The Patronising Disposition of Unaccountable Power: Independent Review of Forensic Pathology

Glenn Taylor

September 2024

HC 221

Return to an Address of the Honourable the House of Commons dated 11 September 2024 for

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The Report's author, Glenn Taylor, having completed this review, sadly passed away on 6 August 2024, following a long illness. Glenn was passionate about the work and was anxious to support the Hillsborough families, and subsequently the Manchester Arena families, through this investigation. This Report is a tribute to him and his long service to the public as a forensic scientist. Thank you also to his beloved wife Karen, who supported him throughout. Glenn was a caring man and he will be missed.

Glenn Taylor 1957 to 2024

Covering letter to the Home Secretary and Lord Chancellor from Glenn Taylor

In the Foreword to the Government's Response to Bishop James Jones' report *The Patronising Disposition of Unaccountable Power* last December, the then Home Secretary and Justice Secretary described the Hillsborough Stadium disaster as "a devastating tragedy compounded by decades-long injustices".[1]

The Government acknowledged that 97 people were unlawfully killed and that the families have had to live through the pain and distress of two sets of inquests, the Hillsborough Independent Panel and multiple criminal proceedings since 1989.

> "We remain committed to ensuring that any victims or families bereaved through future national tragedies do not have to endure a similar experience."[2]

It has been my aim through this review to help fulfil that commitment in relation to forensic pathology. With the invaluable help of Bishop James Jones, I have met with a number of Hillsborough family members and have witnessed first hand the determination and dignity you described. They have said to me that their wish is to see their experience never repeated. To that end, they have been prepared to relive their experience for the purpose of learning the lessons and shaping a better experience for future families.

I hope that our report serves that purpose and ask that you instruct officials in both the Home Office and the Ministry of Justice to support the steps needed to turn this report into action.

In reviewing forensic pathology since 1989, we have found that significant improvements have been made. Our comparison of the Manchester Arena post-mortem reports with those from Hillsborough shows that significant progress has been made in the quality and depth of reports over the intervening period. I would like to acknowledge the positive steps taken by pathologists and coroners to introduce technical improvements and to communicate better with families. What we have found provides the evidence to support what one contributor said:

> "We have moved a long way since 1989, but more still needs to be done."
>
> **Terry Wilcox, Manager, Public Inquiries, Hudgell Solicitors**

1 UK Government, *A Hillsborough Legacy: The Government's Response to Bishop James Jones' Report to Ensure the Pain and Suffering of the Hillsborough Families Is Never Repeated*, CP 990, December 2023, https://assets.publishing.service.gov.uk/media/65704de81104cf0013fa75d1/A_Hillsborough_Legacy.pdf
2 Ibid.

In identifying what more needs to be done, we have been grateful for the readiness of a range of professionals – pathologists, but also other medical experts, the police and other services – to engage with our review.

We have been privileged also to meet with a number of family members bereaved through the Manchester Arena bombing in 2017. I want to put on public record my personal appreciation of how they (and their legal representatives) have been ready to share with us what happened to them, and their experience of the post-mortem examinations conducted on their loved ones.

We do not speak for the Manchester Arena families, nor for the Hillsborough families. We have listened closely to what they have said. Their own words speak powerfully of their experience and to their resulting perception of pathology.

These families had no reason to believe that in attending the concert in Manchester Arena that night their loved ones might not return, any more than the Hillsborough families did when they waved their loved ones off to the football match. To be plunged into grief and simultaneously faced with processes, procedures, requirements and expectations from professional services is an unimaginable nightmare.

Forensic pathology is just one of those services, where what happens is alien and opaque to families who are given no notice that this is to be their future. Forensic pathology is a special example because a post-mortem examination will involve invasive procedures just at the moment the family need to feel that they retain, not lose, their unique connection with the loved one they have lost.

These circumstances create a need for the public authorities involved to engage and communicate in ways which properly understand the experience family members will be going through. We do not pretend that this is easy. Each service will be facing its own expectations and demands. We find, however, that technical expertise is not enough. Engagement with families over the need for post-mortem examinations, over what will inevitably be involved as part of those examinations, and over how the results are communicated needs to be overhauled.

This is the first Key Action Area we identify and our report suggests the principles behind the changes required and how these are to be carried out. This includes two elements requiring particular sensitivity: post-mortem photographs and images, and retained human tissue.

In developing approaches to communicating with families, it may be tempting to aim for one process, a single consistent template. The evidence we have received shows the shortcomings of this approach. Bishop James has explained how different Hillsborough families have their own preferences. This has been underlined by listening to the Manchester Arena families. For example, Lisa Rutherford, whose daughter Chloe was killed at Manchester Arena, told us that she wanted to know everything, but:

> "Mark [Chloe's father] and I are in two different places. He didn't want to know a lot so I understand the extremes."
>
> **Lisa Rutherford, mother of Chloe Rutherford, who died as a result of the Manchester Arena bombing**

Alongside communicating with bereaved families, we identify other Key Action Areas designed to better anticipate the requirements of any future disaster. We address the issue of survivability and the benefits of moving towards a new team approach for pathology. We also cover the need to build greater resilience going forward and highlight concerns about the future “pipeline” of forensic pathologists.

We have limited our recommendations to six Key Action Areas, and for each we have described the next step that needs to be taken. We have done so deliberately because the focus now must be on turning this report into practice. We believe that this focus on just six areas of action will aid the work needed to bring about the further changes required.

We hope that this report will shine a spotlight on forensic pathology. Although featuring prominently in television drama we often find compelling, this is a world that does not attract public and Parliamentary debate. As a result, we believe, the recommendations for a National Autopsy Service have not received the attention they deserve. We would encourage you to address that proposal armed with the further evidence this report represents.

Finally, but most importantly, we want to thank everyone who has assisted us in this review: the very many professionals, pathologists and coroners, and most of all the family members who lost loved ones at Hillsborough and Manchester Arena. Their determination and dignity, demonstrated once again for this review, deserve action, not just sympathy.

Glenn Taylor

June 2024

Chapter 1: Findings

Introduction and three overarching findings

1.1 A total of 97 innocent people were unlawfully killed as a result of the Hillsborough Stadium disaster in 1989. One of the key points of learning from the forensic pathology review is the benefit acknowledged by bereaved family members from having the findings clearly explained in a face-to-face meeting. One bereaved relative spoke to us about the person who met with them in these terms:

> "[He] played an important role. He had the right demeanour and was very aware of how we would be feeling."
>
> **Catherine, sister of Gary Jones, who died at Hillsborough**

1.2 The family of Brian Matthews, one of those who died, referred to their equivalent meeting similarly:

> "[He] was one of the first people that treated us as Brian's family. He explained that, in his opinion, Brian was one of those who could have been saved had proper medical help been given earlier. Bill's [Bill Kirkup] words really helped us."
>
> **Deanna Matthews, niece of Brian Matthews, who died at Hillsborough**

1.3 Unfortunately, these meetings did not take place in 1989, following the Hillsborough Stadium disaster in April of that year. The families of Brian Matthews and Gary Jones, and indeed each of the Hillsborough bereaved families, had to wait for over 23 years and the report of the Hillsborough Independent Panel[1] before they were given the opportunity to hear what the post-mortem examinations had found and to be able to ask questions.

1.4 Our Terms of Reference led us to examine whether the lessons for forensic pathology from Hillsborough have been learnt and applied in the intervening 35 years. We have found it helpful and meaningful to address this question by looking at what happened following the Manchester Arena bombing in 2017, where 22 innocent people were killed.

1 *The Report of the Hillsborough Independent Panel*, HC 581, 12 September 2012, https://www.gov.uk/government/publications/the-report-of-the-hillsborough-independent-panel

1.5 A bereaved family member, whose partner was killed at Manchester Arena, told our review:

> "I was allowed to meet with Mike Parsons, the pathologist who carried out Elaine's post-mortem. This was arranged in the hope it would help me with coming to terms with her death, as I was not in a position to engage with the pathology team at the time due to my injuries. I didn't know what to expect from the meeting or what questions I would ask, and as the meeting approached, I was anxious. I was so glad I agreed to meet Mike; just to put a face to the person who did the post-mortem meant so much to me. Mike was lovely and treated our meeting with the utmost respect, and it gave me a lot of comfort to know that he was such a caring person who carried out this procedure; it meant the world to me.
>
> He was able to answer all my questions and shone a light on a part of my life that is very dark with lots of gaps in my memory. I came away from the meeting not as upset as I thought I might be but feeling that a huge weight had been lifted from my shoulders. I got much more than I anticipated from the meeting. I cannot thank Mike enough."
>
> **Paul Price, the partner of Elaine McIver, who died as a result of the Manchester Arena bombing**

1.6 Paul Price was full of praise for the Manchester pathologist, Mike Parsons. But again their meeting did not take place until November 2023, over six years after the Manchester Arena bombing; and it would not have happened at all without our review intervening to bring this about.

1.7 Our initial finding, as soon as we were able to listen to the Hillsborough and Manchester Arena families, was that it is the experience of bereaved families, not just the technical competence of pathologists, which calls for a fresh focus. Bishop James Jones' report *The Patronising Disposition of Unaccountable Power*[2] was written to ensure that the pain and suffering of the Hillsborough families was not repeated. This report seeks to contribute to that aim.

1.8 In helping us to understand the experience of the families bereaved through the Manchester Arena bombing, we have been greatly aided by the contributions provided by the Lead Pathologist, Dr Philip Lumb, and by the legal representatives of the families. In gauging the extent of improvements made since Hillsborough, the perspective of one of the lawyers is particularly relevant:

> "I have been in practice long enough to recall the first Hillsborough Inquests and the manner in which the families of the deceased were treated. Families were kept at arms-length during the process and ignored for most purposes.
>
> We have moved a long way since 1989, but more still needs to be done.

2 The Right Reverend James Jones KBE, *"The Patronising Disposition of Unaccountable Power": A Report to Ensure the Pain and Suffering of the Hillsborough Families Is Not Repeated*, HC 511, 1 November 2017, https://www.gov.uk/government/publications/hillsborough-stadium-disaster-lessons-that-must-be-learnt

> A concern for my clients has been the delay in access to Pathology reports. Our clients had completed confidentiality undertakings to the Coroner/Inquiry Chairman and yet they waited for more than two years to understand how their loved ones had died. This issue must be addressed for future victims as it is a major opportunity for families to find comfort and to dispel false rumour."
>
> **Terry Wilcox, Manager, Public Inquiries, Hudgell Solicitors**

1.9 As we have received evidence for our review and listened to both the relevant professionals and the families affected, this assessment has resonated throughout: we have moved a long way since 1989 but more still needs to be done. That statement captures our own findings, and this report is devoted to helping to bring about the further change that "still needs to be done".

1.10 We have found solid evidence that the forensic pathology provided following disasters has improved. For example, we were grateful for the opportunity to consider a number of the post-mortem reports completed on those who died at Manchester Arena. We found that the quality of these reports is significantly higher than those conducted following the Hillsborough Stadium disaster.

1.11 At the same time, we have found a continuing need to improve the experience of families. There are common elements to that experience, as Trevor Hicks noted in his evidence for our review:

> "In late 1989/early 1990 the Herald of Free Enterprise Disaster Group invited several other disaster groups to meet in St John's Wood Church Hall in London. A representative from each was asked to talk for about 5 minutes on their particular disasters. It quickly became clear that it didn't matter what each group's disaster was, what the details were or background was, what the mix of people was – they were all treated the same. The interaction was adversarial, no-one would tell you anything, everybody was prepared to blank or even lie to you, and no-one would tell you even the basics that you were perfectly entitled to have. You got pushed from pillar to post and given the run around. We wondered if the insurers were behind some of it!
>
> Every single disaster group had exactly the same awful experience. I was absolutely flabbergasted. That meeting led to the groups working together to form 'Disaster Action' – dedicated to self help and mutual assistance for families involved in future disasters."
>
> **Trevor Hicks, father of Sarah and Victoria Hicks, who died at Hillsborough**

1.12 As members of the public, our image of pathologists owes almost everything to what we read in popular fiction, for example in the novels of Patricia Cornwell, and see on our screens in often compelling drama series, including *Silent Witness*. Traditionally these programmes blur the edges as far as technical expertise is concerned. To deliver the programme for a TV schedule, producers tend to amalgamate the roles of forensic scientists, toxicologists, biologists, pathologists and even on occasion coroners. While this works for TV consumption, it does lead to a lack of understanding of the individual roles.

1.13 What we take from what we read and see is usually an impression of effectiveness and diligence, of a service being provided reliably. Certainly, although millions will have encountered the work of pathologists through this route, there has been little or no public or Parliamentary scrutiny. As a result, very little is known or understood about forensic pathologists, who they are and how the service they provide operates and is organised.

1.14 There are very many other public services that have commanded public attention and will continue to do so. Ordinarily, perhaps, it might not matter if by contrast forensic pathology continued to exist in the shadows, quietly carrying on as it has done over the years.

1.15 However, conducting this review has shown that this would be a mistake. By looking again at Hillsborough and at more recent public tragedies, our work has revealed that there is a need for greater public understanding and focus on the nature of the way pathology is conducted.

1.16 In the absence of public scrutiny, the organisation of forensic pathology flies under the radar. For example, the review conducted by Professor Peter Hutton[3] and published in 2015 remains unanswered over nine years later. It is not in our remit to make proposals for the fundamental review of the structure of the profession of forensic pathology. With this in mind, this report deliberately describes how the profession is currently structured in order to open up the service provided to public scrutiny.

1.17 One of the central features of Bishop James' report *The Patronising Disposition of Unaccountable Power* was hearing directly from some of the Hillsborough bereaved families and using their own words to describe their experiences. Families are quoted extensively throughout that report and the impact of their words left a powerful impression on the review team. This report has adopted a similar approach.

1.18 As part of this review, the team met directly with 29 Hillsborough family members. A number of these discussions were wide-ranging and understandably covered issues outside of forensic pathology as well as within. The families were clear: it was important for the review to do justice to the bereaved and their families and vital that it should challenge what the families saw as inappropriate and incorrect procedures and practice.

1.19 Bishop James' report was published over 28 years after the Hillsborough Stadium disaster, but 6 months after the bombing at Manchester Arena had taken place, resulting in the deaths of 22 innocent people and many injuries. Given the passage of time, it was to be hoped that families who were sadly caught up in this tragedy would not encounter some of the difficulties so evidently experienced at Hillsborough. However, it was clear in talking to the families who lost relatives at Manchester Arena that, in a number of areas, concerns still remained. The review team has met directly with 17 family members who were sadly bereaved by that tragedy.

3 Peter Hutton, *A Review of Forensic Pathology in England and Wales*, March 2015, https://assets.publishing.service.gov.uk/media/5a804f8ded915d74e622db6c/Hutton_Review_2015__2_.pdf

1.20 The Terms of Reference for our review ask us to take heed of the experience of pathology following the Hillsborough Stadium disaster but say that this should not be a reinvestigation of the events on the day and in the days following the disaster. As the Office of the Chief Coroner said: "The fresh Hillsborough inquests which concluded in 2016 speak for themselves."[4] We have taken steps to ensure that we are familiar with the facts of what happened and how the pathology was conducted and used in subsequent decision-making. We have examined each of the post-mortem reports.

1.21 We have met with one of the pathologists who conducted the post-mortem examinations in 1989 and with Dr Bill Kirkup, who considered the post-mortem examinations for the Hillsborough Independent Panel, which reported in 2012. We have also met with Professor Guy Rutty, Professor Jack Crane and Dr Nat Cary, who provided expert evidence to the fresh inquests which concluded in 2016.

1.22 The details of the work we have undertaken are set out in Appendix B to this report.

Our specific findings

1.23 We have identified the following seven overlapping issues evident in the experience of both the Manchester families and the Hillsborough families where we agree that more change is needed. Each of these issues is covered in Chapter 3:

- Talking to affected families so that they know what to expect
- Offering the opportunity to talk through the pathologist's findings
- Communicating with families with empathy and understanding
- Understanding the need of families to spend time with their lost one
- Ensuring that forensic pathology facilitates the assessment of survivability
- Engaging families on possible access to post-mortem photographs
- Avoiding potential perception of inconsistency between the treatment of families over post-mortems.

We have also addressed how lessons learnt from Hillsborough and other public disasters can be embedded into the continuous professional development of Home Office-registered forensic pathologists and the wider provision of pathology services.

Findings – the need for better communication with bereaved families

1.24 Engagement with families over the need for post-mortem examinations, over the conduct of those examinations, and over how the results are communicated needs to be overhauled.

4 The Right Reverend James Jones KBE, *"The Patronising Disposition of Unaccountable Power": A Report to Ensure the Pain and Suffering of the Hillsborough Families Is Not Repeated*, HC 511, 1 November 2017, para. 2.114 https://www.gov.uk/government/publications/hillsborough-stadium-disaster-lessons-that-must-be-learnt

1.25 Whether a post-mortem examination should be conducted is a decision for the relevant coroner. This is the case where multiple fatalities have followed from an unexpected public disaster, as it is in individual unexpected deaths. It is not pre-determined that there will always be a post-mortem examination for those who die following an unexpected public disaster. For example, following the Dunblane shootings in 1996, involving the death of 16 pupils and a teacher, no post-mortems were held on the victims. The relevant criterion is whether a post-mortem is needed to establish the cause and surrounding circumstances of death and the identity of the deceased.

1.26 Following the bombing at Manchester Arena in 2017, we have heard from at least one family that they would not have wanted a post-mortem to be held, given the obviously intrusive nature of these examinations:

> "I didn't want a post-mortem to be done. They knew who he was, where and when he died. I was told by an FLO [family liaison officer] 'because it was a crime scene Liam does not belong to you and it is not my decision to make'."
>
> **Caroline Curry, mother of Liam Curry, who died as a result of the Manchester Arena bombing**

1.27 This echoes the position of some of the Hillsborough families:

> "I would never have left him if I knew they were going to do that … I wanted to cuddle him. The Undertaker said do not touch him … One of James' favourite programmes was *Quincy* [about the work of a medical examiner]. James had said that he never ever wanted to be the subject of a post-mortem and the fact that this happened has lived with me for the rest of my life. Each night I prayed and asked forgiveness of James that I allowed this to happen to him."
>
> **Margaret Aspinall, mother of James Aspinall, who died at Hillsborough**

1.28 While our review cannot conclude that the decision on whether to hold a post-mortem should be changed, we do find it unacceptable that families should be left unaware of the decision which has been taken. The experience of one bereaved mother demonstrates the shortcomings of the practice:

> "I had no idea that they had carried out a post-mortem on Steve until three months after I had buried him."
>
> **Brenda Fox, mother of Steven Fox, who died at Hillsborough, and who has herself sadly since passed away**

1.29 In future public disasters, arrangements should be made to explain the decision to hold a post-mortem to the family involved. The principle should be that this should happen prior to the post-mortem and that the reasoning should be conveyed, not just the decision that has been taken.

1.30 Those familiar with the aftermath of the Hillsborough Stadium disaster know well the impact on the families of their being told that they could not hold their loved ones because the bodies were the "property of the coroner":

> "I was taken to the mortuary. This was cruel. This was my brother, who I knew inside out; who I slept with. It was just through a window … I asked if I could go in and see him. There was a kerfuffle. They said no, he was the property of the coroner. I said 'he is not, he is my mother's property'."
>
> **Steve Kelly, brother of Michael Kelly, who died at Hillsborough, as quoted in the report *The Patronising Disposition of Unaccountable Power***

1.31 The guidance issued by the Chief Coroner was clear:

> "At no point should the coroner, his officers and staff refer to the body of a deceased as the 'property' of the coroner, nor should they use other forms of insensitive or 'off-hand' language when explaining the coroner's legal duties."[5]

Families bereaved through the Manchester Arena bombing have not reported to us the use of the phrase "property of the coroner". But the damage caused through any clumsy use of language is very apparent. We are taking this opportunity to draw to the attention of the Chief Coroner the importance of adhering to the spirit as well as to the letter of the guidance issued in 2019.

Findings – new entitlement to a face-to-face meeting

1.32 There should be a new presumption that, where they would like to do so, the bereaved families in a public disaster should have the opportunity for a face-to-face meeting where the results of the post-mortem are explained and the families are able to seek clarification in plain English with technical terms deciphered.

1.33 Where it has been possible to bring about these face-to-face meetings for the Hillsborough and the Manchester Arena families, the benefits for the families involved are palpable and long-lasting. Nothing we have heard suggests that there is good reason for not moving in this direction. Clearly there will be considerations about avoiding conflict with ongoing criminal investigations. But these affect the timing, not the principle.

Findings – photographs and other images taken at post-mortem examinations

1.34 The principal benefit of providing an opportunity for a face-to-face meeting is that the results can be conveyed to the family in a clear and appropriate manner, with any technical terms explained and questions of clarification answered. But these meetings also represent the best way of dealing with what is bound to be a difficult and sensitive issue for families.

1.35 The taking of photographs and images is an integral part of the post-mortem examination. Imagery at a post-mortem examination provides a permanent record of what was found, the injuries received and the overall state of the body. Such imagery will assist the forensic pathologist, coroner and police in their

5 Chief Coroner, "Guidance No. 32: Post-Mortem Examinations Including Second Post-Mortem Examinations", 23 September 2019, https://www.judiciary.uk/wp-content/uploads/2019/09/Guidance-No.-32-Post-Mortem-Examinations-including-Second-Post-Mortem-Examinations.pdf

investigations, provide vital evidence to the Crown Prosecution Service and the courts, and reduce the need for a second (defence) post-mortem[6] as images can be reviewed without further access to the body.

1.36 As part of the transparency which should be provided, the taking of post-mortem photographs and other images should be made clear to families when they are told in advance that there is to be a post-mortem examination. But we do not believe that is the right moment for families to be asked any questions about the extent to which they want to be involved subsequently. Still less is it the right moment to ask whether the family want to see any of the post-mortem photographs or images.

1.37 This point can be illustrated by the circumstances shared with us by Lisa Rutherford, whose daughter Chloe was killed at Manchester Arena, and who told us she wanted to know everything:

> "Mark [Chloe's father] and I are in two different places. He didn't want to know a lot so I understand the extremes."
>
> **Lisa Rutherford, mother of Chloe Rutherford, who died as a result of the Manchester Arena bombing**

1.38 The photographs and images taken are necessarily explicit and by their nature distressing. If seen, they may create pictures for family members which cannot be unseen and which compete with the memories of loved ones at happy moments. It is to be hoped that this point requires no amplification. But if it does, the experience of Jenni Hicks, mother of Sarah and Victoria, provides all the evidence needed:

> "I was asked if I would like to see 7 post, post mortem photographs of Vicki and 5 post, post mortem photographs of Sarah. I was warned they were both graphic and not pleasant. However, because of the 33yrs of lies, corruption, deception and lack of trust surrounding my daughters' deaths, I chose to view them. I was shocked these photographs were in the hands of operation resolve. I'm aware the pathologists would have taken photographs to assist with causation of death and also to assist in writing the pathology reports. But, and it's a huge but, I had assumed such graphic and sensitive photographs of naked bodies, including genitalia, would have been kept in a secure and safe environment. Not on a police computer."[7]

Reflecting on her experience, Jenni Hicks told our review:

> "When viewing the post-mortem images of my 19-year-old and 15-year-old daughters' bodies, the last thing I expected to see was their genitalia and breasts so openly displayed on a police computer. How undignified and disrespectful for them, and shockingly embarrassing for me. When I later asked how many male police officers had viewed my daughters' bodies, there was no log to confirm this figure.

6 The defence in a criminal case involving death may have a case for asking the coroner for permission to have a second post-mortem examination of the body in order to test the first or primary post-mortem results

7 Hansard, HL vol 837, col 1862 (30 April 2024)

> I questioned why in the name of dignity and common decency my daughters' genitalia and breasts hadn't been pixellated. I am still awaiting an answer."
>
> **Jenni Hicks, mother of Sarah and Victoria Hicks, who died at Hillsborough**

1.39 The lesson to be taken is that any decision to see any such photograph or image must never be rushed. The family need to understand the nature of these photographs and images and then to be given time to consider their position.

1.40 We have considered whether the better position is to put these photographs and images in a separate category where they are never made available to the family involved, given the nature of the material. We reject that argument as well-intentioned but patronising.

1.41 As the evidence of Lisa Rutherford demonstrates, the views taken by different family members, sometimes within the same family, can vary enormously – and legitimately so.

1.42 In Chapter 6, we propose a route forward so that a new protocol can be put in place for engaging with families on whether they wish to see any of the photographs or images taken during a post-mortem.

Findings – addressing survivability

1.43 It is entirely predictable that the question of survivability will arise in a range of possible future disasters. Family members will want to know not just the cause of death of their loved ones, but also whether they could have survived. Scrutiny of the relevant authorities, through an inquest or inquiry, will want to gain an understanding of whether the role those authorities played could have saved lives. The current arrangements for post-mortem examinations do not do enough to anticipate this legitimate private and public interest.

1.44 We have considered how the forensic pathology conducted following a mass fatality incident could be changed with this issue in mind. The question of survivability tends to be left to qualified clinicians commissioned to provide expert medical advice at subsequent inquests or public inquiries. This is the default position under the current arrangements. We have identified an opportunity to make forensic pathology better informed by including the skills of intensivists and those who specialise in pre-hospital admission interventions. Intensivists, also termed intensive care medicine doctors or critical care medicine doctors, treat patients with potential, present or recent life-threatening organ system failure.

1.45 It is instructive to note the growing recognition of the impact of pre-hospital admission interventions and intensivists. This includes increasing evidence that optimal pre-hospital care, offered earlier after the injury, improves outcomes; pre-hospital emergency medicine doctors commonly work with other pre-hospital professionals to improve care in the very early stages.[8]

8 See Emily Frostick and Christopher Johnson, "Pre-Hospital Emergency Medicine and the Trauma Intensive Care Unit", in *Journal of the Intensive Care Society*, vol. 20, no. 3, 28 June 2018, https://journals.sagepub.com/doi/full/10.1177/1751143718783601

1.46 Self-evidently, in the context of forensic pathology, the contribution of pre-hospital emergency medicine doctors and intensive care medicine doctors is not the saving of lives. However, their inclusion in the forensic pathology team following a major disaster would add real benefit by providing insight into issues of survivability.

Findings – greater preparedness for future disasters and need for a pathology team

1.47 The circumstances following the Manchester Arena bombing illustrate the current model well. Responsibility for forensic pathology fell to Dr Lumb as the on-call pathologist for the forensic pathology group practice covering the North West of England. In all, four forensic pathologists were deployed to the Royal Oldham Hospital to assist in the post-mortem examinations of victims.

1.48 In one sense, it is fair to describe this as a team. However, we have found that, for future disasters, greater assurance would be provided through the development of a different form of team: one comprising diverse specialists and led by a team leader designated in advance. With absolutely no inference in respect of Dr Lumb, for the future the team leader role should not be dependent upon the on-call arrangements.

Findings – greater preparedness for future disasters and rebuilding the pipeline of forensic pathologists

1.49 We can give a limited but not complete assurance that forensic pathology services will be able to meet the requirements presented by a future disaster on the scale of Hillsborough. The pipeline of available forensic pathologists is not robust. The arrangements for calling in support from pathologists in other areas are too informal.

Continuous professional development

1.50 We have considered how the lessons from Hillsborough can be embedded into the continuous professional development of Home Office-registered forensic pathologists and the wider provision of pathology services.

1.51 Forensic pathologists on the Home Office register are professional consultant-level medical doctors. Through their previous training and experience, we have found that individually they keep themselves updated on a range of issues that affect their role. The General Medical Council (GMC) expects each medical doctor to complete a minimum of 50 hours of continuous professional development each year. This is monitored by their appraiser and their Responsible Officer, and forms part of their five-yearly revalidation process.

1.52 The Home Office also assists in bespoke training, such as forensic pathologists being trained in such matters as chemical, biological, radiological and nuclear (CBRN) incidents. A cohort of forensic pathologists have participated in national police-led training in dealing with CBRN-related incidents and have been allocated the appropriate personal protective suits.

1.53 In addition, biannual conferences are arranged by the British Association in Forensic Medicine where topical and professional issues are presented and discussed. The Pathology Delivery Board arranges an annual "study day" in which relevant current issues are introduced and discussed.

1.54 The existing General Medical Council expectation, supplemented by bespoke training and the biannual conferences, represents a framework for continuous professional development but now needs to be enhanced. Our review has found that family members bereaved through public disasters have a legitimate expectation that the pathology taken in respect of their loved ones will be explained to them and their questions answered.

1.55 The Pathology Delivery Board should ensure accordingly that this report is discussed with every pathologist on the Home Office register and shared with the wider pathology profession. We welcome the commitment which has already been given to ensure that forensic pathologists receive a copy of this report to ensure that the learning is embedded into their mindset. In the light of feedback from forensic pathologists, the Pathology Delivery Board should make proposals within 12 months as to how the learning can be more systematically shared and capabilities assessed.

Shining a light on how forensic pathology is delivered

1.56 One key overarching finding, by looking again at Hillsborough and at more recent public tragedies involving many fatalities, is that there is a need for greater public understanding and focus on the nature of the way pathology is conducted.

1.57 The remainder of this chapter explains the work of pathologists, how the service they provide is organised, and how it has changed through previous reviews.

Who are pathologists and what do they do?

1.58 There are four types of pathologists who perform post-mortem examinations:

- Hospital pathologists (histopathologists), whose main function is to diagnose disease in a hospital laboratory. Performing post-mortem examinations is secondary to this main function, and the majority of these non-forensic pathologists opt not to qualify in autopsy practice – or, if they are appropriately qualified, opt not to perform post-mortems.
- Home Office-registered forensic pathologists, who perform forensic post-mortem examinations in cases deemed "suspicious" by the police. In a coroner's case, there may be more than one likely cause of death and the pathologist will help the coroner decide the most probable cause. In a Crown Court setting, the forensic pathologist must determine the cause of death beyond all reasonable doubt. The judge must be certain as to the cause of death.

- Paediatric pathologists, who specialise in the identification of child disease. A paediatric pathologist will perform post-mortem examinations on children. In the case of a suspicious death, there will be a joint post-mortem examination with a forensic pathologist.
- Perinatal pathologists. Perinatal is the time between conception and the baby reaching the age of one year. Therefore, the role of perinatal pathologists in a mass fatality incident is very limited.

1.59 There was no legislation in place concerning how pathology was delivered at the time of the Hillsborough Stadium disaster in 1989; indeed, there still is not.

Scope of forensic pathology

1.60 Forensic pathology is defined in the *Code of Practice and Performance Standards for Forensic Pathology in England, Wales and Northern Ireland*.[9] The Code states:

> "In this code 'forensic pathology' shall be interpreted as covering any case where:
>
> (a) there is, or is likely to be, an investigation by any authority leading to serious criminal charges and
>
> (b) information derived from the post-mortem examination may be used in the investigation or at trial (whether by the prosecution or defence).
>
> The term serious criminal charge refers to the following offences (or their equivalents in the relevant jurisdiction):
>
> - murder
> - manslaughter
> - infanticide
> - serious assault (e.g. grievous bodily harm – with, or without, intention) and
> - serious offences related to a road traffic incident involving death (e.g. causing death by dangerous driving, causing death by careless or inconsiderate driving or causing death by driving while uninsured or unlicensed)."[10]

1.61 The service delivered to police and coroners by performing post-mortems is a private commercial relationship between the police, coroner and individual forensic pathologist. The medical determination of the cause of death is a purely private arrangement, with England and Wales being the only countries we know of where this service is not provided by the state.

9 Home Office, The Forensic Science Regulator, Department of Justice and The Royal College of Pathologists, *Code of Practice and Performance Standards for Forensic Pathology in England, Wales and Northern Ireland*, October 2012, https://www.rcpath.org/static/5617496b-cd1a-4ce3-9ec8eabfb0db8f3a/Code-of-practice-and-performance-standards-for-forensic-pathology-in-England-Wales-and-Northern-Ireland.pdf

10 Ibid., page 5

Current oversight of the forensic pathology profession

1.62 Since the formation of the Pathology Delivery Board in 2006, there have been significant changes in terms of the oversight and governance of forensic pathologists. In 2009, several forensic pathologists were removed from the Home Office register as they did not comply with the conditions of registration, or for disciplinary reasons. A "protocol"[11] was reviewed and renewed to set out clearly the expectations of the Home Office, and since that time, the Home Office register has been strictly policed.

1.63 Limits to the number of forensic post-mortem examinations per rolling year were established, whereby a minimum expectation of 20 and a maximum of 95 cases were allowed to ensure that forensic pathologists are not underactive or overburdened.

1.64 Forensic pathologists must be registered with the General Medical Council, which has oversight of standards for almost all medical doctors in the UK. However, forensic pathologists have dual oversight in terms of discipline and accountability through the Home Secretary's *Suitability Rules for Forensic Pathologists*,[12] which provide a framework for the investigation of complaints about malpractice and non-compliance with the *Code of Practice and Performance Standards for Forensic Pathology in England, Wales and Northern Ireland*.[13]

1.65 In addition, in common with other medical doctors, all forensic pathologists have a strict annual appraisal with trained appraisers. They are also accountable to their Responsible Officer, who recommends to the General Medical Council whether a doctor should be revalidated on a five-year cycle. This revalidation includes at least one 360-degree assessment. In order that the Pathology Delivery Board can oversee this process, under the Medical Profession (Responsible Officers) (Amendment) Regulations 2013, the Pathology Delivery Board is the designated body to do so.

1.66 Complaints against forensic pathologists are dealt with on behalf of the Pathology Delivery Board by the Forensic Pathology Unit in accordance with the Suitability Rules, and in close liaison with the forensic pathologist's Responsible Officer and the General Medical Council. There is a range of sanctions for complaints that are deemed to be valid and proven, ranging from advice, extra training and limitations on practice right through to removal from the Home Office register by a tribunal.

1.67 As a safeguard for the individual forensic pathologist, each of their post-mortem reports must be cross-checked by a colleague prior to issuance. These checks are known as "critical conclusion checks". The checks fall short of what some may

11 Home Office, *Protocol for Membership of the Home Office Register of Forensic Pathologists*, October 2019, https://www.gov.uk/government/publications/protocol-for-home-office-registered-forensic-pathologists
12 Home Office, *Suitability Rules for Forensic Pathologists*, November 2018, https://www.gov.uk/government/publications/suitability-rules-for-forensic-pathologists-2013
13 Home Office, The Forensic Science Regulator, Department of Justice and The Royal College of Pathologists, *Code of Practice and Performance Standards for Forensic Pathology in England, Wales and Northern Ireland*, October 2012, https://www.rcpath.org/static/5617496b-cd1a-4ce3-9ec8eabfb0db8f3a/Code-of-practice-and-performance-standards-for-forensic-pathology-in-England-Wales-and-Northern-Ireland.pdf

describe as a peer review, but they are intended to ensure that each report is internally consistent, and that the opinion on cause of death expressed by the forensic pathologist is consistent with the post-mortem findings.

1.68 Perhaps the biggest and most important check and balance of a forensic pathologist's work, however, is the criminal justice system. When the final report is submitted to the coroner and the police, it is subject to oversight and potential challenge by the defendant's legal representatives, the police, the Crown Prosecution Service and eventually the court, whether that be the coroner's court, a civil court in care proceedings, the Crown Court, or any potential appeals processes.

1.69 The findings of the forensic pathologist can be catastrophic not only for a defendant facing a murder conviction, but also for the families of victims of crime. It is therefore justified that all the measures introduced by the Pathology Delivery Board and through the law and the criminal justice system have been developed not only to safeguard against miscarriages of justice, but also to support families.

1.70 The Pathology Delivery Board has experienced a significant reduction in the number of complaints received since 2015. This is attributed to the fact that there is now a management structure which has removed forensic pathologists where appropriate.

How is the pathology service currently organised?

1.71 There are currently 38 consultant forensic pathologists on the Home Office register.[14] The register shows each of the six group practices covering England and Wales, together with the police force areas covered and the forensic pathologists in each group practice. There are a further 16 forensic pathologists covering Scotland and Northern Ireland (12 in Scotland and 4 in Northern Ireland), giving a total of 54 across the UK.

1.72 Data held by the Home Office Forensic Pathology Unit indicates that the number of forensic pathologists is likely to reduce significantly in the short to medium term – possibly by as many as six to eight practitioners over the next two or three years. Many coroners in parts of the country struggle to find sufficient practitioners to perform post-mortem examinations in routine non-suspicious cases.

1.73 Some of the losses will be addressed by pathologists who are in training, but there is a risk that circumstances such as illness, taking up employment overseas or removal from the register could result in a significant shortfall in the number of forensic pathologists. This means that the service to police suspicious death and homicide investigations would be severely impacted.

1.74 We suggest that the number of forensic pathology trainees should be reinstated to eight from the current number of six, and the situation kept under review.

14 Home Office, Home Office register of forensic pathologists, updated May 2024, https://www.gov.uk/government/publications/home-office-register-of-forensic-pathologists-february-2013/home-office-register-of-forensic-pathologists

Previous reviews of the pathology service

1.75 The current system of forensic pathology delivery was shaped by a number of government-sponsored reports into the profession:

- 1971: the Brodrick Report[15]
- 1989: the Wasserman Report[16]
- 2003: the Home Office Review (known as the Leishman Report)[17]
- 2015: the Hutton Report.[18]

1.76 In addition, the British Association in Forensic Medicine, which represents the interests of forensic pathologists, conducted its own review in 2000.[19]

Brodrick Report

1.77 The Brodrick Report was produced at a time when forensic pathologists were employed either by universities or by hospitals. Each forensic pathologist appeared on a list held by the Home Office in order that police forces could contact them in the event of a homicide or suspected homicide. This approach was endorsed in the Brodrick Report. The report also acknowledged that the forensic pathology profession was in decline due to a reluctance on the part of employers to allow forensic pathologists to disengage from their "day job" with the NHS to assist the police and coroners in post-mortem examination work.

Wasserman Report

1.78 The Wasserman Report was commissioned by the Home Secretary in response to his concerns that:

> "… the supply of expert advice on forensic pathology required by the police service of England and Wales in the investigation of suspicious deaths was drying up. In particular, he had been told that both the universities and the NHS, the twin sources of this advice, were no longer prepared to provide it as a 'by-product' of their principal activities."[20]

1.79 The Terms of Reference for the Wasserman Report were to "review the arrangements for providing a forensic pathology service in England and Wales".[21]

1.80 Only some of the recommendations of the Wasserman Report were acted upon and implemented. These were:

15 Home Office, *Report of the Committee on Death Certification and Coroners*, 1971
16 Gordon Wasserman, *Report of the Working Party on Forensic Pathology*, 1989
17 Home Office, *Review of Forensic Pathology Services in England and Wales*, 2003
18 Peter Hutton, *A Review of Forensic Pathology in England and Wales*, March 2015, https://assets.publishing.service.gov.uk/media/5a804f8ded915d74e622db6c/Hutton_Review_2015__2_.pdf
19 I. West, W. Lawler, A. Anscombe and H. Whitwell, *Towards a Unified Forensic Pathology Service for England and Wales*, unpublished report of the British Association in Forensic Medicine, 2000
20 Gordon Wasserman, *Report of the Working Party on Forensic Pathology*, 1989
21 Ibid.

- London and the rest of England and Wales should be managed in the same way.
- A Policy Advisory Board for Forensic Pathology (PABFP) should be set up.
- A proper Home Office list should be established, with properly accredited forensic pathologists supported by a recommendation from the PABFP.
- The Home Office should fund several senior lectureships and meet the full costs of training two or three new forensic pathology specialists each year.
- The PABFP should take responsibility for quality assurance and the investigation of complaints.

1.81 The Wasserman Report did not address the issues relating to the employment status of Home Office pathologists, and a growing number of practitioners moved from employed status into self-employment because employers were reluctant to allow the practice of assisting in police cases to continue, and because there were financial incentives to working as a private company or contractor. At the time of the report's publication in 1989, there were around 45 Home Office pathologists, although the precise figure was not known as there was no list of them. The register as it exists today was only produced because of the Wasserman recommendations.

1.82 Recommendation 12 of the Wasserman Report states:

> "The Home Office should issue a circular strongly advising coroners to use only accredited pathologists (i.e. those that are on the Home Office List) in cases of suspicious death. In due course the Coroners Rules should be amended to that effect."[22]

The Coroners Rules were never amended in that way, and the Coroners and Justice Act 2009 similarly did not include this provision, although there is a requirement on coroners to "consult" with the chief officer of police in suspicious or homicide cases.

British Association in Forensic Medicine review

1.83 The review reported:

> "The number of university departments has diminished and those departments that remain are finding it difficult to survive. The attitude of most Universities to forensic medicine has changed. The number of forensic pathologists has decreased partly due to early retirement and to resignation. There is a dearth of trainees and fewer trainers than there were 10 years ago. The rising demand for forensic pathology services is already creating difficulties of supply and there are signs that the efficiency of police investigations may be affected. The workload has doubled from 1990 to 2000. The standard of forensic pathology service is fragmented and there is considerable variation in organisation and in standards."[23]

22 Ibid.

23 I. West, W. Lawler, A. Anscombe and H. Whitwell, *Towards a Unified Forensic Pathology Service for England and Wales*, unpublished report of the British Association in Forensic Medicine, 2000

1.84 The recommendations of the British Association in Forensic Medicine report were that forensic pathology should be an employed service, regionally based on either university or NHS sites but independent from university or NHS management. The report suggested a "hub and spoke" model where pathologists could work remotely from the regional centre but be closely associated with it.

Leishman Report

1.85 The executive summary of the report states:

> "Over a decade on, unforeseen changes in the structure are becoming clear. Changes have taken place in both the universities and the NHS, resulting in forensic pathology coming to be seen as peripheral. The decline in university departments of forensic medicine has limited the availability of training places. There has been significant growth of self-employed practice. Concerns have arisen over recent years within the criminal justice system regarding consistency of practice between both different areas of the country and individual forensic pathologists, adherence to existing standards and good practice guidelines, and availability of forensic pathologists."[24]

1.86 The report summarised its main recommendations as follows:

- Address the decline in the number of forensic pathologists through increased support for existing training programmes and the development of a new programme
- Institute a programme of building works to create high-quality mortuary and related facilities for the regional centres
- Create a national body with executive responsibility for the provision of forensic pathology services within England and Wales, delivered through regional centres and incorporating a framework for negotiating and monitoring service levels
- Explore the integration of forensic pathology services within the Forensic Science Service in an expanded and revised agency.

1.87 At the time of the writing of the draft Leishman Report, and before its official publication in March 2003, a steering group was set up by the Policy Advisory Board for Forensic Pathology (PABFP) which put forward alternative recommendations. One of these was a strengthening of the PABFP into an advisory board with executive powers across England and Wales. A new advisory body with executive powers was launched as the Home Office Pathology Delivery Board on 1 October 2005. One of several important things the Pathology Delivery Board did was to develop criteria for appointment to the Home Office register.

24 Home Office, *Review of Forensic Pathology Services in England and Wales*, 2003

1.88 However, a central recommendation, that of an employed service with regional centres under an independent public body, appears to have been too controversial among Home Office pathologists, and at the time too politically difficult to achieve. As a result, the specialty was left to develop as best it could. The only Leishman recommendations adopted were:

- Increase support for training programmes
- Institute a building programme to create high-quality mortuaries
- Create the practice structure across England and Wales.

Hutton Report

1.89 Professor Peter Hutton was commissioned by the Home Secretary to examine the functional operation of forensic pathology, and the organisation and governance of the service. All the recommendations made by Hutton have been implemented, except for one. Those implemented include a reduction in the number of second or "defence" post-mortem examinations. However, the main recommendation was that there should be a "National Death Investigation Service" that combined both forensic and non-forensic pathologists, with access to sub-specialty pathologists as well as paediatric pathologists, in a fully funded and employed organisation run by the NHS.

1.90 Pathology units would be regionally based in a number of strategic locations in England and Wales, each offering a career structure and a fully funded service to police and coroners. The call for a National Autopsy Service was endorsed by the House of Commons Justice Committee report on coroners in 2021, as well as by successive Chief Coroners and the Royal College of Pathologists.

1.91 Although Professor Hutton was asked to look specifically at the provision of forensic pathology, he found it impossible to do so in isolation from the wider pathology community. His findings were that the provision of forensic pathology in England and Wales must be a state-provided service, as in all other western societies.

1.92 Professor Hutton found that forensic pathology provision in 2015 was fit for purpose, high quality and serving the needs of the criminal justice system well. However, looking to the future, the model of delivery was fragile. His assessment of the state of non-forensic provision was considerably less positive, with a projection that the system supporting coroners in their work would eventually collapse.

1.93 The outcome of the Hutton recommendations was that ministers in the Home Office and the Ministry of Justice decided to leave responsibility for forensic pathology with the Home Office, as it was functioning well. Non-forensic pathology would be a matter for the Ministry of Justice, and until the problems with non-forensic pathology provision had improved, the Hutton recommendations would not be taken forward.

What we have found

- Our initial finding, as soon as we were able to listen to the Hillsborough and Manchester Arena families, was that it is the experience of bereaved families, not just the technical competence of pathologists, which calls for a fresh focus.

- As we have received evidence for our review and listened to both the relevant professionals and the families affected, this assessment has resonated throughout: we have moved a long way since 1989 but more still needs to be done. That statement captures our own findings, and this report is devoted to helping to bring about the further change that "still needs to be done".

- Our comparison of the Manchester Arena post-mortem reports with those from Hillsborough shows that significant progress has been made in the quality and depth of reports over the intervening period.

- Engagement with families over the need for post-mortem examinations, over the conduct of those examinations, and over how the results are communicated needs to be reviewed.

- In future public disasters, arrangements should be made to explain the decision to hold a post-mortem to the family involved. The principle should be that this should happen prior to the post-mortem and that the reasoning should be conveyed, not just the decision that has been taken.

- The taking of photographs and images is an integral part of the post-mortem examination. The photographs and images taken are necessarily explicit and by their nature distressing. The lesson to be taken is that any decision to see any such photograph or image must never be rushed. The family need to understand the nature of these photographs and images and then to be given time to consider their position.

- There should be a new presumption that, where they would like to do so, the bereaved families should have the opportunity for a face-to-face meeting where the results of the post-mortem are explained and the families are able to seek clarification in plain English with technical terms deciphered.

- We are taking this opportunity to draw to the attention of the Chief Coroner the importance of adhering to the spirit as well as to the letter of the guidance issued in 2019: "At no point should the coroner, his officers and staff refer to the body of a deceased as the 'property' of the coroner, nor should they use other forms of insensitive or 'off-hand' language when explaining the coroner's legal duties."[25]

- It is entirely predictable that the question of survivability will arise in a range of possible future disasters. The current arrangements for post-mortem examinations do not do enough to anticipate this legitimate private and public interest.

25 Chief Coroner, "Guidance No. 32: Post-Mortem Examinations Including Second Post-Mortem Examinations", 23 September 2019, https://www.judiciary.uk/wp-content/uploads/2019/09/Guidance-No.-32-Post-Mortem-Examinations-including-Second-Post-Mortem-Examinations.pdf

- We have identified an opportunity to make forensic pathology better informed by including the skills of intensivists and those who specialise in pre-hospital admission interventions.

- We can give a limited but not complete assurance that forensic pathology services will be able to meet the requirements presented by a future disaster on the scale of Hillsborough. The pipeline of available forensic pathologists is not robust. The arrangements for calling in support from pathologists in other areas are too informal.

- We have found that, for future disasters, greater assurance would be provided through the development of a different form of team: one comprising diverse specialists and led by a team leader designated in advance and not dependent upon the on-call arrangements.

- Data held by the Home Office Forensic Pathology Unit indicates that the number of forensic pathologists is likely to reduce significantly in the short to medium term – possibly by as many as six to eight practitioners over the next two or three years. We suggest that the number of forensic pathology trainees should be reinstated to eight, and the situation kept under review.

- The Pathology Delivery Board should ensure accordingly that this report is discussed with every pathologist on the register and shared with the wider pathology profession. In the light of feedback from forensic pathologists, the Pathology Delivery Board should make proposals within 12 days as to how the learning can be more systematically shared and capabilities assessed.

- One key overarching finding, by looking again at Hillsborough and at more recent public tragedies involving many fatalities, is that there is a need for greater public understanding and focus on the nature of the way pathology is conducted.

Chapter 2: Forensic pathology today – the experience of the professionals involved

How the present arrangements post-Hillsborough are viewed by the professionals involved

2.1 We have taken views from a range of the professionals involved on how the changes made in the period since Hillsborough have improved the provision of forensic pathology.

What we heard from pathologists

2.2 We interviewed 12 currently serving and operational forensic pathologists, including pathologists from all four countries of the UK. Without exception, all agreed that the state of forensic pathology has come a long way since 1989. Their view is that the service is now fit for purpose (while recognising that sub-specialty provision could be improved). Two forensic pathologists said that, in their view, the current service is so different and improved that this review was unnecessary.

2.3 Some commented that the ongoing search for additional sub-specialty, organ-specific pathologists by the Pathology Delivery Board was welcome, although it was generally accepted that the lack of these pathologists is an ongoing problem.

2.4 In terms of responding to any future mass fatality incidents, those forensic pathologists interviewed said that they were willing and able to engage in mutual aid to other group practice areas.

2.5 Among those interviewed, there was a general feeling that the number of forensic pathologists in England and Wales, currently 38, was sufficient to maintain service.

2.6 We also consulted the Royal College of Pathologists. The Royal College is a professional membership organisation with charitable status concerned with all matters relating to the science and practice of pathology. It oversees the training of pathologists.

2.7 A former President of the Royal College, Mike Osborn, summed up his response as follows:

> "While I am not myself a Forensic Pathologist, through my work for the Royal College of Pathologists I think forensic pathology has come a long way in terms of its governance and organisation from the 70s and 80s, and it's continuing to develop along with all areas of healthcare and pathology.

> That doesn't mean things were necessarily done badly in the past, it just means that perhaps there was not the organisational oversight that there is now."
>
> **Mike Osborn, former President of the Royal College of Pathologists**

What we heard about the oversight arrangements

2.8 In Chapter 1, we set out the arrangements for the oversight of forensic pathologists. We have found that the introduction and regular review of the *Code of Practice and Performance Standards for Forensic Pathology in England, Wales and Northern Ireland* have given a structure and standardisation to autopsy practice. An annual audit in which all forensic pathologists in England and Wales participate ensures that the product of the post-mortem examination, which is the final report for the coroner and statement for the police, is checked by an independent panel of auditors on a thematic dip sample basis.

2.9 When the Responsible Officer system was introduced in 2012, there was some scepticism among forensic pathologists. However, the process of annual appraisal by fully trained appraisers has now become embedded and is generally thought to be working well. Management oversight by the Responsible Officer and the Pathology Delivery Board ensures that individual forensic pathologists keep a check on their workload.

2.10 We also heard from Dean Jones, in his capacity as Forensic Pathology Manager in the Home Office. He told us that, alongside the progress which has been made, there is a lack of a modern, central IT system. Currently, each group practice submits a quarterly spreadsheet containing basic information such as the number of forensic post-mortems conducted for each pathologist and each force. This information is collated and reported to the biannual Pathology Delivery Board.

2.11 There is no central IT system where all forensic post-mortem examinations could be held for the purpose of monitoring and management information. Our review has found this to be a clear weakness when set against these potential benefits:

- If all forensic post-mortems were registered on a web-based system, it would be possible to interrogate the system for national trends, such as knife crime and types of weapons currently being used. This management information could be used to advise law enforcement agencies on preventative action, as well as informing police and government policy.
- In addition to the obvious benefits of such a data set, the reports of each post-mortem examination could be anonymously sent to a colleague from a different group practice for double-checking. Currently, these "critical conclusion checks" are conducted by a colleague from the same group practice.
- With such an IT system, the Pathology Delivery Board (through the Forensic Pathology Unit within the Home Office) would have management statistics to assess whether some forensic pathologists were taking on too many or too few cases. An assessment could then be made as to whether police forces are being consistent in their decision-making.

What we heard from coroners

2.12 We interviewed the Chief Coroner. We also interviewed six coroners, who expressed general satisfaction with the service they are receiving from forensic pathologists in their respective areas. In so doing, some expressed support for a Hutton-style national service. We note that the coroners interviewed were less satisfied with the available capability and capacity of non-forensic pathologists to conduct routine coroners' cases in various parts of the country.

2.13 One coroner told us that, in the event of a large mass fatality incident, post-mortem examinations would be conducted over a longer time frame, with a consequential need to explain the position to the families involved.

What we heard from the police service

2.14 The police in all parts of the country expressed their satisfaction with the service they are receiving from their local group practice of forensic pathologists. In one area, both police and coroners expressed concern about the time it takes to receive a final report. We understand that the Pathology Delivery Board has received several related complaints, which have been dealt with under the Suitability Rules (complaints procedure).

2.15 We heard that the police generally receive a good service and that the relationship with forensic pathologists is a positive one.

2.16 A police organisation called UK Disaster Victim Identification (UK DVI) has done much to professionalise the capacity and capability of the response to a mass fatality incident through policies, procedures and training of police officers in specialist roles. We heard from UK DVI that it is confident current arrangements for the provision of forensic pathology services for a mass fatality incident are robust. UK DVI is involved in exercises across the country where capability and capacity are assessed.

What we heard from other interviewees

2.17 We interviewed 1 of the 9 pathologists who conducted 19 of the post-mortem examinations following the Hillsborough Stadium disaster. We also interviewed Dr Bill Kirkup, the member of the Hillsborough Independent Panel who looked at the available post-mortem reports and other relevant records. Our Terms of Reference specifically provide that our review should "not be a re-investigation of the events on the day of and days following the disaster". Accordingly, we are drawing upon those interviews in order to help us assess how the current pathology service operates, how it has moved on since 1989, and how it has been conducted in more recent public disasters involving mass fatalities.

2.18 We would like to place on record our thanks for the generous way in which those involved have engaged with us.

What we have found

- This review has heard from the professionals involved that, although there are areas for improvement in the provision of a forensic pathology service for England and Wales, as Professor Peter Hutton reported in 2015, the service is regarded as fit for purpose. This view covers both homicide investigations and preparedness for any future mass fatality incidents.
- Forensic pathologists told us that the state of forensic pathology has come a long way since 1989.
- Alongside the progress which has been made, there is a lack of a modern, central IT system.
- Coroners interviewed expressed general satisfaction with the service they are receiving from forensic pathologists in their respective areas. Similarly, the police report that they generally receive a good service and the relationship with forensic pathologists is a positive one.

Chapter 3: The experience of the families

Introduction

3.1 One of the central features of Bishop James Jones' report *The Patronising Disposition of Unaccountable Power*[1] was hearing directly from some of the Hillsborough bereaved families and using their own words to describe their experiences. Families are quoted extensively throughout that report and the impact of their words left a powerful impression on the review team. This report has adopted a similar approach.

3.2 As part of our review, the team met directly with 29 Hillsborough family members. A number of these discussions were wide ranging and understandably covered issues outside of forensic pathology as well as within. The families were clear: it was important for our review to do justice to the bereaved and their families and that it should challenge what the families saw as inappropriate and incorrect procedures and practice.

3.3 Bishop James' report was published over 28 years after the Hillsborough Stadium disaster in 1989, but 6 months after the explosion at Manchester Arena had taken place in 2017, resulting in 22 deaths and many injuries. Given the passage of time, it was to be hoped that families who were sadly caught up in this tragedy would not encounter some of the difficulties so evidently experienced at Hillsborough. However, it was clear in talking to the families who lost relatives at Manchester Arena that, in a number of areas, concerns still remained. The review team met directly with 17 family members who were sadly bereaved by that tragedy.

3.4 One of the lawyers who represented families affected by the Hillsborough Stadium disaster and those affected by the Manchester Arena bombing, Terry Wilcox, offered our review this assessment of partial improvement:

> "… there has been progress since Hillsborough, but more change is needed."
>
> **Terry Wilcox, Manager, Public Inquiries, Hudgell Solicitors**

3.5 Our review has shown the validity of this assessment. This chapter covers the following seven overlapping issues evident in the experience of both the Manchester families and the Hillsborough families where we agree that more change is needed:

- Talking to affected families so that they know what to expect

1 The Right Reverend James Jones KBE, *"The Patronising Disposition of Unaccountable Power": A Report to Ensure the Pain and Suffering of the Hillsborough Families Is Not Repeated*, HC 511, 1 November 2017, https://www.gov.uk/government/publications/hillsborough-stadium-disaster-lessons-that-must-be-learnt

- Offering the opportunity to talk through the pathologist's findings
- Communicating with families with empathy and understanding
- Understanding the need of families to spend time with their lost one
- Ensuring that forensic pathology facilitates the assessment of survivability
- Engaging families on possible access to post-mortem photographs
- Avoiding potential perception of inconsistency between the treatment of families over post-mortems.

3.6 By definition, the families affected by an unexpected public disaster will have had no preparation for that moment. Unless they happen to work in one of the professional capacities involved, they will not be familiar with the precise roles of the police, including family liaison officers; with the coroner and the coroner's officers; and still less with pathologists. It is therefore entirely understandable that the accounts given by these families range across the responsibilities of the various public authorities involved.

3.7 This chapter follows this reality and explains the experience of the families who have kindly participated in our review. In so doing we are touching upon the engagement that each of these public authorities has with the people who die in a disaster and with their families. The families' experience points to this implication: that pathologists, the police and the Coroner Service should consider together how they interact with families; and in so doing learn from the experience of the Hillsborough and Manchester Arena families as well as from others. We return to this in explaining our principal findings and recommendations in Chapter 6.

Talking to affected families so that they know what to expect

3.8 Both the Hillsborough Stadium disaster and the Manchester Arena bombing devastated the families affected without warning. In both cases some of the bereaved families were present as the tragedy unfolded. Some attended within hours. Others were left at home, helplessly relying on media reporting.

3.9 It is hard to imagine how it feels to be in this situation. The first questions are: where is my loved one and have they survived? It is beholden upon everyone in authority to understand the absolute and fundamental need of those bereaved to have the information provided in as accurate and as empathetic a way as possible.

3.10 No one, and certainly not the family members who have contributed to our review, expects perfect knowledge all at once. But what they do expect and deserve is a readiness to share the available information and an understanding that processes which are familiar to the professionals involved are strange and opaque to members of the public abruptly thrown into these circumstances.

3.11 What the families seek and deserve is candour, not just in subsequent inquests and public inquiries, but from the start.

3.12 Pathologists know when they are likely to be required and when post-mortems are likely to be requested. They know the drill they follow. They know that they answer to the coroner. They know the practical considerations that might affect how quickly they can work and when their reports might be available.

3.13 Pathologists, along with the police, other emergency services and the coroner, have a responsibility to share information. In Chapter 6 we make a recommendation designed to help those involved and in turn help those affected by future disasters with the information they are likely to need (Recommendation 1). The need to share information is clearly demonstrated by the accounts of families affected by the Hillsborough Stadium disaster and the Manchester Arena bombing.

3.14 A number of families were not told that a post-mortem was being carried out:

> "I had no idea that they had carried out a post-mortem on Steve until three months after I had buried him."
>
> **Brenda Fox, mother of Steven Fox, who died at Hillsborough, and who has herself sadly since passed away**

> "I would never have left him if I knew they were going to do that … I wanted to cuddle him. The Undertaker said do not touch him … One of James' favourite programmes was 'Quincy' [about the work of a medical examiner]. James had said that he never ever wanted to be the subject of a post-mortem and the fact that this happened has lived with me for the rest of my life. Each night I prayed and asked forgiveness of James that I allowed this to happen to him."
>
> **Margaret Aspinall, mother of James Aspinall, who died at Hillsborough**

> "I didn't want a post-mortem to be done. They knew who he was, where and when he died. I was told by an FLO [family liaison officer] 'because it was a crime scene Liam does not belong to you and it is not my decision to make'."
>
> **Caroline Curry, mother of Liam Curry, who died as a result of the Manchester Arena bombing**

3.15 The words of family members speak to the pain of not knowing where they might find their loved one in the immediate aftermath of a disaster involving multiple fatalities:

> "I left the scene at around 11 something like that. A police officer told me to go to Manchester Royal Infirmary. I gave them a description of Saffie and Lisa, told them where I was parked and asked them to tell me if they had any information. It was about 2am or 3am in the morning when a friend eventually gave me information that Lisa was in Salford. Saffie was in fact at Manchester Royal Infirmary and I could have had 15/20 minutes with her. Instead I was left sitting outside."
>
> **Andrew Roussos, father of Saffie-Rose Roussos, who died as a result of the Manchester Arena bombing**

> "… they wouldn't let us in and told us to go to the hospital. They had no idea which one so we just drove towards Piccadilly. We had heard on the radio that taxi drivers were offering free taxis to take people anywhere they wanted to go. So we parked up and asked a taxi driver if he would take us to the hospital. The driver said I will if you pay me."
>
> **Anonymous family member**

> "… we had no idea which hospital to go to and when we phoned the emergency helpline this was useless."
>
> **Anonymous family member**

3.16 Concerns were raised about delays in carrying out the identification process and the procedures that operated. A number of families recalled that it was seven to ten days before this process was carried out. Those who mentioned this point felt that the period was too long. We make no judgement on the time taken but we recognise the damage done by the lack of information provided:

> "It was a full 7 days since the explosion and we kept saying we need to go and see Megan but there was no information."
>
> **Michael Hurley, father of Megan Hurley, who died as a result of the Manchester Arena bombing**

3.17 We have heard accounts that testify to the importance of *how* information was conveyed to bereaved families, not just the information itself. Paul Hodgson, stepfather of Olivia Campbell-Hardy, explained that at around 10pm on the day after the explosion he was waiting for news when he received a call from the police, saying:

> "… 'it was highly likely that Olivia was still in the arena'. They were '99% sure'. This was devastating to hear. Why didn't a police officer come and tell us in person?"
>
> **Paul Hodgson, stepfather of Olivia Campbell-Hardy, who died as a result of the Manchester Arena bombing**

3.18 The families we met spoke warmly of the information they received from their legal representatives; the importance of the service the legal representatives provided to the Manchester Arena families is very clear. We are aware of significant outstanding issues about the automatic entitlement of families to funded legal representation and we cover that point in Chapter 4. But it is not acceptable for responsibility for the provision of clear information to be left to legal representatives, who, in any event, are not present at the scene and not appointed in the important hours that follow or in the critical first few days.

3.19 The experiences of the families we met therefore led us to the first of our principal findings and recommendations as set out in Chapter 6.

Offering the opportunity to talk through the pathologist's findings

3.20 At the time of the Hillsborough Stadium disaster, the families were not given the opportunity to hear what the pathologists had found. Nor did they have this opportunity during or after the first Hillsborough Inquests.

3.21 Twenty years later, the Hillsborough Independent Panel was established in order to bring about "maximum possible disclosure" of the documents relating to the tragedy and its aftermath and to explain the difference these documents made to public understanding. On 12 September 2012, the Independent Panel disclosed its findings and its report[2] to the Hillsborough families assembled in Liverpool's Anglican Cathedral.

3.22 In completing its work, the Independent Panel made a distinction between the information that could and should be published and the information that could only properly be disclosed to individual families where they wished to have that information. Principally, this comprised the Independent Panel's assessment of the post-mortem reports.

3.23 Central to the Independent Panel's approach was that no presumption should be made as to whether family members would be given this information. Each family were given the chance to say whether they would want to receive it and no time limit was set. Given the sensitivity of the information, the Independent Panel decided that the appropriate way in which the information could be shared would be in a personal meeting with Dr Bill Kirkup, the member of the Independent Panel responsible for considering the medical information that had been found. In that way, Dr Kirkup would be able to check with the family what information they wanted to have and would be able to explain what the information meant.

3.24 At the original Hillsborough Inquests, the coroner imposed a restriction on evidence with a 3.15pm "cut-off". The coroner's rationale for imposing this restriction was that those who died received the injuries that caused their death before 3.15pm, even if they lived beyond that time, on the basis that in each case there was no "intervening act" that contributed to their death.

3.25 Over a period of months following publication of the Independent Panel's report, almost all of the Hillsborough families indicated that they did wish to take up the opportunity of a discussion with Dr Kirkup on the basis described.

3.26 These meetings were private and have not featured prominently in the public commentary of the experience of the Hillsborough families. However, in the course of our review it has become very clear how important it was for each family to have the opportunity to hear what had emerged from the post-mortem examinations and to be able to ask questions and to clarify the information given.

2 *The Report of the Hillsborough Independent Panel*, HC 581, 12 September 2012, https://www.gov.uk/government/publications/the-report-of-the-hillsborough-independent-panel

3.27 Individual families described the positive impact of having had this opportunity and reiterated their gratitude to Dr Kirkup for how he had been ready to engage with them empathetically and to respond to their questions:

> "As part of the HIP [Hillsborough Independent Panel] we met Dr Bill Kirkup and he was one of the first people that actually recognised and treated us as Brian's family. He took everything seriously and spent a lot of time listening to our concerns, providing answers where he could. Filling in gaps we had had since 1989. It really helped us. He told us Brian was one of those who could have survived had he been given basic medical assistance."
>
> **Deanna Matthews, niece of Brian Matthews, who died at Hillsborough**

> "Bill Kirkup played an important role. He had the right demeanour and was very aware of how we would be feeling."
>
> **Catherine, sister of Gary Jones, who died at Hillsborough**

3.28 In hearing from family members bereaved through the Manchester Arena bombing, we were struck by two things: first, that families have different preferences regarding the amount of information they wish to receive following any post-mortem; and second, for some families the opportunity would be highly valued.

3.29 One family member, Paul Hodgson, put the point in this way:

> "It might have been helpful to speak to a pathologist once the post-mortem had been received."
>
> **Paul Hodgson**

3.30 Another family member said:

> "I would never know what sort of questions to ask. I read [family member's] cause of death but I never took it in. Some explanation would have been helpful."
>
> **Anonymous family member**

3.31 Paul Price, whose partner Elaine McIver was killed in the Manchester Arena bombing, told us that he would like to seek a meeting with the pathologist responsible for the post-mortem into Elaine's death. We were able to bring this about. We did so in order to meet his request. But having done so, the circumstances represent a case study on how this can be arranged and the benefits of doing so:

> "I wanted to write a few sentences about meeting Mike Parsons, the pathologist who carried out Elaine's post-mortem …
>
> This was arranged in the hope it would help me with coming to terms with the death, as I was not in a position to engage with the pathology team at the time due to my injuries. I didn't know what to expect from the meeting or what questions I would ask, and as the meeting approached, I was anxious. I was so glad I agreed to meet Mike; just to put a face to the person who did the

> post-mortem meant so much to me. Mike was lovely and treated our meeting with the utmost respect, and it gave me a lot of comfort to know that he was such a caring person who carried out this procedure; it meant the world to me.
>
> He was able to answer all my questions and shone a light on a part of my life that is very dark with lots of gaps in my memory. I came away from the meeting not as upset as I thought I might be but feeling that a huge weight had been lifted from my shoulders. I got much more than I anticipated from the meeting. I cannot thank Mike enough for agreeing to meet me and you for suggesting and arranging it."
>
> **Paul Price, the partner of Elaine McIver, who died as a result of the Manchester Arena bombing**

3.32 In the course of our review, a number of families confirmed that they had not been offered the opportunity to meet a pathologist. One family recalled being present when an attempt was made to cover the pathology findings at a general level, not specific to individual cases, and with a number of families in attendance:

> "… there was no privacy, everybody was listening and we kept being warned that the press was outside."
>
> **Anonymous family member**

3.33 The experience of the Hillsborough and Manchester Arena families points to our Key Action Area 1 and Recommendation 1 as set out in Chapter 6.

Communicating with families with empathy and understanding

3.34 Those familiar with the aftermath of the Hillsborough Stadium disaster know well the impact on the families of their being told that they could not hold their loved ones because the bodies were the "property of the coroner". These two accounts show the damage done:

> "I was taken to the mortuary. This was cruel. This was my brother, who I knew inside out; who I slept with. It was just through a window … I asked if I could go in and see him. There was a kerfuffle. They said no, he was the property of the coroner. I said 'he is not, he is my mother's property'."
>
> **Steve Kelly, brother of Michael Kelly, who died at Hillsborough, as quoted in the report *The Patronising Disposition of Unaccountable Power***

> "I was angry when I was told he belonged to the coroner."
>
> **Margaret Aspinall**

Margaret Aspinall went on to tell us that she simply wanted to see her son James. She had brought his coat to wrap him in as she knew he felt the cold.

3.35 It is important to acknowledge the position in law. Coroners, their officers and staff must explain to the family of the deceased that the coroner has legal control over the body. This is a statutory power that gives the coroner the ability to carry out their functions to investigate the death and that ensures the preservation of the best evidence. This is regarded as an important independent safeguard for the integrity of the investigation.

3.36 In September 2019, the Chief Coroner issued guidance to all coroners in England and Wales entitled "Guidance No. 32: Post-Mortem Examinations Including Second Post-Mortem Examinations". Part 1 (12) of that guidance states:

> "At no point should the coroner, his officers and staff refer to the body of a deceased as the 'property' of the coroner, nor should they use other forms of insensitive or 'off-hand' language when explaining the coroner's legal duties. This is one of the issues which was rightly highlighted by Bishop James Jones in his Review of the Hillsborough families' experiences and which can cause great and unnecessary distress to bereaved people. Coroners and their officers should also keep the bereaved family advised of the likely timescales for release of the body and any reasons for retaining the body. If a body cannot be released within 28 days of the death being notified to the coroner, there is a duty to notify the next of kin of the reasons."[3]

3.37 Families bereaved through the Manchester Arena bombing have not reported to us the use of the phrase "property of the coroner". We are taking this opportunity to draw to the attention of the Chief Coroner the importance of adhering to the spirit as well as to the letter of the guidance issued in 2019.

Understanding the need of families to spend time with their lost one

3.38 Underlying the concern over the language used is the understandable need of families to spend time with the relative they have lost. One of the concerns at Hillsborough was the fact that families viewed their loved ones behind glass screens and were not allowed in the same room. A number of families who lost loved ones at the Manchester Arena bombing reported that this aspect had improved:

> "… we were in the same room. We were told not to move her, but we could touch her."
>
> **Joanne Hurley, mother of Megan Hurley, who died as a result of the Manchester Arena bombing**

3.39 Again, both the Hillsborough and the Manchester Arena families expressed concern about the perceived lack of recognition of the legitimacy of their wishes:

3 Chief Coroner, "Guidance No. 32: Post-Mortem Examinations Including Second Post-Mortem Examinations", 23 September 2019, https://www.judiciary.uk/wp-content/uploads/2019/09/Guidance-No.-32-Post-Mortem-Examinations-including-Second-Post-Mortem-Examinations.pdf

"I understood that rules have to be in place but the viewing arrangements felt cold and calculated. The post-mortem felt hurried and it was only as though they were doing what was necessary."

Christine McEvoy, mother of Marian McCabe, who died at Hillsborough

"It was a full 7 days since the explosion and we kept saying we need to go and see Megan but there was no information."

Michael Hurley

3.40 We heard that each of the Manchester Arena families were allowed 30 minutes for both identifying and viewing the body of their loved one:

"… we were given the choice of a morning or afternoon slot, told we would have 30 minutes."

Anonymous family member

"… the police said we think we have Megan, but if it's not tell us."

Michael Hurley

3.41 Another family told us:

"Because we were a 'split family' we were given a total of 60 minutes and had to share that time with the other part of the family."

Charlotte Hodgson, mother of Olivia Campbell-Hardy, who died as a result of the Manchester Arena bombing

3.42 Charlotte Hodgson explained that, as the next of kin, she was asked to identify Olivia's body. At the same time, she was asked whether she wanted a lock of her hair or impressions of her lips, hand or fingerprints. The family found it unhelpful to have these questions put to them at this stage in a way that took time while they were trying to spend their last moments with Olivia.

3.43 Similarly, another family member said:

"… we were allowed into the room with [our relative] and we could touch her and hold her hand. We only had 30 minutes with [them] and during that time we were asked questions about whether we wanted a lock of hair, fingerprint impressions etc. Those decisions had to be made there and then."

Anonymous family member

3.44 One family member expressed concern that the family were never told the extent of his daughter's injuries:

"At the identification, I noticed that [family member's] head was stitched up, but no one told us that this would be the case. It was as though they were trying to hide it with her hair. This actually ripped me apart. We should have been warned."

Anonymous family member

3.45 A number of families told us that they were not prepared for how their loved ones would appear when they were given the opportunity to see them. For example, one mother told us:

> "Her hair was done in a way that Megan would never have."
>
> **Joanne Hurley**

3.46 It is hard to exaggerate how the arrangements made weighed heavily with the families who attended:

> "I understood that rules have to be in place but the viewing arrangements felt cold and calculated."
>
> **Christine McEvoy**

3.47 In seeking to make the arrangements for these moments as acceptable as they can be for families, it is important for the professionals involved to be aware of such comments, which have been offered in the spirit of learning for the future.

Ensuring that forensic pathology facilitates the assessment of survivability

3.48 The Terms of Reference for our review are clear:

> "It should … not be a reinvestigation of the events of and the days following the [Hillsborough Stadium] disaster."

3.49 Accordingly, we have not sought to assess independently the question of the survivability of any of those who died as a result of the Hillsborough Stadium disaster.

3.50 What we have done, in listening to families affected by Hillsborough and by the Manchester Arena bombing, is hear just how important it is that the issue of survivability is assessed in a way that commands public confidence.

3.51 It is not surprising that the Hillsborough families remain wounded by their experiences:

> "23 years believing that this was the way it was [i.e. that the original pathology report was correct] has left me with severe depression and severe psychological issues. It was a lie on that original pathology report – he could have lived."
>
> **Charlotte Hennessy, daughter of James Hennessy, who died at Hillsborough, as quoted in the report *The Patronising Disposition of Unaccountable Power***

> "… in situations where an expert had a change of mind [about significant matters relating to the case] that an explanation should be offered as to why this was the case. And if that explanation was not compelling, or there were any discrepancies that the family had the opportunity to bring in their own expert on that matter."
>
> **Deanna Matthews**

3.52 We listened to the Manchester Arena families knowing just how critical it was for the Hillsborough families that the pathology should have helped determine as clearly as possible whether any of those who died could have survived.

3.53 We met with Lisa and Andrew Roussos, whose eight-year-old daughter, Saffie-Rose, died. At our meeting, their legal representative, Nicola Brook, explained their circumstances in these terms:

> "One of the group of experts appointed by the Coroner – The Blast Wave Panel of Experts – had concluded there was no possibility of survival whatever treatment Saffie received. However, we found another group of experts who had a very different conclusion. These experts were also instructed by the Coroner so he could consider both opinions. These experts had written an article called 'How to stop the dying as well as the killing'. They were led by Lieutenant Colonel Park and they disagreed with the views of the other experts. As part of the post-mortem process two of Saffie's injuries had not been sufficiently assessed. One of these related to a thigh injury and the experts led by Lieutenant Colonel Park felt that as there was no significant vascular injury and on this basis, Saffie could have survived."
>
> **Nicola Brook, legal representative of Lisa and Andrew Roussos**

3.54 Again, in our view we can no more make an assessment of the survivability of those who died in the Manchester Arena attack than we can of the 97 innocent people who were unlawfully killed in the Hillsborough Stadium disaster. What we can do is to point to the fact that the circumstances of unexpected multiple deaths are likely to prompt questions of survivability. For example, where the emergency services respond to a disaster, the nature and adequacy of their response are bound to be focal points for questions from the families of those who have died. These are legitimate questions and should be anticipated in the arrangements made for forensic pathology in the immediate aftermath of any such disaster.

3.55 As a result, we consider in Chapter 6 how the question of survivability can best be addressed, learning from the experiences of the Hillsborough Stadium disaster, the Manchester Arena bombing and other disasters involving mass fatalities.

Engaging families on possible access to post-mortem photographs

3.56 During the course of our review, we have become aware of an issue that it is right for us to consider. The issue is whether families should have the opportunity to see the photographs of their loved ones taken as part of any post-mortem examination; and, if so, how this opportunity should be presented to the family involved.

3.57 The issue came to prominence following the completion of the criminal investigation into events at Hillsborough Stadium. The specific circumstances are the responsibility of the Home Office and it is neither right nor necessary for our review to comment upon them or to identify the individual families involved. However, we are grateful to those families for sharing with us their experiences; this has enabled us to consider how the issue should best be taken forward, drawing upon the painful experience of the relevant Hillsborough families.

3.58 One family member said:

> "We were not aware that there were post-mortem photographs of Brian until November 2022, and we were put on the spot as to whether we wanted to view them, without any warning, contextual information or time to consider."
>
> **Deanna Matthews**

She added:

> "And why was it not possible for these photographs to have been pixilated?"
>
> **Deanna Matthews**

3.59 It is clearly essential for post-mortem photographs to be taken. Imagery at a post-mortem examination provides a permanent record of what was found, injuries received and the overall state of the body. Such imagery will assist the forensic pathologist, coroner and police in their investigation, provide vital evidence to the Crown Prosecution Service and the courts, and reduce the need for a second (defence) post-mortem as images can be reviewed without further access to the body. As a point of principle, the family should be made aware that this is a part of the post-mortem process.

3.60 These photographs show the nature of any injuries and show the body unclothed. The potential distress to any family members who might see these photographs is palpable and significant.

3.61 But it is not right that families should be unaware of the existence of these photographs. That they exist should be part of the information conveyed to families. It is right that the family should have the opportunity to see such photographs but there should be no presumption that the family should take up that opportunity. Where they do choose to do so, it should be in accordance with a proper process of informed consent and the nature of the photographs should be explained clearly. In Chapter 6, we set out how this can best be done.

Avoiding potential perception of inconsistency between the treatment of families over post-mortems

3.62 In the course of listening to families, we have become aware of a risk that exists where there are mass fatalities and where post-mortem examinations are conducted. In these circumstances, more than one pathologist will be involved. The families we heard from point to the need to ensure a consistency of approach between different pathologists. The point was first made in relation to Hillsborough:

> "The pathology carried out on James was not to the same standard as in other cases. This was such an important part of the inquest that we had the right for this to be carried out properly. I think there needs to be some guidance or rules to ensure that the same standards for pathology are applied in all cases."
>
> **Margaret Aspinall, as quoted in the report *The Patronising Disposition of Unaccountable Power***

3.63 As this demonstrates, where families are thrown together through the same public tragedy, they are likely to become aware of the circumstances of other families as well as their own:

> "The procedure for performing post-mortems seemed inconsistent across pathologists … in mass tragedy situations there should be some independent review carried out on some of the post-mortems by 'sampling' some of them on a 'blind pick basis'. This would bring clarity and sense knowing that it was done properly, and have the opportunity to discuss any inconsistencies or discrepancies contemporaneously to the post-mortem being performed and coming to a detailed conclusion. Thus removing the need to rely on fading memories or incomplete notes years down the line."
>
> **Deanna Matthews**

3.64 We consider these points about consistency and assurance of quality in Chapter 6.

What we have found

- One of the lawyers who represented families affected by the Hillsborough Stadium disaster and those affected by the Manchester Arena bombing, Terry Wilcox, offered our review this assessment of partial improvement:

  > "… there has been progress since Hillsborough, but more change is needed."
  >
  > **Terry Wilcox, Manager, Public Inquiries, Hudgell Solicitors**

  Our review has shown the validity of this assessment.

- Pathologists, along with the police, other emergency services and the coroner, have a responsibility to share information. In Chapter 6, we make a recommendation designed to help those involved and in turn help those affected by future disasters with the information they are likely to need (Recommendation 1). The need to share information is clearly demonstrated by the accounts of families affected by the Hillsborough Stadium disaster and the Manchester Arena bombing.

- We heard accounts that testify to the importance of *how* information was conveyed to bereaved families, not just the information itself.

- The families we met spoke warmly of the information they received from their legal representatives; the importance of the service the legal representatives provided to the Manchester Arena families is very clear.

- Individual families described the positive impact of having had the opportunity to hear from Dr Bill Kirkup, a member of the Hillsborough Independent Panel, following his review of the post-mortem reports. They reiterated their gratitude to Dr Kirkup for how he had been ready to engage with them empathetically and to respond to their questions.

- There was similar positive feedback from a family member bereaved by the Manchester Arena bombing when he was given the opportunity to meet with the pathologist who had conducted the post-mortem on his loved one.

- We listened to the Manchester Arena families knowing just how critical it was for the Hillsborough families that the pathology should have helped determine as clearly as possible whether any of those who died could have survived.

- It is not right that families should be unaware of the existence of post-mortem photographs and images. That they exist should be part of the information conveyed to families. It is right that the family should have the opportunity to see such photographs but there should be no presumption that the family should take up that opportunity. Where they do choose to do so, it should be in accordance with a proper process of informed consent and the nature of the photographs should be explained clearly. In Chapter 6, we set out how this can best be done.

Chapter 4: Other issues raised

4.1 In Chapter 3, we explained how our review has demonstrated the validity of this assessment from Terry Wilcox, one of the lawyers who represented families affected by the Hillsborough Stadium disaster and those affected by the Manchester Arena bombing:

> "… there has been progress since Hillsborough, but more change is needed."
>
> **Terry Wilcox, Manager, Public Inquiries, Hudgell Solicitors**

4.2 A consistent theme has emerged as to where more change is needed. When victims and their families are affected by an unexpected disaster involving multiple deaths and injuries, they need and deserve a flow of information that understands their situation and circumstances. The relevant information will clearly address the questions "What has happened to my loved one?", "How did they die?" and "Could things have turned out differently?"

4.3 This means that there needs to be a clear understanding about whose responsibility it is to provide information about the likelihood of a post-mortem, what that might entail, and how the family might want to learn of the outcome.

4.4 The families affected by the Manchester Arena bombing highlighted how much they came to depend on their legal representatives for a clear explanation of what they could expect from the various processes that followed on from the attack. In its response to Bishop James Jones' report *The Patronising Disposition of Unaccountable Power*,[1] in December 2023, the Government announced the extension of publicly funded legal representation in terrorist cases.[2]

4.5 The Hillsborough families were greatly assisted by legal representation, albeit late in the process, but we draw attention to the fact that there is no equivalent automatic provision of legal representation in other cases. However, it cannot be right to leave the provision of information about post-mortem examinations to the relevant legal representatives. The public authorities have a responsibility to ensure that the families affected are properly informed and engaged.

4.6 There is a new development in prospect. The previous Government introduced a Victims and Prisoners Bill that included provision for an Independent Public Advocate (IPA). We understand that the Independent Public Advocate would be supported by a permanent secretariat team. In Chapter 6, we set out how the

1 The Right Reverend James Jones KBE, *"The Patronising Disposition of Unaccountable Power": A Report to Ensure the Pain and Suffering of the Hillsborough Families Is Not Repeated*, HC 511, 1 November 2017, https://www.gov.uk/government/publications/hillsborough-stadium-disaster-lessons-that-must-be-learnt

2 UK Government, *A Hillsborough Legacy: The Government's Response to Bishop James Jones' Report to Ensure the Pain and Suffering of the Hillsborough Families Is Never Repeated*, CP 990, December 2023, https://assets.publishing.service.gov.uk/media/65704de81104cf0013fa75d1/A_Hillsborough_Legacy.pdf

Independent Public Advocate could help ensure that families receive the information they need, where they wish to receive it, and, crucially, in a way that understands the situation and circumstances of those families.

4.7 In the first part of this chapter, we explain how, in practice, it is the family liaison officer, appointed by the police, who is the source of support and information for those most closely affected by a disaster. We report the comments made to our review by the Manchester Arena families about their experience.

4.8 In the second part of this chapter, we set out the comments we received on two other issues: the retention of tissue; and the process for registering the death.

Role of the family liaison officer

4.9 The entitlement of families to the support of a family liaison officer (FLO) was described most recently in the Government's response, given on 6 December 2023, to Bishop James' report *The Patronising Disposition of Unaccountable Power*:

> "3.1.27 The College of Policing guidance and the Victims' Code provide that bereaved close relatives have the right to have a FLO assigned to them by the police. The role was embedded within the College's guidance in 2008 and then in Authorised Professional Practice (APP) for policing since 2013, stating that FLOs play an essential role in the police's response to major disasters. In 2018 the College also updated guidance on visiting the deceased. The FLO should work with the family to facilitate visiting the bereaved, and should not discourage it. This is an essential shift in light of the trauma experienced by Hillsborough families as a result of how this process was carried out previously.
>
> 3.1.28 The support from FLOs to bereaved families will apply in a range of cases, including in homicide cases and deaths in custody, and where there is a criminal investigation into the death of multiple victims (including where it is suspected that there may be potential evidence of terrorism, corporate or gross negligence manslaughter or other crimes with a corporate or state element).
>
> 3.1.29 Following the attack on Manchester Arena in 2017, the families of the 22 people who were killed were each allocated a police FLO, as were some of the injured and their families. As well as their role as an investigator in the immediate aftermath of the tragedy, the FLOs continued to provide support to the families and individuals during the criminal investigations. The Kerslake Report[3] describes the importance of family liaison and some bereaved families have reported that they found the support of FLOs from Greater Manchester Police (GMP) to be invaluable."[4]

3 Lord Bob Kerslake, *The Kerslake Report: An Independent Review into the Preparedness for, and Emergency Response to, the Manchester Arena Attack on 22nd May 2017*, 27 March 2018, https://www.greatermanchester-ca.gov.uk/media/1271/the-kerslake-report.pdf

4 UK Government, *A Hillsborough Legacy: The Government's Response to Bishop James Jones' Report to Ensure the Pain and Suffering of the Hillsborough Families Is Never Repeated*, CP 990, December 2023, https://assets.publishing.service.gov.uk/media/65704de81104cf0013fa75d1/A_Hillsborough_Legacy.pdf

4.10 In their contribution to our review, a number of the Manchester Arena families spoke directly about their experience. In a number of cases, a good rapport and a close relationship were clearly built up between the family liaison officers and members of the families. For example, one family explained that family liaison officers were appointed from within the police force local to where they lived. A member of the family described them as "being fantastic".

4.11 The family member went on to suggest:

> "Because they [the family liaison officers] were from [our local police force] however they struggled to access up to date information because this was only passed to them via officers from Manchester."
>
> **Anonymous family member**

4.12 The same family spoke about problems arising later when the criminal trial was taking place. The family said to us that, having built up a good relationship with their family liaison officers, they wanted the family liaison officers to attend the trial. But their understanding, as conveyed to our review, was that Greater Manchester Police "wouldn't allow this because they said the ... FLOs had got too close and that boundaries had been crossed".

4.13 Another family member said:

> "I had developed a very good relationship with one of the two allocated Family Liaison Officers, a male detective with considerable experience. I was more comfortable talking to him."
>
> **Anonymous family member**

The family member told us that it was their belief that their family liaison officer "was taken off their case because of a concern that we were getting too close".

4.14 Another bereaved family member recalled their first meeting with their family liaison officer the day after the explosion:

> "… the first thing she said was I am not an FLO, I am a traffic officer."
>
> **Anonymous family member**

In this case, the family said to us that their impression was therefore that there were not enough experienced family liaison officers available and that they were surprised that this was the case.

4.15 It is not the purpose of our review to comment critically on any of the arrangements made. We record the above comments in order to respect the generosity of the families who shared their experience and to provide some points of learning. The experience we heard underlines the need for further consideration of how information is conveyed to families and the part that family liaison officers may have to play in this process.

Registering the death

4.16 Our review brought into focus concerns over the registration of death. The relevant statutory framework and guidance are to be found in the Births and Deaths Registration Act 1953. However, this was amended by the Coroners and Justice Act 2009 to include the new "medical examiners" responsibilities to scrutinise the Medical Certificate of Cause of Death form.

4.17 In the circumstances covered by our review, there is an inquest before any death can be registered. In our experience, the affected families understand that the coroner, as the relevant public authority, must therefore determine the cause of death and issue the certification of death. However, where deaths are expected and there is a surviving family member, it is that family member who is responsible for the registration of the death. We have found that families appreciate this role as one that properly reflects their connection with their loved one; this is also how they feel when the deaths have come about through an unexpected disaster. In these circumstances, it is both understandable and significant that the family should see the certification of death as part of their acknowledging what has happened.

4.18 Accordingly, some families expressed their unhappiness at the process:

> "At no time did anybody mention that we would not be able to register Megan's death."
>
> **Joanne Hurley, mother of Megan Hurley, who died as a result of the Manchester Arena bombing**

> "A letter explaining all this would have been beneficial and at no time was it mentioned that they could not do this."
>
> **Joanne Hurley**

> "… if we had known about this sooner we would have wanted to try and change it sooner."
>
> **Michael Hurley, father of Megan Hurley, who died as a result of the Manchester Arena bombing**

4.19 Another family put the point in these terms:

> "We were unable to register [family member's] death because the coroner had to do this. We did get to a position where we could sit in whilst this happened."
>
> **Anonymous family member**

4.20 The handling of death certification is an example where the experience of families should lead to further reflection. The aim must be to avoid leaving families disconnected and alienated. This example shows the damage that can be caused:

> "The death certificate was sent through the post one day without any notice in an anonymous envelope, which was soaked, without any explanation."
>
> **Charlotte Hodgson, mother of Olivia Campbell-Hardy, who died as a result of the Manchester Arena bombing**

Tissue retention

4.21 *The Report of the Hillsborough Independent Panel*, in September 2012, explained how human tissue had been retained in a number of cases, following the post-mortem examinations. Appendix 4 to that report explained the background in these terms:

> "During the Panel's scrutiny of documents relating to evidence from the pathologists who carried out the post mortem examinations, it became clear that in ten cases tissue had been removed for further examination. This is an essential part of any post mortem in which the findings are not immediately clear and microscopic examination is necessary for confirmation or clarification.
>
> In accordance with standard practice at the time, relatives were not informed that tissue removal could form part of the post mortem examination, nor were they offered the choice of what should be done with removed tissue material after examination …
>
> Guidance for those responsible for such repositories stressed that, following widespread publicity about the practice, it was for relatives to approach hospitals to enquire whether any material had been retained. This guidance was followed correctly in the case of each of these ten Hillsborough post mortems."[5]

4.22 Our Terms of Reference do not provide for an investigation into how the police interact with families in relation to seeking views on the disposal of human tissue from victims in more recent disasters.

4.23 Accordingly, we have not reviewed how the process of informing families was conducted following the Manchester Arena bombing. We concluded, however, that it would be right to record the comments of two families who raised this issue with us.

4.24 One family described their experience in these terms:

> "… we were required to fill in forms and tick boxes and had no real idea what we were signing. Years later they [the police] came back and asked what we wanted to do with them."
>
> **Anonymous family member**

4.25 A second family also said that the retention of tissue "was never properly explained".

5 *The Report of the Hillsborough Independent Panel*, HC 581, 12 September 2012, https://www.gov.uk/government/publications/the-report-of-the-hillsborough-independent-panel

4.26 We are not in a position to assess this suggestion. We do feel that the comments from these two families underline the importance of seeking further improvements in how this most sensitive of issues is explained to families, both at the time when any tissue is taken and when it is subsequently retained or destroyed.

What we have found

- The families affected by the Manchester Arena bombing highlighted how much they came to depend on their legal representatives for a clear explanation of what they could expect from the various processes that followed on from the attack. However, it cannot be right to leave the provision of information about post-mortem examinations to the relevant legal representatives. The public authorities have a responsibility to ensure that the families affected are properly informed and engaged.

- There is a new development in prospect. The previous Government introduced a Victims and Prisoners Bill that included provision for an Independent Public Advocate (IPA). We understand that the Independent Public Advocate would be supported by a permanent secretariat team. In Chapter 6, we set out how the Independent Public Advocate could help ensure that families receive the information they need, where they wish to receive it, and, crucially, in a way that understands the situation and circumstances of those families.

- The experience we heard underlines the need for further consideration of how information is conveyed to families and the part that family liaison officers may have to play in this process.

- The handling of death certification is an example where the experience of families should lead to further reflection. The aim must be to avoid leaving families disconnected and alienated.

- The comments from two families regarding the retention of human tissue underline the importance of seeking further improvements in how this most sensitive of issues is explained to families, both at the time when any tissue is taken and when it is subsequently retained or destroyed.

Chapter 5: The Manchester Arena bombing

Introduction

5.1 The lessons for forensic pathology from the Hillsborough Stadium disaster will be tested in the next major public disaster. This could be related to terrorism, as in the Manchester Arena bombing, or a crush at a public event, as at Hillsborough, or a catastrophic fire, as at Grenfell Tower, or an air crash, as at Shoreham. These examples are seared into our consciousness, but other scenarios are also possible.

5.2 We have recorded elsewhere in this report many of the things that the Hillsborough families said to us, and what we heard from the families affected by the Manchester Arena bombing. We owe it to those families to take action to ensure that, when forensic pathology is next put to the test, it serves those future families well and meets the wider public interest.

5.3 We have asked ourselves whether the current arrangements will be judged to be fit for purpose in the light of the next disaster. Our answer? Well, it depends. It depends on the numbers involved. On where in the country the incident happens. On whether enough forensic pathologists can be deployed. On whether the coroner limits the number of post-mortem examinations required. On whether it is acceptable to phase those post-mortem examinations over a period of weeks. In other words, the assurance that can be given is limited and circumstantial.

5.4 We looked at the part played by forensic pathology in relation to two other cases involving multiple fatalities: the Shoreham Airshow disaster in August 2015 and the Grenfell Tower fire in June 2017. In these examples, forensic pathology appears to have been delivered promptly and efficiently. Following the Shoreham Airshow crash, where 11 people lost their lives, just 1 forensic pathologist with a specialism in air disasters was sufficient to conduct computed tomography (CT) scanning of the bodies, reducing the requirement for full invasive post-mortem examinations to a minimum.

5.5 Similarly, following the Grenfell Tower fire, a small cohort of forensic pathologists was able to respond, albeit over an extended period of time as a result of the specific circumstances of the fire.

5.6 In order to provide a basis for our assessment and recommendations, the first part of this chapter explains what happened and how forensic pathology resources were deployed following the Manchester Arena attack. The second part explains how the pathology was reflected in the subsequent public inquiry.

How forensic pathology operated following the Manchester Arena attack

5.7 Volume 1 of the report of the public inquiry, chaired by Sir John Saunders, captures what happened in these compelling terms:

> "On 22nd May 2017, twenty-two innocent people were murdered in Manchester at the end of a concert performed by the American artist, Ariana Grande. In addition, hundreds were injured. Many suffered life-changing physical harm, many others psychological trauma. There were acts of bravery by those who came to the assistance of the dying and the injured. Many of those rescuers bear the scars of what they experienced. None of those affected will forget that night and nor must we. Those events are the reason for this Inquiry and have remained central to it.
>
> The families of those who died have been devastated by these events and those who were injured will live with the effects for the rest of their lives.
>
> The explosion that brought about these appalling consequences was caused by Salman Abedi detonating a bomb in the City Room, an area close to one of the exit doors from the Arena. These events will be referred to in the Report as 'the Attack'. He chose a place where members of the audience were meeting up with parents and others who had come to collect them. The audience was principally made up of young people. Salman Abedi killed himself in the explosion, but he intended that as many people as possible would die with him.
>
> It was a wicked act, inspired by the distorted ideology of the so-called Islamic State. It was designed to attack our way of life and the freedoms we enjoy. We cannot allow fear of further terrorist attacks to achieve that.
>
> The responsibility for the events of 22nd May 2017 lies with Salman and Hashem Abedi, his younger brother."[1]

5.8 In Volume 2, Part II of its report, the public inquiry described concisely the pathology undertaken following the disaster:

> "All of those who died were the subject of a post-mortem examination. These examinations were carried out by a team of forensic pathologists, led by Dr Philip Lumb. The post-mortem examinations were assisted by a radiology team led by Colonel Dr Iain Gibb, who was supported by Lieutenant Colonel Dr Mark Ballard and Commander Dr David Gay."[2]

5.9 For the purposes of our review, we looked at how the post-mortem examinations were commissioned and conducted.

1 The Hon Sir John Saunders, *Manchester Arena Inquiry. Volume 1: Security for the Arena. Report of the Public Inquiry into the Attack on Manchester Arena on 22nd May 2017*, HC 279, 17 June 2021, https://www.gov.uk/government/publications/manchester-arena-inquiry-volume-1-security-for-the-arena

2 The Hon Sir John Saunders, *Manchester Arena Inquiry. Volume 2: Emergency Response. Volume 2-II. Report of the Public Inquiry into the Attack on Manchester Arena on 22nd May 2017*, HC 757-II, 3 November 2022, https://www.gov.uk/government/publications/manchester-arena-inquiry-volume-2-emergency-response

5.10 Responsibility for the forensic pathology fell to Dr Philip Lumb as the on-call pathologist for the forensic pathology group practice covering the North West of England. We are indebted to Dr Lumb for confirming the steps taken as set out in this chapter.

5.11 Under the Coroners and Justice Act 2009, only a coroner can authorise a post-mortem examination, whether that be a forensic or a non-forensic coroner's post-mortem. In a mass fatality disaster, the coroner will normally authorise post-mortem examinations after considering other evidence available and in consultation with the forensic pathologist and the police. In accordance with this framework, the coroner, Nigel Meadows, the Senior Coroner for the Manchester City area, instructed the group practice through Dr Lumb to respond to the pathology needs of the investigation.

5.12 Dr Lumb told us:

> "On the morning after the incident, given what I had seen in the media and that I was on call, I knew that I was now the 'lead' pathologist for the incident (this is our standard practice). I sent a text to the coroner (Mr Meadows), just to state that I was already putting the team together (I knew they would be busy). I think I was called back a short time later by Mr Meadows, to arrange the scene meeting where the first briefing took place. I was not contacted overnight, there being no reason to do so. I was aware of the incident at 06:30 hrs. However, the mortuary [in the Royal Oldham Hospital] had been contacted not long after the event and had initiated preparations in the early hours. I very kindly had lots of offers of help from colleagues … The forensic pathology team was assembled by 9am the morning after the bombing."
>
> **Dr Philip Lumb, Lead Pathologist in response to the Manchester Arena attack**

5.13 Dr Lumb explained to us that his assessment was that it would be possible to conduct the required post-mortem examinations using the resources available within the North West group practice. The practice was one of the largest of the group practices in England and Wales and comprised nine forensic pathologists. The Forensic Pathology Manager at the Home Office Science Directorate telephoned the following day to assess if mutual aid from other group practices was required, but Dr Lumb was able to conclude:

> "We had lots of offers from forensic pathologists from all over the country to help out which was nice, but this was not necessary with the resources we already had, but we did have five trainees attend to assist in things like note taking etc which was of great help."
>
> **Dr Lumb**

Dr Lumb attended the scene to assist in this assessment.

5.14 In all, four forensic pathologists were deployed to the Royal Oldham Hospital to assist in the post-mortem examinations of those who had died, which left flexibility to call on more from the same group practice if necessary. One additional forensic pathologist was deployed to take on any other work not connected with the Manchester Arena bombing.

5.15 Post-mortem examinations can only be conducted lawfully at premises licensed by the Human Tissue Authority under the Human Tissue Act 2004. Dr Lumb told us that the mortuary staff at the Royal Oldham Hospital had already invoked a standard operating procedure and had removed all the existing bodies from the mortuary in order to make space for bodies from Manchester Arena. Dr Lumb added that, if 40 people had died, they would have had to take over another mortuary, but that was not necessary.

5.16 The initial assessment was that the Royal Oldham Hospital mortuary could deal with the number of the deceased without too much difficulty. Dr Lumb estimated that it would take a week to complete the post-mortem examinations and he reported that "everyone was content with this". Dr Lumb continued:

> "As I recall, on Thursday [25 May 2017] after having just done two autopsies on the Wednesday [24 May] and three on Thursday [25 May], it was noted that the autopsies were taking much longer than anticipated (up to eight hours as I recall it) – this would have taken us beyond the [estimated] week."
>
> **Dr Lumb**

5.17 The families' viewing of those who had died in the Manchester Arena bombing was conducted at another mortuary (Trafford General Hospital). The bodies of the deceased were taken there temporarily for this purpose. This avoided family members having to come to the very busy Royal Oldham Hospital.

5.18 Dr Lumb clarified that separate arrangements were made for the victims and for the bomber Salman Abedi. While the bodies of the victims were examined at the Royal Oldham Hospital, a different forensic pathologist from the group practice was asked to conduct the post-mortem on Salman Abedi. In order to avoid any issues of cross-contamination, but also out of respect for the victims and their families, this post-mortem took place in a mortuary in Liverpool.

5.19 We are indebted to Dr Lumb for this account of how the challenges were met and resolved:

> "It was clear that the searches of the deceased for evidential materials (bomb fragments, Sim card fragments, telephone fragments) was taking up a large amount of time, although the actual autopsies were relatively much less time consuming.
>
> I met with the Police Mortuary Operations Coordinator, DVI [Disaster Victim Identification] lead and other officers to discuss how we could remedy this. Three options were considered.
>
> 1. Working overnight

2. Open a new mortuary to get more stations running simultaneously

3. Change technique

We dismissed working overnight – too dangerous, exhausting, no down time for the teams. Opening a new mortuary would have taken time and new pathologists/teams would need to be briefed. Although feasible, this would take resources and time up and probably wouldn't have accelerated the process.

The third option was to change technique. We discussed switching from a 'pod' style DVI process to a 'line' style process and to modify the evidential search process. The 'pod' style DVI process was very much like a traditional autopsy with everyone in the room at the same time – this meant a lot of redundant time for the mortuary technicians and pathologist, whilst the police officers conducted searches of the body for the evidence.

Using a 'line' style, the process was divided into two. The first part of the process was conducted by a new set of DVI APTs [anatomical pathology technologists] who assisted the police officers in examining the external surface for bomb fragments etc. In this first stage, there was now no need for the pathologist to be in attendance. The new DVI APTs/police officers were tasked with essentially presenting the pathologist with a deceased without any clothing and with all surface evidence removed. Medical intervention was to be kept in situ. The second part of the process was the autopsy in the conventional sense, using a new APT team/police team.

Of key importance was another change – items of clothing were not to be searched in great detail in the mortuary as was being done during the first five autopsies. These items were now to be exhibited 'whole' and evidential searches would take place later.

The third option was adopted and it changed the whole process – much more efficient, less tiring – the new process was essentially twice as fast. On the Friday, six autopsies were conducted comfortably, a further six on Saturday and on the final day, Sunday, five were conducted. So the new methodology was a very good option and we came in two days under the estimate."

Dr Lumb

5.20 We examined a sample of the post-mortem reports from Manchester and were able to compare them with the post-mortem reports from Hillsborough. The Hillsborough reports were, in general, consistent with the standards expected in 1989, but the reports for Manchester were significantly more extensive, detailed and structured, complying with all current legislation and with guidance that did not exist in 1989. Although quantity is not necessarily a gauge of quality, we note that the average length of the Hillsborough post-mortem reports was about 3 pages, and that the equivalent average of the Manchester Arena reports was 22 pages.

5.21 The difference in detail and content of the two sets of post-mortem reports is a sign of how far the forensic pathology profession has developed since 1989.

How the pathology was reflected in the subsequent public inquiry

5.22 After the deaths, inquests had to take place. In August 2018, Sir John Saunders was appointed by the Lord Chief Justice and the Chief Coroner to conduct those inquests as the nominated judge to sit as the coroner.

5.23 The statutory public inquiry, chaired by Sir John Saunders, duly produced a report in three volumes:

- *Manchester Arena Inquiry. Volume 1: Security for the Arena*, published on 17 June 2021[3]
- *Manchester Arena Inquiry. Volume 2: Emergency Response*, published on 3 November 2022[4]
- *Manchester Arena Inquiry. Volume 3: Radicalisation and Preventability*, published on 2 March 2023.[5]

5.24 The work of the pathologists informed Volume 2 of the report and specifically Part 18:

> "18.1 My investigation into the Attack began as twenty-two inquests. As I set out in my Preface to Volume 1, it became necessary to continue that investigation as a statutory public inquiry. This Part has been drafted with the duties of a Coroner in mind."[6]

5.25 The contribution of the post-mortem examinations is included in these terms:

> "18.3 The summary of that evidence within this Part is intentionally short. Its focus is on the most relevant information about the circumstances in which they were killed. It is not necessary, and would be distressing, to repeat every aspect of the evidence heard. The transcripts of the evidence, which provide far greater detail, are available on the Inquiry's website. I have noted in this Part where some of the evidence has not been published on the Inquiry's website due to its graphic and distressing nature. This includes post-mortem reports.
>
> 18.4 I have summarised the position in relation to each person who died separately. I made exceptions for this in the case of two couples. For each of those who died, I set out where that person was in the period immediately after detonation, what care they received, when they were confirmed as dead

3 The Hon Sir John Saunders, *Manchester Arena Inquiry. Volume 1: Security for the Arena. Report of the Public Inquiry into the Attack on Manchester Arena on 22nd May 2017*, HC 279, 17 June 2021, https://www.gov.uk/government/publications/manchester-arena-inquiry-volume-1-security-for-the-arena
4 The Hon Sir John Saunders, *Manchester Arena Inquiry. Volume 2: Emergency Response. Volume 2-II. Report of the Public Inquiry into the Attack on Manchester Arena on 22nd May 2017*, HC 757-II, 3 November 2022, https://www.gov.uk/government/publications/manchester-arena-inquiry-volume-2-emergency-response
5 The Hon Sir John Saunders, *Manchester Arena Inquiry. Volume 3: Radicalisation and Preventability. Report of the Public Inquiry into the Attack on Manchester Arena on 22nd May 2017*, HC 1137, 2 March 2023, https://www.gov.uk/government/publications/manchester-arena-inquiry-volume-3-radicalisation-and-preventability
6 The Hon Sir John Saunders, *Manchester Arena Inquiry. Volume 2: Emergency Response. Volume 2-II. Report of the Public Inquiry into the Attack on Manchester Arena on 22nd May 2017*, HC 757-II, 3 November 2022, https://www.gov.uk/government/publications/manchester-arena-inquiry-volume-2-emergency-response

and their cause of death. I confirm in the case of every person who died that they were unlawfully killed.

18.5 This is the information that, as a Coroner, I would have included in the record of inquest for each person."[7]

5.26 The methodology was further explained as follows:

"18.8 Extensive work was undertaken by Operation Manteline, the Greater Manchester Police (GMP) team who assisted my investigation. This included many hundreds of hours spent analysing the footage from 90 CCTV cameras, from 52 body-worn video cameras and from mobile phones. From that work, timelines were produced to show, as far as possible, what happened to each person who died and the individuals who interacted with them.

18.9 An important part of my investigation has been whether a different or better emergency response may have led to the survival of any of those who died. I have been assisted in this part of my investigation by experts … Such has been the complexity of some of the issues that have arisen that it has been necessary to call upon more than one expert in certain disciplines.

18.10 First, I instructed the Blast Wave Panel of Experts to consider the relevant evidence. The Panel are a multi-disciplinary team based at Imperial College London and the Defence Science and Technology Laboratory. The Panel have considerable expertise in blast injury. The Panel comprised Professor Anthony Bull, Colonel Professor Peter Mahoney, Colonel Professor Jonathan Clasper, Lieutenant Colonel Ballard and Alan Hepper. The purpose of their review was to consider whether any of those who died may have been able to survive their injuries with different or better care.

18.11 Second, in relation to two of those who died, the complexity of the evidence surrounding their deaths led me to instruct further experts. In the case of John Atkinson, I instructed cardiology expert Surgeon Commander Dr Paul Rees. In the case of Saffie-Rose Roussos, I instructed consultants in pre-hospital care and emergency medicine, Lieutenant Colonel Dr Claire Park, Dr Gareth Davies and Mr Aswinkumar Vasireddy, and consultant radiologist Dr Richard Wellings.

18.12 Third, I instructed forensic pathologists Professor Jack Crane and Dr Lumb to review the post-mortem evidence in the light of all the medical and scientific evidence. That included a review of relevant video footage. In relation to John Atkinson's post-mortem, Dr Naomi Carter, who carried it out, was invited to review her findings following receipt of Surgeon Commander Rees's report."[8]

5.27 From the evidence submitted to the Manchester Arena public inquiry, including the review of the post-mortem examinations and the further expert evidence described, Sir John Saunders was able to state these key findings:

"• In the case of twenty of the twenty-two who died, I am sure that their injuries were unsurvivable. I am sure that inadequacies in the response did not fail to prevent their deaths.

7 Ibid.
8 Ibid.

- In the case of John Atkinson, his injuries were survivable. Had he received the treatment and care he should have, it is likely that he would have survived. It is likely that inadequacies in the emergency response prevented his survival.
- In the case of Saffie-Rose Roussos, it is highly unlikely that she could have survived her injuries. There was only a remote possibility that she could have survived with different treatment and care."[9]

5.28 Within the assessment of survivability made by Sir John Saunders, it is worth noting in more detail the use made of the original post-mortem report and subsequent expert analysis specifically in relation to vascular injury:

> "18.195 The evidence identified four potential areas of significant vascular injury to Saffie-Rose Roussos: the popliteal arteries (the arteries behind the knees which extend upwards and into the thighs); the vessels in the area of the acetabulum (hip joint) on the left side; and the femoral arteries and associated vascular structures in the left thigh and the right thigh.
>
> 18.196 The experts were agreed that there was vascular injury and consequent bleeding in the popliteal arteries. However, there was a dispute as to the existence of vascular injury and/or its severity in the area of the acetabulum and in the left and right thighs. The members of the Blast Wave Panel of Experts expressed the firm view that such injuries were present and were serious. They supported their opinion by reference to a presentation by Lieutenant Colonel Ballard, a consultant radiologist with considerable military and civilian experience. Dr Wellings, also a consultant radiologist, agreed with the Panel. Conversely, Lieutenant Colonel Park, Dr Davies and Mr Vasireddy, additional experts I instructed, all considered that there was no significant vascular injury in these areas. They did so on the basis that, in their experience, the presence of such injuries would have caused Saffie-Rose Roussos to die through blood loss much more quickly than in fact occurred.
>
> 18.197 On each side of this dispute were experts of high quality, each of whom had considerable relevant experience and each of whom, I have no doubt, was trying to help me to reach the right conclusion. However, both sides cannot be right.
>
> 18.198 On balance, I preferred the opinion of the Blast Wave Panel of Experts and Dr Wellings about the nature and extent of the vascular injuries. That is for the following two reasons.
>
> 18.199 First, I will consider the conclusions to be drawn from the CT scans. Computerised tomography (CT) scans combine a series of X-ray images taken from different angles around the body with computer processing, to create cross-sectional images of the body. CT scanning is of considerable diagnostic value in living patients. In the context of the Attack, CT scanning assisted the pathologists to identify where bolts had penetrated the body and the structures they had struck.
>
> 18.200 CT scanning may take a number of different forms. One form is known as contrast CT scanning. This involves the introduction into the body of a dye known as a contrast medium. In a living patient, this is pumped around the

9 Ibid.

veins and arteries of the body by the heart, enabling the vascular system to be seen on the CT scan. A second form of CT scanning is known as full-body CT scanning. This does not involve the introduction of a contrast medium. It enables the musculoskeletal system to be seen on the scan but not the vascular system.

18.201 Dr Lumb and his team carried out full-body scans of Saffie-Rose Roussos and the others who died, rather than contrast CT scans. As the radiologists agreed, there were good reasons why this was the correct approach. The process of contrast CT scanning slows the post-mortem process and creates risks for those carrying it out. At the time, there were no clear indicators that it was necessary to carry out such scanning. In any event, the equipment to enable it to be done was not readily available. Even today, post-mortem contrast CT scanning is very much the exception and Dr Lumb described it as an area of research in forensic pathology.

18.202 Although I am not at all critical of the decision to carry out only a full-body CT scan, the consequence is that the CT scanning of Saffie-Rose Roussos does not show her vascular system. That means that the scanning alone does not establish definitively whether she had sustained significant vascular damage in the area of her acetabulum and in the left and right thighs.

18.203 However, the radiologists Lieutenant Colonel Ballard and Dr Wellings considered that the CT scans were of assistance in determining whether vascular damage had occurred in those areas. They pointed out that the scans showed that Saffie-Rose Roussos had sustained penetrating injuries in each of the relevant areas with consequent fracturing. It was their view that such injuries must have had cavitating effects. Such effects are, as Colonel Clasper of the Blast Wave Panel of Experts explained, rarely seen in civilian practice. They involve a high-velocity projectile entering the body, transferring energy into the body, tearing and distorting the tissues, and creating a cavity beyond the wound track. Lieutenant Colonel Ballard and Dr Wellings explained that these cavitating effects must have caused significant vascular damage to Saffie-Rose Roussos. In their view, it was not possible for such extensive damage to have been caused to the bone and soft tissue in these areas without the underlying blood vessels also having sustained significant damage.

18.204 I accept that analysis.

18.205 Second, I will consider the conclusions to be drawn from the post-mortem examination. At the time of that examination, Dr Lumb reported on the vascular injury to the arteries behind the knees of Saffie-Rose Roussos. This was a reference to the popliteal arteries, which the experts agreed were the location of vascular damage. After completing his post-mortem report, Dr Lumb was asked whether he was able to say whether there had also been vascular damage in the thighs. In response, he explained that the thighs are *'richly vascular'*. He expressed the strong view, based upon what he observed on his examination, that there was significant vascular damage to both thighs, describing such damage as *'inevitable'* in relation to the left thigh and *'almost certain'* in relation to the right thigh. He described the injuries to Saffie-Rose Roussos's legs as *'very severe'* and capable of causing death on their own. Professor Crane agreed that these injuries were sufficient on their own to cause death.

18.206 I accept the evidence of Dr Lumb as to the presence of significant vascular damage in the thighs. It comes from the expert who actually carried out the post-mortem examination, supported by the opinion of a pathologist of long experience and undoubted expertise.

18.207 I gave careful consideration to the views of the experts who expressed the competing opinion that Saffie-Rose Roussos had sustained no significant vascular damage save behind the knees. Their experience is substantial, and their views were expressed with force and conviction. While I accept that they may have had different experience on which to draw, the overwhelming burden of the evidence demonstrated that significant vascular injury causing bleeding was present in each of the areas I have described.

18.208 The fact that Saffie-Rose Roussos did not die sooner through blood loss is explicable by reason of the following factors: she is likely to have bled rapidly in the period just after sustaining her injuries but then more slowly as her blood pressure dropped; her blood vessels may not have fully bled immediately or all of the time due to various mechanisms about which the various experts agreed; Saffie-Rose Roussos's age will have made her more resilient; and there is real-world experience of people with serious vascular injury surviving for the same length of time Saffie-Rose Roussos remained alive.

18.209 Colonel Clasper of the Blast Wave Panel of Experts gave evidence on this final point. As I have set out, he is a consultant orthopaedic surgeon with particular knowledge and experience of injuries caused by explosions. He explained that the experience of the military is that a femoral artery injury does not always cause death swiftly. There is experience within the military of those with Saffie-Rose Roussos's burden of injury, including femoral artery injury, surviving for longer than 40 minutes, indeed for over an hour in some cases. Hence, the fact that Saffie-Rose Roussos survived for a little over one hour does not, in the view of Colonel Clasper, make her *'an outlier'*. I accept his evidence.

18.210 For these reasons, I am satisfied that Saffie-Rose Roussos sustained significant vascular damage not only to the arteries behind her knees, but also in the area of her hip joint and in both thighs. Furthermore, I consider that these injuries were extremely serious."[10]

5.29 Later, in his concluding remarks, Sir John Saunders said:

"**Survivability**

18.224 The important question at the end of all of this evidence is whether the injuries sustained by Saffie-Rose Roussos were ones that she could have survived with different care and treatment.

18.225 In their first report, the Blast Wave Panel of Experts expressed the view that the injuries sustained by Saffie-Rose Roussos were *'unlikely to be survivable'* with current advanced medical treatment. The Panel explained that the term *'unlikely to be survivable'* described:

10 Ibid.

> *'… individuals whose injuries were so severe that even if that same advanced and comprehensive medical treatment was initiated immediately after injury, we would not expect that person to survive, but at that point we could not say survival was impossible.'*

18.226 In their second report, the Panel reviewed their conclusion in relation to Saffie-Rose Roussos and found that her injuries were *'unsurvivable'*. Colonel Mahoney explained this term:

> *'[I]t meant that we felt the injuries were so severe that even if the most comprehensive and advanced medical treatment was initiated immediately after injury, we believe that survival was impossible.'*

18.227 It follows that the Panel were initially unable to exclude the possibility of survival in the case of Saffie-Rose Roussos but then six months later felt confident in doing so. This change was naturally of concern to her family and those who represent them and led to the instruction by me of the additional experts to whom I have referred.

18.228 The Panel were pressed in evidence on their change in opinion. They explained that their first report made clear that it was a preliminary report that was always intended to be subject to any further evidence that was received. What had changed between the first and second report was that the Panel had received the footage from the CCTV and body-worn video cameras, as was recorded in Appendix 1 to that second report. That led Colonel Mahoney to conclude that Saffie-Rose Roussos had become *'very sick, very quickly'* with respiratory distress that was, he believed, a combination of lung injury and blood loss. In turn, that led the Panel to conclude that Saffie-Rose Roussos had suffered from blast lung … which conclusion I have found to be correct.

18.229 It was appropriate that the Blast Wave Panel of Experts were pressed to explain their change in position. However, having heard their evidence, I am clear about what happened. The Panel expressed a preliminary opinion, making plain that they would review that opinion if further evidence was provided. Further evidence was provided of a type regarded by the Panel as significant. That altered the Panel's opinion and they said so. Not only was their approach understandable, it was also entirely responsible.

18.230 That does not mean, however, that the final conclusion of the Blast Wave Panel of Experts that survival was impossible is correct.

18.231 Even though I accept that the Blast Wave Panel of Experts were right about the nature and extent of the injuries suffered by Saffie-Rose Roussos, I do not consider that the evidence enables me to say that she had absolutely no chance of survival if the most comprehensive and advanced medical treatment had been initiated immediately after injury.

18.232 Lieutenant Colonel Park, Dr Davies and Mr Vasireddy were experienced and impressive experts. Their evidence about what consultants in pre-hospital emergency medicine can achieve out of hospital was striking. The evidence of their experiences means that I cannot exclude the remote possibility that Saffie-Rose Roussos would have survived, notwithstanding the severity of her injuries, if she had received treatment from an experienced consultant in pre-hospital emergency medicine immediately, followed by swift evacuation to hospital and expert treatment there.

> 18.233 While I have recognised the dangers involved in seeking to apply statistical data, I noted that within the database utilised by Alan Hepper, one individual who sustained blast lung of a severity comparable to that sustained by Saffie-Rose Roussos survived, notwithstanding that this person had a total New Injury Severity Score of 66, significantly higher than that given by Alan Hepper to Saffie-Rose Roussos. While I recognise that the score of 41 given to Saffie-Rose Roussos was described as conservative, this finding seems to me to underscore why I should not conclude that Saffie-Rose Roussos had no prospect of survival at all. Colonel Mahoney was asked about this example in the database. His answer did not persuade me that my analysis is flawed.
>
> 18.234 I make clear that what I am postulating is a remote possibility of survival. On the evidence that I have accepted, what happened to Saffie-Rose Roussos represents a terrible burden of injury. It is highly likely that her death was inevitable even if the most comprehensive and advanced medical treatment had been initiated immediately after injury."[11]

What we have found

- We examined a sample of the post-mortem reports from Manchester and were able to compare them with the post-mortem reports from Hillsborough. Although the Hillsborough reports, in general, were consistent with the standards expected in 1989, the reports for Manchester were significantly more extensive, detailed and structured, complying with all current legislation and with guidance that did not exist in 1989. It was clear that the amount of detailed examination and reporting had improved significantly.

- We have looked at the part played by forensic pathology in relation to two other cases involving multiple fatalities: the Shoreham Airshow disaster in August 2015 and the Grenfell Tower fire in June 2017. In these examples, forensic pathology appears to have been delivered promptly and efficiently. Following the Shoreham Airshow crash where 11 people lost their lives, just 1 forensic pathologist with a specialism in air disasters was sufficient to conduct computed tomography (CT) scanning of the bodies, reducing the requirement for full invasive post-mortem examinations to a minimum.

- Similarly, following the Grenfell Tower fire, a small cohort of forensic pathologists was able to respond, albeit over an extended period of time as a result of the specific circumstances of the fire.

- It is instructive to acknowledge how the question of survivability became significant within the focus of the public inquiry. In Chapter 6, we argue that, in any unexpected public disaster, the families of those who died will want to know whether their loved ones could have survived if the emergency response had been different; and that answering this question is important in identifying the lessons for emergency services and other public authorities ahead of future tragedies.

11 Ibid.

Chapter 6: Areas for action

Introduction

6.1 Chapter 1 of this report sets out the findings of our review. It explains the development of forensic pathology services over the period since the Hillsborough Stadium disaster in 1989, aided by previous reviews and inquiries. It highlights the experience of the families most closely affected by public tragedies and shows that there is a real need for further improvements in readiness for any time in the future when the country might be faced with mass fatalities. Engagement with families over the need for post-mortem examinations, over the conduct of those examinations, and over how the results are communicated needs to be reviewed. There should be a new presumption that, where they would like to do so, the bereaved families should have the opportunity for a face-to-face meeting where the results of the post-mortem are explained and the families are able to seek clarification in plain English with technical terms deciphered.

6.2 It is entirely predictable that the question of survivability will arise in a range of possible future disasters. Family members will want to know not just the cause of death of their loved ones, but also whether they could have survived. Scrutiny of the relevant authorities, through an inquest or inquiry, will want to gain an understanding of whether the role those authorities played could have saved lives. The current arrangements for post-mortem examinations do not do enough to anticipate this legitimate private and public interest.

6.3 We can give a limited but not complete assurance that the forensic pathology service in England and Wales will be able to meet the requirements presented by a future terrorist attack or other disaster. The pipeline of available forensic pathologists is not robust. The arrangements for calling in support from pathologists in other areas are too informal and would be tested by deaths on a large scale or across a wider area.

6.4 Chapters 2 to 5 provide the evidence to support these findings, gathered through meetings with coroners, pathologists and other relevant professionals, and also through listening to bereaved families and hearing of their experiences.

6.5 The precise detail of the changes needed will require further consultation and engagement. For that reason, in this chapter we signal six Key Action Areas, identifiable from our findings, and clearly necessary if the lessons from Hillsborough – but also from the Manchester Arena bombing – are to be learnt and applied.

Key Action Area 1: Communicating with bereaved families – technical competence is not enough

The problem: What we have found

- Our initial finding, as soon as we were able to listen to the Hillsborough and Manchester Arena families, was that it is the experience of bereaved families, not just the technical competence of pathologists, which calls for a fresh focus.
- As we have received evidence for our review and listened to both the relevant professionals and the families affected, this assessment has resonated throughout: we have moved a long way since 1989 but more still needs to be done. That statement captures our own findings, and this report is devoted to helping to bring about the further change that "still needs to be done".
- Engagement with families over the need for post-mortem examinations, over the conduct of those examinations, and over how the results are communicated needs to be reviewed.
- In future public disasters, arrangements should be made to explain the decision to hold a post-mortem to the family involved. The principle should be that this should happen prior to the post-mortem and that the reasoning should be conveyed, not just the decision that has been taken.
- The taking of photographs and images is an integral part of the post-mortem examination. The photographs and images taken are necessarily explicit and by their nature distressing. The lesson to be taken is that any decision to see any such photograph or image must never be rushed. The family need to understand the nature of these photographs and images and then to be given time to consider their position.
- There should be a new presumption that, where they would like to do so, the bereaved families should have the opportunity for a face-to-face meeting where the results of the post-mortem are explained and the families are able to seek clarification in plain English with technical terms deciphered.
- We are taking this opportunity to draw to the attention of the Chief Coroner the importance of adhering to the spirit as well as to the letter of the guidance issued in 2019: "At no point should the coroner, his officers and staff refer to the body of a deceased as the 'property' of the coroner, nor should they use other forms of insensitive or 'off-hand' language when explaining the coroner's legal duties."[1]
- The previous Government's commitment to the introduction of an Independent Public Advocate (IPA) provides a further and welcome opportunity to ensure that the needs of families affected by public disasters are met. This is on the understanding that the Independent Public Advocate adds to and does not replace the onus on the public authorities involved to communicate the various processes to which families will be subjected, including any post-mortem examinations. It is also on the understanding that the new role will in no way replace the service provided by the legal representatives of the families.

1 Chief Coroner, "Guidance No. 32: Post-Mortem Examinations Including Second Post-Mortem Examinations", 23 September 2019, https://www.judiciary.uk/wp-content/uploads/2019/09/Guidance-No.-32-Post-Mortem-Examinations-including-Second-Post-Mortem-Examinations.pdf

The next step forward – Recommendation 1

The Home Office, through its Pathology Delivery Board, should take the lead in developing a new protocol for engaging with families affected by a disaster involving mass fatalities. It should consult with the Chief Coroner, the National Police Chiefs' Council and the leadership of other emergency services.

The scope of the new protocol (or protocols) should include:

- Informing the family involved whether a post-mortem examination is to take place
- Giving the family the assurance that, at the earliest possible time, they will be provided with an opportunity for a face-to-face meeting where the results of the post-mortem are explained and they are able to seek clarification in plain English with technical terms deciphered
- A process for informing family members of the existence of post-mortem photographs and images, embedding real and informed consent before any such material is shared.

In developing the future arrangements, the Pathology Delivery Board should include family members affected by previous mass fatalities. This is in recognition of one of our central findings: it is the experience of bereaved families, not just the technical competence of pathologists, which calls for a fresh focus.

The Pathology Delivery Board should engage with the Ministry of Justice on how relevant information about forensic pathology can best be incorporated into the service provided by the new Independent Public Advocate (IPA), once that post has been established. In due course, the Pathology Delivery Board should engage with the Independent Public Advocate and the permanent secretariat proposed.

Key Action Area 2: Engaging families over retained human tissue

The problem: What we have found

- Our Terms of Reference do not provide for an investigation into how the police interact with families in relation to seeking views on the disposal of human tissue from victims in more recent disasters.
- Accordingly, we have not reviewed how the process of informing families was conducted following the Manchester Arena bombing. We have concluded, however, that it would be right to record – in Chapter 4 – the comments of two families who raised this issue with us and in at least one case suggested that the position was not properly explained.

The next step forward – Recommendation 2

We are not in a position to assess this suggestion. We do feel that the comments from these two families underline the importance of seeking further improvements in how this most sensitive of issues is explained to families, both at the time when any tissue is taken and when it is subsequently retained or destroyed. In taking this forward, a key point is recognising that it is simply inappropriate to engage families over the disposal of human tissue in a way which is rushed or premature. Consideration should be given with the College of Policing over how best practice should be incorporated in future training.

Key Action Area 3: Anticipating the requirements of any future disaster – survivability

The problem: What we have found

- It is entirely predictable that the question of survivability will arise in a range of possible future disasters. The current arrangements for post-mortem examinations do not do enough to anticipate this legitimate private and public interest.
- We have identified an opportunity to make forensic pathology better informed by including the skills of intensivists and those who specialise in pre-hospital admission interventions.
- Forensic pathologists are not necessarily trained or experienced in the assessment of survivability. They are well placed to provide an opinion from the injuries received and apparent at the post-mortem examination as to whether the victim died quickly.
- Other medical experts may be better placed to make the assessment of survivability. However, their ability to do so will be reliant, at least in part, on the quality and depth of the original post-mortem examination and report.

The next step forward – Recommendation 3

In conducting a forensic post-mortem examination in a mass fatality incident where survivability is likely to be an issue, forensic pathologists should consider this as part of their examination of the body.

We therefore recommend that the Standards Committee of the Pathology Delivery Board consider this issue and amend the *Code of Practice and Performance Standards for Forensic Pathology in England, Wales and Northern Ireland*[2] accordingly.

To this end, the Pathology Delivery Board should form a consultation group of key stakeholders to consider what additional measures should be included in the Code of Practice. The consultation group should include forensic pathologists, a coroner, a representative from the Royal College of Pathologists, relevant medical experts in trauma and emergency medicine, and any other experts deemed appropriate.

The remit should be to consider the minimum standard and type of cross-sectional scanning of the body, and any additional steps to be taken by the forensic pathologist at the post-mortem examination. These additional steps may in turn enhance the assessment of survivability by both the forensic pathologist and other medical experts.

Key Action Area 4: Anticipating the requirements of any future disaster – moving to a new team approach

The problem: What we have found

- We have found that, for future disasters, greater assurance would be provided through the development of a different form of team: one comprising diverse specialists and led by a team leader designated in advance and not dependent upon the on-call arrangements.

The next step forward – Recommendation 4

The Pathology Delivery Board should consult on and develop a plan for a transition from the current model to a new team approach for forensic pathology, at least when faced with an incident involving multiple deaths. This new team approach should be implemented at a suitable point, when all the evidence is available following a post-mortem.

2 Home Office, The Forensic Science Regulator, Department of Justice and The Royal College of Pathologists, *Code of Practice and Performance Standards for Forensic Pathology in England, Wales and Northern Ireland*, October 2012, https://www.rcpath.org/static/5617496b-cd1a-4ce3-9ec8eabfb0db8f3a/Code-of-practice-and-performance-standards-for-forensic-pathology-in-England-Wales-and-Northern-Ireland.pdf

Key Action Area 5: Anticipating the requirements of any future disaster – building the pipeline

The problem: What we have found

- We can give a limited but not complete assurance that forensic pathology services will be able to meet the requirements presented by a future terrorist attack or other disaster. The pipeline of available forensic pathologists is not robust. The arrangements for calling in support from pathologists in other areas are too informal and would be tested by deaths on a large scale or across a wider area.
- There are currently 38 consultant forensic pathologists on the Home Office register, and a further 16 forensic pathologists covering Scotland and Northern Ireland. This number is likely to reduce significantly in the short to medium term – possibly by as many as eight practitioners within the next three years.

The next step forward – Recommendation 5

As a first step towards greater resilience, the number of forensic pathology trainees should be reinstated to eight from the current number of six. The pipeline of future forensic pathologists should be kept under review and the Home Secretary should be advised accordingly.

Key Action Area 6: The structure of forensic pathology

The problem: What we have found

- There are very many other public services that have commanded public attention and will continue to do so. Ordinarily, perhaps, it might not matter if by contrast forensic pathology continued to exist in the shadows, quietly carrying on as it has done over the years.
- However, conducting this review has shown that this would be a mistake. By looking again at Hillsborough and at more recent public tragedies, our work has revealed that there is a need for greater public understanding and focus on the nature of the way pathology is conducted.
- In the absence of public scrutiny, the organisation of forensic pathology flies under the radar. For example, the review conducted by Professor Peter Hutton[3] and published in 2015 remains unanswered over nine years later. It is not in our remit to make proposals for the fundamental review of the structure of the profession of forensic pathology. With this in mind, this report deliberately describes how the profession is currently structured in order to open up the service provided to public scrutiny.

3 Peter Hutton, *A Review of Forensic Pathology in England and Wales*, March 2015, https://assets.publishing.service.gov.uk/media/5a804f8ded915d74e622db6c/Hutton_Review_2015__2_.pdf

- One clear weakness is the absence of a central web-based IT system where all forensic post-mortem examinations could be held for the purpose of monitoring and management information. Currently, each group practice submits a quarterly spreadsheet containing basic information such as the number of forensic post-mortems conducted for each pathologist and each force. This information is collated and reported to the biannual Pathology Delivery Board.
- If all forensic post-mortems were registered on a web-based system, it would be possible to interrogate the system for national trends, such as knife crime and types of weapons currently being used. This management information could be used to advise law enforcement agencies on preventative action, as well as informing police and government policy.
- In addition to the obvious benefits of such a data set, the reports of each post-mortem examination could be anonymously sent to a colleague from a different group practice for double-checking. Currently, these "critical conclusion checks" are conducted by a colleague from the same group practice.
- With such an IT system, the Pathology Delivery Board (through the Forensic Pathology Unit within the Home Office) would have management statistics to assess whether some forensic pathologists were taking on too many or too few cases. An assessment could then be made as to whether police forces are being consistent in their decision-making.

The next step forward – Recommendation 6

In responding in due course to this review, the Government should take the opportunity to complete its analysis of the fundamental review of the structure of the profession submitted by Professor Hutton in 2015. In the meantime, the Pathology Delivery Board should take the steps identified in Recommendations 1 to 4 above. The Pathology Delivery Board should also develop a business case for a central web-based IT system.

Appendix A: Terms of Reference

Terms of Reference

Terms of Reference for the Review of the service provision of Forensic Pathology:

This document sets out the terms of reference for providing a response to the Hillsborough Inquiry 'The Patronising Disposition of Unaccountable Power: A Report to ensure the pain and suffering of the Hillsborough families is not repeated' 'Point of Learning' Recommendation 15.

The Pathology Delivery Board (PDB) will appoint an independent professional to conduct a review and submit a report to Ministers on the following issues identified in the above-named report (page 103):

1. Take heed of the failures in the pathology following the Hillsborough Disaster which were identified at the final inquests

2. Make an assessment as to whether there is a risk of the same failures occurring should there be another similar mass fatality event by reviewing similar mass fatality incidents that have occurred in the last ten years

3. Describe whether there are adequate safeguards currently in place in terms of clinical governance, revalidation as well as regulatory and managerial oversight of Home Office forensic pathology provision in England and Wales to respond to such mass fatality incidents;

4. Assess whether the process of accountability of practitioners is now sufficient and fit for purpose compared against the system in operation at the time of the original inquests, and;

5. Consider if there were any lessons learnt from the Hillsborough disaster which can be embedded into the continuous professional development of Home Office registered forensic pathologists and the wider provision of pathology services.

It is not intended that the review will expand its scope beyond the above issues into a fundamental review of the structure of the profession. This is in recognition that such a review has already been recently completed in 2015 by Professor Hutton. It should focus on examining the issues and failures identified at the final inquests, whilst recognising that it will want to take account of the review undertaken by Professor Hutton in 2015. It should also focus on any improvements which can be made to the current delivery model, and not be a re-investigation of the events on the day of and the days following the disaster.

Point of learning 15 – Pathology failures at the first inquests

It is difficult to overstate the impact of the failures of pathology at the first inquest.

The impact is deeply personal for those families who feel they will now never know how their loved one died, but it also has a wider resonance – leading as it did to the necessity for new inquest proceedings 25 years after the disaster occurred.

Given that impact, that there should be proper consideration of the potential for learning from the failings of the pathology evidence to the original inquests. A review should be commissioned by the Pathology Delivery Board, which oversees the provision of forensic pathology services in England and Wales and delivered independently. As well as reviewing how the evidence at the first inquests came to be misleading and why, the review should also consider whether there are adequate safeguards to prevent it happening again, including clinical governance and revalidation processes that are made more difficult by the small size of the subspecialty of forensic pathology and its distinctive employment mechanism. This review should also consider whether a process of accountability is appropriate in respect of the misleading evidence presented at the original inquests.

Finally, the review should consider how to embed the lessons from the Hillsborough experience in the continuous professional development training of pathologists.

Appendix B: Methodology – how we approached our Terms of Reference

B.1 There were four parts to the review. The first was to engage with the Hillsborough families, and the second to identify key stakeholders to approach to take evidence. The third part was to gain knowledge of the management of other mass fatality incidents, and the experiences of families in those incidents. Finally, a document review was undertaken to examine relevant information.

B.2 The review deliberately engaged first with the Hillsborough families to fully inform them of the purpose and aim of the review in accordance with the "families first" principle adopted by the Hillsborough Independent Panel. A series of engagement meetings was arranged and facilitated by solicitors representing the families. For this, we are extremely grateful both to the families who wanted to engage, and to their legal representatives for their assistance. We are also grateful to Bishop James Jones for helping to facilitate these meetings, and for attending a number of them.

B.3 In addition, interviews were conducted with a range of the professionals involved, including pathologists, coroners and the police. Semi-structured interviews were used to allow a free flow of information. As with family members, assurance was given that what was said would only be attributed to contributors by name with their permission.

B.4 The purpose of a number of the interviews was to establish whether similar issues were identified to those experienced by the Hillsborough families. This formed part of our assessment of what, if anything, had changed since the Hillsborough disaster in 1989.

B.5 Documentary evidence was examined with the assistance of the Independent Office for Police Conduct (IOPC), the investigation team involved in the criminal inquiries (Operation Resolve) and the National Archives.

B.6 This approach allowed the review team to triangulate available information and facilitated an evidence-based outcome to the report findings and recommendations.

Appendix C: The review team

Glenn Taylor, a retired forensic scientist and published author on forensic issues, who ran a local authority laboratory for many years and was intrinsically involved in the Coroner Service.

Supported by:

Dean Jones, a civil servant and academic in the Home Office Forensic Pathology Unit, which oversees the forensic pathology service for England and Wales.

Ken Sutton, a retired senior civil servant and former Secretary to the Hillsborough Independent Panel.

Ann Ridley, a retired civil servant with experience of working with families affected by public tragedy.

Neil Roberts, a retired Home Office civil servant, whose roles included 14 years working on the Hillsborough Stadium disaster.

Peter Burgin, an experienced investigator in the public sector, who has worked for many inquiries and investigations, including into the Hillsborough Stadium disaster.

The review also recognises and appreciates the contribution of Bishop James Jones KBE, who has been integral to our work. He chaired the Hillsborough Independent Panel, and his assistance with family engagement has been invaluable. Bishop James was not involved in the actual review as the review was independent.

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