Buried justice: A critical review into the cross-matching of unidentified bodies and missing persons reports in England and Wales

Tilley, E.

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Abstract

This thesis offers a pioneering critical review of the cross-matching of unidentified bodies and missing persons reports in England and Wales, bridging a crucial gap in academic research. Effective cross-matching is vital for resolving missing persons cases, providing resolution to bereaved families, aiding investigations, and facilitating legal proceedings. Despite its significance, the cross-matching process is underexplored in England and Wales due to limited research on its challenges and opportunities. Through gathering information from 40 police forces, 17 coroner areas, and 238 local authorities, the researcher comprehensively examined the end-to-end process regarding the treatment of unidentified bodies on a local, national, and international scale. The demographic characteristics associated with unidentified deceased individuals in England and Wales were analysed through data gathered from the UK Missing Persons Unit, covering cases of unidentified human remains in England and Wales over the 10-year period of 1 January 2010 to 31 December 2020. The data included a total of 528 cases, which comprised 455 solved cases (86%) and 73 unsolved cases (14%). Through nine interviews with police officers, coronial officers, families of missing persons, and other key contributors, the research explored opportunities to improve practice in order to improve the success rate of solving cases of people who die and remain unidentified after death.

Key findings include the uncovering of a system that means identifying the unidentified is extremely difficult and one which often employs methods (such as the cremation of human remains) which may make this impossible. A lack of national guidance has led to inconsistencies surrounding the management of information relating to unidentified bodies cases. Police forces, local authorities, and coroners use technological systems that lack effective search functions for unidentified bodies cases to be surfaced, and the lack of a naming convention for such cases creates a further hinderance. Of all the police forces in England and Wales, the Metropolitan Police Service and British Transport Police investigate the most unidentified bodies cases. Drawing from the findings, the thesis presents five recommendations to advance the field: a comprehensive audit of unidentified bodies cases in England and Wales, improving practice relating to method of disposal, enhancing existing guidance, updating classification systems, and fostering collaborative networks for sharing best practices - ultimately driving transformative progress in the realm of unidentified bodies and missing persons over the next one to five years.

Contents

Acronyms

AM: Antemortem

APP: Authorised Professional Practice

DNA: Deoxyribonucleic acid

DPA: Data Protection Act 2018

DVI: Disaster victim identification

EU: European Union

FASTID: FAST and efficient international disaster victim Identification

FOIA: Freedom of Information Act 2000

GDPR: General Data Protection Regulation

Interpol: The International Criminal Police Organization

LACO: Local Authorities' Cemeteries Order 1977

mtDNA: Mitochondrial DNA

MPDD: Missing Persons DNA Database

NDNAD: National DNA Database

NHS: National Health Service

OIC: Officer in case

PHA: Public Health (Control of Disease) Act 1984

PNC: Police National Computer

PND: Police National Database

PM: Postmortem

UK: United Kingdom

Glossary

Antemortem (AM): Before death.

Authorised Professional Practice (APP): Operational guidance on how to deal with different types of crime or incidents, provided by the College of Policing to support those working across policing in England and Wales.

Cold case: An unsolved criminal investigation which remains open pending the discovery of new evidence.

College of Policing: A professional body for those working across policing in England and Wales which is an operationally independent arm's-length body of the Home Office.

Coroner: A government official who is empowered to conduct or order an inquest into the manner or cause of death, and to investigate or confirm the identity of an unknown person who has been found dead within the coroner's jurisdiction.

Deoxyribonucleic acid (DNA): A large, complex molecule that allows cells to function and carries the genetic code that determines the traits of a living organism.

Disaster victim identification (DVI): The internationally accepted term for the processes and procedures for recovering and identifying human remains in multiple fatality incidents, either man-made or natural.

European Union (EU): The European Union is an economic and political union between 27 EU countries.

FAST and efficient international disaster victim IDentification (FASTID): EU-funded research project which developed an international database for automatic cross-matching of missing persons and unidentified bodies.

Home Office: A ministerial department of the Government of the UK responsible for immigration, security, and law and order.

IDENT1: The UK's central national database for holding, searching, and comparing biometric information on those who come into contact with the police as detainees after being arrested.

Local authority: An organisation that is officially responsible for all the public services and facilities in a particular area. Also known as a council.

Missing person: Anyone whose whereabouts cannot be established is considered as missing until located, and their well-being or otherwise confirmed.

Mitochondrions: An organelle in the cytoplasm of cells that functions in energy production.

Mitochondrial DNA (mtDNA): DNA found in mitochondria, which contains some structural genes and is generally inherited only through the female line.

National Crime Agency (NCA): A national law enforcement agency in the UK which is the lead agency working against serious and organised crime; human, weapon, and drug

trafficking; cybercrime; and economic crime that goes across regional and international borders.

National DNA Database (NDNAD): A database established in the UK in 1995 that holds electronic records of DNA, taken from individuals and crime scenes, and provides the police with matches linking an individual to a crime scene or a crime scene to another crime scene.

Missing Persons DNA Database (MPDD): A UK database containing DNA profile records of missing persons, relatives of missing persons (where a reference DNA profile is not available for the missing person), unidentified bodies and some crime stain DNA profile records that may be linked to missing persons or unidentified bodies (e.g. no-body murder case).

Police National Computer (PNC): The system that stores and shares criminal records information across the UK.

Police National Database (PND): The UK's national information management system that improves the ability of the police service to manage and share intelligence and other operational information, to prevent and detect crime and make communities safer.

Post-mortem (PM): After death.

Public health funeral: Public health funerals are provided by local authorities for people who have died and have no next of kin, or when next of kin, relatives or friends are unable or unwilling to make the necessary arrangements for a funeral.

The International Criminal Police Organization (Interpol): An international organisation that facilitates worldwide police cooperation and crime control.

UK Missing Persons Unit: The UK's national and international point of contact for all missing person and unidentified body cases, part of the National Crime Agency.

Unidentified bodies: The term used to describe people who have died, and their identities cannot be established by police and medical examiners.

United Kingdom (UK): The United Kingdom, made up of England, Scotland, Wales, and Northern Ireland, is an island nation in Europe.

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CHAPTER ONE: INTRODUCTION

1.1 Introduction

On a summer's day in 1992, a woman's body was found in the river 'Groot Schijn' in Belgium. She had been murdered. Her most distinguishing physical feature was a flower tattoo with 'R'Nick' written underneath. For three decades, she remained unidentified after death. In 2023, Interpol launched their public appeal Operation Identify Me' to identify 22 women believed to have been murdered in Belgium, Germany, and The Netherlands, but whose identity was never discovered (Interpol, 2023a). Several days after the launch of Operation Identify Me, a family member in the United Kingdom recognised the tattoo on the news and notified authorities. They believed she had moved to Belgium from Wales in February 1992 and had last been heard from via a postcard in May 1992. In November 2023 authorities announced her formal identification, Rita Roberts, 31 years old, from the United Kingdom (Interpol, 2023b). This situation demonstrates the importance of effective cross-matching, perseverance, cross-border co-operation, and the declaration in international law that families have the right to know the fate of missing loved one (International Commission on Missing Persons, 2024).

This study will provide the first ever critical review into the cross-matching of unidentified bodies and missing persons reports in England and Wales. Cross-matching refers to the process of comparing details from unidentified bodies, such as physical characteristics, DNA, or dental records, with information from missing persons reports to identify potential matches. While cross-matching focuses specifically on comparing information between unidentified bodies and missing persons reports to establish potential matches, forensic human identification is a broader process that involves scientifically determining the identity of an individual through methods such as DNA analysis, fingerprinting, dental records, or facial reconstruction, which can be applied in various contexts beyond just matching to missing persons cases (e.g., mass disasters, criminal investigations, or historical remains). The effective cross-matching of unidentified bodies and missing persons reports is vital for providing answers to families of missing persons. It also prevents people from being laid to rest nameless, aids criminal investigations, and allows civil procedures to be completed. There is an evident paucity of research into the obstacles and opportunities associated with the cross-matching process. In fact, there is currently no academic literature in relation to who dies and remains unidentified after death in England and Wales. Furthermore, little information is available in the public domain about the end-to-end process for unidentified bodies on a local, national, and

international level. Therefore, this thesis will bridge these gaps and produce recommendations for the treatment of unidentified bodies in England and Wales.

1.2 Aims, objectives, and research questions

Aims:

- To critically review, and suggest improvements in, the cross-matching process of unidentified bodies and missing persons reports in England and Wales.

Objectives:

- To identify how information about unidentified bodies is obtained, recorded, stored, reviewed, cross-matched, deleted and shared on a local, national, and international level;
- To examine who dies and remains unidentified after death in England and Wales;
- To understand the obstacles and opportunities concerning the cross-matching process;
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Research questions:

- What is the end-to-end process for the treatment of unidentified bodies on a local, national, and international level?
- How can the management of information for cases of unidentified bodies be improved?
- What are the demographic characteristics associated with those who remain unidentified after death in England and Wales?
- Do the rates of unidentified deaths vary geographically, situationally, or over time?
- What learning can be taken from solved cases of unidentified bodies to inform police, coronial, and local authority practice?

1.3 Thesis outline

Chapter One provides the *Introduction* to this thesis which explains the nature of the problem and includes the aims, objectives, and research questions.

Chapter Two examines the literature relating to missing persons, unidentified bodies, human identification, databases used to cross-match the missing and unidentified, and the characteristics associated with people who die and remain unidentified after death.

Chapter Three explains the *Methodology* and examines how the data for this thesis was collected and analysed.

Chapter Four is *Study One* and explores the findings from the requests for information made to 43 police forces, 85 coroner's areas, and 355 local authorities in England and Wales. This answers the research questions; "What is the end-to-end process of the treatment of unidentified bodies on a local, national, and international level?" and "How can the management of information for cases of unidentified bodies be improved?"

Chapter Five is *Study Two* and discusses the findings of the data collection and analysis from the UK Missing Persons Unit relating to a decade's solved and unsolved cases of unidentified bodies in England and Wales. This answers the research questions; "What are the demographic characteristics associated with those who remain unidentified after death in England and Wales?", "Do the rates of unidentified deaths vary geographically, situationally, or over time?", and "What learning can be taken from solved cases of unidentified bodies to inform police, coronial, and local authority practice?"

Chapter Six is *Study Three* and examines the results of the in-depth qualitative semi-structured interviews with individuals related to the topic of missing persons. This included individuals who have a long-term missing family member (n=2), individuals from police forces with specialist units focused on solving unidentified bodies (n=3), coroners' services (n=2), a senior forensic practitioner (n=1), and the UK Missing Persons Unit (n=1). This answers the research questions "What are the main challenges and opportunities associated with the cross-matching process?" and "What learning can be taken from solved unidentified cases to improve police, coronial, and local authority practice?"

Chapter Seven sets out the *Discussion* and lays out the findings relative to the research questions, connecting the contributions of each study chapter to provide an overall picture. Limitations are explored. The research questions are revisited, and recommendations are made concerning the treatment of unidentified bodies in England and Wales.

Chapter Eight provides the *Conclusion* which details the overall research contribution, implications for future research, and ends with concluding comments.

CHAPTER TWO: LITERATURE REVIEW

> *"Poignantly, whilst families desperately want to find their missing loved one safe and well, they often report that the discovery of a body would be a better outcome than never finding out the fate of their relative… Any delays in cross-matching leave families in this fraught state. It is therefore very important that processes are completed expediently, accurately, and at regular intervals."*
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> *(Missing People, n.d., p. 2)*

2.1 Introduction

Although research into missing persons is increasing, there are relatively few studies focused on the treatment of unidentified bodies and how successful cross-matching could aid missing persons investigations. This literature review provides a critical examination of the existing research surrounding unidentified bodies and highlights the areas where further scholarly attention is required. To provide context, there is an inspection of the concept of 'missing', the process of missing persons investigations, and the impact on families of missing people. Local and national perspectives are then explored with a particular focus on literature concerning the process and procedure for the treatment of unidentified bodies in England and Wales. The following section of the literature review centres on human identification and the context, methods, and challenges involved with identifying the dead. Next, the use of databases to cross-match the missing and the found is examined through a European lens. The penultimate section provides an overview of the research already conducted into unidentified migrant deaths and inspects the human cost of border control, conflict, and the hope for a better life. Finally, the literature is set out surrounding those who remain unidentified after death across the world, to establish global perspectives and considerations.

2.2 Missing people: Defining 'missing', missing person investigations in England and Wales, and the impact on those left behind

People go missing every day. The College of Policing (2021, online) explains the term missing as *"anyone whose whereabouts cannot be established will be considered as missing until located, and their well-being or otherwise confirmed"*. During the 2021/22 financial year, police in England and Wales recorded a total of 294,220 missing incidents (UK Missing Persons Unit, 2023a). Most of these incidents were resolved within 48 hours of being reported missing, specifically 90.6% at 48 hours for missing children and 86.7% at 48 hours for missing adults (UK Missing Persons Unit, 2023b). However, a small number of incidents remain

unresolved, and unsolved, for the long-term. In England and Wales, there are 4,521 long-term missing individuals (UK Missing Persons Unit, 2023a). These people were reported missing prior to 1 April 2021 and were still missing on 31 March 2022. Some of these people will have been missing for many years or even several decades. Some will have died and for whatever reason, remain undiscovered or discovered but unidentified.

When a report is made about a person whose whereabouts are unknown, police forces in England and Wales can refer to the College of Policing's (2021) Missing Persons Authorised Professional Practice (APP). The purpose of the Missing Persons APP is to set out guidelines to ensure that cases of missing persons are investigated effectively and are supported by appropriate management structures (College of Policing, 2021). The Missing Persons APP illustrates that a missing person report should be treated as an indicator that the individual may be at risk of harm. It is important to acknowledge that each of the police forces in England and Wales have their own policies and structures. Therefore, APP and similar guidance is designed to encourage a cohesive approach. According to the Missing Persons APP, if the missing person is vulnerable, then safeguarding measures are paramount alongside identifying and addressing risks in relation to the missing person. A person may be considered vulnerable if they have a disability or illness, are a looked after child or at risk of exploitation, or have any other protected characteristic defined by the Equality Act 2010 which may require a particular response or consideration. As described in the Missing Persons APP, "*the reasons for a person deciding to go missing may be complex and linked to a variety of social or family issues*" (College of Policing, 2021, online). Despite this position, which implies an element of choice, it is important to note that some people do not "decide" to go missing, they instead may have come to harm or died and remained undiscovered.

According to the Missing Persons APP, three key factors should be considered in a missing person investigation: protecting those at risk of harm, minimising distress by ensuring high quality of service to the families of missing persons and prosecuting those who perpetrate harm or pose a risk of harm when this is appropriate and supported by evidence (College of Policing, 2021, online). Furthermore, alongside the wealth of detailed guidance, four minimum actions should be taken as an initial response to all missing person reports (College of Policing, 2021, online). These four actions are explained as follows: the incident will be recorded, a risk assessment will be conducted, an agreement will be made on the initial steps which should be

taken to trace the missing person, and a time will be set to review the decisions which have been taken.

The police do not investigate missing persons reports alone. Depending on the circumstances, investigations might involve co-operation with a myriad of other persons and partners such as the public, local authority, coroner, Department for Work and Persons, media, charities, Interpol, Border Force, and the UK Missing Persons Unit. The public may be interviewed as witnesses, the local authority might provide social services information, for example, relating to a looked after child who is missing, and the coroner may be requested to check any unidentified bodies cases within their jurisdiction. Media and charities might support with raising awareness of the case. Media interest in high-profile missing persons cases such as Madeleine McCann, alongside the lobbying of charities and other agencies such as Missing People, has meant that going missing is now recognised as a high-priority issue with far-reaching consequences (Apps *et al.*, 2014). Government agencies such as Interpol and Border Force may be approached to assist with international enquiries, and the UK Missing Persons Unit will be able to provide support and advice to police forces and search their central national database of missing persons and unidentified cases. However, each missing persons investigation is unique and will be treated as such. Due to the number of missing persons reports received every day, police actions and resources must be directed in the most effective way to keep people safe and prevent crime. This means prioritising activity so that the most intensive work addresses the needs of those missing people who are assessed as being at the greatest risk of harm (College of Policing, 2021, online).

The immense impact on the families of those reported missing is difficult to comprehend. Boss (1999, p. 26) describes the *"ambiguous loss"* experienced by families of missing persons as fluctuating between hope and hopelessness, making it impossible to move on. Boss notes that ambiguous loss is the most difficult loss people can face and describes the need for "*the concrete experience of seeing the body of a loved one who has died because it makes loss real"*. There is a range of literature which provides an insight into the experiences of those left behind (Holmes, 2008; An Garda Síochána, 2009; Holmes, 2016; Parr *et al.*, 2016; Wayland *et al.,* 2016; Dartnall *et al.*, 2019, Puerto *et al.*, 2021). The impact is devastating, and the emotional, social, financial, legal, and other detrimental tolls are not alleviated by the passage of time. As noted by Puerto *et al.* (2021) most families will continue to search for their loved one until all avenues have been explored and until they receive authoritative and reliable information on

their whereabouts and/or fate. One example of the trauma faced by families of missing people is illustrated by the disappearance of 23-year-old Denis Walsh Jnr, who was last seen leaving his home in Caherdavinon, Ireland in March 1996. Unbeknownst to loved ones, Denis' partial remains were discovered four weeks later on Inis Mór, the largest of the Aran Islands of County Galway, off the west coast of Ireland. Denis' partial remains were kept in a hospital mortuary for 18 years before being buried in a communal council grave in 2014 shared with other unidentified bodies and remains in Bohermore, County Galway. Denis' partial remains were exhumed in 2021 after a DNA breakthrough identified him (Raleigh, 2021). Many unanswered questions remain as to why 25 years passed before An Garda Síochána made the connection between the missing person report and the discovery of remains. This case is one of many which highlights the suffering experienced by families of missing persons and provides a stark reminder of the importance of effective cross-matching.

According to the College of Policing's Missing Persons APP, a police Family Liaison Officer (FLO) may be assigned to support a family, and their primary purpose would be to assist the Senior Investigating Officer (SIO) with the exchange of information between the SIO and the family members (College of Policing, 2021). Although, of concern is the explanation that FLOs are not routinely assigned to enquiries into missing persons (College of Policing, 2021, online). In the absence of support provided by the police force investigating the missing person report, families may consider support available from charities such as Missing People. Such support is available from the time someone is suspected to be missing until after the person has been found. Should a missing person be found dead, charities such as Missing People can help families with coronial proceedings. However, the extent of support available will be varied based on the funding and resources available at such charities at the time of the enquiry. Dartnall *et al.* (2019) analysed the experiences of 15 family members and friends during a coronial investigation into the suspected death of a missing person in New South Wales (NSW), Australia. The study used in-depth interviews to explore participant perceptions of the impact of coronial proceedings on well-being, and views on best practice approaches to families in the Coroner's Court (Dartnall , 2019). Wayland *et al.* (2016) conducted a literature review exploring missing persons, hope, and ambiguous loss. They discovered the need for "*further research that maps the longer-term impact [on loved ones] of being left behind*" (Wayland *et al.*, 2016, p. 59). Similarly, Parr *et al.*'s (2016) paper considered "*what emotive actions accumulate in the space of absence for the people left behind in which UK families were*

interviewed about their experience of living with the absence of, and search for, their missing person" (p. 66).

Focusing on UK people who go missing abroad, Shalev Greene and Collie (2021) acknowledged the larger scale and duration of missing abroad cases and the implications of this for the welfare of missing person's families. A 2011 UK inquiry into support for families of missing people resulted in a report from which several recommendations emerged. As part of this inquiry, Holly Towell of the charity Missing People stated "*cross-matching is one part of the big jigsaw which a lot of families come to us for clarification on, and we would dearly love to be able to give them more information on it, but the information is not really publicly out there*" (All-Party Parliamentary Group for Runaway and Missing Children and Adults, 2011, p. 17). Such literature demonstrates some insight into the experiences of families of missing persons, however much of the literature is outdated. Furthermore, it is impossible to fully comprehend how families of missing persons feel without having personal experience of going through such an ordeal. A major challenge in unidentified bodies and long-term missing persons cases is the ineffective and inconsistent communication from the investigating police force. This will be explored further during Study Three.

It is important to note however, that not everyone has the benefit of loved ones who care sufficiently about them to raise the alarm when they go missing. Some of the deceased individuals who are buried or cremated unidentified, may not have been reported missing at all. As Black (2018) notes "*the idea that for every unidentified body there will always be a corresponding report of a missing person, and all we need to do is connect the two, is a vast oversimplification of reality*" (p. 168). The unidentified person may have lived an isolated or transient life, and no one realised they were missing. Whereas, a report may have been made but within a different police force area to where the body was found, in a different country or "*may have been recorded many years before, archived and forgotten*" (Black, 2018, p. 168). Such circumstances and complexities by their very nature make cases of unidentified bodies a significant challenge for police forces and coroners alike. Furthermore, there may be inequalities in missing persons investigations which impact on prioritisation and time and resource investment, and as such impact on the likelihood of the investigations being solved. For example, when a misinterpretation is made about whether someone is living or dead or when inequality is evident based on race, sex, and other protected characteristics. These are all factors in how the police prioritise investigations.

2.3 Local and national perspectives: Process and procedure for unidentified bodies cases in England and Wales

When a body or remains are discovered the police are usually the first to respond. The initial police investigation will seek to identify the deceased and whether there are any suspicious circumstances surrounding the death. It is the duty of the police "*to treat unidentified deceased cases as suspicious until it can be proven otherwise*" (Apps *et al.*, 2014, p. 11). If there is an absence of suspicion surrounding the death, the primary responsibility for investigation shifts to the coroner, along with decisions concerning the collection of DNA samples and fingerprints (Apps *et al.*, 2014). Section 5 of Coroners and Justice Act 2009 stipulates that the coroner has the ultimate responsibility to ascertain the identity of the deceased. As acknowledged by Burgess (2014) however, despite guidelines and legislative Acts "*to ensure this process that is undertaken to exacting standards, in reality, it is complicated by the nature and location of the death event*" (p. 33). For example, the remains of the person who died may have been found a substantial time after death, washed ashore from a neighbouring country, or in a remote or concealed location. In contrast, the remains may have been discovered many decades ago, buried or cremated prior to advances in forensic identification techniques and before records by the police, coroner and local authorities were routinely archived or digitalised. This presents difficulties and although the legal duty to identify the deceased rests with coroner "*there is no guidance outlining how these independent judicial office holders should fulfil this obligation*" and "*whilst the police acknowledge they have a duty to support coroners in this function, this is not a legal duty*" (Missing People, n.d., p. 3). At present, the lack of agreed standards in relation to the processing of unidentified bodies leads to uncertainty. There is an absence of reflective or evaluative work taking place. Little is known about how to overcome the challenges presented during the end-to-end process for the treatment of unidentified bodies in England and Wales. Without any doubt, such an exercise is much needed and will be provided through this thesis.

In addition to notifying the coroner, the police are requested to send a report to the UK Missing Persons Unit within 48 hours of the discovery of an unidentified body or remains (College of Policing, 2021, online). This is to assist major crime investigations and to help bring closure to the families of missing people (College of Policing, 2021, online). This is echoed within the National Police Improvement Agency's (NPIA) (2009) Code of Practice on the Collection of Missing Persons Data. However, this guidance is outdated and the NPIA was dissolved in 2013.

The UK Missing Persons Unit, more widely known as the UK Missing Persons Bureau, is the department within the National Crime Agency that has the operational responsibility to cross-match the missing and the found. They rely on submissions of information about unidentified bodies and remains made under the Code of Practice by police forces, coroners, and overseas law enforcement agencies. Consequently "*the division of the legal duty to identify from the operational responsibility to cross-match, creates an unclear picture as to where overarching leadership, coordination and accountability for cross-matching sits*" (Missing People, n.d., p. 3). The UK Missing Persons Unit stores the information it receives on its Hermes database, and uses it, together with details of missing persons reports, to attempt to cross-match the missing and the found (UK Missing Persons Unit, 2023a). As the charity Missing People (n.d.) notes, the process of cross-matching relies on these two data sets and the completeness and accuracy of these data sets impacts the number of matches made (Missing People, n.d., p. 3). The UK Missing Persons Unit maintains a website where details of unidentified cases are displayed "*to allow members of the public, police, or other relevant agencies to review them and suggest possible identities*" (Apps *et al.*, 2014, p. 14). However, there is a noticeable lack of information available in the public domain about how the cross-matching process is undertaken.

The limited available information appears to be accessed by police officers within the College of Policing's Missing Persons APP. The Missing Persons APP links to a 15 page "Procedural Advice" good practice document that was published over a decade ago. According to the description, the document is intended to be used by police officers and staff involved in the identification process following the discovery of an unidentified body or human remains. Advice is given that "*every case should be treated as suspicious until all investigative avenues have been exhausted and it is established that there are no suspicious circumstances*" (National Crime Agency, 2010). The document presents a single case study and leaves out any detail on whether any significant contributory factors exist within solved unidentified bodies cases. The UK Missing Persons Unit has also established a process for storing the fingerprints from unidentified remains within an ad hoc collection on IDENT1, the UK's National Fingerprint Database (Apps *et al.*, 2014). Again, little is known about the success of this initiative, and this will be addressed during the interviews conducted within the study.

Of the 43 police forces in England and Wales, all but one (Wiltshire Police) has outstanding unidentified bodies cases (UK Missing Persons Unit, 2023b). Every year "*some of these will*

be buried without their given names, unbeknownst to their families and friends, because the investigative authorities have been unable to establish who they were in life" (Black, 2018, p. 169). As of 31 March 2022, there were a total of 797 outstanding unidentified bodies or body parts cases recorded on the Hermes database from across England and Wales; this included 669 bodies and 128 partial remains (UK Missing Persons Unit, 2023b). The UK Missing Persons Unit (2023a) states that their records date back to the 1950s and many of the unresolved cases are historic, involving unidentified remains that were located prior to DNA technology being established. DNA samples from unidentified bodies are held on the National Missing Persons DNA Database (MPDD). Recognised in 2010 and separate from the National DNA Database (NDNAD), the MPDD is "*a collection of DNA profiles from: missing people, their close relatives, unidentified people or human remains*" (UK Missing Persons Unit, n.d., p. 3). During the 2011 parliamentary inquiry session into cross-matching unidentified bodies and missing persons reports, the families of missing people shared their experiences (All-Party Parliamentary Group for Runaway and Missing Children and Adults, 2011b). The sister of missing man recalled "*there was no initiative on the part of the police at all. I myself contacted coroners… I found toiletries and just approached the police myself… and they took a full DNA profile… so it was all done on my part*" (All-Party Parliamentary Group for Runaway and Missing Children and Adults, 2011, p. 16). There is a lack of publicly available information about the scale of the MPDD database, featured cases, and its overall impact. This thesis addresses this issue via data collection from, and interviews with, the UK Missing Persons Unit. In addition to records being made on the MPDD, when "*a full (or near complete) body has been recovered, police should enter descriptive details on to the Police National Computer as soon as possible, enabling other forces across the country to search for details of these cases for comparison with their outstanding missing persons*" (Apps *et al.*, 2014, p. 12). It is not clear how often this is completed in practice. This is examined during this study through the analysis of data collected from the requests for information made to police forces in England and Wales.

In the event the deceased remains unidentified, a public health funeral will take place. Section 46 of the Public Health (Control of Disease) Act 1984 places a statutory duty on local authorities to provide public health funerals. A burial or cremation will be arranged for "*people who have passed away and have no next of kin, or those whose next of kin, relatives or friends are unable or unwilling to make the necessary arrangements for a funeral*" (Ministry of Housing, Communities and Local Government, 2020). The Ministry of Housing, Communities and Local Government also states that comprehensive records should be kept for all public

health funerals and recommends that the deceased records be maintained for a minimum of 10 years (2020). Cases of unidentified bodies are not specifically mentioned within public health funerals guidance and so it is unclear whether such records should be treated the same. Furthermore, there is an absence of guidance that directs whether unidentified bodies should be buried or cremated, and which agency should record this information. Therefore, there is a no national database which police forces, coroners, or local authorities can search to find the location of unidentified remains.

In 2021, the Church of England commenced a project to create a free digital map of every grave in every churchyard in the country which will total 19,000 Anglican burial grounds (Church of England, 2021). This is a lengthy project, anticipated to take several years to complete, and should provide useful insights for investigators interested in unidentified bodies and remains cases. Furthermore, the Law Commission for England and Wales is due to review the laws governing burials and cremations in their upcoming consultation entitled "Rights and Obligations Relating to Funerary Methods, Funerals and Remains" (Law Commission for England and Wales, 2024). This will include the creation of a regulatory framework for safe and dignified new processes. It will also consider the legal status of a person's wishes about what happens to their body following death as well as the rules governing who else has the right to make decisions about disposal of the deceased's body (Law Commission for England and Wales, 2023). This is a timely opportunity for the findings of this thesis to be used to contribute to changes and improvements to the laws surrounding burials and cremations of people who die and remain unidentified.

In 2010, the Local Government Association conducted a study into the scale of public health funerals in England and Wales. A survey was sent to 348 Heads of Environmental Health in England and Wales to collect data on the number of public health funerals undertaken for the financial years 2007/08 to 2008/09 and 2009/10. Responses were received from 60% of the contacted individuals. This study revealed that the number of public health funerals held by local authorities had remained broadly consistent across the three financial years (2007/8 to 2009/10) with, on average, 12 public health funerals happening per year in English single tier authorities (London boroughs, metropolitan, and unitary councils) and three in districts and Welsh authorities. There was a clear variation in the number of public health funerals conducted, particularly within English single tier authorities, with five authorities conducting between 57 and 258 funerals. Public health funerals occurred three times more frequently for

males than for females. Funerals for individuals aged over 65 years accounted for over half of all public health funerals. (Local Government Association, 2010, p. 2). The main weakness of this study was the absence of statistics surrounding how many public health funerals were conducted for unidentified individuals. Such statistics are not published by any agency in England and Wales. Therefore, the scale of the problem remains unclear. This will be explored through the analysis of data collected via the requests for information made to local authorities in England and Wales. Overall, it is evident that the treatment of unidentified bodies in England and Wales involves a multi-agency response. However, further investigation is needed to ascertain how information surrounding unidentified bodies can be most effectively managed in a unified way.

2.4 Human identification: Context, methods, and challenges involved in identifying the dead

There is a range of academic literature about forensic identification methods and the practice of human identification (Blank-Reid and Kaplan, 1996; Thompson and Black, 2007; Kogon *et al.*, 2010; Budowle *et al.*, 2011, Mallet et. al, 2014; Morewitz and Sturdy Colls, 2016; Wiersema et. al, 2016, Blessing and Lin, 2018; Caplova *et al.*, 2018; Nuzzolese, 2018; Stokes, 2019; Parra, Zapico and Ubelaker, 2020; Semma Tamayo, 2020; Blau *et al.*, 2021; Davawala *et al.*, 2022; Dahal *et al.*, 2023). For the purposes of this part of the literature review, the focus will be on the context, methods, and challenges involved in identifying the dead. As mentioned previously, while cross-matching focuses specifically on comparing information between unidentified bodies and missing persons reports to establish potential matches, forensic human identification is a broader process that involves scientifically determining the identity of an individual through methods such as DNA analysis, fingerprinting, dental records, or facial reconstruction, which can be applied in various contexts beyond just matching to missing persons cases (e.g., mass disasters, criminal investigations, or historical remains).

According to Thompson and Black (2007), there are three circumstances for which there tends to be a requirement to establish the identity of the deceased. The first is criminal investigations resulting from an unexplained natural death, homicide, or suicide in which the identity of the deceased has not been assigned. The second is accidents and mass disaster incidents, whether because of human intervention or mother nature, either accidental or intentional. In this category, "*the Interpol resolution on DVI [Disaster Victim Identification] recommended to all 184 member countries that they should adopt a common recording format, and establish, where*

possible, a DVI team, thereby facilitating international cooperation and information sharing" (Thompson and Black, 2007, n.p.). The final category is described as war crimes and genocide. Due to this thesis being focused largely on England and Wales, the first category is the most relevant to the research.

Forensic anthropologists have long made the core contribution to the identification of human remains in death investigations. According to Wiersema (2016), the "*array and scientific robusticity of the identification methods employed by the anthropologist has evolved in the last several decades, and as with other non-identification methods, anthropologists have embraced the progression toward the use of validated and statistically defensible methods for identification*" (p. 361). In outdated guidance, the National Crime Agency (2010) advises of the primary identification methods as being: "*DNA, fingerprints, odontology or uniquely numbered surgical implants*". In the UK, these primary identification methods can stand alone for identification purposes. The National Crime Agency (2010) also outlines secondary identification methods as including aspects such as the identification of jewellery, personal effects, distinctive clothing, marks, scars, tattoos and includes comparison of x-rays, physical disease, blood grouping or tissue identification. Whereas supportive identification methods are described as comparison of photographs, descriptions, clothing, and where the body was located (National Crime Agency, 2010). They explain how two examples from the secondary category are required for an identification to be established and the supportive category should only be used to support the other categories unless no other option is available. A caveat is provided that there may be occasions when the identity of the deceased is satisfactorily concluded on the balance of probability (National Crime Agency, 2010).

Visual identification is a method involving family or friends viewing a body at a mortuary to see whether they recognise the deceased to be their relative or friend (Hill, 2007). According to the National Crime Agency (2010), the use of visual identification as a primary means for identification is not sufficiently reliable, especially if the body is decomposed, injuries are present, or the body was found in water. In their procedural advice for police officers and staff involved in the identification of unidentified bodies and remains, they set out a detailed case study warning of the risks associated with visual identifications. They described that in January 2003 a man was found deceased in Manchester and the subsequent investigation identified a 67-year-old man, John Delaney, who had been reported missing from a nearby hostel in April 2000 and who matched the description. The identification was made through medical

similarities and John's family were informed. No DNA, fingerprints, or odontology were obtained. The man's body was cremated. However, five years later in May 2008 the 'Missing Live' programme featured the details of an elderly man who had been found in Oldham in May 2000 wandering around disoriented. He was unable to recall his name and had been living in a local care home under the name David Harrison. This television appeal was seen by John Renehan who made contact in the belief that the man was his father, John Delaney. DNA analysis established that this was John Renehan's father and not the deceased individual whose body has been cremated.

International case studies further demonstrate the risks associated with the reliance on visual identification. For example, in the 2002 Bali bombings, which occurred in the tourist district of Kuta on the Indonesian island of Bali, the attack claimed the lives of 202 people and a further 209 people were injured. According to Lain *et al.* (2003) more than 60% of victims of all nationalities were identified using dental evidence within three weeks of the incident and the majority of the later identifications made were based primarily on DNA evidence. However, of the "18 victims who had been 'identified' visually by families, nine were shown to have been identified incorrectly" (Lain *et al.*, 2003, pp. 363-364). Consequently, if bodies had been released following the visual identifications, there might have been possibly up to 36 families, whose child or parent was never identified and never able to be returned (Lain *et al.*, 2003). Such occurrences would have far-reaching consequences and so these case studies provide significant opportunities for learning to improve practice.

As explained by Interpol's DVI Ridgeology Sub-Working Group (2019) globally, new fingerprint systems and databases are introduced every year for border control screening, government identification purposes, and other various background and security vetting checks, even within the private sector. Identification using fingerprints is one of *"only three primary identifiers according to the internationally recognised and accepted Interpol Disaster Victim Identification standard"* (fingerprints, DNA, odontology) which are required in many countries to confirm a legal identification and issue a death certificate (p. 1). The Sub-Working Group noted that the availability of a reference fingerprint record taken from the person while still alive, known as antemortem records, was key to successful DVI operations. However, increasing difficulties were reported to have been being faced when making requests for obtaining fingerprint records due to the growing complications of data privacy protection such as the EU General Data Protection Regulation (GDPR). The Sub-Working Group therefore

made a call to policy makers to *"take into account humanitarian needs when controlling this data"* (Interpol DVI Ridgeology Sub-Working Group, 2019, p. 1). The delicate relationship between policy and procedure is further demonstrated by the College of Policing's (2021, online) *Missing Persons APP which states a warning at the very beginning of the guidance that "implications for the UK leaving the European Union are currently under review – please see APP on international investigation for latest available detail on specific areas, for example: Schengen Information System, Europol, Interpol and Joint Investigation Teams"*. This further demonstrates the complexities of the international elements of investigations into both missing persons and unidentified bodies cases. However, recent news in the EU has presented positive progress for unidentified bodies and missing persons cases. In February 2024, AMBER Alert Europe, the European Centre for Missing Children, announced the successful adoption of the Prüm II regulation by the European Parliament, specifically the inclusion of missing persons (AMBER Alert Europe, 2024a, online). This marks a significant step forward to protect and find the missing. AMBER Alert Europe (2024a, online) stated *"Prüm II now facilitates the automated search and comparison of DNA profiles, dactyloscopic data, and other critical information, enhancing law enforcement agencies' ability to search for missing persons and identify unidentified human remains promptly and cohesively."*

When exploring the primary identification method of odontology, Nuzzolese (2018) argues that there is an evident failure to routinely employ forensic odontologists which results in delays to positive identifications. Forensic odontologists can play a significant role the process of human identification. They do this by examining the dental remains of the unidentified deceased individual and making a comparison with the dental records held relating to the individual they are suspected to be. As mentioned, the National Crime Agency's position is that odontology is reliable as a primary identification method. However, past research from Hardy (2007) argued that odontology should *"never be considered in isolation from all the other methods that will be used in an attempt to identify the deceased"* (p. 197). This illustrates the advances in techniques and technology due to the passage of time. It also highlights the differing opinions relating to the reliability of and confidence in the varying identification methods and serves as a reminder of the challenges and grey areas encountered in such cases.

DNA is a primary identification method used successfully on a global scale to identify large numbers of missing persons and unidentified bodies resulting from armed conflicts, human rights abuses and natural or man-made disasters. According to Wagner (2008) innovative DNA

technology was developed to identify the remains of the estimated 8,000 men and boys killed in the 1995 Srebrenica massacre in Bosnia and Herzegovina. Borne out of the tragedy that happened in Bosnia-Herzegovina, the International Commission on Missing Persons (ICMP) has developed the most advanced DNA matching process in the world. ICMP contribution in the former Yugoslavia has led to the *"unprecedented achievement of accounting for more than 27,000 (70%) of the 40,000 persons reported missing as a result of the conflict (the vast majority of cases being in Bosnia and Herzegovina, where more than 30,000 persons were missing)"* (2023). However, DNA is not without its limitations. According to Ward (2017), the cost, labour, and success rate associated with using DNA for identifying the deceased has been historically prohibitive for many countries, resulting in high backlogs of identification casework. Furthermore, many forensic specialists and coroners feel that DNA is not the global standard it is made out to be, particular in relation to factors like mixed profiles which comprises DNA from more than one individual and so are far more complex to analyse that single source DNA profiles. In contrast, advances in DNA and innovative new applications also make this primary identification method one worth considering by investigators. For example, investigative genetic genealogy is an emerging technique of forensic science being used with much success by police in the USA, Canada, and Sweden, to solve unidentified bodies cases and identify suspects in so called 'cold cases'. According to Fitzpatrick (2023), in the United States, it will continue to be one of the most significant developments in forensic identification since the Combined DNA Index System (CODIS) national DNA database maintained by the Federal Bureau of Investigation (FBI) was introduced in the early 1990s (p. 484). Investigative genetic genealogy can be described as combining DNA analysis and family tree building.

Considering this, it is important to acknowledge the UK's Biometrics and Forensics Ethics Group (2020) report on the feasibility for police in the UK to begin using investigative genetic genealogy. They concluded that there was potential for this method to be tested in a UK setting solely on unidentified bodies cases. The Metropolitan Police Service are currently piloting the use of investigative genetic genealogy and a report is expected to be published in 2024. In addition, some UK organisations such as private forensic labs and academic institutions are already beginning to form plans to use investigative genetic genealogy to identify fallen soldiers of World War II. As positive as this appears for progressing unsolved cases, police forces may struggle to find the time and money to take advantage of such emerging techniques, whilst they try to keep up with current casework. As Stokes (2019) *argued "most agencies*

have a finite amount of money, personnel, and time [...] most of those resources must be dedicated to current casework, just to keep pace" (p. 78). This solidifies the dedication and resilience required by police forces, to strike the right balance between progressing current case work and making time to review and use new and emerging techniques to advance cold cases.

As explained previously, intelligence tools can be used support, rather than solely confirm, the identification of human remains such as forensic facial reconstructions. According to Missal (2023), this is a discipline that has evolved and developed significantly over the past 100 plus years, with the primary objective of *"taking cranial remains and reconstructing a three- (and now two-) dimensional, identifiable sculpture or drawing of the deceased subject"* (p. 549). A well-known historic example of the success of forensic facial reconstructions is that of missing teenager Karen Price who disappeared from Wales in 1981. After the discovery of remains in 1989, the skull was used to create a model of the individual's physical appearance. Within 48 hours of the nationwide appeals being released, Karen Price was identified from the facial reconstruction (Stavrianos *et al.*, 2007). More recently, in 2023, Spanish Police collaborated with Galicia's Institute of Legal Medicine, to identify a murder victim discovered in a sealed well near an abandoned warehouse in O Porriño, south of Vigo, near the Portugal border (Badcock, 2023; Donn, 2023). Serrulla's forensic facial reconstruction was featured on appeal posters. This resulted in a Portuguese woman coming forwards who felt the images looked like her brother who was a used-car salesman working out of Vigo whom she had not heard from in three years. DNA testing confirmed the deceased was indeed her brother, Carlos Alberto Videira do Órfão. This demonstrates the effectiveness of using forensic facial reconstructions to solve unsolved cases. Although identification will still be confirmed through primary methods, intelligence tools and techniques such as facial reconstructions are useful considerations to support and progress investigations.

It is perhaps unsurprising that organisations such as Interpol have begun using facial reconstruction techniques to drive major campaigns forwards. For example (as noted in the Introduction), in 2023, Interpol launched 'Operation Identify Me' a public appeal to identify 22 women, believed to have been murdered in Belgium, Germany, and The Netherlands, but whose identities have remained unknown (Interpol, 2023a). Most are considered to be 'cold cases' as the women died 10, 20, 30, or even 40 years ago. During the initial appeal, Interpol explained that they had already published a Black Notice for each victim. These alerts, specifically made about unidentified bodies, are issued by Interpol to seek information from

police, so they are not public. However, through Operation Identify Me, Interpol has shared the details of each case, including facial reconstruction images alongside other images such as clothing and possessions, in the hope that someone might recognise them and come forwards. They plead *"if you remember a friend, family member or colleague who suddenly disappeared, please take a look and contact the relevant national police team via the form on each page if you have any information about any of them"* (Interpol, 2023a). In the first week of the international campaign, *"Belgian, German and Dutch police services had jointly received over 200 tips, including possible names for several cases, in the search for the identity of 22 women"* (Chini, 2023). As mentioned in the introduction, one of the 22 cases has already since been solved. This further illustrates the importance of the relationship between forensic facial reconstructions and media campaigns, in returning names to those who have died and remained unidentified.

As demonstrated, when considering the published research relating to the challenges of identifying the dead, some of the richest insights can be gathered from real life case studies. Operation Lund was concerned with identifying the 21 Chinese people who were drowned by an incoming tide whilst harvesting cockles at Morecambe Bay in Northwest England on the evening of 5th February 2004. According to Brunskill and Mallett (2011) it was a daunting task to identify the recovered victims, all of whom were of Chinese origin with an estimated worldwide population of 1.3 billion, *"particularly as it was anticipated that most, if not all, had entered the country illegally"* (p. 212). They noted that the coroner had made a policy decision that only four primary methods would be acceptable to confirm identity: *"DNA, fingerprints, odontology, or a unique medical condition (UMC)"* whereas secondary evidence types such as personal property and authenticated documentation with visual confirmation of identity were "accepted only as supportive evidence" (Brunskill and Mallett, 2011, p. 212). This particular operation resulted in a significant amount of learning related cultural sensitivities. One example of such learning was the recommendation as follows:

> *"When faced with a national incident with significant international implications, engage and consult with an authority on the relevant culture sooner, including discussion of any cultural or religious nuances that may potentially affect or impact the identification procedure. For example, some of the victims in this case had a red identity wrist tag attached to their wrist in the mortuary; later it was recognised that in Chinese culture the colour red signifies good luck and happiness. These wristbands were replaced by the police prior to repatriation."*
>
> *(Brunskill and Mallett, 2011, p. 220)*

This case study is one of many that encapsulates the unique nature of unidentified bodies cases and the reaffirms the unlikelihood of a one-size-fits-all approach ever being undertaken in these types of investigations.

In the very same year, a further case study to consider in which tragedy occurred on an unprecedented scale, was that of the Southeast Asia Tsunami. The tsunami caused one of the largest natural disasters in recorded history, killing at least 225,000 people across a dozen countries, with Indonesia, Sri Lanka, India, Maldives, and Thailand sustaining monumental damage. In an attempt to quantify the impact of the incident, Interpol's Tsunami Evaluation Working Group explained that the final death toll for the UK was 147, *"however by the end of the first day some 38,000 calls had been received and 22,000 people from the UK had been reported missing [...] in reality the actual number of UK citizen's known to have been in the region at the time of the tsunami was around 100,000"* (2010, p. 37). From a DVI perspective, the Working Group described that Thailand had a unique disaster toll because of the 5,395 fatalities in Thailand, approximately 2,400 were foreign nationals from 36 different countries and so the emerging circumstances over the following months tested the global theories and practises of DVI management and identification procedures to limits not previously encountered). Undoubtedly, these unique circumstances offered valuable insights and learning mechanisms for future strategic and policy development for disaster related human identification processes and procedures. According to Sweet (2010), following the Thailand tsunami response, DVI forms were revised to include a comprehensive selection of data fields to record the postmortem and antemortem data. In addition, a 'DVI Guide' was produced by Interpol to provide guidelines for member countries to use in the identification of disaster victims (Interpol, 2018, p. 6). Such events are a reminder of the need for increasing the body of research related specifically to disaster victim identification.

A further challenge to consider when identifying the dead is the complexities presented when unidentified bodies or remains are recovered in or washed ashore from the sea. There is a paucity of research surrounding the movement of bodies at sea. However, a 2023 study by Dennison-Wilkins *et al.* confirmed that *"in the initial phase; the older in age the person was prior to death, the more buoyant the body (as a general rule) and accidental deaths were less buoyant than suicidal ones"* (p. 5). Such findings can be used to inform policies, practice, and strategies relating to the recovery of bodies from water. In addition, a study by Kringsholm et al. (2001) focused on evaluating the unknown bodies and skulls found in Danish open waters,

on shores or in harbours over a 5-year period. Furthermore, a 2001 study by Blanco Pampin and Rodríguez analysed the drifting of bodies along the coast of Portugal and Spain between 1990 and 2001 drawing upon learning taken from nine different bodies that were recovered from the sea. According to Blanco Pampin and Rodríguez (2001), the possibility of body displacement by river currents is well known, with drowning victims usually found near the point of immersion. However, they found that bodies can drift great distances at sea. Usually, the physics related to the movement of bodies in water comprises four stages: *"sinking to the bottom, motion along the bottom, ascension to the surface, and drifting on the surface"* (Blanco Pampin and Rodríguez, 2001, pp. 177-178). It is necessary to point out that in some cases ocean currents can alter this sequence and displace bodies or human remains great distances, hundreds of miles away from the entry point. For example, seven bodies later identified as the victims of a bus accident in the Duero River, Portugal, were found clustered at the coast of Spain and some of them were pushed by the currents as much as 380 kilometres (236 miles) in only 60 hours (Blanco Pampin and Rodríguez, 2001, p. 177). This discovery has far-reaching consequences, solidifying the importance of international co-operation between law enforcement agencies. A much older research paper focused on bodies in water had established that while drowned bodies are more likely to sink than those who died of other causes, no conclusion regarding the cause of death can be made on the basis of whether bodies float or sink (Donogue and Minnigerode, 1977, p. 578). This particular topic requires more scholarly attention and the likelihood of unidentified bodies being discovered in water rather than on land will be explored in depth during Study Two of this thesis.

Naming conventions are a significantly important challenge to consider. When someone dies and remains unidentified, consideration will be given to what name to record on the systems used by authorities, and on records such as the death certificate. Blank-Reid and Kaplan (1996) noted that a process was developed by the trauma centre, The Medical College of Pennsylvania, in Philadelphia that *"assigned unidentified patients a unique temporary identification and a means to change records once the true identity was discovered"* (p. 109). They explained that on an annual basis, the trauma centre had 40,000 emergency department visits and admitted approximately 1,100 trauma patients with almost 7% of the trauma patients admitted each year being unidentified on admission (Blank-Reid and Kaplan, 1996). They argued that the common approach of assigning names such as John Doe or Jane Done is inadequate and problematic, especially *"when more than one unidentified person is admitted to the department at the same time"* (Blank-Reid and Kaplan, 1996, p. 108). This approach is important to consider, even

within the England and Wales context when considering mass death scenarios such as the Manchester Bombing and the London Bombings. The options available for naming conventions for unidentified bodies cases will be explore further within this thesis.

2.5 European perspectives: Using databases to cross-match the missing and the found

People remaining unidentified after death is a humanitarian crisis, despite international law stating this should not be the case (International Commission on Missing Persons, 2024). There are a variety of approaches taken to assist the process of cross-matching the missing with those who die and remain unidentified, from forensic techniques and media appeals to forensic facial reconstructions and open-source intelligence searches. One such approach for which there is a growing body of research is the use of database systems (Baker and Baker, 2008; da Silva *et al.*, 2009; Sweet, 2010; Interpol Tsunami Evaluation Working Group, 2010; Ward, 2017; Murray *et al.*, 2018; Starinsky-Elbaz, 2019; Semma Tamayo, 2020).

As mentioned previously, the UK's National Missing Persons DNA Database (MPDD) was formally recognised in 2010 and is managed by the UK Missing Persons Unit. The publicly available information which details how it works or how information is obtained, recorded, stored, reviewed, cross-matched, deleted and shared is scant. It is unknown how many profiles of the missing and unidentified are stored on the database. Information about its success in solving cases of unidentified bodies is absent. Whilst there is a lack of information about the MPDD in the UK, internationally the use of databases in the cross-matching of missing and unidentified decedents has received substantial treatment in the literature. Due to the relevance to England and Wales, the focus of this literature revie will solely concern European databases.

The first database of its kind was the Missing Persons Genetic Identification Program (Phoenix Program / Programa Fénix) which was implemented in Spain *"to try to identify cadavers and human remains that could not be identified using traditional forensic approaches"* (Lorente *et al.*, 2002, p. 187). The Phoenix Program contains two independent databases to cross-match the missing and the found. One database is called the Reference Database (RD) *"which contains mtDNA sequences from maternal relatives of missing persons that provide the samples voluntarily after informed consent"* (Lorente *et al.*, 2002, p. 187). The other database is called *"the Questioned Database (QD) and is comprised of mtDNA data on unknown remains and cadavers that could not be unequivocally identified"* (Lorente *et al.*, 2002, p. 187). Combined, they produced the first civil database in the world designed solely for human

identification. Within the first 8 months of operation, more than 1,200 families had contacted the Phoenix Program (Lorente *et al.*, 2002). There had been 140 reference samples taken, 48 unidentified remains had been analysed, and six cases had been solved some of them belonging to human remains that were thoughts to have been undiscovered for at least 8 to 10 years. It is unclear how many cases have been solved within the UK since the inception of the MPDD and it is not known how many families have voluntarily provided samples. This will be addressed through data collection and interviews with the UK Missing Persons Unit.

In Europe, the EU-funded research project FAST and efficient international disaster victim IDentification (FASTID) developed an international database for missing persons and unidentified bodies. The project ran from April 2010 to March 2013 and the partners were Interpol, Bundeskriminalamt, Plass Data Software, University of Dundee, the Fraunhofer-Gesellschaft and Crabbe Consulting Ltd (Crabbe *et al.*, 2013). Initiated following the ill-prepared international response to the 2004 tsunami in Southeast Asia, the project aimed to develop a prototype database system. This would support international police co-operation to cross-match the missing and the found and integrate the system within Interpol's operational environment (Crabbe *et al.*, 2013). The project resulted in the creation of the FASTID system which provided cross-matching capabilities for dental, DNA, and fingerprints in addition to text and *"image matching"* searches and was able to integrate with Interpol's systems (Crabbe *et al.*, 2013). After initial proof of concept success, the project came to a halt due to funding issues (Apps, 2020; Bikker, 2021). Following the FASTID project, in 2014 the head of the UK Missing Persons Unit called for a European-wide database of unidentified bodies and body parts to be set up to assist police forces across Europe to resolve missing person cases (European Commission, 2014). The Commission responded referring to the existence of Interpol black notices which request information from Interpol members to identify bodies and did not consider the establishment of a database to be feasible (European Commission, 2014). It is clear from the literature that the management of the data for the missing and the found is key to solving cases. Without government funding and political will to support such databases, challenges will continue to arise. To conclude, it is evident that the use of databases to cross-match the missing and the found can be a useful tool to aid investigations. However, further research is needed to identify how such databases can work in the long-term, and maintain funding, and how this can be applied to the context in England and Wales.

2.6 Unidentified migrant, refugee, and immigrant deaths: The human cost of border control, conflict, and the hope for a better life

The term migrant can refer to a person who moves to other places in search of work or better living conditions. Migration or displacement often takes place in the aftermath of conflict. For example, after the Second World War in Europe, for example, 40 million people were on the move (Edkins, 2016). The term immigrant refers to those who have moved to foreign countries permanently for work or for better living conditions (Cambridge Dictionary, 2024). Whereas the term "illegal immigrant" usually refers to a person who has no valid visa or other documentation demonstrating their status or right to live in a foreign country they have moved to for work or for better living conditions (Cambridge Dictionary, 2024). The use of this term has been found to be problematic due to its negative connotations and its use as racialised language (Flores, 2020). The term refugee can be defined as a person who has been forced to leave their country to escape war, persecution, or natural disaster. Labour migration and refugee movements, including migrants in transit to somewhere else, has led to fractured families and missing people (Edkins, 2016). According to Brian and Laczko (2014) the paradox is that *"at a time when one in seven people around the world are migrants in one form or another, we are seeing a harsh response to migration in the developed world"* (p. 5). This type of response further decreases the already limited opportunities for safe and regular migration and drives migrants into the hands of smugglers, feeding an unscrupulous trade that threatens the lives of vulnerable people who are searching and hoping for a better life. Undocumented migrants should not be criminalised, but instead treated as human beings in need of protection and assistance, entitled to legal assistance, and deserving of respect and compassion (Brian and Laczko, 2014).

Spijkerboer (2007) noted that there is a causal relationship between irregular immigration, increased border control, and the number of casualties at Europe's maritime borders. Their conclusion was that the number of fatalities is increasing as a result of increased border control and that governments within Europe *"have a positive obligation under international law to address this issue and formulate concrete proposals to monitor the number of border deaths"* (Spijkerboer, 2007, p. 127). There is a range of literature that demonstrates the continued existence of inaccurate and imprecise data related to migrant deaths. For example, the International Organization for Migration (IOM), and the United Nations High Commissioner for Refugees (UNHCR) are calling for urgent and decisive action to prevent further deaths at

sea following a fishing boat disaster which occurred in June in the Mediterranean in June 2023, off the coast of Greece (2023). While the number of people onboard the boat that overturned is still unclear, it is believed to have been somewhere between 400 and 750, according to various testimonies, with over 104 rescued and 78 bodies recovered. Such mass fatalities are a reminder of the challenges faced when attempting to cross-match missing persons with found human remains. Inaccurate statistics in such mass fatalities are problematic as it limits the ability for professionals investigating the cases and can prevent policymakers from recognising the true scale of such issues. According to Carling and Hernández-Carretero (2011) some migrants attempt the journey to Europe in West African pirogues, small wooden boats used traditionally for fishing. Points of departure range from Mauritania in the north to Guinea-Bissau in the south, but the destination is always the Canary Islands in Europe. They described that each boat can carry up to 100 migrants in cramped conditions, with the journey lasting a minimum of 10 days, even under normal weather conditions. Fatalities primarily occur when the boats either capsize or experience technical problems and start drifting until those on board die from dehydration. Documented deaths are in the hundreds every year but since many boats disappear, the real figure is presumably much higher (Carling and Hernández-Carretero, 2011). The lack of accurate data in relation to such deaths prevents recovery, identification or repatriation and masks the scale of the issue. More recent research by Williams and Mountz (2018) argues that offshore enforcement continues to be highly correlated with migrant deaths and constructs two datasets documenting migrant boats lost at sea and state interdiction operations since 1980. Further research is needed to inform policymaking and practice relating to the relationship between border enforcement and migrant deaths.

The need for action to avoid such mass fatalities at sea and the importance of ‘recording’ and ‘identifying’ migrants trying to reach Europe was accepted by the 2009 Stockholm Programme Grant (2011). The Stockholm Programme was five-year political, strategic document describing the focus of cooperation in the policy areas of justice and home affairs of the European Union Member States. It contained guidelines for common politics on the topics of protection of fundamental rights, privacy, minority rights and the rights of groups of people in need of special protection, as well as citizenship of the European Union. However, it was noted that despite acceptance of the problem, the programme failed to specify exactly how such changes would be made (Grant, 2011). This is a weakness that this thesis will avoid through outlining realistic and achievable recommendations.

Grant (2011) also explored the various principles established in humanitarian law around the management of the dead and the identification of their remains. An example provided was the Operational Guidelines on Human Rights and Natural Disasters of the UN's Inter-Agency Standing Committee (IASC). This set out the actions to be taken to establish the fate of missing family members, to collect, identify and return their remains to families, and to deal with unidentified bodies. The guidelines state, inter alia, that family members should have information and access to gravesites and should be *"given the opportunity to erect memorials"* as part of the grieving process (Grant, 2011, pp. 143-144). Furthermore, the "2009 Guiding Principles on the Missing of the International Committee of the Red Cross (ICRC)" offer practical guidance relating to the prevention of persons from going missing and protecting the rights of the missing and their families. According to Grant (2011) the rights they protect have clear relevance to migrants*: "the right not to be arbitrarily deprived of life; the right to respect for family life; the right to know the fate of the missing; and the right to be recognised everywhere as a person before the law"* (p. 145). Despite such policies, thousands of migrants continue to die.

In Italy, in 2007, the increasing volume and complexities of migratory flow led to the Italian Ministry of Interior nominating an extraordinary commissar to analyse and assess the total number of unidentified recovered bodies and verify the extent of the phenomena of missing persons (Nuzzolese, 2012). As Olivieri *et al.* (2018) remarked, this makes the Mediterranean *"the theatre of one of the greatest tragedies of mankind"* (p. 121). They reported that over 60% of the victims who die in these circumstances are buried unidentified and that one of the reasons behind this is related to the specific difficulties and lack of strategies concerning antemortem and postmortem data collection (Olivieri *et al.,* 2018). Such mass fatalities at sea continue to make the headlines across European media. However, the discourse can often focus on the threat to Europe from migration, rather than the tragic deaths and humanitarian concerns. As noted by Kovras and Robins (2016), the focus of international media and the resulting political attention typically *"wanes just days after such deaths are reported"* (p. 40). It is important to remember that for every death that occurs at the European border, whether at sea or on land, there are relatives and friends left living with 'ambiguous loss', not knowing whether their loved one is dead or alive. According to Cattaneo *et al.* (2023, online):

> *"Europe is turning a blind eye on a humanitarian disaster unfolding at its doorsteps, with thousands of migrants dying unidentified in Mediterranean waters. Since 2014, Italy has been struggling in an almost indifferent international scenario to identify its*

> *dead migrants. Despite the lack of sufficient resources, of the difficulties in collecting post mortem data from the disseminated bodies, and of the problems of contacting and collecting ante mortem information from relatives, it has been proven, with a series of pilot studies, that not only can these bodies be identified but that relatives are also looking for their loved ones and need death certificates."*

In the United States, Anderson and Parks (2008) described the significant issues associated with unidentified migrant deaths occurring at the crossing between Arizona and Mexico. More than 1,000 people died between 2001 and the spring of 2007 in their attempt to cross into Arizona from Mexico (Anderson and Parks, 2008). This figure however only reflected the deaths that had been investigated by the Pima County (Arizona) Office of Medical Examiner (PCOME) and the true figure was suspected to be much higher (Anderson and Parks, 2008). The deaths are undoubtedly the result of the perilous crossings that occur in the harsh conditions of remote areas within the Sonoran Desert because migration routes in safer populated areas are more likely to result in apprehension due to greater enforcement by the United States government (Anderson and Parks, 2008). Consequently, migrants are forced into the dangerous hinterlands in their attempt to avoid detection (Anderson and Parks, 2008).

Echoing such findings, Baker and Baker (2008) noted that more than a million individuals passed illegally between the United States and Mexico every year with significant issues occurring relating to the recording and reporting of unidentified deaths. Baker and Barker (2008) explained that a centralised mechanism does not exist in the United States for the management of information relating to unidentified migrant deaths. This is problematic and negatively impacts the probabilities of cases being solved and names being returned. This is supported by more recent research by Slack and Martínez (2019) who explained that scholars are unable to accurately estimate the number of fatalities along the 2,000-mile border. Ritter (2007) argued that very few Americans, including those working in law enforcement, would think of the number of unidentified deaths and missing persons reports as a mass disaster or crisis. They would instead be likely to think of *"the 9/11 attacks on the World Trade Center, Hurricane Katrina, or the Southeast Asian tsunami... [unidentified bodies and missing persons are] "however, what experts call 'a mass disaster over time'"* (Ritter, 2007, p. 2). As mentioned, the US is not alone in having this issue, migrant deaths in Europe are such a frequent occurrence and the scale brings additional challenges for identification.

Edkins (2016) asks why there is great, sometimes excessive, attention paid to identification. The author considers that giving a name to an unidentified body serves the State's purpose of

restoring order and so shifts the blame of migrant deaths from immigration laws and detracts from the State's failures in their humanitarian responsibilities. A key problem with this argument is the reality that without a name for the unidentified deceased individual, there is no resolution for their living relatives or loved ones. The author does however demonstrate case studies and two particular cases are used to illustrate the views presented, the Morecombe Bay disaster and José Matada. As mentioned previously in this chapter, the Morecambe Bay disaster occurred in February 2004 and involved the deaths by drowning of twenty-three Chinese 'illegal immigrant' cockle pickers who were trapped by incoming tides off the Lancashire coast. José Matada fell to his death in 2012 from a British Airways flight from Angola. José was not reported missing, and it took authorities six months to identify him. José was the subject of a short documentary entitled The Man Who Fell From The Sky (Smith, 2013). Despite such cases, the UK Government's position on migration has appeared to become increasingly more extreme:

> *"The Illegal Migration Act changes the law so that those who arrive in the UK illegally will not be able to stay here and will instead be detained and then promptly removed, either to their home country or a safe third country."*
>
> *(UK Government, 2023)*

This position will no doubt lead to further migrant deaths and therefore an increasing number of people who die and remain unidentified after death.

2.7 Global perspectives: Who remains unidentified after death?

> *"As a virtue of their lack of identity, they are easily forgotten; they do not have family and friends to champion for them, to raise awareness of their case, and to bring it to a resolution."*
>
> *(Apps et al., 2014, p. 4)*

Despite the emerging recognition of the problem of missing persons, the issue of unidentified bodies is still largely unacknowledged (Apps *et al.*, 2014). Studies concerning those who remain unidentified after death in England and Wales are absent. Very little is known about this population therefore it is a topic worthy of research attention. By contrast, there has been a steady increase elsewhere in the world of descriptive epidemiological studies into unidentified bodies from countries including Denmark, Russia, the United States, Italy, France, India, the Netherlands, and South Africa (Kringsholm *et al.*, 2001; Andreev *et al.*, 2008; Paulozzi *et al.*, 2008; Cattaneo *et al.*, 2010; Cavard *et al.*, 2011; Chattopadhyay *et al.*, 2013;

Kumar *et al.*, 2014; Duijst *et al.*, 2016; Reid *et al.*, 2020; National Center for Missing and Exploited Children, 2021). These studies will now be examined, compared, and critiqued to identify the relevant issues in relation to this thesis. Consideration will be given to limitations, similarities and differences, and opportunities for further research.

Table 1. Studies of unidentified bodies 2001 - 2020

Author	**Location**	**Duration**	**Material**
Kringsholm (2001)	Denmark	5 years 1992 - 1996	89 unidentified bodies and skulls found in Danish open waters, shores, or in harbours
Andreev (2008)	Izhevsk, Russia	2 years 2003 - 2005	282 cases of unidentified deaths of males aged 25 – 54
Paulozzi (2008)	United States	25 years 1979 - 2004	10,748 death certificates for those who remained unidentified after death
Cattaneo (2010)	Milano, Italy	14 years 1995 - 2008	454 unidentified bodies at the Institute of Legal Medicine
Cavard (2011)	Paris, France	6.5 years 2003 - 2009	134 unidentified bodies at the University Hospital R. Poincaré
Chattopadhyay (2013)	Calcutta, India	2 years 2010 - 2011	505 unidentified bodies at the Calcutta Police Morgue
Kumar (2014)	Chandigarh, India	5 years 2008 - 2012	123 unidentified bodies at the Government Medical College and Hospital
Duijst (2016)	North Sea	33 years 1980 - 2013	94 unidentified bodies found in the North Sea
Reid (2020)	Cape Town, South Africa	7 years 2010 - 2017	2,476 unidentified bodies at the Salt River Mortuary
National Center for Missing and Exploited Children (2021)	United States	10 years 2000 - 2020	236 cases of unidentified deaths of children

The ambitious study by Kringsholm *et al.* (2001) focused on evaluating the unknown bodies and skulls found in Danish open waters, on shores or in harbours over a 5-year period. Specific reference was given to *"demographic data, circumstances in connection with the disappearance and details related to the identification"* (Kringsholm *et al.*, 2001, p. 150). The

limitation of this study though is the sole consideration of unidentified bodies and skulls found specifically in water, unlike this thesis which does not stipulate such parameters. By evaluating not only the demographic data, but the circumstances and identification methods, findings could be made about significant relationships found between factors such as place of finding and place of disappearance (Kringsholm *et al.*, 2001). Such findings could prove useful for identifying improvements in policing practice, for example, search strategies within open water. This bares similarities with this thesis which will analyse the statistical significance of factors such as estimated age of unidentified body or remains vs location found (e.g., land/water, urban/rural).

Similarly, to the study of Kringsholm *et al.* (2001), the focus of Duijst *et al.*'s (2016) research was the identification processes applied to bodies recovered from water only, specifically from the North Sea. Although similar in this aspect, Duijst *et al.*'s (2016) research was less concerned with the demographics of those deceasedand instead focused on exploring the successful identification methods. Several findings were made. For example, analysis of the data found only 36% of the identified bodies were of Dutch origin, whereas the majority originated from another country (Duijst *et al.*, 2016, p. 20). This led to the conclusion that an international database for the missing and the found was needed, despite the difficulties presented by variations of data protection laws between countries (Duijst *et al.*, 2016). This is relevant and timely, and the use of databases and their success within solving unidentified bodies cases will be explored in more detail in Study Three.

Two further European studies of the unidentified dead, although not focused solely on water, are those of Cattaneo *et al.* (2010) and Cavard *et al.* (2011). Based in Milan, Italy and Paris, France respectively, both aimed to analyse identification methods and provide epidemiological data. Emerging from the studies were key themes around the need for further insights into a significant problem with *"growing implications"* (Cattaneo *et al.*, 2010, p. 167.5) and the importance of achieving an *"absolute certainty of identity"* to allow for families to mourn and for the necessary legal procedures to be completed (Cavard *et al.*, 2011, p. 143). Such recommendations are also echoed within more recent research by Reid *et al.* (2020) in which a recommendation is made for DNA analysis to be more regularly used in cases of unidentified bodies. However, all three studies are absent in addressing the issue of missing persons reports and cross-matching, instead focusing on forensic identification methods and techniques.

Unidentified deaths were examined among working-age (25- to 54-year-old) Russian men by Andreev *et al.* (2008), focusing on the location and cause of death. Findings included that relative to identified men, *"unidentified men were at a higher risk of death from exposure to natural cold, violence, alcoholic cardiomyopathy, acute respiratory infections and poisonings"* (Andreev *et al.*, 2008, p. 252). The results also revealed the significant role of alcohol in the mortality of unidentified men and the places and causes of death provided *"substantial evidence of their homelessness and social isolation"* (Andreev *et al.*, 2008, p. 252). This is not dissimilar to the findings of Chattopadyay *et al.* (2013) study which examined 505 cases of unidentified bodies brought to the mortuary in Calcutta, India and concluded that many of the deceased were living *"below the poverty line and were street dwellers isolated from society"* (p. 113). Furthermore, it was noted *"quite a large number of the deaths were due to a disease condition and were avoidable"* (Chattopadyay *et al.*, 2013, p. 115). The high proportion of deaths due to disease or avoidable causes was also echoed within Kumar *et al.*'s (2014) study of 123 unidentified bodies brought into a mortuary in Chandigarh, India. Such research is relevant as, like India, a lot of vulnerable people die and remain unidentified after death in England and Wales.

In the first study of its kind in the United States, Paulozzi *et al.* (2008) used an innovative approach to provide a descriptive study of those who died unidentified over a 26-year period. A method was developed to compile and use search terms exploit a national database to collect death certificates of those unidentified selected by the absence of name, date of birth, and Social Security Number on their certificates (Paulozzi *et al.*, 2008, p. 922). The objectives of the study were to provide a better estimate of the number of annual unidentified deaths and identify demographic characteristics associated with such cases to determine whether the rates vary geographically or over time, and to better characterise the causes of death (Paulozzi *et al.*, 2008, p. 922). Through using such a large data set of death certificates (10,748), the study found the unidentified death rate was *"higher among males than females and among black people than other race groups"* (Paulozzi *et al.*, 2008, p. 925). The study also identified geographic variation in unidentified death rates among states and highlighted the significance of injury - both unintentional and intentional - as a cause of death in the unidentified deceased population (Paulozzi *et al.*, 2008, p. 925). For example, unidentified death *rates "were highest among black people and in the Southwest"* (Paulozzi *et al.*, 2008, p. 922). Such a large data set will be unachievable in this thesis due to the population size of England and Wales in comparison to that of the United States. However, it remains critical that a review is undertaken of the

population remaining unidentified after death in England and Wales as without such research, opportunities for prevention may remain undiscovered.

Another ambitious study from the United States, was the National Center for Missing and Exploited Children's (NCMEC) (2021) research into unidentified child remains. This research dealt with a decade of cases from the period 2010 to 2020 and used a standardised set of questions applied to each case to identify the key factors contributing to the identification of missing children. Data was primarily collected from case files of unidentified children reported to NCMEC, the National Crime Information Center (NCIC), and the National Missing and Unidentified Persons System (NamUs) records. Additionally, information was sourced from law enforcement, coroner and medical examiner reports, internet searches, and news articles. It is important to note that some case files were incomplete or lacked sufficient information, leading to unanswered questions flagged as unknown. The analysis focused solely on cases where the unidentified child was reported to NCMEC, and thus, the results may not be representative all identifications of deceased children at the national level during the same time period. In most cases, the bodies of missing children were found within the same city or state from which they originally went missing (NCMEC, 2021). This finding implies that the circumstances leading to their disappearance typically occurred within a relatively close geographical range. Furthermore, a significant number of the children were found deceased within hours or days of their initial disappearance (NCMEC, 2021). This suggests that swift action is critical in missing child cases, as time is of the essence for successful recovery operations.

The most successful initiating factor involved in progressing the process of identifying the deceased children was through tips submitted to law enforcement. These tips, presumably from the public or concerned individuals, played a crucial role in assisting investigators in identifying the victims and moving the cases forward. In most cases where a suspect was identified, the perpetrator was not known to the child, unless the child was under the age of 10 years. This finding implies that a substantial number of these cases involved crimes committed by strangers or individuals with no previous personal connection to the victims. In contrast to the aforementioned studies which found that males were disproportionately more likely to remain unidentified after death than females, for children "out of 236 cases, 63% (n=148) were females and 37% (n=88) were males" (NCMEC, 2021, p. 2). The NCMEC study does not provide analysis into why female children are more likely to remain unidentified after death

than male children. This is a relevant consideration for future studies in England and Wales that focused on missing children and children who die and remain unidentified after death.

Overall, the importance of this thesis is evident from the lack of literature concerning those who remain unidentified after death in England and Wales. The global studies highlight the need for exploration of key issues surrounding demographical, geographical, and pathological considerations and whether the rates of unidentified deaths vary over time.

2.8 Conclusion

This comprehensive literature review has highlighted the underexplored area of unidentified bodies and the potential impact of successful cross-matching on missing persons investigations. While the research into missing persons has seen significant growth, the treatment of unidentified bodies remains an overlooked aspect in the field, especially within England and Wales. By critically examining existing studies, this review emphasised the need for further scholarly attention to bridge this gap.

The review offered insights into the concept of 'missing,' the process of missing persons investigations, and the profound impact on families of the missing. It then explored local and national perspectives, with a particular focus on the treatment of unidentified bodies in England and Wales, highlighting the importance of developing comprehensive procedures in this domain. Furthermore, the review explored the existing literature on human identification, exploring the context, methods, and challenges involved in identifying deceased individuals. Additionally, the use of databases to cross-match missing persons with unidentified bodies was examined, emphasising the potential benefits of a European approach. Poignantly, unidentified migrant deaths were addressed, highlighting the human costs associated with border control, conflict, and the hope for a better life. This section accentuated the significance of compassionate responses and proper identification procedures in such cases. Finally, the review concluded by drawing attention to the global perspective on unidentified bodies, emphasising the need for international collaborative efforts to tackle this widespread issue.

Overall, this literature review has presented the urgent need for further research and action relating to the treatment of unidentified bodies. By enhancing cross-matching methods and prioritising identification processes, practitioners can contribute more effectively to missing persons investigations and bring resolution to the families of the missing. Moreover,

acknowledging the broader international context underscores the significance of collaborative initiatives to address this humanitarian challenge worldwide.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

This research is novel and will contribute to the niche subject of people who die and remain unidentified after death in England and Wales. For the purposes of critically reviewing the cross-matching of unidentified bodies and missing persons reports, a mixed-methods approach was chosen using both qualitative and quantitative research methods. The adoption of a multi-strategy design, as advocated by Robson and McCarton (2016), offers several significant advantages in this context. It enables the investigation of a wide range of research questions, accommodating the multifaceted nature of the subject matter. By integrating diverse methods, the study can offset potential weaknesses inherent in any single approach, resulting in a more comprehensive and robust investigation. This multifaceted design enhances the validity of the findings, providing a more well-rounded understanding of the intricacies involved in addressing unidentified bodies and missing persons cases.

The research unfolds in three distinct phases, each contributing unique perspectives to the study. The first phase involved requests for information from various key agencies, comprising 43 police forces, 85 coroner areas, and 355 local authorities. These agencies were specifically chosen due to their consistent involvement in unidentified bodies cases, ensuring a comprehensive and relevant dataset for analysis. By soliciting information from a diverse array of agencies, the research aimed to capture the full spectrum of practices, challenges, and resources associated with handling unidentified cases at the local, regional, and national levels.

In the second phase, secondary data analysis was conducted, delving into existing records and databases to gain insights into the trends and patterns of unidentified bodies and missing persons reports. This data-driven exploration offered valuable context for subsequent qualitative investigations and the researcher was able to gain valuable insights into the complex dynamics of unidentified bodies cases and missing persons reports, laying the groundwork for more in-depth analyses and policy recommendations.

Finally, the third phase comprised in-depth qualitative semi-structured interviews with key stakeholders, including family members with long-term missing loved ones, representatives from police forces with specialised units, coroners' services, a senior forensic practitioner, and the UK Missing Persons Unit. The diverse composition of interviewees enriched the study by

providing a holistic understanding of the emotional, investigative, and systemic aspects of missing persons and unidentified bodies cases.

3.2 Requests for information to police forces, coroner areas, and local authorities in England and Wales

One of the research objectives was to establish the end-to-end process of the treatment of unidentified bodies on a local, national, and international level. The different geographical considerations were key due to the multi-faceted nature of unidentified bodies in which local, national, and international agencies might be involved. Information about the end-to-end process in England and Wales was not available or recorded anywhere online or offline. Therefore, requests for information were made to 43 police forces, 85 coroner areas, and 355 local authorities in England and Wales, as these agencies consistently play a role in unidentified bodies cases. Each agency was sent a questionnaire vie email which asked how they obtained, recorded, stored, reviewed, cross-matched, deleted, and shared information related to unidentified bodies cases. This included asking for information about roles and responsibilities, and the processes in place, for example, in relation to specialist units and teams within policing, coronial investigations, and public health funerals. Furthermore, each agency was asked whether they felt any improvements were needed for the management of information for cases of unidentified bodies. The below table demonstrate the questions posed to police forces. Similar questions were posed to coroner areas and local authorities and the full list of questions for those agencies can be viewed in Appendix Two.

Table 2. Questions posed to police forces via requests for information

Police forces
What enquiries are generally conducted to identify a found unidentified body?
How and where is information relating to cases of unidentified bodies recorded and stored? (Please comment on both digital and physical recording/storing)
Does the recorded information include the location of the bodies within the mortuary, cemetery, or crematorium?
Are cases of unidentified bodies reviewed? If so, what does this involve and when?
What records and systems are cross-matched with information relating to cases of unidentified bodies?

When is information relating to cases of unidentified bodies deleted or destroyed?
How is information relating to cases of unidentified bodies shared between individuals, departments, forces, different agencies, and with the public?
Are there any differences in the above processes relating to unidentified body parts? If so, what are the differences?
Who has the overall responsibility for cases of unidentified bodies within the police force?
Have there been any previous operations specifically focused on solving cases of unidentified bodies? (e.g. Operation Orchid, established by North Wales Police in 2010 and tasked with naming the 16 cases of unidentified bodies buried in the region between 1968 and 2002)
Are there any current operations specifically focused on solving cases of unidentified bodies?
How can the management of information relating to unidentified bodies be improved?
Is there a person within the force who would be willing to be contacted by the PhD Researcher to answer further questions that will take approximately 30 minutes? If so, what are their contact details?

Responses were received throughout the years 2021 and 2022. As each agency's response was received, the response was recorded in a spreadsheet. Once responses had been received, the answers to each question were dealt with in turn. This enabled qualitative analysis to be conducted into the answers given to each question by each agency. Through analysis of the responses, this research was able to set out the end-to-end process of the treatment of unidentified bodies and describe the key suggestions of improvements specifically related to the management of information.

3.3 Data collection from the UK Missing Persons Unit

Having discovered the details surrounding the end-to-end process for the treatment of unidentified bodies, the focus turned to examining the demographic characteristics associated with those who remain unidentified after death in England and Wales. This supported the investigation into whether the rates of unidentified deaths varied geographically, situationally, or over time. To do this, quantitative data were collected from the UK Missing Persons Unit. The UK Missing Persons Unit is the UK's national and international point of contact for all investigations related to missing persons, unidentified bodies, and unidentified body parts.

Secondary data was gathered from the UK Missing Persons Unit covering cases of unidentified bodies in England and Wales over the 10-year period of 1 January 2010 to 31 December 2020. The data was extracted by the UK Missing Persons Unit from their Hermes database which they use together with details of missing persons reports, to attempt to cross-match the missing and the found (UK Missing Persons Unit, 2023a). The data included a total of 528 cases, which comprised 455 solved cases (86%) and 73 unsolved cases (14%). The researcher than examined the data to conduct analysis and identify key findings.

Table 3. Solved cases: Data gathered from the UK Missing Persons Unit and data produced by using the gathered data

Data gathered	**Data produced by using the gathered data**
The date the deceased individual was found	The year the deceased individual was found
The actual age of the deceased individual when found	The accuracy of estimated age of the deceased individual in relation to their actual age
The type of area where the deceased individual was found	Whether the deceased individual was found on land or in water
The date the deceased individual was identified	The number of days between the date the deceased individual was found and the date they were identified The length of time between the date the deceased individual was found and the date they were identified
The sex of the deceased individual	
The estimated minimum and maximum age of the deceased individual	Whether the age of the deceased individual was underestimated or overestimated
The ethnic appearance of the deceased individual	
Whether a DNA sample was taken and uploaded onto the Missing Person DNA Database (MPDD)	
The investigating police force	

The circumstances	
Whether the deceased individual was reported missing	
The date of the missing person report	The number of days between the date of the missing person report and the date the deceased individual was found The length of time between the date of the missing person report and the date the deceased individual was found The number of days between the date of the missing person report and the date the deceased individual was identified The length of time between the date of the missing person report and the date the deceased individual was identified
The primary method of identification	

Table 4. Unsolved cases: Data gathered from the UK Missing Persons Unit and data produced by using the gathered data

Data gathered	**Data produced using the data gathered**
The date the deceased individual was found	The year the deceased individual was found
The type of area where the deceased individual was found	Whether the deceased individual was found on land or in water
The sex of the deceased individual	
The estimated minimum and maximum age of the deceased individual	
The ethnic appearance of the deceased individual	

Whether a DNA sample was taken and uploaded onto the Missing Person DNA Database (MPDD)
The investigating police force
The circumstances

The UK Missing Persons Unit excluded a total of 139 cases from the data they held within the period requested. This was due to the range of issues presented by the cases such as the re-emergence of remains of individuals buried at sea and the difficulties with radiocarbon dating to determine the time since death or post-mortem interval. Furthermore, the UK Missing Persons Unit chose to exclude unidentified bodies with an estimated age of under 18 years old as there were very few cases in this age range and they were likely to be part of ongoing criminal investigations.

Table 5. Total number of solved and unsolved cases excluded by the UK Missing Persons Unit

	Solved	**Unsolved**
Unidentified body parts over 18 years old	84	49
Unidentified body parts under 18 years old	0	1
Unidentified bodies under 18 years old	0	5

The data provided by the UK Missing Persons Unit increased the understanding of unidentified bodies and body parts cases from an epidemiological perspective. The research began by analysing each part of the data, focusing on solved cases first before moving on to unsolved cases. Descriptive statistics presented via graphs were used to help the reader to interpret the analysis. Following this, the Statistical Package for the Social Sciences (SPSS), also known as IBM SPSS Statistics, was used to assess the statistical significance of relationships between two variables. Inferential analysis was conducted to identify differences or relationships between two variables to establish where there was a statistically significant difference or association between them. This allowed the research to investigate whether learning could be

taken from solved cases of unidentified bodies to inform police, coronial, and local authority practice. For example, examining whether there was a statistically significant association between whether the deceased individual was found on land or in water versus the primary identification method used. The chi-square test was an appropriate method to test the data due to two categorical variables being evident. This type of test is commonly used to assess the statistical significance of relationships between two variables (Robson and McCartan, 2016). If the resulting P-value is less than 0.05, the relationship between the two variables is statistically significant. If the result is <.001, then the relationship between the two variables is highly statistically significant. This phase of the study allowed the research to provide insightful and in-depth answers to the epidemiological research questions posed.

3.4 Interviews with key stakeholders

The final phase of the research examined the results of the in-depth qualitative semi-structured interviews with key stakeholders. A total of nine interviews were conducted. All 43 police forces, 85 coroner areas, and 355 local authorities in England and Wales were asked whether there was an individual who would be willing to take part in a 30-minute interview. A total of three interviews were borne out of these requests. A further six interviewees were recruited via contacts established by the researcher through more than a decade spent working and volunteering within the field of policing. The interviewees included individuals who have a long-term missing family member (n=2), individuals with more than a decade of experience from police forces with specialist units focused on solving unidentified bodies (n=3), coroners' services (n=2), a senior forensic practitioner with over three decades of experience (n=1), and the UK Missing Persons Unit (n=1). Appendices Six and Seven detail the participant information sheet and participant consent form. This range of participants was suitable for the research because it provided diverse perspectives and insights into the complex issues surrounding long-term missing persons and unidentified bodies cases.

The inclusion of individuals who have experienced the trauma of a long-term missing family member allowed for a deep understanding of the emotional and psychological impact of such situations on the affected families. Moreover, engaging with key stakeholders from police forces with specialised units emphasised the operational challenges, investigative strategies, and resources dedicated to resolving unidentified bodies cases. By interviewing representatives from coroners' services and a senior forensic practitioner, the research gained valuable insights into the post-mortem processes, forensic technologies, and the coordination between agencies

involved in handling unidentified bodies. Additionally, the input from the UK Missing Persons Unit, which plays a pivotal role in national efforts to address missing persons cases, provided a broader context for understanding the systemic factors and initiatives in place to address these challenging issues. Overall, the diverse composition of the interviewees offered a holistic perspective, enriching the study's findings and recommendations. Direct quotes from the participants have been included in the analysis to ensure their voices are heard and to enhance the discussion. The comprehensive analysis of the interview data has contributed to the development of more effective policies, strategies, and support mechanisms for both missing persons' families and professionals involved in the investigation of unidentified bodies cases.

Table 6. Anonymised list of interview participants and their connection to missing persons

	Connection to missing persons
Participant A	Serving police officer
Participant B	Coronial staff member
Participant C	Coronial staff member
Participant D	Serving police officer
Participant E	UK Missing Persons Unit staff member
Participant F	Serving police officer
Participant G	Family member of a missing person
Participant H	Senior forensic practitioner
Participant I	Family member of a missing person

Interviews commenced with introductions. Introductory questions enabled contextual information to be ascertained about the participants and ensured they were comfortable and willing to proceed with the interview. This was especially important when speaking with family members. The researcher made sure to take time to listen to family members sharing their experiences and the details surrounding what had happened to their loved ones. A pre-defined schedule with three questions was used as a guide to progress, rather than dictate, the

interviews. The researcher made it clear that the interview could be paused or ended at any time, should the participant request it. The questions posed are detailed in the below table. The questions were validated via a thorough testing phase, where feedback on the questions was obtained from the PhD supervisory team, alongside the National Police Chiefs Council Lead for Missing Persons. Feedback from experts in the field was collected and incorporated to enhance the clarity and effectiveness of the interview questions.

Table 7. Questions posed to interview participants

Interview questions
What do you think the main challenges are for the cross-matching of unidentified bodies and missing persons reports?
What opportunities do you think could be considered for the cross-matching of unidentified bodies and missing persons reports?
What learning do you think can be taken from solved unidentified cases to improve police, coronial, and/or local authority practice?

Throughout the interviews, a semi-structured approach was employed to maintain flexibility and allow participants to express their experiences and perspectives openly. Only three questions were set to be posed by the researcher to be sensitive of the time constraints of the interviews. The questions posed were informed by the researcher's knowledge and expertise of the field, and further supported by the Literature Review and other findings of the thesis. This approach encouraged rich, in-depth responses, enabling this research to explore unforeseen insights that might have been overlooked with a rigid, standardised format.

The upmost care was taken to ensure confidentiality and respect for the participants' privacy, emphasising that participation was entirely voluntary, and providing reminders that they could withdraw at any time without consequences. Informed consent was obtained from each interviewee before the commencement of the interviews, outlining the purpose of the research and how their responses would be anonymised and utilised solely for academic purposes. Transparency and rapport-building were essential elements of the interview process. The researcher acknowledged their own position and background and established a respectful and empathetic atmosphere to foster open communication.

By meticulously recording the interviews, through audio recordings, the researcher preserved the essence of participants' responses, avoiding potential loss of valuable information. The data collected via transcriptions from the interviews formed the basis for the subsequent analysis and served as a crucial foundation for generating meaningful insights and conclusions in this study. The transcriptions were thematically analysed and coded using Microsoft Word. Thematic coding analysis is a realist method which reports experiences, meanings, and the reality of participants (Robson and McCartan, 2016). This method was advantageous as the analysis of real-life experiences complimented the quantitative data analysed in Studies One and Two of this thesis. Thematic coding consists of identifying one or more passages of text that exemplify a thematic idea and linking them with a code, which is a shorthand reference to the thematic idea (Gibbs, 2007). Once the themes had been identified, thematic networks were constructed as an analytical tool to define key themes. Microsoft PowerPoint was used to produce the networks. The results were presented in a structured manner using the themes that emerged from the answers provided to the three questions that were asked. The thematic networks can be viewed in Appendix Four.

Overall, the careful planning, sensitivity to participants' needs, and methodological rigor in conducting the interviews reinforced the credibility and trustworthiness of the research findings, contributing to a comprehensive and nuanced exploration of the complexities surrounding long-term missing persons and unidentified bodies cases.

3.5 Ethical considerations

The ethical issues associated with the research study were considered carefully and ethical approval was received by Staffordshire University's Ethics Committee. The requirements of the General Data Protection Regulation (GDPR) and the Data Protection Act (DPA) 2018 were fully considered. The upmost respect for the dignity of the deceased had been maintained throughout. For example, by not disclosing any sensitive or identifying information about the deceased individuals, ensuring their privacy, and preserving their dignity. Additionally, all personal data collected from living participants, such as family members and professionals, was treated with the utmost confidentiality and stored securely in compliance with the aforementioned legislation. To maintain anonymity, pseudonyms or participant codes were used in place of real names during the data analysis and reporting phases. Although confidentiality and anonymity were guaranteed to the interview participants, most did not feel

this to be necessary. However, no names have been included in the study to preserve anonymity and ensure any future criminal proceedings relating to unsolved cases are not jeopardised.

Informed consent was obtained from all living participants, providing them with clear information about the research objectives, their right to withdraw at any point, and how their data would be used. The researcher emphasised that participation in the study was entirely voluntary and would have no impact on their professional roles or personal relationships. The researcher had already had previous contact with the two individuals who had missing loved ones, through volunteering experiences at Locate International, before inviting them to participate in the study. Therefore, the researcher felt that some rapport had already been built with the two individuals. Furthermore, strict ethical guidelines were followed when handling sensitive topics during interviews with family members of missing persons, being sensitive to their emotional well-being and avoiding any undue distress. After each interview, participants were thanked, and a follow-up communication was sent to check on their welfare. Conflicts of interest were continuously monitored and all communications relating to the study were honest and transparent throughout.

Throughout the research process, an ethical stance was maintained that prioritised the welfare and rights of the participants and adhered to the principles of confidentiality and respect. By upholding the highest ethical standards, this thesis has contributed to the field of missing persons and unidentified bodies research responsibly and with the utmost consideration for the participants involved. Ethical approval from Staffordshire University's Ethics Committee underscored the commitment to ethical conduct and ensured the research met the required ethical standards.

3.6 Conclusion

In conclusion, this research embarks on a novel and vital exploration within the niche subject of unidentified bodies and missing persons in England and Wales. To comprehensively address the complexities of this research domain and critically review the cross-matching of unidentified bodies and missing persons reports, a meticulous mixed-methods approach was chosen, encompassing both qualitative and quantitative research methods.

Throughout the research journey, ethical considerations remained at the forefront, and necessary approvals were obtained. The utmost respect for the dignity of both the deceased and living participants was maintained, safeguarding confidentiality, and ensuring voluntary

participation. In the pursuit of advancing knowledge and practical solutions, this research navigates the unknown, shedding light on an important and sensitive societal issue. By leveraging a multi-strategy design and meticulously planned phases, the study endeavours to make meaningful contributions to the field of missing persons and unidentified bodies research. The subsequent chapters will delve into the analysis and findings, offering valuable insights and recommendations to inform policy, support systems, and investigative efforts in addressing this intricate challenge.

CHAPTER FOUR: STUDY ONE

4.1 Introduction

The police, coroner, and local authority are the main agencies in England and Wales who are involved in the end-to-end process of the treatment of unidentified bodies. It is the duty of the police to treat a discovery of unidentified remains as suspicious until it can be proven otherwise (Apps *et al.*, 2014). If the death is deemed to be non-suspicious then the primary responsibility for investigation shifts to the coroner (Apps *et al.*, 2014). If an identity cannot be established for the deceased individual, a public health funeral will take place which will be arranged and paid for by the local authority in the absence of known next of kin (Ministry of Housing, Communities and Local Government, 2020). The police, coroner, and local authority do not share a central system and so information about unidentified bodies is treated in line with the policies and procedures for each agency. Before suggesting improvements relating to how information is managed in unidentified bodies cases, it is first essential to establish the end-to-end process.

This is the first of three study chapters. To avoid unnecessary repetition, the introduction sections of each study chapter will be brief and include a mini literature review to provide context and rationale. Then the method, results and analysis will be set out, and the findings will be discussed in isolation to the findings of the other study chapters. Study One will therefore explore the findings from the requests for information made to 43 police forces, 85 coroner areas, and 355 local authorities in England and Wales. This will answer the research questions; “What is the end-to-end process of the treatment of unidentified bodies on a local, national, and international level?” and “How can the management of information for cases of unidentified bodies be improved?”

To achieve this, the researcher contacted 43 police forces, 85 coroner’s areas, and 355 local authorities in England and Wales. Each agency was asked how they obtain, record, store, review, cross-match, delete and share information concerning cases of unidentified bodies. This included asking for information about the processes in place, for example, in relation to specialist units and teams within policing, coronial investigations, and public health funerals. The requests for information can be seen in Appendix Two. The total number of respondents and the overall response rate is detailed in the table below. As demonstrated, the local authorities can be split into six different groups; Welsh single-tier principal areas, English

district councils, English unitary authorities, English metropolitan districts, London boroughs, and City of London.

Table 8. Total number of responses to requests for information from police forces, coroner areas, and local authorities in England and Wales

	Total number in England and Wales	**Total number of respondents**	**Response rate**
Police forces	43	40	93.02%
Coroner areas	85	17	20%
Local authorities	355	238	67.04%
Welsh single-tier principal areas	22	14	63.64%
English district councils	192	127	66.15%
English unitary authorities	55	41	74.54%
English metropolitan districts	36	29	80.55%
London boroughs	32	26	81.25%
City of London	1	1	100%

4.2 Mortuaries

Before discussing the responses received from police forces, coroner areas, and local authorities, it is important to mention the preliminary research conducted into mortuaries. A number of police forces, coroner's areas, and local authorities telephoned the researcher to discuss their responses, and one invited the researcher to meet with them to shadow the work of the agency and discuss their work in more detail. During a telephone call, the researcher was informed of a concern that unidentified bodies and partial remains were being held for unusually long or indefinite periods of time within public and hospital mortuaries, rather than being buried or cremated. Therefore, preliminary research was conducted into this matter, focusing solely on London. The focus on London was because of the capital of England having a disproportionately high number of unidentified bodies cases in comparison to everywhere

else in the UK, due in part because of the population density and size of the city (Office for National Statistics, 2021a).

Due to the lack of information available online about which London boroughs had public mortuaries, every London borough was contacted. The researcher asked each borough to provide the number of unidentified bodies (and unidentified body parts) that had been in the public mortuary for over a year (stating the length of time held in years for each instance). A year was decided upon as a year is a reasonable length of time for enquiries and investigative work to take place, followed by burial or cremation. Of the 31 boroughs that responded, several had no public mortuary, and only one mortuary (Mortuary A) disclosed having unidentified bodies or parts in their mortuary for over a year. The details provided by Mortuary A were that, since 2016, they had held one unidentified body and one group of unidentified bones. Assistance was offered by the PhD supervisory team and both cases were raised to the attention of the UK Missing Person Unit as a matter of course. Of the 15 hospitals that responded, none disclosed having unidentified bodies or parts in their mortuary for over a year. Given the results of the preliminary research, this matter was not explored further.

Table 9. Total number of responses to requests for information public mortuaries and hospital mortuaries in London

	Total number in London	**Total number of respondents**	**Response rate**
Boroughs	33	31	93.93%
Hospitals	18	15	83.33%

4.3 Police forces

A total of 40 police forces responded to the requests for information.

4.3.1 Types of enquiries conducted in unidentified bodies cases

As demonstrated by Figure 1, the most common (62.5%) type of enquiry cited by police forces as being used to identify an unidentified body was DNA. This was closely followed by inspecting missing persons databases (55%), fingerprints (47.5%), and media appeals (40%). Other types of enquiries included checks for tattoos, scars, marks and medical identifiers,

examinations of mobile phone data, forensic facial reconstructions, and closed-circuit television (CCTV) enquiries. Police force 26 explained that initial enquiries would be conducted by uniform officers before being passed to the Criminal Investigation Department. If there were any suspicious circumstances involved with the death a Senior Investigating Officer would be appointed. If resources allowed the investigation would be led by the Major Investigation Team. This approach was echoed by other police forces, including police force 7 who explained that the enquiries conducted were dependent on whether the death was thought to be a suicide, murder, or accidental death. Generally, if the death was thought to be suspicious then more time and resources would be allocated to the investigation.

A Police Constable from police force 5 provided a detailed summary of the enquiries made:

> *"This is predominantly done via fingerprint analysis to establish if the prints match anyone on the National Fingerprint Database. If this is unsuccessful or the state of the body does not allow for such comparison, DNA will be taken and the results analysed against the National DNA Database. Both of these checks rely on the individual having been arrested, reported or convicted of an offence before though. The body will also be checked for any unusual marks, scars or tattoos that can be cross refenced against the Police National Computer or local intelligence systems. In some circumstances, a photograph may be circulated within force or nationally to forces for visual identification. Familial DNA is also an option to try and establish if anyone within the person's family is known on the National DNA database. Circulars will be sent to all Police Forces and the National Crime Agency for matches against any live or filed missing persons. Publicity is also used in some cases especially where are aspects that may assist in identification such as photos of tattoos, distinctive clothing that was worn etc."*

This illustrates the complexities of unidentified bodies cases, the time-consuming nature of checking various databases and uses forensic techniques, and the need for co-operation with many partners outside of the investigating police force.

A Detective Constable from police force 11 described the enquiries conducted during the investigation into an unidentified body discovered in 2020. In this case, the body was naked apart from a pair of socks. The state of the body indicated immersion in the water for hours rather than days or weeks and so a search of the local area was conducted to find any clothing or belongings that may have been left nearby. The search was extended to carparks in the vicinity to locate a possible abandoned vehicle. A local messaging facility was used to contact accommodation providers in the area to provide a description of the person and to ask whether they had any guests who unexpectedly did not return. Other enquiries followed such as a local press release, contact with the coastguard to establish whether they had any knowledge of

bodies washed overboard from passing ships, and contact with local beach users and lifeguards to identify a likely entry point. Forensic oceanography was explored to use tidal and weather information to estimate the most likely direction that the body would have travelled whilst floating in the sea. However, the officer explained that this was a difficult task as when bodies were found closer to the shore the local currents, eddies, and waves take precedence rather than the main currents which can in turn skew the results. Furthermore, DNA and fingerprints were taken from the body which were used to search against the Police National Computer, the Police National Database, the National Missing Persons DNA Database, and the immigration database. In addition, a photograph and description were uploaded onto the publicly accessible unidentified bodies database on the UK Missing Persons Unit's website, and DNA and fingerprints were circulated to Interpol. This case provides an example of the wealth of complex and time-consuming enquiries conducted when an unidentified body is discovered, which was common across all cases.

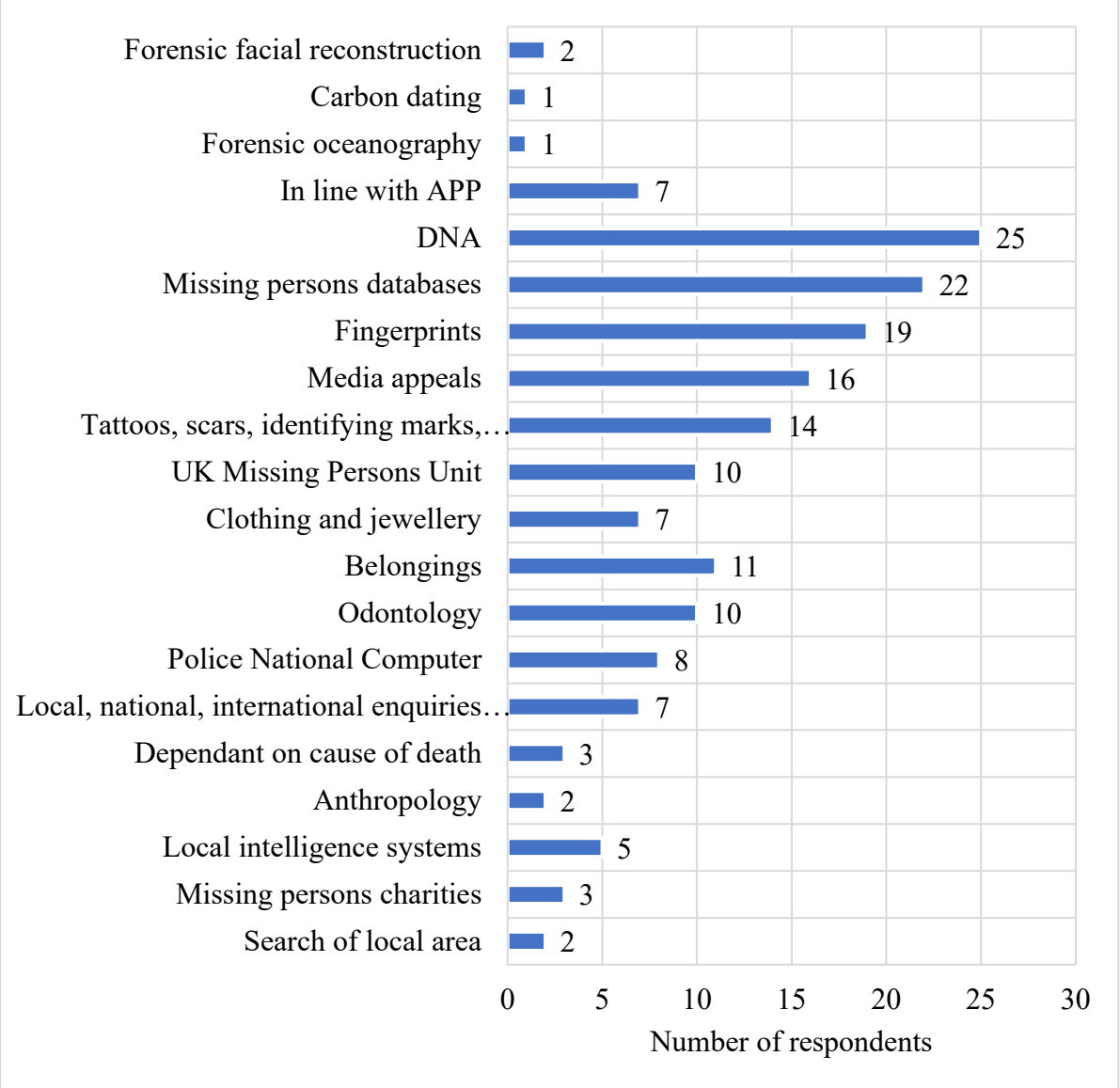

Figure 1. Police forces: Types of enquiries conducted in unidentified bodies cases (n = 40)

4.3.2 Recording and storing information relating to unidentified bodies cases

When detailing how and where information relating to cases of unidentified bodies was recorded and stored, 35% of police forces recorded information digitally, 42% of police forces recorded information both digitally and physically, and the remaining 23% did not answer. A wide range of systems were mentioned by police forces. Police force 9 explained how responsibility for such cases had changed over the years *"The National Missing Persons Unit retain details of recovered bodies and the details in [Police Force area] are retained in the Force Major Investigation Team (FMIT) who have responsibility for long-term missing and unidentified bodies. That responsibility has been held over many years in different areas but is*

currently an FMIT responsibility." This is perhaps a reflection of the restructuring that can take place within police forces and could suggest a challenge relating to how case-related information is effectively managed over long periods of time when responsible teams are ever-changing. Furthermore, the wide variety of response to this question suggested an absence of one central or national system for crime recording and case management. For example, references were made to many different software systems and databases, as demonstrated in the Tables 10 and 11 below.

Table 10. Different software systems used for recording and storing information

Software systems
Niche crime recording system
Socrates forensic case management system
Fortress digital evidence system
Compact missing persons case management system
Hermes case management system
HOLMES (Home Office Large Major Enquiry System) information technology system
Athena police intelligence and case management system
ITRACE system
Various command and control systems

Table 11. Different databases used for recording and storing information

Databases
National DNA Database
National Missing Persons DNA Database
Police National Computer

Police National Database
National Fingerprint Database (ITRENT1)
Merlin Database
Connect Database

The multitude of mentioned software systems and databases exemplifies the varied approaches taken by different police forces in England and Wales. Each agency operates with its own selection of certified and bespoke Information Technology systems, potentially leading to discrepancies in how vital information related to unidentified bodies is recorded and stored. This decentralised approach raises concerns regarding data consistency, accessibility, and interagency collaboration, which are critical aspects when dealing with missing persons and unidentified bodies cases. The absence of a unified system may hinder seamless information sharing and hinder collaborative efforts in cross-matching unidentified bodies with missing persons reports.

Moving forward, addressing these disparities and promoting a more standardised and integrated approach to information recording and management could significantly enhance the efficiency and efficacy of investigations involving unidentified bodies. The subsequent chapters of this research will delve into these implications further, offering valuable insights and recommendations to improve the overall coordination and data management practices in this critical area of policing.

4.3.3 Whether the recorded information included the location of remains within the mortuary, cemetery, or crematorium

Just under half (47.5%) of police forces reported recording information relating to the location of remains within the mortuary, cemetery, or crematorium. Over a fifth (22.5%) of police forces did not record such information with many explaining that this information would instead be held by the coroner. Police force 8 noted:

> *"The disposal of the remains is at the direction of HM Coroner. It is their duty to identify the deceased and establish how that person died. The remains are held in a mortuary until such time as the Coroner is satisfied that there is not going to be an identification, at which point an inquest is held. The subsequent disposal is authorised*

by the Coroner. Cremation is destructive and remains have usually been buried to allow an opportunity for subsequent investigations if required. Mortuary and burial records are maintained in line with usual practice."

Police force 29 stated that in all unidentified bodies cases the coroner would be informed. They explained that the responsibility for the body primarily lies with the coroner. Once satisfied that all enquiries have been exhausted, the coroner would authorise release of the body for cremation or burial. This was echoed by police force 15 who noted that once the coroner agreed the release of a body, the police did not have a record of where the body is taken to, but both the mortuary and coroner would retain those details. However, 7.5% of police forces stated that the information was sometimes held. For instance, police force 44 said that the location of the burial in historical cases was not always recorded. The term historic is a general term used by the police when referring to older cases, usually those over a decade old. Police force 9 explained that learning from a recent case had prompted a review of all their unidentified bodies cases to ensure the details of their resting places was known in all cases. A fifth (20%) of police forces provided no answer to this question and one (2.5%) police force was not sure of the answer.

4.3.4 Whether unidentified bodies cases were reviewed

As seen in Figure 2, almost half (42.5%) of police forces stated that unidentified bodies cases were reviewed at specific time periods such as annually or every three years. Police force 3 explained that cases were reviewed in response to new information. Furthermore, periodic reviews were said to be carried out by the Major Crime Review team on a case-by-case basis as there was an absence of national guidance on the frequency of reviews. Over a quarter (27.5%) of police forces explained that reviews of unidentified bodies cases were dependent on the cause of the death and whether the death was deemed to be suspicious or not. For example, police force 6 described that when an unidentified body was linked to a crime, it would be reviewed by the force Major Crime Review team. However, if the unidentified body was discovered in non-suspicious circumstances, then standard police missing person procedures and protocols would be used. Similarly, Police force 34 stated:

"If the death is deemed suspicious and remains unsolved following investigation then it will be subject of assessment every two years to establish whether there are any new potential lines of enquiry, forensic advancements that may progress the enquiry, or any new information or intelligence. The assessment would be undertaken by the Major Crime Review Team who then submit any recommendations to the Head of Crime."

Police force 8 explained there were no set expectations for the review of unidentified bodies cases. They also explained that the National DNA Database Board had recently given consent for the use of familial DNA techniques, sometimes referred to as investigative or forensic genetic genealogy, to assist in unidentified remains cases where there was no suspicion of criminality. However, this process had not yet been explored by police force 8 due to the time and resource requirements. Positively, police force 21 reported recently changing their operating system to increase the effectiveness of reviews. They now had a dedicated team, comprised of a Police Sergeant and a Civilian Investigator, whose primary role involves reviewing cold cases with part of their remit encompassing unidentified bodies and body parts cases.

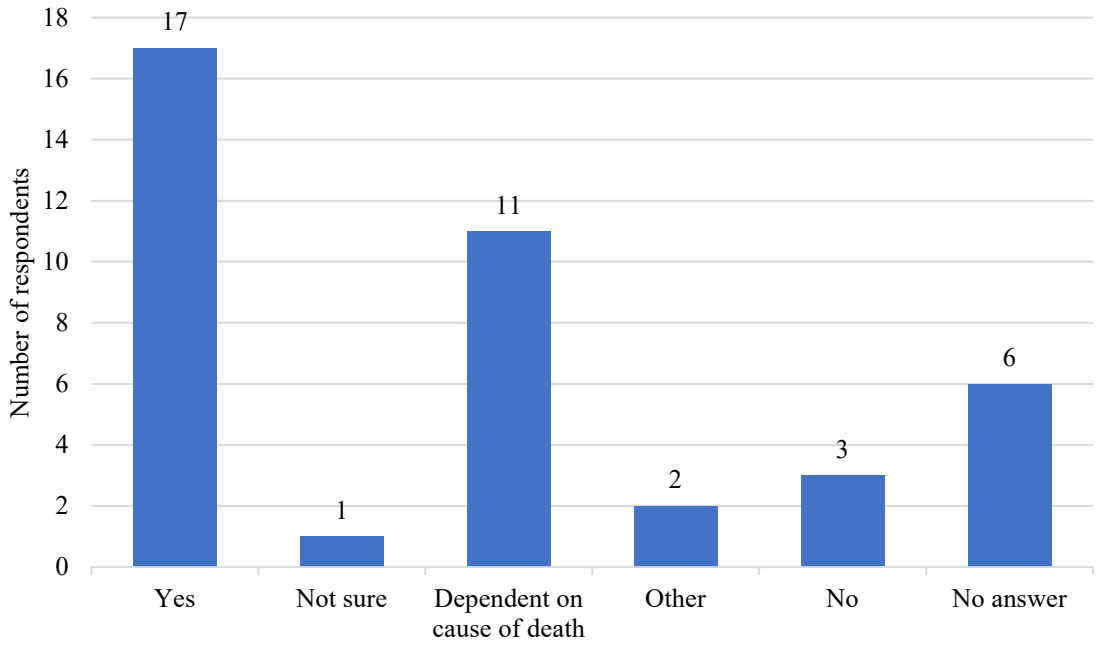

Figure 2. Police forces: Whether unidentified bodies cases were reviewed (n = 40)

4.3.5 Records and systems that were cross-matched with information relating to cases of unidentified bodies

As presented in Figure 3, the most common records and systems used by police forces when cross-matching information relating to cases of unidentified bodies were Hermes (32.5%), National DNA Database (30%) and the National Missing Persons DNA Database (25%). As demonstrated by Figure 3, this was closely followed by the Police National Computer (20%), checks of police missing persons information and intelligence (17.5%). Police force 15 explained they would notify neighbouring police forces, especially when remains were found

in the river, as from their experience it was not uncommon for missing persons from many miles away to be moved significant distances, both upstream and downstream, into their police force area. Police force 44 mentioned several records and systems that are checked for all unidentified bodies case, including: *"local MFH systems (iTrace), National MFH databases through the National Crime Agency (NCA), National missing persons DNA database. HOLMES systems, and NICHE. If there are credible leads, Interpol will be contacted requesting checks with their missing person databases."* This highlights the importance of investigating officers having a keen attention to detail, technical savvy nature, and openness to partnership working.

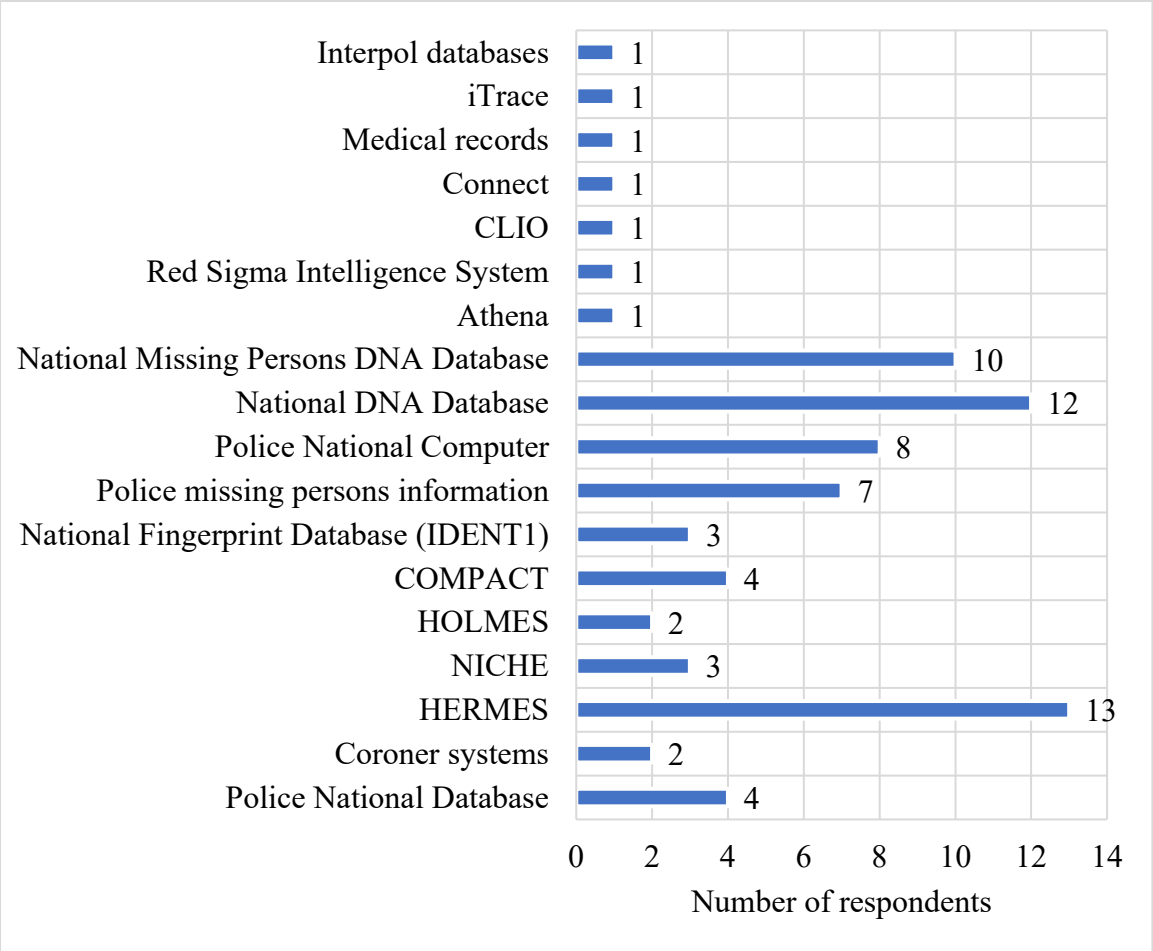

Figure 3. Police forces: Records and systems that were cross-matched with information relating to cases of unidentified bodies (n = 40)

4.3.6 Deleting or destroying information relating to cases of unidentified bodies

As demonstrated in Figure 4, over a third (40%) of police forces explained that retention of information relating to cases of unidentified bodies would be in accordance with the

Management of Police Information (MoPI) Code of Practice 2005. MoPI specifies different information retention periods dependent on the nature of the incident. For example, serious offences and public protection matters such as murder, rape, child abuse, and terrorism require information to be retained until the subject has reached 100 years of age, with reviews required every 10 years to ensure adequacy and necessity. Police force 8 explained that it depends:

> *"The Coronial records are kept as per their directions. Police records vary depending on to what extent there is a suspicion of homicide. Some records are maintained even if there is an inquest, and it is determined that X is dead but their remains have not yet been found (egg DNA) in case remains are subsequently recovered."*

Police force 21 said they would not delete information relating to unidentified bodies cases as they considered such cases to be live investigations. In addition, police force 26 described that prior to 1995, there was no defined policy concerning retention of information and so any survival of information from this period is ad hoc. Furthermore, they stated that any information acquired after 2007 was not destroyed if the missing person remained outstanding and that prior to 2004 missing persons enquiries were entirely paper based. Some police forces stated that information would be retained for only a few years, for example, police force 8 explained that *"the police case file on an unidentified body would be kept for 6 years."* No explanation was provided as to whether this applied to both in solved and unsolved cases. If this occurred in unsolved cases, then this would be problematic due to critical evidence possibly being destroyed before an identification could be made.

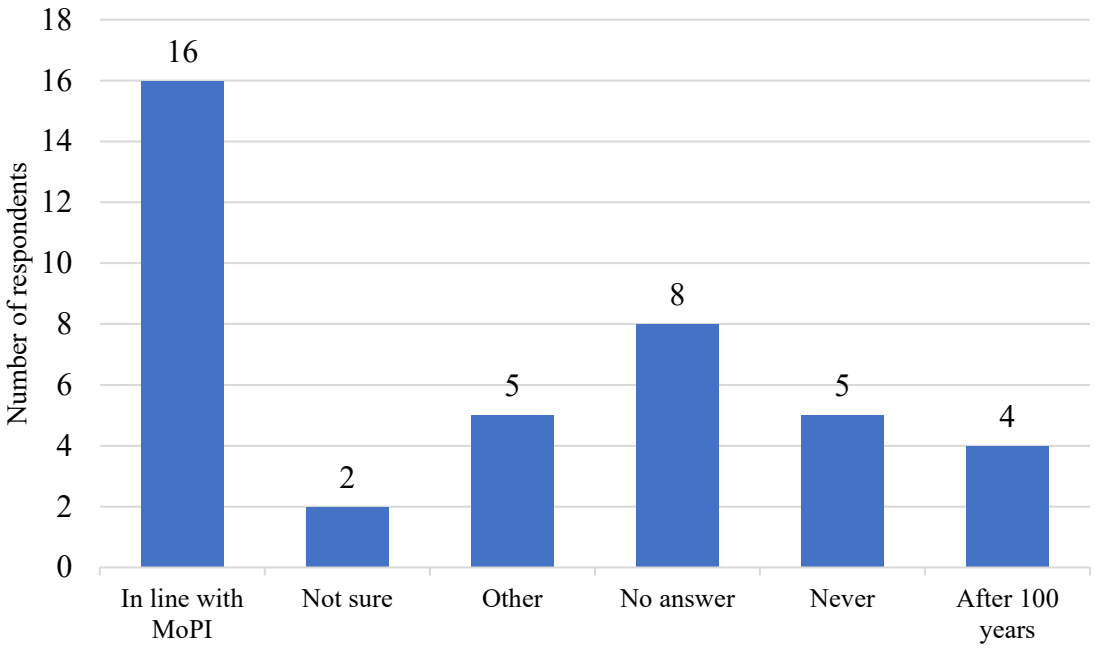

Figure 4. Police forces: Deleting or destroying information relating to cases of unidentified bodies (n = 40)

4.3.7 Sharing information relating to cases of unidentified bodies between individuals, departments, forces, different agencies, and with the public

The police forces that answered this question (77.5%) pointed towards information relating to cases of unidentified bodies being shared on a case-by-case basis. For example, police force 7 stated the sharing of information would be dependent on whether the circumstances were that of a murder, suicide, or accidental death. They went on to explain that all murder investigations were conducted on HOLMES with access only granted to staff who were part of the investigation. Police force 14 echoed the view of information being shared on a case-by-case basis and dependent on the circumstances. They said, for example, if an unidentified body was found near to a neighbouring police force, then information would be shared with them. Police force 8 provided a detailed summary which outlined:

> *"The use of media, of all sorts, would be part of the initial investigation to identify the remains were active request is made to the public, if there are matters to which the public may be able to assist. That is very much influenced by the relative age of the remains. Records including DNA and the National Missing person's database are routine enquiries. The scale of the response is most generally influenced by the perceived risk to the public; do the circumstances support a view that this is a recent homicide of a person unknown with the killer still at large and a potential risk to the public. That area of concern is one of police decision making, with more dated circumstances being more a matter of assistance to the Coroner."*

Police force 19 explained that they would sometimes release information to the public, but this would be a decision made by the Senior Investigating Officer. Police force 22 noted that once all lines of enquiry were exhausted, they would retain the case if a crime was suspected, and they would pass the case and file to the coroner if it was determined to be a non-crime death.

4.3.8 Differences in the process relating to unidentified body parts

As per Figure 5, almost half (45%) of police forces reported no difference in process for unidentified body parts. However, police force 21 stated that investigations into unidentified body parts were more difficult. Less than a fifth (15%) of police forces outlined differences in the process relating to unidentified body parts. This was referenced specifically in relation to the types of body parts that had been discovered. For example, police force 41 revealed that when life-limiting body parts were discovered that indicated the person was deceased, for

example, a head or a torso, the process followed would remain the same. However, if a bone from a hand was discovered the process would be different as the coroner would not recognise the discovery as a body. This was echoed by police force 15 that stated *"largely, the same processes would be followed, particularly if the remains include head/torso. However, with some body parts, the Coroner doesn't necessarily recognise them as a "body" – for example, a finger could have been lost through some sort of accident, but may not relate to a deceased person."* Police force 38 disclosed that similar enquiries would be carried out, but fewer options would be available based on the nature of the body parts discovered. Police force 39 explained the importance of *"having regard to the sensitivity of the family/friends of the victims and the general public. Advice would be taken from the missing persons unit and the Force Homicide Unit and senior management in cases where discretion would be required."* This is suggestive of certain cases requiring support and guidance from a wider network of professionals in order to make ethical and sound decisions which take into account the sensitive nature of these type of cases.

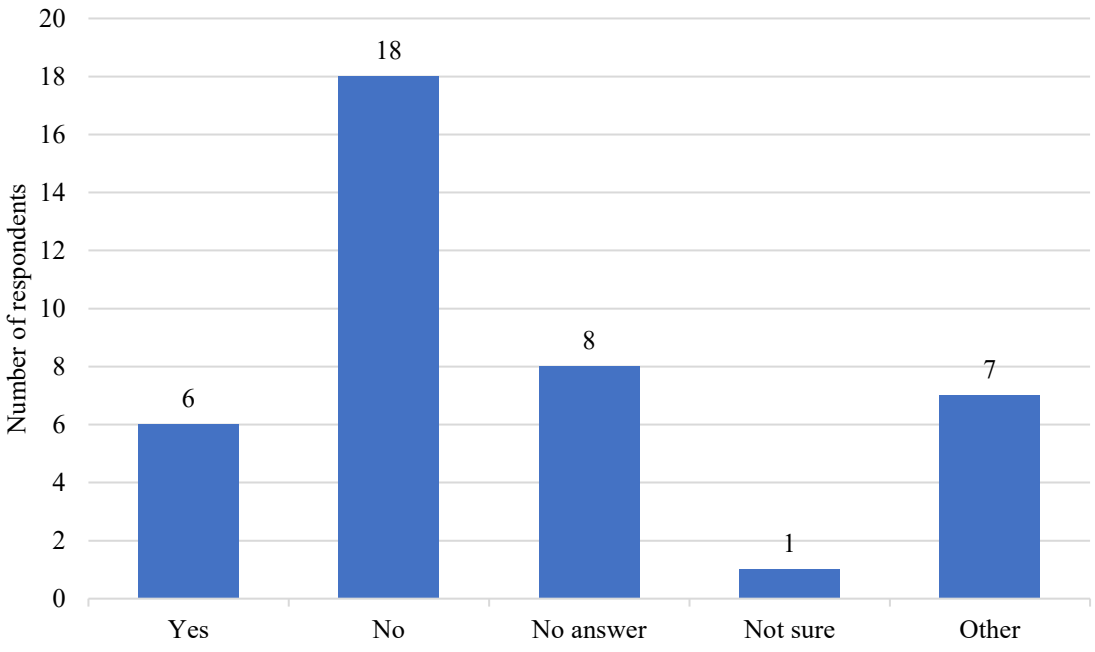

Figure 5. Police forces: Differences in the process relating to unidentified body parts (n = 40)

4.3.9 Overall responsibility for cases of unidentified bodies within the police force

Almost half (42.5%) of police forces reported that the overall responsibility for cases of unidentified bodies was dependent on the circumstances of the case, as presented in Figure 6. For example, police force 6 outlined that if a crime was suspected, the Murder Investigation

Team would take overall responsibility. However, if no crime was suspected then the case would be the responsibility of the local Criminal Investigation Department. Police force 8 stated that ultimately the Chief Constable would bear responsibility. However, the local decision as to where the responsibility resided could vary between Missing Persons Units, coroners' officers, local policing staff, and homicide teams, dependent on the circumstances of the case. Further illustrating this flexibility in the approach to responsibility was the response from police force 34 which highlighted differences based on the cause of death: *"if it is believed to be a homicide enquiry then the investigation would sit with a Senior Investigating Officer who is line managed by the Head of Major Crime. For non-suspicious deaths it would depend on where the death occurred, as ownership would sit with the Crime Superintendent for the area in conjunction with HM Coroner."* Police force 37 explained that *"the Coroner has overall responsibility for any deceased body in their district. If the death is suspicious or a murder then the police will have responsibility for the investigation; however, the Coroner retains overall responsibility for the body of the deceased."* Of the police forces who provided answers that resulted in the 'other' category, titles were mentioned such as the Force Senior Identification Manager and the Superintendent for Investigative Standards.

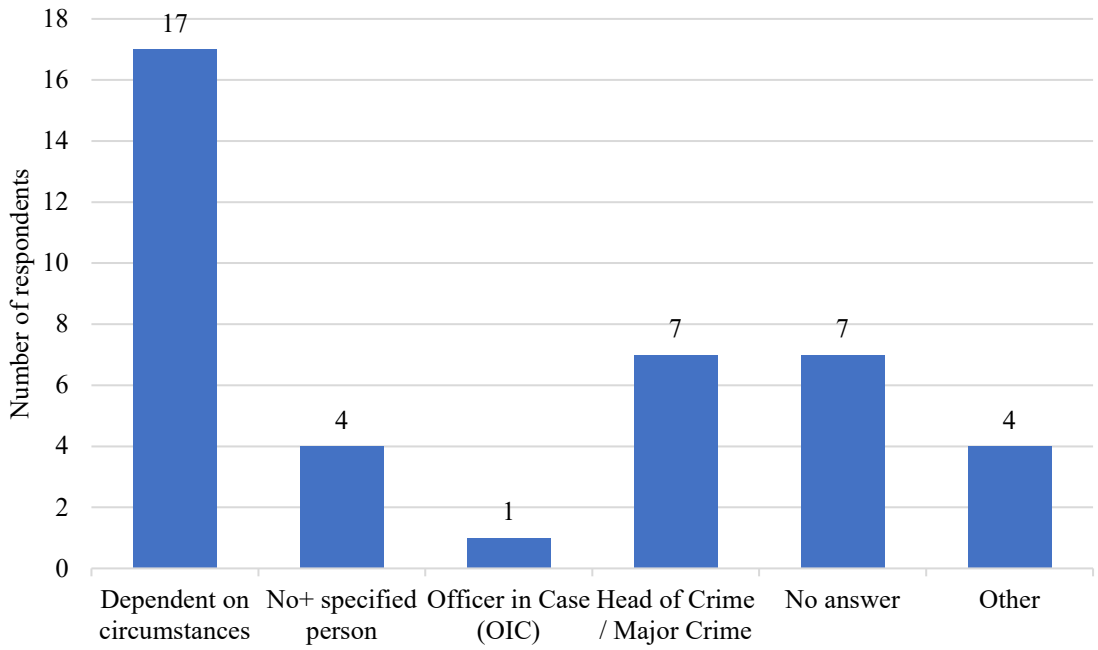

Figure 6. Police forces: Overall responsibility for cases of unidentified bodies within the police force (n = 40)

4.3.10 Previous operations focused on solving cases of unidentified bodies

As presented in Figure 7, a third (32.5%) of police forces reported undertaking previous operations specifically focused on solving cases of unidentified bodies. Having checked their records, police force 3 discovered *"there have not been any previous operations specifically focused on solving cases of unidentified bodies."* Police force 8 noted:

> *"There are periodic reviews in most Force areas, sometimes arising from changes in legislation (egg the retention of human Tissue). There have been combined works in regard to remains found from the sea along the eastern coast of Britain, which has also combined with work in regard to remains found from all countries around the North Sea to assist in the identification of remains. [Police force area] and [Neighbouring police force area] have had no specific operations of this sort."*

Both police force 14 and police force 32 detailed one previous operation which involved reviewing all unidentified bodies cases within the police force area. Police force 26 explained their extensive number of previous operations focused on solving such cases. For example, they initiated an operation to review all missing persons cases across two counties (a total of 150 cases) and overlaid the data with recovered unidentified bodies and body parts. This resulted in several exhumations and three previously unidentified bodies cases were resolved. Other operations by police force 26 included the exhumation of an unidentified baby discovered over two decades ago in which a full DNA profile led to an arrest and the admittance of an offence. In addition, a further operation involved the re-investigation of an unidentified female murdered over three decades ago. The exhumation in this case provided a full DNA profile and isotopic analysis was used to provide information on diet and geography of the victim. Reviews were conducted into a total of 558 cases of females who had been reported missing in the UK between a three-year period. The operation was linked to the ongoing investigations into serial killers Fred West and Peter Tobin. The victim remained unidentified. Other examples of operations provided by police force 26 which were resolved through successful cross-matching to missing persons reports included an unidentified femur, an unidentified torso, and an unidentified body. A further operation was described into an unidentified body from the early 1970s in which an exhumation had taken place however DNA extraction was not possible. This level of detail and disclosure was rare within the received responses.

Police force 38 stated that almost a decade ago they *"investigated the location of a near full skeleton within [Police force area], following DNA testing it was established that the remains were those of a missing person from the [Neighbouring police force area] and the investigation subsequently handed over to [Neighbouring police force area]."* They went on to disclose that

they currently do not have any unsolved unidentified bodies cases and suspect that the land-locked location of the police force area may be a contributing factor as they are aware that police forces on the coast can deal with unidentified body discoveries on a regular basis.

Police force 40 explained that *"an operation would only be launched should it be perceived that the found person had possibly come to some harm as a result of criminal activity, (Homicide Enquiry) or should it be viewed that there is potential harm to a connected individual still living (e.g. would be found babies where there is concern for the wellbeing of the mother). [Police force area] have previously managed investigations where the identity of the deceased has been unknown at the outset of enquiries [...] there are no current undetected homicides where the victim is unknown."* The wide range of responses to this question highlights the differences in the geographical nature of each police force area, alongside perhaps the available resources, frequency of such discoveries, and the lack of overarching national guidance specific to unidentified bodies cases.

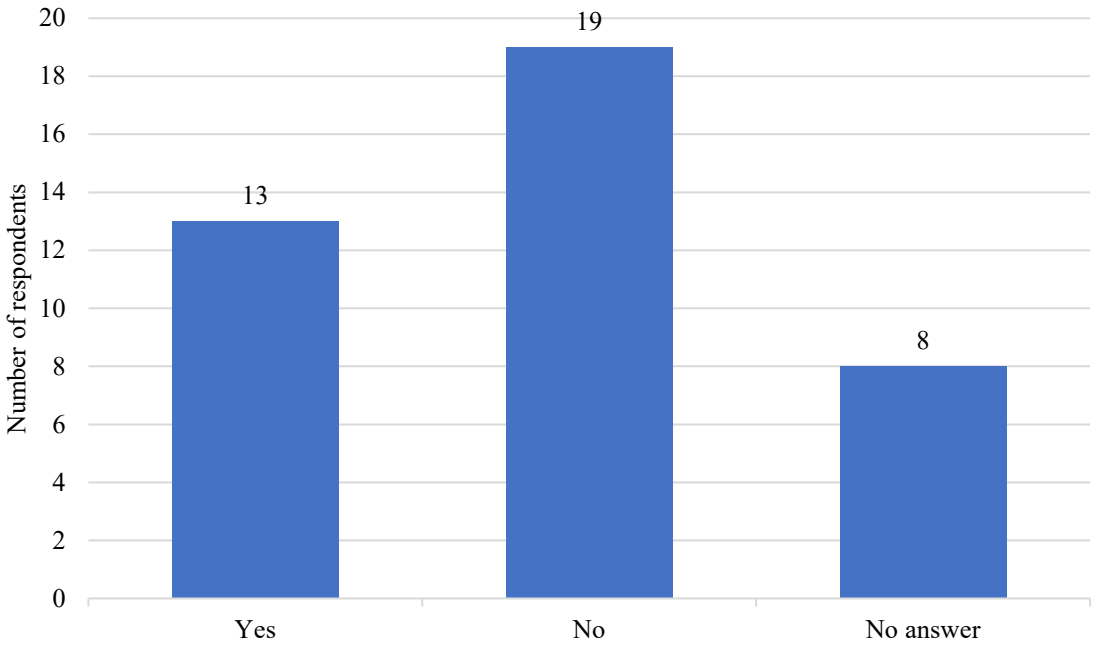

Figure 7. Police forces: Previous operations focused on solving cases of unidentified bodies (n = 40)

4.3.11 Current operations focused on solving cases of unidentified bodies

A third (32.5%) of police forces revealed details of current operations specifically focused on solving cases of unidentified bodies, as presented in Figure 8. For example, police force 6

referred to their operation into an unidentified baby discovered murdered over two decades ago. Police force 32 explained their one operation was in regard to an *"unidentified body found in [Police force area] in 1971 [...] ongoing murder investigation."* Police force 26 detailed two separate current operations into unidentified babies and explained that for one of the cases a full DNA profile had been obtained. For the other case, they were currently working through familial DNA matches provided by the National DNA Database. They stated:

> *"Yes, [Operation name] baby, this case is 2 years in so far. Another mutilated baby from [Police force area] is awaiting exhumation but current workloads have delayed the start. We have the missing person from [Police force area], we are currently working with Locate International to arrange an exhumation in [Country overseas]. We believe the body there is the missing person who washed up and was not identified. I'm 90% sure there will be a match."*

The involvement of charity Locate International highlights the benefits of police forces being able to receive support, advice, and resources from charities, and other partners, outside of the police force to help in solving unidentified cases. The complex and timely nature of the enquiries made into unidentified cases is something which many police forces may not be able to commit to, or want to prioritise, through the sole use of policing resources.

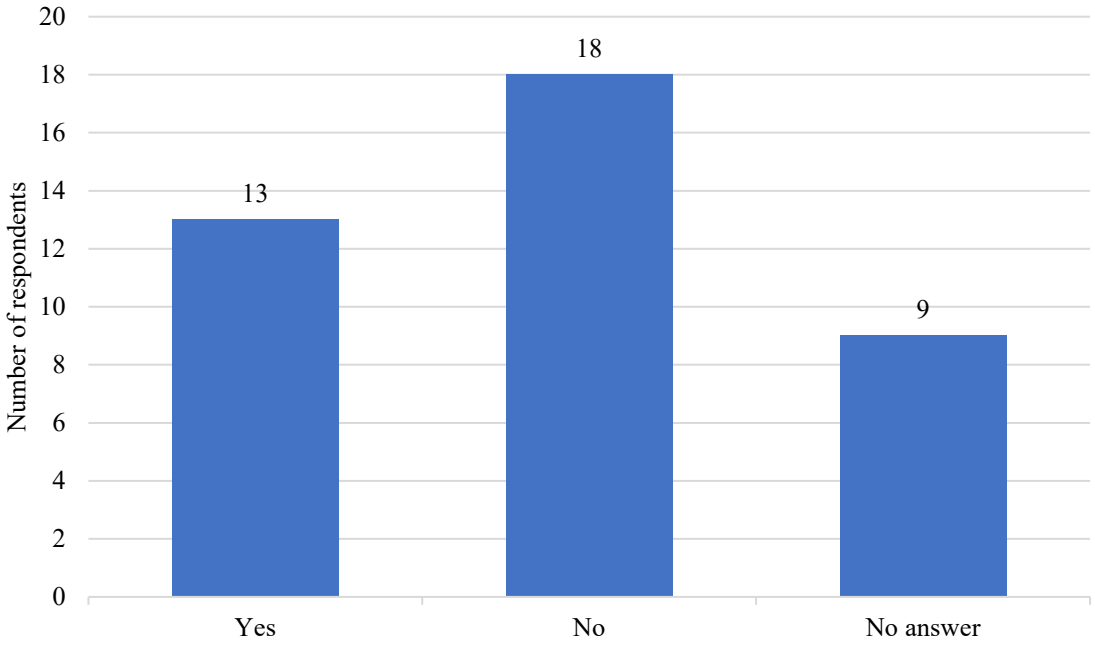

Figure 8. Police forces: Current operations focused on solving cases of unidentified bodies (n = 40)

4.3.12 Improving the management of information relating to unidentified bodies

As Figure 9 shows, a total of ten (35%) police forces provided suggestions for improvements for the management of information relating to unidentified bodies. For example, police force 11 explained the benefits of early collection of DNA for missing persons and unidentified bodies cases. They felt that not all police forces were aware of the many databases where checks could be made against DNA. Police force 5 stated *"I am unsure if there is a proper recognised national database allowing forces to directly search or input data to allow information sharing. If not, this would be very beneficial."* Police forces 14 and 20 proposed a national register of dental records which would assist in with identification efforts. Police force 8 suggested that an improvement will potentially arise from the change in the consent from the National DNA Database Board for the use of familial DNA techniques, such as genetic genealogy, to assist in unidentified remains cases where there is no suspicion of criminality. However, they outlined that such activity was resource intensive and unlikely to be undertaken by police forces. Furthermore, police force 8 stated that from experience of establishing the identities of murder victims who were not born in the UK, a national biometric identity programme for all adults would reduce the number of unidentified remains. Although, they acknowledged that this proposal was likely to be received as unacceptable by the public due to ethical and privacy concerns. Police force 21 disclosed that their *"Connect system came with a large amount of criticism. However, all paperwork is scanned in and so everything can be viewed in one place. It is beneficial to be able to access all information in one place. Effective ownership of the cases is needed."* Police force 26 suggested several improvements, reflecting on the lack of correct resourcing or will to conduct operations into unidentified bodies cases. In their opinion, such cases are expensive, time consuming, and did not seem to fit with current policing priorities. Police force 26 also felt that due to Detective Constable resources being scarce and in high demand in most police forces, historic unidentified bodies cases were left to the consciences of busy senior detectives to develop as hobby projects. Police force 26 felt that Compact was a useful recording system but recognised that difficulties could arise when reviewing what had already been done in relation to individual enquiries.

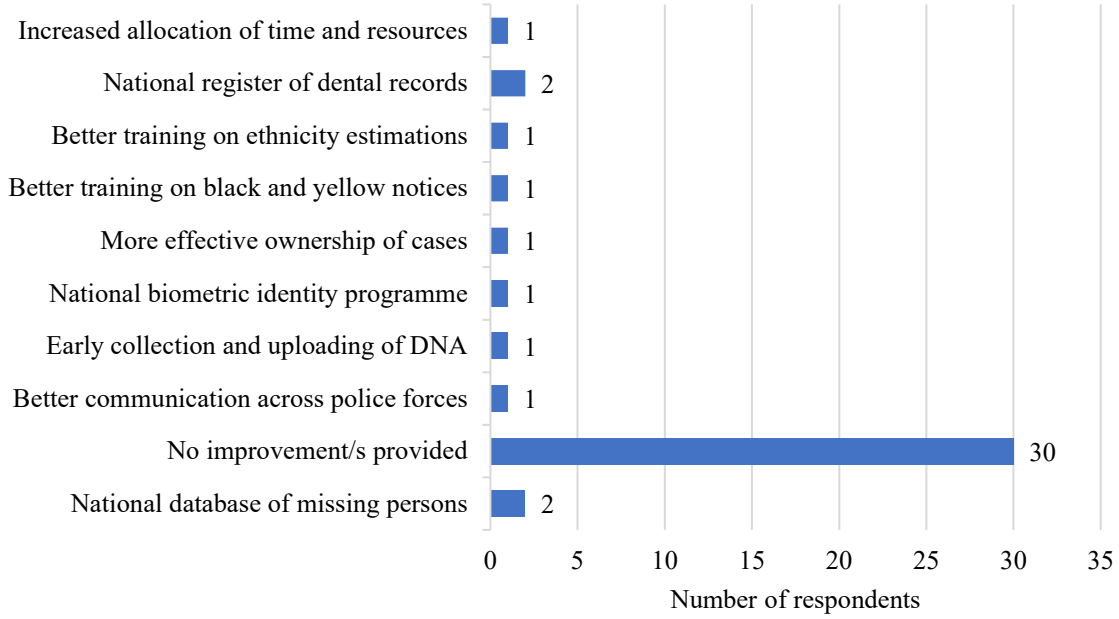

Figure 9. Police forces: Improving the management of information relating to unidentified bodies (n = 40)

4.4 Coroner areas

A total of 17 coroner areas responded to the requests for information made.

4.4.1 Types of enquiries conducted in unidentified bodies cases

As demonstrated by Figure 10, almost two thirds (65%) of coroner areas revealed the use of DNA as an enquiry conducted to identify a found unidentified body. This was closely followed by local, national, and international police enquiries (53%), and fingerprints (47%). Much detail was provided by coroner area 22, illustrating the complexity of such enquiries. They outlined that when in receipt of a report of an unidentified body, preliminary checks on addresses and police systems may lead to a positive identification. This would occur most commonly via fingerprints or DNA, although they recognised that DNA had significant time and cost implications. If an unidentified body was suspected to be someone who had likely been reported missing, then checks of dental records might be conducted due to fewer potential records to check.

However, they disclosed that if a body had arrived by water on a tide the enquiries proved to be much more difficult. In such cases, estimations of entry point could possibly be made using the well-documented and researched information related to the tidal currents and patterns of

their local estuary. They revealed that if a body was expected to arrive on the banks of the estuary because someone had been seen to jump or fall into the water, reasonably accurate predictions could be made about when and where the body may surface. Although, if a body had arrived from an incident overseas or from a foreign vessel, more challenges could arise because the facts may not have been established ahead of the body arriving on the shore or bank. Occasionally stowaways would be discovered dead on vessels docking in the area and then detailed enquiries would be carried out with the assistance of Border Force and other statutory partners.

They further explained that from time-to-time, police forces had operations involving missing persons who were suspected to have been harmed in some way. In such circumstances, as coroners they would be requested to ask their mortuaries to check records of any unidentified bodies which may be a potential match. They also mentioned important investigative tools which included press releases, checks with the Department for Work and Pensions, the National Health Service, identifying any internal medical identifiers, establishing distinguishing marks and tattoos, and circulating bulletins to all police forces via the National Crime Agency. When most enquiries had been exhausted, the information and DNA profile would be sent to Interpol (via a Yellow Notice) who would share these with the missing person databases of the Schengen countries. Unfortunately, since Brexit they felt this process was not as straight forward as it once was but did not provide details as to why this was.

Coroner area 13 stated that they would conduct the following enquiries:

> *"Search for NoK - this usually entails a house search and/or making enquiries with neighbours/GP/hospital etc. However this isn't possible if the body is found away from the usual place of residence of course. Fingerprints are taken to see if there is any record on the fingerprint database - this is a quick and cheap process. DNA taken (deep muscle tissue during the PM) to see if known on the DNA database. If there is a suspicion as to who the deceased could be - a comparison can be made with blood relatives. Odontology (dental) cannot be done unless there are dental records to compare with. A PM (post mortem) examination can indicate if there are any surgical sites and specifically if there are any artificial joints (such as a hip replacement) or pacemakers. Such devices/joints can have serial numbers that can be traced back to the relevant medical records (I once did an ID this way). Failing the above, appeals may then be sent out to the public via the media - with artists impressions of what the person looked like in life. Police enquiries will also include consulting with Missing Persons and if the description of the body is consistent with any 'mispers' (missing persons). This can mean making enquiries with neighbouring forces or nationally if necessary. Enquiries with travelling communities or the homeless may also be made - but this would be more police-led rather than coroner-led."*

Coroner area 16 responded with similarly conducted enquiries and said if they had some idea who the deceased might be, for example if they were found in a house or had a wallet on them, they would see if that person was known to the police as if they were then there would more than likely be fingerprints on record on the police systems. If that was the case, they would ask Crime Scene Investigators (CSI) to visit the mortuary to take fingerprints from the body and compare them against the fingerprints on police systems. If that was not an option and a possible identity was suspected, they would check if the deceased was registered with a dental practice to obtain their last dental chart if there was one on record. They explained they have a Forensic Dentist in the area who would be sent the chart and would visit the mortuary to assess the remains to see whether a dental match could be confirmed. If dental comparison was not possible, they would see if the person they believe to be the deceased had family and would explore DNA analysis taken from deep thigh muscle tissue and the femur to compare that against a saliva (buccal) swab from a direct family member – preferable a mother but if not a mother, then a parent, sibling, or child. They also disclosed using evidence such as tattoos, scar, and identifying marks to progress the identification efforts. They went on to explain *"I have actually never worked on a case where we have had no idea whatsoever who the deceased might be as the police have usually looked into such matters before referring to us. We have very recently found out who two unidentified deceased people were from a car crash by microchipping a dog who was travelling with them and was also deceased and looking at who the car was registered to. This led us to their names and addresses and unfortunately it was the same couple who were in the car."* This highlights the need to have an open mind in such investigations, as with all police investigations, and consider all options when trying to reach an identification.

Coroner area 46 stated:

> *"The first thing to say is that, under the agreed protocol in this county, identification is the responsibility of the police. When a body has been found in the community, police attend the death and complete a referral to the Coroner. In such cases a post-mortem is held to identify the cause of death. After the post-mortem, if initial enquiries made by the police have not yet established identification, consideration will be given to establishing identification by DNA, fingerprints, dental records, or other means. If the person does not have a criminal record, are therefore DNA and/or fingerprints are not held on record, consideration will be given to making a public appeal and a submission being made to the UK Missing Persons Bureau."*

Such responses from coroner areas support the responses from police force areas in terms of where responsibility lies, and further illustrates the time-consuming investigative work that takes place during the search for a deceased individual's identity.

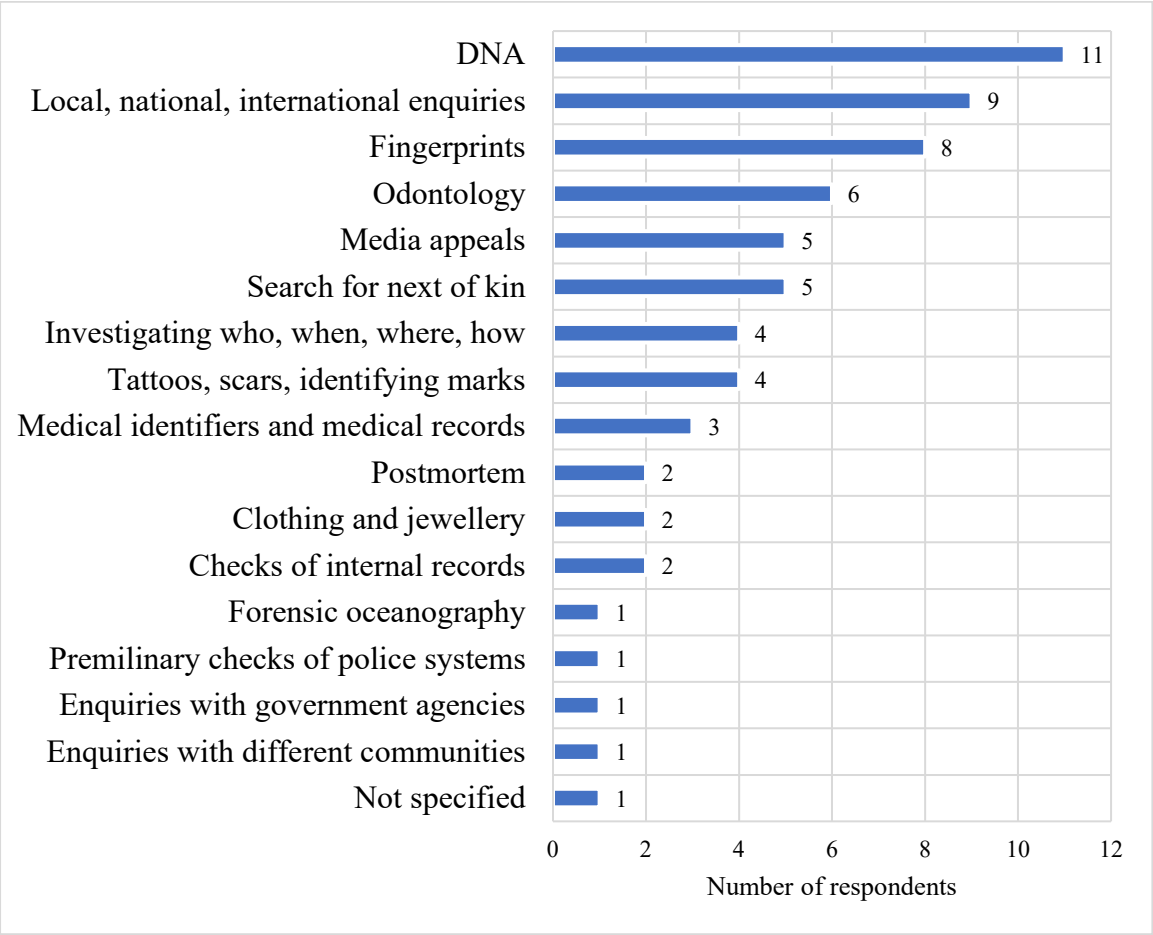

Figure 10. Coroner areas: Types of enquiries conducted in unidentified bodies cases (n = 17)

4.4.2 Recording and storing information relating to unidentified bodies cases

Most (70%) coroner areas reported recording information relating to cases of unidentified bodies digitally on their internal case management systems. Several different case management systems were mentioned suggesting the absence of a national coroners' case management system. Some coroner areas also reported the retention of physical records. For example, coroner area 75 outlined that information related to cases of unidentified bodies and body parts were now recorded digitally but prior to 2017 they were recorded on paper only. Coroner area 5 stated *"details of any enquiries made are documented on the council IT system. The information is held on a secure drive for the cemetery and crematorium. The software is Epilog provided by Gower Consultants. Paperwork is held for 15 years."* It was unclear if the 15-year

retention period applied to both solved and unsolved cases. Coroner area 22 described how *"Bereavement Services has internal paper records outlining case records and actions taken. The Statutory and non-statutory forms are filled in by relatives or officers and stored safely by the service. Electronic records are kept and maintained of all burials and cremations having taken place."*

Coroner area 13 provided finer details about the recording and storage of information relating to cases of unidentified bodies. For example, they explained that on the coroners' case management system the case may be inputted as 'unidentified' along with the circumstances surrounding the death. A log would be maintained with case updates by the coroner's officer. The police system would include details of the discovery of the body along with the first accounts taken from witnesses. The police would also maintain a log detailing their enquiries. In addition to this, paper records such as the sudden death form or signed witness statements would be retained by the police whilst enquiries are still active, or with the coroner once police enquiries had come to an end. In the absence of a separate public and forensic mortuary, any exhibits such as human tissue for DNA would be stored at the hospital where the post-mortem took place until identification was established. Once the human tissue samples were no longer needed, the next of kin would provide direction on method of disposal.

4.4.3 Whether the recorded information included the location of remains within the mortuary, cemetery, or crematorium

The majority (70%) of coroner areas stated that their recorded information did include the location of the bodies within the mortuary, cemetery, or crematorium. For example, coroner area 5 disclosed that *"the location of a burial or the laying to rest of ashes is recorded."* This echoed the more detailed response from coroner area 13, they explained the following in response:

> *"Yes especially with the coroner's system - usually the hospital where the PM took place is where the body is stored until ID can be established. Long term storage will be in the freezer rather than the fridge. The body cannot be released until the coroner authorises release. If the ID of the body is established but there is no NoK - the local authority then take over and there is a 'public' funeral. In both cases the coroner records the disposal - burial or cremation - because the relevant paperwork needs to be issued by the coroner's office."*

However, a minority (12%) stated that this information would not be recorded by the coroner and would be instead recorded by either the local authority, registrar, or local archivist. Coroner

area 39 felt that with digitalisation, locations of resting places should be easy to find although for historic cases this may prove to be more difficult.

4.4.4 Whether unidentified bodies cases were reviewed

The majority (71%) of coroner areas reported that unidentified bodies cases were reviewed, as viewed in Figure 11. This was most frequently said to occur when new evidence came to light. However, coroner area 13 noted that such reviews would be within the remit of the police and their enquiries into missing persons reports. The police would keep the coroner updated every few months if investigative actions such as public appeals via the media were taking place. Coroner area 22 explained that their reviews would take place more regularly. All unidentified bodies cases were recorded on the coroners' case management system which set automatic dates by which cases should be reviewed. The requirement to review occurred every 14 days, but this could action be overridden.

Positively, coroner area 37 stated that they conducted annual reviews of all their unidentified bodies cases. They acknowledged that other coroner areas might be more reactive, awaiting any further information which may or may not come to light. Coroner area 46 outlined that their one outstanding unidentified body case was currently under investigation. A possible identification had been suggested which was being checked through requests for familial DNA in a country outside of the UK. They revealed that should these checks prove negative, initial reviews would be set at 3 months and may extended by the coroner.

Coroner area 16 stated that *"the case would not be progressed until we knew who the deceased was so there would be no need to review."* This suggests the need for a potential identification before a review is conducted, a reactive, rather than proactive approach. Such an approach is perhaps reflective of the need for coroners to balance their time and resources based on their case load.

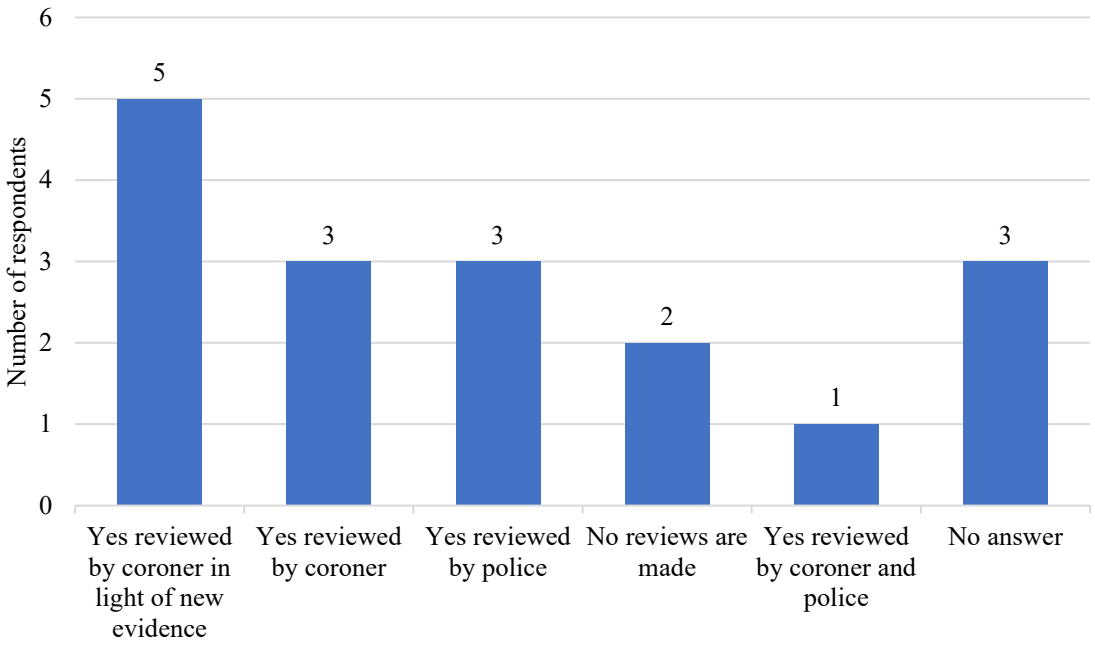

Figure 11. Coroner areas: Whether unidentified bodies cases were reviewed (n = 17)

4.4.5 Records and systems that were cross-matched with information relating to cases of unidentified bodies

As Figure 12 refers, the most common answer (29%) relating to what records and systems were cross-matched was missing persons information held by the police. Coroner area 16 provided the following response: *"PNC for tattoos and identifying features, Fingerprint database within police, dental records, DNA analysis."* Coroner 37 explained that if it was possible for fingerprints and DNA to be taken, they would be cross referenced against the Police National Computer and the National DNA Database. The UK Missing Persons Unit would also be notified and given details including a full description, fingerprints, and DNA results to cross-reference with the National Missing Persons DNA Database. Coroner area 39 provided two examples highlighting the risks of visual identification being used as a sole identification method. In one case, visual identification had been made by the deceased's mother and a professional who saw the deceased daily. In the other case, visual identification had been made by police officers using evidence such as location, CCTV, and clothing. In both cases, the person presumed to be deceased, was eventually discovered to be alive. This highlights the importance of DNA and fingerprints to ensure accuracy in the cross-matching process.

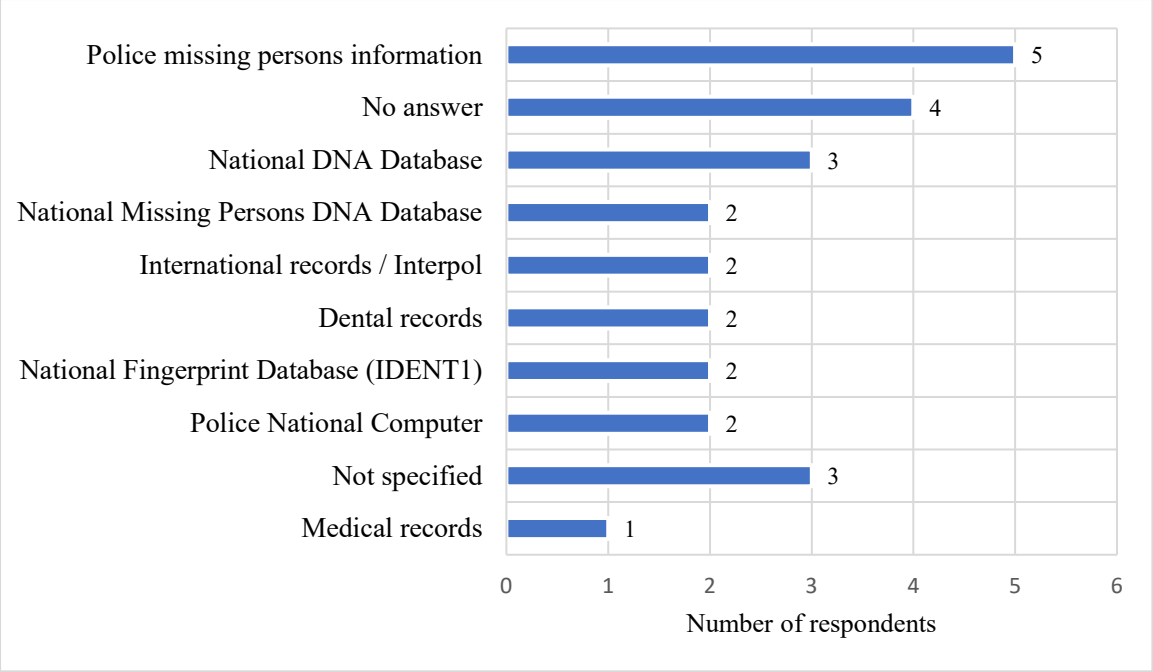

Figure 12. Coroner areas: Records and systems that were cross-matched with information relating to cases of unidentified bodies (n = 17)

4.4.6 Deleting or destroying information relating to cases of unidentified bodies

As demonstrated by Figure 13, the most common response (41%) regarding when information relating to cases of unidentified bodies was deleted or destroyed was never. Coroner area 5 stated that *"the cremation and burial paperwork is destroyed after 15 years. We are required to legally hold details of all cremation and burials, on a register, indefinitely."* Coroner area 8 disclosed *"we hold the death/ service record on our BACAS system should any next of kin come forward, this should include the ashes' location or the final resting place of the deceased. All spreadsheet information is kept for up to 10 years as stipulated on the .Gov website. Any NOK information is deleted once the service has been undertaken and is no longer needed."* Both coroner areas whose answers featured in the 'other' category stated that although coroners could delete information after fifteen years, records would be retained for much longer in practice.

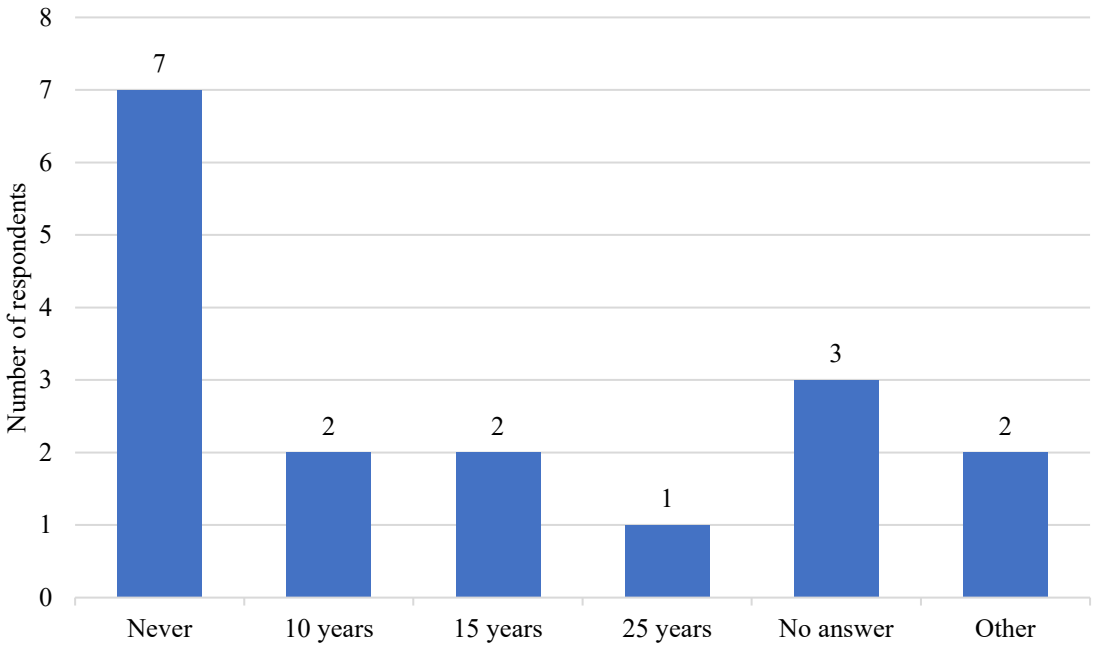

Figure 13. Coroner areas: Deleting or destroying information relating to cases of unidentified bodies (n = 17)

4.4.7 Sharing information relating to cases of unidentified bodies between individuals, departments, police forces, different agencies, and with the public

Coroner areas reported several different ways in which information relating to cases of unidentified bodies was shared between individuals, departments, police forces, different agencies, and with the public. Adherence to data protection legislation and guidance was cited as a significant consideration by many coroner areas. For example, coroner area 13 described that the police officers dealing with the identification enquiries had access to all information, and the coroner had control over all information pertaining to the deceased. However, the information released to the public would be minimal and when potential relatives were discovered there would be an assessment before sharing any further information. Similarly, when making enquiries with other police forces, enough information would be shared to establish whether they have a missing person in their area that matches the description of the unidentified body. Coroner area 5 stated that they *"provide basic information under FOI request regarding the public health funerals carried out."* Coroner area 37 explained that if DNA, fingerprints, and initial work with the UK Missing Persons Unit did not lead to a possible identity, a media appeal would be released via local radio, television, and newspapers. They would also reach out to police forces nationally establish whether they had any missing persons

of interest. Coroner area 47 along with several others outlined that information was shared via the inquest process with those involved in the investigation in addition to any interested persons as defined by the CJA 2009. Other coroner areas disclosed the sharing of information with foreign embassies under the Vienna Convention on the Law of Treaties (VCLT) 1969, specialist groups of DVI coroners, drug and alcohol support services, and mental health units.

4.4.8 Differences in the process relating to unidentified body parts

As per Figure 14, over a third (35%) of coroner areas stated there were no differences in the process relating to unidentified body parts, however, 41% of coroner areas specified differences. Of these, a majority coroner areas (86%) recognised that if the unidentified body part was deemed to be a body part that a person could live without, for example a finger or a hand, there would not be enough evidence for a coronial investigation to be initiated. In addition, coroner area 13 explained that in such cases an anthropologist would be required to assist with identification and create a body map to illustrate what had and had not been recovered. They also outlined that in such cases a tissue sample may be taken from the body parts for the purpose of DNA analysis. Coroner area 16 disclosed that they *"would use the same processes for body parts and would involve a home office pathologist."* Furthermore, coroner area 74 noted that the process of identification of body parts relied more heavily on DNA, dental, and medical records.

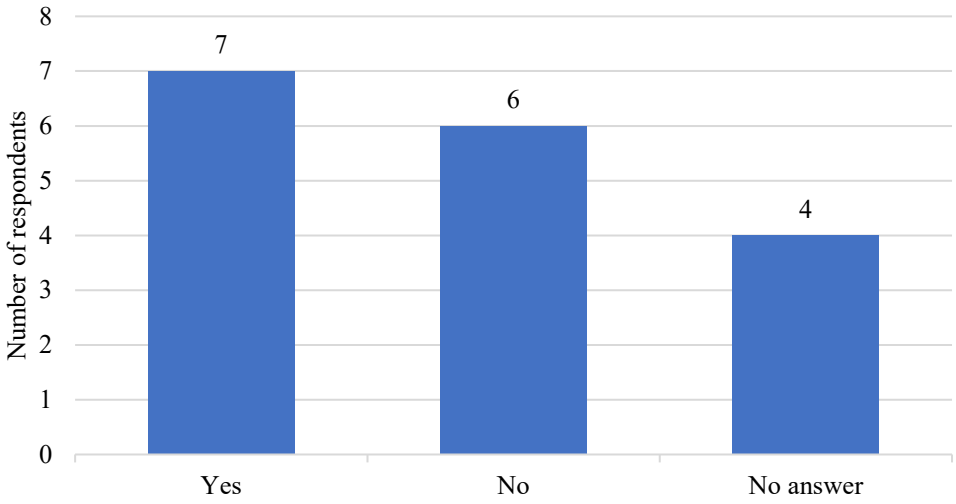

Figure 14. Coroner areas: Differences in the process relating to unidentified body parts (n = 17)

4.4.9 Improving the management of information relating to unidentified bodies

Figure 15 details several suggestions for improvements provided by nine different coroner areas. The most popular response (35%) proposed the creation of a national database of missing persons. For example, coroner area 13 suggested a national database in collaboration with the charity Missing People and the National DNA Database. However, acknowledgement was made of the nervousness about data sharing which might prevent a national agreement ever being reached. Furthermore, coroner area 22 suggested that a national database for coroners to refer to would be useful because the present system of queries being raised via the Coroners' Society of England and Wales was reliant upon coroners seeing the email and acting upon it. They felt there was a risk of successful cross-matching opportunities being missed as an unidentified body could stay in the jurisdiction where it rested if the coroner did not see an email regarding a missing person in another jurisdiction.

Coroner area 37 felt that a more joined up approach would be beneficial between the police, coroners' service, and the UK Missing Persons Unit. In their experience, an unidentified body case could quickly become inactive once the police were satisfied that there were no suspicious circumstances surrounding the death. In addition, coroner area 46 acknowledged the importance of maintaining one central body to deal with all such cases of unidentified bodies, which is currently the UK Missing Persons Unit. Finally, several suggestions were made by coroner area 70. They raised concerns about the lack of policy for police and coroners when dealing with unidentified bodies cases. They also revealed that although there was a requirement for all coroner areas to complete an annual return of statistics to the Ministry of Justice, no data was collected concerning unidentified bodies cases. Equally no annual statistics were gathered by the Human Tissue Authority surrounding how many unidentified bodies were being held in public or hospital mortuaries for extended periods of time. Lastly, they suggested the benefits of a national register of dentist records.

Coroner area 8 felt that *"the coronial investigation system is a robust one and I have no suggestions to make on this."* This was echoed by coroner area 16, they described that *"I think we have a robust system while improvements are always welcome it is not something that is required imminently."*

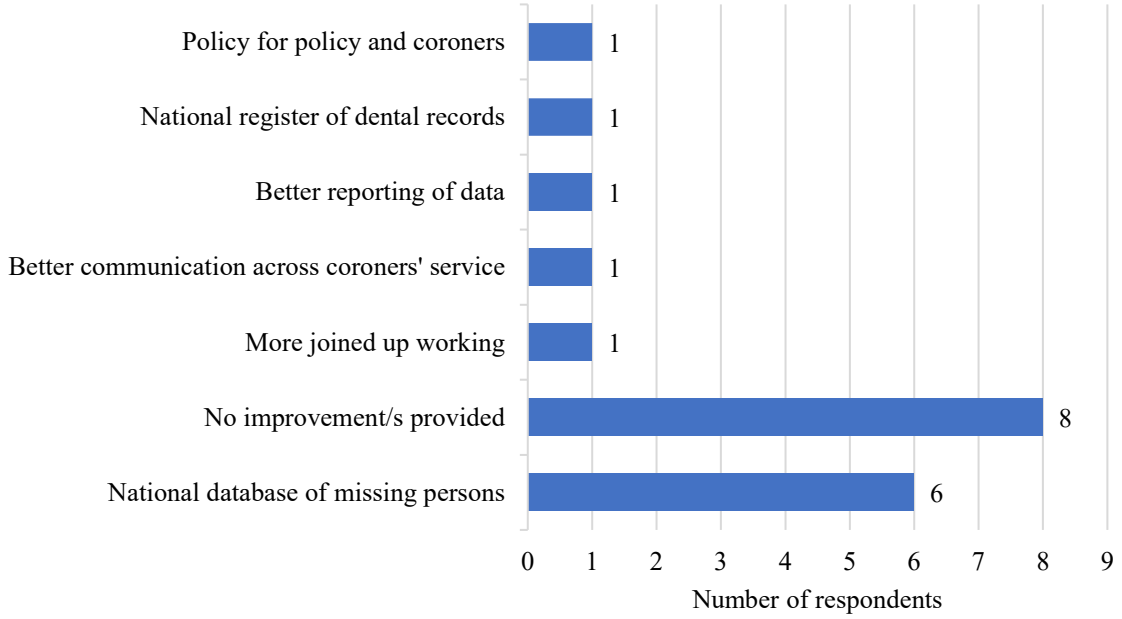

Figure 15. Coroner areas: Improving the management of information relating to unidentified bodies (n = 17)

4.5 Local authorities

A total of 238 local authorities responded to the requests for information.

4.5.1 Types of enquiries conducted in unidentified bodies cases

As per Figure 16, more than half (54%) of local authorities reported that they did not conduct enquiries into unidentified cases as this was the responsibility of the police or coroner. A quarter (24%) of local authorities had never dealt with an unidentified body. However, a small number of local authorities responded to say they would conduct internal (3%) and external (4%) enquiries to identify a found unidentified body. For example, local authority 20 explained they would assist the police should they wish to access data held internally, such as housing records, council tax information, and social services information. Local authority 49 revealed they would make enquiries with the UK Missing Persons Unit, local police, the charity Missing People, housing associations, social services, and use the website Look4them.

Several local authorities explained they would conduct the initial house search if the deceased was found within a property in their jurisdiction. Others mentioned making enquiries with local General Practitioners and hospitals, conducting genealogy searches using commercial companies or publicly available records and systems, circulating any pre-existing public

information locally, and working closely with the coroner, police, and funeral directors. Local authority 319 explained they would collect and search through the unidentified person's belongings to find useful details on any paperwork and contacts if they had a mobile phone.

Local authority 201 stated that *"unidentified bodies would be referred to the Council for disposal via the coroner. Before any plans are made, the Council would liaise with the police to ascertain the full circumstance surrounding the remains and an understanding on what efforts have been made to identify the individual. The Council would rely upon the investigative powers of the police. If the police have demonstrated that extensive efforts have already been made to identify a body and all avenues of inquiry have been exhausted, the likelihood is that the Council will not progress investigations further."* This echoed the responses of many other local authorities who relied upon police forces to take the lead on such investigations. Local authority 172 described that have *"a duty under the Public Health (Control of Diseases) Act 1984 Sec. 46 to bury people who have no family, or the relatives are absent or don't have the means to pay for a normal funeral. Reasonable enquires are made to identify the deceased and find the relatives. Usually, a probate research company is used to locate a next of kin."*

Overall, the responses received to this question were reflective of the more leading role in such investigations held by the investigating police force and coroner area. However, it is important to note that local authorities do have a significant role once the investigation is unsolved but deemed to no longer be 'active'. The records relating to the public health funeral, and in particular the location of the remains, are critical to the success and sensitivity of the case if it becomes an active investigation in the future.

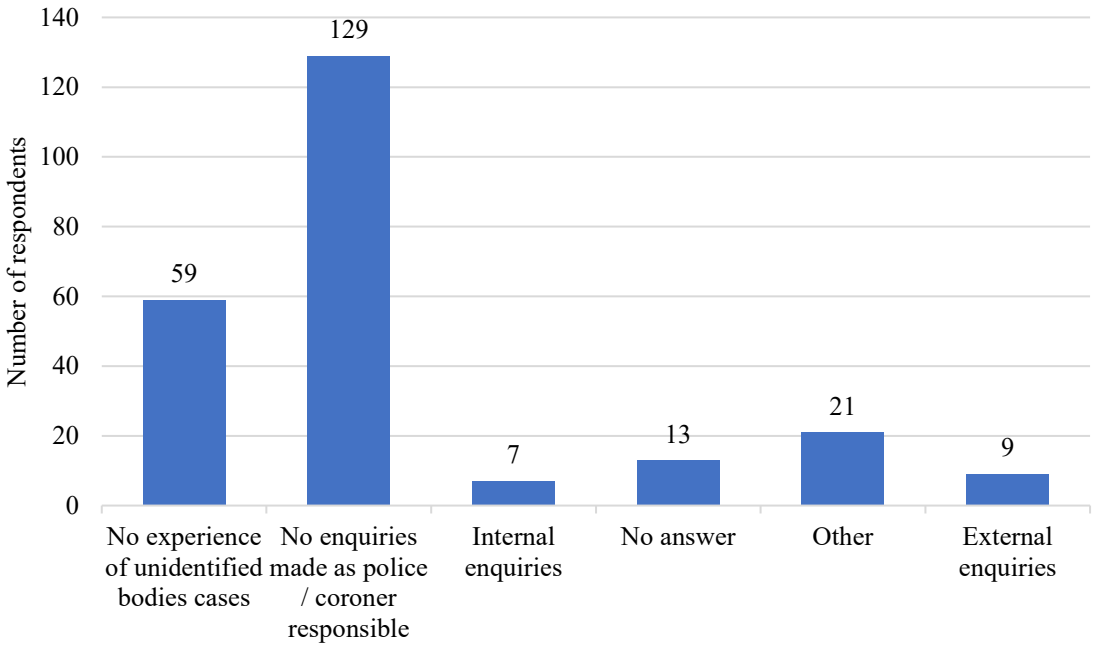

Figure 16. Local authorities: Types of enquiries conducted in unidentified bodies cases (n = 238)

4.5.2 Recording and storing information relating to public health funerals

Almost half (48%) of local authorities disclosed that their information relating to public health funerals was stored both digitally and physically. Local authority 10 stated that *"all burial and cremations are recorded digitally so any deceased who has a Public Health funeral their burial or cremation would be recorded."* This was echoed by local authority 30, they disclosed that *"all paperwork is digitally stored [...] we keep digital files and have a specialist system for the recording of burials and grave locations."* Local authority 17 explained that prior to 2015 their records were physical only and from 2015 their records were digital only. Similarly, local authority 137 reported that prior to 2013 their records were physical only and from 2013 their records were digital only. Most local authorities whose records were stored both digitally and physically explained that case information and actions were stored on an electronic database, with a parallel paper file storing original documents such as the death certificate. Some (45%) of local authorities only stored digital files in relation to public health funerals and did not retain physical files.

4.5.3 Whether unidentified bodies were usually buried or cremated

Over a quarter (27%) of respondents reported that unidentified bodies were usually buried, as can be viewed in Figure 17. The local authorities with experience of such cases provided a variety of reasons for this. For example, burial was deemed to be the logical approach to allow for an exhumation to take place at a later date for the body to be re-examined to assist with possible identification. Local authority 160 explained that the one unidentified body they had dealt with was buried. Once identified, family members requested their loved one be moved to a cemetery closer to them. Local authority 207 stated they had never dealt with such a case and therefore did not have a policy in place. However, they explained they would likely adopt a similar approach to circumstances where a deceased individual had no traceable family at the time of making the funeral arrangements, and so a burial would be arranged. They felt that choosing a burial would ensure that the location of the body would be recorded by the relevant cemetery's administrator and would give any surviving family members more options with regards to disposal of the body, for example exhumation and either relocation or cremation. Local authority 55 stated that their *"policy is that public health funerals are always burials unless prior to death the deceased had expressed a wish for cremation. All public health burials will be in a grave which can hold two full earth burials with at least 12 months between burials. Unidentified bodies would therefore be buried once the body was released by the Coroner."* In cases where individuals have died and remained unidentified, no information would be known regard their wishes related to burial or cremation, and so it could be assumed that all unidentified bodies would be buried by local authority 55.

Whereas 12% of local authorities stated they would usually cremate unidentified bodies and a further 19% explained the unidentified body would be cremated unless the individual's wishes were known. For example, local authority 49 reported that if they had confirmation of the person's religious beliefs or preferences then this would be reflected within their funeral. However, in the absence of such information about the deceased then they would receive a cremation. Several local authorities explained that all public health funerals were undertaken in the cheapest possible way which was cremation. Furthermore, a few local authorities revealed that the decision regarding the method of disposal would be directed by the coroner. Local authority 20 explained their experience as having several burials of unidentified bodies ranging from the late 1800s to the late 1960s, and a cremation of an unidentified body in 2006 at the direction of the coroner. Local authority 58 explained that *"Public health funerals by default are cremations. Burials would only take place in exceptional circumstances."* It was unclear if checks were made prior to cremation as to whether DNA had been taken by the police

or coroner to aid future investigative efforts. The discrepancy in approaches to cremation and burial are problematic and is reflective of the need for national guidance in this particular area.

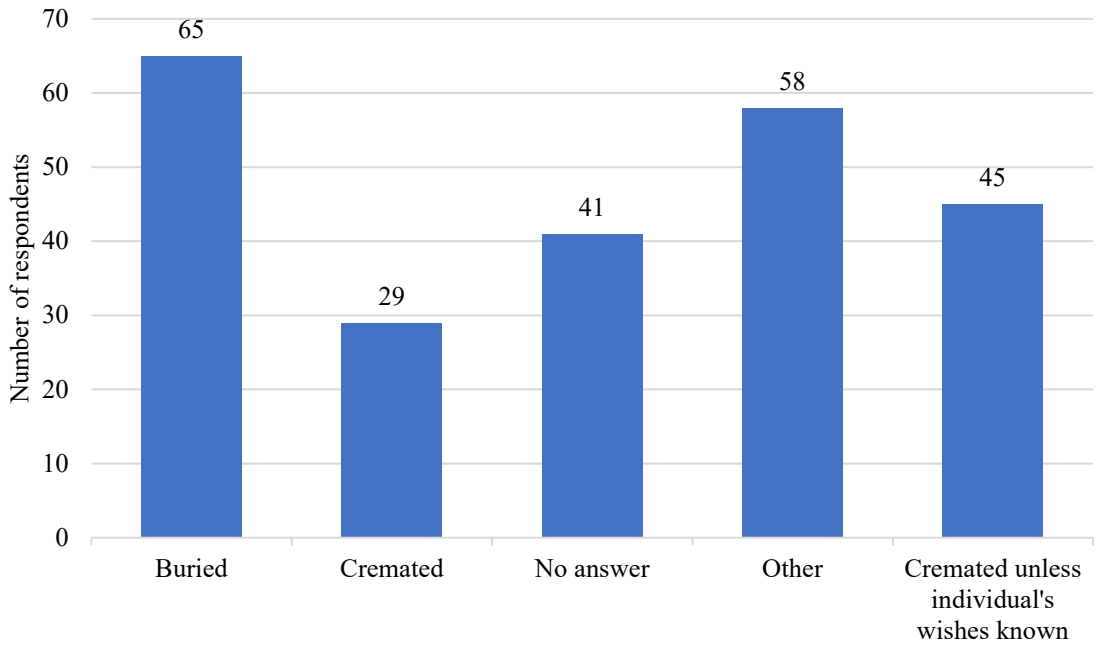

Figure 17. Local authorities: Whether unidentified bodies were usually buried or cremated (n = 238)

4.5.4 Whether the recorded information included the location of remains within the mortuary, cemetery, or crematorium

Over half (52%) of local authorities stated that their recorded information included registers which stated the location of the bodies within cemeteries or crematoriums. For example, local authority 55 explained that "*disposal of all bodies is recorded in registers for cemeteries and crematorium, which is required by law. Graves are identified by grave markers and plans."* However, a third (33%) stated they did not record this information with the majority stating this was because ashes would be scattered in the garden of remembrance, so no specific location would be available. Local authority 260 noted that the location of the scattered ashes would be recorded but revealed that such recording only started recently. Local authority 60 outlined that although they did not record this information it would be easily obtainable from the funeral directors. A few (3%) local authorities stated their recorded information would include the location of bodies in most but not all cases. This likely referred to historic unidentified bodies cases in which paper records had not been retained due to the passage of time. Other responses pointed towards the location of burials or cremations being held by the coroner.

4.5.5 Whether unidentified bodies cases were reviewed

Over a third (37%) of local authorities reported that they did not conduct reviews into cases of unidentified bodies with the majority stating this was the responsibility of the police or coroner. According to local authority 55, they did not have the capacity to conduct reviews. They had dealt with one unidentified body case in the past twenty years and the person was eventually identified. Several local authorities stated they would not conduct a review unless new information came to light, an inquest was reopened, or an enquiry was received from a relative before the funeral was complete. Local authority 344 explained that unidentified bodies cases were not reviewed once the case was closed unless someone contacted the coroner's office regarding a missing person.

A small number (8%) of local authorities reported carrying out reviews into such cases. For example, local authority 97 stated they would review the case every six months. Whereas local authority 373 stated that all public health funerals were reviewed around six weeks after the funeral to ensure all outstanding matters had been taken care of. Furthermore, a few local authorities explained they would review the case but only for the purpose of locating any money to cover for the funeral costs. Responses in the other category included information from local authority 303 who revealed they usually dealt with hospital bodies that were unidentified and so the reviews would be managed by the hospital. Local authority 34 explained that such cases were *"only reviewed under the request of an appropriate authority such as the police or coroner."* The varied responses received to this question are suggestive of locally based practices and policies occurring based on available resources, expertise, and knowledge, rather than one unified national approach. This is also reflective of the sheer number of different local authorities and their differences in relation to whether they have cemeteries or crematoriums available within their jurisdiction.

4.5.6 Records and systems that were cross-matched with information relating to cases of unidentified bodies

Figure 18 details that over a third of local authorities (35%) reported that no records and systems were cross-matched with information relating to cases of unidentified bodies. The majority explained that as a local authority, they were only instructed once the necessary investigative and legal actions had been exhausted by police and coroners. Local authority 55 stated that *"there is no duty on the local authority to identify, only to bury or cremate the body*

of any person who has died in the local authority area and for whom no suitable arrangements have been or are being made, therefore no records or systems likely to be cross matched by Environmental Health." A few local authorities outlined that although they kept their own records of public health funerals, they did not have access to police or coroner systems. They presumed that any cross-matching would have taken place prior to a case being referred to them. Although, a tenth (10%) of local authorities outlined the various records and systems that would be cross-matched including internal systems, council tax records, police systems, land registry records, National Health Service records, coroners databases, and dental records.

Local authority 40 stated that when receiving a request from the police, all records held by the local authority could potentially be cross-matched. Local authority 49 explained in the event of an unidentified body becoming known within the local authority's district, a DNA sample would be obtained to cross reference the results with police records and records of genealogy companies. Local authority 201 reported that they would check all internal systems to ascertain any details affiliated with the case, for example whether the location the remains were found in were linked to any other relevant information they held. According to local authority 263 their use of a unique bereavement service reference number would ensure cross-matching of information if required. Local authority 306 stated that if the unidentified body was that of a young person, then they would refer to records and systems held by social care teams. Local authority 344 explained that DNA was taken from all unidentified bodies and a report was kept on file in case this information was needed for cross-matching in the future.

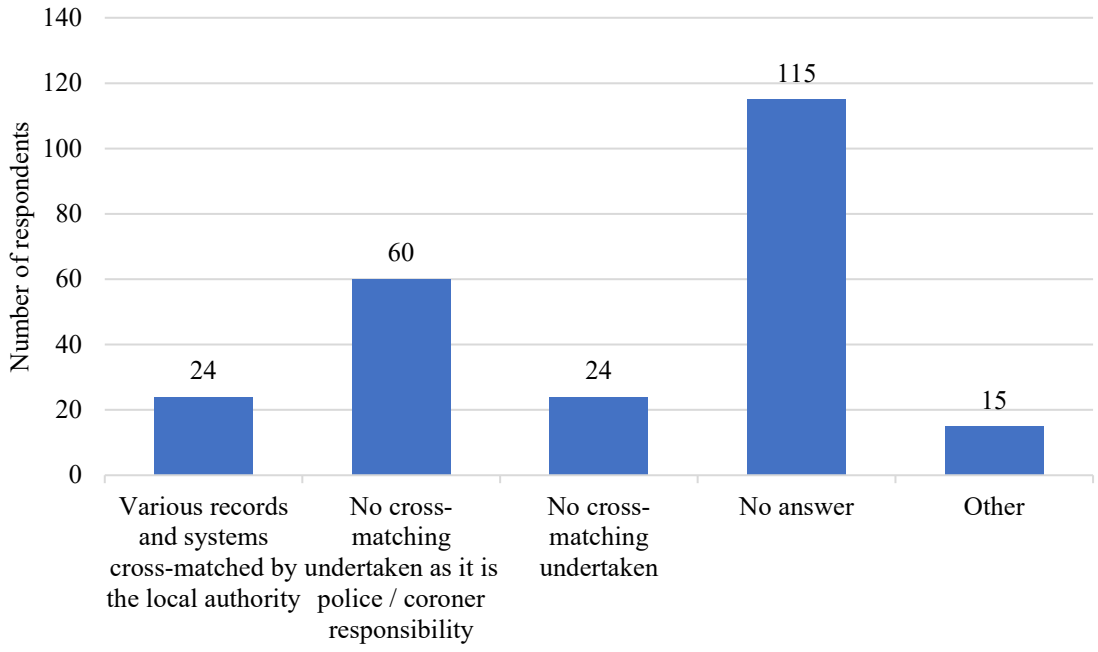

Figure 18. Local authorities: Records and systems that were cross-matched with information relating to cases of unidentified bodies (n = 238)

4.5.7 Deleting or destroying information relating to public health funerals

A third (33%) of local authorities explained they never deleted or destroyed information relating to public health funerals. For example, local authority 67 disclosed *that "in our case all records kept."* As Figure 19 presents, the next most common responses were that information relating to public health funerals was deleted or destroyed after seven years (11%), ten years (10%), and six years (9%). Local authority 29 explained that *"this depends, death certificates are available from county councils indefinitely. Public health funerals information will be deleted after 10 years."* Local authority 54 stated that *"items of no value are held for a year from the time of death - all other hard copy documents are securely destroyed after 12 years."* There were no details provided by local authority 54 as to the retention period for digital records. Local authority 20 mentioned that they retained information relating to the deceased in line with Welsh Government guidance which recommended that deceased persons' data should be held for a minimum of ten years. Local authority 30 stated that they did not destroy information as under the Local Authorities' Cemeteries Order (LACO) 1977 they had a legal duty to permanently retain such records.

Local authority 134 explained that although they were required to keep records for six years, in practical terms they retained records of public health funerals for much longer than required as they were often the subject of requests made under the Freedom of Information Act (FOIA) 2000. Local authority 137 reported that they had retained information dating back to 2000 and local authority 157 had records dating back to 2007. Local authority 143 had information dating back to 2009 and they disclosed having no intention to delete any information held relating to unidentified cases. Local authority 145 explained that all information would be deleted apart from any burial or cremation records and their public health funerals register currently showed details of burials from 2013 onwards. Local authority 168 explained that their policy in relation to deleting and destroying information was currently under review and they had records dating back to 2010. Local authority 314 stated that their policy used to require records to be retained for six years but since they started maintaining electronic records in 2014, they no longer delete or destroy information.

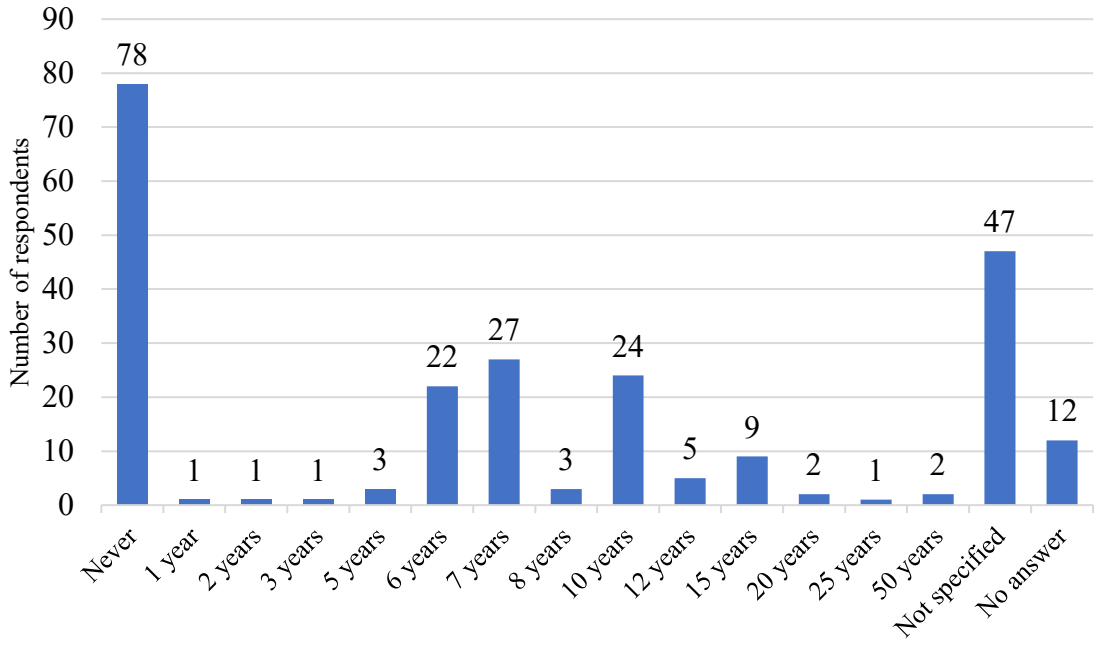

Figure 19. Local authorities: Deleting or destroying information relating to public health funerals (n = 238)

4.5.8 Sharing information relating to public health funerals between individuals, departments, police forces, different agencies, and with the public

As revealed by Figure 20, half (50%) of all local authorities stated that information relating to public health funerals was shared on a need-to-know basis with the relevant authorities and the public in line with data protection legislation. For example, local authority 73 stated that "*individual case referrals for public health funerals will come either via the Coroners Office, of if person passed away on end of life care via the care provider. General information about number of public health funerals undertaken by the local authority can be found on our website, or via a FOI request."* Almost a third (32%) of local authorities explained that they published a list on their website detailing various information regarding the public health funerals they had undertaken. Local authority 249 reported that although the coroner and police led on all such cases, officers from the local authority would contact the coroner and police to request relevant information if required. Local authority 311 felt that under section 46 of the Public Health (Control of Disease) Act (PHA) 1984 there was a tripartite information sharing agreement between the police who find the body, the coroner notified of the discovery, and the mortuary that stored the body whilst identification enquiries were made. In the responses within the other category, local authority 350 advised that in such cases a notice would be placed

within the local newspaper advising of funeral details in the hope that family members or friends might come forward.

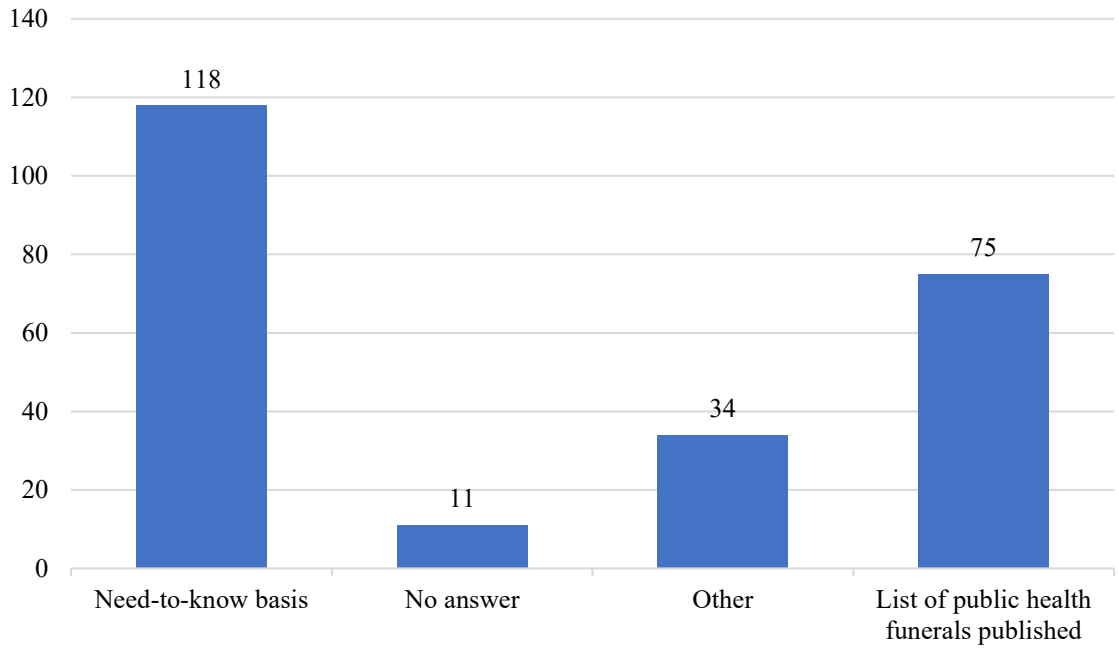

Figure 20. Local authorities: Sharing information relating to public health funerals between individuals, departments, police forces, different agencies, and with the public (n = 238)

4.5.9 Differences in the process relating to unidentified body parts

As per Figure 21, a fifth (20%) of local authorities stated there were no differences in the process relating to unidentified body parts compared to whole bodies. Local authority 40 noted that *"this situation has never arisen [...] we would therefore seek advice of the Coroner. Common sense would be that we would bury such remains in a marked burial plot, which would then allow the remains to be exhumed and reunited with other remaining body parts if appropriate."* Local authority 139 disclosed that they *"do not deal with body parts in Public Health Funerals. This would be a task for the police or Coroner."* In contrast, local authority 190 stated *"if individual body parts are discovered then the coroner may authorise cremation rather than burial."* Local authority 245 explained that the various methods of identification including examining fingerprints, odontology, tattoos, birth marks, police records, and DNA would be used to establish identification. They revealed they would use the most appropriate identification method available dependent on what body parts were discovered. Almost half (48%) of all local authorities did not provide an answer to this question. However, a few (3%) local authorities reported differences in process relating to unidentified body parts. For

example, local authority 263 stated that in cases of unidentified body parts the UK Disaster Victim Identification Team would be involved.

Local authority 81 outlined that the police and coroner had specific guidelines relating to what constitutes a body, specifically whether someone could survive without the body part. In their experience a great deal of police investigation would have taken place before the case would be referred to the local authority. Local authority 245 also reported that the procedure was slightly different when unidentified body parts were discovered. They kept a register for body parts and explained that the list was not published on their website due to not wanting to cause offense to the public. Moreover, local authority 164 stated that when a request to bury a body part had been received in the past, they buried the remains in a shared un-purchased grave and denoted the exact location to aid any future exhumation.

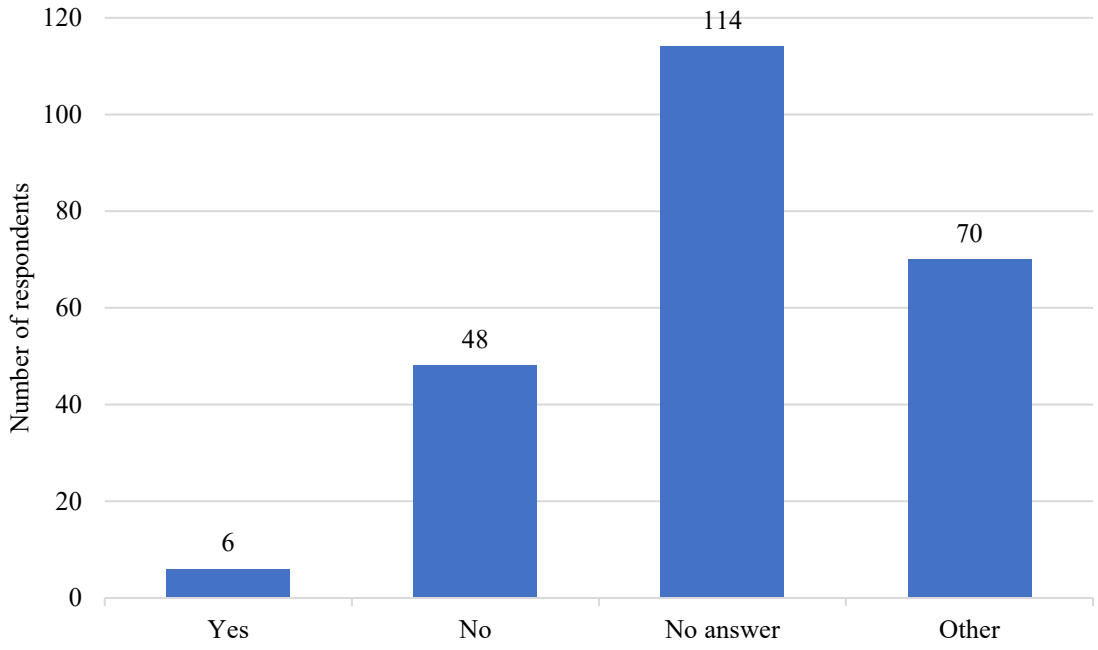

Figure 21. Local authorities: Differences in the process relating to unidentified body parts (n = 238)

4.5.10 Overall responsibility for public health funerals within the local authority

Over a quarter (28%) of local authorities stated that the Environment Health department had the overall responsibility for public health funerals, as presented in Figure 22. Exactly a quarter (25%) provided a named individual or role who held the overall responsibility for public health funerals. Several local authorities responded to say they were only responsible for public health

funerals when the person had died within the community. If the person had died within a hospital setting, then the public health funeral would become the responsibility of the National Health Service. Local authority 178 explained that *"the Council's cemetery service conducts public health funerals and investigates accordingly, before passing to the Legal section if required. The Head of Service Commissioning is responsible for the Councils Cemetery Service."* Overall, the responses received to this question were the most varied out of all the questions asked to local authorities. This highlights the differences in organisational structures throughout the many local authorities in England and Wales.

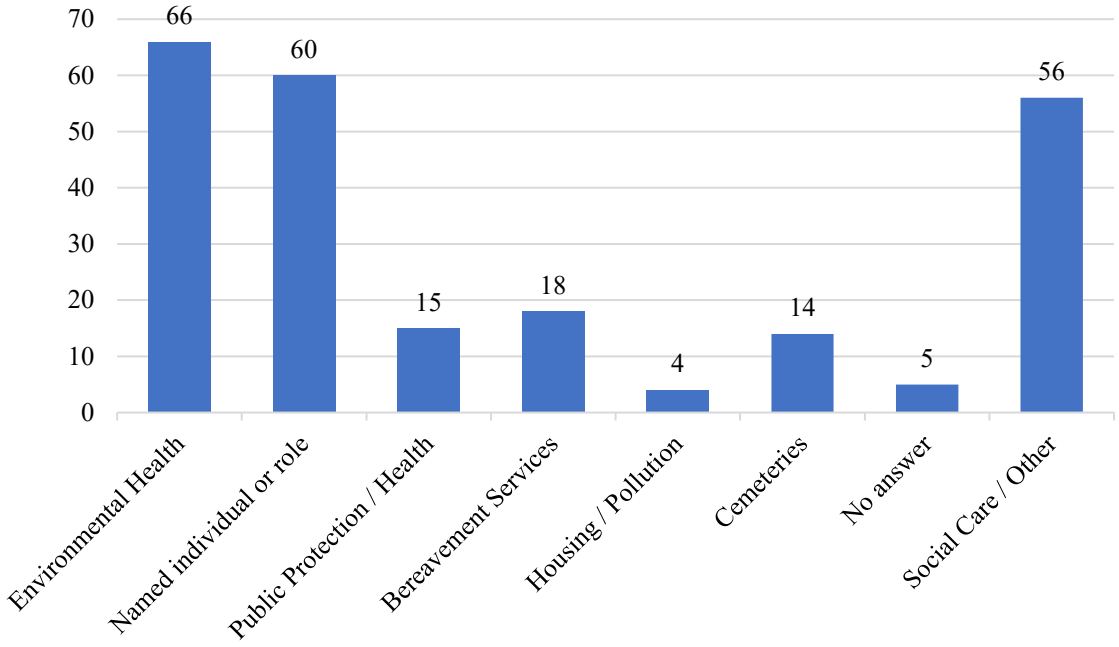

Figure 22. Local authorities: Overall responsibility for public health funerals within the local authority (n = 238)

4.5.11 Improving the management of information related to unidentified bodies

Figure 23 presents the response received that a large majority (95%) of local authorities did not provide a suggestion for how the management of information related to unidentified bodies could be improved. However, a small number (5%) did provide a suggestion for improvement. Local authority 37 explained that *"the role of the local authority is to bury or cremate an individual whereby no one has come forward or no known next of kin can be found. The duty of the authority is to make suitable enquiries, this does not mean endless amounts of time should be spent in this matter. Therefore the management of information is of little consequence as opposed to actual receiving it."* Local authority 70 stated *"fortunately we conduct very few*

public health funerals and therefore and at this moment I have not experienced any difficulties with the need for improvement."

Local authority 49 suggested a review of policies and procedures and local authority 53 reported that receiving the PhD researcher's request for information had prompted a discussion and review. This was supported by Local authority 81 who explained that any system of management of information should be reviewed and improved regularly. Local authority 76 felt that guidance on the subject matter of unidentified bodies cases would be welcomed and that sharing good practice between authorities would help to ensure a consistent approach.

Local authority 84 suggested the benefit of having a district-wide database with the coroner's office if this was not already in place. Local authority 311 stated that it would be helpful to assign a code name or coding system to the unidentified and log the details in the same way as an identified body. Furthermore, local authority 370 outlined their upcoming plans to provide public health funerals information on their website. Local authority 373 explained that they were in the process of setting up regular monthly meetings with a specialist missing persons team in their local police force. Local authority 306 reported their experience of very limited investigations being undertaken by the police and coroner for unidentified bodies cases and felt there could sometimes be a lack of willingness or understanding. Furthermore, local authority 18 noted the difficulties faced due to many boundary changes and amalgamations of smaller authorities in Wales over the last thirty years that had caused issues in retrieving historical information. Lastly, local authority 245 explained that the management of information regarding public health funerals was adequate at present however electronic records could become compromised. They felt that registration books were a useful tool to provide a back up to the electronic method of recording such sensitive information.

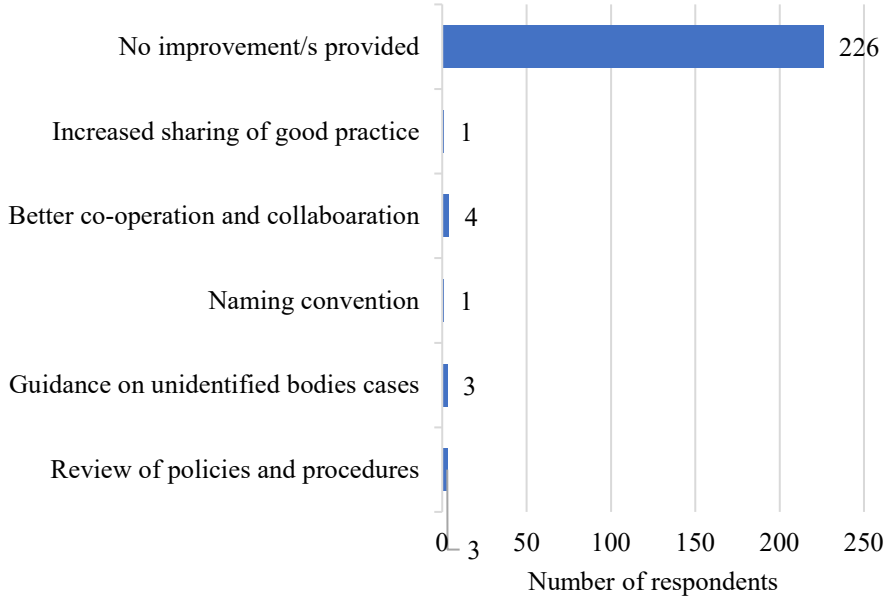

Figure 23. Local authorities: Improving the management of information related to unidentified bodies (n = 238)

4.6 Discussion

The responses received to the requests for information demonstrates the national efforts being made by the police, coroners' service, and local authorities. In both historic and recent cases, work is ongoing to secure justice, provide answers, ensure care and dignity, and return names to those who remain unidentified after death. The responses make clear the resilience, dedication, and innovative thinking required to achieve resolutions.

4.6.1 What is the end-to-end process of the treatment of unidentified bodies on a local, national, and international level?

The complexities presented by the end-to-end process of the treatment of unidentified bodies cannot be approached or resolved solely by one agency, database, or system. The discovery of an unidentified body and the resulting investigation can require a wealth of resources, time, effort, and expertise from a range of professionals in co-operation with members of the public. The Table 12 outlines the end-to-end process that currently occurs, based on the information obtained during this phase of the research.

Table 12. End-to-end process for the treatment of unidentified bodies on a local, national, and international level

Stage	Activity
1	Enquiries are undertaken by the investigating police force, coroner, and/or local authority to establish who the deceased individual was.
2	The UK Missing Persons Unit is notified of the case.
3	Enquiries continue to establish who the deceased individual was.
4	An inquest is held to inquire into the circumstances surrounding the death and provide the details needed for the death to be registered.
5	The remains of the deceased individual are disposed of during a public health funeral.
6	In light of new evidence or due to passage of time, a review is conducted.
7	The UK Missing Persons Unit maintain the role of the national and international point of contact for the case.

The first stage in the end-to-end process of the treatment of unidentified bodies cases involves enquiries undertaken by the investigating police force, coroner, and/or local authority to establish who the deceased individual was. The police are requested to notify the UK Missing Persons Unit within 48 hours of the discovery (College of Policing, 2021). Nearly two thirds of police forces and coroners cited the use of DNA as being the most common line of enquiry pursued in such investigations. This finding was foreseeable as England and Wales are widely recognised as having the world's most effective and efficient approach to the use of forensic DNA technology (Asplen, 2004). However, the collection of DNA may be unfeasible in certain circumstances for example historical cases in which unidentified remains have been cremated rather than buried. Over half of local authorities reported that they did not conduct any enquiries into unidentified bodies cases as they believed this was the responsibility of the police or coroner. Less than a quarter of local authorities reported that they had not experienced a case where someone had remained unidentified after death.

Highlighted through the responses was the absence of one central or national system within England and Wales to record such investigative work. More than a third of the police forces, coroner areas, and local authorities who reported conducting enquiries into unidentified bodies cases said the recording and storing information occurred both digitally and physically.

Notably, police forces mentioned at least 8 different systems and 7 different databases where information would be held. Similarly, coroner areas and local authorities specified the several different systems they used. Throughout the responses, there was no reference to any systems or databases where access was directly enabled between agencies. However, this approach can and does occur in certain areas of policing. For instance, the 'street triage' model is a multi-agency approach to mental health crisis care based on locally agreed protocols. This partnership approach to localised issues within community mental health has an overarching aim to ensure more effective health outcomes and the more effective use of resources (Cummins and Edmondson, 2016). The schemes are based on the fundamental principle of police officers, mental health nurses, and in some cases paramedics, working alongside each other to respond to mental health related policing incidents. Crucially, the street triage team have direct access to police, ambulance, and mental health systems, including electronic patient records due to the benefits that occur from taking a partnership approach to management of information. During the enquiries stages, the most common records and systems used by police forces when cross-matching information relating to cases of unidentified bodies were Hermes, the National DNA Database, and the National Missing Persons DNA Database. Whereas, coroners stated that missing persons information held by the police would be the most common records used. A tenth of local authorities outlined the various records and systems they would use for cross-matching purposes. This included internal systems, council tax records, police systems, land registry records, National Health Service records, coroners' databases, and dental records. As demonstrated, unlike the 'street triage' model, unidentified bodies cases can require information from a much higher number of sources and so a tripartite information sharing agreement would be unlikely to be effective.

If an identity cannot be established and all reasonable lines of enquiry have been exhausted, an inquest is held to inquire into the circumstances surrounding the death and provide the details needed for the death to be formally registered. Once the death is registered, a death certificate is produced, and the remains of the deceased individual are disposed of during a public health funeral. Only local authorities were asked about the method of disposal as they are the agency responsible for disposing of human remains. Over a quarter reported that unidentified bodies were usually buried. Whereas, over a third explained unidentified bodies would usually be cremated. This is a problematic choice from both a forensic perspective as cremation prevents exhumations taking place and for religious reasons due to cremation being forbidden in some religions. Furthermore, the responses to the requests for information displayed evident

inconsistencies relating to the recording of the location of unidentified remains following public health funerals taking place. For instance, just under half of police forces reported recording information relating to the location of remains within the mortuary, cemetery, or crematorium. Over a fifth of police forces explained they did not hold such information as it would be held by the coroner. Almost three quarters of coroner areas reported recording such information however several said that did not hold such information as it would be held by the local authority, registrar, or local archivist. Dissimilarly, over half of local authorities reported recording the location of remains within their cemeteries or crematoria. However, a third stated they did not record this information because this would be held by the coroner or funeral directors. Some stated that following cremation, ashes would be scattered in the garden of remembrance, so no specific location would be recorded. The misaligned expectations around responsibilities for recording are problematic and lead to crucial information being misplaced or lost.

After the deceased individual has been buried or cremated, a review is conducted in light of new evidence or due to passage of time. Almost half of police forces reviewed unidentified bodies cases at specific time periods such as annually or every three years. There was an acknowledgement of the absence of national guidance on the frequency of reviews. Over a quarter of police forces explained that reviews of unidentified bodies cases were dependent on new information arising, the cause of the death, and whether the death was deemed to be suspicious or not. Sometimes, reviews of unsolved cases can be part of policing operations. A third of police forces reported undertaking previous operations specifically focused on solving cases of unidentified bodies. Just under half reported having completed no previous operations of this type. In the present day, a third of police forces revealed details of current operations specifically focused on solving cases of unidentified bodies, whereas just under half had no operations of this type ongoing. Nearly three quarters of coroners reviewed unidentified bodies cases with answers provided being similar to those provided by the police. A small number of local authorities reported carrying out reviews with comments including every six months, six weeks after the funeral, and for the purpose of locating any money to cover for the funeral costs. Over a third of local authorities reported that they did not conduct reviews into cases of unidentified bodies with the majority stating this was the responsibility of the police or coroner.

Integral to reviews and the sharing of information between agencies during such reviews is the retention of information. Some respondents reported that under section 46 of the Public Health

(Control of Disease) Act (PHA) 1984 there was a tripartite information sharing agreement between the investigating police force who discovered the body, the coroner that was notified of the discovery, and the local authority whose mortuary stored the body whilst identification enquiries were made. The approach to sharing information was reported by all agencies as being dealt with on a case-by-case basis. Over a third of police forces explained that retention of information relating to cases of unidentified bodies would be in accordance with the Management of Police Information (MoPI) Code of Practice 2005. MoPI specifies different information retention periods dependent on the nature of the incident. For example, serious offences and public protection matters such as murder, rape, child abuse, and terrorism require information to be retained until the subject has reached 100 years of age, with reviews required every 10 years to ensure adequacy and necessity. Over a third of coroners stated that information relating to unidentified bodies cases would never be deleted or destroyed. However, other comments ranged from between 10 and 25 years. A third of local authorities explained they never deleted or destroyed information relating to public health funerals. Other answers ranged between 1 to 3, 5 to 8, 10, 12, 15, 20, 25, and 50 years, illustrating inconsistencies in retention procedures across England and Wales.

The UK Missing Persons Unit maintain the role of the national and international point of contact for the case. On a local level, there were varied responses as to who maintained overall responsibility for such cases within each agency. Almost half of police forces reported that the overall responsibility was dependent on the circumstances of the case in relation to whether a crime was suspected. Coroners were not asked this question due to the obvious responsibility resting with them. Over a quarter of local authorities stated that the Environment Health department had the overall responsibility for public health funerals. Exactly a quarter of local authorities provided a named individual or role who held the overall responsibility for public health funerals. Such inconsistencies in the approach to the treatment of unidentified bodies cases gives cause for concern.

Finally, all agencies were asked whether there were any differences in the process for the treatment of unidentified body parts. Almost half of police forces reported no difference in process, however some stated they were more difficult. Less than a fifth of police forces outlined differences that were dependent on the types of body parts that had been discovered and whether they were life limiting and therefore cause for a possible suspicion of a crime having taken place. This point was echoed by the coroners, a third of whom reported no

differences and over a third reporting differences dependent on the body parts discovered. A fifth of local authorities stated there were no differences. Almost half did not provide an answer to this question which could indicate a gap in knowledge. A few local authorities reported differences for example keeping a register for body parts and not including certain details on publicly available lists of public health funerals due to not wanting to cause offence. The conflicting responses highlight the absence of and need for guidance in this area.

4.6.2 How can the management of information for cases of unidentified bodies be improved?

Several suggestions were made for how the management of information for unidentified bodies cases could be improved, outlined in Table 13.

Table 13. Suggested improvements for the management of information for unidentified bodies cases

	Suggestion
1	Burial should be the only method of disposal used for deceased individuals who remain unidentified after death.
2	Coroners and local authorities should return annual statistics of unidentified bodies and body parts.
3	A naming convention should be created and used for unidentified cases.
4	National guidance should be created and used for unidentified cases.
5	Information relating to unidentified cases should be retained indefinitely.
6	The discovery of any unidentified body part should lead to DNA being taken and uploaded on to the National DNA Database.
7	A national register of dentistry should be created and managed.
8	A national database on unidentified bodies cases should be created and accessed by police forces, coroners, and local authorities.
9	A national biometric identity programme should be established for all adults in the UK.

Police respondents who had encountered difficulties in locating the resting places of those who had remained unidentified after death suggested the development of national guidance to direct burial as the only method of disposal in such cases. This would allow for future exhumations, aid the cross-matching process, increase the effectiveness and accuracy of the recording of the resting place, and most importantly provide options to loved ones who are discovered at a later date. Over a quarter of local authorities reported that unidentified bodies were usually buried. Whereas, over a third explained they would be cremated. An evident misalignment exists in the approach to disposing of remains, driven by localised policies rather than a national process. A consideration to be explored further during this thesis, is the possibility of storing the remains in a mortuary for as long as possible with disposal only taking place should space be an issue.

Police forces return annual statistics on the number of outstanding cases of unidentified bodies and body parts (and alive unidentified individuals) to the UK Missing Persons Unit. However, neither coroners nor local authorities are subject to the annual gathering or reporting of such information. Respondents felt this was problematic as cross-referencing of the total number of cases, both historic and recent, cannot take place. Therefore, the total number of cases being based on police information only undermines the reliability and accuracy of the statistics. Coroners revealed that although there is a requirement for them to complete an annual return of statistics to the Ministry of Justice, no data is collected concerning unidentified bodies cases. Equally no annual statistics are gathered by the Human Tissue Authority surrounding how many unidentified bodies are being held in public or hospital mortuaries for extended periods of time.

Local authorities stated that it would be helpful to assign a code name or coding system to the unidentified and log the details in the same way for each case. In the absence of a naming convention, unidentified bodies cases are recorded in a variety of different ways. For instance, a first name and last name may be recorded as Unknown Unknown, Unknown Male, Male Unknown, John Doe, Unk Male, Unk Unk, and so on. The creation and use of a naming convention would benefit all agencies and make the retrieval of the annual statistics mentioned above much more manageable.

Furthermore, local authorities called for guidance on the treatment of unidentified cases to ensure a consistent approach is taken across England and Wales. One local authority reported that a discussion and review of their own processes had been prompted having received the PhD researcher's request for information, however they welcomed guidance on the subject

matter for future reference. This was echoed by coroner areas who raised concerns about the lack of policy for police and coroners when dealing with unidentified bodies cases. Guidance on the end-to-end process would be beneficial and help to ensure more effective outcomes in such cases.

Respondents explained that non-suspicious cases of unidentified bodies and body parts did not fall under the MoPI definition of serious offences and therefore the 100-year retention rule did not apply. There were evident inconsistencies between all three agencies of the length of time in which information should be retained. Therefore, it was suggested that national guidance to direct the indefinite retention of information relating to cases of unidentified bodies or body parts would be useful. This would help to ensure each case has a full police and coronial file alongside a known resting place to assist investigators should a potential match need to be explored further.

There was an evident distinction between the processes for unidentified body parts which were considered to be life dependent or life limiting, for example a head or torso were considered life dependent whereas a finger was not. It was unclear from all respondents what exactly happens to non-life dependent body parts. Respondents noted that if all discoveries of body parts were treated in the same way and DNA was taken and uploaded to the National DNA Database, there could be an increased potential to resolve cases.

A number of police forces and coroners proposed a national register of dental records which would assist in with identification efforts. However, they outlined that such an endeavour would be resource intensive and unlikely to be undertaken by police forces. It is unclear which agency would lead or fund a national register and this is unlikely to be something that could be easily set up and managed. Further research could be conducted into other countries outside of the UK that have adopted such a register to assess its potential strengths and weaknesses.

Numerous respondents called for the creation of a national database of unidentified bodies cases that could be accessed by police forces, coroners, and local authorities. Police respondents acknowledged that a lack of resourcing or will to conduct operations into unidentified bodies cases meant that historic unidentified bodies cases were left to the consciences of busy senior detectives to develop as hobby projects. As such, a central shared national database would save time and address the challenges faced when reviewing systems such as Compact to try and decipher what actions had already been undertaken within an

investigation. This suggestion was further illustrated by several coroners who suggested a national database to be used in collaboration with the police, local authorities, the charity Missing People and the National DNA Database. However, acknowledgement was made of the nervousness about data sharing which might prevent a national information sharing agreement ever being reached. Furthermore, coroners explained that the present system of queries being raised via the Coroners' Society of England and Wales was reliant upon coroners seeing the email and acting upon it. They felt there was a risk of successful cross-matching opportunities being missed as an unidentified body could stay in the jurisdiction where it rested if the coroner did not see an email regarding a missing person in another jurisdiction. Therefore, a more joined up approach through using a central database would be beneficial.

Finally, following experience of establishing the identities of murder victims who were not born in the UK, police respondents called for a national biometric identity programme for all adults. They explained that this would reduce the number of unidentified remains. Although, they acknowledged that this proposal was likely to be received as unacceptable by the public due to ethical and privacy concerns. Similarly, to the previous suggestion, this undertaking would require a substantial amount of time, money, and resources.

4.7 Conclusion

In this chapter, a meticulous examination has been conducted of the end-to-end process involved in the treatment of unidentified bodies, spanning from local to national and international levels. Throughout the exploration, valuable ideas for enhancing the management of information in unidentified bodies cases have been presented, providing potential avenues for improving the effectiveness of investigative efforts.

In the next chapter, the focus will shift towards examining the demographic characteristics associated with individuals who remain unidentified after death in England and Wales. Through this investigation, understanding of the patterns and factors contributing to unidentified deaths will deepen, enabling the formulation of targeted strategies to address this poignant issue. Moreover, the following chapter will investigate whether rates of unidentified deaths exhibit geographical, situational, or temporal variations. This analysis will provide crucial insights into potential clusters of unidentified bodies cases, guiding efforts to allocate resources more efficiently and identify areas where targeted interventions may be most effective. Additionally, drawing lessons from solved cases of unidentified bodies will offer

invaluable opportunities for learning and improvement. By analysing successful investigations, this will inform police, coronial, and local authority practice, fostering best practices that can be applied to current and future cases.

CHAPTER FIVE: STUDY TWO

5.1 Introduction

No studies exist concerning those who remain unidentified after death in England and Wales. Therefore, there is a lack of knowledge about this population, and it is a topic worthy of research attention. By contrast, there has been a steady increase elsewhere in the world of descriptive epidemiological studies into unidentified bodies from countries including Denmark, Russia, the United States, Italy, France, India, the Netherlands, and South Africa (Kringsholm *et al.*, 2001; Andreev *et al.*, 2008; Paulozzi *et al.*, 2008; Cattaneo *et al.*, 2010; Cavard *et al.*, 2011; Chattopadhyay *et al.*, 2013; Kumar *et al.*, 2014; Duijst *et al.*, 2016; Reid *et al.*, 2020; National Center for Missing and Exploited Children, 2021). These studies were examined in the literature review which identified the relevant themes, issues, and trends to be discussed during this chapter.

This chapter will explore the demographic characteristics associated with those who remain unidentified after death in England and Wales. Furthermore, the rates of unidentified deaths will be explored, in particular whether they vary geographically, situationally, or over time. Furthermore, any learning that can be taken from solved cases of unidentified bodies will be explored with a view to inform police, coronial, and local authority practice.

As presented in Tables 14 and 15, secondary data was gathered from the UK Missing Persons Unit which covered cases of unidentified bodies in England and Wales over the 10-year period of 1 January 2010 to 31 December 2020. The data was extracted by the UK Missing Persons Unit from their Hermes database which they use together with details of missing persons reports, to attempt to cross-match the missing and the found (UK Missing Persons Unit, 2023a). The data included a total of 528 cases, which was comprised of 455 solved cases (86%) and 73 unsolved cases (14%). The analysis that follows was conducted by the researcher, rather than the UK Missing Persons Unit.

Table 14. Solved cases: Data received from the UK Missing Persons Unit and data produced by the researcher using the received data

Data gathered	Data produced using the data gathered

The date the deceased individual was found	The year the deceased individual was found
The actual age of the deceased individual when found	The accuracy of estimated age of the deceased individual in relation to their actual age
The type of area where the deceased individual was found	Whether the deceased individual was found on land or in water
The date the deceased individual was identified	The number of days between the date the deceased individual was found and the date they were identified The length of time between the date the deceased individual was found and the date they were identified
The sex of the deceased individual	
The estimated minimum and maximum age of the deceased individual	Whether the age of the deceased individual was underestimated or overestimated
The ethnic appearance of the deceased individual	
Whether a DNA sample was taken and uploaded onto the Missing Person DNA Database (MPDD)	
The investigating police force	
The circumstances	
Whether the deceased individual was reported missing	
The date of the missing person report	The number of days between the date of the missing person report and the date the deceased individual was found The length of time between the date of the missing person report and the date the deceased individual was found The number of days between the date of the missing person report and the

	date the deceased individual was identified The length of time between the date of the missing person report and the date the deceased individual was identified
The primary method of identification	

Table 15. Unsolved cases: Data received from the UK Missing Persons Unit and data produced by the researcher using the received data

Data received	**Data produced using the received data**
The date the deceased individual was found	The year the deceased individual was found
The type of area where the deceased individual was found	Whether the deceased individual was found on land or in water
The sex of the deceased individual	
The estimated minimum and maximum age of the deceased individual	
The ethnic appearance of the deceased individual	
Whether a DNA sample was taken and uploaded onto the Missing Person DNA Database (MPDD)	
The investigating police force	
The circumstances	

The UK Missing Persons Unit excluded a total of 139 cases from the data they held within the period, presented in Table 16. Unidentified body parts cases were excluded due to the range of issues they presented such as the re-emergence of remains of individuals buried at sea and difficulties with radiocarbon dating to determine the time since death or post-mortem interval. Furthermore, unidentified bodies with an estimated age of under 18 years old were excluded

as there were very few cases in this age range and they were likely to be part of ongoing criminal investigations.

Table 16. Total number of solved and unsolved unidentified body parts cases excluded from the data set by the UK Missing Persons Unit

	Solved	**Unsolved**
Unidentified body parts over 18 years old	84	49
Unidentified body parts under 18 years old	0	1
Unidentified bodies under 18 years old	0	5

Inferential analysis was conducted to identify differences or relationships between two variables to establish where there was a statistically significant difference or association between them. This allowed the research to investigate whether learning could be taken from solved cases of unidentified bodies to inform police, coronial, and local authority practice. For example, examining whether there was a statistically significant association between whether the deceased individual was found on land or in water versus the primary identification method used. The chi-square test was an appropriate method to test the data due to two categorical variables being evident. This type of test is commonly used to assess the statistical significance of relationships between two variables (Robson and McCartan, 2016). Table 17 presents an example chi-square test result.

Table 17. Example of chi-square test result

Area found land or water	**Degrees of freedom**	**Sample size**	**Pearson chi-square value**	**P-value**
Primary identification method	12	455	49.972	<.001

If the resulting P-value is less than 0.05, the relationship between the two variables is statistically significant. If the result is <.001, then the relationship between the two variables is highly statistically significant.

5.2 Solved cases

5.2.1 The sex of the deceased individuals

A total of 455 solved cases of unidentified bodies over the 10-year period were reported. Of those, 393 were male (86%) and 61 were female (14%). In two cases, the sex of the person was unknown. As demonstrated in Table 18, the disproportionate number of males who remain unidentified after death is a well-recognised phenomenon within epidemiological studies conducted into unidentified bodies from countries including Denmark, Russia, the United States, Italy, France, India, the Netherlands, and South Africa (Kringsholm *et al.*, 2001; Andreev *et al.*, 2008; Paulozzi *et al.*, 2008; Cattaneo *et al.*, 2010; Cavard *et al.*, 2011; Chattopadhyay *et al.*, 2013; Kumar *et al.*, 2014; Duijst *et al.*, 2016; Reid *et al.*, 2020; National Center for Missing and Exploited Children, 2021). The only study which suggests the opposite, is NCMEC's 2021 study which focuses on children, rather than adults. Furthermore, it is important to note the possible misidentification of transgender individuals that may result in them remaining unidentified (Ferguson *et al.*, 2022; Walters *et al.*, 2023). This issue might arise from outdated or inaccurate recording of sex in official documentation, which may not align with an individual's lived identity, leading to challenges in the identification process. Additionally, biases or gaps in forensic databases and investigative procedures may result in the exclusion of vital information that could otherwise connect unidentified individuals to their missing persons records. In the data provided by the UK Missing Persons Unit, the options recorded for sex were only male, female, or unknown.

Table 18. Studies of unidentified bodies 2001 - 2021 including the sex of the deceased individuals

Author	Location	Duration	Sex
Kringsholm (2001)	Denmark	5 years 1992 - 1996	Total cases (*n* = 89) **Male: 78% (*n* = 69)** Female: 21% (*n* = 18) Unknown: 1% (*n* = 1)

Andreev (2008)	Izhevsk, Russia	2 years 2003 - 2005	Males were the focus of the study.
Paulozzi (2008)	United States	25 years 1979 - 2004	Total cases (*n* = 10,748) **Male: 80.6% (*n* = 8,663)** Female: Not stated Unknown: Not stated
Cattaneo (2010)	Milano, Italy	14 years 1995 - 2008	Total cases (*n* = 454) **Male: 83% (*n* = 377)** Female: 17% (*n* = 77)
Cavard (2011)	Paris, France	6.5 years 2003 - 2009	Total cases (*n* = 134) **Male: 74.6% (*n* = 100)** Female: 25.4% (*n* = 34)
Chattopadhyay (2013)	Calcutta, India	2 years 2010 - 2011	Total cases (*n* = 505) **Male: 87% (*n* = 439)** Female: Not stated Unknown: Not stated
Kumar (2014)	Chandigarh, India	5 years 2008 - 2012	Total cases (*n* = 123) **Male: 97% (*n* = 119)** Female: 3% (*n* = 2) Unknown: Not stated
Duijst (2016)	North Sea	33 years 1980 - 2013	Total cases (*n* = 94) **Male: 86.2% (*n* = 81)** Female: Not stated Unknown: Not stated
Reid (2020)	Cape Town, South Africa	7 years 2010 - 2017	Total cases (*n* = 2,476) **Male: 78.7% (*n* = 1,949)** Female: Not stated Unknown: Not stated
National Center for Missing and Exploited Children (2021)	United States	10 years 2010 - 2020	Total cases (*n* = 236) **Female: 63% (*n* = 148)** Male: 37% (*n* = 88)

There are several factors to consider which may explain why males represent the majority of those who remain unidentified after death not just in England and Wales, but across the world. Many studies (Hanson, 2010; Britton, *et al.*, 2021; Farré and Ortega, 2021; Shaer *et al.*, 2022) have examined the profound influence of on geographical mobility. It is evident that males are more likely than females to have greater geographical mobility to find places to live with better labour market opportunities. For example, in a recent Spanish study, Farré and Ortega (2021) found that female college graduates have stronger family ties than males, which restricts their

geographical mobility. Also, males are more likely than females to be at risk of isolation (Vandervoort, 2000). This in turn makes males more likely to be living and working in an area where they have no family, friendship, or community ties. Thus, the likelihood of them being reported missing is decreased and the risk of them remaining unidentified after death is increased.

Furthermore, there is a clear causal relationship between being isolated or having feelings of isolation and making the decision to complete suicide. In England and Wales, "around three-quarters of registered suicide deaths in 2020 were for men (3,925 deaths; 75.1%), which follows a consistent trend back to the mid-1990s" (Office for National Statistics, 2021b). Death certificates or post-mortem reports relating to the cases analysed in this study were not obtained and so cause of death was not examined. However, as discussed later in this chapter, the types of areas found, and the recorded circumstances of the cases, are suggestive of high suicide rates within the deaths of those who remain unidentified.

As described by Andreev *et al.* (2008) there is a close relationship between males aged between 25 to 54 years who remain unidentified after death and issues including increasing homelessness, people who have no place of permanent residence, and those who have severed the social ties associated with family members and the local community (pp. 252-253). This is echoed by Chattopadhyay *et al.* (2013) who explained homelessness as a significant contributory factor in unidentified body cases (p. 113). According to Apps *et al.* (2014), unidentified body cases that pose significant challenges to investigators include individuals found in circumstances suggesting an itinerant or homeless lifestyle. He explains that a key problem for such cases is the probable lack of a missing person report and no corresponding list to suggest a possible identity. Therefore, in such cases *"creative investigation, publicity, and the use of forensic techniques can be crucial, as without an identity, it can be extremely difficult for any investigation to progress"* (Apps *et al.*, 2014, p. 9).

5.2.2 The actual ages and age ranges of the deceased individuals when found

The chronological ages of the deceased individuals when found ranged between 18 and 86 years with a mean of 45 years (Standard Deviation (SD) = 16). As evident in Figure 24, the most common age range of the deceased individuals was equally split between 18 to 28, 29 to 39, and 40 to 50 years.

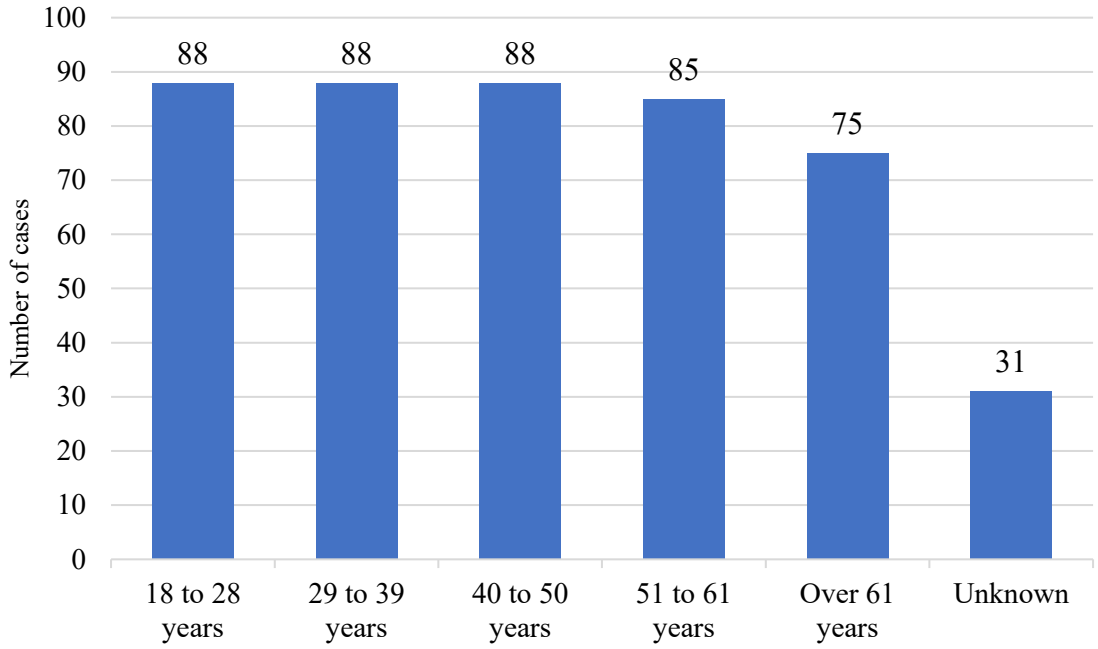

Figure 24. Solved cases: The actual age range of the deceased individual when found (n = 455)

When considering global epidemiological studies and the data specifically concerning solved cases, no clear and consistent pattern emerges regarding the age group most commonly associated with remaining unidentified after death. For example, Kringsholm *et al.* (2001) discovered the 10-year age groups between 19 and 59 years were almost equally distributed across the 74 solved cases (p. 151) and in their sample of 134 solved cases, Cavard *et al.* (2011) found most individuals were aged over 45 years (p. 141). This leads to the conclusion that a person can remain unidentified after death no matter their age. The absence of a distinct age-related trend highlights the complexity and multifaceted nature of unidentified bodies cases, urging further exploration into other demographic and situational factors to gain a comprehensive understanding of this poignant issue.

5.2.3 The accuracy of the estimated ages of the deceased individuals in relation to their actual ages

Significantly, as Figure 25 explores, the estimated age recorded in relation to the actual age was inaccurate in 152 cases which was exactly a third of all cases (33%), posing potential challenges in the identification process. The methods used to estimate age, as reported by the UK Missing Persons Unit, involved examinations by a coroner or anthropologist, considering various factors such as body composition, bone aging, dental examination, and evidence of

disease. Moreover, an intriguing observation emerged, indicating that in almost one-fifth of cases (19%), the estimated age range provided was 70 years or more. This information may prove less helpful in police inquiries and public appeals, given its wide range and reduced specificity. The implications of such inaccuracies and limitations in age estimation call for further scrutiny and the exploration of more precise and reliable methods in assessing the age of unidentified individuals. A concerted effort to refine age estimation techniques will be instrumental in increasing the chances of successful cross-matching and ultimately bringing resolutions to families with a missing loved one.

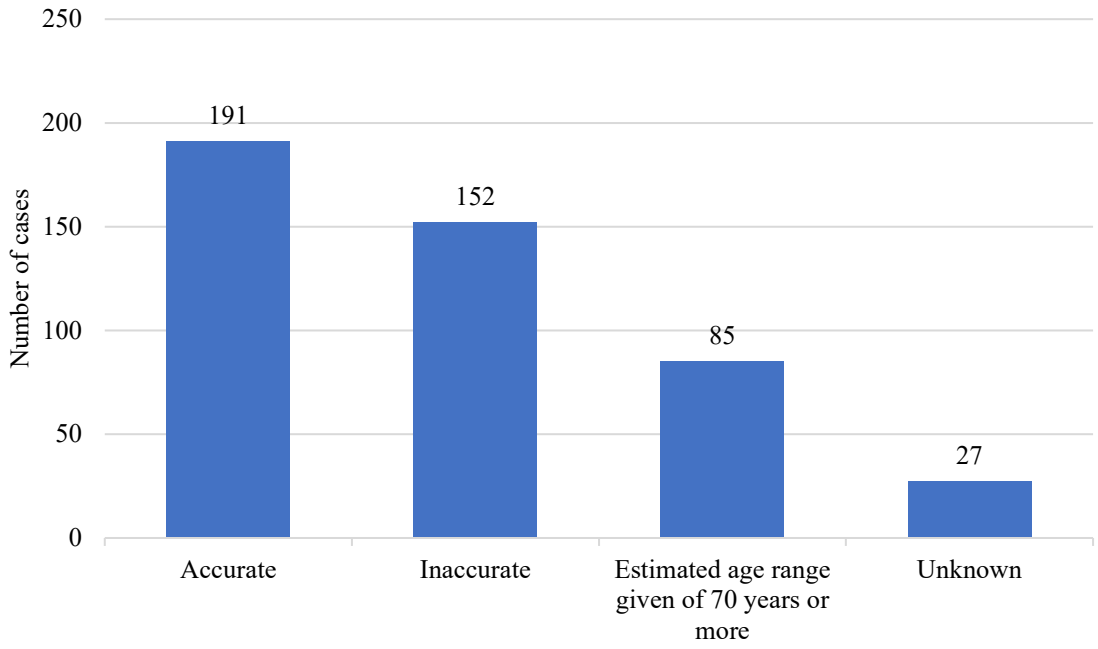

Figure 25. Solved cases: The accuracy of the estimated age range of the deceased individual in relation to their actual age (n = 455)

5.2.4 Whether the ages of the deceased individuals were underestimated or overestimated

Regarding the estimated age inaccuracies that occurred in the 153 cases, ages were mostly underestimated by 1 to 10 years as demonstrated in Figure 26. The largest underestimation occurred in a case in which the individual was estimated to be aged between 40 to 55 years old, however their actual age was 75 years old, which was a difference of 20 to 35 years. Overestimations were much rarer, and the largest overestimation occurred in a case in which the individual was estimated to be aged between 60 to 80 years old, however their actual age was 44 years old, which was a difference of 16 years to 36 years. These findings are important to consider. A great deal of accurate information can be gathered from the sciences of forensic

pathology, forensic anthropology, and odontology. However, inaccuracies could lead to the actual missing person being ruled out of the investigation, therefore preventing successful cross-matching.

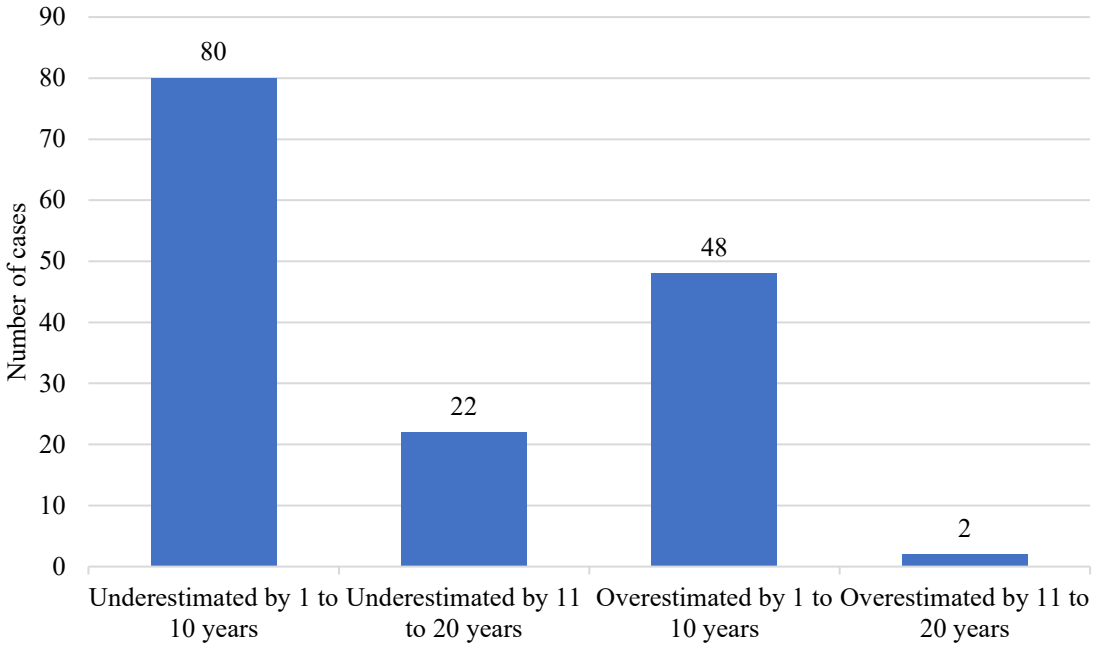

Figure 26. Solved cases: Whether the age of the deceased individual was underestimated or overestimated (n = 152)

There is an absence of studies specifically related to the accuracy of the estimated age in relation to the actual age in unidentified bodies cases. However, some literature does exist which details case studies relevant to this topic. For example, Blythe and Woodforde (2007) explain the case of the body of a female discovered off the coast of Germany in November 2001 (p. 435). She was estimated to be aged between 20 to 40 years old and was thought to have been in the water between several months to a year. Later, a relative recognised photographs on an appeal poster of the woman's clothing and her identity was established. Although she had been reported missing, "she had initially been ruled out as a possible match due to her actually being in her mid-50s and [...] only been missing three weeks when her body had been found" (Blythe and Woodforde, 2007, p. 435). An example derived from the examined data set is that of a male discovered deceased on a beach on the Isle of Wight in 2020. His estimated age in media reports was 30 to 40 years old, in the examined date set the estimated age was recorded to be between 40 to 50 years old. When the male was identified less than two weeks later, it was established that his age was 59 years old. This demonstrates

the potential for human error in these cases and how problematic inaccuracies concerning age estimations can be. As mentioned, inaccuracies may lead to missing persons being wrongly ruled out of the investigation, therefore prolonging investigations and preventing successful cross-matching.

5.2.5 The ethnic appearance of the deceased individuals

Ethnic appearance was recorded in 380 cases (84%). As seen in Figure 27, of those recorded, the most common ethnic appearance was White - North European, followed by Asian, and Black. According to the UK Missing Persons Unit, an estimation of ethnic appearance is only made in cases where the body is thought to have been recently deceased so that an estimation can be made with confidence. The UK Missing Persons Unit explained that they would usually receive the information surrounding ethnic appearance directly from the police force. However, on occasion, the UK Missing Persons Unit may draw their own conclusions if the photographs taken of the deceased are both clear and conclusive. It is worth noting that bodies start to change colour as soon as they are deceased, especially if they are exposed to heat and water. According to Shedge *et al.* (2023, online) *"putrefaction (decomposition) begins within an hour of death, but the peak activity of the microbes occurs around the 24-hour timeframe. The first external sign of putrefaction is the greenish discoloration of the skin over the right iliac fossa, the region overlying the caecum, the contents of which are mostly liquid and are full of bacteria. The greenish discoloration gradually spreads to the abdomen and involves the entire body in later stages."* To address the possibility of inaccurate estimations of ethnic appearance preventing successful cross-matching, the UK Missing Persons Unit explained they conduct searches of the Hermes database with the 'unknown' ethnic appearance selected in the search parameters so that the results capture all possible options. It is impractical to compare the data relating to ethnic appearance with previous studies of this kind due to the differences in the use of terminology and categorisation surrounding ethnicity. This presents a problem for research in this area and prevents thematic analysis on an international scale. Furthermore, the Hermes database uses problematic terminology, such as the antiquated term "oriental," which is used to categorise ethnic appearance. This language is offensive and inappropriate.

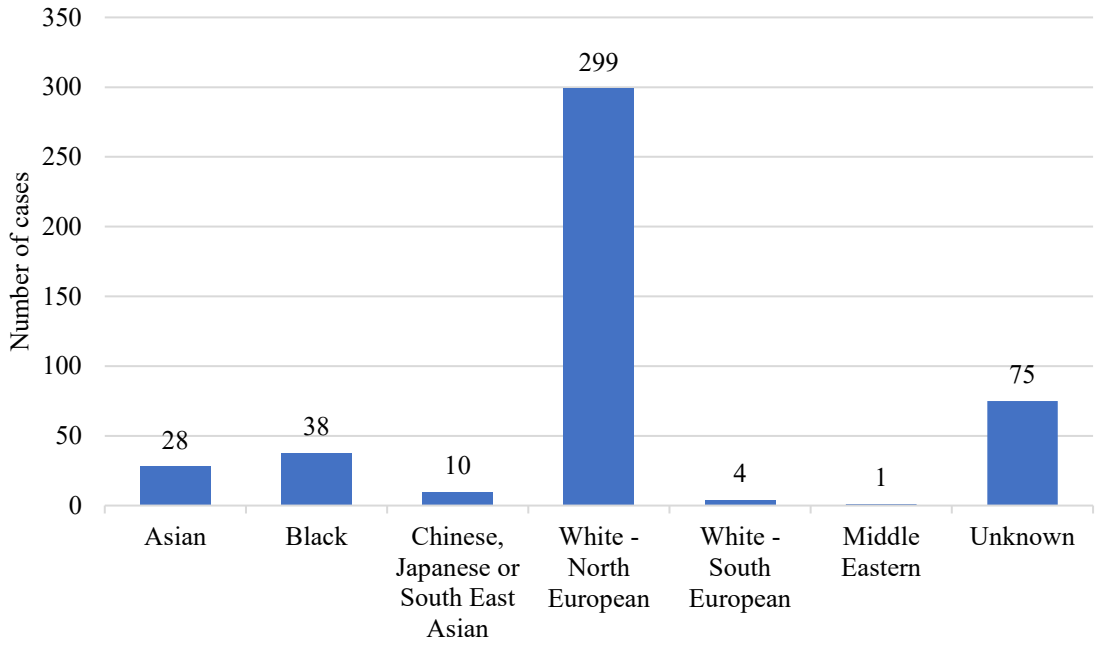

Figure 27. Solved cases: The ethnic appearance of the deceased individual (n = 455)

5.2.6 The types of areas where the deceased individuals were found

When inspecting the types of areas where bodies were found, the most common locations were railway stations, tracks, bridges, or arches as this accounted for a quarter (25%) of all cases. As per Table 19, this was followed by public roads or pavements (9%), beaches, shores, coves, or rocks (8%), rivers excluding the River Thames (7%), and the River Thames (7%). In total, 63% of bodies were discovered on land and 37% in water.

Table 19. Solved cases: The type of area where the deceased individual was found (n = 455)

Area found	Number of cases
Railway stations, tracks, bridges, or arches	116
Seas	18
River Thames	34
Public roads or pavements	42
Disused or derelict buildings or locations	12
Public parks or gardens	14
Beaches, shores, coves, or rocks	36
Canals	13
Ditches or bushes	7
Tents or sleeping bags	5
Lakes	4
Car parks	3
Beachy Head	13

Rivers (excluding River Thames)	36
Unknown or unclear	14
Private properties or stairwells	32
Woodlands, farms, meadows, or moorlands	28
Cliffside or bottom of cliffs	3
Cars, buses, or aircrafts	6
Harbours or marinas	3
Wetlands, reserves, reservoirs, or marshlands	4
Golf clubs	1
Footpaths or gullies	1
Fields, underground, or caves	5
Basins, weirs, ponds, or other water	5
Total	**455**

The circumstances of the deaths that took place at railway stations, tracks, bridges, or arches, pointed towards apparent or suspected suicides. Due to the absence of death certificates or postmortem reports being included within the methodology of this study, causes of death were not analysed for themes or trends. However, it is important to acknowledge the sheer proportion of cases of unidentified bodies on the railway under the jurisdiction of the British Transport Police, which is reflected in the data later in the chapter surrounding the number of cases across the different police forces in England and Wales. This presents an opportunity for the British Transport Police to share their experience and expertise with other police forces across the country. In comparison to previous European studies of this kind, suicides on the railway network were also noted as a significant location of discovery in unidentified body cases. For example, Cavard *et al.* (2011) noted in cases in which people remained unidentified after death in Paris, France, the most common (40.3%, n=54) manner of death was suicide, and that the railway was the type of area frequently associated with such deaths. Suicides on the railway were also common in Cattaneo's 2010 study in Milano, Italy. There is currently no research that focuses solely on persons who die by suicide who remain unidentified after death, and so this is an area of research worthy of study to help in preventing future deaths in these circumstances.

5.2.7 Whether the deceased individuals were reported missing and the number of days or length of time between significant events

Remarkably, in just over a third of cases (34%), a missing person report was filed, indicating that a substantial number of unidentified individuals were indeed reported missing, which would have prompted investigations into their whereabouts. However, in two-thirds of cases

(66%), the crucial information about whether the individual was reported missing remains unknown, leaving a considerable gap in understanding the circumstances surrounding this significant aspect of unidentified bodies cases.

The descriptive statistics regarding the number of days between significant events offer valuable insights into the protracted duration of investigations into unidentified bodies, accentuating their inherently complex nature. As exemplified in the table below, a particular case illustrates the staggering length of time – more than 13 years (4,814 days) – that passed between the date of the missing person report and the eventual identification. Such lengthy investigations not only underscore the complexities faced by investigators but also highlight the enduring emotional toll experienced by the families awaiting answers.

The revelation of these timelines calls for a concerted effort to streamline identification processes, promote greater collaboration among agencies, and leverage advancements in forensic technologies. By working collectively, swifter and more accurate resolutions can be achieved in unidentified bodies cases, providing resolutions to families grappling with the ambiguous loss of missing loved ones.

Table 20. Solved cases: Number of days between significant events (First column (n = 455), second column (n = 156), third column (n = 156))

	No. of days between date found and date identified	**No. of days between date of missing person report and date found**	**No. of days between date of missing person report and date identified**
Mean	82	196	278
Standard Deviation	233	647	687
Median	20	9.5	58
Range	0 to 2,716	-373 to 4,440	-344 to 4,814
Total number of cases	455	156	156

Furthermore, the below figures demonstrate the length of time between significant events.

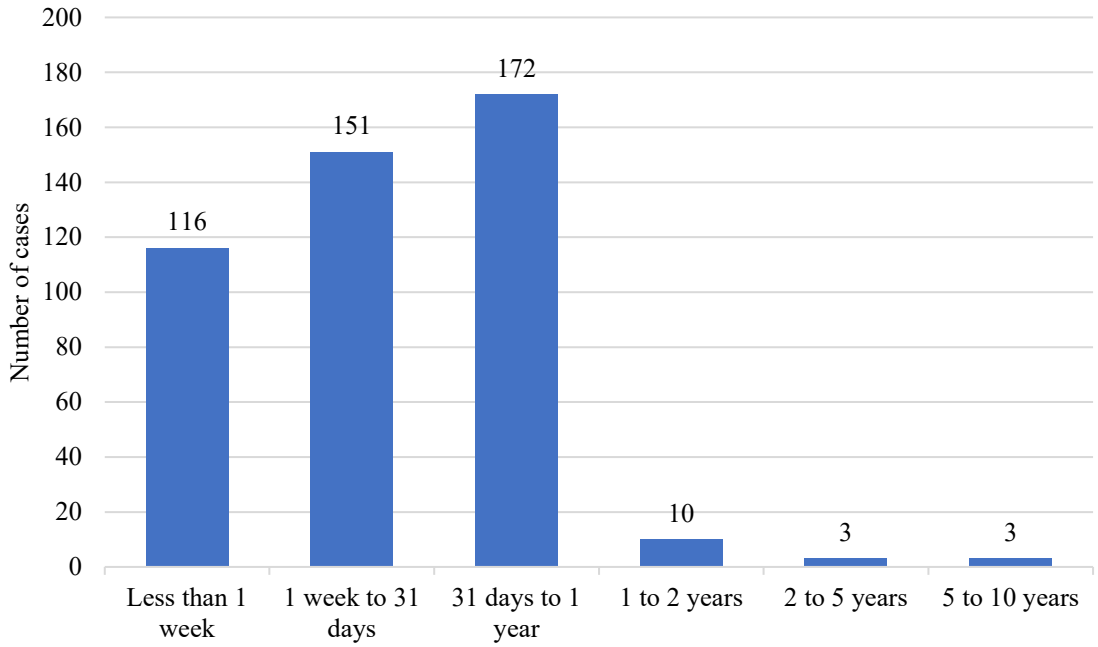

Figure 28. Solved cases: The length of time between the date the deceased individual was found and the date they were identified (n = 455)

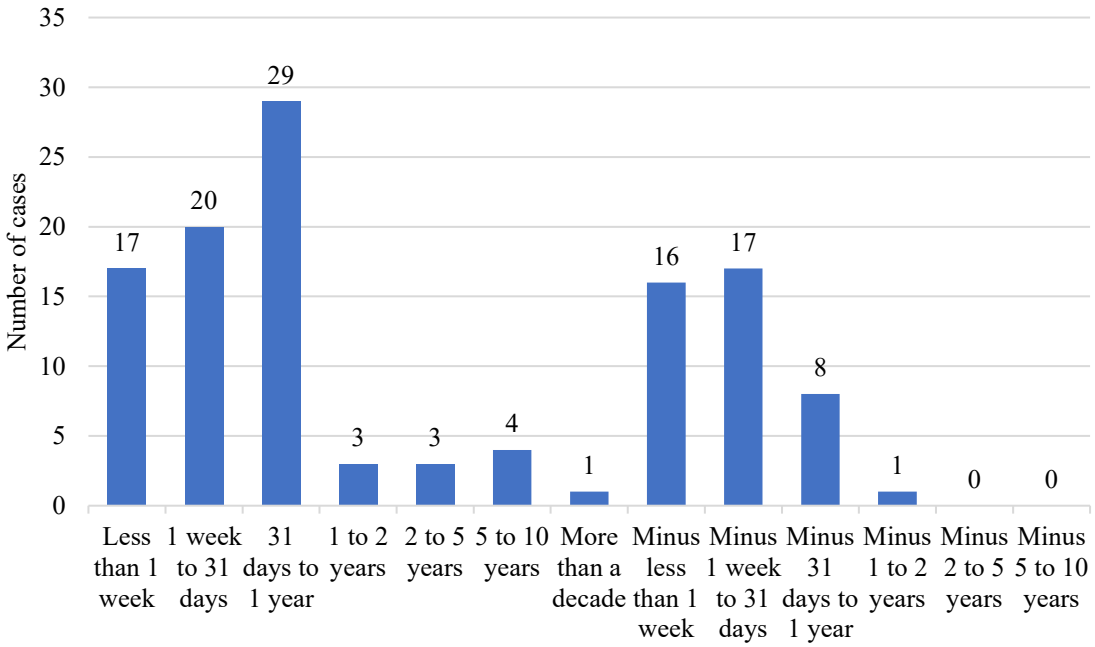

Figure 29. Solved cases: The length of time between the date of the missing person report and the date the deceased individual was found (n = 156)

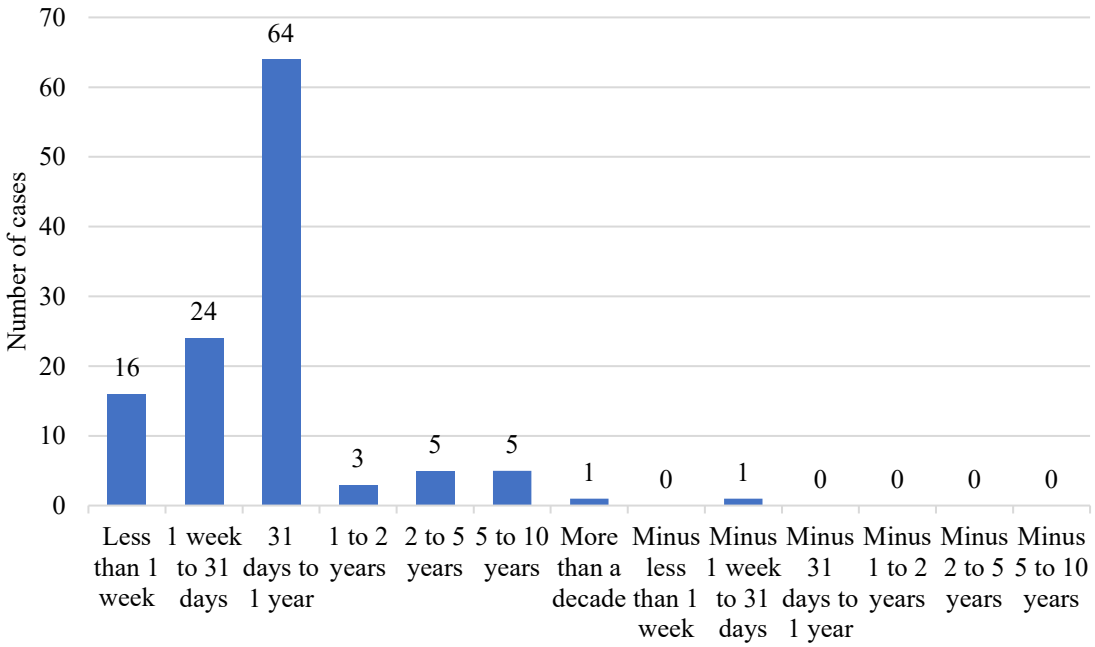

Figure 30. Solved cases: The length of time between date of the missing person report and the date the deceased individual was identified (n = 156)

5.2.8 The investigating police force

Perhaps due to serving the capital city of England, the most common investigating police force was the Metropolitan Police Service in London with 119 cases (26%). As per Table 21, the British Transport Police was the second most common investigating police force with 113 cases (25%). As highlighted, this was due to the significant proportion of cases with circumstances that were apparent or suspected suicides on the railway. In total, those two investigating police forces were responsible for over half (51%) of the total number of 455 cases. The police force with the third largest number of cases was Sussex Police with 37 cases (8%) which is home to Beachy Head, a chalk headland which is a notorious for the number of suicides that take place there. According to the National Suicide Prevention Alliance (2019), in the 10-year-period of 2006 to 2016, of the 896 suicides that occurred in East Sussex, 276 (31%) took place at Beachy Head, and of those deaths, 80% were of non-residents of East Sussex. This new knowledge encourages a reconsideration of which police forces to focus on when implementing knowledge sharing and recommendations following the completion of this thesis.

Table 21. Solved cases: The investigating police force (n = 455)

Investigating police force	**Number of cases**
Avon and Somerset Constabulary	8
Bedfordshire Police	1
Cambridgeshire Constabulary	3
Cheshire Constabulary	7
City of London Police	1
Cleveland Police	2
Cumbria Constabulary	3
Derbyshire Constabulary	2
Devon and Cornwall Constabulary	12
Dorset Police	6
Durham Constabulary	0
Essex Police	5
Gloucestershire Constabulary	3
Greater Manchester Police	9
Hampshire Constabulary	8
Hertfordshire Constabulary	5
Humberside Police	6
Kent Police	7
Lancashire Constabulary	11
Leicestershire Constabulary	3
Lincolnshire Police	4
Merseyside Police	8
Metropolitan Police Service	119
Norfolk Constabulary	4
North Yorkshire Police	2
Northamptonshire Police	1
Northumbria Police	1
Nottinghamshire Police	4
South Yorkshire Police	1
Staffordshire Police	1
Suffolk Constabulary	2
Surrey Police	2
Sussex Police	37
Thames Valley Police	12
Warwickshire Police	0
West Mercia Police	4
West Midlands Police	6
West Yorkshire Police	9
Wiltshire Police	2
Dyfed-Powys Police	5
Gwent Police	1
North Wales Police	6
South Wales Police	6
British Transport Police	113
Isle of Man Constabulary	3
Total	**455**

5.2.9 Whether a DNA sample was taken and uploaded onto the MPDD

The recording of DNA data in a third of all cases offers promising prospects for the resolution of unidentified body cases without exclusive reliance on DNA analysis. This finding provides reassurance, particularly when considering historical cases where cremation was the method of disposal, and DNA collection may not be possible.

5.2.10 The primary method of identification

As demonstrated in the below figure, the most common primary method of identification was fingerprints in just over a quarter of all cases (26%), followed by police enquiries (21%), and DNA (18%). According to the UK Missing Persons Unit, a fingerprint match would be confirmed by email by the National Fingerprint Office. A DNA match would be made via either the MPDD or the National DNA Database (NDNAD) or via international checks on Interpol databases such as I-Familia. I-Familia is described as a global database for identifying missing persons based on international DNA kinship matching (Interpol, 2021). The Missing Persons Bureau input relates to any form of open-source intelligence checks conducted by the UK Missing Persons Unit which assisted in identifying the individual. If visual identification was made by the family, then 'family' was selected as the primary identification method. However, according to the UK Missing Persons Unit, this is rarely used as a primary identification method due to advances in forensic science. If dental records were selected as the primary identification method, this would suggest a person of interests' dental records being compared against the teeth of the unidentified deceased individual. Finally, if missing persons was selected as the primary identification method, then an identification method was made using details from a missing persons' report. According to the interview with the UK Missing Persons Unit, this would usually happen if there were distinctive tattoos or distinctive features that could be very obviously cross-matched.

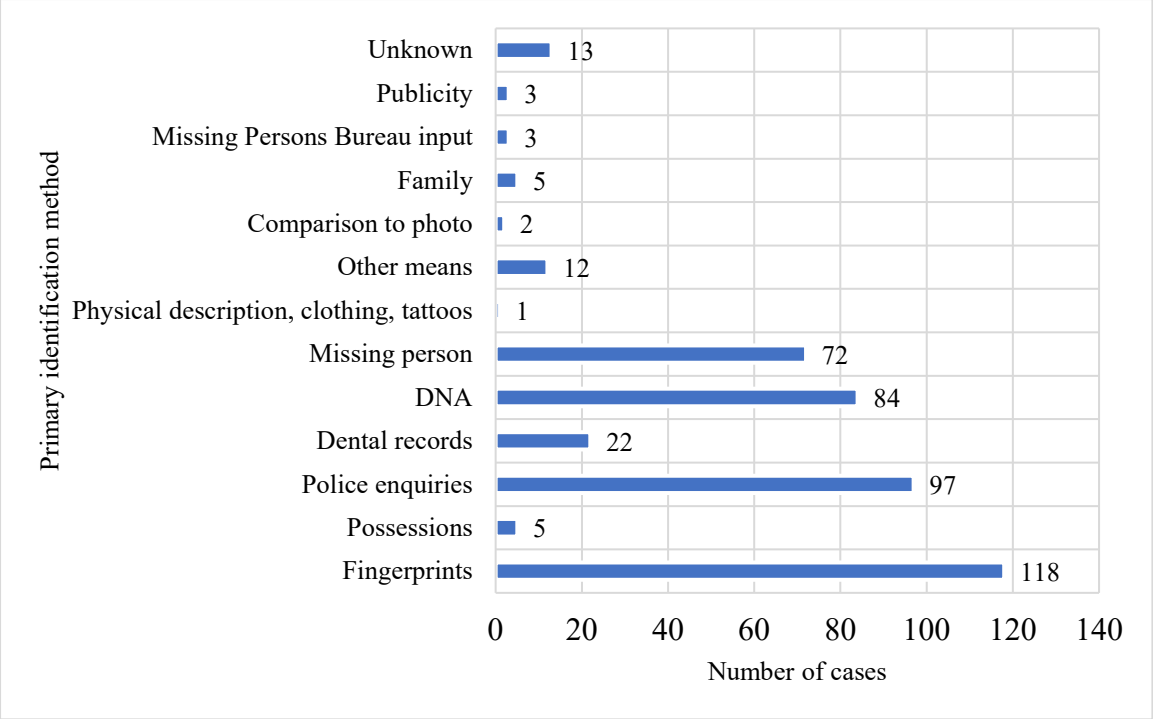

Figure 31. Solved cases: The primary method of identification (n = 455)

5.2.11 Assessing statistical significance of relationships between two variables

Due to the amount of data collected concerning solved cases, there were several combinations of variables which could be tested for an association. The focus is on three variables (Area found land or water, accuracy of estimated age in relation to actual age, and primary identification method) and their relationship against other variables. These variables were the most relevant to answering the research question of whether learning can be taken from solved cases of unidentified bodies to inform police, coronial, and local authority practice. The findings are presented with accompanying tables, with a select number of these relationships being analysed further in the text.

5.2.11.1 Area found land or water

Table 22. Solved cases: Area found land or water chi square test results

Area found land or water	Degrees of freedom	Sample size	Pearson chi-square value	P-value
Length of time between date	5	455	13.576	0.019

found and date identified				
Length of time between date of missing person report and date found	10	119	20.413	0.026
DNA Sample	1	455	6.280	0.012
Ethnic appearance	6	455	13.926	0.030
Investigating Police Force	42	455	156.335	<.001
Primary identification method	12	455	49.972	<.001
Missing person report	1	455	21.718	<.001

There is a highly statistically significant association between whether the deceased individual was found on land or in water and the investigating police force (<.001), primary identification method (<.001), and missing person report (<.001). It is unsurprising that there was a highly statistically significant relationship between whether the deceased individual was found on land or in water and who the investigating police force was (<.001). This is likely to be the case because each police force in England and Wales is made up of its own unique geographical area. For example, Sussex Police force had discovered 22 bodies on land which was lower than the expected count of 23.4. Contrastingly, Sussex Police force had discovered 15 bodies in water which was higher than the expected count of 13.6. Notorious suicide spot Beachy Head in Sussex could be a contributory factor for the unexpected higher number of unidentified body cases discovered in water.

Moving on, a significant finding for police forces, coroners' services, and forensic science practitioners is the highly statistically significant relationship between whether the deceased individual was found on land or in water and the primary identification method (<.001). As mentioned earlier in the chapter, the most common primary identification method was fingerprints in just over a quarter of all cases (26%). A total of 94 deceased individuals discovered on land had been identified using fingerprints which was much higher than the expected count of 74.7. A total of 24 deceased individuals discovered in water had been identified using fingerprints whereas the expected count was significantly higher at 43.3. This result is logical as due to the decomposition of bodies in water preventing fingerprints from being taken. Contrastingly, dental records were the primary identification method for five deceased individuals found on land, which was much lower than the expected count of 13.9. Whereas a total of 17 deceased individuals found in water were identified primarily using dental records, which was higher than the expected count of 8.1.

5.2.11.2 Accuracy of estimated age in relation to actual age

Table 23. Solved cases: Accuracy of estimated age in relation to actual age chi square test results

Accuracy of estimated age in relation to actual age	Degrees of freedom	Sample size	Pearson chi-square value	P-value
Length of time between date found and date identified	15	455	32.981	0.005
Ethnic appearance	18	455	35.018	0.009
Length of time between date of missing person report and date found	30	455	101.518	<.001

As explored previously in the chapter, the accuracy of age estimations is of the upmost importance as inaccuracy can significantly impact the solvability of an unidentified body case. The association between the accuracy of age estimations and the length of time between the date of the missing person report and the date found was highly statistically significant (0.005). Examining this association in further detail reveals considerations for future practice. For example, for deceased individuals found within 31 days to a year of a missing person report being made, the actual count and expected count from the Chi squared were notable. Particularly when their age range was underestimated by 1 to 10 years (count: 6, expected count: 11.2) and overestimated by 1 to 10 years (count: 16, expected count 9.3). The results suggest that underestimations were less common than anticipated, whereas overestimations were more common than anticipated.

5.2.11.3 Primary identification method

Table 24. Solved cases: Primary identification method chi square test results

Primary identification method	Degrees of freedom	Sample size	Pearson chi-square value	P-value
Length of time between date found and date identified	60	455	158.284	<.001
Area found land or water	12	455	42.972	<.001
Investigating police force	504	455	666.300	<.001
Area found	288	455	377.419	<.001
Missing person report	12	455	192.638	<.001
Age when found	756	424	884.132	<.001

Accuracy of estimated age in relation to actual age	36	455	56.831	0.015
DNA sample	12	455	57.335	<.001
Year identified	132	455	189.453	<.001

There is a highly statistically significant association between the primary identification method and several other variables (<.001). For example, when examining the primary identification method versus the area the deceased individual was found there are important findings to consider. As discussed, the most common locations were railway stations, tracks, bridges, or arches in a quarter (25%) of all cases, followed by public roads or pavements (9%), and beaches, shores, coves, or rocks (8%). In the 116 cases where the deceased individual was found on the railway network, fingerprints were the primary identification in more than double the expected number of cases (count: 67, expected count: 30.1). DNA was used as the primary identification method much less than expected (count: 4, expected count: 21.4), as was police enquiries (count: 15, expected count: 24.7), dental records (count: 1, expected count: 5.6), and missing person (count: 11, expected count: 18.4). In the 42 cases where the deceased individual was found on a public road or pavement, fingerprints were the primary identification method in 6 cases with the expected count being more at 10.9. However, police enquiries were the primary identification in 16 cases with the expected count being less at 9. In the 18 cases where the deceased individual was found at sea, the most common primary identification was DNA in 8 cases although the expected count was less at 3.3. The primary identification method used in unidentified body cases provides an insight into the unique challenges faced by investigators and coroners alike.

5.3 Unsolved cases

5.3.1 The sex of the deceased individuals

A total of 73 unsolved cases of unidentified bodies over the 10-year period were provided. Of these, 63 were male (86%) and 9 were female (14%). In one case the sex was unknown. This

result is identical to the solved cases in percentage terms and could suggest that neither male nor female cases were prioritised more than one another from a resource perspective.

5.3.2 The ethnic appearance of the deceased individuals

Ethnic appearance was estimated in 56 cases (76%). As Figure 32 demonstrates, of those recorded, the most common ethnic appearance was White - North European, followed by Black.

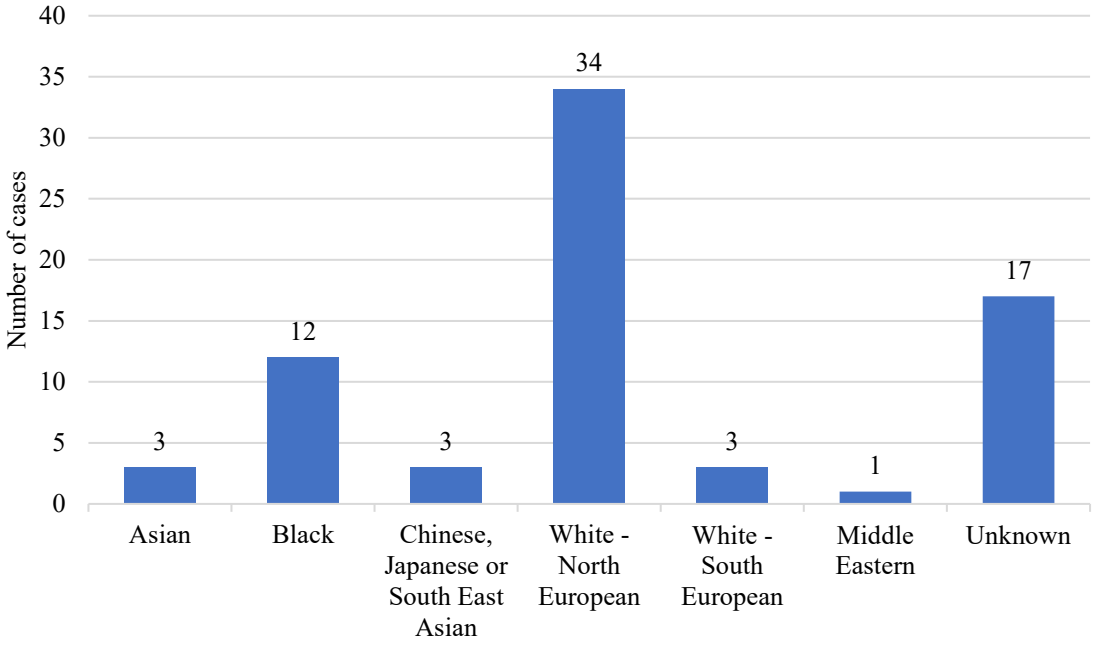

Figure 32. Unsolved cases: The ethnic appearance of the deceased individuals (n = 73)

5.3.3 The years the deceased individuals were found

Figure 33 presents the year-by-year breakdown of when bodies were found. There was an increase in unsolved cases in absolute numbers as the decade progressed.

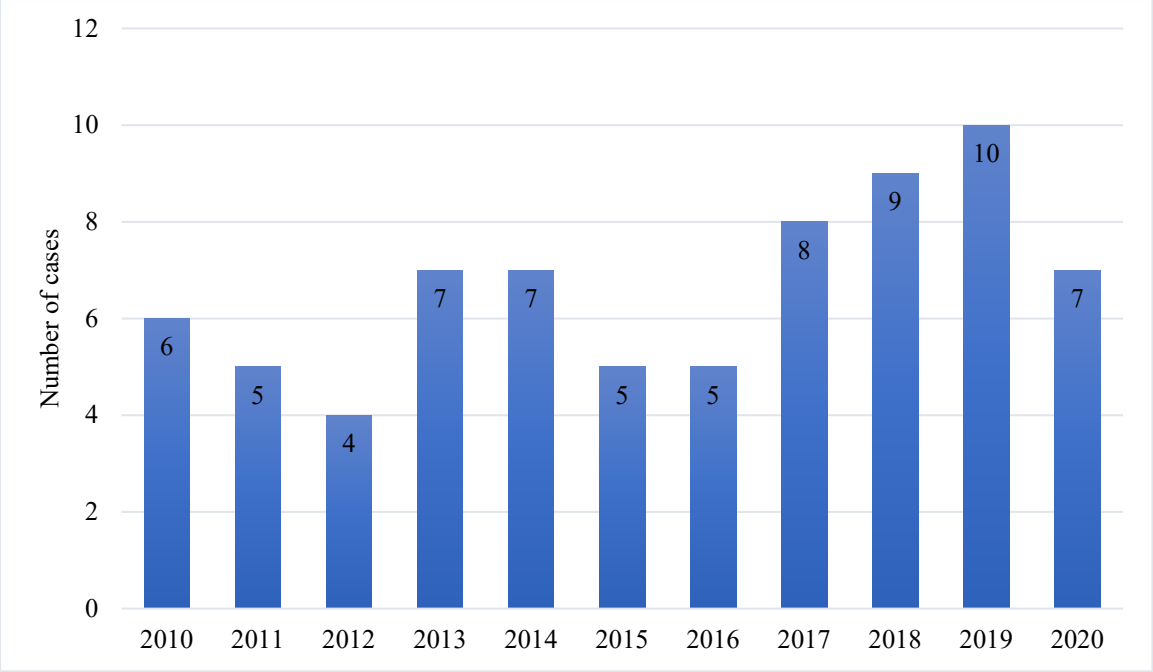

Figure 33. Unsolved cases: The years the deceased individuals were found (n = 73)

5.3.4 The types of areas where the deceased individuals were found

When reviewing the types of areas where bodies were found, the most common locations were beaches, shores, coves, or rocks (11%). As per Table 25, this was followed by private properties or stairwells (10%), woodlands, farms, meadows, or moorlands (10%), and the River Thames (8%). Although the most common types of areas differ to those evident in solved cases, the percentage split of bodies discovered on land (63%) and water (37%) was identical.

Table 25. Unsolved cases: The types of areas where the deceased individuals were found (n = 73)

Area found	Number of cases
Railway stations, tracks, bridges, or arches	4
Sea	1
River Thames	6
Public roads or pavements	6
Disused or derelict buildings or locations	5
Public parks or gardens	1
Beaches, shores, coves, or rocks	8
Canals	2
Ditches or bushes	4
Tents or sleeping bags	0
Lakes	0
Car parks	2

Beachy Head	5
Rivers (excluding River Thames)	2
Unknown or unclear	3
Private properties or stairwells	7
Woodlands, farms, meadows, or moorlands	7
Cliffside or bottom of cliffs	1
Cars, buses, or aircrafts	3
Harbours or marinas	2
Wetlands, reserves, reservoirs, or marshlands	3
Golf clubs	0
Footpaths or gullies	1
Fields, underground, or caves	0
Basins, weirs, ponds, or other water	0
Total	**73**

As demonstrated, beaches, shores, coves, or rocks were the most common type of areas in unsolved cases. This may suggest the difficulties involved when trying to identify a deceased individual who has washed ashore from another country and was not born or living in the United Kingdom. In such circumstances, international co-operation, forensic oceanography, and targeted media appeals would be of upmost importance.

5.3.5 The investigating police force

Like solved cases, the most common investigating police forces for unsolved cases included the Metropolitan Police Service (33%) and Sussex Police (14%). However, for the British Transport Police, their unsolved cases were much fewer in number than their solved cases (5%). Further research is required to be able to suggest why this might be the case. It is important to point out that there have been media reports that contradict there being no unidentified body cases in certain areas (Bagdi and Elliott, 2022).

Table 26. Unsolved cases: The investigating police force (n = 73)

Investigating police force	**Number of cases**
Avon and Somerset Constabulary	0
Bedfordshire Police	0
Cambridgeshire Constabulary	1
Cheshire Constabulary	0
City of London Police	0
Cleveland Police	0
Cumbria Constabulary	0
Derbyshire Constabulary	0
Devon and Cornwall Constabulary	1

Dorset Police	1
Durham Constabulary	0
Essex Police	2
Gloucestershire Constabulary	1
Greater Manchester Police	3
Hampshire Constabulary	2
Hertfordshire Constabulary	1
Humberside Police	0
Kent Police	3
Lancashire Constabulary	1
Leicestershire Constabulary	0
Lincolnshire Police	2
Merseyside Police	0
Metropolitan Police Service	24
Norfolk Constabulary	0
North Yorkshire Police	0
Northamptonshire Police	5
Northumbria Police	0
Nottinghamshire Police	1
South Yorkshire Police	0
Staffordshire Police	0
Suffolk Constabulary	0
Surrey Police	1
Sussex Police	10
Thames Valley Police	2
Warwickshire Police	0
West Mercia Police	2
West Midlands Police	1
West Yorkshire Police	2
Wiltshire Police	0
Dyfed-Powys Police	0
Gwent Police	1
North Wales Police	1
South Wales Police	0
British Transport Police	4
Isle of Man Constabulary	1
Total	**73**

5.3.6 Whether a DNA sample was taken and uploaded onto the MPDD

Finally, of the unsolved cases a DNA sample had been taken and uploaded onto the MPDD in 83% of cases. It is unknown why 17% of unsolved cases did not. This could be explored further in future research to establish why this has occurred. Without a DNA sample being taken and uploaded onto the MPDD, cross-matching via DNA cannot take place and therefore

identification is unlikely unless the remains were buried, and can be exhumed, to take a DNA sample.

5.4 Discussion

5.4.1 What are the demographic characteristics associated with those who remain unidentified after death in England and Wales?

The demographic characteristics associated with those who remain unidentified after death in England and Wales are now evident. Males were disproportionately more likely than females to remain unidentified after death. The average actual age of individuals who remained unidentified after death was 45 years however an even split was evident between the age ranges, with actual ages ranging from 18 to 86 years. Ethnic appearance was recorded in most cases; however, the methods, taxonomy, and categories used to estimate and record ethnic appearance were not robust enough to draw conclusions from.

5.4.2 Do the rates of unidentified deaths vary geographically, situationally, or over time?

Furthermore, the rates of unidentified deaths have been probed, particularly whether they vary geographically, situationally, or over time and highlighted the learning that can be taken from solved cases of unidentified bodies to inform police, coronial, and local authority practice. Geographically, London was found to be the location with the largest proportion of unidentified bodies cases (26%). This was followed by the railway network in England and Wales, with a quarter of all cases being within the British Transport Police's jurisdiction. Coastal police force areas closely followed. Situationally, apparent or suspected suicides on the railway network was the most common circumstance for such cases.

5.4.3 What learning can be taken from solved cases of unidentified bodies to inform police, coronial, and local authority practice?

Learning from solved cases was highlighted. In only a third of all cases was a missing person report known to been made. The average number of days between a missing person report being made and the identification being made was 278. However, the longest amount of time evidenced was a wait of more than 13 years (4,814 days) between a missing person report and an identification. Furthermore, inaccurate age estimations were discovered in a third of all cases. In these circumstances, the deceased individual's age was mostly underestimated by 1

to 10 years, followed by overestimated by 1 to 10 years. In addition, almost a of fifth of cases recorded an age estimation range of over 70 years or more. These findings highlight the room for human error within the investigation of unidentified body cases. Of note was the use of DNA being taken and uploaded onto the MPDD in a third of all cases. It was established that the most common primary identification method was fingerprints, followed closely by police enquiries, and DNA. Lastly, highly statistically significant associations (<.001) were discovered between several variables, notably whether the deceased individual was found on land or in water, the accuracy of the estimated age in relation to the actual age, the primary identification method, and their relationship against other variables.

5.5 Conclusion

The comprehensive examination of the demographic characteristics associated with individuals who remain unidentified after death in England and Wales has yielded crucial insights. Notably, the disproportionate likelihood of males to remain unidentified after death emphasises the need for targeted attention in addressing this sex imbalance. The diverse age range observed among the unidentified individuals, spanning from 18 to 86 years, underscores the complexity and wide-ranging nature of these cases. While the average actual age was found to be 45 years, the variability in ages calls for comprehensive approaches to address the diverse needs and circumstances of each case. Regarding ethnic appearance, although recorded in most cases, the lack of robust methods and standardised taxonomy limits drawing firm conclusions. Further developments in this area will be crucial in enhancing the identification process and ensuring greater accuracy and inclusivity.

The exploration of rates of unidentified deaths has highlighted geographical patterns, with London, the railway network, and coastal police force areas featuring prominently. Understanding the situational context, especially apparent or suspected suicides on the railway network, provides valuable insights for targeted prevention efforts. Learning from solved cases, such as the significant delay of more than 13 years between a missing person report and an identification, underscores the need for expedited and efficient investigations.

Inaccuracies in age estimations, along with the use of DNA in a third of all cases, emphasises the importance of refining forensic techniques to enhance the reliability and speed of identifications. The primary identification methods, primarily fingerprints, followed by police enquiries and DNA, highlight the pivotal role of forensic science and investigative techniques

in resolving these cases. Furthermore, the discovery of highly statistically significant associations between various variables offers valuable guidance for future investigations, enabling more focused and efficient efforts in resolving unidentified body cases.

Overall, this chapter serves as a critical foundation for advancing our understanding of unidentified bodies cases in England and Wales. The identified gaps, challenges, and statistically significant associations provide a roadmap for improving identification methods, streamlining investigations, and promoting collaboration among relevant agencies.

In the next chapter, exploration is made into the outcomes of in-depth qualitative semi-structured interviews conducted with various stakeholders connected to the topic of missing persons. These stakeholders encompassed individuals who have experienced the distress of having a long-term missing family member, representatives from police forces with specialised units dedicated to solving unidentified bodies cases, professionals from coroners' services, a senior forensic practitioner, and a representative from the UK Missing Persons Unit. By engaging with these diverse perspectives, the next chapter seeks to address two critical research questions: 'What are the primary challenges and opportunities associated with the cross-matching process?' and 'What valuable insights can be gleaned from solved unidentified cases to enhance the practices of police, coronial, and local authorities?'.

CHAPTER SIX: STUDY THREE

6.1 Introduction

The final phase of the research examined the results of the in-depth qualitative semi-structured interviews with key stakeholders. A total of nine interviews were conducted. All 43 police forces, 85 coroner areas, and 355 local authorities in England and Wales were asked whether there was an individual who would be willing to take part in a 30-minute interview. A total of three interviews were borne out of these requests. A further six interviewees were recruited via contacts established by the researcher through more than a decade spent working and volunteering within the field of policing. The interviewees included individuals who have a long-term missing family member (n=2), individuals from police forces with specialist units focused on solving unidentified bodies (n=3), coroners' services (n=2), a senior forensic practitioner (n=1), and the UK Missing Persons Unit (n=1). Appendices Six and Seven detail the participant information sheet and participant consent form. This range of participants was suitable for the research because it provided diverse perspectives and insights into the complex issues surrounding long-term missing persons and unidentified bodies cases.

The inclusion of individuals who have experienced the trauma of a long-term missing family member allowed for a deep understanding of the emotional and psychological impact of such situations on the affected families. Moreover, engaging with key stakeholders from police forces with specialised units emphasised the operational challenges, investigative strategies, and resources dedicated to resolving unidentified bodies cases. By interviewing representatives from coroners' services and a senior forensic practitioner, the research gained valuable insights into the post-mortem processes, forensic technologies, and the coordination between agencies involved in handling unidentified bodies. Additionally, the input from the UK Missing Persons Unit, which plays a pivotal role in national efforts to address missing persons cases, provided a broader context for understanding the systemic factors and initiatives in place to address these challenging issues. Overall, the diverse composition of the interviewees offered a holistic perspective, enriching the study's findings and recommendations. The comprehensive analysis of the interview data has contributed to the development of more effective policies, strategies, and support mechanisms for both missing persons' families and professionals involved in the investigation of unidentified bodies cases.

Table 27. Anonymised list of interview participants and their connection to missing persons

	Connection to missing persons
Participant A	Serving police officer
Participant B	Coronial staff member
Participant C	Coronial staff member
Participant D	Serving police officer
Participant E	UK Missing Persons Unit staff member
Participant F	Serving police officer
Participant G	Family member of a missing person
Participant H	Senior forensic practitioner
Participant I	Family member of a missing person

Interviews commenced with introductions. Introductory questions enabled contextual information to be ascertained about the participants and ensured they were comfortable and willing to proceed with the interview. This was especially important when speaking with family members. The researcher made sure to take time to listen to family members sharing their experiences and the details surrounding what had happened to their loved ones. A pre-defined schedule with three questions was used as a guide to progress, rather than dictate, the interviews. The questions posed are detailed in the below table. The questions were validated via a thorough testing phase, where feedback on the questions was obtained from the PhD supervisory team, alongside the National Police Chiefs Council Lead for Missing Persons. Feedback from experts in the field was collected and incorporated to enhance the clarity and effectiveness of the interview questions.

6.2 Interview schedule

Table 28. Questions posed to interview participants

Interview questions
What do you think the main challenges are for the cross-matching of unidentified bodies and missing persons reports?
What opportunities do you think could be considered for the cross-matching of unidentified bodies and missing persons reports?
What learning do you think can be taken from solved unidentified cases to improve police, coronial, and/or local authority practice?

Throughout the interviews, a semi-structured approach was employed to maintain flexibility and allow participants to express their experiences and perspectives openly. This approach encouraged rich, in-depth responses, enabling this research to explore unforeseen insights that might have been overlooked with a rigid, standardised format. All details are referenced in the Methodology chapter.

The upmost care was taken to ensure confidentiality and respect for the participants' privacy, emphasising that their participation was entirely voluntary, and they could withdraw at any time without consequences. Informed consent was obtained from each interviewee before the commencement of the interviews, outlining the purpose of the research and that their responses would be anonymised and utilised solely for academic purposes. Transparency and rapport-building were essential elements of the interview process. The researcher acknowledged their own position and background and established a respectful and empathetic atmosphere to foster open communication.

Overall, the careful planning, sensitivity to participants' needs, and methodological rigor in conducting the interviews reinforced the credibility and trustworthiness of the research findings, contributing to a comprehensive and nuanced exploration of the complexities surrounding long-term missing persons and unidentified bodies cases.

6.3 Discussion

6.3.1 What do you think the main challenges are for the cross-matching of unidentified bodies and missing persons reports?

In response to the question concerning the main challenges for cross-matching, several overarching themes surfaced. As a brief introduction, predominantly, participants recounted issues characterised by inadequate, absent, or erroneous record-keeping practices. Moreover, the discussions highlighted difficulties stemming from the absence of DNA and dental records, the financial burdens tied to exhumations and facial reconstructions, and the intricate nature of identifying individuals suspected to be non-natives of the UK.

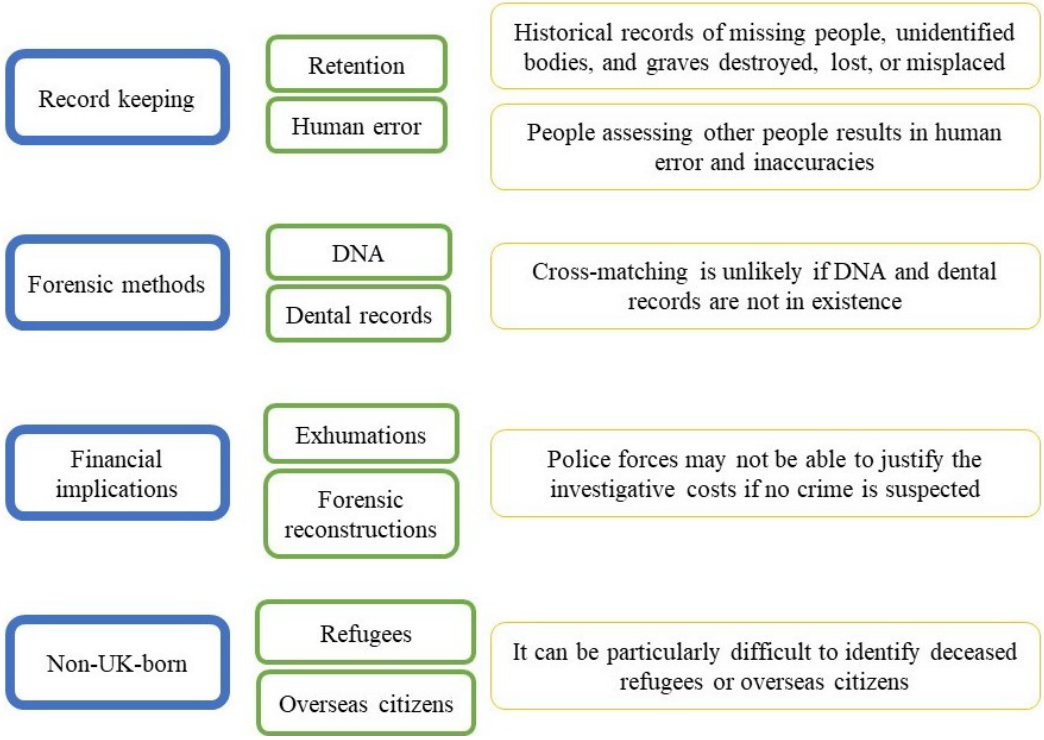

Figure 34. Thematic network of responses to question 1 (Challenges)

6.3.1.1 Theme 1: Historical records of missing people, unidentified bodies, and graves destroyed, lost, or misplaced

Participants A, D, and F worked in specialist police units established to solve cases of unidentified bodies in three different police forces in England and Wales. Over the preceding years, their experiences had been strikingly parallel, marked by consistent challenges in gaining access to historical records pertinent to missing individuals, unidentified bodies, and burial sites, particularly for cases preceding the year 2001. Some of the most common contributing factors causing difficulties were noted to be passage of time and the lack of digitisation of historical paper-based policing records. For instance, Participant A explained that as part of a particular unidentified body investigation, efforts had been made to gather missing persons reports from a two-year period in the 1970s from all police forces in England and Wales.

However, many police forces were unable to provide any records from the specified period as no such records had been retained. Participant A felt that poor record keeping of historical records was exacerbated through occurrences such as changes to police force boundaries and the closure of police stations. When contemplating strategies to avert the loss of historical records, Participant A advocated for a proactive approach. They emphasised that, wherever feasible in terms of time and resources, a concerted endeavour should be undertaken to safeguard any paper records associated with missing persons, unidentified bodies, and graves. This preservation effort, according to Participant A, should encompass both secure retention and, ideally, prompt digitisation by the involved entities – the police force, coroners' service, and local authority.

To add weight to this argument, Participants G and I, both of whom have a loved one who has been missing for several decades, provided insight into their experiences (and fears) of records being destroyed, lost, or misplaced and the detrimental impact this has had on them. Such experiences had inevitably led to a breakdown in trust between them and the investigating police force. Participant G feared that their missing loved one may have been buried or cremated unbeknownst to them. There is an evidence base to support this concern throughout the Literature Review chapter.

For example, 23-year-old Denis Walsh Jr was reported missing from Limerick, Ireland by his family on 10th March 1996. However, unknown to his family, who were searching for him for a further 25 years, Denis' partial remains were recovered 20 days later by Gardaí on the shoreline at Inis Mór off Galway Bay, Ireland. The remains were not identified until February 2021. Denis' parents had been in Galway the day before their son's remains were found and had handed out flyers of their missing son at Garda stations.

Participant I thought that partial remains of their missing loved one may have been discovered but discarded many years ago. They felt this concern due to the lack of police processes in place relating to discoveries of partial remains. In the area where their loved one had been reported missing, partial remains had been discovered over the years and discounted by the police as being of non-human origin. Participant I felt that unlike anthropologists trained in anatomy, response officers and detectives were likely to make errors when distinguishing between partial remains of humans and animals. They had an honestly held belief that partial remains of their loved one may have been discovered but discarded or destroyed due to errors in police judgement concerning the origin of the remains. They stated:

> *"My experience is that people have found body parts on the beach or dog something up in the garden that looks like a set of bones and they think it's human. And they sent a picture of the bone or took the bone to a police officer. Taking the bone to the police officer, they've taken a quick look at it and said, oh, that's a cow. And somebody actually told me that in front of them they threw it in the bin. Now, this wasn't an expert in in all of this. This was just the guy on the front desk. Ohh, I think that's, you know, an animal through it in the bin in front of this person who is like, but you don't know. You're not an expert and then a photograph was sent of body parts. Somebody felt that it could be my [Family member] and from the photographs I sent it to [Expert] and he said he found a forensic expert that said it was animal. But I still don't feel good that it wasn't tested. You know, I still feel that's just your opinion and you're a human being. You didn't look at the DNA. You didn't actually establish that this is not human. I don't think you can, you know, with all the due respect in the world not take it to people who are experts without having hands on look. I am in so much doubt that that my [Family member] hasn't been thrown in a bin somewhere by someone who just supposed that it was something other than human."*

Perspectives from Participants B and C, both Coroner's Services Managers, illustrated why such fears felt by Participants G and I were entirely understandable. Participants B and C highlighted the lack of a central coronial system for unidentified bodies cases in England and Wales and the obstacle for successful cross-matching caused in part by the software system used by coroners. The absence of a search function on the software system used by coroners made it impractical to conduct effective searches of unidentified bodies cases within their respective jurisdiction. Without a forename and surname to input into the system, coronial staff must instead try to estimate what the unidentified deceased individual may have been recorded as. For example, "Unknown Male", "John Doe", "Unk Male", "Unknown Unknown", "Male Unknown", "Unknown White Male", and so on. There is an absence of an agreed naming convention. Consequently, it is difficult for them to provide an accurate response with details of unidentified bodies cases when requests for information relating to a potential match (missing person) are circulated to them. Therefore, national statistics such as the statistics outlining the outstanding number of unidentified bodies and body parts cases that form part of the UK Missing Persons Unit's (2023a) annual bulletins are likely to be inaccurate. Inaccuracies in relation to the total number of such cases is counterproductive and creates obstacles to successful cross-matching.

To illustrate this further, back in 2008, a group representing families of missing people called for a national audit of all unidentified bodies or partial remains buried in Ireland (RTÉ News, 2008). Fourteen years later, in 2022, Ireland's Department of Justice sought the details of all unidentified remains within every Irish coroner district dating back 70 years (RTÉ News, 2022). This led to a figure of 27 unidentified remains. The details have been stored on a central

database which An Garda Síochána, the national police service of Ireland, can access. The database is anticipated to be updated annually by each coroner district with a hope of resolving some of Ireland's 800 long-term missing persons cases. It is unclear what costs are associated with the database. At this stage it is too early to know whether this initiative will prove to be successful. The knowledge of an accurate number of unidentified remains cases in each country is important as if a case is uncounted and unpublished, it cannot be brought to a resolution. The latest figures for England and Wales reported by the UK Missing Persons Unit (2023a) record a total of 669 unidentified bodies cases, 128 unidentified partial remains cases, and 4,521 long-term missing individuals. In comparison, the number of unidentified bodies cases are much larger than those of Ireland. The sheer volume of cases may therefore make a national audit more difficult to arrange, agree, fund, and implement. However, if implemented, it is probable that many families of missing persons could receive a resolution and many unidentified deceased individuals could have their names returned to them.

6.3.1.2 Theme 2: People assessing other people results in human error and inaccuracies

Another significant theme that emerged in relation to the main challenges of cross-matching unidentified bodies and missing persons reports pertained to the potential for human error. Participant H, a distinguished forensic practitioner, elucidated how the evaluation of one person by another inherently defies a binary outcome. Consequently, it is essential to approach such assessments with a perspective that accommodates a spectrum of possibilities rather than an unequivocal match. To illustrate, a poignant scenario could involve a mortuary staff member evaluating an individual's skin tone as being of a lighter shade, thus categorising their ethnic appearance as Caucasian. However, the cultural context of the deceased might reveal that their darker complexion held profound cultural significance, leading them to identify themselves and be recognised by their family as a person of colour. Moreover, the challenges posed by decomposition can further compound the intricacies of estimating skin colour accurately. Furthermore, a family member may recall their missing loved one as being six foot tall as that was the height their missing loved one always claimed to be even though they were shorter. For example, Participant H stated *"I can remember when the very first cases that I did, which was it was a dismembered body that was washed on shore. And we calculated the height to be somebody between 5 foot eight and five foot 10 inches. And the mother said no can't be in my son because he was 5 foot 11. And you know, it's that sort of thing that says, OK, you might have this group of data that says, here's your range. You've got to be prepared to expand that*

range because some of the data you've got over here is just, it's outside the barrier or the boundary of where you were and. And if you're rigid about those sort of categorisations, then you run the risk of losing that that potential match." This is a relevant point to other factors that are estimated such as age, and identifying marks such as tattoos and scars that family members and friends may have been unaware of.

Participant H also highlighted the need for attention to detail in such cases, for example, they explained: *"so it's that thing of attention to detail all the way through on absolutely everything will never do you any harm. What we say to our photographers in the Mortuary. Take another 400 photos, because if you don't, the photograph you want will be the one that isn't taken to go take another hundred. And whilst it feels really cumbersome at the time, you never regret it when that bit of information is exactly where you want it to be. So for me that learning of case histories."* They went on to note that *"it's not just about identity of the individual, it's about identity of the belongings that are found with them. Sometimes that is just as important because that may be the thing that opens the portal to allow you to get to the identity of the person."* This highlights the need for retention practices to be explored regarding the personal possessions discovered on or with the deceased individual to aid identification efforts.

As mentioned in previous chapters, factors such as time and water can lead to advances in decomposition between the time of death and the discovery. This can add further difficulties and obstacles in making accurate assessments of age, ethnic appearance, sex, and so on. Therefore, the collection and recording of antemortem and postmortem data are complicated by the human decisions which must be made relating to which information is pertinent and non-intrusive. Participant D illustrated the adverse outcomes that can occur due to human error in unidentified bodies cases. An example they provided referred to the discovery of unidentified remains in the 1980s. At the time, the possibility was raised that the remains belonged to a missing person. However, when the dental records of the found remains were compared with the dental records of the missing person, the missing person was discounted as being a possible match. The human error made in the inaccurate interpretation of the dental records meant that over three decades unnecessarily passed before the match was successfully made. Such mistakes have an immeasurable impact on the loved ones of the missing person. This solidifies the importance of conducting thorough and rigorous investigations. It also demonstrates why consideration should always be given to a range rather than an exact match as rigid categorisations could present the risk of missing a potential match.

6.3.1.3 Theme 3: Cross-matching is unlikely if DNA and dental records are not in existence

A further challenge that transpired during interviews was the unlikeness of successful cross-matching being made if DNA and dental records did not exist for either unidentified bodies or missing persons. By way of illustration, Participants A and D, both of whom worked in specialist police units, recalled that DNA was less likely to have been taken in cases that commenced before the year 2000. Although England and Wales are widely recognised as having the most effective and efficient approach to the use of forensic DNA technology in the world (Asplen, 2004), the use of DNA as a forensic technique was used less so prior to the year 2000. This is due to several factors such as the Home Office's DNA Expansion Program which led to an investment of £182,000,000 and provided funds directly to police forces to apply to DNA testing (Asplen, 2004). Participant A stated *"historical records of missing people are poor, especially before the 2000 (pre-COMPACT) when most records were paper. Historical found bodies are less likely to have had DNA taken before 1995. Forces do not see revisiting these cases as a priority. If DNA/dental records are not in existence it is unlikely the body and missing person will be married up."* This highlights the need for DNA to be taken and uploaded onto the National DNA Database. As mentioned earlier, of the unsolved unidentified cases examined from the dataset provided by the UK Missing Persons Unit, the majority had had DNA taken and uploaded on to the national system.

Echoing the experiences of Participant A, Participant D stated *"for me, because I'm concentrating on historical ones, it is the lack of DNA that's available to us for speculative searches and those sort of really applied to anybody who was found prior to sort of two thousand 2001 where we sort of where we that was the sort of date where we started routinely taking samples for DNA. And then tied in with that, we have the challenge of getting permission to remove human remains to gain a DNA sample."* Drawing upon a different element of such cases, Participant D noted that the most difficult challenge *"is the numbers of unidentified bodies that are believed to be from overseas. It's what sort of system that they have overseas in terms of the matching DNA and sometimes fingerprints against their missing persons, certainly out of the number of unified bodies we've got. And we did some work on those a few years ago. We managed to identify three of them, two of which were from the UK, one was from the Ukraine, but a lot of the others were from either Eastern European or the near or Far East."* The international element of unidentified bodies cases highlights the complexities and

time-consuming nature of the investigative work involved in established the identity of people who have died and remained unidentified.

Furthermore, the introduction of the Criminal Justice and Police Act (CJPA) 2001 led to amendments to the Police and Criminal Evidence Act (PACE) 1984 which dealt with the taking, storage and retrieval of fingerprints, footprints, and DNA. This amendment was made to take account of developments in several new technologies. An additional measure was included in CJPA 2001 to allow all fingerprints and DNA samples lawfully taken from suspects during the course of an investigation to be retained and used for the purposes of prevention and detection of crime and the prosecution of offences. Furthermore, speculative searches were introduced which extended the power for police forces to check fingerprints and DNA samples and the profiles derived from them against records held by international, police forces, and the Armed Forces.

Despite the positive changes brought about by the developments of two decades ago, Participant D had endured challenges in getting permission to exhume human remains to take a DNA sample. They explained that a strong lead relating to a potential identity was often required before an exhumation request would be approved. They felt that 2001 was the year when the police started routinely taking DNA samples and as such unidentified bodies or partial remains cases the commenced prior to that period were particularly difficult to solve due to the lack of DNA available. They went on to describe that the UK Missing Persons Unit (and the Irish Missing Persons Unit) maintains a database of familial DNA and in some cases direct DNA from missing persons taken from, for example, toothbrushes. However, a comparison cannot be made between DNA samples held on the database and unidentified remains cases pre-2001 that lack DNA samples. Consequently, in their experience, exhumations are key to successful cross-matching.

Participant D had managed several exhumations and estimated the total cost to be around £3,000 per exhumation which covered the costs associated with having Police Community Support Officers (PSCOs) to guard the cemetery, the Crime Scene Investigation staff, in addition to the work of external professionals such as forensic anthropologists, odontologists, and Participant D remarked that of all the exhumations they had completed, they had encountered not one negative response from members of the public. They disclosed that all comments made by local community and the general public in response to press articles relating to the exhumation had been overwhelmingly positive. For Participant D, exhumations appear

to be in line with public interest and so a worthwhile activity to undertake. Public interest is an important aspect to consider within police work and the next emerging theme will discuss this in further detail. Furthermore, Participant D had found that exhumations can lead to identifications due to the media awareness they generate, for example, they stated *"I did a press release to say that the cemetery is going to be closed down on whichever day it was and the reasons why what have you and when I was actually at the graveside digging up the remains, I received a phone call from a member of the public saying I've just seen in the paper that you're doing this. My [Family member] went missing in such and such a date. Could you have anybody on your books that might be her? And the answer was yes."* This demonstrates the benefits of raising public awareness of unidentified bodies cases via the media and other means.

6.3.1.4 Theme 4: Police forces may not be able to justify the investigative costs if no crime is suspected

As highlighted within the literature review, when a body or body parts are discovered, the police are usually the first to respond. The initial police investigation will seek to identify who the deceased was and whether the death is suspicious. It is the duty of the police to treat unidentified cases as suspicious until it can be proven otherwise (Apps *et al.*, 2014). If the death is deemed not to be suspicious, the primary responsibility for investigation shifts to the coroner, along with decisions concerning the collection of DNA samples and fingerprints (Apps *et al.*, 2014). Participant E, who works as at the UK Missing Persons Unit, stated that long-term missing persons cases and unsolved unidentified bodies cases can sometimes appear to be less of a priority for members of the public. They had the opinion that the public had certain priority areas that police forces should focus on such as preventing terrorism and male violence against women and girls. In support of this, several participants noted that in unsolved unidentified bodies cases, especially historical ones, police forces may not be able to justify the investigative costs in circumstances where no crime is suspected. This is an important point to consider as police forces must prioritise certain areas of crime. In less prioritised areas of policing, charities can attempt to fill the gaps in provision. For instance, charities such as Missing People recruit volunteers to support and liaise with families of missing persons and charity Locate International recruit volunteers to progress missing persons and unidentified bodies investigations.

However, Participant D had witnesses changes in the attention, time, and resources given to such cases more recently from the multi-agency perspective. They stated previously, they had witnessed police forces:

> *"Can file a job, they'll file it quickly with the minimum of work. So I think this has changed now countrywide, but now we have dedicated coroners officers and staff who were overseen by our major incident team. So that aspect of stuff is now become a lot more professionalised and they've got to follow reasonable lines of enquiry. And it's really important as well having coroner's officers who are prepared to seek help from people with investigative experience if they get stuck."*

6.3.1.5 Theme 5: It can be particularly difficult to identify deceased refugees or overseas citizens

A further challenge was associated with identifying deceased individuals who had come to the UK from overseas to flee war or persecution, improve their lives by finding labour opportunities, or in some cases for education, family reunions, or other reasons. As Olivieri *et al.* (2018) noted, there is an absence of national and international guidance on steps to be taken to facilitate the identification of migrant and refugee victims. Participant F, part of a specialist police unit that reviews cold cases, spoke about the difficulties in identifying deceased individuals suspected to be from Eastern Europe and Asia. To no avail, they had used Interpol black notices, which requested information from Interpol members to try and identify unidentified bodies.

In addition, Participant C, a Coroners' Services Manager, described that working in a jurisdiction with a long coastline meant that many unidentified bodies or body parts washed ashore with the deceased individuals often originating from overseas. They stated *"we get we get a lot of either bodies or parts of bodies turning up on the beaches because we got quite a long coastline. People falling off boats drifting ashore or people deciding to go for a swim and don't come back until sometime later."* They went on to explain that notification would be made to the UK Missing Persons Unit and contact would be made with Interpol. Participant B, also a Coroners' Services Manager, echoed such points. They felt that investigations into unidentified bodies or remains of persons born in the UK had generally not been a challenge to solve in their jurisdiction. Instead, difficulties arose when the unidentified deceased individuals were from overseas. They explained how not all countries recorded and reported information in the same way and so cross-matching of information often becomes unfeasible.

Furthermore, Participant B noted how their area had a diverse and growing population with an increasing number of refugees. They had experienced that different names can be given by refugees on arrival into the UK and had found it was commonplace for refugees to not hold any paperwork or documentation that identified who they were. They stated *"not every country records and reports the same way as England do and some of them are Westernised countries. So the issue you have more is when you've got people coming from far and wide, especially if they are refugees. And when they come to this country as well, they're giving different names."* This exacerbated the complexities of securing successful cross-matching of information between the report of an unidentified deceased individual in the UK and a missing persons report made in another country. They provided an example of a Ukrainian refugee who had collapsed in a public place with a key in their pocket but no identification. As there were no suspicious circumstances, the coroner led the investigation into who the deceased was. Immigration and refugee charities were contacted, and it became apparent that refugees may initially have no choice but to work illegally whilst immigration checks take place. Participant B managed to establish how persons with refugee status tend to travel with little possessions and quickly move from one living situation to the next, without any notification being made to others. A forensic reconstruction was produced, and a press appeal was made every six months. Eventually, a successful DNA match was made via Interpol following a missing persons report being filed by the deceased individual's siblings who had each fled to different countries in Europe. It materialised that the deceased had lived in a flat locally near to where they had collapsed, however the landlord had never reported their disappearance. Participant B therefore suggested how beneficial it would be in such cases if there were a requirement for landlords to notify the local authority or police force if a tenant left a property unexpectedly or in suspicious circumstances, for example leaving all possessions behind.

6.3.2 What opportunities do you think could be considered for the cross-matching of unidentified bodies and missing persons reports?

The main themes that transpired in response to the question asked regarding the opportunities for cross-matching were DNA, information sharing, and reviews.

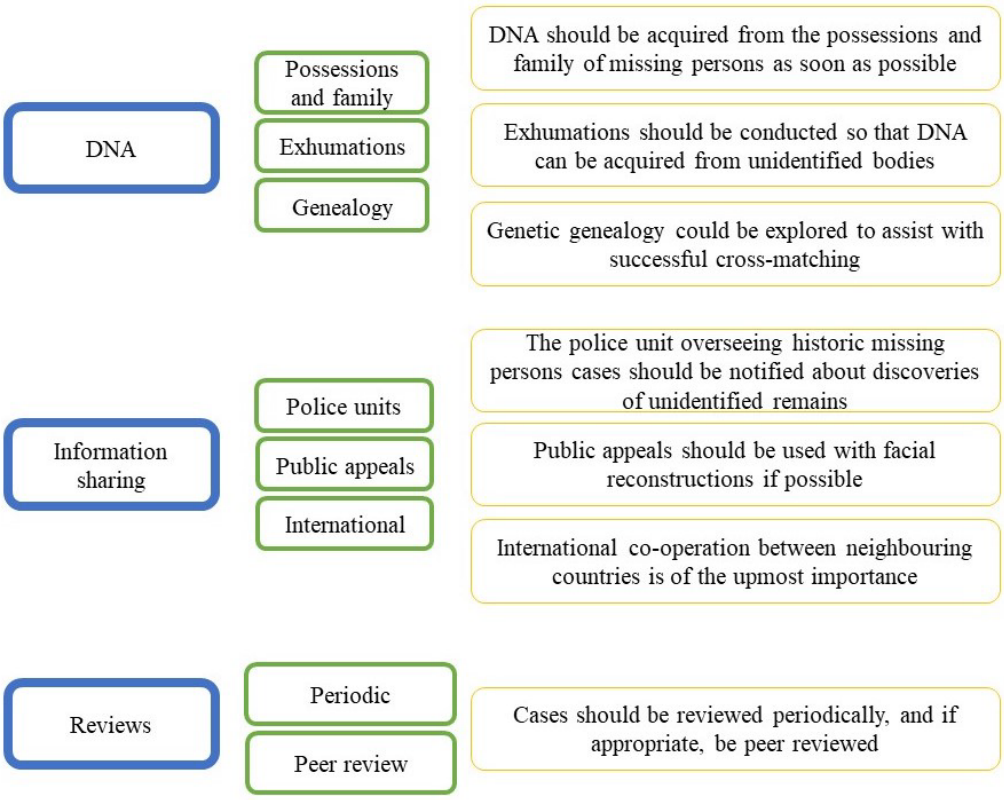

Figure 35. Thematic network of responses to question 2 (Opportunities)

6.3.2.1 Theme 1: DNA should be acquired from the possessions and family of missing persons as soon as possible

> *"It is essential that DNA is acquired from missing people's possessions within the first few days of the person going missing, or as second best, from family members for permanent inclusion on the national database. This will ensure if another force conducts an exhumation or analysis of a body part a cross match is possible. Individual forces should ensure that discoveries of human remains are notified to the unit who overseas historical missing people within that force. In relation to the North sea group of countries, maintenance of mutual assistance is required. Some countries within this group are easier than others when it comes to cooperation."*
>
> *(Participant A)*

In the previous section, DNA featured as one of the main challenges of cross-matching. Nevertheless, DNA also featured as one of the main opportunities for cross-matching. Participant A, who worked within a specialist police unit set up to solve unidentified bodies cases, considered it essential for DNA to be taken from the possessions of the missing person as soon as practicable, ideally within the first few days of the person going missing. Then, DNA should be taken from family members of the missing person for permanent inclusion on

the National DNA Database. In their opinion, these actions would help to ensure that successful cross-matching was possible in the event of another police force conducting an exhumation or analysis of an unidentified body part. In addition to DNA, they remarked that a national database of dentistry would be advantageous. However, they acknowledged this would be a costly and time-intensive undertaking. They explained that the UK Missing Persons Unit did already hold dental records for some missing persons and unidentified bodies cases. This is a useful consideration for investigators in the absence of a national dental database.

6.3.2.2 Theme 2: Exhumations should be conducted so that DNA can be acquired from unidentified bodies

There were differing views in relation to conducting exhumations to acquire DNA from unidentified bodies. Participants A and D had significant policing experience of leading exhumations. Participant A remarked that unfortunately not all police forces had an appetite to conduct exhumations due to unfamiliarity with the process. Both Participants A and D valued exhumations not only for the primary reason of securing DNA but also for raising awareness of unidentified cases from the impact gained via publicity, media interest, and word of mouth whilst exhumations take place. For instance, as mentioned, Participant D remarked at how they had arranged for the release of a press statement to advise members of the public of a cemetery being closed for the day and to explain the reasons why the exhumation was occurring. Whilst at the graveside when the exhumation was taking place, they received a call from a member of the public to say that had seen the article about the exhumation and wondered whether their missing loved one might be one of the outstanding unidentified bodies in the police force area. An investigation resulted in a case being solved all because of the publication of an exhumation taking place.

Whereas Participants C and F felt there were more obstacles than opportunities when considering exhumations. For example, Participant C reported that it was not financially feasible to exhume unidentified bodies to acquire DNA. Although, in their location, unidentified bodies were cremated rather than buried during public health funerals and so exhumations would not be an option available to investigators. They stated *"I don't think that would be feasible to exhume bodies, but no, I would, yeah as soon as and this recent maybe go back to certain amounts of time possibly if they're unidentified. But as we mentioned before, most identified bodies will go through to the local authority and they are mainly cremations anyway and you've lost everything there."* In support of this argument, Participant F voiced the

ethical issues associated with exhumations as they disturb bodies whilst they rest. They felt that any decisions made surrounding exhumations must be proportionate. They stated *"for the cost, this is a one of the words that that is used quite frequently in policing circles proportionality. And it's where doing that, disturbing that that body while it rests. You know, but so especially one that are decades old. It could well be that any relatives of potentially you know, certainly parents, are probably likely to be no longer alive anyway. So what's to be gained from it? If you see what I mean, that's the balance that's going to be drawn."* They explained it would be difficult to justify exhuming a body to acquire DNA unless there was a strong potential match to whom the unidentified deceased individual might be. Especially in cases that were decades old, Participant F stated the importance of considering whether the unidentified deceased individual would have any living relatives to learn of the news and so questions would be posed surrounding what would be gained from the exhumation. The differing points of view on the need for exhumations must all be considered and as is common practice within policing, each investigation should be approached with an open mind on a case-by-case basis.

6.3.2.3 Theme 3: Genetic genealogy could be explored to assist with successful cross-matching

Several participants mentioned the emerging forensic science technique termed genetic genealogy. Described as combining DNA analysis with family tree building, the technique is being used with much success by police in the USA, Canada, and Sweden, to solve unidentified bodies cases and identify suspects in so called 'cold cases'. Participant A described it as a niche skill that Senior Investigating Officers would be unlikely to possess. They explained that *"one possible use of matching unidentified bodies is to use victim familial DNA research. This is a growth area in policing but is expensive, resource intensive, and potentially intrusive. Not many SIOs have experience of these rather niche investigations. Exhumation and acquisition of victim DNA is an obvious route where DNA has not or could not be taken, most forces do not seem to have the appetite for this."* Likewise, Participant H recognised the opportunities presented by genetic genealogy although cautioned against using the technique without justifiable and conscientious reasons to do so. They stated:

> *"So if, as you go down the process and you think that the, you know, the genealogy approach is something that's going to be incredibly impactful, then you're going to want to collect perhaps a different set of information than if you're not using that process. So you have to be prepared that it's going to become a mobile or not a*

mobile, a flexible and agile system that doesn't stick to rigid requirements because if you say we're only ever going to collect eye colour. Then you know that means we haven't got anything else that that we can use. So as technology comes along as new developments come along, of course you don't want to close those off, but you have to say we might now have a set of data where this new approach can be used on this because we know the questions to ask but we didn't know in the past to ask those questions. So this route may not be open to us on these cases, but they might be open to us on these ones moving forward. So you you're going to get blocks of cases and data that new technology might not be able to assist you with, but that doesn't mean that you shouldn't go down that route because it may well assist you on many more. But there's also that that little nagging doubt in the back of my mind and I see it in the courtroom that the jury believe in many cases, if there isn't DNA evidence in the case, then there's no evidence whatsoever. Because DNA solves everything, because everybody's name and address is sown into that double Helix, and so you can always identify people from DNA. And when you give them a case and you explain why the DNA wasn't the thing that was ever going to work, this sort of light bulbs go on and think, oh, that's untidy. And so I just caution against when new technology comes along. We love shiny things, and we all want to shiny thing because it's pretty. Don't find yourself so restricted by the questions that that approach need that you realise there are other questions that may not be as important in 80% of your cases, but they're really hard to reach. Ones are the ones that you become involved in. If DNA can solve them, they'll solve them, but it's the ones that get left behind. It's like sedimentation the lower down in the sediment you get the thicker it becomes and the more impenetrable it is. And you need to have a whole suite of different kinds of questions to answer those. When you do those that you can pick off on the top because DNA solves it really quickly for you and it's great to be able to get those top ones away quickly. But you are always left with a sediment at the bottom and you need to be prepared that the questions that you're going to ask and the data that you're going to collect to solve them as well as those that are easy to do through the genealogy."

Considering this, it is important to acknowledge the UK's Biometrics and Forensics Ethics Group (2020) report on the feasibility for police in the UK to begin using genetic genealogy. They concluded there was potential for this method to be tested in a UK setting solely on unidentified bodies cases. The Metropolitan Police Service are currently piloting the use of genetic genealogy and a report is expected to be published in 2024. In addition, during interviews with participants it became apparent that some UK organisations such as private forensic labs and academic institutions are already beginning to put plans in place to use genetic genealogy to identify fallen soldiers of World War II.

6.3.2.4 Theme 4: The police unit overseeing historic missing persons cases should be notified about discoveries of unidentified remains

According to Participant A, a significant opportunity that could be considered for the cross-matching of unidentified bodies and missing persons reports centres on information sharing.

When an unidentified body or remains are discovered, in addition to notifying the coroner, the police are requested to send a report to the UK Missing Persons Unit within 48 hours of the discovery. This is to assist major crime investigations and help to bring closure to the families of missing people (College of Policing, 2021). However, Participant A raised the importance of the police force also notifying the police unit that oversees historical long-term missing persons within the force. This would help to ensure potential cross-matching opportunities are not missed. However, the inconsistent approach to the organisational structure of the 43 police forces across England and Wales means that not every police force will have a dedicated unit for historical long-term missing persons cases. Furthermore, on a wider level, Participant A understood that the COMPACT missing persons case management system is not shared by all 43 police forces in England and Wales. It is unclear why different systems are used by different police forces. It would be beneficial to address the inconsistencies so that one missing persons case management system is used nationally. Participant A remarked that *"locally, coroners do retain records of inquests which are useful but do not replace police investigation records. The police are struggling to provide an efficient service with pressure from all angles on the organisation. It is likely in the present climate few extra resources will be allocated to long-term missing people."*

6.3.2.5 Theme 5: Public appeals should be used with facial reconstructions if possible

As mentioned previously, Participant D explained their first-hand experience of the leads gained from publicity being directly responsible for successful cross-matching and thus the solving of cases. This was echoed further within the interviews of several other participants from a coronial or policing background who felt that public appeals were one of many significant investigative tools that should be encouraged to progress unsolved cases. The benefits of facial reconstructions to reproduce the likeness of an individual from skeletal remains were repeatedly raised and examples were used by participants to illustrate their successes with the use of this forensic science method.

Whereas Participant E explained that publicity was not always suitable or possible for every unidentified body case. They remarked that *"for any police force, you have to weigh up there in the public interest to spend that money to hopefully identify remains or should that be going into proactively preventing crime? Is anything ever going to be the right answer? [...] Some of the facial reconstructions can be absolutely amazing, but there's a massive cost implication and forces just don't have the money to be giving the best technology to be solving a case where*

no crime has been committed." They explained how certain factors, such as the state the body was discovered in, financial implications, and whether a crime had been committed, might contribute to the decision of whether an appeal for assistance should be made to the public. Examples provided in the Literature Review chapter demonstrated the effectiveness of using forensic facial reconstructions to solve unsolved cases. Evidently, there is room for further study into this area. It would be useful to understand the effectiveness of different types of facial reconstructions and the frequency in which this factor is the primary identification method in solved cases. It would be beneficial to evidence whether this approach leads to more success in terms of increased opportunities for publicity and effective cross-matching.

6.3.2.6 Theme 6: International co-operation between neighbouring countries is of the upmost importance

Every participant interviewed mentioned the international element of unidentified bodies cases. There was a noticeable understanding and awareness that a person may be discovered deceased in a different country to the one in which they originated, inhabited, or were reported missing from. The international element of unidentified cases leads to the consideration of several different factors. Participant F spoke about many of these in detail. They noted factors such as legislation, international databases, resources, finances, the value different countries place on the life of their citizens, and the level of service different countries provide to their citizens from a policing perspective. Through working on several unidentified bodies cases, Participant F had learnt about the importance of mutual assistance between the group of North Sea countries in particular. They viewed strong international co-operation with the support of Interpol as being integral to the success of solving cases, especially when unidentified bodies or remains were discovered washed ashore or at sea. Participant A noted *"In relation to the North Sea group of countries, maintenance of mutual assistance is required. Some countries within this group are easier than others when it comes to cooperation."* Although co-operation between neighbouring countries was mentioned most frequently, it is important to also consider cases in which non-neighbouring countries must co-operate. For instance, there are well-known case studies of persons who had travelled thousands of miles to take their own lives in places that they had never been to or had physical connections to previously and as such had remained unidentified for a significant period of time after death. For example, through the researcher's investigative work examples have become apparent such as 'Saddleworth Moor man' who had travelled from Lahore, Pakistan to take his own life in Manchester, UK, and 'Galway Man'

who had travelled from Florida, USA to take his own life in Galway, Ireland. Such examples support the need for an international database for unidentified bodies and missing persons, a suggestion mentioned by several of the interview participants.

6.3.2.7 Theme 7: Cases should be reviewed periodically, and if appropriate, be peer reviewed

The importance of periodically reviewing unidentified bodies cases was raised mostly by Participant F. In their experience, a 'nudge' from the UK Missing Persons Unit to their police unit led to three cases being solved. The UK Missing Persons Unit had provided them with a list of twelve unidentified bodies cases within their police force area. Some of the cases dated back to the 1970s with no progress having been made since the cases were originally opened many decades ago. Participant F transparently commented that without the communication from the UK Missing Persons Unit, no progress would have been made on those cases. The learning they acknowledged from that experience was to periodically review cases of unidentified bodies. In support of this argument, Participant D explained that reviews helped to reassure families of missing persons that their loved ones had not been forgotten by the investigating police force. He went on to describe how the passage of time and emerging technologies presented opportunities for reviews to lead to a resolution.

After so many periodic reviews, Participant G, family member of a missing person, sensed that a peer review conducted by another police force would be advantageous. In the case of their missing loved one, there were two particular geographic locations of interest. The investigating police force is based in one of the geographical areas and Participant G has attempted to arrange for the police force based in the other geographical area to conduct a peer review. Unfortunately, the request had been refused. They stated that their missing family member *"is under investigation by [Police force area] because [they] went missing in [Location] and the [Police force area] won't let go of [them] because they don't anybody to see what they've done. I asked for a peer review. They're refused. I asked for a transfer to [Other police force area] because the last place is the [Something] was seen was there and they declined. And but yeah, it is just up for periodic review now and then."* This is a missed opportunity as a critical friend could be beneficial in circumstances where the missing persons' final movements had a significant connection to another police force area. The cost and resource implications of reviews appear to be a barrier for police forces, as do perhaps the possibility of receiving negative or critical feedback.

6.3.3 What learning do you think can be taken from solved unidentified cases to improve police, coronial, and/or local authority practice?

According to the interview participants, the main themes for learning taken from solved unidentified cases surrounded case studies, inquests, method of disposal, communication, and body parts.

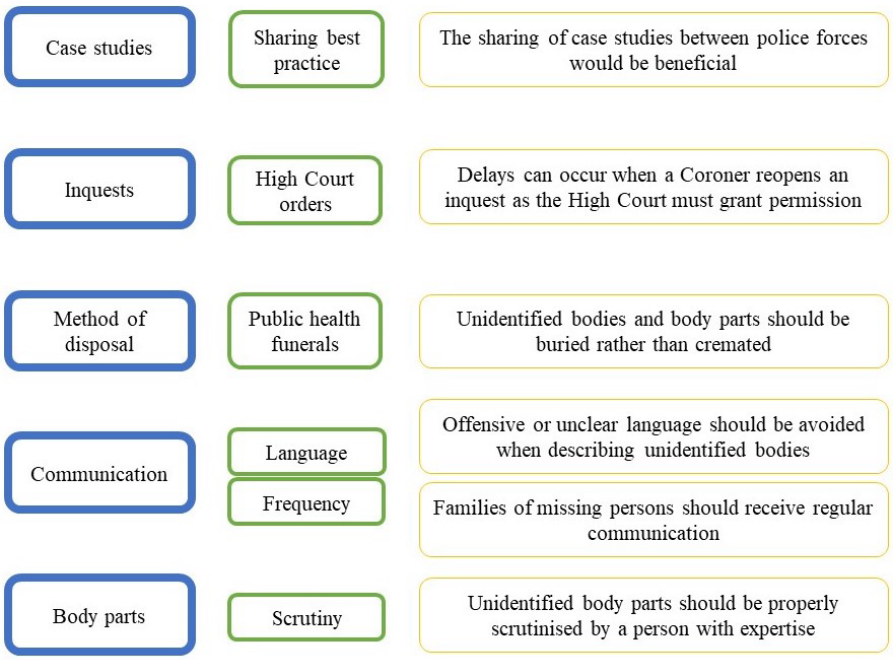

Figure 36. Thematic network of responses to question 3 (Learning)

6.3.3.1 Theme 1: The sharing of case studies between police forces would be beneficial

Both Participants E and H highlighted the merits of case studies being shared between police forces. Participant E noted the primary benefits would arise from an increased knowledge of what worked for unidentified bodies cases from an investigative perspective. Furthermore, they highlighted how communication between police forces would increase the awareness of the diverse skill set that exists within such a niche area of policing. For example, officers who had become experts in the processes and procedures relating the exhumations. Moreover, Participant H believed in the value of using case studies for learning within practice for unidentified bodies cases, not only within policing but within the wider network of professionals involved in such cases. However, they cautioned of the tendency for professionals to hear and engage with the case studies but not necessarily take the extra step and extrapolate the learning to their own cases. They stated:

"Case histories themselves are beautiful pieces of learning, but they are single pieces of learning and people are very good at hearing the story, learning from the story and not extrapolating it to other stories, thinking, OK, that needs to change the way that we do something, you know, so, so everybody loves the story that says, you know, we weren't getting anywhere. And then suddenly we find a piece of information on a microfiche from a journalist. And our problem solved. And then they all think, well. Yeah, but we'll solve ours before we get to that. So we don't need to worry about it, but it's a great story and they don't extrapolate that you don't know at the outset whether you're as is the case that's going to be solved or the one that isn't. And it is that baseline awareness that everybody has to assume that the case that you're taking on next will be one of those really tricky ones. There's going be like a Burr under your saddle for the next 20 years. You hope it won't be, but it will be. And there's this assumption in many cases."

6.3.3.2 Theme 2: Delays can occur when a coroner reopens an inquest as the High Court must grant permission

Participant D raised a significant consideration for learning within the coronial practice of inquests. An inquest is an inquiry into the circumstances surrounding a death. The Coroners and Justice Act 2009 outlines that an inquest must be held if the cause of death is unknown, the person might have died a violent or unnatural death, or the person might have died in prison or police custody. Evidently, the coroner will not investigate all deaths. However, Section 5 of Coroners and Justice Act 2009 does stipulate that the coroner has the ultimate responsibility to ascertain the identity of the deceased. Therefore, although not specified within legislation, it is likely that an inquest would take place should a deceased individual remain unidentified after death. Participant D explained that a coroner cannot reopen their own inquest after it has been closed. Instead, the coroner must approach the High Court to gain their permission to reopen the inquest proceedings. Participant D had witnessed how this matter of process had caused detrimental impact to families of missing persons.

For instance, in a particular unidentified body case it had taken a year to receive the High Court's permission to reopen the inquest and, in that time, the missing person's husband had passed away. Although the missing person's husband had known about the potential identification, it was not officially confirmed until after he had died. Until this matter of process is revised or removed, Participant D will continue to aim to reduce the detrimental impact on families of missing persons. In cases where a match between unidentified remains and a missing person had been successfully made and the reopening of the inquest is in progress as a matter of formality, communication would be made to the local authority to request the cemetery in question allow the family to mark the grave and place a memorial. In Participant

D's experience, this had worked well as it had provided families with a place to visit and pay their respects before the final state proceedings were complete.

6.3.3.3 Theme 3: Unidentified bodies and body parts should be buried rather than cremated

The interviewees stated the importance of burial rather than cremation and this corroborated the researcher's own thoughts after reviewing the data. For example, Participant E explained that if DNA is taken then a cremation occurs *"DNA's great, but what if it's, you know, the something happens to the sample, anything like that, and some countries will not rely on DNA as identification method. Other countries I know, France will not accept DNA match as the sole method of identification. They want something else. And if you've not been able to take it, the other ones, then you're kind of stuck."* Cremation can cause significant barriers in identifying who the deceased individual was. Section 46 of the Public Health (Control of Disease) Act 1984 places a statutory duty on local authorities to provide public health funerals. A burial or cremation will be arranged for persons who have passed away and have no next of kin, or those who have next of kin, relatives or friends who are unable or unwilling to make the necessary arrangements for a funeral (Ministry of Housing, Communities and Local Government, 2020). In the absence of knowledge of who the deceased individual is, there will be no next of kin and so unidentified bodies cases will usually be subject to public health funerals. In rare circumstances, the local community could raise funds to cover the funeral costs.

A local authority practice that could remarkably increase the possibility of successful cross-matching is the decision to bury rather than cremate unidentified persons. Participant D clearly stated the reasons why all unidentified bodies should be buried rather than cremated. Should the body be subsequently identified, it would enable the family to move the remains to a family plot. They stated:

> *"All unidentified bodies should be buried rather than cremated. And the original reason for that is because should the body be subsequently identified, it would enable the family to have a body to put into a family plot or whatever it might be. Now, coincidentally, that's been useful for us because they've not been cremated. So we do have a possibility of finding the grave and then doing an estimation to get DNA. And finding the grave itself is sometimes challenging, and the most recent one, I've had a success on I ended up chatting to one of the local undertakers and it was through him that I found out where this person was buried as the local coroner used to go to the pub with this person and that was the way I found it but there was no record of that."*

Furthermore, as the person's identity is unknown, so are their cultural dispositions. Many religions are strongly opposed to cremation. For example, cremation is strongly forbidden in Islam and orthodox Judaism (Public Health England, 2016). Finally, in historic cases, burial allows for an exhumation to take place for DNA to be acquired and cross-matched with familial DNA. Without remains being retained, all such options become impossible. If cremation was the preferred or only route possible, a DNA sample should be taken and retained indefinitely until the case is brought to a resolution.

6.3.3.4 Theme 4: Offensive or unclear language should be avoided when describing unidentified bodies

This chapter has previously covered the importance of a consideration being given to a range rather than an exact match where numbers are concerned in unidentified bodies cases. This is because rigid categorisations could increase the risk of a potential match being overlooked. In addition to considerations around numbers, use of language is equally important when investigating unidentified bodies cases. Participant G raised issue with the use of terms such as 'vagrant' and 'oriental', both of which commonly feature in the case descriptions of unidentified deceased individuals on the UK Missing Persons Unit's publicly available case search database. They stated *"personally, I think some of the language used on the UK Missing Persons Unit's database is not good. Vagrant and Oriental and things like that. And I raised loads of concerns on the survey with them and they've never addressed that. And also I noted cases that you follow on Facebook and things and you comment from police departments and they haven't even referred their unidentified bodies to the UK Missing Persons Unit's database."* The term 'vagrant' is problematic due to connotations including laziness and criminality. The incorrect presumption of an unidentified deceased individual being homeless could also lead to unnecessary enquiries into homeless shelters and the discounting of enquiries into vacant properties within the area. The term 'oriental' is an offensive and antiquated term. There are recent examples of this type of language being recognised as insulting and as such being removed from discourse. For example, in 2016, the bipartisan bill signed by President Obama eliminated all references to 'oriental' from federal law, replacing the word with 'Asian Americans' (Meng, 2016). Therefore, the UK Missing Persons Unit could consider removing problematic terms within case descriptions of unidentified deceased individuals on the HERMES database.

6.3.3.5 Theme 5: Families of missing persons should receive regular communication

Participants G and I outlined their views on communication from the perspective of having a long-term missing loved one. Both stressed the importance of receiving regular communications from the investigating police force. Importantly, they raised how a lack of regular communication inevitably leads to a breakdown in trust and rapport. Participant I illustrated the point with an example of hearing information second hand, for example from the media or community, about discoveries of unidentified remains in geographical locations pertinent to the investigation of their missing loved one's disappearance. In the early stages of family liaison in missing persons cases, an agreement should be reached regarding how regularly communications will take place. Furthermore, a discussion should be had as to whether family members want to be notified of discoveries of unidentified remains in areas relevant to the investigation. Should an agreement be reached, this type of communication should be maintained indefinitely until a decision is reached by family members to cease receiving such updates.

This was echoed by Participant D, as they stated *"and through appeals, word of mouth, and people sort of nominating possibilities. And we have had a lot of people nominated that it turned out not to be. But I think the important thing to say about that is that even those nominations that we have to tell the families are negative. It still helps the families massively to know that their loved ones still on file. And it's not been forgotten about by us and I don't think that can be underestimated the power of that and how much that that reassures families that their person, their loved ones not been forgotten."*

6.3.3.6 Theme 6: Unidentified body parts should be properly scrutinised by a person with expertise

As mentioned, several participants also realised the benefit in the proper scrutiny of unidentified body parts by a person with expertise in anthropology, anatomy, or similar. Participants G and I recalled fears of unidentified body parts being discovered but discarded without proper investigation or assessment. Participant C noted that due to working for a coroner's service in an area which includes a long coastline, they had experienced a number of partial remains washed ashore on beaches. Burials at sea were also noted to be an issue when remains unintendedly resurfaced. They noted that the process they followed was to analyse each body part discovery to first establish how old the remains were. If the remains were

deemed to be more than 100 years old, then no investigation would take place due to authorities needing to prioritise work that garners the most public interest. Whereas, if the remains were deemed to be less than 100 years old then the UK Missing Persons Unit would be notified as a matter of course. It was unclear whether pathologists were always the ones making a ruling on this. The accuracy of the results will be impacted by the experience and expertise of the person conducting the assessment. There is a risk of bodies and body parts being discarded if the date of deposition is incorrectly estimated. Furthermore, Participant E, a member of staff at the UK Missing Persons Unit, described how the discovery of a body part would usually generate concerns of an offence taking place. They explained that a body part may have been removed on purpose to prevent identification or the body may have been disposed of by the perpetrator and then impacted by external factors such as weather or wildlife. Participant E felt that discoveries of body parts were rigorously assessed by police forces. Nevertheless, there is an absence of national guidance that stipulates what the end-to-end process should be for the treatment of unidentified body parts.

6.4 Conclusion

To conclude, the main challenges for cross-matching involved poor, non-existent, or inaccurate record keeping, lack of DNA and dental records, the costs associated with exhumations and facial reconstructions, and the complexities involved in identifying persons suspected to have not been born in the UK. The main opportunities for cross-matching were DNA, information sharing, and reviews. The key areas of learning taken from solved unidentified cases included case studies, inquests, method of disposal, communication, and body parts.

Through conducting interviews with key stakeholders, an understanding has been gained of the main challenges and opportunities associated with the cross-matching process and learning has been identified from solved cases of unidentified bodies to improve police, coronial, and local authority practice. In the next chapter, the discussion chapter, the findings will be laid out in study order, relative to the research questions. The findings and contributions will be linked and connected to provide an overall picture. References will be made to the current state of the literature to demonstrate where and how gaps in knowledge have been filled. The discussion chapter will explain how the understanding of certain topics has changed and make comment on how practice might be altered and improved.

CHAPTER SEVEN: DISCUSSION

7.1 Introduction

To date, there has been little academic research into the cross-matching of unidentified bodies and missing persons reports in England and Wales. This research has provided the first ever critical review of the topic. The obstacles and opportunities associated with the cross-matching process and who remains unidentified after death in England and Wales are now apparent. Furthermore, this thesis has added value to the field by elucidating the end-to-end process for the treatment of unidentified bodies. This has been addressed on a local, national, and international level. In addition, findings have been surfaced relating to demographic characteristics, rates of unidentified deaths, and learning more generally for authorities involved in such cases.

The previous three chapters documented the findings from the three distinct phases of the study. The aim of this chapter is to present a discussion of the overall research findings and make clear the main contributions of this thesis. The research questions will be revisited whilst comparing the findings with existing literature and theories to demonstrate how they contribute to the current body of research. Unexpected or surprising results will be highlighted, and consideration will be given to possible explanations. Detailed and realistic recommendations will be outlined. The chapter will conclude by considering the implications of the findings for both the field of study and for policing, coronial, and local authority practice.

7.2 Overall thematic findings

In the below table, a theme refers to a common topic or subject that has emerged from the study. Determining a theme is a subjective process as it is dependent on the interpretation of the researcher. However, to support the decision-making process surrounding what constituted a theme, the information was assessed based on relevance, consistency, significance, emergence, and distinction.

- The relevance of the theme to the research question and whether it provided insight into the phenomenon under study and contributed to understanding it.
- The consistency of the theme across the data and whether it appeared across multiple data sources or studies.

- The significance or meaningfulness of the theme to the field of study and whether it had practical implications for policing, coronial, or local authority practice.
- The emergence of the theme within the data in an inherent and natural way rather than a theme that had been imposed on the data.
- The distinctiveness of the theme and whether it had a clear definition that was separate from other concepts and ideas that were related to it.

It is important to note that the identification of themes was an iterative process and the understanding of the themes evolved over time. To identify the themes and findings from each study, the entire study chapters were reviewed to identify the main themes and findings from the research. This allowed the most important and relevant information to be captured and has ensured that the below table presents a comprehensive and accurate representation of the data.

Table 29. Overall thematic findings of thesis

Study 1 Requests for information to police forces, coroners, local authorities	**Study 2** Decade of data of solved and unsolved cases from UK Missing Persons Unit	**Study 3** Semi-structured interviews with key stakeholders related to missing persons
Theme 1: Suspicious vs non-suspicious deaths		
There are a range of investigative differences between suspicious and non-suspicious deaths *(inc. time, resources, reviews, overall responsibility, information sharing, information retention MOPI etc.)*		The costs of exhumations and facial reconstructions for non-suspicious deaths are sometimes unjustifiable for police forces
Theme 2: Management of information		
There are discrepancies in the approach to management of information due to the lack of formal process or guidance *(inc. case management systems, how information is recorded, stored, reviewed, deleted, destroyed etc.)*		Police forces can experience difficulties in accessing records relating to missing people, unidentified bodies, and graves for non-recent cases There is a lack of sharing of case studies between organisations working on unidentified bodies cases

The locations of resting places are sometimes unknown in non-recent cases There are disparities in relation to who is responsible for recording the resting place and where the recording of this information takes place		
Theme 3: Bodies in water		
Investigations into unidentified bodies found at sea are particularly complex and time-consuming	In solved cases, when excluding the most common type of area where the deceased individuals were found (Railway stations, tracks, bridges, or arches), of the remaining types of areas 50% of deceased individuals were found in water (River Thames and coastal prominent) In unsolved cases, the most common type of area where the deceased individuals were found were beaches, shores, coves, or rocks	International co-operation is needed to solve cases in which the remains were discovered washed ashore or at sea
Theme 4: Unidentified body parts		
There are differences in the way organisations treat unidentified body parts as no process or guidance is in existence		The coroner does not recognise certain unidentified remains as a body, for example a hand or foot, and as such no investigation would commence The lack of process or guidance in relation to how unidentified body parts are treated is of the utmost concern to families of missing persons
Theme 5: Families of missing persons		

	In one particular solved case, more than 13 years (4,814 days) passed between the date of the missing person report and the date they were identified, demonstrating the unfathomable impact on the family In just over a third of solved cases (34%) a missing person report was made, and it was unknown in the remaining cases whether the individual was reported missing	There are systemic issues causing distress to families of missing persons, including lack of regular communication with the investigating police force, lack of confidence in the cross-matching process, lack of reviews, and delays when reopening Inquest proceedings
Theme 6: DNA		
	For solved cases, DNA was recorded to have been taken and uploaded onto the MPDD in a third of all cases which demonstrates that unidentified body cases have the potential to be solved without the use of DNA For unsolved cases, a DNA sample had been taken and uploaded onto the MPDD in most cases	DNA should be taken from families of missing persons as soon as practicable The use of genetic genealogy should be considered for non-suspicious cases
Theme 7: Metropolitan Police Service and British Transport Police		
	The Metropolitan Police Service and the British Transport Police were the police forces responsible for over half of all solved cases over the decade period and as such are the most experienced police forces in unidentified bodies investigations in England and Wales	
Theme 8: Annual statistics reporting		

Although there is a requirement for all coroner areas to complete an annual return of statistics to the Ministry of Justice, no data is collected concerning unidentified bodies cases No annual statistics are gathered by the Human Tissue Authority surrounding how many unidentified bodies were being held in public or hospital mortuaries for extended periods of time		The creation and use of a naming convention would benefit all agencies by making the retrieval of the annual statistics more straight forward, accessible, and manageable
Theme 9: Taxonomy		
There is a need for a naming convention to ensure unidentified bodies cases can be effectively searched for in police, coroner, and local authority systems	The scheme of classification for the ethnic appearance category within the Hermes database is problematic using antiquated terms such as oriental	There is offensive language featured in the publicly available information on the UK MPU's database of unidentified bodies cases
Theme 10: Burial vs cremation		
There are conflicting approaches to public health funerals, with some local authorities opting for burial and others cremation		Burial has many benefits for the cross-matching process and so if cremation was the preferred or only route possible, a DNA sample should be taken and retained indefinitely
Theme 11: International co-operation		
Investigations into deceased individuals thought not to have been born in the UK are particularly complex and time-consuming		International co-operation is an essential component for investigations into deceased individuals suspected to not have been born in the UK or known to the UK systems
Theme 12: Identification methods		
There are risks associated with relying solely on visual identifications	For solved cases, the estimated ages of the deceased individuals in relation to their actual	Facial reconstructions are frequently successful in leading to an identification

	ages was inaccurate in 152 cases which was exactly a third of all cases	People assessing other people will sometimes result in human error, and so consideration should always be given to a range rather than an exact match where possible when recording the characteristics of an unidentified body

In the Table 29, connections have been made between the different themes that emerged from the research. The themes will now be discussed, setting out their significance and how they relate to research questions, the broader research area, including the relevant current literature and debates. Furthermore, consideration will be given to the implications of the results for the policing field, and for any other practical applications that have arose from the research. This will contextualise the research and demonstrate its importance, strengthening the validity of the findings.

7.3 Research questions revisited

7.3.1 What is the end-to-end process for the treatment of unidentified bodies on a local, national, and international level?

A number of key steps were identified in the end-to-end process for the treatment of unidentified bodies on a local, national, and international level. This established the involvement of different authorities including the investigating police force, coroner, local authority, and the UK Missing Persons Unit. The process outlined in the table below and discussed in this chapter is the process observed through the findings of this thesis. It is partially written down in guidance in separate documents including the College of Policing's (2021) Missing Persons APP, the Public Health (Control of Disease) Act 1984, and the Coroners and Justice Act 2009.

Table 30. End-to-end process of the treatment of unidentified bodies

Stage	Activity
1	Enquiries undertaken by the investigating police force, coroner, and/or local authority to establish who the deceased individual was.
2	The police notify the UK Missing Persons Unit of the case.
3	Enquiries continue to establish who the deceased individual was.
4	An inquest is held to inquire into the circumstances surrounding the death and provide the details needed for the death to be registered.
5	The remains of the deceased individual are buried or cremated during a public health funeral.
6	In light of new evidence or due to passage of time, a review is conducted.
7	The UK Missing Persons Unit maintains the role of the national and international point of contact for the case.

It became apparent however that a lack of guidance existed to aid those working on such cases and so the details relating to the end-to-end process were not widely known. Several participants involved in the study commented that the contact made by the researcher had prompted them to conduct a review of their current process. Furthermore, local authority participants felt that guidance on how to deal with unidentified bodies would be helpful. This is perhaps in part due to the unique nature of and challenges presented by these types of cases. As established, the investigative work differs greatly depending on the individual circumstances of the case.

It has been established through this study that in two-thirds of unidentified bodies cases, a missing person report was not known to have been made. This might be due to various factors, such as the person not being reported missing or living an isolated lifestyle, with no one close enough to them to make a report. A further factor might be lost contact cases, the charity Missing People (2024, online) has service for lost contact tracing. They explain *"we can help you find a family member who you have lost contact with but there is not an open police investigation [...] we know relationships can break down for a variety of reasons, and that*

sometimes reaching out can be difficult" (Missing People, 2024, online). Without a corresponding missing person report, identifying the individual can be even more challenging and may require complex, time-consuming, and painstaking investigation work, exploring historic records, genealogy, media appeals, forensic oceanography, and open-source intelligence searches. In addition, Black (2018) noted that a missing persons report may have been made in a different country or with a police force located far away from where the body was found, or the report may have been recorded many years ago, archived, and forgotten. This suggests that there is still much more to be done to understand the phenomenon of individuals who die and remain unidentified in England and Wales. Many individuals in England and Wales have a paper and digital trail of records related to various factors, such as technology, banking, payment transactions, voting, employment, taxes, benefits, accommodation, health, and so on. However, someone could have entered England or Wales without documentation, never visited a doctor, lived rough, and therefore had no connection with the state.

The implications for research include the need for further studies England and Wales to establish further intricacies of the investigative processes and practices for unidentified bodies cases. For example, two main types of unidentified bodies cases became apparent during this thesis. Those that occurred in the here and now and were live investigations; and those that were non-recent or historic cold cases. Allsop (2012) explained that the latter cases involved paper-based reviews of previous case files compiled by others, during which review officers were looking for opportunities to progress a case. As the UK Missing Persons Unit (2023a) state, historic remains located prior to the development of DNA analysis as a means of identifying individuals or body parts, leads to it being "*unlikely that those cases will be identified, however, work continues to identify new lines of enquiry in the hope of an identification being made*". These two very different types of cases present contrasting challenges and opportunities and therefore empirical ethnographic studies into the differences involved in the investigative work would be a valuable addition to the field of research. Furthermore, the second phase of this research examined data from the UK Missing Persons Unit from the 10-year period of 2010 to 2020, therefore insights into non-recent or historical cold cases were gained from the other two phases. In the future, researchers may wish to examine the 1970s period onwards to draw insights from a larger set of cases, to identify recommendations specific to non-recent investigations.

The implications for practice include the acknowledgement that in the current state of minimal guidance on the end-to-end process for the treatment of unidentified bodies, leads to those involved in such cases being required to be creative, innovative, and self-starting in their approach to returning identities to the unknown deceased. The negative implications of the lack of guidance include the emergence of a disparity in approaches undertaken by police forces, coroners, and local authorities. Furthermore, from a policing perspective, the range of investigative differences between suspicious and non-suspicious deaths was evident. For example, factors that were different included the time spent on the investigation, the number of resources allocated to investigate the case, how frequently reviews occurred, who had overall responsibility for the case, what information was shared and with whom, and how long information was retained. These findings were consistent with the Home Office (2005) Code of Practice on the Management of Police Information which stipulates guidance to police officers on the differing approaches to management of information for suspicious and non-suspicious cases. This aims to ensure a broad consistency between forces in the way information is managed within the law, to ensure effective use of available information within and between individual police forces and other agencies, and to provide fair treatment to members of the public. However, during the study evident inconsistencies and discrepancies in the approach to unidentified bodies cases (and the management of information in relation to them) were evident. For example, participant answers relating to the retention of information concerning unidentified bodies ranged from 1 to 100 years. Therefore, further attention and improvements are required to make the investigations into unidentified bodies cases more effective and efficient.

The contribution to knowledge in relation to the end-to-end process for the treatment of unidentified bodies has surfaced a wealth of significant and valuable findings. This has included the recognition that the cause of death, and whether the death is deemed to be suspicious or non-suspicious, has a bearing on the amount of time, resources, investigative techniques, frequency of reviews, and so on, that will be allocated to the case by the police and coroner. Furthermore, there is no centralised system for recording information relating to investigations into unidentified bodies, with police, coroners, and local authorities locally, nationally, and internationally, using many different systems and databases. Unlike in some areas of policing, such as the street triage model for mental health crisis care, there is no automatic data sharing and access to information between agencies. The lack of a tripartite

information sharing agreement makes it difficult to gather information from multiple sources and therefore impedes the potential opportunities for successful cross-matching.

Once a death is registered, local authorities are responsible for arranging a public health funeral and disposing of the remains as per the Public Health (Control of Disease) Act 1984. Inconsistencies were evident across England and Wales in relation to preferred disposal method and crucially, the recording of information related to the location of unidentified remains after public health funerals. Some police forces said the information relating to the location is held by the coroner, some coroner areas said the information is held by the local authority, registrar, or local archivist, and some local authorities said the information is recorded by the coroner or funeral directors. These inconsistencies strengthen the findings related to an absence of clear guidelines or protocols for recording and sharing information about unidentified bodies cases. This misalignment in responsibilities for recording information could result in crucial information, such as the location of remains, being misplaced or lost.

The UK Missing Persons Unit is responsible for serving as the national and international point of contact for cases involving unidentified bodies (2023a). However, at the local level, the responsibility for overseeing these cases varied among agencies. There were also differences evident surrounding the treatment of unidentified body parts and which particular body parts should constitute an investigation. This is perhaps a biproduct of there being 43 police forces, 85 coroner areas, and 355 local authorities in England and Wales. With such a structure, it is difficult to achieve consistencies in process and procedure. The lack of process or guidance in relation to how unidentified body parts should be treated is of the upmost concern to families of missing persons. During the study, expressions of concerns were raised about the absence of policies for dealing with cases involving unidentified bodies, with professionals stressing the importance of having end-to-end guidance in place to improve the effectiveness of outcomes in such cases. Such guidance would also include advice relating to investigating unidentified body parts, which is long overdue.

7.3.2 How can the management of information for cases of unidentified bodies be improved?

This research discovered that police officers faced difficulties locating the burial or cremation sites of unidentified deceased individuals from non-recent historic cases. This problematic issue did not get highlighted through reviewing previous literature as no literature appeared to

focus on this specific area of the investigative work. This significant finding has implications on future practice. This research advocates for the development of national guidance stipulating recording standards for unidentified bodies cases and would support the recommendation of burial as the sole method of disposal, where practicable. These changes to practice would enable future exhumations, assist in cross-matching efforts, improve the accuracy of recording information related to location of remains, and, most importantly, offer options for family members who may be discovered at a later stage. Alternatively, a central facility or burial ground where unidentified bodies from across the country are stored could alleviate the issues raised such a lost locations of graves and offer a central hub for families. According to findings of this research, approximately a quarter of local authorities typically bury unidentified remains, while over a third cremate them. This disparity reflects a lack of alignment in public health funeral policies driven by local practices, rather than one unified national process. The researcher found that the existing public health funeral policies did not refer to unidentified bodies and partial remains. Acknowledgement of such circumstances within policies related to this part of the end-to-end process would be a positive development, and at the very minimum would aid in raising awareness of such cases and their importance.

The main implication for further research is the need for a full audit to be completed to ascertain the burial and cremation locations of all unidentified bodies cases. If the burial or cremation location is unknown, and the case were to be solved, there would be no place for family members and friends to visit to pay their respects. The Church of England (2021) commenced a project in 2021 to create a free digital map of every grave in every churchyard in the country which will total 19,000 Anglican burial grounds. This project is anticipated to take several years to complete (Church of England, 2021) and should provide useful insights for investigators interested in unidentified bodies and remains cases. However, this project will not provide answers for all cases. Therefore, an audit of each unsolved unidentified body case is required to gather further information and make sense of the problematic discovery that some individuals have died and remained unidentified and any record of their burial or cremation has been lost. This discovery was not congruent with the literature as no academic literature referenced this issue. However, this challenge was acknowledged by different police officers, coronial officers, and affected family members - and the researcher has had personal investigative experience of burial and cremation records being lost in such cases. This finding was therefore anticipated.

The main contribution of this thesis to knowledge in relation to improvements to the management of information for cases of unidentified bodies extends beyond the aforementioned discovery. In addition to this, the revelation was made that unlike police forces, neither coroners nor local authorities were obligated to provide information to an overseeing authority about the number unidentified bodies cases they had within their jurisdiction. This is despite the opportunities presented by coroners being required to submit annual statistics to the Ministry of Justice and local authorities being required to provide information to the Human Tissue Authority as discovered during the interviews for this thesis. The lack of annual data gathering is problematic as the absence of a comprehensive record of the total number of historic and current cases prevents effective cross-matching. Therefore, this revelation provides a clear and effective way to improve practice. Furthermore, with the emergence of Artificial Intelligence (AI), advancements in technology may lead to an increase in effective cross-matching. In March 2024, the European Union officially adopted the Artificial Intelligence Act, marking a significant milestone in the development and governance of AI technologies. According to AMBER Alert Europe (2024b, online) the new AI Act *"now also incorporates the search for missing persons [...] this addition marks a significant change in utilising technology for the good of society."* By enabling quicker and more precise cross-matching and identification processes, this technology promises to revolutionise the search for missing persons.

Finally, a significant learning point was unearthed regarding the lack of naming convention for unidentified bodies. The names recorded on death certificates could range from "Unknown Male" to "John Doe" to "White Male" to "Unk". This makes it difficult for agencies to retrieve information for annual statistics such as those gathered by the UK Missing Persons Unit, which undermines the accuracy and reliability of the reported data. A consistent approach to naming should be taken across England and Wales, and national guidance should be developed to ensure police forces, coroners, and local authorities are supported to be able to implement it. To address this issue effectively, collaboration among relevant stakeholders, including all aforementioned agencies, forensic experts, and government bodies, is essential. Additionally, regular audits and evaluations should be conducted to assess the effectiveness of the implemented naming conventions and identify areas for improvement in the system.

7.3.3 What are the demographic characteristics associated with those who remain unidentified after death in England and Wales?

The study found that males are disproportionately more likely to remain unidentified after death than females, and that a person can remain unidentified after death no matter their age. This revelation underscores the need for sex-sensitive approaches in forensic identification procedures and highlights the importance of comprehensive investigation protocols for all age groups. Additionally, it emphasises the significance of proactive measures to address the underlying factors contributing to the higher prevalence of unidentified males, such as potential disparities in reporting or identification processes. Furthermore, the finding regarding age underscores the complexity of post-mortem identification challenges and emphasises the necessity of employing a multidisciplinary approach to address the diverse circumstances surrounding cases of unidentified individuals, regardless of age. Overall, these insights highlight the ongoing need for targeted research and intervention strategies aimed at improving identification outcomes and ensuring equitable access to justice for all individuals, regardless of gender or age.

There were limitations related to answering the research question relating to the demographic characteristics associated with those who remain unidentified after death in England and Wales. This included the matter that although most cases had recorded an ethnic appearance, the methods and categories used for estimating and recording this information were not sufficiently reliable to draw any firm conclusions. This was a missed opportunity to provide insight into the relationship between ethnicity and the likelihood of remaining unidentified after death. Furthermore, from the data collected, it was not possible to gather information relating to other demographic characteristics such as the deceased individual's income, education level, occupation, marital status, religion, geographical location, language, immigration status, disabilities, and sexual orientation. Insights into such demographic characteristics would have provided valuable additional knowledge to the field of study. Enhanced data collection protocols should be developed, ensuring the inclusion of a comprehensive set of demographic variables. Additionally, qualitative research methodologies, such as interviews with family members and community stakeholders, could offer nuanced insights into the socio-economic and cultural contexts surrounding cases of unidentified individuals. Moreover, interdisciplinary approaches involving social scientists, forensic experts, and public health professionals could enrich the understanding of the complex factors influencing post-mortem identification outcomes. By adopting a multifaceted approach and leveraging diverse expertise, future studies can provide more robust and nuanced insights into the demographics of unidentified decedents, ultimately informing more effective policy and intervention strategies.

In addition, this research used a decade of data provided by the UK Missing Persons Unit. The unit launched in April 2008 as part of the National Police Improvement Agency. Ideally, data would have been gathered from all cases from the entirety of the period in which the UK Missing Persons Unit had been operational. However, the research capacity of the UK Missing Persons Unit was limited and so parameters were set within this research to take capacity into account. A further limitation was the exclusion of certain cases from the data including unidentified body parts and unidentified bodies with an estimated age of under 18 years old. These are areas that require further research within the field of missing persons and so further insight into these types of cases would have been advantageous. To address these limitations, future research endeavours should aim to expand data collection efforts by collaborating with additional agencies involved in missing persons cases. This broader data collection approach would allow for a more comprehensive understanding of the demographics and circumstances surrounding those who die and remain unidentified after death. Additionally, efforts should be made to enhance the research capacity of organisations such as the UK Missing Persons Unit, through increased funding, training, and technological support, enabling them to gather and analyse data more effectively. Moreover, future studies should prioritise the inclusion of cases involving unidentified body parts and those who are under 18 years old, as these populations represent particularly vulnerable groups requiring specialised attention and interventions. By overcoming these limitations and broadening the scope of research, we can advance our understanding of missing persons cases and improve strategies for prevention, identification, and support for affected individuals and families.

7.3.4 Do the rates of unidentified deaths vary geographically, situationally, or over time?

This research has brought to light the varying number of deaths of those who died and remained unidentified geographically, situationally, and over time in England and Wales. No previous research had been conducted into this topic in the UK. Acquiring the knowledge that over a quarter of all unidentified bodies cases are investigated in London has enhanced understanding of the distribution of investigative experience of such cases across England and Wales. The reasons behind this distribution require further exploration to be able to fully understand. However, the Metropolitan Police Service should be one of the most valuable investigative police forces to focus on in the sharing of case studies to improve policing practice. Understanding the geographical distribution of unidentified bodies cases sheds light on potential disparities in investigative resources and expertise across different regions. It also

highlights the need for targeted training and resource allocation to ensure equitable access to investigative support for all jurisdictions. Additionally, exploring the situational factors contributing to the occurrence of unidentified bodies cases in specific areas can inform proactive prevention strategies and enhance community safety initiatives. Furthermore, examining trends over time in the prevalence of unidentified bodies cases can provide valuable insights into shifting patterns of mortality and potential emerging challenges in forensic identification and investigation. Overall, this research lays a critical foundation for future studies and interventions aimed at improving the identification and resolution of cases involving unidentified individuals, thereby fostering public trust and confidence in the agencies responsible for investigating such cases across England and Wales.

Male suicides on the rail network accounted for a large proportion of the unidentified deaths over the decade period in question. This finding has implications for future research and practice. Notably, a need to explore what preventative work can be done to decrease the number of suicides on the rail network which in turn may decrease the number of individuals who die and remain unidentified on the rail network. Addressing this issue requires a multifaceted approach that involves collaboration between railway operators, mental health professionals, and community organisations. There is a crucial need for enhanced mental health support and suicide prevention measures targeting individuals at risk of self-harm or suicide. The National Suicide Prevention Alliance (2019) amongst others contributes to the national effort for reducing the number of suicides. Prevention may include implementing signage at common suicide locations, increasing access to counselling services, implementing early intervention programs, and promoting mental health awareness campaigns. Moreover, railway operators should invest in infrastructure improvements and safety measures aimed at deterring suicide attempts, such as implementing signage with the details of organisations that can help, installing platform barriers, and implementing surveillance systems. Additionally, there is a pressing need for improved post-incident response protocols to ensure timely identification and support for individuals involved in rail-related fatalities. By prioritising proactive prevention strategies and fostering collaboration between stakeholders, the occurrence of unidentified deaths on the rail network can be reduced and the well-being of vulnerable individuals in our communities can be promoted.

In addition, the county of Sussex in South-East England was the geographic location with the third highest number of total cases (n = 47), making Sussex Police the investigating police

force for 9% of all cases. Furthermore, other than the Metropolitan Police Service, Sussex Police were the only investigating police force with unsolved cases in double figures. This new knowledge suggests that Sussex Police will hold more knowledge, experience, and expertise than most of the other police forces in England and Wales. Therefore, it would be beneficial for future practice and process improvements to receive input and influence from police officers, coroner's officers, and local authority representatives based in Sussex. Drawing upon the knowledge and expertise of Sussex Police could significantly contribute to the development of best practices and procedural enhancements in handling cases of unidentified individuals. Their experience in managing a notable proportion of such cases highlights their unique insights into the challenges and complexities involved. Collaboration with Sussex Police could facilitate knowledge sharing, capacity building, and the implementation of innovative strategies to improve identification rates and investigative outcomes. Furthermore, involving coroner's officers and local authority representatives from Sussex in decision-making processes may help to ensure a holistic and community-centred approach to addressing the issues surrounding unidentified deaths. By leveraging the collective expertise of stakeholders in Sussex, a more effective and coordinated response to this critical issue can be gained, ultimately enhancing public safety and well-being in the region and beyond.

Situationally, after the railway network, the next most common type of area of discovery was water, with the River Thames and coastal locations featuring prominently as discovery sites. In unsolved cases, the most common type of area where the deceased individuals were found were beaches, shores, coves, or rocks. This new knowledge suggests the need for further research. For example, a study focused solely on enquiring into the circumstances, themes, and patterns associated with individuals who are discovered deceased in the River Thames and remain unidentified after death would provide a valuable contribution to the existing body of research. As would similar research into the rail network, Beachy Head, and coastal locations across England and Wales. Such research would help to answer the missing in-depth knowledge surrounding the challenged faced by investigators working on such cases and help to prevent future deaths in these types of locations.

The rates of those who died and remained unidentified did appear to vary over time as demonstrated in Figure 37 below. In the absence of the exact dates of death, the years the deceased individuals were found provides some insight that suggests a variation in annual rates of solved and unsolved cases. It is however difficult to pinpoint the reasoning for the annual

rises and falls, and therefore this has implications for future research, particularly the need for studies to inquire into the reasons behind such trends over time. Understanding the underlying factors contributing to the fluctuation in annual rates of solved and unsolved cases is essential for developing targeted intervention strategies and improving identification outcomes. Future research endeavours should aim to conduct longitudinal analyses to explore potential correlations between socio-economic factors, demographic trends, and patterns of unidentified deaths over time. Additionally, qualitative studies involving interviews with key stakeholders may provide valuable insights into the contextual factors influencing annual variations in unidentified death rates. Moreover, leveraging data analytics and predictive modelling techniques may offer opportunities to identify potential risk factors and anticipate future trends in unidentified deaths, enabling proactive intervention and resource allocation. By unravelling the complex dynamics underlying temporal fluctuations in unidentified death rates, evidence-based policies and interventions can be informed, aimed at reducing the prevalence of unidentified individuals and improving outcomes for affected families and communities.

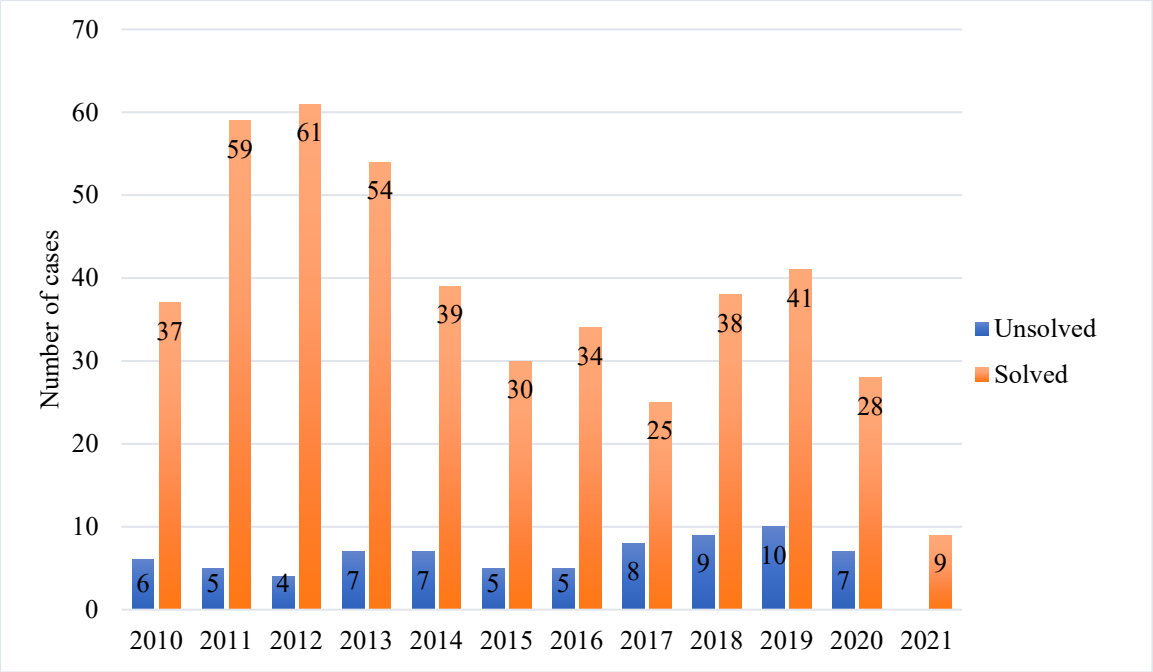

Figure 37. The years the deceased individuals were found (n = 73 and n = 455)

7.3.5 What learning can be taken from solved cases of unidentified bodies to inform police, coronial, and local authority practice?

A wealth of learning has been identified by this research using the knowledge obtained from analysing solved cases of unidentified bodies. Learning from solved cases is fundamental.

Behind every solved case are a number of individuals who contributed to the successful cross-matching. Recognising the contributions of individuals involved in solving these cases underscores the importance of interdisciplinary collaboration and highlights the collective expertise required to address the complex challenges associated with unidentified bodies. Through conducting both qualitative and quantitative research, this thesis has been able to surface new important knowledge which will have implications on future research and practice.

For example, through the analysis of a decade worth of UK Missing Persons Unit data, it became evident that for solved cases, DNA was recorded to have been taken and uploaded onto the MPDD in a third of all cases which demonstrates that unidentified body cases have the potential to be solved without the use of DNA. Existing literature suggests DNA is one of three (fingerprints, odontology) internationally recognised and accepted methods required to confirm a legal identification and issue a death certificate (Interpol DVI Ridgeology Sub-Working Group, 2019). The finding that only a third of solved cases had DNA recorded and uploaded is both a surprising and important finding which solidifies the importance, rather than reliance, on DNA in unidentified bodies cases. It enables an appreciation of the wide range of primary identification methods that can lead to a case being solved including fingerprints, odontology, facial reconstructions, media appeals, amongst other methods. The success of the different DNA databases used for solving unidentified bodies cases is an area in which publicly available research appears to be non-existent in England and Wales. Such research would be insightful and valuable to inform policing practice. It would also provide further information to families of missing persons on the available databases that can be used to progress the search for their missing loved ones.

Furthermore, in just over a third of solved cases (34%) a missing person report was known to be made, and in the remaining cases it was unknown whether the individual was reported missing. As Apps *et al.* (2014) acknowledged, the lack of a missing persons report is a significant obstacle for cases that pose challenges including unidentified babies found abandoned, murder victims, and individuals found in circumstances suggesting an itinerant or homeless lifestyle. The lack of a missing person report and thus no corresponding list to suggest a possible identity requires creative investigation, publicity, and the use of forensic techniques to progress the investigation. The UK Missing Persons Unit highlighted the limitations of their statistics relating to known missing persons reports. Therefore, it is impossible to say with confidence what the true figure is for solved cases in which a missing persons report had been

made. If the true figure is higher, then more questions would need answering such as why the missing persons report was unable to be located during the investigation. There is a pressing need for research to delve deeper into the factors contributing to the underreporting or misplacement of missing persons reports in solved cases. By identifying the barriers and challenges associated with this issue, policymakers and involved agencies can implement targeted interventions to address gaps in the reporting process and improve the overall effectiveness of missing persons investigations.

The limitations present in relation to answering this research question stem from the research design, thematic coding analysis, which has both strengths and weaknesses. Thematic coding analysis is a realist method which reports experiences, meanings, and the reality of participants (Robson and McCartan, 2016). The results were presented in a structured manner using the themes that emerged from the answers provided to the three questions that were asked. The thematic networks can be viewed in Appendix Four. Strengths include the flexibility, accessibility, and timeliness of this type of analysis. Although, the flexibility of the method can cause the researcher to be inhibited when trying to decide on which aspects of the data to focus upon (Robson and McCartan, 2016). Furthermore, ethnography was an initial consideration for this research, in which time could have been spent observing police forces whilst they were responding to and working on investigations into unidentified bodies and body parts cases. However, this was deemed an unsuitable method due to the COVID-19 pandemic. This could be a consideration for future studies and would undoubtedly provide additional valuable insights and contributions to the field of study.

7.3.6 What are the main challenges and opportunities associated with the cross-matching process?

This research has identified several key challenges and opportunities associated with the cross-matching process. Firstly, challenges and opportunities were apparent concerning systemic issues that largely revolved around a lack of effective management of information. This was anticipated as the literature review established an absence of local or national policies and procedures regarding the treatment of unidentified bodies cases (College of Policing, 2021). This finding suggests that there is still more to be done to improve the way these cases are managed to, in turn, increase the chance of successful cross-matching. This finding was supported by the accounts given by family members of missing persons during interviews. They explained how ineffective management of information by authorities led to their lack of

confidence in the cross-matching process, which caused significant distress. Their distress was compounded by the lack of regular communication from the investigating police force and the absence of reviews into their cases.

This finding was supported by the literature (Holmes, 2008; An Garda Síochána, 2009; Parr *et al.*, 2016; Wayland *et al.*, 2016; Dartnall *et al.*, 2019) which acknowledged and recognised the immense cost to the families and communities of those reported missing and the devastating impact of emotional, social, financial, legal, and other detrimental tolls that are not often alleviated by the passage of time. The contribution of this research to the knowledge in this area includes the finding that in one particular solved case, more than 13 years (4,814 days) passed between the date of the missing person report and the date their identity was established, which further demonstrates the impact on those left behind and increases the evidence base for these cases being prioritised by the involved authorities.

A further challenge that was identified through the interviews conducted during the study was the matter of people assessing other people which can result in human error. Therefore, where practicable, consideration should always be given to a range rather than an exact match. Furthermore, this research discovered significant risks associated with relying on estimated ages. For solved cases, the estimated ages of the deceased individuals in relation to their actual ages was inaccurate in 152 cases which was exactly a third of all cases. This is in line with the literature which detailed case studies relevant to this topic (Blythe and Woodforde, 2007; Parra *et al.*, 2020; Missal, 2023). This further demonstrates the potential for human error in unidentified bodies cases and solidifies how problematic inaccuracies concerning age estimations (alongside time of death estimations) can be. Inaccuracies such as these may lead to missing persons being incorrectly ruled out of unidentified bodies investigations, therefore prolonging suffering for their loved ones and preventing successful cross-matching. It is therefore important to consider how these age estimations are being conducted and by whom. In most cases, these will be visual and conducted by police officers or pathologists without an actual skeletal estimation of age being conducted. Thus, appropriate methods of age estimation should be employed to provide as accurate and precise an estimation as possible.

The opportunities identified by this research for the cross-matching process include improving the scheme of classification for the ‘ethnic appearance’ category within the Hermes database. The Hermes database is managed by the UK Missing Persons Unit and is used to record information relating to unidentified bodies cases in the UK. Some of the information from this

database is made available online on the UK Missing Persons Unit's website to allow members of the public to search through the cases and submit relevant information such as potential identities. Within the database, problematic terminology is used for example, the antiquated term oriental is one of the ethnic appearance categories. Such offensive language (Meng, 2016) has no place in modern day society and the UK Missing Persons Unit should remove such terminology as soon as practicable. Currently, the ethnic appearance categories used are Afro Caribbean, Arab/North African, Asian, Caucasian, Dark European, Mixed, Oriental, Unknown, and White European. Such categories prompt questions such as what the difference is between Asian and Oriental, or Caucasian and White European, and what is the definition of Mixed or Dark European. Such categories are problematic and require amendment. Furthermore, there are obstacles associated with establishing skin colour at different stages of decomposition (Parra *et al.*, 2020). This implication for future practice is significant and would make a difference to the cross-matching process.

Further opportunities for improvement to the cross-matching process include opting for burial rather than cremation for the unidentified deceased. Burial has many benefits for the cross-matching process such as allowing for exhumations to confirm identity, for family members established at a later date to decide what happens to the remains, and for showing cultural sensitivity as there are some religions and ethnic groups who do not authorise cremation. In the absence of any information about the unidentified deceased individual's beliefs or ethnicity, then burial is the safest and most sensitive option in all given circumstances. The only exception to burial would be a risk to public health from a notifiable disease which would pose a serious threat to wider health. In such circumstances, if cremation was the preferred or only route possible, a DNA sample should be taken and retained indefinitely. As established, unidentified deceased individuals are given public health funerals paid for by the local authority. This finding has implications for future practice and changes are required to public health funeral guidance to opt for burial.

Finally, there is potential for a focus on sharing of good practice and case studies between the police forces in England and Wales, especially those with more cases than others for example Metropolitan Police Service, British Transport Police, and Sussex Police. Through conducting interviews and analysing responses to requests for information, this research has established that investigations into deceased individuals washed ashore from the sea, discovered in water more generally, or thought not to have been born in the UK are particularly complex and time-

consuming. In such cases, innovative investigative techniques, resilience, and international co-operation may be essential components to the investigation. In the absence of the person being known to UK systems, creative approaches are required to effectively progress lines of enquiries. This provides an explanation to why some cases are more difficult to solve than others. Such findings make important contributions to the field of knowledge surrounding missing persons and unidentified bodies.

7.4 Recommendations

This research has set out recommendations that, if implemented, would make a positive contribution to the way unidentified bodies cases would be handled in the future. This would improve good practice and in turn increase the effectiveness of the cross-matching of unidentified bodies cases and missing persons reports. Indicated beside each of the recommendations made is a suggested timeframe, by which they should be implemented. As much detail as possible has been provided to support the proposed recommendations. Only realistic recommendations have been made, and the suggested timelines are based on the researcher's decade of professional and academic involvement in the field of policing.

Table 31. Thesis recommendations

	Recommendations
1 *60 months*	Establish the total number of unidentified bodies and partial remains cases in England and Wales via an audit, including burial or cremation locations.
2 *12 months*	Contribute findings about method of disposal to the Law Commission of England and Wales' consultation entitled 'Rights and Obligations Relating to Funerary Methods, Funerals and Remains'.
3 *24 months*	Update the College of Policing's Missing Persons Authorised Professional Practice (APP).
4 *24 months*	Update the taxonomy used for ethnic appearance on the UK Missing Persons Unit's database.
5 *24 months*	Form a network with a goal of sharing good practice in relation to unidentified bodies and partial remains cases.

7.4.1 Recommendation 1: Establish the total number of unidentified bodies and partial remains cases in England and Wales via an audit, including burial or cremation locations

Expected timescale: 60 months

The UK Missing Persons Unit should complete an audit to establish the total number of unidentified bodies and partial remains cases in England and Wales. This audit should be conducted with the co-operation of all police forces, coroner areas, and local authorities in England and Wales. As part of this audit, the burial or cremation locations should be established for all unidentified bodies and partial remains cases in England and Wales.

Implementing this recommendation is critical. Currently, the UK Missing Persons Unit requests annual statistics from police forces in England and Wales. However, the data collection completed by police forces is reliant on their ability to effectively search and find all unidentified bodies cases within their databases. With no agreed naming convention currently in place, this task is problematic. It is likely that many non-recent historic cases would remain undiscovered in the data set. This problem is shared by coroner's officers and local authorities who also lack functions on their databases to allow for effective searches to result in all unidentified bodies cases within a particular jurisdiction. Furthermore, annual statistics are not requested from coroner's areas and local authorities to cross-reference the data to help with validation. The absence of an accurate total number of cases prevents successful cross-matching. Therefore, conducting an audit by requesting information from all three authorities, rather than solely police forces, will yield stronger results that provide a more accurate representation of the current scale of unidentified bodies cases in England and Wales.

For local authorities, both public health funeral departments and public mortuaries should be contacted. Public health funeral departments are key stakeholders due to their involvement in the burial or cremation of unidentified deceased individuals. As discovered during this thesis, public mortuaries may hold unidentified bodies and partial remains. Maintaining regular communication and collaboration with public health funeral departments and public mortuaries is essential for ensuring comprehensive data collection and effective management of cases involving unidentified deceased individuals. By engaging with these key stakeholders, local authorities can access valuable information regarding the handling and disposition of unidentified bodies, facilitating timely identification efforts, and supporting the needs of affected families. Furthermore, incorporating the findings from the audit into routine data

collection processes by the UK Missing Persons Unit enhances the accuracy and reliability of statistics related to unidentified persons, enabling policymakers and involved agencies to make informed decisions and allocate resources effectively. Additionally, ongoing monitoring and updates to the data set ensure that emerging trends and patterns in unidentified cases are identified promptly, allowing for proactive intervention strategies, and continuous improvement of investigative practices. Overall, fostering collaboration between local authorities and relevant agencies is essential for optimising identification outcomes and promoting public safety and well-being in communities across England and Wales.

It became apparent during the research that the details of the burial or cremation locations in some non-recent historical unidentified bodies and partial remains cases had been lost or misplaced. Establishing this information is critical as without a known burial location, authorities cannot exhume remains for a DNA sample to be taken for identification to be confirmed. Furthermore, the absence of a known burial or cremation location means that there is nowhere to direct family members to once the case is solved. If such details appear to be lost, the audit could expand to funeral directors who may hold archived records from public health funeral contracts. If lack of resource emerges as a barrier to the audit for the UK Missing Persons Unit, a funded PhD opportunity could be explored, as could a partnership with missing persons charities. Addressing the issue of lost or misplaced burial or cremation location details requires proactive measures and collaborative efforts among various stakeholders. Expanding the audit to involve funeral directors can provide access to archived records that may contain crucial information regarding the disposition of unidentified remains. By leveraging the expertise and resources of funeral directors, authorities can enhance their ability to locate and retrieve relevant information necessary for identification purposes. Moreover, exploring alternative funding sources, such as funded PhD opportunities or partnerships with missing persons charities, can help overcome resource constraints and support the implementation of comprehensive audit initiatives. Collaborating with missing persons charities can also provide valuable insights and assistance in conducting thorough audits and addressing the needs of affected families. By adopting a multi-faceted approach and engaging with diverse stakeholders, authorities can improve their capacity to effectively manage cases involving unidentified remains and provide closure to families seeking answers about their missing loved ones.

7.4.2 Recommendation 2: Contribute findings about method of disposal to the Law Commission of England and Wales' consultation entitled 'Rights and Obligations Relating to Funerary Methods, Funerals and Remains'

Expected timescale: 12 months

The researcher should contribute to the Law Commission of England and Wales' consultation entitled 'Rights and Obligations Relating to Funerary Methods, Funerals and Remains. The researcher should submit the evidence to the consultation that as part of public health funerals, unidentified bodies and partial remains should be buried, rather than cremated, wherever practicable. So far, the researcher has provided findings from Study Chapter One to the Law Commission of England and Wales who have requested further clarification and posed questions, to which the researcher has answered. Supporting evidence has been provided evidencing why this is an important matter to be considered as part of the new legislation. Other organisations such as Locate International, UK Missing Persons Unit, and the charity Missing People should also contribute. If implemented, all police forces, coroner's areas, and local authorities, should be informed of the change to method of disposal for unidentified deceased individuals.

According to the findings of this thesis, approximately a quarter of local authorities typically bury unidentified remains, whilst over a third cremate them. This disparity reflects a lack of alignment in public health funeral policies driven by localised practices, rather than one unified national process. The consultation into 'Rights and Obligations Relating to Funerary Methods, Funerals and Remains' will include a review of the laws governing burials and cremation and consideration of the creation of a regulatory framework for safe and dignified new processes. It will also consider the legal status of a person's wishes about what happens to their body following death as well as the rules governing who else has the right to make decisions about disposal of the deceased's body (Law Commission for England and Wales, 2023). Thus, providing the researcher, and others in the field of missing persons and unidentified bodies, with a well-timed opportunity to explain the benefits of burial rather than cremation. Where practicable, burial allows for exhumation of remains to occur to confirm identity and for family members established at a later date to be able to decide what happens to the remains. Furthermore, burial shows cultural sensitivity as there are some religions and ethnic groups who do not authorise cremation. However, it is important to note that some religions, such as Hinduism, do cremate. In the absence of any information about the unidentified deceased

individual's beliefs or ethnicity, then burial is the safest and most sensitive option in all given circumstances. The only exception to burial would be a risk to public health from a notifiable disease which would pose a serious threat to wider health.

7.4.3 Recommendation 3: Update the College of Policing's Missing Persons Authorised Professional Practice (APP)

Expected timescale: 24 months

The relevant section of the College of Policing's Missing Persons Authorised Professional Practice (APP) should be updated by the College of Policing, as should the accompanying material 'Collection of Missing Persons Data' and 'Identification Process - Good Practice'.

The update should include:

- The stipulation of a naming convention for unidentified bodies and partial remains cases within police systems, which could be set out as follows:
  First Name: Unknown
  Last Name: Male / Female / Unknown
- The importance of considering a range, rather than stipulating an exact figure, for elements such as estimations concerning age, height, and time deceased
- The importance of age and ethnic appearance estimations being conducted by suitably qualified experts.

The current APP is scant and lacks detail. The accompanying material is outdated as it was published over a decade ago. The updating of this material, which is the material police officers' access when searching for guidance for their operation work, presents an important opportunity to stipulate a naming convention. The naming convention will allow for more effective digital searches of unidentified bodies cases. Once implemented, it would be beneficial to explore the retrospective naming of cases and whether such good practice could be shared and adopted by coroner's officers and local authorities. As established during this thesis, it is important for investigators to consider a range, rather than an exact figure, for elements such as estimations concerning age, height, and time deceased. Finally, it is paramount that age and ethnic appearance estimations are conducted by suitably qualified experts rather than conducted by police officers based on visual observations. This would aid successful cross-matching.

7.4.4 Recommendation 4: Update the taxonomy used for ethnic appearance on the UK Missing Persons Unit's database

Expected timescale: 24 months

The UK Missing Persons Unit should update the taxonomy used for ethnic appearance on their Hermes database. Some of this information is made available online on the UK Missing Persons Unit's website so that members of the public can search through the cases and submit relevant information, including potential identities. However, the database uses problematic terminology, such as the antiquated term "oriental," which is used to categorise ethnic appearance. This language is offensive and not appropriate for modern-day society, and the UK Missing Persons Unit should remove such terminology as soon as possible.

Updating the taxonomy to reflect more inclusive and respectful language is not only a matter of ethical responsibility but also crucial for facilitating effective communication and collaboration with diverse communities. Utilising outdated and offensive terms perpetuates harmful stereotypes and also risks alienating individuals who may otherwise be willing to provide valuable information to aid in identifying missing persons. Moreover, modernising the language used in the database enhances its accessibility and usability for individuals from various cultural backgrounds, promoting inclusivity and engagement in the search for missing persons. By embracing more inclusive terminology, the UK Missing Persons Unit can further demonstrate its commitment to respecting the dignity and diversity of all individuals and foster a more supportive and collaborative approach to missing persons investigations.

Table 32. Current and suggested ethnic appearance taxonomy

Current	Suggested
Afro Caribbean	**Asian or Asian British** Indian Pakistani Bangladeshi Chinese Any other Asian background
Arab/North African	**Black, Black British, Caribbean or African Caribbean** African Any other Black, Black British, or Caribbean background

Asian	**Mixed or multiple ethnic groups** White and Black Caribbean White and Black African White and Asian Any other Mixed or multiple ethnic background
Caucasian	**White** English, Welsh, Scottish, Northern Irish or British Irish Gypsy or Irish Traveller Roma Any other White background
Dark European	**Other ethnic group** Arab Any other ethnic group
Mixed	
Oriental	
Unknown	
White European	

The use of such categories, as demonstrated in the table above, raises questions about their appropriateness. The researcher would recommend using the categories set out by the Office of National Statistics (2021a) in the 2021 Census. The Office for National Statistics runs the Census of England and Wales every 10 years. They decide which ethnic groups to include in consultation with:

- Users of Census data (like government departments, local authorities, and the National Health Service)
- People completing the Census, and the interest groups that represent them
- The organisations that run the Censuses in Northern Ireland and Scotland

It is recognised that these ethnic groups do not represent how all people identify (National Office for Statistics, 2021a). However, the use of this taxonomy would be a positive improvement on the current taxonomy used in the Hermes database. This would have significantly positive implications for future practice and would enhance the cross-matching process.

Aligning the taxonomy used for ethnic appearance with the categories set out by the Office of National Statistics offers several benefits. It ensures consistency and compatibility with widely recognised and accepted standards, facilitating easier data comparison and analysis across different sources and agencies. Additionally, consulting with a diverse range of stakeholders in the development of these categories promotes inclusivity and responsiveness to the needs and perspectives of various communities. Moreover, while acknowledging that these categories may not fully capture the complexity of individual identities, adopting them represents a step towards more respectful and culturally sensitive data collection practices. This, in turn, enhances the accuracy and reliability of information used in cross-matching processes, ultimately improving the effectiveness of efforts to identify missing persons and reunite them with their families. Overall, implementing these recommendations would contribute to more equitable and inclusive practices in missing persons investigations, fostering trust among all stakeholders involved.

7.4.5 Recommendation 5: Form a network with a goal of sharing good practice in relation to unidentified bodies and partial remains cases

Expected timescale: 24 months

Led by the National Police Chiefs Council lead for missing people, a network should be formed with a goal of sharing good practice and case studies in relation to unidentified bodies and partial remains cases. The network should operate via a secure group email and be joinable by a single contact (Missing Persons Lead) from all police forces in England and Wales. It would be especially important for Metropolitan Police Service, British Transport Police, and Sussex Police, to be engaged in the network due to their high number of unidentified bodies cases. It was evident from the research that some police forces hold more operational experience, and therefore more expertise into unidentified bodies cases. The sharing of good practice and case studies would be highly advantageous, especially for police forces with less experience of conducting investigations into unidentified bodies cases.

Establishing such a network facilitates collaboration and knowledge-sharing among police forces, enabling them to benefit from each other's experiences and expertise in handling unidentified bodies cases. By providing a platform for exchanging best practices and case studies, the network empowers police forces with valuable insights and strategies to enhance their investigative approaches and improve identification outcomes. Moreover, engaging

police forces with high numbers of unidentified bodies cases, such as the Metropolitan Police Service, British Transport Police, and Sussex Police, ensures that their expertise and lessons learned are leveraged to inform and support other agencies facing similar challenges. Additionally, involving a single contact from each police force streamlines communication and coordination efforts, ensuring efficient dissemination of information and resources within the network. Overall, the establishment of such a network represents a proactive step towards strengthening the collective capacity of police forces in England and Wales to address the complexities of unidentified bodies cases and ultimately improve outcomes for affected individuals and their families.

7.5 Limitations

Regarding limitations, Phase 1 of the research dealt with a significant amount of information gathered from police forces, coroner areas, and local authorities. This information was requested by the researcher via email. A limitation of this chosen design was the inability to develop a strong rapport with the respondents. Interviews could have been used instead. When conducted well, interviews are a powerful tool for eliciting rich data on people's views, attitudes, and the meanings that underpin their lives and behaviours (Gray, 2014). An additional advantage of using interviews would have been the opportunity afforded to participants to ponder over their responses without being bound to expressing their views in written form. However, given that the questions posed were mainly centred on factual information rather than opinions, the method of sending email requests for information was suitable. Additionally, this phase of the research was conducted during the pandemic, which resulted in limitations on face-to-face interactions and travel.

Phase 2 of the research used a decade of data provided by the UK Missing Persons Unit. The unit launched in April 2008 as part of the National Police Improvement Agency. Ideally, the researcher would have gathered data from the entirety of the period in which the UK Missing Persons Unit had been operational from 2008 until the present day. However, the research capacity of the UK Missing Persons Unit was limited and so the researcher felt it would be appropriate to request data from a maximum period of a decade. A further limitation was the exclusion of certain cases from the data including unidentified body parts and unidentified bodies with an estimated age of under 18 years old. These are areas that require further research within the field of missing persons and so further insight into these types of cases would have been advantageous.

Phase 3 of the research used thematic coding analysis which had both strengths and weaknesses. Advantages included the flexibility, accessibility, and timeliness of this type of analysis. Although, the flexibility of the method can cause the researcher to be inhibited when trying to decide on which aspects of the data to focus upon (Robson and McCartan, 2016).

Several methods were initially explored by the researcher, notably ethnography. Ethnography has its roots in anthropology and involves the researcher immersing themselves in the lives, environment, or culture of the group being studied (Dawson, 2009). The researcher initially considered undertaking participant observation of police officers working on unidentified bodies cases. Using this specific technique of fieldwork would have allowed the researcher to spend time observing police officer behaviour, taking notes on processes and procedures, conducting interviews, analysing, reflecting, and writing reports. A benefit of ethnography is the likelihood of extensive and in-depth findings about human behaviour due to the first-hand observations made over an extended period of time. It is important to note that the researcher is not and has never been a police officer and so it would have been advantageous for the researcher to gain an insider perspective of police work. However, with over a decade of experience working within the field of policing, the researcher already possessed a strong context in which to undertake the study.

One potential limitation of ethnography is that the researcher's own biases, prejudices, experiences, and culture may have affected the accuracy of their representation of the behaviours and attitudes of the group being studied. The researcher decided against taking an ethnographical approach due to uncertainties presented by the coronavirus pandemic. Due to ongoing lockdowns and restrictions on movement, it was increasing unlikely that a request to observe participants within police premises would be granted. Nevertheless, the researcher carefully considered which methods to use to gather and analyse data to improve understanding and knowledge.

To conclude, this chapter has discussed the overall thematic findings in relation to, suspicious vs non-suspicious deaths, management of information, bodies in water, unidentified body parts, families of missing persons, DNA, Metropolitan Police Service and British Transport Police, annual statistics reporting, taxonomy, burial vs cremation, international co-operation, identification methods. These findings were discussed in relation to the research questions. Furthermore, five recommendations were outlined regarding auditing the total number of unidentified bodies cases in England and Wales, contributing to consultations, updating current

guidance and taxonomy, and forming a network to share good practice. If implemented, would be transformative for the field of unidentified bodies and missing persons over the next one to five years. Finally, limitations were explored and addressed.

CHAPTER EIGHT: CONCLUSION

Until now, there has been a lack of academic research exploring the cross-matching of unidentified bodies and missing persons reports in England and Wales. This study has filled the gap by conducting the first-ever critical review of the topic. Through a mixed-method approach, the obstacles and opportunities associated with the cross-matching process and identified who remains unidentified after death in England and Wales have been explored. The study has also uncovered the end-to-end process for unidentified bodies on local, national, and international levels, as well as demographic characteristics, rates of unidentified deaths, and important findings for authorities involved in such cases.

The study's quantitative analysis, complemented by qualitative insights gathered through requests for information and semi-structured interviews, has allowed this research to fully engage with unidentified body cases, becoming immersed in the challenges and opportunities faced, and identifying how such cases are investigated. The process for the treatment of unidentified bodies in England and Wales has been established, highlighting the importance of an accurate and responsible approach to management of information.

Demographic characteristics associated with unidentified bodies and the changing rates of unidentified deaths based on geography, situation, and time have been uncovered. In addition, the study has provided a wealth of learning to inform practice and identified the main challenges and opportunities associated with the cross-matching process, made possible by the contributions of hundreds of individuals who responded to the researcher's requests for information and the UK Missing Persons Unit, who shared their data related to hundreds of cases. The insights gained from the research have far-reaching implications for informing evidence-based policies, enhancing investigative practices, and promoting public awareness and engagement in missing persons cases. Furthermore, the involvement of hundreds of individuals in responding to the researcher's requests underscores the importance of community participation in addressing societal challenges. Their willingness to share information and collaborate in the pursuit of justice and closure for unidentified individuals and their families reflects a shared commitment to upholding human dignity and promoting social cohesion. Moving forward, it is imperative to build upon these collective efforts and leverage them to drive meaningful change in how such cases are approached, ensuring that every effort is made to identify and honour the lives of those who have been lost.

It is without doubt that such cases are difficult and complex. In non-recent cases, archived information is relied upon and therefore without effective management of information, opportunities to successfully cross-match the missing and the found may be missed. Progressive advances in forensic sciences have meant that DNA and fingerprints are able to play a key part in the solving of such cases. However, as has been discovered, forensic science is not the cure-all and even when DNA and fingerprints are held, it still might not result in an identification. In such circumstances, other techniques, such as forensic facial reconstructions, analysis of possessions, identifying marks and tattoos, media appeals, forensic oceanography, open-source intelligence searches, amongst others, can lead to an eventual identification being made.

The mixed-method approach made it possible to explore unidentified bodies cases, analyse the investigative procedures, and gain insight into the challenges and opportunities associated with identifying those who have died and remained unidentified after death. In addition to conducting a quantitative analysis using a decade worth of data from the UK Missing Persons Unit, this research gathered qualitative insights through requests for information and semi-structured interviews. Engaging with various stakeholders, including police forces, coroners, local authorities, and families of missing persons, uncovered important findings, which are briefly summarised below.

This study established the end-to-end process for the treatment of unidentified bodies in England and Wales, which was previously undocumented. This research has identified and documented the investigative process, which involves, *inter alia*, desk-based investigation, forensic technologies, community engagement, legal and ethical considerations, and local, national, and sometimes international cooperation.

The importance of an accurate and responsible approach to the management of information relating to such cases was emphasised. This is particularly critical when reopening cold cases that rely on record-keeping from many years ago or even several decades ago. The study highlighted the difficult, painstaking, and complex activities involved in these investigations, requiring innovative thinking, dedication, and a commitment to the cause. This does not always occur, and major issues exist in the current process, as outlined in the study. Systemic issues such as resource constraints, bureaucratic hurdles, and lack of inter-agency coordination often impede effective collaboration and hinder progress in solving these cases. Addressing these challenges requires a concerted effort to improve data management practices, enhance training

and capacity-building initiatives, and foster a culture of accountability and transparency within involved agencies. By prioritising accuracy, responsibility, and innovation in the management of information relating to unidentified bodies cases, obstacles can be overcome, and advancements can be made towards achieving justice and closure for families.

Furthermore, demographic characteristics associated with unidentified bodies in England and Wales were uncovered. Males are disproportionately more likely to remain unidentified after death than females, and the average age of individuals who remain unidentified is 45 years, with an even distribution across age ranges. Although ethnicity was recorded in most cases, the methods and categories used for estimating and recording this information were not reliable enough to draw firm conclusions. The collected data did not provide insights into other demographic characteristics, such as income, education level, occupation, marital status, religion, geographical location, language, immigration status, disabilities, and sexual orientation. However, these areas would be important to focus on in future studies.

The study also revealed changing rates of unidentified deaths based on geography, situation, and time. London, the rail network, and coastal areas were identified as the locations with the highest frequency of unidentified bodies cases. Suspected suicide was a common theme within such cases. Over time, the rates of unidentified deaths varied, but it is unclear which factors had the biggest impact on the changing rates. Understanding the fluctuations in rates of unidentified deaths is crucial for developing targeted prevention strategies and allocating resources effectively. Factors such as demographic shifts, socioeconomic disparities, and changes in environmental conditions may all influence the incidence of unidentified deaths in different geographic areas and contexts. Additionally, the impact of public health initiatives, policing practices, and community interventions on reducing the occurrence of unidentified deaths warrants further investigation.

Furthermore, the study provided a wealth of learning to inform practice and identified challenges and opportunities associated with the cross-matching process. This would not have been possible without the contribution of hundreds of individuals who responded to the researcher's requests for information, the UK Missing Persons Unit who shared their data related to hundreds of cases, and the group of police officers, coronial officers, families of missing persons, and others who willingly gave their time to be interviewed.

Finally, recommendations were outlined that, if implemented, would be improve the practice relating to unidentified bodies over the next 1 to 5 years. By implementing these recommendations and adopting a multidisciplinary, collaborative approach, it will strengthen the collective response to unidentified bodies cases, improve identification outcomes, and provide closure and justice for affected individuals and their families.

As mentioned during the study, areas for future research include investigating who dies by suicide and remains unidentified after death and what preventative work can be done to decrease the number of suicides on the rail network and at Beachy Head to in turn decrease the number of unidentified cases occurring at such locations. Furthermore, studies would be beneficial that focus on England and Wales and specifically explore unidentified partial remains cases, unidentified child remains, and cases associated with the River Thames and coastal areas. Furthermore, ethnographical studies where time is spent observing police forces whilst they progress investigations into unidentified bodies and body parts cases would be useful. As would further insights into cause of death, ethnicity, income, education level, occupation, marital status, religion, geographical location, language, immigration status, disabilities, and sexual orientation. These areas would be important to focus on in future studies.

Furthermore, there were police forces, coroner areas, and local authorities who did not respond to the requests for information. Future research may wish to address this by collecting a wider volume of responses. By reaching out to non-responsive agencies and employing diverse data collection methods, such as targeted surveys, interviews, or focus groups, researchers can capture a more representative sample of perspectives and experiences. This not only enhances the reliability and validity of research findings but also enables a more nuanced analysis of regional variations and institutional dynamics impacting the treatment of unidentified cases.

Overall, valuable insights have been provided into the cross-matching process for unidentified bodies and missing persons reports in England and Wales. The findings will inform future practice and improve the process of returning names to those who have died and remain unidentified, providing closure for families and loved ones. The potential impact on the field is significant and the researcher is committed to progressing the recommendations as set out in this thesis, as demonstrated by the progress already made in engaging with the Law Commission of England and Wales.

This pioneering study is a testament to the collaborative spirit and dedication of a multitude of individuals whose contributions have been instrumental to this research. The engagement of hundreds of respondents, who generously shared their insights and information, forms the cornerstone of this research endeavour. Additionally, the invaluable partnership with the UK Missing Persons Unit, granting access to an extensive dataset encompassing hundreds of cases, profoundly enriched the depth and scope of the learnings that arose.

Furthermore, this study's profound impact is a direct result of the participation of a diverse group of stakeholders, including police officers, coronial officers, families of missing persons, and other essential contributors. Through their interviews and first-hand perspectives, unparalleled context was provided to the study's findings. This underscores the collaborative nature of this research, highlighting a shared commitment to advancing unidentified bodies cases. As a testament to the power of unified efforts, this study not only sheds light on a pressing societal challenge but also exemplifies the potential of collaboration to drive meaningful change.

References

All-Party Parliamentary Group for Runaway and Missing Children and Adults (2011) Inquiry: Support for Families of Missing People Report with recommendations, London: Missing People.

All-Party Parliamentary Group for Runaway and Missing Children and Adults (2011b) Parliamentary Inquiry Session Four: Cross-matching unidentified bodies and missing persons reports, London: Carmel Legal.

Allsop, C. (2012) A reliance on science: DNA, detective work and cold case major crime reviews, PhD thesis, Cardiff University.

Allsop, C. (2018) Cold Case Reviews: DNA, Detective Work, and Unsolved Major Crimes, Oxford: Oxford University Press.

AMBER Alert Europe (2024a) Prüm II Is Saved! Amber Alert Europe Celebrating A Milestone For The Search Of Missing Persons In The European Union, Available at: https://www.amberalert.eu/news/prum-ii-successful-adoption#:~:text=Pr%C3%BCm%20II%20now%20facilitates%20the,human%20remains%20promptly%20and%20cohesively (Accessed: 7 April 2024).

AMBER Alert Europe (2024b) The EU's Groundbreaking Move: Using AI To Find Missing Persons, Available at: https://www.amberalert.eu/news/using-ai-to-find-missing-persons (Accessed: 10 April 2024).

Anderson, B.E. & Parks, B.O. (2008) 'Symposium on Border Crossing Deaths: Introduction', Journal of Forensic Science, 53(1), pp. 6-7. doi: 10.1111/j.1556-4029.2007.00608.x.

Andreev, E., Pridemore, W. A., Shkolnikov, V. M., Antonova, O. I. (2008) 'An investigation of the growing number of deaths of unidentified people in Russia', European Journal of Public Health, 18(3), pp. 252–257. doi: 10.1093/eurpub/ckm124.

An Garda Síochána (2009) Missing persons review and recommendations, Available at: https://www.garda.ie/en/about-us/publications/reviews-and-evaluations/internal-audit-reports/garda-inspectorate-missing-persons-review-and-recommendations.pdf (Accessed: 2 April 2021).

Apps, J. (2020) Email to Emma Tilley, 22 October 2020.

Apps, J., Vesely, L., Alys, L. & Blythe, T. (2014) 'Two sides of the Same Coin: Missing and Unidentified People', in Mallet, X., Blythe, T. & Berry, R. (ed.) Advances in Forensic Human Identification, Florida, US: Taylor & Francis Group.

Asplen, C. H. (2004) The Application of DNA Technology in England and Wales, Available at: https://www.ojp.gov/pdffiles1/nij/grants/203971.pdf (Accessed: 19 October 2022).

Badcock, J. (2023) Spanish detectives identify murder victim whose body decomposed in well, Available at: https://www.telegraph.co.uk/world-news/2023/01/09/spanish-detectives-identify-murder-victim-whose-body-decomposed/ (Accessed: 9 July 2023).

Bagdi, A. & Elliott, L. (2022) Mystery over 11 unnamed bodies found across the Midlands, Available at: https://www.stokesentinel.co.uk/news/stoke-on-trent-news/mystery-over-11-unnamed-bodies-7163104 (Accessed: 18 February 2024).

Baker, L.E. & Baker, E.J. (2008) 'Reuniting Families: An Online Database to Aid in the Identification of Undocumented Immigrant Remains', Journal of Forensic Science, 53(1), pp. 50-53. doi: 10.1111/j.1556-4029.2007.00612.x.

Biehal, N., Mitchell, F. & Wade, J. (2003) Lost from View: Missing Persons in the UK, Bristol: The Policy Press.

Bikker, J. (2021) Email to Emma Tilley, 24 January 2021.

Bikker, J. (2014) 'Identification of Missing Persons and Unidentified Remains in Disaster Victim Identification: Recommendations and Bets Practice', in Mallet, X., Biometrics and Forensics Ethics Group (2020) Should we be making use of genetic genealogy to assist in solving crime?, Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/916364/BFEG_Genetic_Genealogy_Final.pdf (Accessed: 19 October 2022).

Blythe, T. & Berry, R. (ed.) Advances in Forensic Human Identification, Florida, US: Taylor & Francis Group.

Black, S. (2018) All that remains: A life in death, London: Transworld Publishers.

Blanco Pampin, J. & Rodríguez, B. (2001) ‘Surprising drifting of bodies along the coast of Portugal and Spain’, Legal Medicine, 3, pp. 177-182. doi: 10.1016/S1344-6223(01)00032-3.

Blank-Reid, C. A. & Kaplan, L. J. (1996) ‘A System for Working with Unidentified Trauma Patients’, International Journal of Trauma Nursing, 2(4), pp. 108-110. doi: 10.1016/S1075-4210(96)80071-X.

Blau, S., Graham, J., Smythe, L., & Rowbotham, S. (2021). Human identification: A review of methods employed within an Australian coronial death investigation system. International Journal of Legal Medicine, 135(1), 375– 385. https://doi.org/10.1007/s00414-020-02461-3.

Blessing, M. M. & Lin, P. T. (2018) ‘Identification of Bodies by Unique Serial Numbers on Implanted Medical Devices’, Journal of Forensic Science, 63(3), pp. 740-744. doi: 10.1111/1556-4029.13598.

Blythe, T. & Woodforde, S. (2007) ‘Missing Persons in the United Kingdom’, in Thompson, T. & Black, S. (ed.) Forensic Human Identification: An Introduction, Florida, US: Taylor & Francis Group.

Boss, P. (1999) Ambiguous Loss: Learning to live with unresolved grief, Cambridge, MA: Harvard University Press.

Brian, T. & Laczko, F. (2014) Fatal Journeys: Tracking Lives Lost During Migration, Switzerland: International Organization for Migration.

Britton, J., van der Erve, L., Waltmann, B. & Xu, X. (2021) London calling? Higher education, geographical mobility and early-career earnings, Institute for Fiscal Studies, Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1022365/London_calling_final_for_dfe_with_accessibility.pdf (Accessed 4 July 2022).

Brunskill, S. & Mallett, X. (2011) ‘Operation Lund: Morecambe Bay Cockling Disaster’, in Black, S., Sunderland, G., Hackman, L., & Mallett, X. (ed.) Disaster Victim Identification: Experience and Practice. Boca Raton, FL: CRC Press, pp. 207-221.

Budowle, B., Ge, J., Chakraborty, R. & Gill-King, H. (2011) 'Use of prior odds for missing persons identifications', Investigative Genetics, 2(15), pp. 1-6. doi: 10.1186/2041-2223-2-15.

Burgess, M. J. C. (2014) ‘Identification: The Coroner’s Perspective’, in Mallet, X., Blythe, T. & Berry, R. (ed.) Advances in Forensic Human Identification, Florida, US: Taylor & Francis Group.

Calmon, M. (2019) 'Forensic anthropology and missing persons: A Brazilian perspective', Forensic Science International, 298, pp. 425.e1-425.e6. doi: 10.1016/j.forsciint.2019.03.032.

Cambridge Dictionary (2024) Migrant, Available at: https://dictionary.cambridge.org/dictionary/english/migrant (Accessed: 18 February 2024).

Cambridge Dictionary (2024) Immigrant, Available at: https://dictionary.cambridge.org/dictionary/english/immigrant (Accessed: 18 February 2024).

Cameron, S. (2010) On the Farm: Robert William Pickton and the Tragic Story of Vancouver's Missing Women, USA: Random House Inc.

Caplova, Z., Obertova, Z., Gibelli, D. M., De Angelis, D., Mazzarelli, D., Sforza, C., & Cattaneo, C. (2018) ‘Personal Identification of Deceased Persons: An Overview of the Current Methods Based on Physical Appearance’, Journal of Forensic Sciences, 63(3), pp. 662–671. doi: 10.1111/1556-4029.13643.

Carling, J. & Hernández-Carretero, M. (2011) ‘Protecting Europe and Protecting Migrants? Strategies for Managing Unauthorised Migration from Africa’, British Journal of Politics and International Relations, 13, pp. 42-58. doi: 10.1111/j.1467-856X.2010.00438.x.

Cattaneo, C., Porta, D., De Angelis, D., Gibelli, D., Poppa, P. & Grandi, M. (2010) 'Unidentified bodies and human remains: An Italian glimpse through a European problem', Forensic Science International, 195(1), pp. 167.e1-167.e6. doi: 10.1016/j.forsciint.2009.11.008.

Cattaneo, C., De Angelis, D., Mazzarelli, D. et al. The rights of migrants to the identification of their dead: an attempt at an identification strategy from Italy. Int J Legal Med 137, 145–156 (2023). https://doi.org/10.1007/s00414-022-02778-1.

Cavard, S., Alvarez, J.C., De Mazancourt, P., Tilotta, F., Brousseau, P., de la Grandmaison, G. Lorin & Charlier, P. (2011) 'Forensic and police identification of “X” bodies. A 6-years

French experience', Forensic Science International, 204(1), pp. 139-143. doi: 10.1016/j.forsciint.2010.05.022.

Chattopadhyay, S., Shee, B., & Sukul, B. (2013) 'Unidentified bodies in autopsy – A disaster in disguise', Egyptian Journal of Forensic Sciences, 3(4), pp. 112-115. doi: 10.1016/j.ejfs.2013.05.003.

Chini, M. (2023) 'Operation Identify Me': Over 200 tips to identify 22 dead women so far, Available at: https://www.brusselstimes.com/508037/operation-identify-me-over-200-tips-to-identify-22-dead-women-so-far (Accessed: 9 July 2023).

Church of England (2021) Nationwide digital churchyard mapping project begins, Available at: https://www.churchofengland.org/media-and-news/press-releases/nationwide-digital-churchyard-mapping-project-begins (Accessed: 11 February 2023).

College of Policing (2019) Management of Police Information APP, Available at: https://www.app.college.police.uk/app-content/information-management/management-of-police-information/ (Accessed: 31 March 2021).

College of Policing (2021) Missing Persons APP, Available at: https://www.app.college.police.uk/app-content/major-investigation-and-public-protection/missing-persons/ (Accessed: 31 March 2021).

Coroners and Justice Act 2009. Available at: https://www.legislation.gov.uk/ukpga/2009/25/part/1 (Accessed: 4 April 2021).

Cox, V. (2003) Searching: The stories of Ireland's Missing People, Dublin: Blackwater Press.

Crabbe, S., Ambs, P., Black, S., Wilkinson, C., Bikker, J., Herz, N., Manger, D., Pape, R. & Seibert, H. (2013) Results of the FASTID project. Available at: https://www.researchgate.net/publication/302959363 (Accessed: 23 January 2021).

Criminal Justice and Police Act 2001. Available at: https://www.legislation.gov.uk/ukpga/2001/16/notes/division/3/3 (Accessed: 19 October 2022).

Cummins, I. & Edmondson, D. (2016). Policing and street triage. Journal of Adult Protection, 18(1), pp. 40-52.

Dartnall, S., Goodman-Delahunty, J., & Gullifer, J. (2019) ‘An Opportunity to Be Heard: Family Experiences of Coronial Investigations Into Missing People and Views on Best Practice’, Frontiers in Psychology, 10(2322), pp. 1-17. doi: 10.3389/fpsyg.2019.02322.

da Silva, L., Vilaça, W., Azevedo, D., Majella, G., Silva, I. & Silva, B. (2009) ‘Missing and unidentified persons database’, Forensic Science International: Genetics Supplement Series, 2(1), pp. 255-257. doi:10.1016/j.fsigss.2009.08.090.

da Silva Junior, R. C., Wirz, L. N., Solares Reyes, E., & Del Moral Stevenel, M. A. (2020) ‘Development of DNA databases in Latin America’, Forensic Science International, 316, pp. 1-13. doi: 10.1016/j.forsciint.2020.110540.

Davawala, A., Stock, A., Spiden, M., Daniel, R., McBain, J., & Hartman, D. (2022). Forensic genetic genealogy using microarrays for the identification of human remains: The need for good quality samples–A pilot study. Forensic Science International, 334, 111242.

Dawson, C. (2009) Introduction to Research Methods: A Practical Guide for Anyone Undertaking a Research Project (4th ed.). London: Robinson.

Dennison-Wilkins, L., Hackman, L., & Hayatdavoodi, M. (2023) ‘The Body Recovery From Water Study: The application of science to missing person search’, *Policing: A Journal of Policy and Practice*, 17, paad037, doi: 10.1093/police/paad037.

Donn, N. (2023) Cold-case murder of Portuguese solved through ground-breaking facial reconstruction, Available at: https://www.portugalresident.com/cold-case-murder-of-portuguese-solved-through-ground-breaking-facial-reconstruction/ (Accessed: 9 July 2023).

Donoghue, E. & Minnigerode, S. (1977) ‘Human Body Buoyancy: A Study of 98 Men’, Journal of Forensic Sciences, 22(3), pp. 573-579. doi: 10.1520/JFS10628J.

Duijst, W., Passier, C., Oude Grotebevelsborg, B., de Kat, D., van Daalen, M. and Oostra, R. J. (2016) 'Lost and found: The identification process of human bodies recovered from the North Sea', Journal of Forensic and Legal Medicine, 41, pp. 15-20. doi: 10.1016/j.jflm.2016.04.006.

Edkins, J. (2016) ‘Missing Migrants and the Politics of Naming: Names Without Bodies, Bodies Without Names’, Social Research: An International Quarterly, 83(2), pp. 359-389. Available at: https://muse.jhu.edu/article/631166 (Accessed: 16 February 2021).

Equality Act 2010. Available at: https://www.legislation.gov.uk/ukpga/2010/15/contents (Accessed: 12 February 2023).

European Commission (2014) 'Commission Decision of 30 January 2014 on the subject of establishing an EU-wide database of unidentified bodies', Official Journal of the European Union, 57(C237), pp. 202.

European Commission (2019) FAST and efficient international disaster victim IDentification, Available at: https://cordis.europa.eu/project/id/242339 (Accessed: 31 March 2021).

Farré, L. & Ortega, F. (2021) 'Family Ties, Geographic Mobility and the Gender Gap in Academic Aspirations', IZA Institute of Labour Economics, Discussion Paper Series No. 14561, https://docs.iza.org/dp14561.pdf.

Ferguson, L., Elliott, M., & Kim, S. (2023) ‘Examining the Connection Between Missing Persons and Victimization: An Application of Lifestyle Exposure Theory’, Crime & Delinquency, 69(3), 656–681. https://doi.org/10.1177/00111287221109768.

Fitzpatrick, C. (2023) ‘The emerging discipline of forensic genetic genealogy’, in Ambers, A. (ed.) Forensic Genetic Approaches for Identification of Human Skeletal Remains: Challenges, Best Practices, and Emerging Technologies, London: Elsevier, pp. 459-488.

Flores, L. A. (2020) Deportable and Disposable: Public Rhetoric and the Making of the "Illegal" Immigrant, Available at: https://www.amazon.co.uk/Deportable-Disposable-Immigrant-Democratic-Deliberation/dp/0271087889 (Accessed: 18 February 2024).

Foster, L. Diamond, I. & Jefferies, J. (2015). Beginning Statistics: An introduction for social scientists (2nd ed.). London: SAGE Publications Ltd.

Gibbs, G. (2007) Analysing Qualitative Data, London: SAGE Publications Ltd.

Grant, S. (2011) ‘Recording and Identifying European Frontier Deaths’, European Journal of Migration and Law, 13(2), pp. 135-156. doi: 10.1163/157181611X571259.

Gray, David. (2014). Doing Research in the Real World, 3rd edition.

Hardy, J. (2007) 'Odontology' in Thompson, T. & Black, S. (ed.) Forensic Human Identification: An Introduction, Florida, US: Taylor & Francis Group.

Hanson, S. (2010) Gender and mobility: new approaches for informing sustainability, Gender, Place & Culture, 17:1, 5-23, doi: 10.1080/09663690903498225.

Hill, I. (2007) 'Physical Appearance', in Thompson, T. & Black, S. (ed.) Forensic Human Identification: An Introduction, Florida, US: Taylor & Francis Group.

HM Government (2022) Writing about ethnicity, Available at: https://www.ethnicity-facts-figures.service.gov.uk/style-guide/writing-about-ethnicity (Accessed: 20 June 2022).

Holmes, L. (2008) Living in Limbo: The experiences of, and impacts on, families of missing people, Available at: https://www.missingpeople.org.uk/wp-content/uploads/2020/10/Living_in_Limbo_2008-1.pdf (Accessed: 2 April 2021).

Holmes, L. (2016) Missing Someone: Exploring the Experiences of Family Members, Available at: https://www.researchgate.net/profile/Tony-Brown-8/publication/311755687_Forensic_Palynology_and_Environmental_Profiling_in_Missing_Persons_Investigations/links/599d2ce345851574f4af63bb/Forensic-Palynology-and-Environmental-Profiling-in-Missing-Persons-Investigations.pdf#page=121 (Accessed: 17 June 2023).

Home Office (2005) Code of Practice on the Management of Police Information, Available at: https://library.college.police.uk/docs/APPref/Management-of-Police-Information.pdf (Accessed: 31 March 2021).

Home Office (2011) Missing Children and Adults : A Cross Government Strategy, London: Home Office.

International Commission on Missing Persons (ICMP) History, Available at: https://www.icmp.int/about-us/history/ (Accessed: 17 June 2023).

International Organization for Migration (2023) IOM and UNHCR Call for Decisive Action Following Mediterranean Tragedy, Available at: https://www.iom.int/news/iom-and-unhcr-call-decisive-action-following-mediterranean-tragedy (Accessed: 9 July 2023).

Interpol (2013) Disaster Victim Recovery Form, Available at: https://www.interpol.int/en/How-we-work/Forensics/Disaster-Victim-Identification-DVI (Accessed: 17 March 2021).

Interpol (2018a) Disaster Victim Identification Guide, Available at: https://www.interpol.int/en/How-we-work/Forensics/Disaster-Victim-Identification-DVI (Accessed: 27 February 2021).

Interpol (2018b) Identification Form, Available at: https://www.interpol.int/en/How-we-work/Forensics/Disaster-Victim-Identification-DVI (Accessed: 17 March 2021).

Interpol (2018c) Ante Mortem (yellow) Interpol DVI Form - Missing Person, Available at: https://www.interpol.int/en/How-we-work/Forensics/Disaster-Victim-Identification-DVI (Accessed: 17 March 2021).

Interpol (2018d) Post Mortem (pink) Interpol DVI Form - Unidentified Human Remains, Available at: https://www.interpol.int/en/How-we-work/Forensics/Disaster-Victim-Identification-DVI (Accessed: 17 March 2021).

Interpol (2021) I-Familia: Identifying missing persons globally, Available at: https://www.interpol.int/en/How-we-work/Forensics/I-Familia (Accessed: 6 August 2023).

Interpol (2023a) Operation Identify Me, Available at: https://www.interpol.int/en/How-we-work/Notices/Operation-Identify-Me (Accessed: 9 July 2023).

Interpol (2023b) BEL02 - The woman with the flower tattoo, Available at: https://www.interpol.int/en/How-we-w https://www.interpol.int/en/How-we-work/Notices/Operation-Identify-Me/BEL02-The-woman-with-the-flower-tattoo ork/Notices/Operation-Identify-Me/BEL02-The-woman-with-the-flower-tattoo (Accessed: 18 February 2024).

Interpol DVI Ridgeology Sub-Working Group (2019) Position Statement Concerning the Use of Antemortem Fingerprints for Humanitarian Purposes to Identify Unknown Deceased Persons, Available at: https://www.interpol.int/en/How-we-work/Forensics/Disaster-Victim-Identification-DVI (Accessed: 27 February 2021).

Interpol Tsunami Evaluation Working Group (2010) The DVI Response to the South East Asian Tsunami between December 2004 and February 2006, Available at: https://www.interpol.int/en/How-we-work/Forensics/Disaster-Victim-Identification-DVI (Accessed: 27 February 2021).

International Commission on Missing Persons (2024) Legal Frameworks and Rights, Available at: https://www.icmp.int/the-missing/legal-frameworks-and-rights/https://www.icmp.int/the-missing/legal-frameworks-and-rights/ (Accessed: 18 February 2024).

Kealy, G., Gapert, R., Buckley, L., Cassidy, M., McNulty, J., Wright, R., Foyle, R., Meier-Augenstein, W., Kemp, H., Wilkinson, C., Rynn, C., & Clifford, S. (2014) 'Multi-Disciplinary Approach toward the identification of a Human Skull Found 55km off the Southeast Coast of Ireland', in Mallet, X., Blythe, T. & Berry, R. (ed.) Advances in Forensic Human Identification, Florida, US: Taylor & Francis Group.

Kimmerle, E. H. (2014) 'Practicing forensic anthropology: a human rights approach to the global problem of missing and unidentified persons', Annals of Anthropological Practice, 38, pp 1-6. doi: 10.1111/napa.12038.

Kogon, S., Arnold, J., Wood, R., & Merner, L. (2010) 'Integrating dental data in missing persons and unidentified remains investigations: the RESOLVE INITIATIVE and DIP3', Forensic Science International, 197(1-3), e31–e35. doi:10.1016/j.forsciint.2009.11.006.

Kovras, I. & Robins, S. (2016) 'Death at the border: Managing missing migrants and unidentified bodies at the EU's mediterranean frontier', Political Geography, 55, p. 40-49. doi: 10.1016/j.polgeo.2016.05.003.

Kringsholm, B., Jakobsen, J., Sejrsen, B., & Gregersen, M. (2001) 'Unidentified bodies/skulls found in Danish waters in the period 1992-1996', Forensic Science International, 123(2-1), pp. 150-158. doi: 10.1016/s0379-0738(01)00533-3.

Kumar, A., Dasari, H. & Singh, A. (2014) 'Cause of Death in "John Doe & Jane Doe": A 5 year review', Journal of Clinical and Diagnostic Research, 8(8), ie01–ie04. doi: 10.7860/JCDR/2014/8876.4661.

Lain, R., Griffiths, C., & Hilton, J. M. (2003) 'Forensic dental and medical response to the Bali bombing: A personal perspective', The Medical Journal of Australia, 179(7), pp. 362–365. doi: 10.5694/j.1326-5377.2003.tb05594.x.

Last, T. & Spijkerboer, T. (2014) 'Tracking Deaths in the Mediterranean', in Brian, T. & Laczko, F. (ed.) Fatal Journeys: Tracking Lives Lost During Migration, Switzerland: International Organization for Migration, pp. 85-107.

Law Commission for England and Wales (2024) Rights and Obligations Relating to Funerary Methods, Funerals and Remains, Available at: https://lawcom.gov.uk/project/rights-and-obligations-relating-to-funerary-methods-funerals-and-remains/ (Accessed 4 April 2024).

Local Government Association (2010) Public health funerals: A survey of authorities in England and Wales, Available at: https://www.local.gov.uk/sites/default/files/documents/public-health-funerals-20-dca.pdf (Accessed: 18 February 2021).

Local Government Association (2011) Public health funerals: Final Report, Available at: https://www.local.gov.uk/sites/default/files/documents/public-health-funerals-20-3d4.pdf (Accessed: 18 February 2021).

Lorente, J. A., Entrala, C., Alvarez, J. C., Lorente, M., Arce, B., Heinrich, B., Carrasco, F., Budowle, B., & Villanueva, E. (2002) 'Social benefits of non-criminal genetic databases: missing persons and human remains identification', International Journal of Legal Medicine, 116, pp. 187–190. doi: 10.1007/s004140100255.

Majumdar, P., Chhabra, S., Singh, R., & Vatsa, M. (2020) Recognizing injured faces via SCIFI loss. IEEE Transactions on Biometrics, Behavior, and Identity Science, 3(1), 112-123.

Mallet, X., Blythe, T. & Berry, R. (2014) Advances in Forensic Human Identification, Florida, US: Taylor & Francis Group.

Mazzarelli, D., Milotta, L., Franceschetti, L., Maggioni, L., Merelli, V. G., Poppa, P., ... & Cattaneo, C. (2021) Twenty-five years of unidentified bodies: an account from Milano, Italy. International Journal of Legal Medicine, 135, 1983-1991.

Meng, P. (2016) Meng Bill to remove the term "oriental" from U.S. law passed by Senate; measure now heads to President Obama, Available at: https://meng.house.gov/media-center/press-releases/meng-bill-to-remove-the-term-oriental-from-us-law-passed-by-senate (Accessed: 21 October 2022).

Ministry of Housing, Communities and Local Government (2020) Public health funerals good practice guidance, Available at: https://www.gov.uk/government/publications/public-health-funerals-good-practice-guidance/public-health-funerals-good-practice-guidance (Accessed: 18 February 2021).

Missal, S. (2023) 'Forensic facial reconstruction of skeletonized and highly decomposed human remains', in Ambers, A. (ed.) Forensic Genetic Approaches for Identification of Human Skeletal Remains: Challenges, Best Practices, and Emerging Technologies, London: Elsevier, pp. 549-569.

Missing People (n. d.) Missing People Briefing Paper: Cross-matching unidentified bodies and missing persons reports, London: Missing People.

Missing People (2010) Missing Persons in the 21st Century: A response to the White Paper Policing in the 21st Century: Reconnecting police and the people, Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/157880/missing-people-response.pdf (Accessed: 25 October 2020).

Missing People (2024) Lost Contact tracing, Available at: https://www.missingpeople.org.uk/get-help/help-services/lost-contact (Accessed: 10 April 2024).

Moon, C. (2020) 'Extraordinary deathwork: New developments in, and the social significance of, forensic humanitarian action', in Parra, R. C., Zapico, S. C. & Ubelaker, D. H. (ed.) Forensic Science and Humanitarian Action: Interacting with the dead and the living, 1, West Sussex, UK: John Wiley & Sons Ltd.

Morewitz, S. J. & Sturdy Colls, C. (2016) Handbook of Missing Persons, Switzerland: Springer International Publishing.

Morgan, O. W., Sribanditmongkol, P., Perera, C., Sulasmi, Y., Van Alphen, D., & Sondorp, E. (2006) 'Mass fatality management following the South Asian tsunami disaster: case

studies in Thailand, Indonesia, and Sri Lanka', PLOS Medicine, 3(6), e195, pp. 0809-0815. doi: 10.1371/journal.pmed.0030195.

Murray, E. A., Anderson, B. E., Clark, S. C., & Hanzlick, R. L. (2018) 'The History and Use of the National Missing and Unidentified Persons System (NamUs) in the Identification of Unknown Persons', in Latham, K. E., Bartelink, E. J., & Finnegan, M. (ed.) New Perspectives in Forensic Human Skeletal Identification, Academic Press, pp. 115-126. doi: 10.1016/B978-0-12-805429-1.00011-9.

National Center for Missing and Exploited Children (2021) Unidentified Child Remains: Analysis of Identifications, Available at: https://www.missingkids.org/content/dam/missingkids/pdfs/ncmec-analysis/NCMEC%20UP%20ID%20ANALYSIS_FINAL.pdf (Accessed: 23 July 2023).

National Crime Agency (2010) IDENTIFICATION PROCESS – GOOD PRACTICE Procedural Advice for Police Officers and Staff Involved in the Identification Process Following the Discovery of Unidentified Bodies/Remains, Available at:https://library.college.police.uk/docs/APPREF/NCA-MPB-Identification-Process-Good-Practice.PDF (Accessed: 12 February 2023).

National Police Improvement Agency (2009) Collection of Missing Persons Data: A code of practice for the Police Service on collecting and sharing data on missing persons with public authorities, Available at: https://library.college.police.uk/docs/npia/Missing-Persons-Code-of-Practice-2009.pdf (Accessed: 31 March 2021).

National Suicide Prevention Alliance (2019) *East Sussex Suicide Prevention Plan April 2019 – March 2020*, Available at: https://nspa.org.uk/wp-content/uploads/2021/04/East-Ssussex-SPG-Action-Plan-2019-2020.pdf (Accessed: 4 August 2023).

Nuzzolese, E. (2012) 'Missing People, Migrants, Identification and Human Rights', Journal of Forensic Odonto-Stomatology, 30(S1), pp. 47-59. Available at: http://www.iofos.eu/Journals/JFOS sup1_Nov12/IDEALS 6-96.pdf (Accessed: 18 February 2021).

Nuzzolese, E. (2018) 'Dental autopsy for the identification of missing persons', Journal of Forensic Dental Sciences, 10(1), pp. 50-54. doi: 10.4103/jfo.jfds_33_17.

Nuzzolese, E., Lupariello, F., & Di Vella, G. (2018) ‘Selfie Identification App as a forensic tool for missing and unidentified persons’, Journal of Forensic Dental Sciences, 10(2), pp. 75-78. doi: 10.4103/jfo.jfds_80_17.

Office for National Statistics (2021a) Census 2021, Available at: https://census.gov.uk/ (Accessed: 12 August 2023).

Office for National Statistics (2021b) Suicides in England and Wales: 2020 registrations, Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/suicidesintheunitedkingdom/latest (Accessed: 4 July 2022).

Olivieri, L., Mazzarelli, D., Bertoglio, B., De Angelis, D., Previderè, C., Grignani, P., Cappella, A., Presciuttini, S., Bertuglia, C., Di Simone, P., Polizzi, N., Iadicicco, A., Piscitelli, V., & Cattaneo, C. (2018) 'Challenges in the identification of dead migrants in the Mediterranean: The case study of the Lampedusa shipwreck of October 3rd 2013’, Forensic Science International, 285, pp. 121-128. doi: 10.1016/j.forsciint.2018.01.029.

Parr, H., Stevenson, O., & Woolnough, P. (2016) ‘Search/ing for missing people: Families living with ambiguous absence’, Emotion, Space and Society, 19, pp. 66-75, doi: 10.1016/j.emospa.2015.09.004.

Parr, H., Stevenson, O., & Woolnough, P. (2016) ‘Search/ing for missing people: Families living with ambiguous absence’, Emotion, Space and Society, 19, pp. 66-75, doi: 10.1016/j.emospa.2015.09.004.

Parra, R., Zapico, S., & Ubelaker, D. (2020) Forensic Science and Humanitarian Action: Interacting with the Dead and the Living, Singapore: Wiley.

Paulozzi, L. J., Cox, C. S., Williams, D. D., & Nolte, K. B. (2008) ‘John and Jane Doe: the epidemiology of unidentified decedents’, Journal of Forensic Sciences, 53(4), pp. 922–927. doi:10.1111/j.1556-4029.2008.00769.x.

Pettem, S. (2013) Cold Case Research: Resources for unidentified, missing, and cold homicide cases, Florida, US: Taylor & Francis Group.

Posner, M. (2008) Fred the Head, Scotland: Librario Publishing Ltd.

Public Health (Control of Disease) Act 1984. Available at: https://www.legislation.gov.uk/ukpga/1984/22 (Accessed: 21 February 2021).

Public Health England (2016) Faith at end of life: A resource for professionals, providers and commissioners working in communities, Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/496231/Faith_at_end_of_life_-_a_resource.pdf (Accessed: 21 October 2022).

Puerto, M. S., Abboud, D., Baraybar, J. P., Carracedo, A., Fonseca, S., Goodwin, W., ... & Finegan, O. (2021) The search process: Integrating the investigation and identification of missing and unidentified persons. Forensic Science International: Synergy, 3, 100154.

Raleigh, D. (2021) Parents told 'missing' son's remains were discovered 25 years ago but only identified last Friday, Available at: https://www.irishtimes.com/news/ireland/irish-news/parents-told-missing-son-s-remains-were-discovered-25-years-ago-but-only-identified-last-friday-1.4479044 (Accessed: 5 April 2021).

Reid, K. M., Martin, L. J., & Heathfield, L. J. (2020) 'Bodies without names: A retrospective of unidentified decedents at Salt River Mortuary, Cape Town, South Africa, 2010 - 2017', South African Medical Journal, 110(3), pp. 223-228. doi: 10.7196/SAMJ.2020.v110i3.14192.

Ritter, N. (2007) 'Missing Persons and Unidentified Remains: The Nation's Silent Mass Disaster', National Institute of Justice Journal, 256, pp. 2-7, Washington, D.C: U.S. Dept. of Justice, Office of Justice Programs.

Robins, S. (2022) The affective border: Missing migrants and the governance of migrant bodies at the EU's southern frontier. *Journal of Refugee Studies*, *35*(2), 948-967.

Robson, C. and McCartan, K. (2016) Real world research: a resource for users of social research methods in applied settings. 4th edn. Chichester: Wiley.

Rohan, R. P., Hettiarachchi, M., Vidanapathirana, M., & Perera, S. (2009) 'Management of dead and missing: aftermath tsunami in Galle', Legal Medicine, 11(1), S86–S88. doi: 10.1016/j.legalmed.2009.01.052.

RTÉ News (2008) Group wants audit on unidentified bodies, Available at: https://www.rte.ie/news/2008/0905/107738-missing/ (Accessed: 18 October 2022).

RTÉ News (2022) Coroners' data shows 27 unidentified remains in the State, Available at: https://www.rte.ie/news/2022/0804/1313836-unidentified-remains-probe/ (Accessed: 18 October 2022).

Semma Tamayo, A. (2020) 'Missing Persons and Unidentified Human Remains: The Perspective from Armed Conflict Victims Exhumed in Granada, Colombia', Forensic Science International, 317(110529), pp. 1-6. doi: 10.1016/j.forsciint.2020.110529.

Shaer, A., Rezaei, M., & Rahimi, B. M. (2021) 'Assessing the COVID-19 outbreak effects on active mobility of men in comparison with women', Journal of Urbanism: International Research on Placemaking and Urban Sustainability, 0:0, pp. 1-18. doi: 10.1080/17549175.2021.1995028.

Shalev Greene, K. & Collie, C. J. R. (2021) People who go missing abroad: an examination of patterns and investigative challenges, Available at: https://researchportal.port.ac.uk/portal/en/publications/people-who-go-missing-abroad-an-examination-of-patterns-and-investigative-challenges(b2421a46-2589-44fd-aff3-c1c7cec4067d)/export.html (Accessed: 4 April 2021).

Shedge R, Krishan K, Warrier V, & Kanchan T. (2023) 'Postmortem Changes'. In: StatPearls. StatPearls Publishing, Treasure Island (FL); PMID: 30969563, Available at: https://europepmc.org/article/nbk/nbk539741 (Accessed: 7 April 2024).

Slack, J., & Martínez, D. E. (2019). Chapter 11: The geography of migrant death: violence on the US-Mexico border. In Handbook on Critical Geographies of Migration, Cheltenham, UK: Edward Elgar Publishing. doi: 10.4337/9781786436030.00020> (Accessed: 18 February 2024).

Smith, J. (2013) The Man Who Fell From The Sky. 12 May 2013. Available at: https://vimeo.com/66028093 (Accessed: 18 February 2021).

Spijkerboer, T. (2007) 'The Human Costs of Border Control', European Journal of Migration and Law, 9, pp. 127-139. doi: 10.1163/138836407X179337.

Starinsky-Elbaz, S., Ariel, T. & Issan, Y. (2019) 'DNA kinship analysis of unidentified human remains that led to a murder investigation', Forensic Science International, 300, e20-e23. doi: 10.1016/j.forsciint.2019.03.045.

Stavrianos, C., Stavrianou, I., Zouloumis, L., & Mastagas, D. (2007). An introduction to facial reconstruction. Balkan Journal of Stomatology, 11(2), pp. 76-83. Available at: http://scindeks-clanci.ceon.rs/data/pdf/1107-1141/2007/1107-11410702076S.pdf (Accessed: 2 January 2023).

Stokes, J. (2019) 'Technical note: Next generation identification - A powerful tool in cold case investigations', Forensic Science International, 299, pp. 74-79. doi: 10.1016/j.forsciint.2019.03.033.

Sweet, D. (2010) 'Interpol DVI best-practice standards - An overview', Forensic Science International, 201(1–3), pp. 18-21. doi: 10.1016/j.forsciint.2010.02.031.

Thompson, T. & Black, S. (2007) Forensic Human Identification: An Introduction, Florida, US: Taylor & Francis Group.

UK Government (2023) Policy paper: Illegal Migration Bill: overarching factsheet, Available at: https://www.gov.uk/government/publications/illegal-migration-bill-factsheets/illegal-migration-bill-overarching-factsheet#:~:text=The%20Illegal%20Migration%20Bill%20will,asylum%20claim%20will%20be%20considered (Accessed: 9 July 2023).

UK Missing Persons Unit (2023a) Written Report 2021/22, Available at: https://missingpersons.police.uk/en-gb/resources/downloads/missing-persons-statistical-bulletins (Accessed: 12 August 2023).

UK Missing Persons Unit (2023b) Statistical Report 2021/22, Available at: https://missingpersons.police.uk/en-gb/resources/downloads/missing-persons-statistical-bulletins (Accessed: 12 August 2023).

UK Missing Persons Unit (n.d.) How to identify individuals using DNA from families of missing people, Available at: http://missingpersons.police.uk/en-gb/resources/factsheets-for-families (Accessed: 8 April 2021).

Vandervoort, D. (2000) 'Social isolation and gender', Curr Psychol, 19, pp. 229–236, doi: 10.1007/s12144-000-1017-5.

Wagner, S. (2008) To Know Where He Lies: DNA Technology and the Search for Srebrenica's Missing, US: University of California Press Ltd.

Walters, J. K., Mew, M. C., & Repp, K. K. (2023) 'Transgender and Nonbinary Deaths Investigated by the State Medical Examiner in the Portland, Oregon, Metro Area and Their Concordance With Vital Records, 2011-2021', Journal of Public Health Management and Practice 29(1), pp.64-70, January/February 2023, DOI: 10.1097/PHH.0000000000001582.

Ward, J. (2016) To investigate specialist DNA techniques for the identification of compromised human remains, Available at: https://www.churchilltrust.com.au/fellow/jodie-ward-nsw-2015/ (Accessed: 12 March 2021).

Ward, J. (2017) Best practice recommendations for the establishment of a national DNA identification program for missing persons: A global perspective', Forensic Science International: Genetics Supplement Series, 6, e43-345. doi: 10.1016/j.fsigss.2017.09.009.

Wayland, S., Maple, M., McKay, K. & Glassock, G. (2016) 'Holding on to hope: A review of the literature exploring missing persons, hope and ambiguous loss', Death Studies, 40(1), pp. 54-60. doi: 10.1080/07481187.2015.1068245.

Wiersema, J. M. (2016) 'Evolution of Forensic Anthropological Methods of Identification', Academic Forensic Pathology, 6(3), pp. 361–369. doi: 10.23907/2016.038.

Williams, K. and Mountz, A. (2018) Between Enforcement and Precarity: Externalization and Migrant Deaths at Sea. Int Migr, 56: 74-89. doi: 10.1111/imig.12439.

Appendices

Appendix One: Ethical approval feedback

Your project proposal has been approved by the Ethics Panel and you may commence the implementation phase of your study. You should note that any divergence from the approved procedures and research method will invalidate any insurance and liability cover from the University. You should, therefore, notify the Panel of any significant divergence from this approved proposal.

22 February 2021

Appendix Two: Requests for information

Study One

Police forces

1. What enquiries are generally conducted to identify a found unidentified body?

2. How and where is information relating to cases of unidentified bodies recorded and stored? (Please comment on both digital and physical recording/storing)

3. Does the recorded information include the location of the bodies within the mortuary, cemetery, or crematorium?

4. Are cases of unidentified bodies reviewed? If so, what does this involve and when?

5. What records and systems are cross-matched with information relating to cases of unidentified bodies?

6. When is information relating to cases of unidentified bodies deleted or destroyed?

7. How is information relating to cases of unidentified bodies shared between individuals, departments, forces, different agencies, and with the public?

8. Are there any differences in the above processes relating to unidentified body parts? If so, what are the differences?

9. Who has the overall responsibility for cases of unidentified bodies within the police force?

10. Have there been any previous operations specifically focused on solving cases of unidentified bodies? (e.g. Operation Orchid, established by North Wales Police in 2010 and tasked with naming the 16 cases of unidentified bodies buried in the region between 1968 and 2002)

11. Are there any current operations specifically focused on solving cases of unidentified bodies?

12. How can the management of information relating to unidentified bodies be improved?

13. Is there a person within the force who would be willing to be contacted by the PhD Researcher to answer further questions that will take approximately 30 minutes? If so, what are their contact details?

Coroner's areas

1. What enquiries are generally conducted to identify a found unidentified body?

2. How and where is information relating to cases of unidentified bodies recorded and stored? (Please comment on both digital and physical recording/storing)

3. Does the recorded information include the location of the bodies within the mortuary, cemetery, or crematorium?

4. Are cases of unidentified bodies reviewed? If so, what does this involve and when?

5. What records and systems are cross-matched with information relating to cases of unidentified bodies?

6. When is information relating to cases of unidentified bodies deleted or destroyed?

7. How is information relating to cases of unidentified bodies shared between individuals, departments, police forces, different agencies, and with the public?

8. Are there any differences in the above processes relating to unidentified body parts? If so, what are the differences?

9. How can the management of information related to unidentified bodies be improved?

10. Is there a person within the coroner service who would be willing to be contacted by the PhD researcher to answer further questions that will take approximately 30 minutes? If so, what are their contact details?

Local authorities

1. What enquiries are generally conducted by the local authority to identify a found unidentified body?

2. How and where is information relating to public health funerals recorded and stored? (Please comment on both digital and physical recording/storing)

3. Does the recorded information include the location of the bodies within cemeteries or crematoriums?

4. Are unidentified bodies usually buried or cremated?

5. Are cases of unidentified bodies reviewed? If so, what does this involve and when?

6. What records and systems are cross-matched with information relating to cases of unidentified bodies?

7. When is information relating to public health funerals deleted or destroyed?

8. How is information relating to public health funerals shared between individuals, departments, police forces, different agencies, and with the public?

9. Are there any differences in the above processes relating to unidentified body parts? If so, what are the differences?

10. Who has the overall responsibility for public health funerals within the local authority?

11. How can the management of information related to unidentified bodies be improved?

12. Is there a person within the local authority who would be willing to be contacted by the PhD researcher to answer further questions that will take approximately 30 minutes? If so, what are their contact details?

Appendix Three: Codebook

Study One

Variable name	Variable values
Police forces	
Enquiries conducted	1 = DNA 2 = Missing persons databases 3 = Fingerprints 4 = Media appeals 5 = Tattoos, scars, identifying marks, medical identifiers 6 = UK Missing Persons Unit 7 = Clothing and jewellery 8 = Belongings 9 = Odontology 10 = Police National Computer 11 = Local, national, international enquiries inc. Interpol 12 = Dependant on cause of death 13 = Local intelligence systems 14 = Missing persons charities 15 = Search of local area 16 = In line with Authorised Professional Practice 17 = Forensic oceanography 18 = Anthropology 19 = Carbon dating 20 = Forensic facial reconstruction
Recording and storing information	1 = Digitally 2 = Both digitally and physically 3 = No answer
Location	1 = Yes 2 = No 3 = Sometimes 4 = No answer 5 = Not sure
Reviewed	1 = Yes 2 = Not sure 3 = Dependant on cause of death 4 = Other 5 = No 6 = No answer
Cross-matched	1 = National Missing Persons DNA Database 2 = National DNA Database 3 = Police National Computer 4 = Police missing persons information and intelligence 5 = Ident1 Fingerprint Database 6 = COMPACT 7 = HOLMES 8 = NICHE 9 = HERMES 10 = Coroner systems 11 = Police National Database 12 = Athena 13 = Red Sigma Intelligence System

	14 = CLIO 15 = Connect 16 = Medical records 17 = iTrace 18 = Interpol databases
Deleted or destroyed	1 = In line with MoPI 2 = Not sure 3 = Other 4 = No answer 5 = Never 6 = After 100 years
Shared	1 = Case-by-case basis 2 = No answer
Body parts	1 = Yes 2 = No 3 = No answer 4 = Not sure 5 = Other
Overall responsibility	1 = Dependant on circumstances 2 = No specified person 3 = Officer in Case (OIC) 4 = Head of Crime / Major Crime 5 = No answer 6 = Other
Previous operations	1 = Yes 2 = No 3 = No answer
Current operations	1 = Yes 2 = No 3 = No answer
Improvements	1 = National database of missing persons 2 = No improvement/s provided 3 = Better communication across police forces 4 = Early collection and uploading of DNA 5 = National biometric identity programme 6 = National register of dentist records 7 = More effective ownership of cases 8 = Better training on black and yellow notices 9 = Better training on ethnicity estimations 10 = Increased allocation of time and resources
Coroner areas	
Enquiries conducted	1 = DNA 2 = Local, national, international enquiries 3 = Fingerprints 4 = Odontology 5 = Media appeals 6 = Search for next of kin 7 = Investigating who, when, where, how 8 = Tattoos, scars, identifying marks 9 = Medical identifiers and medical records 10 = Post-mortem

	11 = Clothing and jewellery 12 = Checks of internal records 13 = Forensic oceanography 14 = Preliminary checks of police systems 15 = Enquiries with government agencies 16 = Enquiries with different communities 17 = Not specified
Recording and storing information	1 = Digitally 2 = Both digitally and physically 3 = No answer
Location	1 = Yes 2 = No 3 = Sometimes 4 = No answer 5 = Not sure
Reviewed	1 = Yes reviewed by coroner in light of new evidence 2 = Yes reviewed by coroner 3 = Yes reviewed by police 4 = No reviews made 5 = Yes reviewed by coroner and police 6 = No answer
Cross-matched	1 = Police missing persons information 2 = No answer 3 = National DNA Database 4 = National Missing Persons DNA Database 5 = International records / Interpol 6 = Dental records 7 = Ident1 Fingerprint Database 8 = Police National Computer 9 = Not specified 10 = Medical records
Deleted or destroyed	1 = Never 2 = 10 years 3 = 15 years 4 = 25 years 5 = No answer 6 = Other
Shared	1 = Case-by-case basis 2 = No answer
Body parts	1 = Yes 2 = No 3 = No answer 4 = Not sure 5 = Other
Improvements	1 = National database of missing persons 2 = No improvement/s provided 3 = More joined up working 4 = Better communication across coroners' service 5 = Better reporting of data 6 = National register of dentist records 7 = Policy for police and coroners

Local authorities	
Enquiries conducted	1 = No experience of unidentified bodies cases 2 = No enquiries made as police / coroner responsible 3 = Internal enquiries 4 = No answer 5 = Other 6 = External enquiries
Recording and storing information	1 = Digitally 2 = Both digitally and physically 3 = No answer
Location	1 = Yes 2 = No 3 = Sometimes 4 = No answer 5 = Not sure
Buried or cremated	1 = Buried 2 = Cremated 3 = No answer 4 = Other 5 = Cremated unless individual's wishes known
Reviewed	1 = Yes reviewed by the local authority 2 = No reviews made as it is police / coroner responsibility 3 = No reviews made 4 = No answer 5 = Other
Cross-matched	1 = Various records and systems cross-matched by the local authority 2 = No cross-matching undertaken as it is police / coroner responsibility 3 = No cross-matching undertaken 4 = No answer 5 = Other
Deleted or destroyed	1 = Never 2 = 1 year 3 = 2 years 4 = 3 years 5 = 5 years 6 = 6 years 7 = 7 years 8 = 8 years 9 = 10 years 10 = 12 years 11 = 15 years 12 = 20 years 13 = 25 years 14 = 50 years 15 = Not specified 16 = No answer
Shared	1 = Need-to-know basis 2 = No answer 3 = Other

	4 = List of public health funerals published
Body parts	1 = Yes 2 = No 3 = No answer 4 = Other
Overall responsibility	1 = Environmental Health 2 = Named individual or role 3 = Public Protection / Health 4 = Bereavement Service 5 = Housing / Pollution 6 = Cemeteries 7 = No answer 8 = Social Care / Other
Improvements	1 = Review of policies and procedures 2 = Guidance on unidentified bodies cases 3 = Naming convention 4 = Better co-operation and collaboration between agencies 5 = Increased sharing of good practice 6 = No improvement/s provided

Study Two

Variable name	Variable values
Date found	N/A
Year found	1 = 2010 2 = 2011 3 = 2012 4 = 2013 5 = 2014 6 = 2015 7 = 2016 8 = 2017 9 = 2018 10 = 2019 11 = 2020 12 = 2021
Area found	1 = Railway stations, tracks, bridges, or arches 2 = Sea 3 = River Thames 4 = Public roads or pavements 5 = Disused or derelict buildings or locations 6 = Public parks or gardens 7 = Beaches, shores, coves, or rocks 8 = Canals 9 = Ditches or bushes 10 = Tents or sleeping bags 11 = Lakes

	12 = Car parks 13 = Beachy Head 14 = Rivers (excluding River Thames) 15 = Unknown or unclear 16 = Private properties or stairwells 17 = Woodlands, farms, meadows, or moorlands 18 = Cliffside or bottom of cliffs 19 = Cars, buses, or aircrafts 20 = Harbours or marinas 21 = Wetlands, reserves, reservoirs, or marshlands 22 = Golf clubs 23 = Footpaths or gullies 24 = Fields, underground, or caves 25 = Basins, weirs, ponds, or other water
Area found land or water	1 = Land 2 = Water
Age when found	N/A
Year identified	1 = 2010 2 = 2011 3 = 2012 4 = 2013 5 = 2014 6 = 2015 7 = 2016 8 = 2017 9 = 2018 10 = 2019 11 = 2020 12 - 2021
No. of days between date found and date identified	N/A
Length of time between date found and date identified	1 = Less than 1 week 2 = 1 week to 31 days 3 = 31 days to 1 year 4 = 1 to 2 years 5 = 2 to 5 years 6 = 5 to 10 years
No. of days between date of missing person report and date found	N/A
Length of time between date of missing person report and date found	1 = Less than 1 week 2 = 1 week to 31 days 3 = 31 days to 1 year 4 = 1 to 2 years 5 = 2 to 5 years 6 = 5 to 10 years 7 = More than a decade 8 = Minus less than 1 week 9 = Minus 1 week to 31 days 10 = Minus 31 days to 1 year 11 = Minus 1 to 2 years

	12 = Minus 2 to 5 years 13 = Minus 5 to 10 years
No. of days between date of missing person report and date identified	N/A
Length of time between date of missing person report and date identified	1 = Less than 1 week 2 = 1 week to 31 days 3 = 31 days to 1 year 4 = 1 to 2 years 5 = 2 to 5 years 6 = 5 to 10 years 7 = More than a decade 8 = Minus less than 1 week 9 = Minus 1 week to 31 days 10 = Minus 31 days to 1 year 11 = Minus 1 to 2 years 12 = Minus 2 to 5 years 13 = Minus 5 to 10 years
Sex	1 = Male 2 = Female 3 = Unknown
Age	N/A
Age range	1 = 18 to 28 years old 2 = 29 to 39 years old 3 = 40 to 50 years old 4 = 51 to 61 years old 5 = Over 61 years old 6 = Unknown
Accuracy of estimated age in relation to actual age	1 = Accurate 2 = Inaccurate 3 = Estimated age range given of 70 years or more 4 = Unknown or unclear
Age underestimated or overestimated	1 = Underestimated by 1 to 10 years 2 = Underestimated by 11 to 20 years 3 = Overestimated by 1 to 10 years 4 = Overestimated by 11 to 20 years
Ethnic appearance	1 = Asian 2 = Black 3 = Chinese, Japanese or South East Asian 4 = White - North European 5 = White - South European 6 = Middle Eastern 7 = Unknown
DNA sample	1 = Yes 2 = No
Investigating police force	1 = Avon and Somerset Constabulary 2 = Bedfordshire Police 3 = Cambridgeshire Constabulary 4 = Cheshire Constabulary

	5 = City of London Police 6 = Cleveland Police 7 = Cumbria Constabulary 8 = Derbyshire Constabulary 9 = Devon and Cornwall Constabulary 10 = Dorset Police 11 = Durham Constabulary 12 = Essex Police 13 = Gloucestershire Constabulary 14 = Greater Manchester Police 15 = Hampshire Constabulary 16 = Hertfordshire Constabulary 17 = Humberside Police 18 = Kent Police 19 = Lancashire Constabulary 20 = Leicestershire Constabulary 21 = Lincolnshire Police 22 = Merseyside Police 23 = Metropolitan Police Service 24 = Norfolk Constabulary 25 = North Yorkshire Police 26 = Northamptonshire Police 27 = Northumbria Police 28 = Nottinghamshire Police 29 = South Yorkshire Police 30 = Staffordshire Police 31 = Suffolk Constabulary 32 = Surrey Police 33 = Sussex Police 34 = Thames Valley Police 35 = Warwickshire Police 36 = West Mercia Police 37 = West Midlands Police 38 = West Yorkshire Police 39 = Wiltshire Police 40 = Dyfed-Powys Police 41 = Gwent Police 42 = North Wales Police 43 = South Wales Police 44 = British Transport Police 45 = Isle of Man Constabulary
Missing person report	1 = Yes 2 = Unknown
Identification method	1 = Fingerprints 2 = Possessions 3 = Police enquiries 4 = Dental records 5 = DNA 6 = Missing person 7 = Physical description, clothing, tattoos 8 = Other means 9 = Comparison to photo 10 = Family 11 = Missing Persons Bureau input 12 = Publicity 13 = Unknown

Appendix Four: Thematic networks

Study Three

Thematic network of question 1 (Challenges)

First order codes

Record keeping (RK)

Forensic methods (FM)

Financial implications (FI)

Non-UK-born (NU)

Second order codes

Retention (RE)

Human error (HE)

DNA (DN)

Dental records (DR)

Exhumations (EX)

Forensic reconstructions (FR)

Refugees (RE)

Overseas citizens (OC)

Third order codes and themes

Historical records of missing people, unidentified bodies, and graves destroyed, lost, or misplaced (HI)

People assessing other people results in human error and inaccuracies (HE)

Cross-matching is unlikely if DNA and dental records are not in existence (CR)

Police forces may not be able to justify the investigative costs if no crime is suspected (PO)

It can be particularly difficult to identify deceased refugees or overseas citizens (RO)

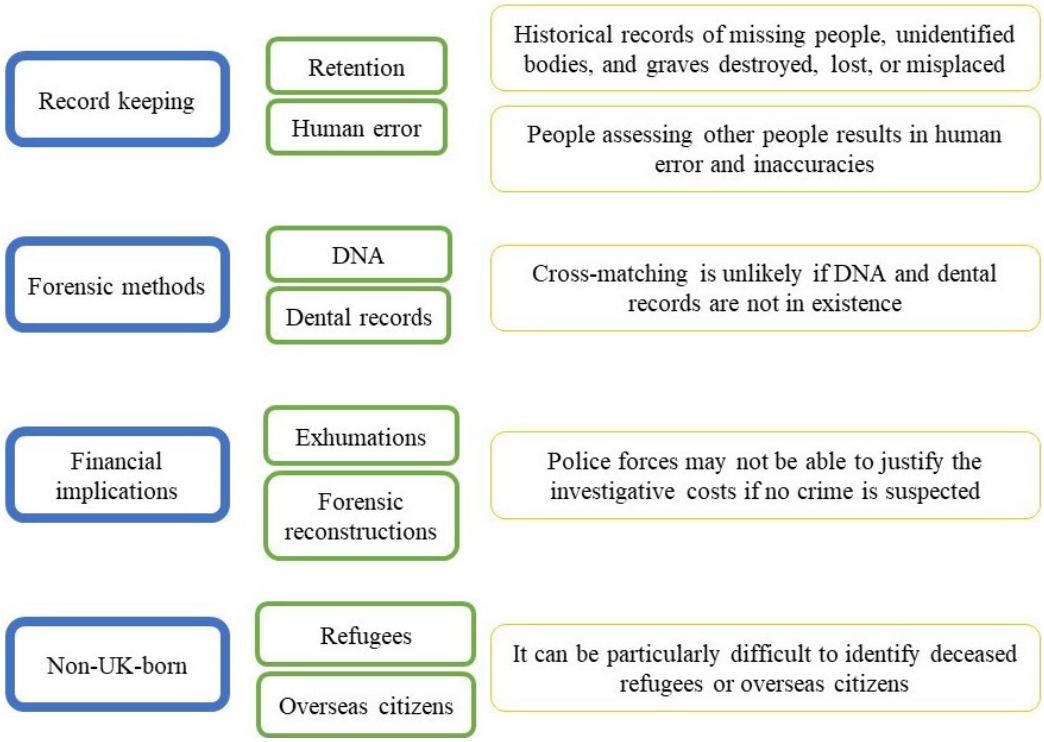

Figure 38. Thematic network of question 1 (Challenges)

Thematic network of question 2 (Opportunities)

First order codes

DNA (DN)

Information sharing (IS)

Reviews (RE)

Second order codes

Possessions (PO)

Exhumations (EX)

Genealogy (GE)

Police units (PU)

Public appeals (PA)

International (IN)

Periodic (PE)

Peer review (PR)

Third order codes and themes

DNA should be acquired from the possessions and family of missing persons as soon as

possible (DN)

Exhumations should be conducted so that DNA can be be acquired from unidentified bodies (EX)

Genetic genealogy could be explored to assist with successful cross-matching (GG)

The police unit overseeing historic missing persons cases should be notified about discoveries of unidentified remains (PF)

Public appeals should be used with facial reconstructions if possible (PA)

International co-operation between neighbouring countries is of the upmost importance (IC)

Cases should be reviewed periodically, and if appropriate, be peer reviewed (RP)

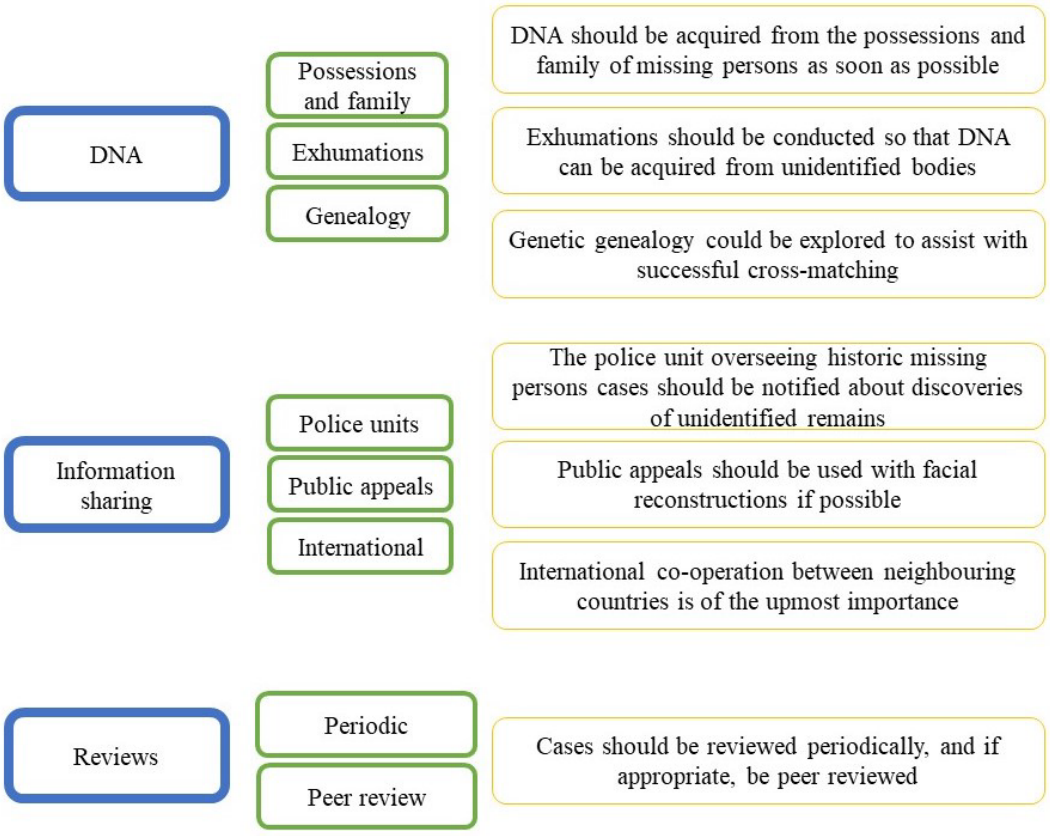

Figure 39. Thematic network of question 2 (Opportunities)

Thematic network of question 3 (Learning)

First order codes

Case studies (CS)

Inquests (IN)

Method of disposal (DI)

Communication (CO)

Body parts (BO)

Second order codes

Sharing best practice (BP)

High Court orders (HC)

Public health funerals (PH)

Language (LA)

Frequency (FR)

Scrutiny (SC)

Third order codes and themes

The sharing of case studies between police forces would be beneficial (CS)

Delays can occur when a Coroner reopens an inquest as the High Court must grant permission (DE)

Unidentified bodies and body parts should be buried rather than cremated (BU)

Offensive or unclear language should be avoided when describing unidentified bodies (OF)

Families of missing persons should receive regular communication (FA)

Unidentified body parts should be properly scrutinised by a person with expertise (BP)

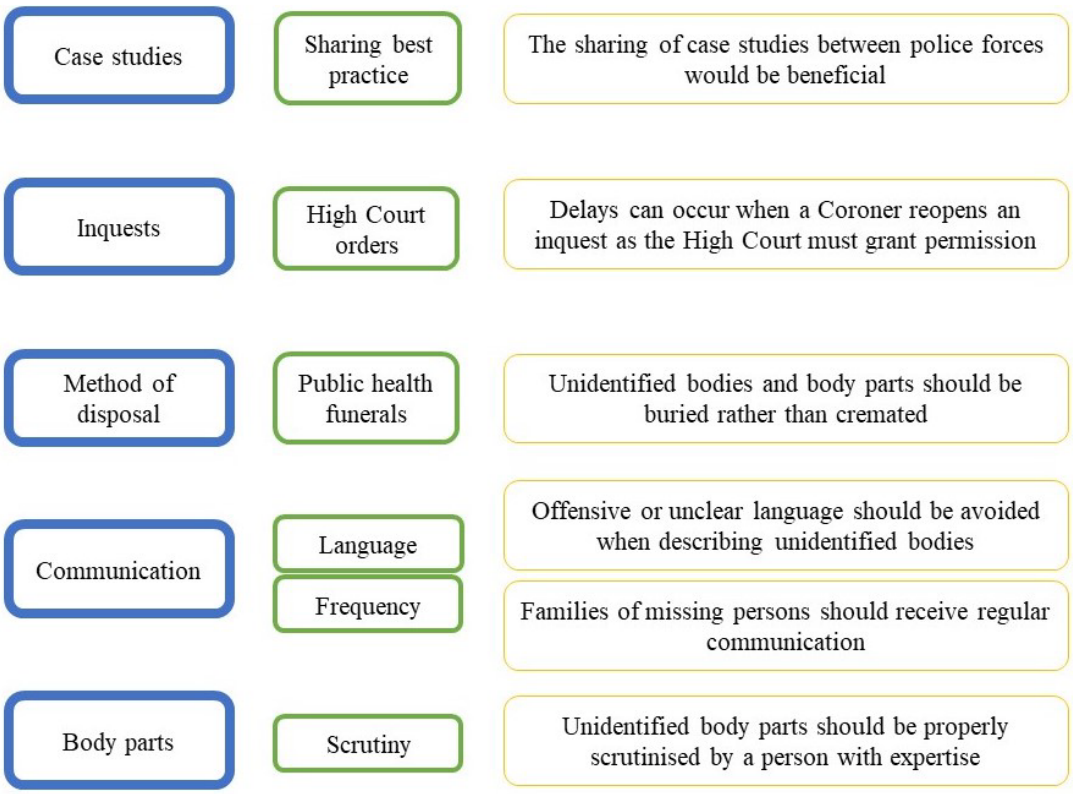

Figure 40. Thematic network of question 3 (Learning)

Appendix Five: Participant information sheet

Information Sheet

University of Staffordshire
School of Justice, Security and Sustainability
Ashley 2
Leek Road
Stoke-on-Trent
ST4 2DE

6 June 2022

Study Title:

Buried justice: A critical review into the cross-matching of unidentified bodies and missing persons reports in England and Wales

What is the purpose of the study?

The purpose of this study is to provide the first ever critical review into the cross-matching of unidentified bodies and missing persons reports in England and Wales.

Why is this study important?

The effective cross-matching of unidentified bodies and missing persons reports is vital for providing answers to families of missing persons. It also prevents people from being laid to rest nameless, aids criminal investigations and allows civil procedures to be completed. There is an evident paucity of research into the obstacles and opportunities associated with the cross-matching process. There is currently no academic literature in relation to the epidemiology of those who remain unidentified after death in England and Wales. Furthermore, little information is available in the public domain about the end-to-end process for unidentified bodies on a local, national, and international level. Therefore, this doctoral thesis will bridge these gaps and produce a basis for the development of a Code of Practice for the treatment of unidentified bodies in England and Wales.

What are the aims of the study?

• To critically review the cross-matching process of unidentified bodies and missing persons reports in England and Wales;
• To produce a basis for the development of a Code of Practice for the treatment of unidentified bodies in England and Wales.

What are the objectives of the study?

• To identify how information about unidentified bodies is obtained, recorded, stored, reviewed, cross-matched, deleted and shared on a local, national, and international level;
• To examine who remains unidentified after death in England and Wales;
• To understand the obstacles and opportunities concerning the cross-matching process;
• To produce a basis for the development of a Code of Practice for the treatment of unidentified bodies in England and Wales.

What is the methodology of the study?

The study will take a mixed-methods approach, composed of three distinct elements.

The first element will explore the findings from requests for information made to 43 police forces, 85 coroner areas, and 355 local authorities in England and Wales to answer the following research questions:

• What is the end-to-end process for the treatment of unidentified bodies on a local, national, and international level?
• How can the management of information for unidentified bodies be improved?

The second element will involve data collection and analysis from the UK Missing Persons Unit relating to a decade of solved and unsolved cases of unidentified bodies in England and Wales to answer the following research questions:

• What are the demographic characteristics associated with those who remain unidentified after death in England and Wales?
• Do the rates of unidentified deaths vary geographically or over time?
• What learning can be taken from solved unidentified cases to improve police, coronial, and local authority practice?

The third element will examine the results of the in-depth qualitative semi-structured interviews with key stakeholders including families of missing persons to answer the following research questions:

• What are the main challenges and opportunities associated with the cross-matching process?
• What learning can be taken from solved unidentified cases to improve police, coronial and local authority practice?

Why have I been invited?

You have been specifically selected to take part in the study because you are either a practitioner working on cases of unidentified bodies or you are an individual who has experience of a missing loved one or you work within the coroners' service or a local authority.

Do I have to take part?

There is no obligation to take part in the research. It is entirely up to you to decide to join the study. If you agree to take part, please sign the consent form.

What will happen to me if I take part?

You will be interviewed online via Microsoft Teams. The interview will last for no more than 30 minutes. Use of your camera during the call is entirely optional. You will be asked three questions:

1. What do you think the main challenges are for the cross-matching of unidentified bodies and missing persons reports?

2. What opportunities do you think could be considered for the cross-matching of unidentified bodies and missing persons reports?

3. What learning do you think can be taken from solved unidentified cases to improve police, coronial, and/or local authority practice?

The interview will be recorded. Your responses will be entirely confidential and anonymous. Participants will be referred to as Participant A, Participant B and so on.

Expenses and payments

There is no cost to you apart from your time. No expense, payments or incentives are available.

What are the possible disadvantages and risks of taking part?

Aside from using your time, no disadvantages are anticipated. Your identity will never be revealed in the thesis or any published material.

What are the possible benefits of taking part?

Whilst it is unlikely that you will receive any direct benefit because of taking part in the study, you will be contributing towards important academic research. The findings of the study may assist practitioners in further investigations and inform change with regards to the identification of human remains.

Will my taking part in the study be kept confidential?

Yes. Personal data will be treated in confidence. All participants will be anonymised in the study as Participant A, Participant B and so on. Any personal data collected, will be stored securely on the university OneDrive drive and on an encrypted memory stick.

What will happen if I don’t want to carry on with the study?

If up to the point of data analysis, you wish to withdraw your submission of your interview responses, this will be accepted, and your contribution will not feature in the study. It is expected that data analysis will commence in September 2022.

What if there is a problem?

If you have a concern about any aspect of this study, you should ask to speak to the researcher or their supervisors, who will do their best to answer your questions. The researcher Emma Tilley can be contacted at emma.tilley@research.staffs.ac.uk or the supervisors for this research can be contacted as follows: Professor Caroline Sturdy Colls c.sturdy-colls@staffs.ac.uk Dr John Lamb john.lamb@staffs.ac.uk and Dr Catriona Davies c.m.davies@dundee.ac.uk

What will happen to the results of the study?

The results of the research will form part of the researcher's thesis and it may also form part of a published paper or book at a later date. Aggregated findings may also be presented at relevant conferences.

Who is organising and funding the study?

The research is being funded by the researcher, which is being carried out and supervised in accordance with the University Research Ethics Policy and PhD Regulations.

Who has reviewed the study?

Research at Staffordshire University is subject to ethical review by the University Research Ethics Committee, to protect your interests. This study has been reviewed and has received ethical approval.

Contact details

You are welcome to see the results and findings once the research is complete. For any other queries, please contact the researcher in the first instance on the details given below. Thank you for taking the time to read this information.

Best wishes

Emma Tilley
Researcher
emma.tilley@research.staffs.ac.uk

Supervisors
Professor Caroline Sturdy Colls
c.sturdy-colls@staffs.ac.uk

Dr John Lamb
john.lamb@staffs.ac.uk

Dr Catriona Davies
c.m.davies@dundee.ac.uk

Appendix Six: Participant consent form

Participant Consent Form

University of Staffordshire
School of Justice, Security and Sustainability
Ashley 2
Leek Road
Stoke-on-Trent
ST4 2DE

6 June 2022

Study Title:

Buried justice: A critical review into the cross-matching of unidentified bodies and missing persons reports in England and Wales

Name of Researcher:

Emma Tilley

I confirm that I have read and understood the information sheet dated 6 June 2022 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

I understand that my participation is voluntary and that I am free to withdraw from the study up until the point of data analysis, which is anticipated to commence in September 2022.

I consent to the processing of my personal information for the purposes of this research study and understand that such information will be treated as strictly confidential and handled in accordance with the provisions of the Data Protection Act 2018.

I agree to be quoted verbatim and for my comments to be paraphrased. I understand my identity will remain anonymous.

I agree that the research project named above has been explained to me to my satisfaction and I agree to take part in this study.

I consent for the information I provide to be included in the PhD thesis ‘Buried justice: A critical review into the cross-matching of unidentified bodies and missing persons reports in England and Wales’ and subsequent publications that may arise from the study.

Name of Participant:	Date:	Signature:
Name of Person taking consent: Emma Tilley	Date:	Signature: