

Fatalities Management Strategies

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State of the Art Successes in Mass Fatalities Management

There have been many defining moments in US history where the challenges of responding to mass fatality incidents have been clearly realized. The bombing of the Edward P. Murrah federal building in Oklahoma, City, the terrorist attacks in New York City and on the Pentagon on September 11, 2001, and Hurricanes Katrina and Rita along the southwest gulf coast were such moments that painted a bleak landscape of the impact mass fatality disasters bring upon US cities large and small. The recent H1N1 outbreak, with its 1918 predecessor, the Great Pandemic Influenza, created a 21st century reminder of the potential catastrophic impact an influenza pandemic could have on the nation and across the world. These pivotal events, and the anticipation of what may come, require emergency managers, public health preparedness planners, and elected officials to assess what has been accomplished in our national efforts to plan for and respond to mass fatality incidents and to prioritize the development of a comprehensive and coordinated approach to address such incidents in the future.

This country's modern day efforts to address and respond to the potential impact of mass fatality incidents began in the 1980's when a committee was formed within the National Funeral Director's Association to address disaster situations and, more specifically, incidents involving simultaneous multiple deaths. A multi-faceted nonprofit organization was eventually formed by this committee to support the concept of a national-level response protocol for all related professions. Led by Tom Shepherdson, the Disaster Mortuary Operational Response Team (DMORT) gained federal recognition in 1992 and became incorporated into the federal disaster response system within the National Disaster Medical System. This initiative resulted in the formation of ten DMORTs representing each federal region of the country. Two specialty teams – the Weapons of Mass Destruction (WMD) Team and the Family Assistance Core Team (FACT) were added later on.

While the early years of mass fatalities planning and response focused essentially on the identification and release of decedents – this focus has greatly broadened in light of our country's experience with such events. The Target Capabilities List (2007), defines fatalities management as “...the capacity to effectively perform scene documentation, the complete collection and recovery of the dead, victim's personal effects and items of evidence; decontamination of remains and personal effects (if required); transportation, storage, documentation and recovery of forensic and physical evidence; determination of the nature and extent of injury; identification of the fatalities using scientific means; certification of the cause

and manner of death; processing and returning of human remains and personal effects of the victims to the legally authorized person(s) (if possible); and interaction with and provision of legal, customary, compassionate and culturally competent required services to the families of the deceased within the context of the family assistance center.”¹ This expanded way of thinking about mass fatality response sets the stage to consider the complexities of planning for these categorical areas of response.

There have been many public and private initiatives put forth over the past decade or more to improve the ability for state and local communities to respond to mass fatality incidents. Four years after the formation of the DMORTs and following the devastating mid-air explosion of TWA Flight 800 off the coast of Long Island, New York, assistance to families of the deceased took a national spotlight. The National Transportation and Safety Board (NTSB) was tasked in 1996 by the Aviation Disaster Family Assistance Act to coordinate assistance to families of victims involved in major aviation accidents. That Act also required the NTSB to identify a human service organization to assist them in the coordination of the provision of mental health and spiritual care services for families of the victims. The American Red Cross (ARC) was designated as that agency and since that time both the NTSB and the American Red Cross have worked collaboratively to address the needs of families affected by all types of transportation disasters resulting in mass fatalities. One particular challenge is that operationally, these services should be available in the immediate aftermath of a disaster; yet many local ARC chapters and local emergency managers are unfamiliar with the provisions of this Act.

In 2000, a congressional appropriation, administered by the Centers for Disease Control, created a mechanism to form the National Mass Fatalities Institute (NMFI) located at Kirkwood Community College (KCC) in Cedar Rapids, Iowa. The NMFI’s mission focuses primarily on planning and workforce development by providing technical guidance and training at the local and state levels. KCC’s Hazardous Materials Training and Research Institute (HMTRI) also developed an online library which lists a variety of documents and other resources pertaining to the field of mass fatalities management.² Since the ending of its federal funding period in 2007, the Institute has struggled to maintain its mission and ensure that all communities across the country have mass fatalities plans and a robust and highly trained workforce to respond to mass fatality events. Even so, the Institute continues to identify alternate mechanisms of funding so that it may continue its contribution to the field of mass fatalities planning and response.

A number of work groups and sentinel documents have also been credited with furthering the field of mass fatalities management. *Providing Relief to Families After a Mass Fatality: Roles of the Medical Examiner’s Office and the Family Assistance Center*³ offers guidance on establishing a Family Assistance Center, providing emotional and spiritual support to families of the victims, and tackles the challenges of antemortem data collection. This document has been an instrumental resource in training local ARC volunteers and other potential responders at the community level.

In June of 2005, the National Institute of Justice convened a technical working group to develop the *Mass Fatality Incidents: A Guide for Human Forensic Identification*⁴. This guide was one of the first documents to address issues facing medical examiners, coroners and other forensic professionals involved in the identification of human remains resulting from a mass fatality

incident. It notes some of the critical differences between “normal fatality management” operations (i.e., responding to a motor vehicle accident with 5 fatalities) and those involving incidents with mass fatalities (i.e., terrorist attacks involving hundreds or thousands of deaths).

The release of *The Capstone Document: Mass Fatality Management for Incidents Involving Weapons of Mass Destruction*⁵, also in 2005, provided an important resource to the field in the response to domestic and international acts of terrorism. This document provides a comprehensive review of forensic issues for managing contaminated human remains of known toxic agents. Other similar resources were developed by the National Association of Medical Examiners and include *The Medical Examiner/Coroner’s Guide for Contaminated Deceased Body Management*⁶, and a document entitled the *Mass Fatality Plan*⁷ which provides technical information and recommendations for Medical Examiners and Coroners on the management of contaminated human remains.

There is also a body of knowledge that has emerged from the international theatre. The Pan American Health Organization (PAHO) produced, *Management of Dead Bodies after Disasters: A Field Manual for First Responders*⁸ in the aftermath of the 2006 Indian Ocean Tsunami. This guide for non-specialists provides guidance on managing the essential aspects of mass fatality incidents, focusing primarily on “management of the dead,” but also provides suggestions on how to support families of the victims and communicate with the media and the public. The PAHO also developed a mass fatalities checklist that serves as a template for developing a mass fatalities annex to an overall mass fatality plan⁹.

From a planning and response perspective, public health departments, both state and local, and healthcare facilities share facing considerable challenges in the aftermath of mass fatality incidents. Many are significantly under-resourced to address and respond to the complexities of such events. Two key resources have been developed in the last year to address these critical gap areas. The first is the *Los Angeles County (CA) Mass Fatality Incident Management: Guidance for Hospitals and Other Healthcare Entities*¹⁰. This guide applies mass fatality management concepts and operations to hospital settings with particular emphasis on responding to a catastrophic disease outbreak. The second is the *Managing Mass Fatalities Toolkit*¹¹, developed by the Santa Clara County (CA) public health department, a National Association of County and City Health Officials designated public health preparedness Advanced Practice Center. Toolkit materials were developed based on lessons learned from actual events, including the Oklahoma City bombing, 9/11, and Hurricane Katrina, and provide scalable, operational guidance and resources to assist local public health jurisdictions in creating a local mass fatalities plan.

The Centers for Disease Control and Prevention (CDC) have also produced numerous public health bulletins available on the Emergency Preparedness and Response section of their website (www.cdc.gov). Information for both the public and clinical audiences include such topics as traumatic stress and coping after disasters and other mass fatality incidents and technical guidance for medical examiners and coroners in biologic terrorism and response.

Additional attempts have been made to bring together subject matter experts in mass fatalities management to brainstorm and address critical, unanswered questions. A notable example is a 2006 two-day work group conference sponsored by the U.S. Northern Command in cooperation

with the Department of Health and Human Services at the Joint Task Force Civil Support (JTF-CS) headquarters in Fort Monroe, Virginia. Civilian, governmental and military met to address the myriad issues in mass fatality planning and response to an influenza pandemic. A series of White Papers were generated to lay the foundation for a national strategy for pandemic influenza fatality management. The U. S. Department of Health and Human Services (HHS) also conducted a series of teleconferences with subject matter experts to develop a Concept of Operations (CONOPS) for Fatality Management. Completed in 2007, the purpose of this CONOPS is to identify federal fatality management resources and outline procedures for their engagement during a mass fatality event that overwhelms regional, State, local, territorial, and tribal capacities.

In short, there have been many initiatives undertaken and key resources developed to address the challenges of mass fatalities management. But can these initiatives and resources be defined as “state of the art?” Are we any further along in developing a comprehensive and unified approach to fatalities management at the local, state and federal level? At best, what has been accomplished to date only scratches the surface when considering what it would take to fully and comprehensively address the complex planning challenges and response needs of a large scale, catastrophic mass fatality incident. Elected officials, emergency planners, public health professionals and a variety of other disciplines needed to carry out the multitude of tasks and activities following such an event, must give priority to developing both short and long term approaches to creating a mass fatalities management strategy that can be adopted and implemented at all jurisdictional levels.

Short-Term Opportunities

Create a National Mass Fatalities Strategy

The first short-term goal would be to call for the creation of a National Mass Fatalities Strategy. The call to establish this national priority would be directed to both the Department of Homeland Security (DHS) and the department of Health and Human Services (HHS) and require both organizations to identify agency representatives that will take the lead in coordinating the creation and development of this critical national strategy. Currently, HHS is the lead federal agency for Emergency Support Function 8, the area within the National Response Framework (NRF) that is currently responsible for mass fatalities management. ESF-8 also includes public health, medical, and mental health services, three very large and complex areas that require robust financial and human resources in order to adequately prepare the nation for its federal obligations and roles in response to disaster. DHS, which is responsible for the National Integration Center and the ‘keeper’ of the National Incident Management System (NIMS) and National Response Framework documents would support the creation of a national mass fatalities strategy by clarifying and describing the US Government’s roles, responsibilities, and authorities in mass fatalities management as described in the NIMS and the NRF.

Recently, a Fatality Management Interagency Steering Committee (FMISC), convened and facilitated by the HHS, Office of the Assistant Secretary for Preparedness and Response (ASPR), revised the CONOPs for Fatality Management in an effort to create some much needed structure for the federal government’s response to mass fatality events. While the fate of this most recent document is currently under review, it is imperative that such a resource be shared with DHS and

brought forth to create a framework for future response to mass fatality incidents. Once endorsed, this document can be used as a matrix by the two federal agencies to conduct a comprehensive gap analysis to identify areas for future research, training and technical assistance and the development of key resources in fatalities management.

Enhance Workforce Development

One of the glaring gaps identified by many subject matter experts is the lack of a fully functional workforce that is able to respond to a range of mass fatality incidents, especially in rural areas of the country. The Pandemic and All-Hazards Preparedness Act and the Homeland Security Presidential Directive (HSPD) 21 which addresses public health and medical preparedness, calls for the creation of the Federal Education and Training Interagency Group (FETIG). It is still largely unknown how this group, which is proposed to be a coordinating mechanism for public health and medical disaster preparedness and response core curricula, training, and education across Federal agencies, departments, and other stakeholders, will function, but efforts must be made to ensure that one of its roles is to address the workforce and training needs of responders to mass fatality incidents.

Currently, federal and state assets (i.e., the Department of Defense, DMORT, and the National Guard) can and will play important roles in large scale mass fatality disaster response and recovery, but local and state planners are largely unfamiliar with these roles and how they will be engaged. Once these roles are clarified, and the gaps in the available workforce identified, developing a nationally recognized training strategy to create a workforce at the state and local levels with the capacity to respond to incidents involving multiple fatalities is imperative. To date, training curricula lack evidence base and are primarily developed from the anecdotal experiences of planners and responders. In the short-term, efforts should be made to generate a comprehensive list of currently available and ‘reputable’ training curricula, with the goal of creating an ‘interim training plan or guidance document’ for local and state planners to use as a resource to train first responders and others in mass fatalities response. Longer term initiatives to establish training core competencies should be addressed by the FETIG and other invested stakeholders. Enhancing the knowledge and skill levels of a mass fatalities response workforce could also be accomplished through the creation of related drills and exercises that test and reinforce such knowledge and skills. Local, state, and national planners must build upon their current exercise scenarios in an effort to continually stretch and examine their response capabilities and capacities and integrate ‘lessons learned’ into future training and exercise opportunities. Finally, opportunity exists to require health care facilities, funded by the HHS Hospital Preparedness Program (HPP) to have robust training plans for hospital workers who may be called upon to respond to such events.

Handling Human Remains

How are we going to handle the dignified recovery, storage, identification and processing of human remains following mass fatality incidents? How much do we know about how to develop flexible and scalable ways of handling these remains when fatality numbers grow beyond ‘the hundreds’ and surge towards the “tens or hundreds of thousands?” Who has the legal authority and responsibility for handling these remains? A short term goal could include HHS convening a group of subject matter experts, both domestically and internationally known, to create a plan for the development of modeling and resource management algorithms that can inform future planning to prepare for such catastrophic disasters. Current legal authorities, mostly at the state

and local level, though not entirely, present significant challenges in the recovery, release, and interring of human remains. A comprehensive review of local, state, and federal laws and statutes must be conducted so that revisions and changes in such areas may be considered and proposed.

Enhance Family Assistance Services

The Aviation Disaster Family Assistance Act of 1996 was a key piece of legislation to address the needs of families in the aftermath of a mass fatalities incident. The Act required the provision of a range of supportive services, including psychological and spiritual, much of which are provided in Family Assistance Centers in the localities where these transportation incidents occur. Often local chapters of the American Red Cross, in collaboration with local public health departments and emergency managers are responsible for planning and ‘standing up’ these ‘mass resource’ centers. Because of competing priorities and a lack of understanding of the myriad services required within a Family Assistance Center, many local communities have not fully developed their “family assistance” plans and end up doing so haphazardly when disaster strikes. Greater recognition for the need for pre-planning for family assistance must be given and reinforced through the requirements for federal funding to agencies carrying such responsibility. Guidance needs to be provided to state and local agencies to establish family assistance services for mass fatality incidents that are not related to transportation disasters and are therefore without the mandated assistance of the NTSB and related support agencies.

Another gap area that needs to be addressed in the short run is how to provide support to victims’ families during the time it takes to set up a community-based Family Assistance Center. Many communities, particularly hospitals and other healthcare facilities are exploring ways to fill this gap. Family Reception Centers are typically located in close proximity to a mass fatality scene or in a location, such as a hospital, where the families of victims are likely to congregate. Chaplains, social workers, and other hospital support staff provide the interim information and support until a more comprehensive Family Assistance Center can be opened. However, not all hospitals are prepared to provide such services.

One opportunity to create such infrastructure is through the national Hospital Preparedness Program (HPP). Administered by HHS, the HPP program provides funding to acute care facilities to aid in disaster planning and response. Such funding should require the planning and exercising for how to resource and staff a mass fatalities family reception center. Such a plan should also include the comprehensive training of hospital personnel and community volunteer resources, such as a local medical reserve corps and address the ways in which a hospital-based center would be integrated into the larger community plan for family assistance services. All transportation hubs (airports, train stations, bus depots, cruise ship ports) across the country should also be involved in the development of these plans and exercises as it is likely that such reception centers can be opened up in these facilities to provide support to waiting family members in the event of transportation disasters.

Long-Term Opportunities

Develop National Policy

Many of the challenges in establishing a comprehensive national mass fatality plan or strategy are a result of the workings and structure of the American government. Lines of federal authority, limited funding opportunities, and out dated policies may present obstacles to putting in place an ambitious and time efficient plan for advancing the field of mass fatalities management and response. Even so, we have a moral, ethical, and practical obligation to identify and address ways to resolve such governmental barriers. Subject matter experts and other invested stakeholders, convened by public and private entities, must come together with policy makers and elected officials to address key policy areas that can bring due attention and resources to the development of a national mass fatalities management strategy. Policy implications for research, training and workforce development, establishing performance standards and metrics should be reviewed and recommended.

Secure Adequate Funding

When looking at the broad based challenges identified in this paper and the potential short and long term opportunities to address these challenges, the issue of securing adequate and sustainable funding to carry out these initiatives seems unlikely in this country's current financial climate. This is why it is even more imperative that a group of key stakeholders, to include public health economists, be convened to explore the cost of building a sustainable national mass fatalities strategy that will have quantifiable and efficacious outcomes at the local and state levels. In the interim, current funding opportunities such as those through the HHS Hospital Preparedness Program, the CDC's Public Health Emergency Preparedness (PHEP) grant program and Cities Readiness Initiative (CRI) program, and the Department of Homeland Security Grant Program (HSGP) should be reviewed to identify ways to include mass fatality planning and exercise initiatives and requirements. These funding streams should also be flexible to allow funding of organizations outside their traditional target audiences. For example, local and state medical examiner agencies are typically exempt from applying for such federal funding because they are not considered 'first responders' but are at the center of any plan for mass fatality management.

Create a National Research Agenda

Establishing an evidence base for mass fatalities management must be a national priority that is funded and resourced at levels commensurate with other such federal priorities. To date, research priorities for the field are lacking and it is not certain who currently is accountable for identifying such initiatives. One suggestion would be to task the Fatality Management Interagency Steering Committee and the FETIG with making short and long term research recommendations towards the creation of a national research agenda in mass fatalities management.

Identify Training Core Competencies

As mentioned earlier in this paper, most training curricula available to date draw upon the anecdotal experience of trainers. Lacking is a consensus on what foundational knowledge, skills, and attitudes must be in place for those responding to mass fatality disasters. Developing training core competencies that can inform the education of mass fatality disaster responders is an important first step to strengthening capacity and resiliency at the local, state and national levels. Again, this may be a role for the newly developed FETIG in collaboration with other public and private stakeholders.

Next Steps

Prioritizing the creation of a national mass fatality management strategy is critical in preparing the country to respond to large scale natural and human caused disasters involving multiple, simultaneous deaths. This strategy must include and focus on addressing the complex infrastructure needed to respond to the challenges posed by human remains recovery, the morgue and forensic operations in place to support these recovery efforts, the systems to properly track missing person information and obtain antemortem data for decedent identification and release, and the mental health and spiritual assistance services necessary to support grieving family members. While this discussion paper identifies some key agencies and organizations, public and private, that might take the lead in initiating some of these recommendations, further efforts must be taken to identify the appropriate lead source to fill the gaps identified in this critically important area.

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