

CHAPTER 1

Introduction

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1.1 Introduction

Mass fatality disasters, both natural and man-made, are increasing in frequency. Extreme environmental disruptions like hurricanes, wildfires, and flooding are on the rise and in the news almost daily. Mass casualty terrorism is sadly also becoming more commonplace. In spite of improvements in technology common carrier crashes continue to take place. The COVID-19 pandemic has shown us that twenty-first-century medicine can be outmatched by a “novel” virus that does not respect national boundaries. The deaths that result from these events place a different set of needs and obligations on those charged with disaster victim identification, or DVI. In the United States during the 1980s the National Funeral Directors Association (NFDA) noticed with concern that there was no national coordinating body with regard to mass fatality events and DVI. The NFDA was the first organization to draw up plans for the handling of mass fatality victims. From their initial efforts came the Federal agency DMORT (Disaster Mortuary Operational Response Team) and the concept of a disaster morgue, marking the beginning of DVI in the United States as it is known today.

Disaster Victim Identification in the 21st Century: A US Perspective, First Edition.

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Disaster Victim Identification is the comprehensive process of human identification as applied to mass fatality events. Although by definition a mass fatality event is any situation that overwhelms local resources, we generally think of situations in which identification is hampered by the event itself and the process of recovery from the event. Human remains that have been badly traumatized, heavily decomposed, or recovered outside of their normal context are examples that would require DVI.

In 2009, after issues surfaced regarding the scientific basis for the practice of forensic science, the National Academy of Science issued a report on the state of forensic science in the United States. In response to the NAS report a movement to formulate standards within the forensic sciences began. DVI was included and the creation of standards and best practices within the field are ongoing. In 2014, responding to the 2009 NAS report, the US Department of Commerce's National Institute of Standards and Technology (NIST) established the Organization of Scientific Area Committees (OSAC) to assist with the development of these standards in the forensic sciences. In OSAC's first iteration a Disaster Victim Identification subcommittee was established to promulgate recommended standards. In 2016, the American Academy of Forensic Sciences created the American Standards Board (ASB) as a standards development organization (SDO). The ASB includes a Disaster Victim Identification Consensus Body to produce American National Standards for DVI. Using the OSAC DVI subcommittee recommendations, the ASB has to date published several standards/best practices that apply to DVI.

Although DVI may be thought of as a police function, and in most countries Interpol guidelines are used, in the United States the responsibility is left to the medical examiner and coroner (MEC), who are generally outside of law enforcement. The most current books on the subject of DVI take a European perspective, and do not directly address needs of practitioners in the United States. While DVI is carried out locally, it is by its nature under a broader governmental umbrella (i.e., based in the office of a coroner or medical examiner). At the US federal level, 15 Emergency Support Functions (ESFs) outline how the public and private sectors should respond to national emergencies. Buried in the scope of ESF#8 is the role of the Public Health Service in

disaster response, specifically in mass fatality management and DVI. Here is where standards or best DVI practices would prove highly beneficial in providing guidance to the varied agencies that may be involved in a mass fatality event.

Disaster victim identification has never been a static process. With each mass fatality event (each hurricane, plane crash, terrorist attack) comes different circumstances of recovery, the state or condition of the victim's remains, and the resulting challenges to victim identification. Even though we learn from each disaster nothing fully prepares us for the next to come. The best that can be done is to plan and train personnel for multiple scenarios, and hope that the planning and training never needs to be implemented.

1.2 This Book

This book approaches DVI from three organizational perspectives. The beginning chapters cover the background of mass fatalities and disaster victim identification, its history and the evolving scope of governmental response. The bulk of the book – the middle chapters – focuses on the nuts and bolts of DVI, the DVI morgue and VIC (Victim Information Center), and the methods used to ensure correct and proper identifications. The concluding chapters examine two less concrete elements of DVI in an MFI (Mass Fatality Incident): ethical considerations and the changing landscape of twenty-first-century MFIs.

To anyone who is a student of the past, mass fatality incidents have a long and varied history not only in the United States but the world at large. From a global perspective, we see that fortunately Americans have been spared from many of the worst recorded losses of life. This is partly due to the relative youth of our nation, its relatively small population density, and a favorable geography that has not been conducive to extreme natural events. Still, the United States has experienced its share of MFIs, as well as other disasters. Until recently, as a nation, the response of the federal government, and state governments, has been at least mainly mitigative. Responses to disasters have been direct and fiscal in nature. It was only in the aftermath of the September 11th terrorist attack that a more proactive approach to

disasters and MFIs began to take shape. The 2004 National Response Plan (NRP) and its Emergency Support Functions (ESF) highlighted the need for preparation and coordinated response to all forms of disasters, including MFIs.

Our approach to DVI was further impacted by the 2009 National Academy of Science report on the scientific basis of forensic science. Few MECs have had, or will ever have, the need to respond to an MFI. While DVI is a death investigation process it is not simply an extension of the routine operations of the MEC jurisdiction. Besides differences in the circumstances of death (e.g., the likelihood of extreme fragmentation), the MEC must contend with external inputs from the media, family and loved ones of the victims, and political figures. Conducting a DVI without a guiding framework can easily result in inconsistency, inefficiency, and the possibility of a less than adequate result. It is precisely for these reasons that the NAS report targeted the forensic sciences, of which DVI is one multidisciplinary component. This report, through various stages, led to the creation of the Organization of Scientific Area Committees (OSAC) and that in turn to the Academy Standards Board (ASB), leading to the formation of standards in the forensic sciences, including DVI. These standards, which are still being formed and undergoing review, will provide some degree of consistency and accountability in the practice in how MECs and other agencies approach DVI. However, for these standards (best practices) to be effective there must be some overriding effort to bring all of the various partners in DVI into compliance.

During the early 1980s the National Funeral Directors Association recognized the need for a coordinated effort in responding to mass fatality events. This private response to a growing concern, in part due to several airline accidents with significant loss of life, led to the formation of DMORT. With DMORT came a team approach to DVI. Following a presidential disaster declaration, it is possible for an MEC to utilize DMORT, alleviating the problems that can arise when a jurisdiction is unprepared for or incapable of responding to the MFI. In addition to a fully operational disaster morgue team, a DMORT deployment comes with a fully outfitted disaster morgue. Since the mid-1990s when DMORT was first commissioned many states have developed their own mass fatality teams (i.e., FEMORS in Florida).

Whether the mass fatality morgue is free-standing, as in DMORT, or incorporated into the MEC jurisdictional morgue, it is here that the work of DVI takes place. The mass fatality morgue is designed to be flexible, as are mass fatality teams. Together with logistical and support team members, the forensic science team members go about the process of identifying victims. Although all members of the DVI morgue contribute to victim identification, the majority of positive identification derives from odontology, fingerprints, and DNA. In the decades since the advent of DMORT, DVI has become increasingly technology driven. Where forensic odontologists once examined actual dental radiographs, the work is now accomplished digitally using software applications. Fingerprints can be scanned and uploaded to a regional or national database directly from the DVI morgue using technology no more complex than a personal cellphone. Advancements in rapid DNA processing may soon result in identifications made while the remains are still being processed through the DVI morgue stations. Together these advancements have increased the speed, efficiency, accuracy, and accountability in the identification process.

Prior to the mid-1990s the US approach to the DVI was a relatively uncentralized mix of federal and local deployed assets. On the heels of highly visible airline crashes and the terrorist attack of 2001 came DMORT, FEMA, and an ever-changing bureaucracy of the NRP and NRF (National Response Framework). The question to consider is whether our plan for the disasters of the late twentieth century is still valid for the first quarter of the twenty-first century. Currently, the MEC jurisdictions that must handle DVI vary from large urban ones with self-sufficient morgue capabilities for even the largest MFIs to small rural ones with few assets and little training to handle mass fatalities. Federal assets, like DMORT, were designed for the MFIs of the mid-1990s, i.e., transportation accidents. This model of morgue deployment has far less utility in handling other disasters, like that occurring on our southern border with the undocumented deaths of immigrants crossing illegally into the United States. Can the MEC system meet the challenges of a changing role for DVI? Add to this the contrast upgrading of technology, like rapid DNA testing, and the disparity between MEC jurisdictions becomes even more pronounced.

DVI, whether we retain the DMORT model, or some form of it, or move to a novel approach, it must be adaptable for it be relevant to the needs of the twenty-first century and the ever-changing theater of mass fatality disasters.

Interlaced throughout the chapters of this book are references to law, domestic and occasionally international. The complexity of an MFI response would be far more difficult to approach if it were not for various legislative actions like the Stafford Act, FEMA, and the National Response Framework. These mandate and make possible our ability to respond to mass fatalities and carry out DVI. State responses are more varied but also contribute to the framework of DVI. In the end, though, it is the MEC jurisdiction and its legal requirement to establish cause of death, and, in so doing, identify the deceased, upon which DVI rests.

How the dead should be treated falls under the umbrella of ethical conduct. Every person should have the right to be identified and be treated with dignity after death. A statement attributed to William Gladstone makes this point: “Show me the manner in which a nation cares for its dead and I will measure with mathematical exactness, the tender mercy of its people, their respect for the law of the land and their loyalty to high ideals.” If the recent work treating the victims of COVID-19 in New York City by DMORT are an indication, despite our country’s differences, on this we as Americans still agree.