall and then the break*" (Female, 9 years, medically and legally qualified). Figure 24 shows respondents choices of alternative conclusion for Scenario 2.



**Figure 24 Scenario 2 – first choice of alternative conclusion**

#### **8.2.1.12 Scenario 2 - qualitative analysis**

All but one of the 13 respondents who chose an accidental death conclusion mentioned the fall as relevant to their decision-making, 75% (n=9) of those in the first free text box as comments to explain their conclusion. Comments such as *“but for the fall death would not have occurred”* (Male, 22 years, legally qualified) and *“fall was the precipitating event”* (Female, 2 years, legally qualified) were typical for all respondents choosing accidental death. However, almost all of those respondents (77%, n=10) stated that they would require more details of the precise circumstances of the fall and, in some cases (20%, n=2), whether there was any previous history of such.

Two of those respondents choosing accidental death commented that this was a very common scenario that they had dealt with hundreds of times (Male, 29 years, legally qualified; Male, 18 years, legally qualified). Both those coroners went on to give great detail of their thinking around, respectively, the issues around whether the fall was truly relevant *“One might argue that the death is natural because of the osteoporosis in which case there should probably be no inquest: if the evidence was that she was standing and suffered a witnessed pathological fracture then that would be acceptable. I have dealt with a few where there is literally no evidence of a fall and a few where the deceased has been bedbound and probably caused the fracture by turning and twisting the femur but such cases are unusual”* (Male, 29 years, legally qualified) and secondly whether the

pathologist was appropriate in referring to the fall as a cause of death, *"Whilst the deceased may have suffered from a natural condition (Osteoporosis) making her more vulnerable to fractures the evidence is that she had a fall and suffered a traumatic injury and it was not a spontaneous fracture. I would challenge the Pathologist on the cause of death because a \fall\ is not a pathological cause of death but an explanation of background circumstances precipitating the injury. It should be described as \traumatic injury\. Whether or not she had a fall is a matter of fact for me to decide not the Pathologist. As a matter of legal causation something is a cause of the death if it contributes to the death more than minimally, negligibly or trivially. It does not have to be the sole or predominant cause of death provided it makes that level of contribution. I would ask the pathologist to confirm their opinion as to the level of contribution. Consequently, the traumatic injury will turn the death into being an unnatural one"* (Male, 18 years, legally qualified). A third coroner choosing accidental death also stated, *"Again a very common scenario in my area"* (Male, 20 years, legally qualified).

There was no real consensus between those who had chosen accidental death as their conclusion as to what might be an appropriate alternative. Of the 13 respondents choosing accidental death, 46% (n=6) chose natural causes as the alternative, 31% (n=4) a narrative conclusion and 23% (n=3) gave no alternative conclusion. However, of the 5 respondents who chose accidental death as their alternative conclusion, 80% (n=4) had chosen a first conclusion of natural causes. This means that 29% (n=10) of the 34 respondents chose a combination of accidental death and natural causes as their primary and alternative conclusion highlighting the 'grey area' issue in this case about whether the osteoporosis or the fall was the most relevant to death. One coroner who chose a natural causes conclusion summed it up thus; *"This is quite an old chestnut. Was it an accident or was it a natural consequence of old age. I tend to opt for the latter but given that it was a fall, an accident may be a reasonable conclusion. It depends, whether on the circumstances the fracture caused the fall or the fall caused the fracture and that always depends on the precise history given (or not!)"* (Female, 9 years, legally and medically qualified).

Moving on to natural causes, which equalled second place as first choice conclusion (9 respondents each) with a narrative conclusion, 56% (n=5) of the 9 who chose natural causes specifically mentioned the osteoporosis as key to their thinking, *"This is a common outcome of severe osteoporosis"* (Male, 2 years, medically qualified); *"I have considered the fact that she had Osteoporosis and this had led to her fall/Collapse"* (Female, 8 years, legally qualified); some again pointing to the need for further consideration of whether the disease or the fall was most relevant, *"osteoporosis is a tricky point and the exact nature of the fall would need to be analysed"* (Male, 2 years,

legally qualified), *"This case is resolved by deciding whether the osteoporosis or the fall was the main cause of the fall so will be very fact specific"* (Male, 10 years, legally qualified). Of course, the fact that four of those respondents had chosen accidental death as their alternative conclusion reveals that a further five respondents did not see it in terms of one or the other issue, two chose an open conclusion as their alternative, two made no alternative selections and one chose a narrative conclusion but none of those added any explanatory comments.

Nine respondents selected a narrative conclusion in this scenario. 56% (n=5) of those specifically referred to the investigation as to whether the fall caused the fracture, or vice versa as the reason for so choosing their verdict. This means that a third viable conclusion had been introduced here with stated reasons for so choosing being identical to the other two (accidental death and natural causes). Some coroners saw the narrative conclusion here as the opportunity to articulate these difficulties, *"Setting out full circumstances of death, including difficulty of not knowing if fall caused fracture or fracture caused fall"* (Male, 1 year, medically and legally qualified), and *"narrative e.g. against a background of general frailty of health the traumatic injury sustained following a fall whilst at home was the significant contributory factor in the illness which led to her death"* (Male, 11 years, legally qualified).

The scenarios did ask coroners to assume they had opened an inquest, but two coroners stated they would not have taken this death to inquest in any case (dealing by way of Form 100b), one stating *"the death has flowed from a medical condition, namely severe osteoporosis. In the absence of evidence of medical evidence contributing to the death, or concerns raised by the family or hospital staff, or my coroner\'s officer\'s sensitive antennae, I wouldn't have taken matters further"* (Male, 22 years, legally and medically qualified), and the other making a similar point regarding the need for additional concerns before it would reach an inquest, *"If the fall in itself had been substantial or otherwise material, e.g., in the course of a road traffic collision or in a place where care should have been given then further inquiries would be made to see whether the death was in any way unnatural"* (Male, 35 years, legally qualified). It is perhaps of note that both men who responded by way of their conclusion being Form 100b (no inquest) were vastly experienced in role for the sample demographic.

Finally, this scenario, perhaps because the relationship between the existence of the disease and the fall was seen by most respondents as crucial, did engender some comments requiring more case detail to be provided. Some respondents did say that they had made assumptions on the limited information available and some said they could be persuaded to an alternative conclusion depending on further information they

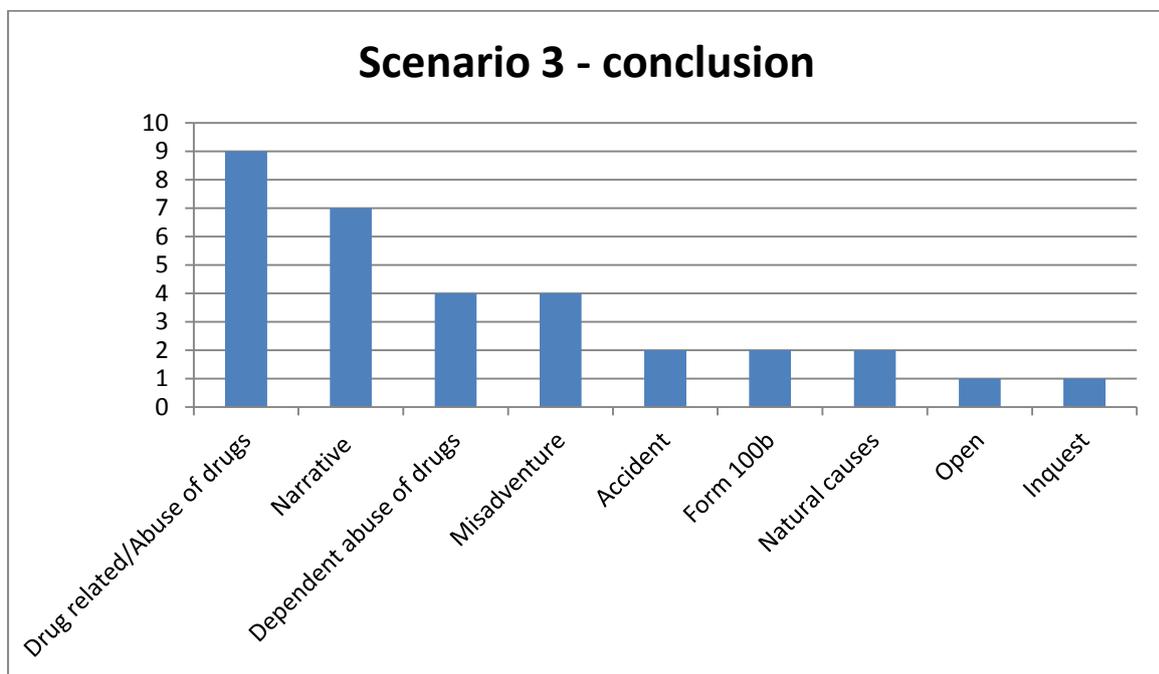
might receive. This can be a weakness in a remote methodology which does not easily allow further information to be provided and so a caveat should be recognised regarding the three-way division in conclusions noted here. That having been said, it is possible judging by comments made, that even in the light of further information being provided some respondents would stick with the conclusions they clearly felt were strongly made out. Examples of polar opposite views expressed were such as (for natural causes), "*The osteoporosis was the underlying natural disease which resulted in the fracture and set in motion the train of events that led to the death*" (Male, 14 years, legally and medically qualified); and (for accidental death), "*even though there is osteoporosis, there is still the trauma which caused the fracture*" (Male, 41 years, legally qualified). Equally, of the 11 respondents that declined to offer an alternative conclusion, 36% (n=4) had chosen natural causes as their first conclusion and 36% (n=4) had chosen accidental death (Narrative n=2 and Inquest n=1 being the others) so there was no relationship between first choice conclusion and certainty of decision based upon those who had not identified an alternative.

#### **8.2.1.13 Scenario 3 – Choice of conclusion**

Scenario 3 concerned a 38 year old male who died at home of hepatic cirrhosis having been an intravenous drug addict in the past which is believed to be the source of the Hepatitis B infection. There were no interested persons, legal representation or media issues. It was completed by 32 of the 35 respondents who had completed scenario 1, 69% (n=22) male and 31% (n=10) female. 75% (n=24) respondents identified themselves as legally qualified, 6% (n=2) as medically qualified and 19% (n=6) as both legally and medically qualified. The mean self-reported experience in role of the respondents was identical to the first two scenarios, 16 years for men and 7 years for women with a range of experience of 1 to 41 years for men and 2 to 25 years for women.

This third scenario brought results much more widely spread against a range of different conclusions. In fact, as shown at Figure 25 the 32 respondents to this scenario chose a total of eight different outcomes including six different short-form conclusions, a narrative conclusion, one respondent again stating 'inquest' which could not be further categorised, and two respondents disposing of the death without an inquest (again despite the instructions to participants asking them to assume they had opened an inquest).

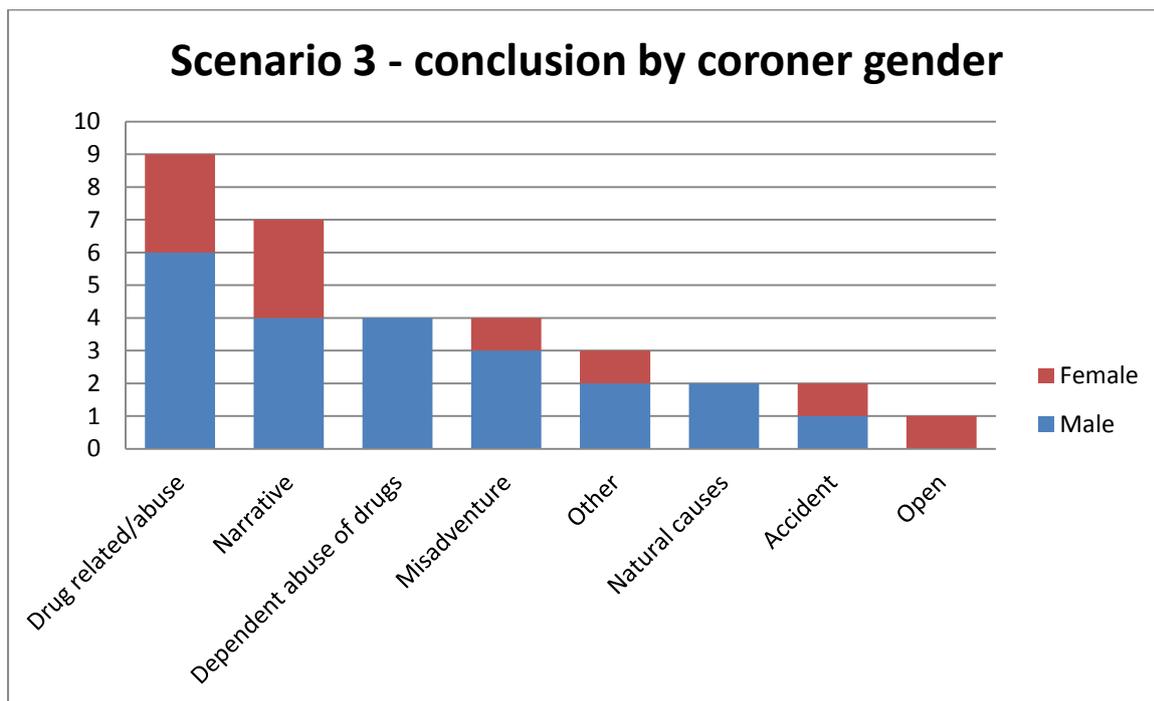
The largest category of conclusion was drug related death (a new short-form conclusion introduced in July 2013 by the Chief Coroner) to which the writer added the two respondents who had concluded 'abuse of drugs'. This seemed appropriate given that abuse of drugs should not be categorised among any other short-form verdict (and certainly not within 'dependent' abuse of drugs) and it can reasonably be inferred to be the same thing as 'drug related death'. However, if one was to take issue with that merger of two verdicts, then a seventh different short-form conclusion of 'abuse of drugs' should be noted here. Two of those coroners choosing drug related death specifically pointed out that this was a newly introduced short-form conclusion.



**Figure 25 Scenario 3 – choice of conclusion**

#### 8.2.1.14 Scenario 3 - coroner gender and conclusion chosen

Analysis was undertaken to see if the gender of the responding coroner might have been associated with their conclusion reached. For Scenario 3, 69% (n=22) male and 31% (n=10) female coroners responded. No statistically significant relationship between the gender of the responding coroner and the choice of conclusion was found ( $\chi^2 (7, n = 32) = 5.79, p = .56$  ns, Cramer's  $V = .43$ ). Figure 26 shows the respective proportions of conclusions chosen. It may be of note that the four respondents who chose *dependent* abuse of drugs as their conclusion were all male.



**Figure 26 Scenario 3 – conclusion by coroner gender**

#### **8.2.1.15 Scenario 3 - coroner experience and conclusion chosen**

Analysis was undertaken to see if the experience in role of the responding coroner was associated with the conclusion chosen. For Scenario 3, the experience in years varied again between 1 year and 41 years in role with a mean of 13 years. One-way analysis of variance indicated no significant association between experience and conclusion  $F(7, 24) = 1.06, p = .420$  ns.

#### **8.2.1.16 Scenario 3 – the modal conclusion**

A further analysis was undertaken to see if there was any association between choosing the most common conclusion and the coroner's gender or experience. The most common conclusion in Scenario 3 was drug related/abuse of drugs (28% n=9) which was chosen proportionately by very slightly more female coroners than male (30% vs. 27%). However this was not a statistically significant relationship based on the gender of the responding coroner ( $\chi^2(1, n = 32) = .020, p = .886$  ns,  $\phi = .024$ ). Similarly for this scenario, no statistically significant relationship between experience and the most common conclusion was found. An independent-samples t-test was conducted to

compare experience in years for those who chose the modal conclusion and those who didn't. There was no significant difference in scores for those who chose a drug related conclusion (M = 16.7, SD 13.9) and those who did not, (M = 11.9, SD 8.9); ( $t(33) = -1.2, p = .240$  ns).

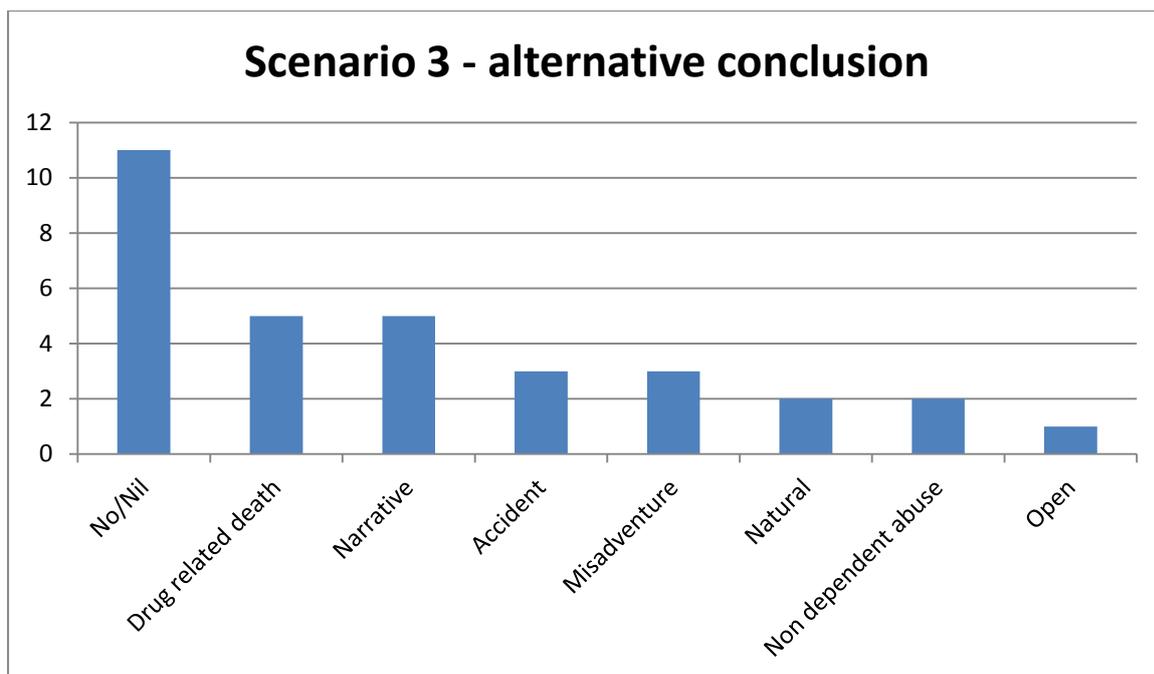
So, on the evidence of Scenario 3, decision-making by coroners could not be explained by individual respondent characteristics of gender or experience in role.

#### **8.2.1.17 Scenario 3 – Alternative Conclusions**

The diverse nature of decision-making in Scenario 3 was again reflected in the choice of alternative conclusions recorded by respondents, with eight different alternative conclusions chosen. As before, about a third of all respondents did not choose an alternative conclusion when asked. Those eleven respondents for this scenario were spread over five different first choice conclusions, so that if respondent certainty of their first choice conclusion can be inferred from a declination to record an alternative conclusion, then that certainty of decision is spread over a wide range of outcomes (drug related n=4, Narrative n=3, Form 100b n=2, Natural causes n=1, Inquest n=1).

Three of the four respondents who had chosen dependent abuse of drugs as their first choice conclusion offered similar alternative conclusions in terms of drug use being the key factor (non-dependent abuse of drugs n=2, drug related death n=1) indicating their focus on this aspect of the deceased's background information.

Figure 27 shows the first choice alternative conclusions chosen by respondents to Scenario 3.



**Figure 27 Scenario 3 – first choice of alternative conclusion**

#### **8.2.1.18 Scenario 3 - qualitative analysis**

Those choosing the modal conclusion of drug related death tended to focus on the information provided regarding intravenous drug use by the deceased, *“The ultimate cause of his death is the intravenous drug abuse”* (Male, 29 years, legally qualified); *“The underlying cause of death relates to intravenous drug abuse”* (Male, 20 years, legally qualified); and *“Drug use the underlying cause of Hepatic Cirrhosis”* (Female, 2 years, legally qualified). One respondent felt sufficiently confident in his support of this conclusion to state *“The deceased has apparently contracted Hep B from drug abuse and gone onto to develop cirrhosis”* and *“This is a very common scenario which I have encountered several hundred times”* (Male, 18 years, legally qualified). Two respondents did point out that they would make further enquiries into the link between the drug use and the liver problem. One respondent, who had commented specifically that *“I do not consider this to be natural causes”* by identifying the key factor as intravenous drug use, went on to give an extended insight into a possible family perspective at the inquest (no issues were posed in this scenario) by stating *“I have no issues over reaching such a conclusion even if families do not always find this totally acceptable”* (Male, 29 years, legally qualified). This comment was particularly notable because one of those coroners who had chosen a narrative conclusion made this point *“I do not consider terms such as Drug Abuse as appropriate as they are pejorative”* (Male, 14 years, legally and medically qualified). This further apparent polar opposite position taken by two coroners may offer

an insight into how personal values can impact upon a coroner's judgement and subsequent decision as to inquest outcome. However, a second coroner who had chosen a narrative conclusion also offered useful qualitative insight by pointing out that "*Use of 'drug-related' death may be contentious where cause is less directly related to drug use*" (Male, 1 year, legally and medically qualified). That coroner chose drug related death as his alternative conclusion depending on the strength of belief that the drug use caused the hepatitis. No real pattern emerged from this cohort of respondents in terms of alternative conclusions.

The second largest category for this scenario was the narrative conclusion with seven respondents so choosing. Very few comments were made by these particular respondents and notably, five of the seven had chosen narrative conclusions for all three scenarios suggesting that they were comfortable with the use of this conclusion over a range of case scenarios. Some respondents simply stated '*narrative*' as a conclusion whilst others used the free text to articulate how they would set out their narrative conclusion, e.g. "*Mr X died as a consequence of liver cirrhosis secondary to Hep B associated with iv drug use*" (Female, 3 years, legally qualified). A further respondent suggested the usefulness of the narrative conclusion for providing a little more detail by stating "*It would have assisted my narrative conclusion to know when the dependence on drug abuse ceased*" (Female, 10 years, legally qualified), and another made a similar point when commenting on what possible alternative verdicts might be possible, "*short-forms but narrative preferable where multi-factorial*" (Female, 3 years, legally qualified). Again, no real pattern emerged from this cohort of respondents in terms of alternative conclusions.

The four respondents who considered this to be a death due to *dependent* abuse of drugs tended to be influenced by the information suggesting a link between drug use and subsequent disease, such as "*more probable than not to be as a result of the poisoning effect of drugs*" (Male, 9 years, legally qualified), and "*pathologist's underlying cause (1.c)*" (Male, 14 years, legally and medically qualified). Both of these respondents recognised the potential for an alternative conclusion of non-dependent abuse of drugs depending on evidence regarding the link. Of the four coroners who chose misadventure as the conclusion here, one returned to the previous theme of an intended act with unintended consequences (this coroner had also chosen misadventure in scenario 1), "*Intended act (intravenous use of drugs) with unintended consequence (death as a result of use of needles introducing infection)*" (Male, 2 years, legally qualified) whilst another made the link to a misadventure conclusion thus, "*intravenous drug use isn't a culturally acceptable means of pushing toxins or pathogens into your body, unlike tobacco use which is still, just, socially acceptable*" (Male, 22 years, legally

and medically qualified). None of the four coroners here choosing misadventure chose drug related death as their first choice alternative conclusion, being divided evenly between a narrative conclusion and accidental death as alternatives. Three of the four coroners stated that they would have further enquiries made around respectively, a virologist about the source of the infection, toxicology to eliminate an overdose, and the family for a more detailed history.

The need for further information did feature in the other conclusions chosen by respondents for this third scenario. Of the two coroners who chose accidental death, one pointed out that, *"Again this is finely balanced. It could be argued that this is natural causes and if I knew more detail then I may consider it. As it is, I take the view that he did not aim to become infected by Hep B. so it was accidental. So far I have only considered short-form conclusions but as with all of them a narrative is open as well. On balance, accidental death"* (Female, 9 years, legally and medically qualified). Of the two coroners who chose natural causes, the point was made again that further investigation of the link between drug use and disease might be necessary, *"The connection with drug abuse is reasonable but also speculative. That is to say we are asked to assume that that is the source of infection. The GP notes if available might be more persuasive"*. This respondent went on to repeat the concern, raised by another coroner who chose a narrative conclusion, about being seen as pejorative by stating, *"We can all die from an infection, or from say a mosquito bite if we fail to take the drug needed and correctly there is a fine line beyond which the coroner might be thought as criticising a lifestyle choice"*. (Male, 22 years, legally qualified).

Of the two coroners who stated they would not have taken this death to inquest, one provided the same conclusion throughout the study (Form 100b – disposal to the registrar following post-mortem examination) and the other selected just one inquest conclusion, a narrative conclusion to scenario 2. Neither provided an alternative conclusion for this scenario and an insight could only really be gained from one, as follows, *"The premise is that, through drug misuse and abuse over time, the deceased succumbed to the disease process that gave rise to his. There is nothing \acute\ about his death, even though it seems to have arisen from prolonged drug use"* (Male, 35 years, legally qualified). The one respondent choosing an open conclusion appears to have been concerned about incomplete information and stated *"I would like full history from the Substance Misuse Service and full GP report and print out. I would also have done my utmost to get some blood and urine for toxicology. I would also like to speak to the last person who saw him alive and the person who found him dead and have more background information about his drug habits"* (Female, 25 years, legally qualified). One respondent again stated *"inquest"* as their conclusion without further comments that

might have assisted the writer in determining which actual conclusion was intended. Again there was no pattern amongst this group who had chosen 'other' conclusions as to the alternative conclusions they had chosen.

#### **8.2.1.19 All three scenarios - coroner characteristics and choice of conclusion**

Analysis was undertaken over the three scenarios to determine whether the gender of the responding coroner or their experience in role had any association with their choice of conclusion. The characteristic of whether a coroner was legally or medically qualified was discounted from further analysis due to the very small number of respondents reporting as medically qualified (9% n=3/35). In general, neither the reported gender nor experience of coroners could be said to have any significant influence on their choice of conclusion. The only example of a significant association having been identified was in Scenario 2 where the most common conclusion, accidental death, tended to have been chosen by those coroners with most experience (see 8.2.1.10). This was the scenario where the issue was 'did the fall cause the fracture or did the fracture cause the fall?', the results suggesting that those coroners with more experience in role would tend to favour the former and would treat evidence of the fall as particularly persuasive in coming to a conclusion of accidental death. The magnitude of the differences in the means (mean difference = -7.3, 95% CI: -14.3 to -.229) was of a moderate to large effect (eta squared = .12). Some of those respondents stated they had dealt with cases of that nature on many occasions and it is therefore perhaps not surprising that their experience has helped convergence on a particular viewpoint.

Table 17 shows a summary of chosen outcomes and the results of analysis of coroner characteristic association for all three scenarios.

**Table 17 Outcomes and coroner characteristics – all three scenarios**

	<b>Scenario 1</b>	<b>Scenario 2</b>	<b>Scenario 3</b>
<b>Total number of outcomes chosen</b>	4	4	8
<b>Total number of alternative outcomes chosen</b>	7	5	8
<b>Association conclusion/gender?</b>	No	No	No
<b>Association conclusion/experience?</b>	No	No	No
<b>Modal conclusion and percentage</b>	Narrative 63%	Accident 38%	Drug related abuse 28%
<b>Association between modal conclusion/gender?</b>	No	No	No
<b>Association between modal conclusion/experience?</b>	No	Yes – positive association	No

**8.2.1.20 All three scenarios – first and alternative conclusions**

The inclusion of a request to participants to state any viable alternative conclusion available to them offered the opportunity to explore relationships between first and alternative conclusion choice, i.e. those choices of conclusion which might 'hang together'. When all three scenarios responses were summed, two particular pairings of conclusions appeared to emerge as viable alternatives to each other – narrative conclusions and natural causes, and accidental death and natural causes. That deaths attributed to natural causes has emerged as a prevalent choice will not be a surprise in the present research given that the scenarios were originally drawn from research designed to tease out the challenging grey areas for coroners between natural and

unnatural deaths. However, the pairings of natural causes with both narrative conclusions and those of accidental death suggests, for these scenarios at least, that they may be conclusions most prone to substitution for each other. Indeed, as shown at chapter 5.3.5, when data for all coroner areas were analysed over an eleven year period, natural causes and accidental deaths were found to have the strongest (negative) relationship of any verdict pairing, whereby fewer (or more) verdicts of natural causes were associated with higher (or fewer) levels of accidental death ( $r = .62, n = 112, p < .0005$ ). As for the relationship between narrative conclusions and natural cause verdicts the relationship was found not to be significant ( $r = -.002, n = 112, p = .987$  ns). Thus, for the potential for a natural death to be substituted by a verdict of accidental death, coroners responding to the DBA in the present research were exhibiting patterns seen in recorded verdicts across England and Wales 2001-2011. One can speculate about the reasons for an association between narrative and natural death outcomes to be evident in DBA but not in national statistics, and they may be a function of particular characteristics of the cases used in the DBA exercise. To coin a phrase, further research is necessary.

Table 18 shows first, by alternative, choices of conclusion recorded in the DBA for the most prevalent responses and for all three scenarios.

**Table 18 First/Alternative conclusion choices, all three scenarios**

<b>Conclusion/Alternative</b>	<b>Narrative</b>	<b>Accident</b>	<b>Natural</b>	<b>Misadventure</b>
<b>Narrative</b>	-	8	16	9
<b>Accident</b>	8	-	13	4
<b>Natural</b>	16	13	-	0
<b>Misadventure</b>	9	4	0	-

#### **8.2.1.21 Summary - Would the choice of conclusion vary between coroners?**

Coroners were found to vary in their choice of outcome (conclusion at inquest) to different extents for all three scenarios provided. In answering the first question 'what is your conclusion?', the 35 respondents to Scenario 1 produced a predominance of narrative conclusions but also two separate short-form conclusions, the Form 100b (no

inquest) and insufficient evidence to make a decision – four different mandated outcomes to the death investigation process. The 34 respondents to Scenario 2 also produced two separate short-form conclusions, narrative conclusions, Form 100b and simply 'inquest' (which was not counted separately as it may be a repeat of a category already included) – again four different mandated outcomes. Finally, the 32 respondents to Scenario 3 produced six separate short-form conclusions, narrative conclusions, Form 100b and, again, 'inquest' – an extraordinary eight different mandated outcomes from the same information set.

The total number of conclusions chosen for each scenario is shown below at Table 19 indicating that as many as eight different inquest conclusions (where Form 100b 'no inquest' is included as a conclusion) could arise from the same set of circumstances dependent upon the decision-making of the individual coroner. The writer accepts the weaknesses of limited information being provided to participants, the small number of scenarios and a limited respondent sample size, nevertheless the explanatory free-text comments do suggest that coroners are prepared robustly to defend their conclusion decision even when it is apparent over a wide range of varied outcomes. Only one respondent on only one occasion referred to any form of guidance that might have been appropriate (the reference to case law *R v Birmingham Coroner ex-parte Benton (1977)* in support of a misadventure conclusion for scenario 1). Other comments tended to focus on the coroner's personal views and experience occasionally straying into matters of social values, such as avoiding pejorative conclusions or commenting upon culturally unacceptable social habits.

**Table 19 Number of different first-choice conclusions chosen for three coronial scenarios**

<b>CONCLUSION CHOSEN</b>	<b>Scenario 1 (n = 35)</b>	<b>Scenario 2 (n = 34)</b>	<b>Scenario 3 (n = 32)</b>
<b>Narrative</b>	22	9	7
<b>Natural</b>	5	9	2
<b>Accident</b>	0	13	2
<b>Drug Related</b>	0	0	9
<b>Misadventure</b>	4	0	4
<b>Form 100b</b>	2	2	2
<b>Dep. Abuse of Drugs</b>	0	0	4
<b>'Inquest'</b>	0	1	1
<b>'Insufficient Info'</b>	2	0	0
<b>Open</b>	0	0	1
<b>TOTAL SEPARATE CONCLUSIONS CHOSEN</b>	<b>4</b>	<b>4</b>	<b>8</b>

To answer the first research question posed, would coroners vary with each other in their choice of conclusion, the answer was a resounding yes. Faced with exactly the same (albeit limited) information with which to make an inquest conclusion decision, coroners chose a minimum of four different conclusions and a maximum of eight over the three scenarios. It should also be borne in mind that it was open to respondents to plead insufficient evidence to make a decision. This variation did not appear to be based upon individual characteristics of gender or experience in role. In general, time in role and whether a coroner was male or female made no significant difference to the conclusion they chose, and in particular did not lead to a tendency to choose the modal conclusion. A respondent's choice of conclusion was sometimes defended vigorously. Alternative

conclusions were plentiful; there were six different alternative inquest conclusions offered for Scenario 1, four for the second and seven for the third. There was much evidence in the qualitative analysis of the potential for numerous viable alternative conclusions even with very little change in the available information. Coroners often recognised the potential for an alternative conclusion to be just as acceptable as their first choice.

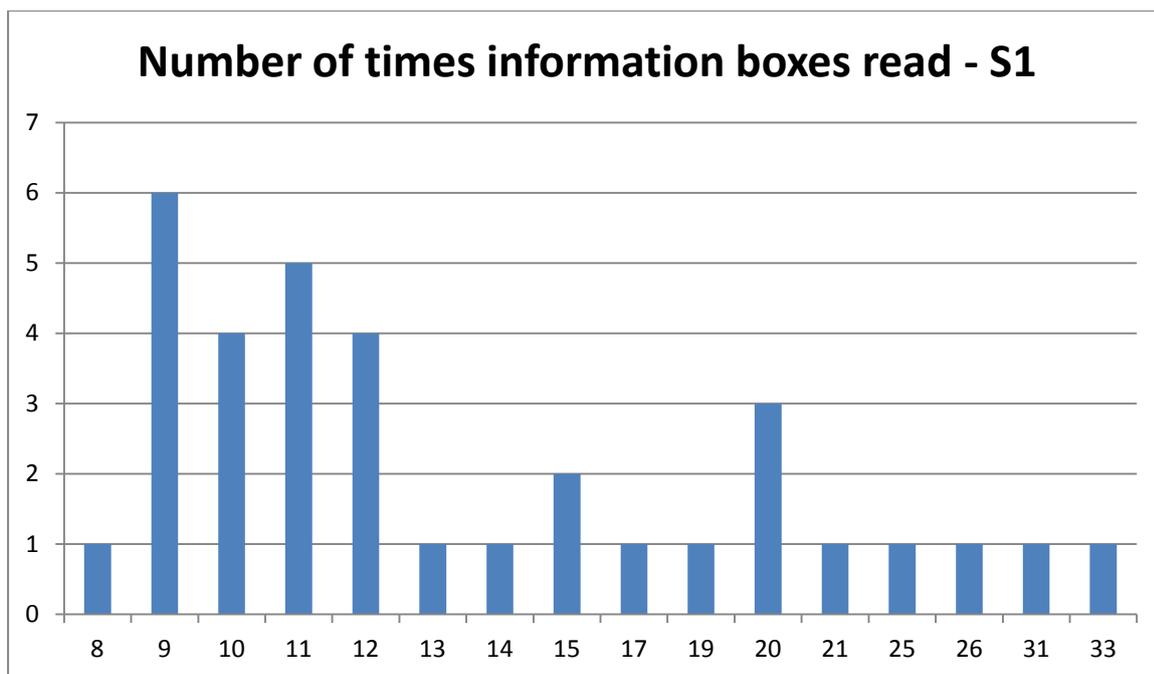
### **8.2.2 Would the number of information categories read before arriving at a conclusion vary between coroners?**

How much information does a coroner need before they make a final decision? Respondents occasionally pointed to the need for further information within the three scenarios and some indicated that they had made assumptions based upon the limited facts available. Coroners here had the opportunity to access information based around nine standard information elements (contained within nine on-screen boxes) designed to encompass the data that would normally be available to them in making a decision at inquest. Of course in the real world coroners would have the chance to probe the evidence and their information would contain more detail in support of the key principle being demonstrated (e.g. supporting evidence of cause of death, medical history etc). But, would coroners simply look at each one of the nine information boxes and make a decision or would they return to certain information boxes to be reminded of the content of the information hidden within? Information boxes closed again when a different box was opened with a mouse click. The specific information boxes that were *repeatedly accessed* will be considered later (and inferences thereby drawn about which information boxes were considered to be most useful or 'salient' in decision-making) but this section of the analysis will turn to the question of **how many times in total** the information boxes were opened and read, and thereby also draw inferences about how difficult the particular scenario was to bring to a conclusion – the more information categories that had to be read the more difficult the case. Although there are opportunities to compare case scenarios and discuss findings, the focus, in accordance with the research question, will be on variation between individual coroners.

### **8.2.2.1 Scenario 1 – number of information categories read**

Scenario 1 concerned a 61 year old lady who died in hospital of bronchopneumonia four days after having a hip operation for severe osteoarthritis. It was completed by 35 respondents, 69% (n=24) male and 31% (n=11) female. The mean number of times information boxes were opened for this scenario was 14; with a range of eight to 33 (one respondent's information box access was not captured by the software). The modal number of information boxes accessed was nine. So, with nine information boxes to choose from, respondents on average accessed one or other of the boxes on 14 occasions. This means that the average respondent looked at the same information more than once. The wide discrepancy between mean and mode reflected the skewed distribution presented in Figure 28.

Figure 28 shows a wide spread of information search styles, with a cluster around the modal result of nine information boxes accessed (this was almost always each box once, but frequency of access is discussed later) to 12 boxes accessed. In fact over half of all Scenario 1 respondents did cluster between nine boxes and 12 boxes accessed (56% n=19/34). This pattern is suggestive of, and is discussed later, the respondent checking everything once and then returning to just one, two or three particular boxes for a further look at specific information. At the extreme, one respondent looked at the nine information boxes a total of 33 times.



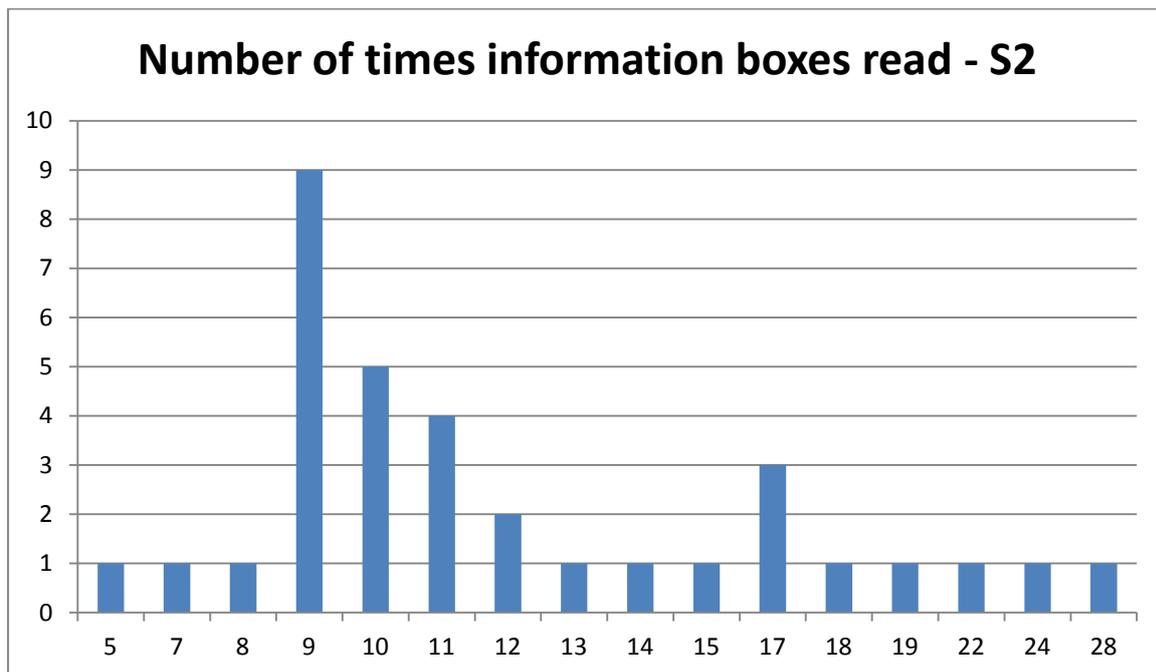
**Figure 28 Scenario 1 – number of information categories read**

#### **8.2.2.2 Scenario 2 – number of information categories read**

Scenario 2 concerned an 84 year old lady who died in hospital of bronchopneumonia three days after admission for a broken neck of femur suffered in a fall at home. There were no family, legal or media issues being raised. It was completed by 34 of the 35 respondents who completed scenario 1, 68% (n=23) male and 32% (n=11) female. The mean number of times any information box was opened for this scenario was 12 (two less than the previous scenario); with a range of five to 28. The modal number of information boxes accessed was again nine. So, with nine information boxes to choose from, respondents on average accessed one or other of the boxes on 12 occasions. This means that the average respondent looked at the same information more than once. Again, the wide discrepancy between mean and mode reflected the skewed distribution presented in Figure 29.

Similarly, there is a strong modal cluster at between nine times and 11 times, reflecting a look at each of the nine available boxes and, for some, returning to one or two as a reminder (shown at Figure 29). To some extent, emerging familiarity with the scenario structure has probably played a part resulting in just nine boxes being accessed on nine occasions (each one of these nine respondents did indeed read all nine separate boxes on just one occasion each). Again, over half of all respondents are clustered at having read boxes between nine and 11 times (53% n=18). If the number of boxes accessed is

an indicator of ease/difficulty in making a decision (the more boxes accessed the more difficult the decision) then the pattern has reflected this for the first two scenarios with the Likert scale difficulty score (discussed later) having come down from a Mean of 2.29 for Scenario 1 to exactly 2 for Scenario 2. The range of difference (lowest number of information boxes to highest number selected) between respondents also dropped slightly when compared with Scenario 1, down from a range of 25 (8-33; scenario 1) to 23 (5-28; scenario 2).



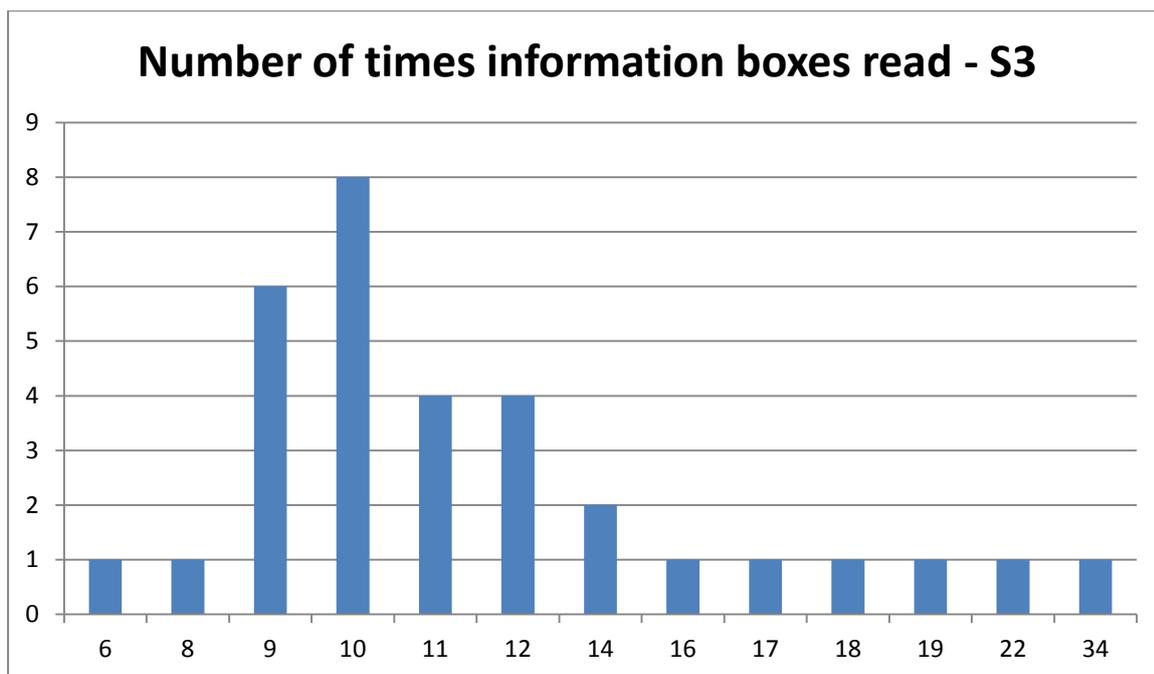
**Figure 29 Scenario 2 – number of information categories read**

### 8.2.2.3 Scenario 3 – number of information categories read

Scenario 3 concerned a 38 year old male who died at home of hepatic cirrhosis having been an intravenous drug addict in the past which is believed to be the source of the Hepatitis B infection. There were no interested persons, legal representation or media issues. It was completed by 32 of the 35 respondents who had completed scenario 1, 69% (n=22) male and 31% (n=10) female. The mean number of times any information box was opened for this scenario was 14 (returning to the level at Scenario 1); with a range of six to 34 (28, bigger than both previous scenarios). The modal number of information boxes accessed was ten on this occasion. So, with nine information boxes to choose from, respondents on average accessed one or other of the boxes on 14 occasions. This means that the average respondent looked at the same information more

than once. The wide discrepancy between mean and mode reflected the skewed distribution presented in Figure 30.

The modal cluster is again apparent at between nine times and 12 times, perhaps reflecting familiarity with the process, and again the six respondents who accessed just nine information boxes for this scenario did indeed look at each separate box just once. That number (of just nine boxes read) having reduced from nine respondents previously to six respondents for this scenario may reflect its additional difficulty - it was of course a completely different case setting to the previous two scenarios. The modal cluster was stronger on this third occasion with some two-thirds of respondents accessing information boxes at between nine and 12 times (69% n=22) which although likely to reflect process familiarity, is indicative of decision-making behaviour characterised by checking each information box once, and then returning to one, two or three for further reading. The range for Scenario 3 is larger than for the other scenarios and is positively skewed by one significant outlier at 34 information boxes accessed. Scenario 3 did in fact have the highest mean difficulty level at 2.32, although compared with 2.29 for scenario 1 and exactly 2 for scenario 2 there has been little to choose between the three scenarios and therefore little opportunity to explore the relationship between the number of information boxes accessed and the level of difficulty associated with the task. Figure 30 shows the number of times information categories were read for Scenario 3.



**Figure 30 Scenario 3 – number of information categories read**

#### **8.2.2.4 All three scenarios – differences between coroners in reading information**

Given the ranges in the numbers of information boxes accessed across the three scenarios, it was important to establish whether there was any consistency in individual coroner decision-making behaviour, in terms of how many times information boxes were read. That is, did coroners who chose more (or fewer) items do so for all cases? There was some evidence that this was the case.

Those coroner respondents who chose more (or fewer) items in one case scenario had a moderately strong tendency to do the same in other case scenarios, thereby suggesting a consistency in their individual 'appetite' for information. The relationship between numbers of items chosen in Scenarios 1, 2 and 3 was investigated. There was a moderately strong, statistically significant positive relationship found between all three scenarios, S1/S2 ( $r = .63, n = 33, p < .05$ ); S1/S3 ( $r = .65, n = 31, p < .05$ ); S2/S3 ( $r = .54, n = 32, p < .05$ ), with coroners choosing high (or low) numbers of items for one case associated with similarly high (or low) numbers in the other cases. This is of no little importance as it suggests individual approaches to decision-making were being consistently applied among coroner respondents when dealing with limited information. To a moderate extent, the same coroners re-considered (or did not re-consider) available information before making a decision. Of course, establishing *why* some

coroners took a different approach is crucial here and unfortunately has not been possible within this remote methodology. Possibilities range from individual disparity in information salience to differing intellectual abilities, familiar case recognition, an individual's memory capacity, and to distractions during the scenario exercise.

The potential for coroner respondents with more experience in role to choose fewer (or more) items of information was also investigated. Only in one case (Scenario 1) was a statistically significant relationship found (although Scenario 3 was a tendency and all three scenarios were in the same direction), where the more experienced coroner respondents tended to choose fewer items of information before making a decision. The relationship between the numbers of items chosen for the three scenarios and the respondents experience in role (in years) was investigated. There was a moderately weak to very weak negative correlation between the variables across the three scenarios, S1 ( $r = -.41, n = 34, p < .05$ ); S2 ( $r = -.15, n = 34, p = .40$  ns); S3, ( $r = -.33, n = 32, p = .06$  ns); with some tendency for those with more experience to access fewer numbers of information boxes. This might be speculated as some evidence of experienced coroners being more comfortable with available information through that experience and needing to re-visit that information less often.

#### **8.2.2.5 Summary - Would the number of information categories read before arriving at a conclusion vary between coroners?**

Coroners were found to range widely in the number of information boxes they read before coming to a conclusion and to be individually consistent in the number of information boxes they would access, but tended to cluster at between nine to 12 boxes accessed. Taken together, the three scenarios had a range of boxes accessed by participants from a lowest at just five boxes (meaning that four information categories were discounted without being read) to 34 boxes (meaning multiple repeats). In order to access all the available information just once, the respondent would have to read nine boxes in each scenario. The writer will explore exactly *which* boxes were accessed at a later stage in this chapter. The findings suggest that coroners were similar, despite a wide range, in their approach to the amount of information they required although it is accepted there are methodological weaknesses in an online survey without personal observation on the part of the researcher. For example, those who accessed more information boxes may just have poorer short term memory than those who accessed fewer or have been more easily distracted?

The relationship between difficulty level reported and the number of information boxes read has been mentioned above in relation to each separate scenario. In all cases there was found to be no relationship between the reported difficulty level and the number of boxes read. The relationship between the difficulty score recorded and the number of items chosen was investigated for each of the three scenarios using Kendall's tau-b non-parametric correlation coefficient. These did not reach statistical significance, S1, ( $r = -.21, n = 34, p = .12$  ns); S2 ( $r = .10, n = 34, p = .48$  ns); S3 ( $r = .17, n = 31, p = .26$  ns). The results call into question the idea that those decision-makers who took the opportunity to review more information might have experienced the greatest difficulty in arriving at their conclusion.

As respondents moved through the three scenarios a pattern did emerge of an increasing tendency to cluster towards accessing nine to 12 information categories. This probably reflects a growing familiarity with the process. It is suspected, but cannot be claimed, that had the scenarios stretched to say ten or 12 in number, the respondents would have clustered increasingly towards accessing just the nine information boxes. The clear tendency to cluster at nine to 12 information categories across the three scenarios is indicative of a similar approach to information acquisition.

Perhaps the most useful aspect of a methodology that allowed repeated accessing of the same information hidden behind category boxes is an indication of *which* information boxes were most often repeatedly read. Analysis only of the *number* of information boxes read by respondents, as here, indicates the *quantity* of information required by the decision maker, but not necessarily the *content* of that information. The analysis of information categories by content is presented below (8.2.3) at research question 4.

### **8.2.3 Would the order in which information was read vary between coroners?**

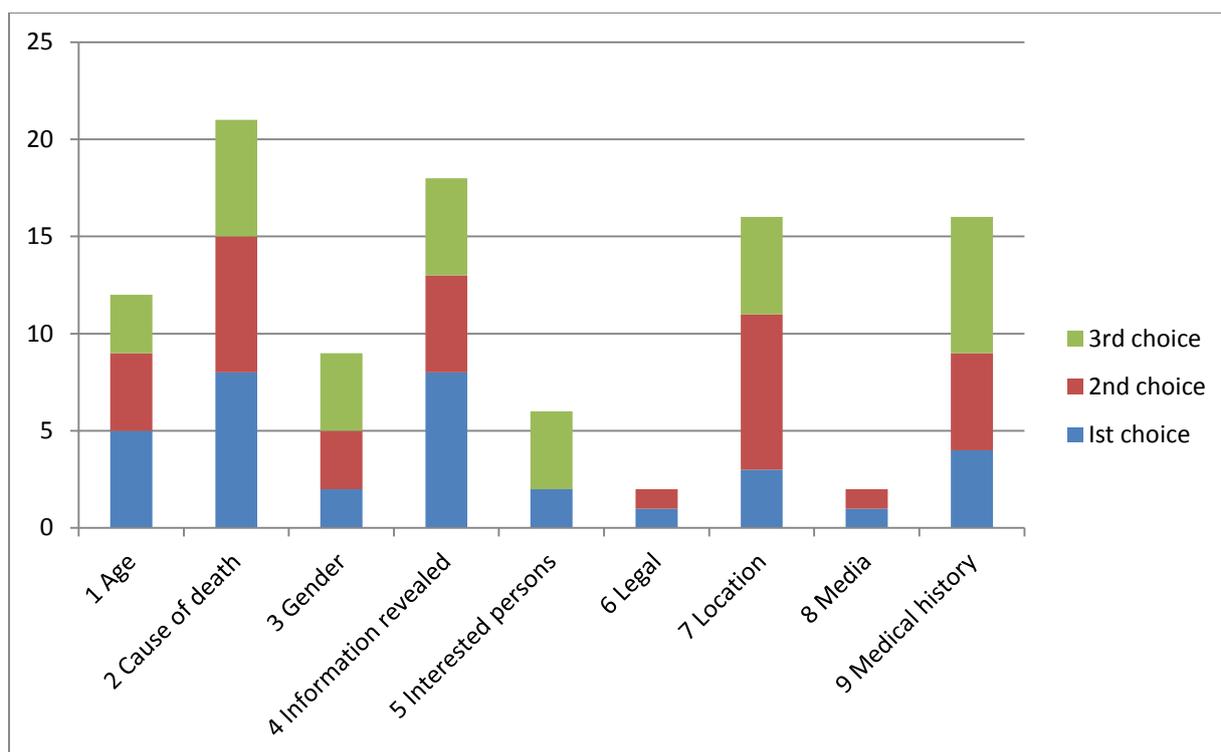
The aspect of DBA which distinguishes it from cameos and static scenarios is the invitation to respondents to *sequence* their choice of information. It was this aspect of the work which lies at the core of the notion of contingent decision-making in The Adaptive Decision Maker (Payne, Bettman and Johnson, 1993) and the MouselabWEB software which it spawned. How can one utilise Decision Board output to establish a general approach to decision-making and personal styles? There are many ways which could in themselves occupy a thesis of twice this length on their own and so it should be

recognised that what follows is only a small sample of the possible depictions of decision-making style.

First, an attempt will be made to establish the most common **search sequence**. This is done by taking the piece of information most commonly chosen first, then the pieces of information most commonly chosen after that, then the pieces of information most commonly chosen thereafter. This is not the only way to represent the most common route through the information search, and is included here as illustrative rather than definitive. The notable shortcoming is that it may omit an information category used if that item is never the most frequent follow-up to a more frequently used item. This could be overcome by looking at longer sequences and having a cumulative criterion for inclusion (see later 8.2.4.4: information salience). Nonetheless, the present approach yields a picture which is meaningful as an indicator of similarities and differences between scenarios in the relative salience of information. The software used a programmed system ensuring that every respondent would have seen the nine information boxes in a random order, three equal rows of three boxes, thus denying the potential for identical sequences to be determined by, for example, the respondent coroners reading from top left to bottom right.

### **8.2.3.1 Scenario 1 – order of reading information categories**

Respondents had been asked to access information in the order that they considered most important. They had nine different information boxes to consider each with a visible title and more detailed information hidden below which was revealed when the mouse was clicked on the box. Figure 31 shows the order in which the nine information boxes were accessed in relation to the order of the first three boxes chosen by respondents e.g. (1) Age was chosen five times as a first choice, four times as a second choice and three times as a third choice. Although there were 35 respondents to Scenario 1, sequencing data was not captured by the software for one respondent and all analysis is thus based on the 34 respondents for whom results were collated.



**Figure 31 Order of reading information boxes – scenario 1**

The results reveal that two information categories were equal first to be accessed by respondents completing scenario 1, ((2) Cause of death and (4) Information revealed by investigation). This order (2; 4) tended to be a consistent pattern throughout the three scenarios and is further considered at 8.2.4 where the repeated accessing of the same information boxes is investigated. It is worth reiterating here that the *order* in which information boxes are accessed is different to the *total number of times* those boxes are accessed and that both those calculations will be valid in determining the value placed by respondents on the particular information categories. The most selected second choice in this scenario was (7) Location of death (eight respondents chose this second), and third choice was (9) Medical history (seven respondents chose this third).

Eight respondents made their first choice (2) Cause of death, and equally eight chose (4) Information revealed by investigation. What then did each of these respondents choose second? Tables 20 and 21 below show these second choices of information boxes accessed.

**Table 20 Respondents who chose (2) Cause of death first in scenario 1 – what did they access second? (n=8)**

<b>Information chosen second after (2) Cause of death</b>	<b>Number of respondents</b>
1 Age	1
2 Cause of death	1
4 Information revealed	4
9 Medical history	2

The eight respondents who chose (2) Cause of death first were then split across four different second choices as shown in the Table above. However, a preferred choice emerged as the second box chosen with half of those respondents then moving on to (4) Information revealed by investigation. All those respondents who chose (2) Cause of death first and then (4) Information revealed by investigation second, chose (9) Medical history as their third accessed information box thus a preferred sequencing order of (2), (4), and (9) was established.

**Table 21 Respondents who chose 4 (Information revealed by investigation) first in scenario 1- what did they access second? (n=8)**

<b>Information chosen second after (4) Information revealed by investigation (n=8)</b>	<b>Number of respondents</b>
2 Cause of death	3
3 Gender of deceased	1
7 Location of death	1
9 Medical history	3

For those respondents who chose (4) information revealed by investigation as their first choice there was a more even spread of second choices, with again four categories being

selected. An equal number of the eight respondents, three each, chose either (2) Cause of death or (9) Medical history as their second choice. One respondent each chose (3) Gender of deceased or (7) Location of death. The three respondents who chose (4) then (2)<sup>23</sup> moved on to either (7) Location of death (two respondents) or (9) Medical history (one respondent) as their third choice. Thus the preferred sequencing order when (4) was chosen first was established as (4), (2), (7).

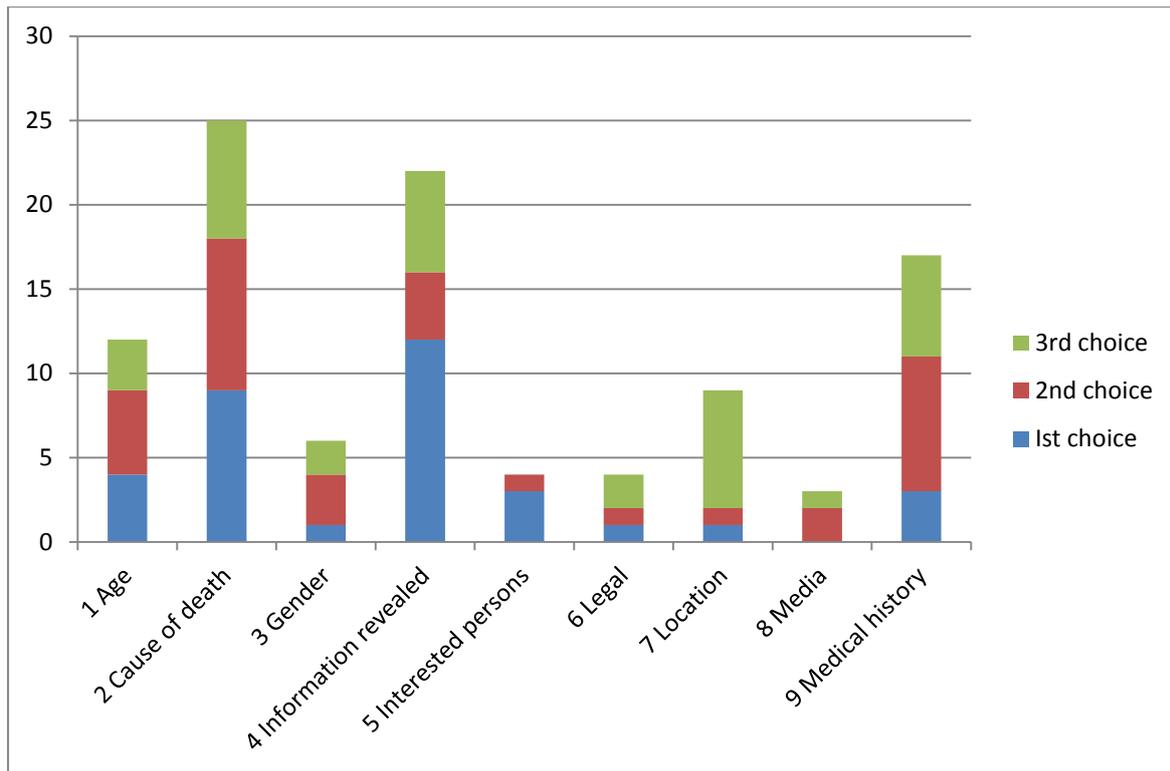
A pattern therefore begins to emerge, which will be seen to become familiar across the scenarios and within analysis based on repeated access of the information boxes, as the most important items of information to the coroners as decision makers being calculated as (2) Cause of death, (4) Information revealed by investigation, (9) Medical history and (7) Location of death.

### **8.2.3.2 Scenario 2 – order of reading information categories**

Figure 32 below shows the order in which the nine information boxes were accessed in relation to the order of the first three chosen by respondents to scenario 2, e.g. (1) Age was chosen four times as a first choice, five times as a second choice and three times as a third choice. There were 34 respondents to Scenario 2.

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<sup>23</sup> (2) has been preferred here for the modal order because it tied with 4 for first place whilst (9) was fourth place as a first choice



**Figure 32 Order of reading information boxes – scenario 2**

The results reveal that (4) Information revealed by investigation stands out as the first choice of information category with twelve respondents so choosing. The closest category to that is again (2) Cause of death with nine respondents selecting that box first. The most popular second choice in this scenario was in fact (2) Cause of death (nine respondents chose this second), and the most popular third choice was tied between (2) Cause of death and (7) Location of death (seven respondents each chose one of these).

Looking at the majority, who selected (4) Information revealed by investigation, what then did those participants go on to choose as their second category to access? This is shown at Table 22.

**Table 22 Respondents who chose 4 (Information revealed by investigation) first in scenario 2 - what did they access second? (n=12)**

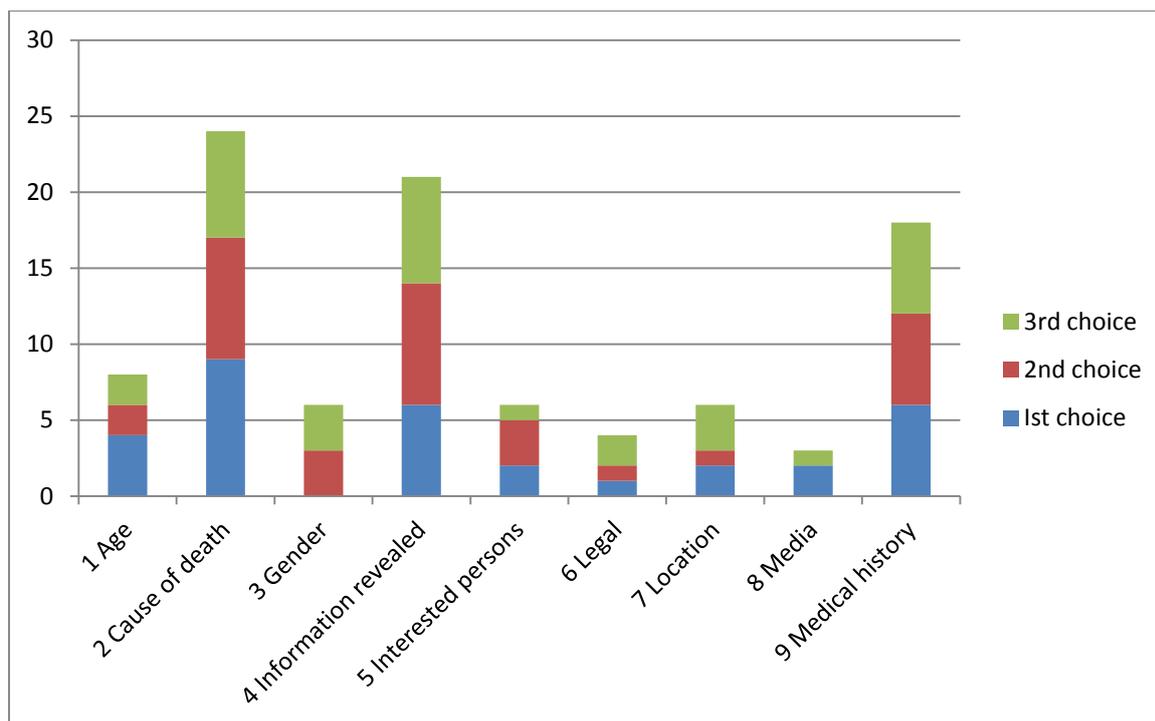
<b>Information chosen second after (4) Information revealed by investigation (n=12)</b>	<b>Number of respondents</b>
1 Age of deceased	1
2 Cause of death	6
9 Medical history	5

Those who had chosen (4) Information revealed by investigation then divided in two ways (with the exception shown above of one respondent), selecting as their second choice either (2) Cause of death or (9) Medical history. The six respondents who chose (4) Information revealed by investigation, then (2) Cause of death then split a further three ways choosing either (9) Medical history (four respondents) or (4) Information revealed by investigation or (7) Location of death (one respondent each) as their third choice of information category.

Thus a familiar modal sequence order of selection was established for scenario 2 of 1. (4) Information revealed by investigation, 2. (2) Cause of death and 3. (9) Medical history.

### **8.2.3.3 Scenario 3 – order of reading information categories**

Figure 33 below shows the order in which the nine information boxes were accessed in relation to the order of the first three chosen by respondents to scenario 3 e.g. (1) Age was chosen four times as a first choice, twice as a second choice and twice as a third choice. There were 32 respondents to Scenario 3.



**Figure 33 Order of reading information boxes – scenario 3**

The results reveal that (2) Cause of death stands out as the first choice of information category with nine respondents so choosing. The closest category to that is again (4) Information revealed by investigation and (9) Medical history with six respondents each selecting one of those boxes first. The most popular second choice in this scenario was a split between (2) Cause of death and (4) Information revealed by investigation (eight respondents chose one of these second) and the most popular third choice was tied again between the same categories (2) Cause of death and (4) Information revealed by investigation (seven respondents each chose one of these). This tendency towards the same three categories (2, 4 and 9) suggests that respondents came to appreciate the importance of these categories above all others as they worked through the scenarios. This is further supported by analysis of which categories were chosen subsequently after one or other of those three most prioritised categories, below.

Taking the majority that selected (2) Cause of death as their first choice category, what then did those participants go on to choose as their second category to access? This is shown at Table 23.

**Table 23 Respondents who chose (2) Cause of death first in scenario 3 – what did they access second? (n=9)**

<b>Information chosen second after (2) Cause of death (n=9)</b>	<b>Number of respondents</b>
4 Information revealed by investigation	4
9 Medical history	5

Further, of the five respondents who chose (2) Cause of death followed by (9) Medical history, three went on to choose (4) Information revealed by investigation as their third choice. This tendency towards prioritising (2), (4) and (9) is further illustrated by the fact that all respondents who chose either of those three categories as their first choice then always chose another one of the three as their second choice. Of the six respondents who chose (4) first, five then chose (2) with the other choosing (9) and of the six respondents who chose (9) first, four then chose (4) and two chose (2). Third choices also showed similar tendencies towards the three preferred categories of (2), (4) and (9). The modal order sequence for scenario 3 was thus established as (2) Cause of death first, then (9) Medical history as second choice and (4) Information revealed by investigation as third choice.

**8.2.3.4 All three scenarios - tendency to the same three categories – (2) Cause of death, (4) Information revealed by investigation and (9) Medical history**

This analysis of chosen order has focussed on the first three information box choices made by respondents as a convenient way to look at which categories were prioritised. Each scenario was prefaced with the instruction to coroners to **'please access information in the order you consider most important'**. The nine boxes appeared on each respondent's computer screen as three equal lines of three boxes, each with their titles displayed. The writer cannot discount a convenient top left to bottom right approach by respondents (or any other similar patterns) but every effort was made through instructions and software randomisation to minimise the possibility of information access by pattern, habit or convenience. However, the first three choices feel like the respondent would be 'breaking the back of the task', taking out a third of the available information. Three lines of three would perhaps reinforce this early milestone in information gathering.

This accounts for the writer’s focus on the first three choices made by respondents. On this basis, one might propose that scenario 1 had a total of 102 ‘first three choices’ to be made (calculated by 34 respondents each making ‘first three choices’ to three scenarios,  $34 \times 3 = 102$ ). Had the selection of categories been random (and equal) then each of the nine information categories might account for  $(9/102)$  9% of the total. For any three categories to form an equal part of that total, one might expect a percentage score of  $(3 \times 9\%)$  27%. Table 24 shows the relative proportion of all ‘first three choices’ taken up by the three most prevalent categories.

**Table 24 Proportion of ‘first three choices’ taken up by three most prevalent information categories**

	<b>Total ‘first three choices’</b>	<b>(2) Cause of death</b>	<b>(4) Information revealed by investigation</b>	<b>(9) Medical history</b>	<b>Total score (2), (4) and (9) (in any order)</b>	<b>Percentage of total ‘first three choices’</b>
<b>Scenario 1</b>	102	21	18	16	55	54%
<b>Scenario 2</b>	102	25	22	17	64	63%
<b>Scenario 3</b>	96	24	20	18	62	65%

Thus in all three scenarios, over half of all possible first three choices of information category were one or more of just three particular categories, either (2) Cause of death, (4) Information revealed by investigation or (9) Medical history.

Further, there is some evidence that as respondents were increasingly familiar with the nature of the information available behind the box titles, they inclined towards prioritising these three particular information categories, with almost two thirds of all ‘first three choices’ being one or other of the three prevalent information categories by the time Scenario 3 was reached.

### **8.2.3.5 Summary - Would the order in which information was read vary between coroners?**

There is to some extent an overlap between this section of the analysis and the next section (8.2.4) which will deal with the question of *which* information categories respondents read before arriving at their conclusion. While the sequence will give some indication of the importance of a particular information category to the decision maker, so might the number of times that information category is opened and read. Further techniques will be applied in the next section to explore the *frequency* of opening information categories tied to their prioritisation.

However, this analysis of sequencing alone has revealed that coroners inclined significantly towards prioritising three particular information categories in this order, (2) Cause of death, (4) Information revealed by investigation, (9) Medical history. Those three categories accounted for over half of all first three choices for scenario 1 and for almost two thirds of all the first three choices for Scenarios 2 and 3. Such agreement suggests a consistent approach amongst coroners as to what information will be prioritised in decision-making and sequencing can therefore be eliminated as a possible cause for the variation in coronial outcomes identified in this research.

Any possible relationship between the self-reported experience in role of a coroner and their first choice of information category was analysed. This analysis arose from interest in possible patterns exhibited by the most experienced coroners, who might favour particular information categories as a priority. In fact, no such significant relationship was established. A one way analysis of variance was conducted for all three scenarios S1:  $F(8, 25) = 1.06, p = .42$  ns, S2:  $F(7, 26) = .63, p = .73$  ns, S3:  $F(7, 24) = 1.14, p = .37$  ns. Similarly, no significant association was identified by looking at patterns of first choice information categories chosen by respondents and comparing those with their choice of conclusion. The relationship between first information category chosen and choice of conclusion was investigated across the three scenarios. A Chi-square test for independence indicated no significant association for any of the three scenarios S1:  $X^2(24, n = 34) = 35, p = .07$  ns, Cramer's  $V = .59$ , S2:  $X^2(21, n = 34) = 27, p = .18$  ns, Cramer's  $V = .51$ , S3:  $X^2(49, n = 32) = 45, p = .62$  ns, Cramer's  $V = .45$ .

Thus there was significant agreement between coroners regarding the order in which they accessed available information which could not be explained by their experience in role, and which, generally, did not lead to them converging on the same conclusion. Coroners did not vary with each other by the order in which they read the information categories available.

#### **8.2.4 Would which information categories were read prior to a decision vary between coroners?**

Whilst the *order (sequence)* in which coroners accessed information might offer an indication of the priority given to categories of information (and was the instruction given to respondents), the results collated in the datalyser also offered the opportunity to analyse which categories were *repeatedly* accessed by participants (*frequency*) as a reminder of their contents. Once information categories were clicked open and read, they closed again as coroners accessed different information boxes. Therefore an indication of which were the most frequently accessed boxes might offer an insight into the level of importance being attached to their contents by respondents. This might appropriately be considered '*information salience*' where salience is defined as the relative prominence of the particular piece of information to the decision being made.

Thus the writer was keen to calculate a score for weighting purposes depending on *when* (order) information boxes were accessed by respondents and *how often* (frequency) they were accessed. For example, one information category which may not have been accessed as often as another, but was regularly accessed before that other, might reflect a prominence being attached to it by respondents.

The nine information boxes available to respondents were entitled;

1. Age of deceased
2. Cause of death given by pathologist
3. Gender of deceased
4. Information revealed by investigation
5. Interested persons
6. Legal representation
7. Location of death
8. Media issues
9. Medical history

The method used was to apply a scoring system designed to give equal weighting to the *order* and to the *frequency* with which an information category was selected. This was

devised by multiplying the chosen information category by a score depending upon the position chosen (e.g. for Scenario 1, the highest number of total boxes accessed by any respondent was 33. Therefore, choice number 1 (the first chosen information category) attracted a score of 33 points; number 2 attracted 32 points and so on) **and this included repeat selections of the same category**. Summing the scores gained by each of the nine categories allowed a total weighted 'salience' score per information category.

**8.2.4.1 Scenario 1;** concerned a 61 year old lady who died in hospital of bronchopneumonia 4 days after having a hip operation for severe osteoarthritis. The highest number of total information category boxes accessed by any participant was 33, so the multiplier started at 33 for the first chosen information category, to 32 for second choice and so on. Total scores were as shown in Table 25 below;

**Table 25 Scenario 1, nine information categories scored by order and frequency**

<b>Information category</b>	<b>Weighted score by order and frequency (relative score position)</b>
1. Age of deceased	1173 (5)
2. Cause of death	2123 (1)
3. Gender of deceased	1123 (7)
4. Information revealed by investigation	1753 (2)
5. Interested persons	1140 (6)
6. Legal representation	988 (8)
7. Location of death	1331 (4)
8. Media issues	970 (9)
9. Medical history	1654 (3)

Thus, according to this weighting methodology, the respective salience of the information categories for scenario 1 is: 2, 4, 9, 7, 1, 5, 3, 6, and 8. Again, the high relative salience of the three previously identified categories is shown – (2) cause of death, (4) information revealed by investigation and (9) medical history, together taking up 45% of the total score. Equal salience would mean each information category would account for 11% of the total score (100%/9) and that therefore any three categories, if salience were equal, would sum to 33% of the total. Only the three categories of (2) cause of death, (4) information revealed by investigation and (9) medical history accounted for individual percentage scores of above 11%.

**8.2.4.2 Scenario 2;** concerned an 84 year old lady who died in hospital of bronchopneumonia 3 days after admission for a broken neck of femur suffered in a fall at home. The highest number of total information category boxes accessed by any participant was 28, so the multiplier started at 28 for the first choice information category, to 27 for second choice and so on. Total scores were as shown in Table 26 below;

**Table 26 Scenario 2, nine information categories scored by order and frequency**

<b>Information category</b>	<b>Weighted score by order and frequency (relative score position)</b>
1. Age of deceased	989 (4)
2. Cause of death	1438 (1)
3. Gender of deceased	859 (7)
4. Information revealed by investigation	1222 (2)
5. Interested persons	965 (5)
6. Legal representation	753 (9)
7. Location of death	913 (6)
8. Media issues	759 (8)
9. Medical history	1095 (3)

Thus, according to this weighting methodology, the respective salience of the information categories for scenario 2 is: 2, 4, 9, 1, 5, 7, 3, 8, and 6 with the same three categories having scored highest for relative salience and accounting for 42% of the total score.

**8.2.4.3 Scenario 3;** concerned a 38 year old male who died at home of hepatic cirrhosis having been an intravenous drug addict in the past which is believed to be the source of the Hepatitis B infection. The highest number of total information category boxes accessed by any participant was 34, so the multiplier started at 34 for the first choice information category, to 33 for second choice and so on. Total scores were as shown in Table 27 below;

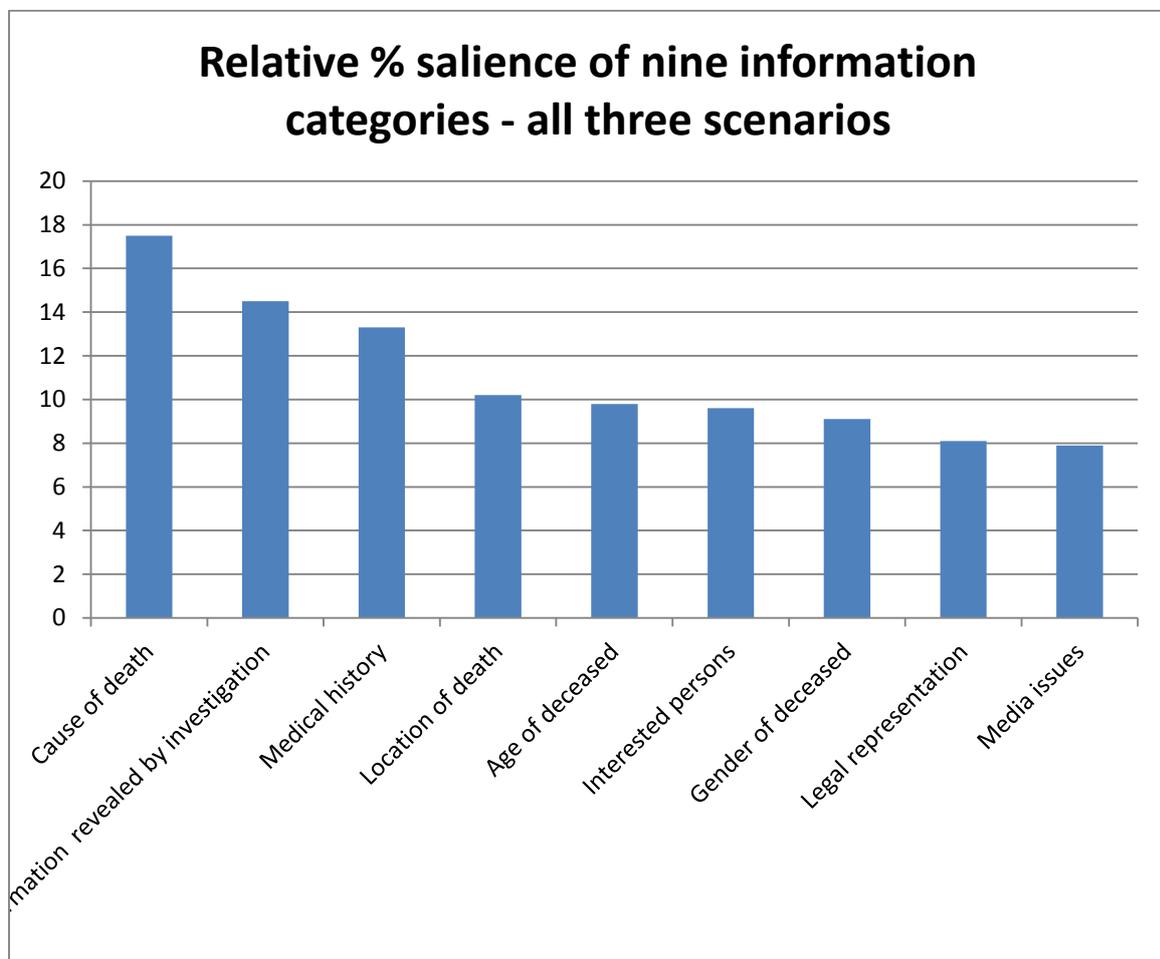
**Table 27 Scenario 3, nine information categories scored by order and frequency**

<b>Information category</b>	<b>Weighted score by order and frequency (relative score position)</b>
1. Age of deceased	967 (4)
2. Cause of death	2040 (1)
3. Gender of deceased	928 (7)
4. Information revealed by investigation	1672 (2)
5. Interested persons	954 (5)
6. Legal representation	859 (9)
7. Location of death	1022 (6)
8. Media issues	798 (8)
9. Medical history	1499 (3)

Thus, according to this weighting methodology, the respective salience of the information categories for scenario 3 is once again: 2, 4, 9, 1, 5, 7, 3, 8, and 6, the three highest scoring information categories accounting for 49% of the total salience score on this occasion.

#### 8.2.4.4 All three scenarios - Information Salience

Summing all three scenarios weighted scores together shows the respective salience, according to this methodology, of the 9 information categories across the total DBA exercise and is shown in figure 34 below;



**Figure 34 Three scenarios, information categories scored by order and frequency**

Figure 34 shows that much of the total salience is accounted for by the first three information categories of (2) cause of death, (4) information revealed and (9) medical history (45% of the total). That is, scored equally by the order in which categories were opened and the frequency by which they were opened, those three categories account for approaching half of all relative importance or prominence attached by respondents (salience). By now, this will be familiar to the reader as the previous section had outlined the tendency for the first three categories opened by coroners to be those highlighted again here. The relative salience between the nine information categories was found to range from 7.9% (media issues) to 17.5% (cause of death), ( $\bar{x} = 11.1$ ; SD 3.1).

Thus, measuring information salience by calculating the relative order and frequency of information access, coroners tended to agree on what information was most salient to them when faced with a decision as to inquest conclusion, based upon limited available facts.

#### **8.2.4.5 All three scenarios - information categories and frequency of access**

Focussing on just how *frequently* any of the 9 information categories were accessed, analysis was undertaken for each information category and for all three scenarios. The relative frequency with which information was accessed by coroner respondents was measured. For example, the category 'age', in Scenario 1 only, was not accessed at all by one coroner respondent, on just one occasion by 26 coroners and more than once by eight coroners - making 35 respondents in all for case 1. Analysis included the exact number of times each information category was accessed but for the purposes of this section, the issue was whether that information was looked at **once, more than once or not at all**. The hypothesis was that coroners, as decision-makers, would be more likely to return to information categories considered by them to be most salient.

When summed across all three scenarios, it was possible to show the mean percentage of respondents by the frequency with which they accessed specific information. This is shown below in Table 28;

**Table 28 Three scenarios, Mean percentage of respondents selecting information category, by frequency**

<b>Information category</b>	<b>Not Selected</b>	<b>Selected Once</b>	<b>Selected &gt; Once</b>
Age	2%	81%	17%
Cause of death	1%	34%	65%
Gender of deceased	5%	78%	17%
Information revealed by investigation	1%	48%	51%
Interested persons	5%	77%	18%
Legal representation	6%	82%	12%
Location of death	2%	78%	20%
Media issues	10%	76%	14%
Medical history	1%	60%	39%

Table 28 shows that coroner respondents tended to select an information category at least once, although 'media issues' can be seen as a category that was not accessed on average by 1 in 10 of the coroner respondents. Taking all nine information categories together, on average an item of information was not selected at all by just 4% of respondents (mean score of 'not selected'). The overwhelming majority of respondents selected each information category just once (mean score of 68%), although two information categories stand out as, on average, being accessed more than once (2) Cause of death and (4) Information revealed by investigation. The preponderance for accessing information just once may have been a product of the scenario methodology, whereby once an information box was clicked upon and opened its contents could be read for an indefinite length of time, or at least until the participant clicked elsewhere. However, it is also true to say that in general all information categories were accessed *at least* once. It is likely that coroners did not feel they could leave known and available information unopened when being asked to provide a conclusion on the available facts.

All nine information boxes appeared on the same screen and so no difficulty was presented in accessing all the available information.

The two categories most likely to have been accessed more than once, (2) cause of death and (4) information revealed by investigation, had on average more than half of all coroner respondents accessing them on two or more occasions, suggesting a level of salience being attached in terms of their prominence to decision-making. Similarly, 'legal representation' and 'media issues' were least likely to be accessed more than once, which suggests low or contingent salience for those categories of information. 'Medical history' also had a relatively high percentage of respondents accessing that category more than once (39%) before the mean scores fall away to a fourth place of 20% (location of death). These higher levels of contingent salience for the first three categories of information, (2) cause of death, (4) information revealed and (9) medical history, again reinforce their prominence over the others, and repeat the findings shown above for the order/frequency weighting analysis, and for the tendency to the same three categories when analysing the *order* of information selection. Taken together across all nine information categories, 28% of coroner respondents returned to re-read any one of the categories at some time over the three scenarios in contrast to the average 68% of respondents who accessed all information just once.

There can be no question then that overall relative salience is heavily balanced in favour of those three information categories. Coroners consistently favoured the three categories of (2) cause of death, (4) information revealed and (9) medical history, both in terms of *frequency* and *order* of selection. Thus, coroners were applying a similar approach to the acquisition and management of available information during the process of their decision-making.

There was evidence that coroners increasingly began to look at information boxes just once as they progressed through the three scenarios, with four of the nine information categories scoring over 90% of participants accessing that information just once by the time participants reached scenario 3. All nine information categories were increasingly accessed just once by respondents suggesting a possible familiarity with the scenario content as more cases were considered. It is accepted that with only three scenarios, all of which were presented by the software in the same order (S1, S2, and S3), it is not possible to draw absolute conclusions from this. Additional research with a greater number of scenarios, and presented in random order, might reveal a tendency on the part of coroner decision-makers to process information more succinctly contingent upon scenario familiarity, improved information processing, or information filtering techniques.

#### **8.2.4.6 Summary - would which information categories were read prior to a decision vary between coroners?**

This section of the analysis introduced the concept of 'information salience' i.e. the relative prominence to the decision-maker of each of the nine information categories presented. Salience here represents a combined calculation of *frequency* of access (how many times did a coroner read the information), and *order* of access (at what point(s) in the decision-making process was the information accessed). A points based weighting system was devised, combining the two factors of *frequency* and *order* which demonstrated, again, that three particular information categories (2) cause of death, (4) information revealed by investigation and (9) medical history were favoured by coroners as salient to their decision-making. Taken together, these three information categories accounted for over 45% of the salience score. Had all nine information categories been equally salient, that is equally accessed in terms of order and frequency, the score for each individual information category would have been 11% (100%/9) and combining any three would have amounted to 33% (11% x 3). In fact, when the scores were summed across the three scenarios, only these three information categories scored above the average salience score of 11% indicating a preference for the categories to have been chosen above the others. So, coroners tended to agree on which items of information were to be prioritised in decision-making (*order*) and had the most relevant information content (*frequency*).

Further analysis of frequency of access alone showed that coroner respondents tended to select an item of information *at least once* (those who did not select an item were on average only 4% of respondents), that the majority of coroners selected a category to read *just once* (average 68% of respondents), and that more occasionally coroners returned to re-read information categories *more than once* (average 28% of respondents). Where coroners re-read information categories this was most likely to be (2) cause of death, (4) information revealed by investigation and (9) medical history. Thus, coroners were managing the available information in a similar way and appeared to be converging on the same information categories as salient to their decision-making. When the relationship between information being opened at least once was compared with it being opened twice or more, the same three information categories emerged as most likely to be re-visited by coroners. There was an apparent convergence by coroners on a method of accessing information just once as respondents worked through the three scenarios.

To summarise, when information salience was measured according to the order in which information was accessed, and the frequency of access, coroners were found to display

similar tendencies in choosing which were most relevant to their decision-making. Coroners could not be said to vary in which information categories they read.

### **8.2.5 Would the difficulty expressed in arriving at a conclusion vary between coroners?**

#### **8.2.5.1 All three scenarios – difficulty scores**

This analysis was based upon the scores recorded by coroner respondents answering the question posed after choosing a conclusion and adding any comments that might explain their choice. The exact wording of the difficulty question was 'On a scale of 1 to 5, where 1 is very easy and 5 is very difficult, and based on the facts alone, how difficult did you find this decision?' Respondents were then faced with five radio buttons ranging from 1 (very easy) on the far left to 5 (very difficult) on the far right, known as a Likert scale (Bryman, 2001 p.135). All respondents completed this task with the exception of one respondent to Scenario 3 where no data has been recorded for this particular question. Thus 35 responses were recorded for Scenario 1, 34 for Scenario 2 and 31 for Scenario 3. As stated, the three scenarios were drawn from a paper exploring the 'grey area' between natural and unnatural deaths (Roberts et al., 2000) and may therefore be considered marginal. One might anticipate higher difficulty scores than would generally apply.

Taking all three scenarios together, Table 29 shows that scenarios one and three were considered on average to be marginally more difficult than Scenario 2 (which presented quite similar case-relevant factors to Scenario 1, Scenario 3 being very different). It is also apparent that coroners generally did not record having found any of the three scenarios as difficult or very difficult to come to a decision. The table shows that most scores were in the easy or neutral zones with the tendency being towards easy rather than difficult. In fact 95% of all responses were neutral, easy or very easy suggesting that coroners had little difficulty applying their minds to the three scenarios posed.

**Table 29 Difficulty scores recorded for three scenarios**

	<b>1 Very easy</b>	<b>2 Easy</b>	<b>3 Neutral</b>	<b>4 Difficult</b>	<b>5 Very difficult</b>	<b>Mean difficulty score</b>
<b>Scenario 1</b>	8	12	13	1	1	2.31
<b>Scenario 2</b>	10	14	10	0	0	2.00
<b>Scenario 3</b>	6	12	10	3	0	2.32
<b>Total 3 scenarios (% of total respondents to all 3 scenarios)</b>	24 (24%)	38 (38%)	33 (33%)	4 (4%)	1 (1%)	

**8.2.5.2 Relationship between difficulty in making a decision and amount of information accessed**

Analysis was undertaken to explore whether any relationship existed between the number of information categories opened and read and the level of difficulty experienced by the decision-maker as reported on the Likert scale of 1 to 5. The hypothesis was that decision-makers who accessed most information boxes might have experienced the greatest difficulty in coming to a decision. However, no evidence was found of any correlation between the amount of information accessed and the reported difficulty in making a decision. The relationship between difficulty scores recorded by respondents and the number of information categories accessed was investigated across the three scenarios using Kendall's tau-b. There were very weak non-significant correlations between the two variables, S1 ( $r = -.21, n = 34, p = .12$  ns); S2 ( $r = .10, n = 34, p = .48$  ns); S3 ( $r = .17, n = 31, p = .26$  ns) with no association found between reported difficulty scores and the amount of information accessed.

Table 30 below shows the mean number of boxes opened, across all three scenarios, by difficulty level as reported by respondents;

**Table 30 Relationship between reported difficulty level and number of information categories accessed**

<b>Difficulty level</b>	<b>Mean number of boxes opened</b>
<b>1 Very easy</b>	13.4
<b>2 Easy</b>	12.8
<b>3 Neutral</b>	13.5
<b>4 Difficult</b>	10.5
<b>5 Very difficult</b>	12

#### **8.2.5.3 Relationship between difficulty in making a decision and the gender of the respondent**

Approximately two-thirds of respondents were male and one-third female. Thus an opportunity was afforded to explore whether reported difficulty levels differed according to the gender of the respondent. The average male respondent was more experienced than the average female respondent (16 years experience against seven years experience for female) so one might have expected to have seen lower difficulty scores from male coroners based upon their time in role. In fact, the results were similar with, on average, male coroners expressing more difficulty in arriving at their decision for scenario 1 (the 61 year old lady who died in hospital after a hip operation) and very slightly less difficulty with Scenario 3 (the 38 year old man who died after intravenous drug use). Analysis for all three scenarios found no significant association between the gender of the respondent coroner and the reported difficulty level in reaching a conclusion. A Chi-square test for independence was conducted for each scenario S1:  $\chi^2(4, n = 35) = 2.33, p = .68 \text{ ns}, \text{Cramer's } V = .26$ ; S2:  $\chi^2(2, n = 34) = 3.39, p = .18 \text{ ns}, \text{Cramer's } V = .32$ ; S3:  $\chi^2(3, n = 31) = 1.18, p = .76 \text{ ns}, \text{Cramer's } V = .20$ .

Table 31 shows the mean reported difficulty scores for each of the three scenarios by the gender of the respondent.

**Table 31 Mean difficulty scores recorded by respondents, by their gender**

	<b>Mean difficulty score Female  (total score/respondents)</b>	<b>Mean difficulty score Male  (total score/respondents)</b>
<b>Scenario 1</b>	2.0 (22/11)	2.5 (59/24)
<b>Scenario 2</b>	2.0 (22/11)	2.1 (46/22)
<b>Scenario 3</b>	2.4 (24/10)	2.3 (48/21)

Given the differences in experience in role between male and female coroners in this study, analysis was conducted on the relationship between levels of experience only and reported difficulty levels. No relationship could be identified between experience in role and the reported difficulty experienced in coming to a decision in any of the three scenarios. The relationship between reported difficulty levels and experience in role was investigated across the three scenarios using Kendall's tau-b. There were very weak non-significant correlations between the two variables, S1 ( $r = .09, n = 35, p = .52$  ns); S2 ( $r = -.11, n = 34, p = .44$  ns); S3 ( $r = .05, n = 31, p = .73$  ns).

#### **8.2.5.4 Summary - would the difficulty expressed in arriving at a conclusion vary between coroners?**

There was general agreement among respondent coroners that the case scenarios had presented little difficulty. 95% ( $n = 95$ ) of recorded difficulty scores were in the three categories of very easy, easy or neutral, with just five scores being difficult ( $n = 4$ ) or very difficult ( $n = 1$ ). Mean difficulty scores for each of the three scenarios were very similar and showed a pattern whereby Scenario 1 scored a mean of 2.31, that is easy tending towards neutral; Scenario 2 was considered easy, with an exact mean score of 2; and Scenario 3 tended from easy towards neutral again at a mean score of 2.32. The pattern of average difficulty scores were probably to be expected, in that Scenario 1 was written as a familiar set of circumstances, common in clinical practice, then Scenario 2 which followed was extremely similar in case relevant factors with the exception that the deceased had fallen prior to hospitalisation. The lower difficulty score for Scenario 2 was

likely to have reflected a familiarity with the process and the fact that the second scenario was essentially the same as scenario 1, with the addition of further antecedent information relating to the injury which led to hospitalisation. The second scenario was again familiar to coroners being described by one respondent as 'quite an old chestnut'. Scenario 3 was a completely different set of circumstances to the previous two scenarios, requiring the consideration of very different factors in determining a conclusion for a death through infection suffered by an intravenous drug user. This scenario recorded the least 'very easy' scores (n = 6).

Analysis of the number of information categories read, the gender of the respondent, and the experience in role revealed no relationship across the three scenarios with any reported difficulty in reaching a decision, thus suggesting no respondent demographic link to reported difficulty in coming to a conclusion.

Coroners could not be said to vary with each other by their reported difficulty in arriving at their conclusion, analysis having shown 95% concordance towards very easy to neutral across the three scenarios and personal characteristics of the respondent coroner being discounted as a reason for selecting a particular difficulty level.

## **Chapter 9**

### **Key Findings and Discussion**

#### **9.1 Key Findings – a summary**

##### **9.1.1 On reporting deaths to the coroner (p.91)**

- There is no statutory duty placed upon any medical practitioner to report a death to the coroner and no definitive list exists across England and Wales for which deaths ought to be reported
- Medical practitioners have been shown to be poor at identifying those deaths that should be reported to the coroner
- Local rates of reporting deaths to the coroner were found to vary between 12% and 87% over a ten year period (2001-2010) and were stable over time
- There is a possible relationship between larger geographical area and lower reporting rates (may be due to distance from coroner office, necessary self-sufficiency, limited oversight?)
- More deprived areas had higher reporting rates of deaths to the coroner
- In every jurisdiction, deaths of men were more likely to be reported to the coroner than deaths of women. Deaths of men were on average 26% more likely to be reported than deaths of women, with wide local variations but consistently applied. Subtracting female from male reporting rates produced a range of difference from 2-22%.
- Women on average die older than men – the variable of age is crucial for analysis

##### **9.1.2 On inquests and choice of verdict (p.103)**

- There is significant legal case-law debate as to the difference between a natural and unnatural death
- In 2014, just 12% of all deaths reported to the coroner advanced to inquest, a consistent pattern over recent years

- Deaths reported to the coroner (2001-2010) and which advanced to inquest ranged across areas from 6-29% (M=12%, SD4); and were consistently applied locally
- Total annual inquests concluded have risen from approximately 20,000 to 30,000 since 1995, due mainly to rises in natural causes and narrative verdicts. Those two verdicts, together with accident/misadventure, are also most prone to varied use within coroner areas
- Six conclusions currently dominate the coroner's court (2014): accident/misadventure 27%, narrative 18%, natural 17%, suicide 13%, industrial disease 10%, open 6%. Over time they account for 97% of all verdicts
- Coroner areas vary widely in their verdict 'profile' and apply their proportionate verdict choices consistently – particularly for narrative and suicide verdicts
- There is evidence of substitution of verdicts with coroners who are low users of one verdict being high users of another, and vice versa. Accident/misadventure paired with natural causes, and suicides paired with narrative verdicts are most prone to substitution. Particular coroner areas prone to use substitution can be identified
- The use of narrative verdicts by coroners is growing rapidly, greater than any other category of conclusion, and appears to be skewed towards deaths of women

### **9.1.3 On coroners and gender (p.122)**

- Most coroners are male and all coroners who manage more than one area are male. Female coroners are a relatively new phenomenon – the first in England was in 1951 and in Wales 2005. There are now 23 (of 97) female coroners (March 2015)
- Coroners' areas vary widely in male and female reporting rates and rates of advancing to inquest, yet remain consistent over time in their individual areas.

High (low) reporters for male deaths are also high (low) reporters for female deaths

- Between 2001 and 2010, 49% of all male deaths were reported to the coroner compared with 39% of female deaths. *All* areas report more male deaths than female as a proportion of registered deaths
- Reported deaths of females are half as likely to advance to an inquest as men, 8% compared with 16%. *All* areas take less female deaths than male to inquest (difference M-F ranges from 4-15%)
- Of those cases that did advance to an inquest, a woman's death was on average 27% more likely to yield a verdict of natural causes than that of a man
- Three quarters of all women's unnatural deaths yield just two verdicts, either accidental death or a narrative verdict, men having a more even spread across other verdict types
- Coroners can be shown to favour particular verdicts according to the gender of the deceased and can be comparatively measured using an index of 'genderedness'. This index takes account of the differences in numbers of verdict according to gender and measures how far from equally distributed (M/F) each verdict count is. Coroners with larger (verdict specific) caseloads were associated with lower 'genderedness' for those verdicts
- Industrial disease and narrative verdicts were the most 'gendered' verdicts

#### **9.1.4 On decision-making measured by DBA (p.187)**

##### **9.1.4.1 The choice of outcome**

- Coroners were found to vary in their choice of outcome (conclusion at inquest) for all three scenarios provided. 35 respondents to Scenario 1 produced four different overall outcomes to the death investigation process. 34 respondents to Scenario 2 also produced four different outcomes. Finally, 32 respondents to Scenario 3 produced an extraordinary eight different outcomes

- In general, time in role and whether a coroner was male or female made no difference to the conclusion they would choose, and in particular did not lead to a tendency to choose the modal verdict
- A respondent's choice of verdict was sometimes defended vigorously. Alternative conclusions were plentiful; there were six different alternative inquest conclusions offered for Scenario 1, four for the second and seven for the third. There was much evidence in the qualitative analysis of the potential for numerous viable alternative conclusions even with very little change in the available information. Coroners often recognised the potential for an alternative conclusion to be just as acceptable as their first choice

#### **9.1.4.2 The number of information categories read**

- Coroners were found to cluster in the number of information boxes they read before coming to a decision at 9 to 12 boxes read. Taken together, the three scenarios had a range of boxes accessed by participants from a lowest at just 5 boxes (meaning that 4 information categories were discounted without being read) to 34 boxes (meaning multiple repeats)
- In all cases there was found to be no relationship between the reported difficulty level and the actual number of boxes read, calling into question the idea that those decision makers who took the opportunity to review more information might have experienced the greatest difficulty in arriving at their conclusion
- As respondents moved through the three scenarios a pattern did emerge towards the modal cluster of accessing 9 to 12 information categories. This probably reflects a growing recognition of the process and may suggest there would be even less variation had more scenarios been offered. Familiarity with the process is likely to be a major factor here

#### **9.1.4.3 The order in which information was read**

- Analysis revealed that coroners inclined significantly towards prioritising three particular information categories in this order, (2) Cause of death, (4) Information revealed by investigation, (9) Medical history. Those three categories accounted for over half of all first three choices for scenarios 1 and 2 and for two-thirds of all the first three choices for Scenario 3. A consistent approach was apparent amongst coroners as to what information ought to be prioritised in coronial decision-making
- Any possible relationship between the self reported experience in role of a coroner and their first choice of information category was analysed. In fact, no such relationship was established with results indicating a very weak relationship between first information category chosen and the level of respondent experience. Similarly, no relationship was identified by looking at patterns of first choice information categories chosen by respondents and comparing those with their choice of conclusion
- Coroners did not vary with each other regarding the order in which they read the information categories available

#### **9.1.4.4 The information categories which were read**

- '*Information salience*' here represents a combined calculation of *frequency* of access (how many times did a coroner read the information), and *order* of access (at what point(s) in the decision making process was the information accessed). This demonstrated, again, that three particular information categories (2) cause of death, (4) information revealed by investigation and (9) medical history were favoured by coroners. Taken together, these three information categories accounted for over 45% of the salience score. Had all nine information categories been equally salient, that is equally accessed in terms of order and frequency, the score for each individual information category would have been 11% ( $100\%/9$ ) and combining any three would have amounted to 33% ( $11\% \times 3$ )
- In fact, when the scores were summed across the three scenarios, only the above three information categories scored greater than the average salience score of 11% indicating a preference for the categories to have been chosen above the

others. Thus, coroners tended to agree on which items of information were to be prioritised in decision making (*order*) and had the most relevant information content (*frequency*)

- Coroners could not be said to vary in which information categories they read

#### **9.1.4.5 The difficulty expressed in arriving at a conclusion**

- There was general concordance among respondent coroners that the case scenarios had presented little difficulty. 95% (n = 95) of recorded difficulty scores were in the three categories of very easy, easy or neutral, with just 5% (n = 5) scoring difficult (n = 4) or very difficult (n = 1). Mean difficulty scores for each of the three scenarios were very similar
- Analysis of the number of info categories read, the gender of the respondent, and the experience in role revealed no relationship across the three scenarios with any reported difficulty in making a decision suggesting no respondent demographic link to reported difficulty in coming to a conclusion
- Coroners could not be said to vary with each other over their reported difficulty in arriving at their conclusion

## **9.2 Discussion**

“Do coroners make a difference”? This was a rhetorical question posed to the writer early in the research period, and was in the context of self-reflection by a very experienced coroner (Whittaker, personal communication (conversation), 13<sup>th</sup> May 2011). It is a profound point because, although new literature is available stating what a coroner does (MOJ, 2014 *Guide to coroner services and coroner investigations*) and new legislation outlines the legal framework for their duties (*Coroners and Justice Act 2009, implemented July 2013*), nothing in the extant literature clearly defines the fundamental purpose of the coroner service. The Chief Coroner has recognised this and offered a twofold framework of his own; the need for the public to know, by which he means the opportunity for bereaved family and friends to understand transparently and openly how

the deceased came by his death, and secondly, for the prevention of future deaths (Thornton, 2012).

One would therefore expect that decision-making by coronial post-holders would reflect those dual aims yet; this may not be the case. For example, this research has revealed some evidence that coroners do not necessarily agree about transparency when it comes to the sensitivities of families and the choice of conclusion, one coroner at Scenario 3 stating that he had *"no issues over reaching such a conclusion (of drug related death) even if families do not always find this acceptable"* while another, dealing with the same case, stated *"I do not consider terms such as Drug Abuse as appropriate as they are pejorative"*, the respondents to identical cases taking apparently polar opposite positions. In terms of the prevention of future deaths, this research has shown wide variation among coroners in the classification of existing death scenarios, such that each of the three DBA scenarios received at least five and a maximum of nine different possible outcomes from coroners. In addition to the numerous different verdicts chosen, those outcomes included a proportion of respondents who stated that they considered the deaths to have been due to natural causes and some who would not have taken the cases to inquest at all. If coroners cannot agree on what caused a person's death, or whether the death was even reportable or not (i.e. whether the death was natural), then the necessary prevention of future deaths becomes an impossible task. The lack of consistent decision-making by coronial post-holders does not bode well for Thornton's dual aspirations for the service.

The wide disparity in the way coroners in England and Wales carry out their duties, demonstrated in this thesis, has felt like an unspoken cognizance throughout the research. An introduction to a knowledgeable interviewee - clinicians, coroners, coroner's officers, police officers, local authority officers, registrars and the bereaved, regarding variation in decision-making often resulted in a knowing smile and an understanding that coroners are a law unto themselves and little had changed over a very long time. The feeling of 'that's just the way it is' can also fairly be said to have spilled over into what little literature is available regarding decision-making by coroners, where idiosyncrasy tends to be mentioned in passing.

The primary aim of this research has been to determine whether local variation existed in the decision-making outcomes of a coroner's role, and if it could be established, to present comprehensive analysis of that variation and attempt to explain why it might occur. The following paragraphs will consider the results of analyses, including by the gender of the deceased, across the proffered three decision-making stages and in the context of the extant literature, before considering the results of the DBA exercise. All

the research findings presented here were, to the best of the writer's knowledge, absent from the body of literature on the coroner.

### **9.2.1 On reporting deaths to the coroner**

This research has suggested how the coronial process can be divided into three distinct stages; reporting a death, advancing to inquest and the choice of conclusion. For the first of those three stages, extant literature has tended to focus on the clinician as the key decision maker, Start et al. (1993 and 1995) providing the definitive analysis of their inability to identify reportable deaths. Those studies highlighted woeful clinician performance in terms of identifying deaths reportable to the coroner and contrasted that with the perfect scores of coroner staff, but said nothing about the coroner's control over setting local reporting regimes. Luce (2003) provided persuasive evidence that the confusion had caused some suicides, drug-related deaths and deaths from adverse reactions to prescribed drugs not to have been identified, although no mention was made regarding local disparity.

The promulgation by individual coroners of local reporting regimes has resulted in an astonishing variation, demonstrated here, across England and Wales in local reporting rates of deaths to the coroner. These ranged over a ten year period from just one in ten of all deaths being reported to the coroner in one area to nearly nine out of ten in another and were consistent over time. No obvious demographic factors could explain the variation, with population levels, deprivation factors and even post-mortem examination rates compared with the local reporting rates. Reporting rate differences are likely therefore to be attributable to some combination of local demography and medico-legal practice which is consistent over time.

### **9.2.2 On advancing to inquest**

For the second decision-making stage, no extant literature could be identified that seeks to identify how coroners make the decision as to whether to advance a case to inquest. Thus, this research presents the first tentative beginnings at the measurement of this key decision stage over time and some comparative local analysis, as well as seeking to understand the decision-making factors that may be at play by undertaking DBA with coroners in post. This second stage may be an area of particular vulnerability for coroners as almost nine in every ten deaths reported (Range 71-94%) will not be advanced to inquest and the service appears unable to articulate how these crucial

decisions have been taken. The coroner service may have reached its Carter and Wilkins (1976) moment where the authors reported that the US Federal Parole Board was unable to articulate its decision-making principles other than to say it treated each case on its merits.

The data on advancing to inquest presented here raises two issues. Luce (2003 p.26) asserted that too many deaths are entering the coronial process unnecessarily. Of course some deaths will always be reported to the coroner for discussion, consideration and investigation in accordance with the rules regarding when an inquest should be held, and there will be times when the cause of death is genuinely unknown or erroneously thought to be unnatural. Yet, almost nine out of ten deaths presently reported are deaths from natural causes which need not have entered the coronial process. Second, if disposal of reported cases by the coroner without inquest can range across local coroner areas between seven out of ten and nine out of ten deaths then as Pounder (1999 p.1502) stated (in relation to varied post-mortem rates in coroner areas), "*not all can be striking an appropriate balance between the needs of the state and the rights of the next of kin*".

This research provides empirical support for high rates of disposal of reported deaths without inquest by the coroner and evidence of local variation between coroner areas which are consistent over time. Although beyond the scope of this research, the large numbers of deaths reported to coroners that do not subsequently proceed to inquest deserves further research. Clearly, the proposal to introduce medical examiners is intended to provide greater scrutiny (and less reporting) of those deaths not for inquest, but present analyses indicate, for example, that in 2013 198,042 deaths were reported to coroners that did not proceed to inquest. That is, nearly 200,000 deaths which were thought to be reportable. The subsequent coronial investigation in all those cases, whether brief or involving lengthy enquiries and post-mortem examinations, has led to the belief that the deaths were natural and did not require an inquest. Why then were they reported? **(Recommendation 4)**.

### **9.2.3 On the choice of verdict**

Deaths that result in an inquest hearing are subject to the final decision in the coronial process, the appropriate verdict to be recorded. Overall, just six inquest conclusions dominated proceedings in this current order of use – natural causes, accident/misadventure, narrative, suicide, industrial disease and open verdicts. Coroners varied widely in their use of verdicts and were consistent over time in their local profile

of verdict choice. Examples of the range of use included verdicts of natural causes accounting for over half (52%) of one area's total verdict count over 11 years, compared with just 3% of another; and narrative verdicts accounting for 46% of an area's total compared with a lowest use of just 0.3%. The lowest range of use over time for any of the six common verdicts was open verdicts, still 3-25% across coroner areas.

Taking, for example, the lowest range of the six common verdicts (open verdicts 22%), the coroner area of Southend-on-Sea was found to have returned an open verdict in 25% of all its inquest conclusions (the highest in England and Wales), whilst the coroner at South and West Cambridge returned an open verdict just 3% of the time (the lowest) ( $\bar{x} = 9\%$ , SD 4.8). What is happening at Southend-on-Sea that causes a quarter of all their inquests to return an open verdict that is clearly not happening in South and West Cambridge? Do those who die in Southend-on-Sea truly pass away in circumstances that cannot be explained by the other available verdicts (the definition of an open verdict) in higher proportions than anywhere else, and in much higher proportions than those in Cambridge? What does that say for coronial investigation in Southend-On-Sea? By reference to Table 7 (p.114) the same questions might be asked regarding those who die an accidental death in North Yorkshire (52% vs. a lowest of 10% in Sunderland), or those who die naturally in Sunderland (52% vs. a lowest of 3% in South Shropshire); and so on. Do we really believe that people die so differently in Southend-on-Sea compared with Cambridge, or North Yorkshire compared with Sunderland, or Sunderland compared with South Shropshire? If we are to take the verdict profiles of coroner areas as an accurate reflection of how people have died in those areas, then England and Wales has astonishing area-based disparity as to how people die. One explanation for the disparity, put forward in this thesis, is that the personal viewpoint of the incumbent coroner shapes the verdict profile according to their decision-making practice. An indicator of personal decision-making practice is demonstrated by the analysis of *verdict substitution* whereby, for example, coroners who chose verdicts of accidental death chose fewer natural cause verdicts; and those who chose more suicide verdicts also chose fewer natural cause or narrative verdicts. It is likely that the case-relevant factors of deaths within those categories most prone to substitution might be classified either way depending on the view taken by the decision-making coroner – '*was it the fall or the pre-existing arthritis that ultimately caused death?*' Indeed, using the example of substituting accidental death and natural causes, Scenario 2 in the DBA for this thesis returned 13 verdicts of accidental death and nine natural cause verdicts from 34 total respondents, demonstrating how identical case circumstances might easily lead to different conclusions. This research, through DBA exploration of how coroners approach their decision-making role, suggests that local disparity in verdict profile may primarily

be a product of coroner decision-making preference, rather than true epidemiological differences in how and in what circumstances a person has died.

A significant body of literature exists in relation to the suicide verdict where in addition to an exploration of the sociological or case factors which might yield such a verdict, its relationship with the open verdict had also been considered (Sainsbury and Jenkins, 1982); as was the potential substitution of the suicide verdict by some coroners with a narrative verdict (Carroll et al., 2012). Some studies have introduced the prospect of coroner idiosyncrasy to explain variation between coroners (e.g. Sainsbury and Jenkins, 1982) but without exploring the concept more closely; and Carroll et al. (2012) identified considerable variation among coroners in the use of narrative verdicts (between 0-50%), but raised that disparity only as a side issue to those verdicts being a substitute for what the researchers proposed would be the more suitable conclusion of suicide. Perhaps the closest research methodology to this thesis has been the work of Roberts et al. (2000), who through a postal questionnaire with serving coroners explored the grey area of whether example deaths were to be considered natural. They found near consensus as to verdict in only two of sixteen cases and concluded that the disparity between personal viewpoints of coroners, recorded in unpublished free text respondent comments, had underlined the flaws of the current verdict system.

When areas with similar inquest caseloads were examined for this research, differences in reporting rates and choice of conclusion were identified akin to the national disparity. However, some consistency emerged in the rate at which reported deaths were taken to inquest. A similar caseload, defined here by numbers of cases taken at inquest, appears therefore to be no guarantee of a similar coronial approach or eventual outcome for the bereaved (see Appendix A).

#### **9.2.4 On the gender of the deceased**

Extant literature was researched pertaining to consistency of coronial outcome in respect of the gender of the deceased. Some analysis could be found within defined areas of the coroners' work such as the factors influencing a verdict outcome of suicide, or more ambiguously in the arena of unlawful killing, but there was no analysis of whether any differences in outcome could be accounted for by the gender of the deceased. MOJ statistics bulletins made very little reference to the gender of the deceased focussing only briefly on the relative proportions of some verdicts by gender. Reference to the numbers of deaths reported, or to the numbers advanced to inquest did not include any reference to the gender of the deceased (MOJ, 2010 et al *Coroners Statistics*). The

present research reveals that, across all areas of England and Wales, deaths of women are less likely than deaths of men to be reported to a coroner. Furthermore, women's deaths are less likely to proceed to an inquest, and those that do are less likely to result in a verdict of unnatural death than that of a man, with coroners likely to favour a particular verdict according to the gender of the deceased.

When reporting rates were looked at according to the gender of the deceased a striking divide emerged. While areas with high reporting rates for men also had high reporting rates for women, male deaths were on average 26%, and up to 48% more likely, to be reported to the coroner than female deaths.

Deaths of women were also less likely by half to advance to an inquest. This gender difference, amplified by the reporting differences in preference of male deaths, might be considered surprising given that a death, whether of a woman or a man, would have been reported on objective grounds giving cause for concern about whether it was unnatural. When deaths of women did advance to inquest, they were more likely to yield a verdict of death by natural causes than was the case for men (28% vs. 22%).

Among verdicts of unnatural deaths, men featured in greater numbers in occupational diseases and suicide while women featured more in narrative verdicts and accidents, implying that the gender of the deceased can influence the choice of verdict. The finding that three-quarters of all unnatural deaths for women were accounted for by just two verdicts, accidental death and the narrative verdict, does call into question the usefulness of present classification for understanding how women die. In particular, the use of the narrative verdict by coroners is growing rapidly, and greater than any other category of conclusion. Its use appears to be skewed towards deaths of women, who accounted for 39% of all narrative verdicts from 2001-2011 compared with only 31% of the total recorded verdicts for England and Wales. When analysed by the gender of the deceased, wide ranges of verdict choice were noted. Deaths of women had the highest single disparity in verdict use (58%), deaths from natural causes ranging from 6% of verdicts in South Shropshire to 64% in Sunderland. A higher range of use is likely to represent a verdict type most prone to inconsistent decision-making. All coroner areas were analysed for the difference between deaths of men and women for each verdict returned as a proportion of all their verdicts. This revealed the coroner areas which differed most widely according to gender and provides evidence for local exploration of verdict patterns by posing questions such as '*why do almost one in four of your inquests for men result in a suicide verdict, when less than one in ten inquests for women return that verdict?*' (North and East Cambridgeshire).

Furthermore, coroners could be shown to be 'gendered' in their approach to inquest verdicts, by being more likely to favour a particular verdict according to the gender of the deceased. A unique methodology was produced able, for weighting purposes, to take into account the difference in numbers of concluded cases by the gender of the deceased, and from which an index score of 'genderedness' from 0-1 was calculated. This index demonstrated the degree the coroner could be said to have chosen a verdict according to gender. The index score ranged for all areas from 0.25-0.57 demonstrating that coroners were prone to favour a particular choice of verdict, at least to some extent, according to the gender of the deceased and that it was possible to identify which were most prone. This finding requires a cautious approach due particularly to the missing variable of the age of the deceased, which is known to co-vary with gender.

### **9.2.5 On coronial decision-making**

This thesis sought to determine how coroners made decisions by exploring five aspects of decision-making across three coronial case scenarios with identical information presented to each coroner participant using an online DBA. The task asked of participants was to give their inquest conclusion on the facts made available. The DBA software recorded the conclusion and any possible alternatives identified by the respondent, and also allowed the writer to explore how many information categories (of nine in total) were read, the order and sequence in which the information was read (participants having been asked to prioritise information according to importance), which of those information categories were most or least frequently read and finally, the difficulty expressed by the respondent in reaching a conclusion.

In sum, respondent coroners came to widely different conclusions yet managed their decision-making processes in quite a similar way, suggesting that they made different inferences on the basis of the same information. The three scenarios generated a minimum of five, and a maximum of nine, different coronial outcomes. Thus the outcomes chosen did vary between coroners when dealing with identical case information. Conclusions were sometimes robustly defended, yet proffered alternatives were plentiful. The disparity found cannot be said to be due to a difference in the decision-making style of the coroner respondents as measured by the DBA. Coroners clustered at the number of information boxes read, and were individually consistent across the scenarios. The boxes re-read by coroners, and prioritised in terms of the order in which they were accessed and the frequency of reading, tended to be the same three information categories of the cause of death, information revealed by the investigation and the medical history of the deceased. Thus, coroners agreed on the

relative salience of the information categories and could not be said to vary in how they managed the available information.

Furthermore, coroners tended to agree that the three scenarios were not difficult or very difficult to conclude, with 95% of responses being placed between very easy and neutral. All scenarios were tested for any relationship between stated outcomes or decision-making style and the gender or experience of the respondent coroner. No such relationships could be found, with the exception of a single relationship between experience in role and a tendency to choose the most common conclusion in Scenario 2. In general, no link between coroner characteristics and decision-making style could be established.

Variation in coronial outcome could not be explained by variation in coronial decision-making style or individual coroner characteristic, as measured by this research. A difference in decision-making style can therefore be provisionally sidelined as a possible cause for the disparity of outcomes identified here. Although the case is not yet conclusive there is reason to believe that different outcomes of official coronial process may be a consequence of unshared inferences from evidence in decision-making by incumbent coroners.

### **9.3 Limitations of the research**

#### **9.3.1 Age of the deceased**

Having considered the key findings presented in this thesis, it is opportune at this point to reflect upon the limitations of the research. To begin with, there is a key variable missing from this research study, that of the age of the deceased. That is to say those deaths reported to the coroner and those that advance or do not advance to inquest are not routinely recorded by age of the deceased. Age is not routinely analysed against the choice of inquest conclusion. The data can be made available within local coroner systems across the three-stage decision process described here, but are not routinely collected. Thus it has not been possible to analyse data according to age and to determine whether there may be any relationship between decision outcomes and age upon death.

Important issues for this research are that more women die every year and that more women die older than men. In 2010, for example, 63% of all women who died in England and Wales were aged 80+, but just 44% of men achieved that age. As the deceased's age is not routinely recorded or analysed by MOJ, without specific case-based

study it is not possible to compare the relative ages of those reported to the coroner against those not reported, those who advance or do not advance to inquest, or those where deaths yield particular inquest conclusions. Such age analysis conducted by the gender of the deceased would be insightful in testing hypotheses regarding possible gendered decision-making throughout the coronial process.

### **9.3.2 Coroner characteristics**

Decision Board Analysis results for this research, conducted with a sample of coroners, appeared generally to show that their personal characteristics of gender and length of experience in role made little or no difference to the distribution of outcomes when presented with case scenarios. The inference drawn is that variation in coronial outcome may be a product of individual decision-making, not linked to personal demographic characteristics. However, the methodology adopted did not allow for such comparative analysis using the published MOJ data. A study of all coroner areas in England and Wales over a time series of up to eleven years (for analysis of verdicts) could not possibly identify the personal characteristics of the coroner who made every individual case decision. Coroners appoint deputies to assist in managing their caseload and readily available data does not allow for identification of the particular coroner who concluded the case. This 'real-world' analysis of individual decision-makers is not insurmountable, of course, and possible developments of this study could include analysis of the recorded outcomes for specific coroners according to those personal characteristics, perhaps using a limited sample size and time series. Further personal characteristic analysis of recorded outcomes might include whether the coroner is a doctor or a lawyer, is employed full-time or part-time on those duties and whether the coroner had completed any training in role.

The use of the open verdict and its relationship to coroner characteristics would be of particular interest. The open verdict is used where the evidence is said not to justify a specific short-form or narrative conclusion and, as reported at Chapter 5, is very rarely used in some particular coroner areas. It is possible that the open verdict might be seen (fairly?) as a failing on the part of some coroners, in that their investigation has been unable to satisfactorily determine how and in what circumstances the deceased died. A study of any relationship between coroner experience in role and their use of the open verdict would be a useful addition to the body of research.

### **9.3.3 Case by case detail**

The research methodology for analysis of MOJ recorded data has not allowed for any examination of case detail. Thus, it is not possible to argue here that any case outcome has been inappropriate according to its circumstances. It is entirely possible that any observer to the decision-making process for each and every case here - there were over five million deaths registered during the research period - would endorse the outcome decision as correct in the circumstances. If that is true, then it does mean that England and Wales has astonishing area disparity in natural and unnatural deaths, and in the nature of those deaths. Unlikely as it seems, this research cannot exclude the possibility that local variation in coronial outcomes may be a true reflection of how those populations de cease.

However, there is one further influential factor in the coroner's investigation that, due to the nature of this research, it has been impossible to take into account – that of the role of the bereaved. Without case-based detail the role of the bereaved in shaping the coroner's investigation could not be measured. The DBA free-text responses provided strong evidence that coroners saw their role as meeting the needs of the bereaved and that their investigation would be shaped to some extent according to those needs. Responses often revealed sensitivity to the family and recognition that their ability to understand what had happened was a crucial element of the coroner's role. Indeed, such comments were occasionally used to explain why a narrative verdict had been chosen in favour of a short-form, in that the story of a person's death would be set out more clearly for the bereaved. This raises the important, and hitherto un-researched, issue of the external factors in coronial decision-making. It is possible that coronial outcomes are swayed to some extent by a desire on the part of the coroner to meet the needs of the bereaved. Perhaps some variations in outcomes arise from the extent to which a coroner is prepared to consider those needs – a disparity through 'noble intentions'?

## **9.4 Implications for policy and practice**

According to Dame Janet Smith (2003 p.21), Harold Shipman killed over 200 of his patients without an inquest being held until after he was convicted of murder. In making 48 recommendations for the coronial service (2003 p.25) Smith called for "*radical reform and a complete break with the past as to organisation, philosophy, sense of purpose and mode of operation*". She concluded her recommendations by pointing out that hardly any of the Brodrick committee's (1971) recommendations for wide ranging changes had been

implemented and how she "*hoped that the proposals of the coroner's review (Luce, 2003) and of this Inquiry, do not, as did those of the Brodrick Committee, end in stalemate*" (2003 p.32).

Yet, her words have fallen on deaf ears. The Smith recommendations included fundamental modernising proposals for the coroner service intended to bring consistency of standards and outcomes that have not been implemented. They included the complementary separate posts of both medical and legal coroners to aid medico-legal understanding; the concept of coroner's *investigators* rather than *officers* with a consequent reduction in administration tasks for those staff; the independence of the coroners service from Government and overseen by a single Board with ten administrative regions; that *every* death should be reported to the coroner service with random and targeted checks for suitability of outcome; that the end product for each death should be a written report explaining how and why the deceased died; and that specific attention should be paid to deaths arising from *medical error or neglect* incorporating a statutory duty on a qualified or responsible person to report any concern about the circumstances of a death.

The Chief Coroner (Thornton, 2012 p.4) has particularly bemoaned the failure to introduce a national coroner service, clearly seeing this as one way in which a degree of consistency of standards and outcomes across the coroner areas might be introduced. He appears to recognise the challenges posed by measuring comparative standards and outcomes, stating that it is too early to provide an assessment, and has offered to return to the subject in his Annual Report of 2015 (Thornton, 2014 p.23). This research can assist by providing the first indication of the range of coronial outcomes which might be expected despite identical case information, and clues as to why there may be variation of outcome. The proposal that *every* death should be reported to a single coroner service goes to the heart of the argument made by Berry and Heaton-Armstrong (2005 p.456), that the process is widely misunderstood to the point of ignorance by engaged professionals who do not understand local reporting regimes, and that coroners are isolated individuals detached "*from the mainstream of medicine and justice administration (thereby minimising) the likelihood of modernisation of knowledge and skills*". Such continued isolation of the coroner service and confusion as to which deaths ought to be reported for investigation, as demonstrated in this research, indicates that little has changed since Shipman. The unscrupulous doctor remains able to certify their way out of trouble through unchanged policy and practice, buoyed by differences in decision-making among those charged with identifying and classifying unnatural deaths. Those decision-making differences appear, according to this research, to be based upon the personal viewpoints of incumbent coroners. The use of DBA as both a means of

investigating disparity and as a training tool for coroners is urgently recommended to contribute to the Chief Coroner's aim to bring consistency of standard and outcome. A national DBA programme to evaluate the decision-making styles of coroners will identify those areas of greatest vulnerability to idiosyncratic thought and help to articulate the decision-making style of coroners. This investigation and analysis of training needs can offer an opportunity to produce guidelines designed to improve consistency of outcome **(Recommendation 1)**.

It is recommended that the 'genderedness' index should form the basis for considered discussions with coroners regarding the potential to favour a particular verdict according to the gender of the deceased, and regarding the possible extent of such influence on their decision-making **(Recommendation 2)**.

Turning to coronial outcomes, once cases have been reported, there are troubling differences in outcome according to the gender of the deceased with no obvious evidential underpinning, most obviously in the way deaths of women cross the transition points in fewer numbers. Unless those differences can be attributed to either case-relevant factors not captured in the statistics or non-case relevant variables not routinely captured, the official process and outcomes consequent upon a death are vulnerable to the criticism that they are applied more rigorously where the death is of a man rather than a woman. The short-form verdict does not appear to serve the coroner well when dealing with the death of a woman, the list of suggested verdicts should be reviewed and revised following detailed research of the sort conducted by MOJ, where analysis of narrative verdicts concluded there was scope for a new short-form verdict category of 'Medical or surgical intervention unsuccessful'. Unless a list of short-form verdicts can be produced capable of describing how women, in particular, die then it is recommended, as proposed by Berry and Heaton-Armstrong (2005), that the short-form verdict be disposed of altogether in favour of all conclusions being delivered by the coroner in the form of a narrative **(Recommendation 3)**.

## **9.5 Further research**

Of the eight recommendations presented in this thesis, the following five propose urgent further research to be conducted in relation to coronial decision-making. The recommendations have arisen from consideration of the key research findings and are assisted by the knowledge gained and presented here through analysis of the acquired data and the DBA responses. Four of the five recommendations for further research

relate to differences in the deceased journey taken according to gender. One recommendation, to which we now turn, seeks to understand the high rates of disposal of reported deaths to the coroner without advancing to inquest.

To reiterate, presently just 13% of all deaths reported to the coroner advance to inquest. Those that do not advance now number nearly 200,000 deaths reported (198,042 in 2013). Over a ten year period (2001-2010) in England and Wales deaths reported to the coroner and which advanced to inquest varied across coroner areas from 6-29%. This research could not identify any study ever having been conducted which seeks to examine the relationship between the factors which led to a report being made to the coroner in the first place and the factors which subsequently lead to its disposal without inquest. This seems a glaring omission in research on the process of decision-making in death certification and coronial procedure and is urgently recommended **(Recommendation 4)**.

All recommendations for research arising from this thesis now considered relate to the issue of difference in coronial outcomes according to the gender of the deceased. In all areas of England and Wales, deaths of women were less likely to be reported to the coroner than deaths of men, and local patterns of reporting deaths according to the gender of the deceased were consistent over time. However, age specific reporting rates are needed to examine this phenomenon and data are not readily available. It is recommended that further research be urgently conducted to explore the reporting of death by age and gender in order to determine whether this might reasonably explain the fact that deaths of men were found on average to be 26% more likely to be reported to the coroner than deaths of women. Similarly, further along the process, we cannot compare the relative ages of those who advance or do not advance to inquest or those where deaths yield particular inquest conclusions. It is therefore incumbent upon the Ministry of Justice to ensure that details of the age of deceased people should be routinely made available and analysed across the three stages of reporting, advancing to inquest and choice of conclusion. The elimination, or otherwise, of the age variable is crucial to the investigation of whether different outcomes according to gender can be attributed to disparities from gender-neutral decision making **(Recommendation 5)**.

Beyond that single most important missing variable of age, it remains a concern that a striking divide is apparent when reporting rates are looked at according to the gender of the deceased. Deaths of males were found to be up to 48% more likely to be reported, and as stated, higher reporting rates for men were common across all areas. Further research is recommended to seek to identify the reasons for that and to explore whether the disparity might mean that deaths of women in some areas are not being investigated

as rigorously as those of men (**Recommendation 6**). Deaths of women were also less likely by half to advance to an inquest, yet would have been reported to the coroner on objective and equal grounds giving cause for concern about whether the death was unnatural. Further research is recommended to examine why proportionately more deaths of women, subsequently considered natural and not requiring an inquest, are reported to the coroner (**Recommendation 7**).

Of those cases that did advance to inquest, a woman's death was more likely to yield a verdict of natural causes than that of a man. Three-quarters of all women's unnatural deaths returned just two verdicts, men having a more even spread across other inquest conclusions. This research also established that coroners could be shown to favour particular verdicts, at least to some extent, according to the gender of the deceased. Further research, in the form of a case-based audit into the validity of recorded accidental death and narrative verdicts for women, is urgently needed to determine whether a range of causes of death are being inaccurately classified (**Recommendation 8**).

## List of Recommendations

- 1.** Decision Board Analysis should be utilised with incumbent coroners in order to articulate how coronial decisions are made, and as a training tool to develop consistency in outcomes and standards
- 2.** The 'genderedness' index should form a basis for considered discussions with coroners regarding the likelihood that inquest conclusions are selected, at least to some extent, according to the gender of the deceased
- 3.** Unless a review can be undertaken which might produce a list of short-form verdicts capable of suitably describing how women, in particular, die then the short-form verdict should be disposed of in favour of only narrative conclusions
- 4.** A research study should be undertaken to examine any relationship between the factors leading to a report of a death to the coroner and the factors leading to the disposal of the death without inquest
- 5.** Details of the age of deceased people should be routinely made available across the three stages of reporting, advancing to inquest and choice of conclusion. In particular, research should be conducted to determine whether the variable of age upon death impacts upon the gendered outcome differences apparent across the three stages
- 6.** A research study should be undertaken to identify the reasons why all coroner areas report proportionately more deaths of men than women to the coroner, and to inquire whether this might mean that deaths of women are less rigorously investigated than those of men

- 7.** A research study should be undertaken to examine the reasons why proportionately more deaths of women are disposed without advancing to inquest than deaths of men
  
- 8.** An audit of accidental death and narrative verdicts returned for women should be conducted to determine whether a range of causes of death for women are being inappropriately classified within those two conclusions

## Chapter 10

### Conclusion

What does this thesis amount to? It's most important contribution may be that, for the first time, it provides the evidence for astonishing area based disparity in coronial outcome in England and Wales across the three main decision points of the coroner's investigation process. That rates of reporting deaths to the coroner can range by area from approximately one in ten deaths to nine in ten deaths, that deaths so reported which are advanced to inquest can range by area from less than one in ten to nearly three in ten and that the proportionate use of verdicts by coroners can range from, for example, 3% of all recorded verdicts in one area to 52% in another (natural cause verdicts 2001-2010) should act as a consciousness-raising exercise for those charged with the responsibility to provide an effective and consistent national system of death investigation and categorisation. Crucially, the thesis also suggests that disparity to be a product of idiosyncratic decision-making by individual coroner post-holders and thereby capable of reduction through structural change, training and guidelines for consistency.

The thesis also tells us what we don't know but ought to. Time and again the writer was surprised by statistics that were not routinely produced and research that had not been done. Coronial statistics and research are important because the process points up how our fellow-citizens leave life in ways which are unusual and in many cases preventable. We should expect from the process two things: that similar deaths in similar circumstances are treated in comparable ways across areas, and that the categories into which deaths are placed bear the closest possible relationship to the circumstances of their deaths. This thesis can act as a catalyst for reform.

Previous literature on the role of the coroner has only briefly touched upon the issue of coroner idiosyncrasy or personal viewpoint impacting upon the decision outcomes of the coronial process. Relevant evidence is thin on the ground. Sainsbury and Jenkins (1982) referred to coroner idiosyncrasy in passing when comparing suicide rates from one area to another without reference to evidence; Roberts et al. (2000) used differing unpublished free text comments when discussing varied choices of verdicts by coroner respondents to a postal questionnaire; Booth et al. (2003) commented that varying coroner opinions compounded difficulties for clinicians in identifying reportable deaths, supporting their position with results from a postal survey that not all coroners had correctly identified example deaths that should be reported; Thornton (2012), in a presentation to the Coroners Society just days into his appointment as Chief Coroner, referred to his role as being to bring national consistency and quality of standards and approach and repeated the point (Thornton, 2014 p.10) in his first annual report to the

Lord Chancellor by referring to "*the less good practice of some coroners and the inconsistency in practice across England and Wales which a local system can sometimes produce*"; and finally the MOJ statistics bulletin for 2012, when comparing the differing results of an analysis of narrative verdicts by two assessing retired coroners, referred to the exercise as "*based on their own individual opinions; it is therefore important to note the subjectivity of this analysis*" (MOJ, 2013 p.28).

Thus, literature pays passing attention to the idea of coroner idiosyncrasy, and only occasionally includes evidence to substantiate that, Roberts et al. (2000), for example, were able to refer to respondent comments which, although not included in their paper, clearly revealed disparate views on death cases in their questionnaire. Others, as above, point to difference in outcome, either real or from example case-based surveys, and infer a proven connection between variation in outcome and the personal views of the decision-making coroner. That, surely, is not good enough.

If we are concerned at local disparity in the outcome of coronial procedure, and we cannot articulate the decision-making process of those coroners because nobody has sought to understand it, then a substantial examination of that decision-making is urgently needed. It appears to have been a matter of some historical conjecture that coroners are a 'law unto themselves', and this supposition has made its way into the limited available literature that seeks to examine coronial outcomes, with little evidence to substantiate the allegation. Yet at least some relevant evidence may be here within this thesis. The coroners sampled could be shown to approach typical case information in a similar way, tended to agree on what's important, did not differ according to their gender or experience, and *still arrived at widely different coronial outcomes* despite dealing with identical case information. This research provides evidence that variation of outcome does not appear to be a product of the application of different decision-making styles, but instead is rooted in the varied personal perspectives of coroners as to how to translate the same information into an officially mandated category. The official process and outcomes consequent upon a death can fairly be said to be vulnerable to the criticism that they represent a 'postcode lottery' based on the idiosyncrasies of incumbent coroners.

A bereaved family should have the same access to the coronial process with a transparent decision-making reporting process employing the same criteria and yielding the same probability of outcome, irrespective of where in the country they live. As things stand, cases similar in all relevant respects may be reported to coroners in some areas and not others, and if so reported yield widely different outcomes. Whether this is a satisfactory state of affairs depends upon the value attached to national consistency.

Certainly, in terms of legal process, the Crown Prosecution Service and the criminal courts are subject to extensive national guidance in the attempt to limit inconsistent decision-making, and there seems no a priori reason why this should apply less to the process of referral to coronial courts.

The coroner court system is little researched, far less than its importance demands. Official data are not configured in ways which make meaningful analysis easy. The primary contribution of the present research is deemed to be the identification of prima facie disparity in decision-making, with important consequences for bereaved families and a national understanding of the profile of causes of death. There are differences in outcomes with no obvious evidential underpinning. It is important and incumbent on the profession of coroner to search for such an underpinning.

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## **APPENDICES**

## APPENDIX A<sup>24</sup>

### TEN CORONER AREAS OVER TEN YEARS – A CASE-STUDY

#### INTRODUCTION (Ten areas)

This research has found wide and consistent variation across all the coroner areas of England and Wales in reporting rates of deaths to the coroner, the rates at which those deaths reported advance to inquest and the choice of verdict at inquest. Some speculative reasoning is offered to explain the variation by demographic factors but which without further case-based study, is unsatisfactory. The intention here, by means of an in-depth case study analysis on a selection of coroner areas, was to see how just ten areas with very similar completed inquest caseloads had performed over an extended period, 2001-2010. Would one expect to see less variation in outcome where similar caseloads were being managed? Could caseload explain levels of concordance in coronial outcomes?

England and Wales had ten coroner areas (of 114) that returned total inquest verdicts in 2011 of between 442 and 488 (see Table A1 below). The MOJ 2011 data were the latest available data at the time of undertaking this case-study research (MOJ Coroners Statistics 2012, p.25). The number of verdicts returned in a particular year may relate to inquests opened in earlier years, so the number of inquests opened and inquests concluded are not directly comparable. The full range of completed verdicts for 2011 was 1131 to 10. These numbers are at the high end of the caseload range. The areas studied ranked at numbers 10-19 in total verdict count (i.e. only nine areas have higher total returns). Table A1 shows those areas ranked by total inquest caseload.

**Table A1 Ten coroner areas E&W with similar overall inquest caseload numbers (2011)**

<b>Coroner area</b>	<b>Total inquest verdicts recorded 2011</b>
Norfolk	488
West Yorkshire East	485
South Yorkshire West	477

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<sup>24</sup> This chapter was partially reproduced for Mclean, M. (2014). Coroner consistency - The 10-jurisdiction, 10-year, postcode lottery? *Medicine, Science and the Law*, doi: 10.1177/0025802414526711.

Manchester North	476
Preston and West Lancashire	472
Inner South London	465
Inner West London	461
West Yorkshire West	454
Portsmouth	444
Stoke and North Staffordshire	442

Research questions for this case-study included the following;

- How do reporting rates to the coroner and rates of advancing to inquest, compare across these ten areas?
- Given the very similar inquest caseloads, would one expect a broadly similar verdict profile across the ten areas?
- Would one predict more variation in certain verdict types than others?
- What are the differences in reporting a death, proceeding to inquest and verdict choice when dealing with deaths according to gender of the deceased?

### **CASE STUDY METHOD (Ten areas)**

For reporting rates, analysis was performed on Ministry of Justice (MOJ) data, which as previously outlined required careful realignment in accordance with details of coroner areas provided by MOJ. Where coroner areas (and local authorities) had been amalgamated during this period the combined reported and registered death figures have been included in accordance with the current coroners' areas.

For verdict decisions, MOJ data were made available for all inquest verdict numbers over a 16-year period (1995-2010) by gender of the deceased. For these ten coroner areas 95%<sup>25</sup> of all verdicts were found to be one of the 'common six' (accident, natural,

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<sup>25</sup> In this study, over the 16 year period and for these ten areas only, all verdicts totalled 60,221 and for the 6 verdicts only, 57,449. Therefore 95.4% of all verdicts are within the 6 common types. The list of verdicts is shown in order of their use within these ten areas

suicide, industrial disease, open and narrative); analyses of patterns of verdict use were restricted to these types except where otherwise stated.

Relevant legislation at the time of data collection was the Coroners Act 1988 and the Coroners Rules 1984, now replaced by the Coroners and Justice Act 2009. This chapter uses language contemporaneous with the data collection.

## **ANALYSIS (Ten areas)**

### **THE THREE STAGE DECISION PROCESS**

Table A2 shows the first two of the three decision stages within the coronial process previously identified and shows reported deaths as a proportion of registered deaths for the ten areas, and inquest rates for both reported and registered deaths.

**Table A2 Ten areas registered deaths, reported deaths and inquests 2001-2010**

<b>Coroners area</b>	<b>Grand Total 2001-2010 registered deaths</b>	<b>Reported deaths as % of registered deaths</b>	<b>Inquests as % of reported deaths</b>	<b>Inquests as % of registered deaths</b>
West Yorkshire Western District	102765	34%	12%	4%
West Yorkshire Eastern District	98753	39%	14%	5%
Norfolk	91476	40%	11%	4%
South Yorkshire Western District	76197	46%	12%	5%
Preston and	73039	39%	13%	5%

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over the period. Recent analysis shows an even stronger bias towards those 6 verdicts with 2013 figures for all areas showing 98% of all verdicts accounted for by the six (MOJ, 2013 p.18).

West Lancashire				
Inner South London	68855	53%	13%	7%
Stoke-on-Trent and North Staffordshire	61873	62%	11%	7%
Manchester North	60742	41%	13%	5%
Portsmouth and South East Hampshire	58905	44%	10%	4%
Inner West London	52189	54%	14%	7%

### **STAGE 1: REPORT THE DEATH? (Ten areas)**

Reporting rates of deaths to the coroner for the ten areas ranged from 34% of all registered deaths (in West Yorkshire West) to 62% (in Stoke and North Staffordshire). Going beyond the present data, this compares with a national range of 12-87%. The mean reporting rate was 45% for the ten selected areas, as coincidentally it was for all areas. The standard deviation was 8.6 for the ten areas, and 11.9 for all areas. It is notable that the primary source of outcome variation between areas is at this first decision stage of reporting to the coroner. The range in the proportion of deaths reported to the coroner is much wider than the range for the second and third stages, and since the second and third stages involve smaller numbers of cases, the first stage is the most important, both proportionately and absolutely.

One possibility is that the process corrects itself to a limited extent, in that areas with high rates of reporting of registered deaths having low rates of advancing to inquest. This is evidently not the case as the association between rates of reporting and rates of advancing to inquest of reported cases is very low. The relationship between ten year reporting rates and ten year inquest rates was investigated using Pearson product-moment correlation coefficient. There was a weak negative correlation between the two

variables, ( $r = -.21$ ,  $n = 10$ ,  $p = .56$  ns). Further, no statistically reliable associations were found between reporting rates and are characteristics of affluence and population covered, using variables ten year reporting rate and 2010 IMD data for local authorities - the highest ranked deprivation score within each area published by Dept for Communities and Local Government 24/03/2011 ( $r = -.37$ ,  $n = 10$ ,  $p = .30$ ).

To this end, patterns in the reporting process have not identified particular variables as exemplars of differences in decision processes, with affluence and population size discarded as explanations of the variation. Available data have allowed an emphasis on gender as such a variable, to which we now turn.

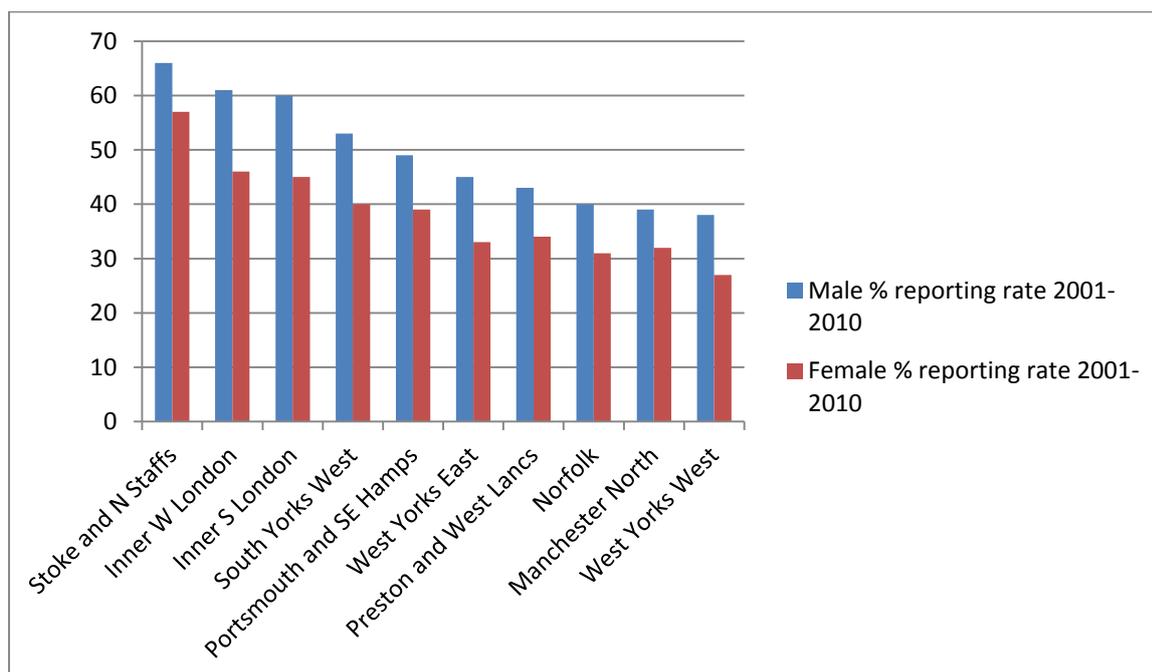
### **REPORTING RATES ACCORDING TO THE GENDER OF THE DECEASED (Ten areas)**

When death reporting rates for the ten areas were looked at according to the gender of the deceased, it was found that 48% of male deaths (range 38-66%) were reported to the coroner compared with 37% of female deaths (range 27-57%). Area reporting rates appeared quite consistent over time in the relative proportions of male and female deaths reported. Adjacent years showed highest associations, but even comparing proportions of male and female deaths reported in the first and last years of the period showed a statistically reliable association. The relationship between overall reporting rates 2010-2009 and 2010-2001 was investigated using Pearson product-moment correlation coefficient. There was a very strong positive correlation 2010-2009 for both male and female rates ( $r = .97$  and  $.97$  respectively,  $n = 10$ ,  $p < .0005$ ); and for 2010-2001 a moderate positive correlation ( $r = .66$  and  $.53$  respectively,  $n = 10$ ,  $p < .0005$  and  $.11$  (ns) respectively).

Deaths of men, in this study were found on average to be 30% more likely to be reported to the coroner. As discussed earlier here, this holds across all areas in England and Wales where deaths of men are in every area more likely to be reported to the coroner ( $\bar{x} = 26\%$ ). With the data available, it was impossible to compare age-equivalent groups of men and women.

Figure A1 shows the percentage reporting rate by gender of the deceased for the ten coroner areas.

### **Figure A1 reporting rate of registered deaths by gender of the deceased, by ten areas, 2001-2010**



## STAGE 2: ADVANCE TO INQUEST? (Ten areas)

Coroners can only consider those deaths that are reported to them, yet there does seem to be a remarkable consistency between the number of deaths reported to the coroner and those that are subsequently disposed to the Registrar as natural causes without the need for an inquest (a range of 86-90% of reported deaths compared with an England and Wales range of 71-94%). Similarly, the overall range of the proportion of inquest verdicts to registered deaths is quite small at 4-7% against a larger England and Wales position of 1-14%.

Despite wide differences in the numbers of registered deaths reported to the ten coroners for investigation, a small and reasonably consistent proportion of those reports (about 1 in every 10) are deemed potentially unnatural deaths and therefore advance to inquest, although there are differences in the proportion advancing according to the gender of the deceased.

## ADVANCING TO INQUEST BY GENDER OF THE DECEASED (Ten areas)

Once a death had been reported to the coroner there was found to be a difference, based on the gender of the deceased, in the proportion advancing to inquest. For the ten year period 2001-2010, 9% of female reported deaths had an inquest verdict returned,

compared with 16% for males, broadly mirroring the figures for all England and Wales (8% vs.16%). Thus, there was found to be a 78% greater chance that a male-reported death would advance to inquest than a female-reported death in the ten areas, compared with a doubling of the chance when all areas were taken into account.

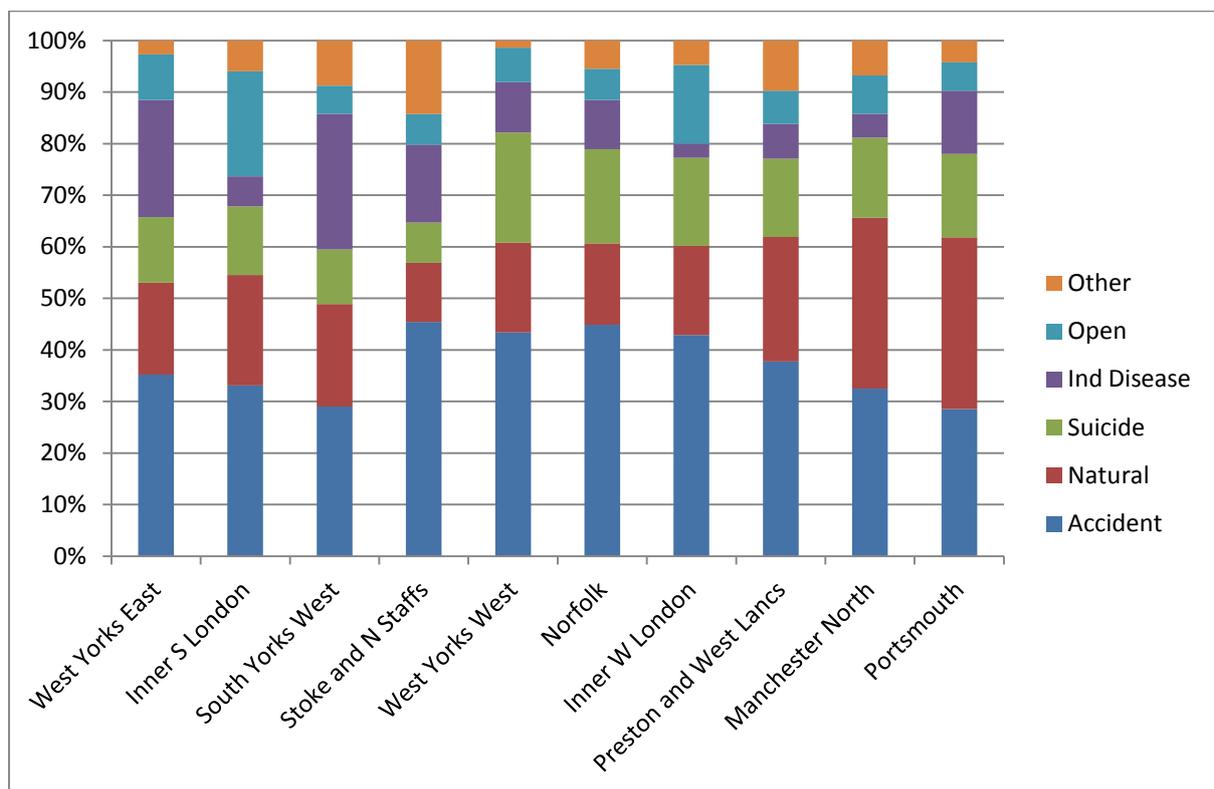
This gender difference, amplified by the reporting differences in preference of male deaths, might be considered surprising given that the deaths, whether male or female, would have been reported on objective grounds giving cause for concern about whether the death was unnatural. This is an area which warrants detailed research to establish why proportionately more female deaths, subsequently considered natural and not requiring an inquest, are reported to the coroner in the first place. It should always be borne in mind that men, on average, do not live as long as women, which may give cause for greater concern as to the cause of death. Age-equivalent rates are needed to place these observations on firmer ground, and are not available according to present MOJ data collection techniques.

The mean inquest rates by gender of the deceased for the ten areas have remained quite consistent over time, a range of 14-18% over the ten year period for men and just 8-10% for women, mirroring the position across England and Wales at 15-17% for men and 8-9% for women. Thus, the general position has remained consistent in terms of reported deaths advancing to inquest. However, local variation in advancing to inquest reveals wide variation in practice. For the ten areas, male mean inquest rates varied from 13-19% of all reported deaths and female mean rates from 6-13%. When all areas in England and Wales were analysed, male mean rates for the ten year period did range more widely from 8-32% and female mean inquest rates from 4-25% across local areas. Again, all local coroner areas across England and Wales were found to be consistent in their practice of advancing reported deaths to inquest over time, particularly for women when compared with men. The relationship between inquest rates for both males and females and time over the ten year period was investigated. When 2010 figures were correlated across the ten year period the strongest positive relationships were found for women, compared with men, with high (or low) levels of deaths being taken to inquest being consistent over time, Male 2010-2009 ( $r = .79, n = 111, p < .0005$ ); 2010-2001 ( $r = .38, n = 111, p < .0005$ ); and Female 2010-2009 ( $r = .84, n = 111, p < .0005$ ); 2010-2001 ( $r = .48, n = 111, p < .0005$ ).

### **STAGE 3: WHAT VERDICT? (Ten areas)**

Analysis was performed on Ministry of Justice (MOJ) data for the ten areas pertaining to the numbers of verdicts returned of each of the six types that made up 95% of all inquest verdicts for the 16 year period (1995-2010). Verdict profiles were calculated by summing the six verdicts then expressing the numbers of each verdict as a proportion of the area's total verdict count. A ranking of verdict proportional use (1-6) per area was thus obtained. The average annual profile of verdicts reached by area is shown at Figure A2. When all ten areas were combined, the order of verdicts from most used to least used was found to be Accident/Misadventure, Natural causes, Suicide, Industrial disease, Open and Other (narrative), in keeping with the position across England and Wales (see Table A3).

**Figure A2 Share of the six common verdicts (Ten areas) 1995-2010 (n verdicts=57,449)**



The ten areas have very similar completed inquest caseloads with just 46 inquest cases separating the highest and lowest caseload for 2011. That was how they were sampled. Yet they do not share similar historic (or incidentally, current) verdict *profiles* (where *profile* is defined as the rank order for the six common verdicts according to prevalence of use). Indeed only two areas were found to share the same ranking profile (1-6) over

the period: West Yorkshire (West) and Norfolk. No other area shared their verdict profile. The analysis has also been repeated for 2011 figures only, no area was found to have an identical hierarchical verdict profile (1-6) to any other.

Areas tended to be consistent over time in their relative proportionate use of particular verdicts. The relationship between particular verdict numbers and time over the ten year period 2001-2010 was investigated using Pearson product-moment correlation coefficient. When 2010 figures were correlated across the period then the strongest positive relationships were found in Industrial disease ( $r$  between .95 and .81,  $n = 10$ ,  $p$  between zero and .005); open verdicts ( $r$  between .92 and .70,  $n = 10$ ,  $p$  between zero and .02 (ns)); accidents ( $r$  between .89 and .42,  $n = 10$ ,  $p$  between .001 and .22 (ns)); and suicide ( $r$  between .93 and .45,  $n = 10$ ,  $p$  between zero and .195 (ns)) with wider ranges being found in other ( $r$  between .93 and -.11,  $n = 10$ ,  $p$  between zero and .79 (ns)) and natural causes ( $r$  between .84 and -.32,  $n = 10$ ,  $p$  between .003 and .74 (ns)).

Table A3 shows the outlying coroner areas in proportionate use of particular verdicts over the 16 year period. Verdicts of industrial disease and natural causes stand out as prone to variation. Ranges for the six verdicts may be listed in decreasing order as follows: industrial disease (Range=23%), natural (Range=22%), open, accident, suicide and other (narrative).<sup>26</sup>

**Table A3 Range of use of the six common verdicts (ten areas), 1995-2010**

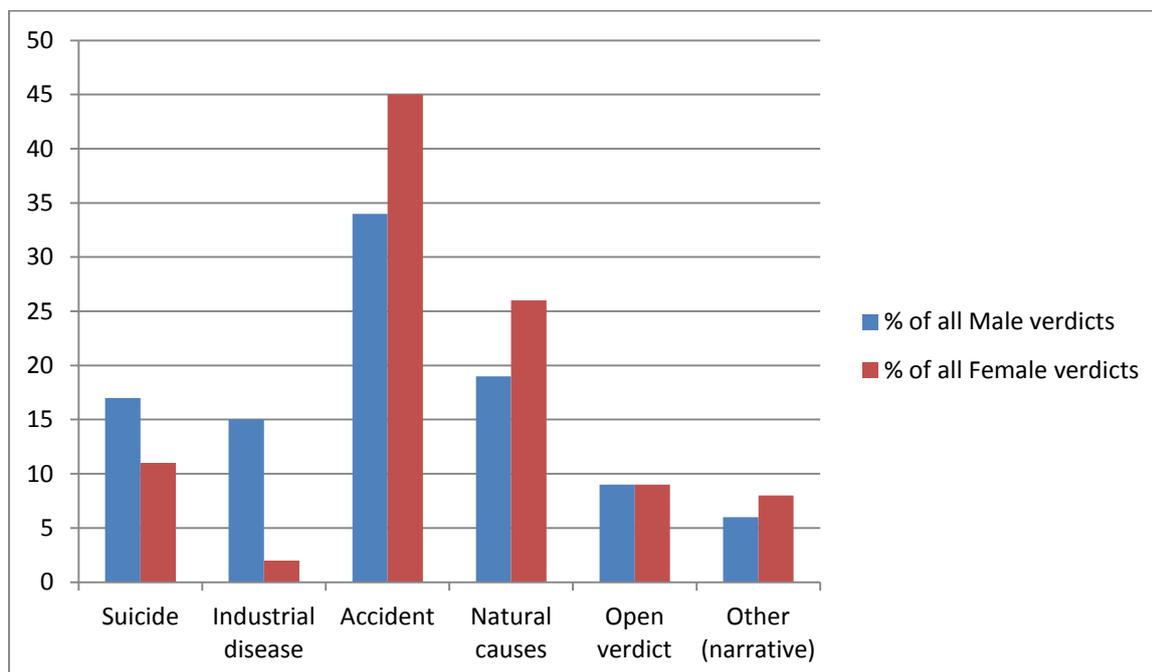
<b>Verdict (1995-2010)</b>	<b>Highest</b>	<b>Lowest</b>
Accident/Misadventure	45% (Stoke & N Staffs)	29% (Portsmouth)
Natural causes	33% (Portsmouth)	11% (Stoke & N Staffs)
Suicide	21% (West Yorkshire W)	8% (Stoke & N Staffs)
Industrial disease	26% (South Yorkshire W)	3% (Inner W London)
Open verdict	20% (Inner S London)	5% (South Yorkshire W)
Other (narrative)	14% (Stoke & N Staffs)	1% (West Yorkshire W)

<sup>26</sup> Analysis of 2011 data resulted in a different order of range, natural (15-55%), other (narrative) (3-32%), accident (12-32%), open (0-17%) (N=1 South Yorkshire West), suicide (6-20%), and industrial disease (3-17%). The use of narrative verdicts in particular has grown from almost nonexistent in the 1990's to one in seven of all verdicts E&W at the time of writing (2014), but is clearly taking hold in some areas before others.

### VERDICT PROFILES BY GENDER OF THE DECEASED (Ten areas)

While certain verdicts were found to be generally more used than others, differences were apparent in terms of prevalence of verdict according to the gender of the deceased. Industrial disease (15% of all male verdicts in the ten areas over 16 years vs. 2% of all female verdicts in that time) and suicide (17% vs. 11%) showed a clear difference with male deaths attracting more of such verdicts. Female deaths resulted in proportionately more verdicts of the following kinds: accidents (45% vs. 33%), natural deaths (26% vs. 19%) and other (narrative) verdicts (8% vs. 6%). Figure A3 shows the proportionate share by gender of the deceased of the six verdicts over the 16 year period in the ten areas.

**Figure A3 Share of all verdicts by gender of the deceased for the six common verdicts (Ten areas) 1995-2010.**



A wide range of the share of overall verdict count taken up by any particular verdict for men and women, shown in Table A4, was found according to the gender of the deceased, notably with industrial disease featuring as the highest range for men (4–35%) and the lowest range for women (0.4–4%). Accidental death was found to be the

highest used single verdict, recorded for 60% of all female verdicts (Stoke & North Staffordshire) compared with a highest use for men of 42% (Norfolk).

The greatest range of use of any verdict type for women was found to be natural causes (12-45%) and Accident (28-60%) and for men Industrial disease (4-35%). A verdict type with a wide range implies one which is prone to greater choice in decision-making on the part of the coroner.

For both men and women, the area with the highest rate of suicide verdicts had the lowest rate of other (narrative) verdicts and vice versa, that is, the highest other (narrative) rate had the lowest suicide rate. This does raise the possibility that narrative verdicts have come to be a substitute for suicide verdicts (to varying extents in different areas), perhaps as a result of coroners being aware of the sensibilities of the families of deceased people. The relationship between overall proportions of suicide and narrative verdicts for 1995-2010 was investigated. There was a strong negative correlation between the two variables ( $r = -.77, n = 10, p = .009$ ) with high levels of other (narrative) verdicts associated with low levels of suicide.

**Table A4 Range of use for the six common verdicts by the gender of the deceased (Ten areas), 1995-2010**

<b>Verdict</b>	<b>Highest Male %</b>	<b>Lowest Male %</b>	<b>Highest Female %</b>	<b>Lowest Female %</b>
<b>Suicide</b>	23% (West Yorkshire West)	10% (Stoke & N Staffs)	17% (West Yorkshire West)	3% (Stoke & N Staffs)
<b>Industrial Disease</b>	35% (South Yorkshire West)	4% (Inner West London)	4% (West Yorkshire East)	0.4% (Inner West London)
<b>Accident</b>	42% (Norfolk)	25% (South Yorkshire West)	60% (Stoke & N Staffs)	28% (Manchester North)
<b>Natural causes</b>	33% (Portsmouth)	11% (Stoke & N Staffs)	45% (Manchester North)	12% (Stoke & N Staffs)

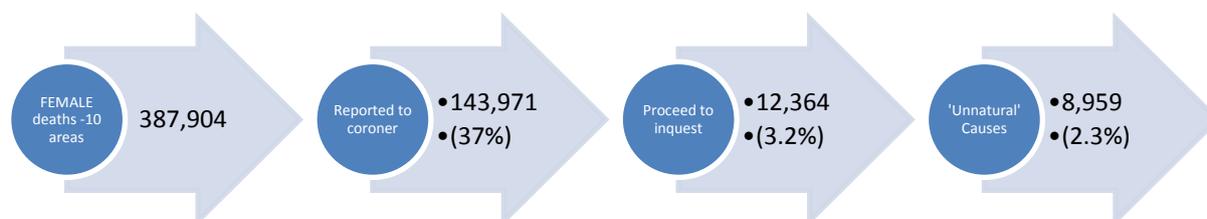
<b>Open verdict</b>	22% (Inner South London)	5% (South Yorkshire West)	17% (Inner South London)	5% (Stoke & N Staffs)
<b>Other (narrative)</b>	13% (Stoke & N Staffs)	2% (West Yorkshire West)	17% (Stoke & N Staffs)	1% (West Yorkshire West)

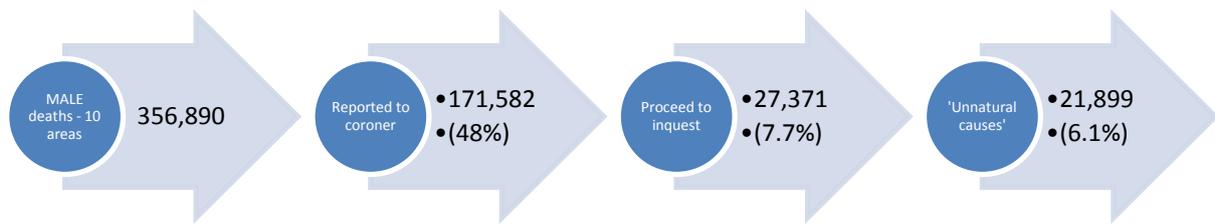
### THE GENDERED CORONER? (Ten areas)

For the three-stage decision process of reporting to the coroner, advancing to inquest and the verdict of unnatural death; a smaller proportion of female deaths cross each transition point. The ten areas studied here revealed 48% of male deaths as reported to the coroner compared with 37% of female deaths. This reflects the England and Wales position for 2001-2010 of a reporting rate for male deaths of 49%, and 38% for female deaths. Once reported to the coroner, the process of gendered attrition continues with fewer female deaths advancing to inquest and fewer women at inquest being considered to have died unnaturally.

Figure A4 shows the total attrition through the process according to the gender of the deceased. It can be seen that the final chances of a registered death proceeding to a verdict of unnatural death are almost three times greater for a deceased man (6.1%) than for a deceased woman (2.3%).

**Figure A4 relative attrition in the coronial process between deaths of women and deaths of men (Ten areas), 2001-2010**





There is thus a priori evidence of an overall pattern of gendered decision-making throughout the processing of deaths in the ten areas studied here. What evidence do we have of local variation? Analyses of difference in proportionate use of verdicts by the gender of the deceased suggests that coroners are gendered in their approach, at least in the last phase of the three stage filtering process described here, in that they are consistently more likely to favour a particular verdict when dealing with a death, according to the gender of the deceased. This concept of gendered decision-making is outlined in greater detail, and across all coroner areas of England and Wales, at Chapter 6 of this thesis. The following analysis relates only to the identified ten areas with very similar caseloads.

The relationship between the gender of the deceased and the choice of verdict can be measured by determining the degree of difference in proportionate use of verdicts according to whether the deceased is male or female. The relevant data were inquest verdict counts by gender by area and by year for the period 2001-2010. The stages in the analysis were as follows;

1. As noted, the deaths of females result in inquests less often than is the case for males. The total of female deaths coming to inquest was weighted, for every verdict type, to produce a comparable denominator for men and women.
2. Total verdict counts were re-calculated using the weighted numbers
3. For each area-verdict-year count the difference between males and females attracting that verdict was calculated, ignoring sign of the difference
4. The differences were summed across verdicts and years and expressed as an index with a range from 0 (no gender difference) to 1 (maximum gender difference).

The resulting index will provide the measure of 'genderedness' of coroner decisions, as outlined in Table A5 below;

**Table A5 Degree of 'genderedness' (Ten areas), all verdicts, 2001-2010**

<b>Coroner area</b>	<b>'Gendered score'</b>
West Yorkshire (East)	0.45
South Yorkshire (West)	0.45
Stoke and North Staffordshire	0.43
Inner West London	0.40
Manchester North	0.40
Portsmouth and South East Hampshire	0.39
West Yorkshire (West)	0.37
Norfolk	0.35
Inner South London	0.34
Preston and West Lancashire	0.31

When all areas in England and Wales were analysed the mean score ranged from 0.22 to 0.51. The analysis does show that all ten coroners are consistently more likely to favour a particular verdict according to the gender of the deceased.

The question that then follows is which of the six verdicts, within the ten coroner areas, were most 'gendered'? Each of the six common verdicts were scored for the ten year period 2001-2010 after weighting adjustment to take into account the difference in male/female numbers. 'Genderedness' was defined as the difference factor between what would be expected after weighting if the verdict was gender neutral, and what was found, expressed as an index score between zero and one.

The mean score was calculated over the ten year period for each of the common six verdicts 'genderedness' in the ten areas and revealed industrial disease to be significantly higher than any other verdict in being chosen according to the gender of the

deceased. Table A6 shows the likelihood that a particular verdict will be favoured according to the gender of the deceased.

**Table A6 Verdicts and degree of 'genderedness' (Ten areas), six verdicts, 2001-2010**

<b>Verdict</b>	<b>Mean 'Genderedness' Score</b>	<b>Standard Deviation</b>
Industrial disease	0.71	0.14
Other (narrative)	0.33	0.16
Suicide	0.25	0.19
Open	0.24	0.07
Natural causes	0.17	0.05
Accident	0.15	0.05

Consideration was given as to whether a caseload that featured a high proportion of 'gendered' verdict types would automatically mean that a coroner area would feature highly in a 'genderedness' index score. Although this sample size is small, some very slight evidence emerged of higher verdict-specific caseloads leading to reduced 'genderedness' in those verdicts, particularly found in suicide and open verdicts. These results were replicated at England and Wales level (the relationship between overall caseload for a particular verdict and degree of 'genderedness' for that verdict was investigated for the ten areas using Pearson product-moment correlation coefficient for the six common verdict types with only suicide and open verdicts showing moderately strong negative relationships, suicide ( $r = -.76, n = 10, p = .011$  (ns)); and open verdicts ( $r = -.74, n = 10, p = .016$  (ns)) with higher levels of caseload associated with lower levels of 'genderedness'. Similar modest negative relationships were found for these two verdict types across England and Wales, suicide ( $r = -.56, n = 112, p > .005$ ) and open verdicts ( $r = -.66, n = 112, p > .005$ ).

## **SUMMARY (Ten areas)**

Coroners with very similar inquest caseloads still have differences in reporting rates that remain consistent over time, including a position whereby deaths of men are on average 30% more likely to be reported than women. Yet there is a remarkable consistency in the proportion of reported cases that are deemed proper for inquest and a disparity towards proceeding to inquest of 78% more likely for male deaths over female.

Despite very similar inquest caseloads, verdict profiles are likely to differ, with a range of use of particular verdicts between the different areas. In keeping with the national position, there were strong gender differences apparent in certain verdict types: industrial disease and suicide for men, and accidents, natural deaths and narrative verdicts for women. There may be evidence of substitution between suicide verdicts and narrative verdicts. Coroners could be shown to favour a particular course of action according to the gender of the deceased, whether in advancing to inquest or their choice of verdict, and it was possible to identify which coroners were most prone to favour particular verdict types according to gender.

A very similar inquest caseload is no guarantee of a similar approach to reporting, proceeding to inquest or choice of verdict. For local reporting behaviour and subsequent verdict choice at inquest, wide and consistent variation was identified within the ten areas. Unless and until the variation can be attributed to either case-relevant factors not captured in the statistics or non-case relevant variables not routinely captured, the official process and outcomes consequent upon a death are vulnerable to the criticism that they represent a 'postcode lottery'.

## **APPENDIX B**

### **DEATHS WHICH SHOULD ALWAYS BE REPORTED TO CORONERS**

*Luce (2003); Death Certification and Investigation in England, Wales and Northern Ireland: The Report of a Fundamental Review 2003.*

*Chapter 4 - Reporting Deaths to the Coroner (p.43)*

### **DEATHS WHICH SHOULD ALWAYS BE REPORTED TO CORONERS**

Any violent or traumatic death, including all traffic deaths, workplace deaths, deaths apparently from self-harm, from injury, fire or drowning or other unnatural cause in the home or in any other place, or as a result of the operations of the law and order services.

Any death of a person detained in a prison or in military detention, in police custody, in a special hospital or under statutory mental health powers, or of a person resident in a bail or asylum hostel.

Any death from a range of communicable diseases defined from time to time by the Coronial Council as needing investigation by the coroner.

Any death in which occupational disease may have played a part.

Any death in which lack of care, defective treatment, or adverse reaction to prescribed medicine may have played a part, or unexpected deaths during or after medical or surgical treatment.

Any death which occurs, from any cause, of a woman who is either pregnant, or within a year of delivery, termination of pregnancy, ectopic pregnancy or miscarriage.

Any death of a child looked after by or on behalf of a social services authority, or on the "At risk" register, or in a family in which another child is or has been looked after or on the "At risk" register; or of a child being privately fostered.

Any death in which the use of addictive drugs may have played a part.

Any other death which a doctor may not certify as being from natural disease or old age.

Any death which is the subject of significant unresolved concern or suspicion as to its cause or circumstances on the part of any family member, or any member of the public, any health care, funeral services or other professional with knowledge of the death.

Any death in respect of which the Registrar has significant continuing uncertainties.

**APPENDIX C**

**CORONER COLLECTION FORM AND NOTES FOR COMPLETION (2010)**

(Source – Ministry of Justice: London)

## NOTES FOR COMPLETION

### General notes

Where no cases are recorded, a zero or the words "none" or "nil" should be entered in the relevant yellow cell. For the purposes of this return, an inquest held on several bodies simultaneously should be regarded as if there were a separate inquest held on each, e.g. an inquest held on twenty persons killed in an air crash should be counted as twenty inquests.

#### Section A

**Section A should include all deaths reported during 2010, including those where an inquest or post mortem has not yet been carried out. If information on inquests and post mortems is not available by 31 January 2010, the case should be excluded from this return, and included next**

**Section (i)** should include all cases in which coroner investigated the circumstances of a death personally or by his officer, by letter or telephone, and was satisfied that **no inquest was necessary**; if an application for an Out of England Order is received in respect of a body which has not been the subject of any other coronal process (whether Certificate "A" or "B" or inquest) then such death should be included under heading A(i) as a death investigated and a certificate issued (i.e., the Out of England Order) but without post mortem. **See also instructions under section (iv) below.**

**Section (ii)** should include those deaths reported where inquests have been, or are to be, held, even if not completed by 31st December 2009. It should also include inquests on still-born children and inquests adjourned under Sections 16 and 17A of the Coroners Act 1988 which the coroner has decided not to resume.

**Section (iii)** is self-explanatory.

**Section (iv)** deaths reported or referred to the coroner (e.g. telephone enquiries from doctors) which result in NEITHER an inquest NOR issue of certificate 'A', certificate 'B' or an Out of England Order **must now be reported under "no inquest, no post-mortem"** but if the sex of the deceased is not known, numbers of such cases should be appended in the yellow cell indicated.

**Post-mortems** On the left-hand side of the page, please give the number of **first post-mortems** ordered at the standard rate (currently £96.80) followed by the number of **first post-mortems** ordered at any higher or special rate. On the right-hand side of the page, give the number of first post-mortems which included histology and the number which included toxicology.

**Out of England orders** Please give the number of Out of England orders made during 2010.

**Deaths outside England and Wales** Please give the number of deaths reported to you in 2010 which occurred outside England and Wales. Details (case number, and country where the death occurred) should be reported on a separate sheet.

Cases dealt with under Section 7 of the Visiting Forces Act 1952 should be excluded altogether.

#### Section B

Section B should include all inquests concluded during 2010. The total verdicts at (B) will not necessarily equal the number of inquests at section

The list of verdicts is in accordance with the Coroners Act 1988 and the Rules 1984.

##### Specific verdicts:

**Brief details of narrative verdicts, and verdicts not categorized in Section B, should be reported by entering details in the "Other info" worksheet.** (Numbers should be reported under "other verdicts" in the normal way.)

Verdicts of death "aggravated by lack of care, or self-neglect" should include those which were connected with destitution as well as those not connected destitution.

Verdicts where the death was "aggravated by lack of care or self neglect" or of attention at birth" should only include cases which fall short of unlawful

Verdicts of death from disease aggravated by dependence on drugs should included under "dependence on drugs".

Verdicts of "deaths in disasters" will include only those cases where the Chancellor has informed the Coroner before the conclusion of the inquest(s) that there is or will be a public inquiry into the incident, i.e. where a coroner resumed an inquest after an adjournment under Section 17A of the Coroners 1988. If the coroner does not resume the inquest(s) those cases will be in Section C.

#### Section C

Section C should include only those inquests on which a final decision has been taken **not to resume** the inquest under Sections 16 or 17A of the Coroners Act 1988. Any adjourned request on which the decision has not yet been taken should **not** be included in the return but should be noted, for inclusion in Section C for year in which the decision not to resume is made.

Causing death by dangerous driving should include all RTA deaths covered by Sections 1 and 3A of RTA 1988, i.e. dangerous driving, and causing death by careless driving while under the influence of alcohol or drugs.

#### Section D

This section should include only those inquests completed in 2010, and those inquests adjourned under Sections 16 or 17A of the Coroners Act 1988 **which has been decided during 2010 not to resume.**

##### Treasure and Treasure Trove

Please ensure that inquests relating to finds made before 24 September 1997 recorded under Treasure Trove.

The remaining boxes relating to Treasure are to be completed in respect of an finds made on or after 24 September 1997.

#### Section E

The time taken to complete a case should be reckoned from: the date of death, the date of discovery of the body, the arrival of the body in the jurisdiction, or the date the death was reported to the coroner, *whichever is the latest*.

The various parts of Section E may not always agree *exactly* with the corresponding sections A-D above. If this occurs, *it is not an error*, but an effect caused by slightly differing timeframes. It is more important that Section E should agree **within itself** arithmetically.

Question 4 in Section E asks for details of inquests still in progress. Note that deaths within England and Wales and deaths outside this area are reported separately. **Please check that the date of the oldest case in each column is recorded correctly.** In some circumstances the month and day become reversed, so that (for example) a case dating from 4 May 2010 is shown as 05/04/10, instead of 04/05/10 as it should be.

**Would coroners please include a list of concluded inquests which took over 12 months to resolve on the "Other info, p3" worksheet, showing the number of days taken, or alternatively, the relevant dates.**

**Others may also either enter the details into the spreadsheet manually, return the information in a separate Word document, or post hardcopies of this information to Richard Allen at Justice Statistics Analytical Services, 7th Floor (7.18), 102 Petty France, London SW1H 9AJ**

## DEATHS REPORTED TO CORONERS January to December 2010

FULL NAME OF CORONER'S DISTRICT:

**PLEASE READ THE NOTES CAREFULLY BEFORE COMPLETING**

SECTION A: DEATHS REPORTED TO CORONER IN 2010									
	With post mortem			Without post mortem			TOTAL		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
(i) Deaths reported to the coroner which, after investigation, <b>will not result in an inquest</b> (whether or not a certificate of any sort is issued)									
(ii) Deaths reported to coroners on which <b>inquests are to be or were opened</b> (even if not concluded)									
TOTAL (i) + (ii)									(A)
(iii) Number of cases transferred out of district under Section 14 of the Coroners Act 1988 (not to be included above)									
(iv) Deaths reported or referred to the coroner requiring neither inquest nor the issue of any certificate <b>MUST BE INCLUDED IN THE "NO INQUEST NO POST MORTEM" box above</b> , along with cases where certificates were issued. <u>For cases where sex of deceased not known, please indicate the number of such cases in the yellow cell on the right.</u>									

POST-MORTEM EXAMINATIONS (if more than one on the same body, only details relating to the FIRST PM should be included in this section.)									
Number ordered at STANDARD RATE				Number of PMs which included HISTOLOGY					
Number ordered at NON-STANDARD RATE				Number of PMs which included TOXICOLOGY					
N.B. we do not require details of any second or subsequent PM ordered on the same body to be recorded here									

Number of Out of England orders made

Number of deaths abroad (give details on separate page please)

SECTION B: VERDICTS RETURNED AT INQUESTS IN 2010 (including inquests with juries)			
	Numbers of verdicts (not treasure inquests)		
	Male	Female	Total
Killed unlawfully			
Killed lawfully			
Suicide			
Attempted or self-induced abortion			
Cause of death aggravated by lack of care, or self-neglect			
Dependence on drugs			
Non-dependent abuse of drugs			
Want of attention at birth			
Deaths from industrial diseases			
Deaths by accident or misadventure			
Stillborn			
Deaths from natural causes			

SECTION C: INQUESTS ADJOURNED under Sections 16 and 17A of the Coroners Act 1988 which it has been decided NOT TO RESUME DURING 2010				
	Subsection under which adjournment occurs			
	Section 16(1)(a)	Section 16(1)(b)	Section 17A	Total
Murder				
Manslaughter				
Infanticide				
Charges of causing death contrary to RTA 1988				
Aiding, abetting, counselling or procuring suicide				
Corporate manslaughter				
Other criminal charges				
Disaster inquiry				
TOTAL [All charges]				(C)

Section D: INQUESTS, INQUISITIONS, EXHUMATIONS and TREASURE in 2010			
	With juries	Without juries	TOTAL

## APPENDIX D

### 10 YEAR REPORTING RATES IN DESCENDING ORDER 2001-2010

#### Reporting rates – registered deaths to coroners, 2001-2010 inclusive

MALE	FEMALE	Coroner Area	TOTAL %
94.07	80.57	Plymouth and South West Devon	87
63.12	50.29	Leicester city and South Leicestershire	71
77.41	64.13	Blackburn, Hyndburn and Ribble Valley	70
78.08	60.51	Inner North London	70
76.00	56.76	Manchester city	70
74.98	56.30	Newcastle upon Tyne	69
72.52	61.76	PETERBOROUGH	68
68.67	57.25	Torbay and South Devon	63
70.38	54.77	Liverpool	62
66.27	56.92	Stoke-on-Trent and North Staffordshire	62
65.38	53.32	BRIGHTON and HOVE	61
65.12	53.57	South and West Cambridgeshire	60
66.34	52.10	NOTTINGHAMSHIRE	59
50.27	38.54	North London	59
74.77	59.23	Spilsby and Louth	59
56.94	48.56	Coventry	59
64.62	52.54	Blackpool/Fylde	59
65.04	49.36	YORK CITY	57
64.16	48.60	HARTLEPOOL	56

68.03	45.54	Bridgend and Glamorgan Valleys	56
59.64	51.64	TELFORD and WREKIN	56
60.60	51.35	City and County of Swansea	56
60.41	50.80	Central North Wales	56
59.93	50.36	Boston and Spalding	55
58.13	50.42	Mid Kent and Medway	55
59.50	48.99	TEESSIDE	55
51.48	41.67	Derby and South Derbyshire	54
61.00	46.09	Inner West London	54
59.53	47.66	Southampton and New Forest	54
59.84	44.96	Inner South London	53
56.28	44.83	Staffordshire South	52
56.64	44.80	AVON (former "county")	51
48.94	37.48	Gateshead and South Tyneside	49
52.12	43.83	EAST RIDING and HULL	48
53.43	39.62	Sunderland	48
53.34	42.86	North West Wales	48
51.69	43.63	CESHIRE	48
49.53	34.17	West London	48
52.75	42.74	North West Kent	47
51.39	36.85	South Yorkshire Eastern District	47
52.92	41.30	MILTON KEYNES	47
46.48	36.14	Wolverhampton	46
52.73	40.33	South Yorkshire Western District	46
47.89	42.31	Manchester South	46

50.49	39.94	Wirral	46
49.88	40.70	Western Somerset	45
49.80	39.35	Mid and North Shropshire	44
45.01	36.16	Manchester West	44
48.75	39.36	Portsmouth and South East Hampshire	44
49.08	38.34	North East Wales	44
43.01	28.93	Gwent	44
47.47	39.97	CORNWALL	44
46.65	40.21	South London	43
47.53	39.00	Western Dorset	43
50.16	35.54	Cardiff and Vale of Glamorgan	43
45.97	39.88	North East Hampshire	43
48.01	37.41	Birmingham and Solihull	43
48.38	37.48	BERKSHIRE (former county)	43
42.89	37.17	West Lincolnshire	43
45.11	38.12	NORTHAMPTONSHIRE	43
45.89	38.41	BEDFORDSHIRE and LUTON	43
45.90	37.71	ISLE OF WIGHT	42
45.88	38.15	North Yorkshire Eastern District	42
49.04	37.99	South and East Cumbria	42
44.86	38.07	Central and South East Kent	42
45.35	36.66	Pembrokeshire	42
45.00	37.72	WORCESTERSHIRE	41
43.00	33.33	SURREY	41
44.26	36.20	North East Kent	41

39.24	31.71	Manchester North	41
44.70	36.18	East London	41
41.88	34.24	SOUTHEND-ON-SEA	40
44.66	34.02	North Derbyshire	40
44.70	32.60	North Tyneside	40
42.83	36.38	Sefton, Knowsley and St Helens	40
45.30	36.12	Black Country	40
39.91	30.83	NORFOLK	40
43.15	35.61	HEREFORDSHIRE	39
42.59	33.54	North and West Cumbria	39
41.52	35.65	Bournemouth Poole and Eastern Dorset	39
44.52	32.71	West Yorkshire Eastern District	39
42.74	34.28	Preston and West Lancashire	39
41.13	34.94	EAST SUSSEX	38
41.13	34.40	Exeter and Greater Devon	38
41.50	33.31	Central Hampshire	38
42.15	30.49	OXFORDSHIRE	37
42.02	31.34	Ceredigion	37
42.88	30.77	Carmarthenshire	37
38.65	33.00	Eastern Somerset	36
36.36	28.59	ESSEX and THURROCK	36
39.02	32.54	BUCKINGHAMSHIRE	36
38.63	29.39	WILTSHIRE AND SWINDON	36
37.90	29.70	SUFFOLK	35
38.33	31.68	HERTFORDSHIRE	35

39.84	30.32	Darlington and South Durham	35
40.03	30.13	North Northumberland	35
38.07	29.00	NORTH LINCOLNSHIRE and GRIMSBY	35
37.74	29.58	WARWICKSHIRE	34
37.82	27.25	West Yorkshire Western District	34
39.52	27.24	North Durham	33
34.80	25.04	WEST SUSSEX	32
33.49	26.73	GLOUCESTERSHIRE	32
35.79	25.79	South Northumberland	31
35.21	27.25	North Yorkshire Western District	31
35.49	25.30	Neath and Port Talbot	31
34.81	26.82	East Lancashire	31
23.69	20.42	South Shropshire	22
24.86	18.61	Powys	22
24.27	18.89	North and East Cambridgeshire	22
23.81	17.67	Rutland and North Leicestershire	21
14.23	11.70	Stamford	12

**APPENDIX E****DEGREE OF GENDEREDNESS, ALL CORONER AREAS, 2001-2011**

<b>Coroner Area</b>	<b>Gendered Score</b>
North and East Cambridgeshire	.57
South Yorkshire Eastern District	.51
North and West Cumbria	.51
South Yorkshire Western District	.50
NORTH LINCOLNSHIRE AND GRIMSBY	.50
West Yorkshire Eastern District	.49
Plymouth and South West Devon	.49
Sefton, Knowsley and St Helens	.49
Derby and South Derbyshire	.49
Black Country	.49
Staffordshire South	.49
North Durham	.48
Coventry	.48
BEDFORDSHIRE AND LUTON	.48
Manchester city	.47
WORCESTERSHIRE	.47
Stoke-on-Trent and North Staffordshire	.47
YORK CITY	.47
Boston and Spalding	.46
North Yorkshire Western District	.46

WILTSHIRE AND SWINDON	.46
SURREY	.46
Spilsby and Louth	.46
South London	.45
South and West Cambridgeshire	.45
Liverpool	.44
Inner West London	.44
Southampton and New Forest	.44
Manchester North	.44
Gateshead and South Tyneside	.44
EAST SUSSEX	.44
Darlington and South Durham	.43
North London	.43
Gwent	.43
Cardiff and Vale of Glamorgan	.42
North Derbyshire	.42
Bournemouth, Poole and Eastern Dorset	.42
Portsmouth and South East Hampshire	.42
Manchester West	.42
Newcastle upon Tyne	.41
GLOUCESTERSHIRE	.41
ISLE OF WIGHT	.41
CORNWALL	.41
Blackpool/Fylde	.41

CHESHIRE	.41
West Lincolnshire	.41
Western Somerset	.40
West Yorkshire Western District	.40
NOTTINGHAMSHIRE	.40
East London	.40
Blackburn, Hyndburn and Ribble Valley	.39
South Northumberland	.39
HERTFORDSHIRE	.39
Eastern Somerset	.39
City of London	.39
Manchester South	.39
North East Wales	.39
NORFOLK	.39
Western Dorset	.39
HARTLEPOOL	.39
AVON	.38
North West Wales	.38
Sunderland	.38
Mid and North Shropshire	.38
North Northumberland	.38
Powys	.37
MILTON KEYNES	.37
Neath and Port Talbot	.37

WEST SUSSEX	.37
Inner South London	.37
Torbay and South Devon	.35
ESSEX AND THURROCK	.35
HEREFORDSHIRE	.35
Pembrokeshire	.35
TEESSIDE	.35
South Shropshire	.35
Inner North London	.35
SUFFOLK	.35
Preston and West Lancashire	.35
Rutland and North Leicestershire	.33
North Tyneside	.33
Bridgend and Glamorgan Valleys	.33
WARWICKSHIRE	.32
Ceredigion	.32
Mid Kent and Medway	.32
BRIGHTON AND HOVE	.32
Exeter and Greater Devon	.32
OXFORDSHIRE	.32
TELFORD AND WREKIN	.32
Birmingham and Solihull	.31
West London	.31
South and East Cumbria	.31

BERKSHIRE	.30
SOUTHEND-ON-SEA	.30
Wolverhampton (Jan-Sept only for 2011)	.30
North Yorkshire Eastern District	.30
Central North Wales	.30
Stamford	.30
Leicester city and South Leicestershire	.30
North West Kent	.30
PETERBOROUGH	.29
Central and South East Kent	.29
East Lancashire	.28
North East Kent	.28
North East Hampshire	.28
EAST RIDING AND HULL	.27
Carmarthenshire	.27
City and County of Swansea	.26
NORTHAMPTONSHIRE	.26
Wirral	.25
Central Hampshire	.25
BUCKINGHAMSHIRE	.25

## APPENDIX F

### TEST 'PAGE 0', DEMOGRAPHIC INFORMATION SOUGHT FROM DBA RESPONDENTS

Thank you for your participation in this study of how coroners make decisions.

May we ask that you first provide some information relating to your role.

What is your gender?

- Male
- Female

What is the length in years of your experience as a coroner?

What is your qualification to practice as coroner?

- Legal
- Medical
- Both

MouselabWEB

Your information in MouselabWEB is hidden behind boxes.

To access the information, point and click the mouse pointer over the box on the screen.

As long as you do not click on another box, it will display the information.

Whenever you click again on the same box, the box closes and the information is hidden again.

Please note that you won't be able to continue before you have answered each question

(MouselabWEB tests whether a choice has been made before proceeding). Please enter 'nil' or similar if you do not wish to add anything.

You will be asked to consider three scenarios.

[Next Page](#)

**APPENDIX G**

**CORONER PARTICIPATION SHEET/CONSENT FORM**

## The coroner as decision maker

### INFORMATION SHEET / CONSENT FORM



You are being invited to take part in this study of how coroners make decisions. Before you decide to take part it is important that you understand why the research is being done and what it will involve. Please take time to read the following information carefully.

#### What is the study about?

Given the recent reforms in coroner law and practice, this study is an attempt to understand and explain how coroners in England and Wales currently approach the decisions they have to take in their core professional duties. The research is part of a PhD programme of study being undertaken by the lead researcher.

#### Why I have been approached?

You have been asked to participate because you are a senior coroner in England and Wales or presently acting as such.

#### Do I have to take part?

It is your decision whether or not you take part. We very much hope that the results of our study will aid research into the challenges faced by coroners undertaking their duties. Data is anonymous and cannot therefore be withdrawn after submission. However at any time before clicking submit a participant can terminate involvement by simply closing the browser window.

#### What am I being asked to consent to?

If you decide to take part by accessing, completing and submitting the on-line questionnaire then your consent to participate and for the anonymous reproduction of your responses is assumed upon our receipt of the completed questionnaire.

#### What will I need to do?

If you agree to take part in the research simply click the web link attached to this e-mail, fill in the brief details requested and please complete the three scenario questionnaire. The entire questionnaire should take no longer than 15 minutes and each scenario must be answered to reveal the next. Each scenario has nine pieces of information relevant to that scenario **which are revealed by clicking on the boxes shown**. You are then asked to consider your conclusion and add any comments you wish to make. Please remember to click 'next scenario' or 'finish/submit' at the bottom of each page.

#### Will my identity be disclosed?

Participants to the study are anonymous. All information disclosed within the questionnaire will be kept in a password protected database. No personal information is sought and the researchers have no way of identifying individual respondents.

#### What will happen to the information?

Researchers will analyse the information to build up a picture of coroners decision making style. It is anticipated that the research may, at some point, be published in a journal or report. However, should this happen, your anonymity will be ensured (as the researchers cannot identify individual respondents), although it may be necessary to use your words/comments in the presentation of the findings.

#### Who can I contact for further information?

If you require any further information about the research, please contact:

Lead researcher: Maxwell Mclean  
E-mail: U1078679@hud.ac.uk / Telephone: 01484 473842

Supervisor: Dr Jason Roach  
E-mail: j.roach@hud.ac.uk / Telephone: 01484 473842

Thank you.

Queensgate, Huddersfield, HD1 3DH, UK

+44 (0) 1484 422288 +44 (0) 1484 516151

Patron: HRH The Duke of York, KG  
Vice-Chancellor: Professor Bob Cryan DL MBA DSc CEng FIET FHEA



## APPENDIX H

### MR. T. RATCLIFFE – FIRST SUMMARY OF RECORDED DISCUSSION ON DECISION-MAKING METHODS IN BORDERLINE CASES FOR THE CORONER.

**Materials** – 16 printed case scenarios taken from 'What is a natural cause of death?' (Roberts et al., 2000), J Clin Pathol 53 367-373. Voice recorder (total length of interview 50 minutes).

**Location** – Gordons Solicitors, Bradford 11 am Thursday 14<sup>th</sup> March 2013. Persons present – Tim Ratcliffe (Deputy coroner, Bradford) and Max Mclean (PhD student, University of Huddersfield).

**Methodology** – Interviewer has 16 scenarios relating to deaths which require a decision by the coroner. The coroner is to randomly select a scenario, ask questions of the interviewer, and offer a decision as to verdict. Information would only be provided in response to a question.

#### **Chose scenario no 16;**

Tim started by asking whether I was presenting as a coroners officer for a Form A or B, I said (at this stage) that it could be any presentation to him in his role as coroner.

Tim suggested he would try to run this 'gender blind', then started by asking the **age** of the deceased (72). He then asked **where** the deceased died (hospital). This was followed up with asking **when** the deceased was admitted to hospital (very shortly before death) and further followed by a request for more detail on when – 24 hours? 7 days? 15 days? (Within 15 days).

Tim asked if the deceased had a **procedure** in hospital (no), and then **summarised** that the deceased had been admitted to hospital for some condition and there had been no surgical intervention. Tim asked if the **same condition** had applied all the way through time in hospital (yes). Then asked **what the condition was** (severe colitis associated with E-Coli infection) and whether it was **an emergency admission** (no), **summarising** that a GP had arranged admission for observations (yes). Tim asked if there had been **a course of treatment** (yes – and not relevant to the death) and whether I believed I had a **duty to report this death to him** (yes). Tim then **presumed that the death was infection** related and I explained that I could give him a pathologists cause of death (it was subsequently revealed that all the scenarios would

have a pathologists post mortem report available). Tim asked **what the PM report said** (1. colitis, 1. (a) e-coli). Tim asked for **confirmation that there was no '2'**- no background condition (no). Tim suggested that we were now past the point of a Form A, that no medical practitioner had felt able to certify the cause of death (otherwise it would not have come to the coroner), and that the PM report was not providing massive surprises, that it wasn't a sudden or unexpected death as far as he could see, nor an accidental death assuming the course of treatment had been the same all the way through and that this was why he had asked about whether any operation had taken place – Tim said this would have sparked a whole different range of questions.

Tim asked if the person had been **looked after on a general ward all the way through** (don't know the answer to that), and whether there was **an issue of infection** in the hospital itself (no reason to believe that), and if a **consultant had been in care** of this person (yes, and no suggestion of negligence at the hospital)

Tim then said that unless there was a trap in this one he was at the stage where he could sign this off on a Form B as natural causes, with no inquest considered as necessary. I asked whether if he was sitting at an inquest would his decision be different and **he confirmed he would return a verdict of natural causes**. I confirmed that there were no intended traps as Tim explained that he realised the scenarios may have been 'seeded' with one or two facts that if he didn't ask the question he would miss the point. I confirmed that they were all cases that would cause debate as to whether they were natural causes or not. Tim then went on to stress that he was not a medical coroner, saying that he would not be aware of the causation that results in someone presenting with this condition. He offered the example that he wouldn't know if there was something before the condition of relevance like a blood poisoning case after an accident, and that such cases may well not be natural causes of course.

At this point I let Tim know that there were only two items of information available to me that he hadn't asked, one was the sex of the deceased (female) and I asked if that made any difference. Tim said that he would always know the sex from the written reports but that he was not particularly bothered by that. I then told Tim of the source of the infection (cooked meat at a local butcher) and asked whether that would amend his thinking in anyway. He replied yes if it was definitely traced and said that this was the problem with him not being a medical coroner in that a medically qualified coroner may have spotted that the type of infection might be so virulent that it couldn't be acquired by normal contact with other people and suggested poisoned meat or food. That meant to Tim that it would have gone to inquest because it was a sudden and unexpected death precipitated by something which the person didn't see and that **possible verdicts**

**therefore were unlawful killing if very gross negligence was established, or accidental death the person didn't court, or misadventure or, most appropriate, a narrative verdict** given the gap between the source of the infection and two weeks in hospital.

I suggested at this point that we should consider all the scenarios as being at inquest, and Tim said that what he found interesting was that no coroner was ever presented with a complete blank sheet of paper. One was always presented with a scenario, because their officers were so good, which points and benefits from their experience in delving back.

### **17 minutes – chose scenario 3**

Tim confirmed that we were now in inquest. Asked for the **age** of the deceased (60), and **place of death** (hospital) and **time of death** (any time recent, reported from hospital). Tim asked if there was a **course of treatment** that preceded the death (yes, heart transplant, irreversible rejection and died 3 weeks after transplantation). Tim said that working backwards from the death he assumed there was **a PM report** (yes, 1(a) cardiac failure 1(b) rejection of cardiac transplant 1(c) ischaemic heart disease). Tim **summarised** and asked **what the course of treatment was** between the operation and the death (no suggestion of anything having gone wrong in care and all correct protocols followed, transplant immediately after admission to hospital when a life expectancy of several months was estimated). Tim asked **how many heart attacks** this person had before admission (do not have that information) and again summarised the ongoing heart disease. No other relevant disease was believed to exist and Tim went on to say how PM reports revealing other underlying conditions could often be helpful regarding a person's lifestyle.

Tim summarised correctly again and felt he had **enough information at that point to make a finding**. He said there were three possibilities, one was **natural causes** but he wouldn't normally give natural causes following an intervention in hospital unless they had died of something completely unrelated to the procedure, not relevant in this case.

Two other possibilities, one being the traditional one of **accident or misadventure** after hearing medical evidence regarding the rate of rejection and that proper procedure had been carried out at hospital, and then this was a recognised consequence of a proper hospital procedure. This would be an appropriate short form verdict in this case, if you wanted to do a **narrative verdict**, which Tim would prefer in this case given that it is a very high profile operation stating that unfortunately rejection had led to death after a proper procedure. I asked what led Tim to prefer a narrative verdict and he said that he

thought it enabled a better picture to be painted on the papers that are preserved for posterity rather than simply a recognised complication of a proper hospital procedure.

I asked if I could go to scenario 4 which was a linked scenario and after confirming to Tim that he hadn't missed anything in no 3 he agreed and said that he was learning that it was better to work backwards from the death which avoided missing something right at the beginning.

**26 minutes; Chose scenario 4** – as scenario 3 but with further information - the man survives three years after transplantation, same PM report.

Tim said that some coroners would say that was **natural causes** because of the time gap. There was no rule of thumb which says how many months or years should go from one to the other. You have to decide whether the death was a direct consequence of something that happened earlier. In this case, Tim thought three years, taking evidence from clinicians as to how long the normal survival rate is, was probably well above the normal survival rate but again thought that him not being a medic would require him to ask the question. If, as he believed, normal survival rate was about 2 years, this was well beyond that and meant to Tim that this person had a normal working heart which had been diseased and eventually rejected. **He confirmed that rejection was at 1(b)** rather than at 2, and said that one could be guided by that in that the pathologist felt the transplant still contributed directly to the death (2 being more of a background position).

Tim therefore felt that the scenario was exactly the same as scenario 3, although the gap was longer, and that a **narrative verdict** was preferred, although **natural causes** would be acceptable. Natural causes wouldn't be acceptable in scenario 3 but could be in scenario 4 and was an example of 'the range'.

**30 minutes. - Tim asked then if he could do just one more (for time reasons) and selected no.10;**

Tim began by asking **how old** the deceased was (50), **where** they had died (in hospital) and asked for the **PM report cause of death** (1(a) hepatic cirrhosis, 1(b) Hepatitis C virus infection). Tim asked **how long the person had been in hospital** (3 days) and confirmed they had been **admitted as an acute case suffering serious illness** although detailed information on state on admission was not available. Tim said he would go back through the history and asked about the **source of the infection** (obscure, patient had not admitted to known risk factors such as transfusion or drug use). Tim asked about **lifestyle**, dirty living conditions (no further information) and said that he would imagine a coroner's officer would have that information. Tim repeated the

question as to whether there was **any evidence as to how the infection was acquired** (no, source obscure) and **how long the person had suffered from Hep C** (not known). He was keen to **determine the source** as far as possible and pointed out that as a non-medical coroner he did not know the common sources of Hep C and would require expert medical evidence to tell him about common sources of the infection. Again he enquired as to **whether there was an incident or work related issue** which could reveal the source (no, obscure). The reason being that if this was a natural causes verdict, which it is capable of being, Tim would want to make sure it didn't relate back to anything, he would like to know how they caught it. If there was no evidence of how the infection was caught then Tim would head towards a **natural causes death**. If there was evidence as to how it was caught then it's likely to be **accidental death** with a direct link back to the source. Tim says he is hovering because if a medical expert was to tell him that you can't get Hep C from other than a traumatic incident, say a prick from a needle, he would be interested to know that and it may well be a narrative verdict having come from some traumatic cause. He has enough evidence for this not to be an open verdict; he knows the circumstances of death but what he doesn't know is what caused the infection. He could do a **narrative verdict** suggesting that the person died from hepatitis infection, untreatable, but that the cause of the infection was unknown, despite medical evidence to the effect that it had to come from some traumatic event, unknown.

So, Tim said the possibilities were **accidental death** if there was evidence of the traumatic event, or where there was evidence that it could only have come from a traumatic event but that actual event was not known, then a **narrative verdict** and not natural causes. If Hep C is one of those things around in the environment and some it kills and some it doesn't kill, then it would be natural causes on the basis this person was unfortunate enough to have succumbed to something which was naturally occurring.

I then explained that this scenario was linked to a similar case, where the deceased was younger, 38 years old and had died of Hepatitis B virus associated with cirrhosis of the liver and that he was known to have been an intravenous drug addict in the past and that this was believed to be the source of the infection in this case. Cause of death was similar but was Hep B virus and included at 1 (c) intravenous drug abuse. I asked what difference those changed factors would make. Tim said that if the medical evidence was that he could only acquire the infection from a dirty needle for example, then the verdict could be one of **accidental death**. He then went on to explain the difference for coroners between an accidental death and misadventure – misadventure being where a person was doing something that they thought would do them no harm but unfortunately it did them some harm and that led to their death – that's the traditional

definition, the tightrope walker who falls off his tightrope, accidental death being someone on the golf course struck by a thunderbolt and killed outright. So misadventure would be a possibility but that would depend on there being a link between a particular activity this individual got involved in and their death. Even if there was a very long period between infection and death, effectively if somebody had poisoned themselves by injecting a virus into them using a dirty needle and I could show there was a connection between that and death that could be misadventure. I confirmed that this was believed to be the source of the Hep B infection and Tim said misadventure then or a narrative verdict which would describe the connection between the two.

Tim went on to say that you can always use a narrative verdict where a short form verdict would work. Some coroners prefer narrative verdicts; this is why you've got this wide range of some coroner's never using narrative verdicts and always shoehorning their verdict into one of the tight categories, and some using them a lot. Once you get used to using narrative verdicts, you start liking using them and particularly where accidental death for somebody who is a drug user like that doesn't tell you the full picture, so you might well use a narrative verdict to paint the background. You've got to remember that the papers which are preserved for posterity would just simply say accidental death and wouldn't tell you a great deal about the circumstances which led to the death.

**42 minutes** – I asked Tim whether he had any final comments on the order that he chose to receive the information. He said that he had realised quite quickly from the first case that if you started at a point that you choose and work onwards from there, then there is a risk that you'll miss something which is before your starting point. Better to start with the death and work backwards and that it may well be that coroners officers, who gather the information for the coroner, usually work in this way.

If you don't do that you run the risk of losing vital information by cutting it off. Tim then likened this to the situation faced by the ex Sheffield coroner who had made an error in law by imposing an arbitrary cut off time where the evidence didn't support it (in this case for the Hillsborough disaster). If you do commit to an arbitrary cut off time, as Tim stated he had in the first scenario (no.16), then quite simply he risked coming to the wrong decision. Tim went on to say how he had (wrongly) assumed that the person in our first scenario had come into hospital with the bacteria in their gut, and had not identified the source of the infection by his failing to work backwards in that scenario. The point he felt, was that a coroner should ask enough questions so that you go beyond the point at which your enquiry needs to start because, unless you have done that, you don't know at what point in the timeline your enquiry does need to start.

A coroner shouldn't be taking evidence before the point at which the enquiry should start, but of course unless you have got quite a lot of information you don't know where that point begins. You've got to have enough of the facts to reach a conclusion as to what caused the death, what led to the death, but you don't want the whole life story of the deceased, that's not relevant.

Tim then said that the first scenario had been an interesting exercise for him, because he didn't ask enough questions going far enough back to know what he should include and what he shouldn't include. He thought he was slightly more successful perhaps in the other ones by working from the death backwards.

The potential questioning methodology was then discussed and Tim felt that participants could be told that these were inquest hearings with a pathologists report in every case which was therefore available to them. Tim reflected that he had asked for the age of the deceased first in every case and was aware that in my research to date I had made an interesting point about the age relationship to coroner's decision making. Tim said that there is a point at which coroners could be forgiven for making differential decisions dependent on preconceptions they reach when they start by knowing somebody's age. In other words, this is an old person and therefore dot, dot, dot.

You've got to know someone's age, Tim didn't think from what I had told him that you need to know the gender at all, although when I had let it slip in one scenario (by answering a question with *he*.....) Tim had then jumped to the conclusion that the deceased was a drug abuser because in normal parlance there are more men that abuse drugs and end up with Hep C than women. This had been the scenario (no.16) where the cause of the infection was noted as obscure, yet Tim felt he would have been more likely to think it was a drug abuser based on the sex of the deceased, stating that statistically he knew there were biases, such as suicide in men for example.

A discussion then ensued where Tim wondered whether the approach would be different from a coroner, if they were required to answer the verdict question without the sex of the deceased being revealed to them, and they were then subsequently informed of the gender. Tim gave an example of where a woman may have fallen, resulting in death and suggested that if the coroner knew the sex of the deceased they would be more likely to ask earlier on if the fall was a result of calcium deficiency, for example, which women tend to suffer from more than men, or whether it was a fall in a nursing home, because there are a lot more women in nursing homes than men.

**At 50 minutes the interview was concluded.**

## **APPENDIX I**

### **INTRODUCTORY E-MAIL CONTACT WITH MR ANDRE REBELLO, HON SECRETARY, THE CORONERS SOCIETY OF ENGLAND AND WALES**

From: Rebello, Andre [Andre.Rebello@liverpool.gov.uk]  
Sent: 08 October 2013 11:25  
To: Maxwell McLean U1078679  
Cc: Parker, James (DJO-JO); Peter Dean ; Ian Stewart Smith; Dr Fiona wilcox; 'Leeming, Jennifer'; Bernstein Judith  
Subject: RE: University of Huddersfield - research

Yes - happy to circulate this but I have no control over whether anyone replies - coroners are very busy - If you send me the link I will do the rest

André Rebello OBE

Coroner

Hon Secretary Coroners' Society of England & Wales

Coroner's Court

The Cotton Exchange

Old Hall Street

Liverpool

L3 9UF

Chief Clerk: Jim Lewis 0151 233 4714 - jim.lewis@liverpool.gov.uk

Snr. Admin. Asst: Linda Quilliam 0151 233 4713 - linda.quilliam@liverpool.gov.uk

Fax: 0151 233 4710

Officers: 0151 233 4700

e-mail: andre.rebello@liverpool.gov.uk

secure e-mail: andre.rebello@liverpool.gcsx.gov.uk (please advise andre.rebello@liverpool.gov.uk should you need to use the secure e-mail to ensure delivery - i.e. that I log on to retrieve secure mail)

[www.coronersociety.org.uk](http://www.coronersociety.org.uk)

-----Original Message-----

From: Maxwell McLean U1078679 [<mailto:U1078679@hud.ac.uk>]

Sent: 08 October 2013 11:14

To: Rebello, Andre

Subject: University of Huddersfield - research

Dear Mr. Rebello,

My name is Max Mclean, a mature PhD student at the University of Huddersfield studying coroners and their decision making.

I have had great support from my two local coroners here in West Yorkshire as well as in Sheffield from Chris Dorries, and have also informed the Chief Coroner, HHJ Thornton of progress in my studies.

I have recently had an article published in the BMJ Journal of Clinical Pathology highlighting variation in local reporting rates to the coroner across the country; <http://press.psprings.co.uk/jcp/july/jcp201640.pdf>

To conclude my studies I would like to ask each of our senior coroners (I believe there are currently 98) if they would complete online a short scenario based questionnaire in which they would express a view on three deaths that might be presented to them. The whole process should not take more than about 10 minutes and is completed at their convenience by simply clicking a link in an e-mail. Responses are anonymous and held securely by the University.

I write to ask whether you, as Honorary Secretary of the Coroners Society, would consider sending the e-mail link to all senior coroners on my behalf. I understand of course that you would not compel any coroner to participate but your kind assistance in sending the link and inviting coroners to participate should they so wish would be of great assistance to this important research.

If I can provide any more information to assist your consideration of this matter please do not hesitate to ask.

Kind regards,  
Max Mclean

Maxwell Mclean  
School of Human and Health Sciences  
University of Huddersfield  
Mobile 07798 794045

This transmission is confidential and may be legally privileged. If you receive it in error, please notify us immediately by e-mail and remove it from your system. If the content of this e-mail does not relate to the business of the University of Huddersfield, then we do not endorse it and will accept no liability.

**APPENDIX J (I)**

**SCREEN SHOT OF DATALYSER FILE FOR TEST 1 – (IDENTICAL VARIABLES FOR TESTS 2 AND 3)**

<b>Results of Experiment coroner_decision_test</b>								
id	expname	subject	ip	condnum	choice	submitted	event	name
158	coroner_decision_test_1		194.74.238.137	-1		2013-12-03 18:29:47	onload	body
158	coroner_decision_test_1		194.74.238.137	-1		2013-12-03 18:29:47	subject	random
158	coroner_decision_test_1		194.74.238.137	-1		2013-12-03 18:29:47	order	col
158	coroner_decision_test_1		194.74.238.137	-1		2013-12-03 18:29:47	order	row
158	coroner_decision_test_1		194.74.238.137	-1		2013-12-03 18:29:47	events	open_close
158	coroner_decision_test_1		194.74.238.137	-1		2013-12-03 18:29:47	click	revealed by investigation

**1**

value	time	Conclusion	Conclusion_comments	Difficulty	Difficulty_comments	Alternative_conclusion	Further_comments
body	203	Misadventure	This was the inadvertent consequences of an intentional procedure	1	the sparseness of information	A narrative	The cause of death tells it all
8	219	Misadventure	This was the inadvertent consequences of an intentional procedure	1	the sparseness of information	A narrative	The cause of death tells it all
1_0_2	219	Misadventure	This was the inadvertent consequences of an intentional procedure	1	the sparseness of information	A narrative	The cause of death tells it all
0_2_1	219	Misadventure	This was the inadvertent consequences of an intentional procedure	1	the sparseness of information	A narrative	The cause of death tells it all
1_1	219	Misadventure	This was the inadvertent consequences of an intentional procedure	1	the sparseness of information	A narrative	The cause of death tells it all
No evidence at postmortem of operative mismanagement	92605	Misadventure	This was the inadvertent consequences of an intentional procedure	1	the sparseness of information	A narrative	The cause of death tells it all

**APPENDIX J (II)****CORONER TESTS 1, 2, AND 3 – EXPLANATION OF VARIABLES IN DATALYSER FILE**

<b>Datalyser Field</b>	<b>Explanation</b>
id	This is a sequential number allocated by the programme as a participant starts the experiment. Each page has a new ID number allocated so typically a participant completing the experiment will have, for example, 157,158,159 and 160 shown here (as the first respondent does) because the experiment contains 4 pages. The number starts at 157 in this research due to previous test data set up on the account.
exp name	Identifies the particular page (scenario) of the experiment as coroner_decision_test_1 or 2 or 3. Test_0 is the opening page

	containing personal information (gender, experience, qualifications) of the participant.
subject	Not applicable to this experiment as the respondents were anonymous. Left blank in datalyser file.
ip	The internet protocol device assigned to each respondents computer or local network.
condnum	The condition number assigned by MouselabWEB indicating that counterbalancing has been activated for this experiment, making the 9 information boxes appear in a random order each time the experiment is separately accessed.
choice	A standard field in MouselabWEB datalyser file but not applicable to this experiment. Used when a participant is asked to select a decision from a limited number of choices. Decisions for this experiment were requested by free text input on the part of the participant.
submitted	Date and time the submit button is pressed in each page.
event	A record of actions taken by the computer programme including those taken by the participant. In the following order – onload (experiment data loading), subject (random – indicating counterbalancing), order (indicating the order in which the 9

	<p>boxes appeared for the participant by column and row), events (open and close – indicating the mouse options that a participant has), click (indicates each mouse click undertaken by the participant in order to reveal and hide the information behind the 9 boxes), submit (indicates that the participant has clicked to submit the experiment responses).</p>
name	<p>The name assigned by the programme to the event taking place. For example body (the body of text making up the experiment), random (indicates that counterbalancing is in place), col row (indicates the order of information displayed by column and row), open close (indicates the ability to open and close a box containing information), box name (indicates which box title was opened to reveal further information), submit (indicates that the participant has clicked submit to complete the test).</p>
value	<p>The detail assigned to the previous field (name) for example which order information boxes appeared in and the actual text contained when revealed.</p>
time	<p>A record of 'running time' for the experiment including an indication of how long any particular information box has been kept visible by the participant. The unit of measurement is time in milliseconds measured from the moment the page was</p>

	started. No analysis of time was made for this research.
Conclusion	As typed free text by the participant
Conclusion_comments	As typed free text by the participant
Difficulty	Selected from a radio button by the participant. 1 is very easy to 5 being very difficult.
Difficulty_comments	As typed free text by the participant
Alternative_conclusion	As typed free text by the participant
Further_comments	As typed free text by the participant

## APPENDIX K (I)

### SCREEN SHOT OF DATALYSER FILE TEST 0

Results of Experiment coroner_decision_test_0													
id	expname	subject	ip	condnum	choice	submitted	event	name	value	time	Gender	Number_of_years_as_coroner	Qualification
157	coroner_decision_test_0		194.74.238.137	-1		2013-12-03 18:25:33	onload	body	body	6327	Male	20 year	1
157	coroner_decision_test_0		194.74.238.137	-1		2013-12-03 18:25:33	submit	submit	submit	57247	Male	20 year	1
161	coroner_decision_test_0		82.24.155.12	-1		2013-12-03 18:42:13	onload	body	body	809	Female	new recruit	1
161	coroner_decision_test_0		82.24.155.12	-1		2013-12-03 18:42:13	submit	submit	submit	54356	Female	new recruit	1
162	coroner_decision_test_0		37.152.235.202	-1		2013-12-03 18:43:19	onload	body	body	2650	Male	1	3
162	coroner_decision_test_0		37.152.235.202	-1		2013-12-03 18:43:19	submit	submit	submit	14192	Male	1	3
163	coroner_decision_test_0		217.40.140.164	-1		2013-12-03 18:45:36	onload	body	body	521	Male	9	1
163	coroner_decision_test_0		217.40.140.164	-1		2013-12-03 18:45:36	submit	submit	submit	11834	Male	9	1
167	coroner_decision_test_0		86.146.135.76	-1		2013-12-03 19:13:52	onload	body	body	148	Male	35	1
167	coroner_decision_test_0		86.146.135.76	-1		2013-12-03 19:13:52	submit	submit	submit	21126	Male	35	1

## APPENDIX K (II)

### CORONER TEST 0 – EXPLANATION OF VARIABLES IN DATALYSER FILE

Datalyser Field	Explanation
id	This is a sequential number allocated by the programme as a participant starts the experiment. Each page has a new ID number allocated so typically a participant completing the experiment will have, for example, 157,158,159 and 160 shown here (as the first respondent does) because the experiment contains 4 pages.
expname	Identifies the particular page (scenario) of the experiment as coroner_decision_test_1 or 2 or 3. Test_0 is the opening page containing personal information (gender, experience, qualifications) of the participant.

subject	Not applicable to this experiment as the respondents were anonymous. Left blank in datalyser file.
ip	The internet protocol device assigned to each respondents computer or local network.
condnum	The condition number assigned by MouselabWEB indicating that counterbalancing has been activated for this experiment, making the 9 information boxes appear in a random order each time the experiment is separately accessed.
choice	A standard field in MouselabWEB datalyser file but not applicable to this experiment. Used when a participant is asked to select a decision from a limited number of choices. Decisions for this experiment were requested by free text input on the part of the participant.
submitted	Date and time the submit button is pressed in each page.
event	A record of actions taken by the computer programme including those taken by the participant. For this page only 'onload' and 'submit' are relevant.
name	The name assigned by the programme to the event taking place. For this page only 'body' and 'submit' are relevant.
value	The detail assigned to the previous field

	(name). For this page only 'body' and 'submit' are relevant.
time	A record of running time for the experiment
Gender	Gender of participant as selected by radio button – 1 male, 2 Female
Number_of_years_as_coroner	As typed free text by the participant
Qualification	Qualification to practice as coroner as selected by radio button by participant – 1 Legal, 2 Medical, 3 Both.