

Before the Incident

Decisions made by the laboratory director during first 48 hours following a mass fatality incident are crucial to the efficiency and overall success of the DNA identification effort. Asking—and answering—the questions posed in this chapter will guide a laboratory director in preparing a response plan.

The hours and days immediately following a mass fatality incident are inevitably chaotic. The laboratory director must simultaneously address a number of issues, including responding to the diverse requests from elected officials, government agencies, the media, the victims' families, and the laboratory staff. Despite these competing pressures, the laboratory director must recognize that the decisions made during the first 48 hours will largely determine the efficiency and efficacy of the DNA identification effort.

This point cannot be overemphasized. In fact, some hasty or reactive decisions made during the initial hours after the 9/11 attacks caused management obstacles that spanned the life of the project. The best strategy for avoiding reactive management decisions is to prepare a DNA identification response plan before an incident occurs, and the best mass fatality response plans—which anticipate a potential forensic DNA identification effort—consider the humanitarian, scientific, information technology, and political factors, as well as staffing and resource requirements that will be necessary to mount a response. The laboratory's mass fatality response plan should dovetail with the plans of other agencies and departments, especially the ME's office.

Several useful processes and procedures may already exist in a forensic laboratory. For example, process mapping can be useful in improving and expanding a laboratory's capabilities, and this management tool would also benefit the implementation of a mass fatality response plan.

The following questions should be considered when formulating a mass fatality response plan for a forensic laboratory:

- Are there sufficient people, resources, equipment, and funding to support the effort?
- How will the DNA identification effort be funded?
- What agencies/departments will interact with the laboratory? Who are the points of contact?
- Which agencies/departments will be in charge of specific activities—for example, collecting reference samples, collecting disaster samples, administration of funding?
- What activities will the laboratory director be responsible for, and what activities can other agencies or departments assume responsibility for?
- How and when will the laboratory director assess the degree to which samples are compromised (e.g., fragmentation, commingling, degradation)? What metrics will be used to make the assessment?

Nothing in the history of mass fatality events prepared the forensic community for the complexity of the World Trade Center identification effort. The number of victims, the extent of remains fragmentation and deterioration, and the challenge of matching victims to relatives—the demands were tremendous. These circumstances drove forward forensic technological development that was aimed at extracting maximal genotypic information from highly compromised samples and matching the extracted data to genotypes derived from references. Without this concerted effort, the number of identified victims would have been much lower.

Benoît Leclair

One of the early decisions in the World Trade Center identification effort was to try to identify every sample. Because of the extensive fragmentation of the remains, this gave us the best chance of identifying as many missing as possible.

Robert Shaler

- How, when, and by whom will reference samples be collected?
- How will additional equipment and supplies be made available in a timely manner?
- How will staff and resources be reorganized to handle the ongoing casework and the increased casework due to the mass fatality incident?
- Who will be the point of contact with the media?
- Will the laboratory outsource DNA testing? Which testing? To whom?
- What metrics will be used to describe progress in the DNA identification effort to family members, elected officials, and the media?
- What are the information technology (“informatics”) needs for hardware, software, and technical support? How will those needs be met?

In addition to having a mass fatality response plan, laboratories can mitigate the impact of increased demands on capacity and, often, capabilities by creating tools in advance. Appendixes B through G are samples of such tools—sample collection forms, sample biological collection kit specifications, issues to consider when outsourcing to another laboratory, and a DNA information brochure for the families of victims—that may be helpful to laboratory directors. These resources are discussed in detail in other chapters of the report.

Laboratory directors who are responding to a mass fatality incident may need to consider using human resources from other agencies. The Armed Forces DNA Identification Laboratory (AFDIL), Disaster Mortuary Operational Response Teams (DMORT), and Federal Emergency Management Agency (FEMA) are three Federal agencies that often assist Federal, State, and local jurisdictions in the initial phases of a mass fatality incident response. Exhibit 2 describes these agencies and their roles. It is important that the laboratory maintain an updated chain of command and contact information for these Federal resources.

Exhibit 2: Federal Agency Roles in Responding to a Mass Fatality Incident

| Organization | Role |
|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AFDIL (Armed Forces DNA Identification Laboratory) | <p>AFDIL frequently is called on to support Federal, State, and local jurisdictions in mass fatality incidents.</p> <p>Title 10 of the U.S. Code authorizes AFDIL to participate in mass fatality incidents determined to be under Federal jurisdiction. The Armed Forces Medical Examiner is directed to conduct investigations to determine cause and manner of death for the Department of Defense (DoD) and other Government agencies. The ME can direct AFDIL to provide DNA identification services. Upon approval, AFDIL also can provide DNA identification services in non-Federal incidents. The National Transportation Safety Board and the Federal Bureau of Investigation have standing memorandums of agreement with DoD, stating that AFDIL will provide DNA identification services for their agencies in mass fatality incidents.</p> |
| DMORT (Disaster Mortuary Operational Response Teams) | <p>DMORT provides assistance at the disaster site for incidents that exceed the capabilities of State and local agencies. DMORT is part of the U.S. Department of Health and Human Services. Requests for DMORT support are made through the State/local department requesting the Federal assistance. From www.dmort.org: “[DMORT] is a Federal Level Response team designed to provide mortuary assistance in the case of a mass fatality incident or cemetery-related incident. We work under the local jurisdictional authorities such as Coroner/Medical Examiners, Law Enforcement, and Emergency Managers.”</p> <p>DMORT does not conduct DNA analysis, but it will collect DNA specimens from human remains.</p> |
| FEMA (Federal Emergency Management Agency) | <p>FEMA provides funding for the DNA identification effort, provided the incident meets its criteria for a disaster. From www.fema.gov: “The Stafford Act . . . requires that ‘All requests for a declaration by the President that a major disaster or emergency exists shall be made by the Governor [chief executive] of the affected State’ . . . As part of the request, the Governor must note that the State’s emergency plan has been implemented and the situation is of such severity and magnitude that the response is beyond State and local capability and Stafford Act assistance is necessary. The Governor shall furnish information on the nature and amount of State and local resources that have been or will be committed to alleviating the results of the disaster, provide an estimate of the amount and severity of damage and the impact on the private and public sector, and provide an estimate of the type and amount of assistance needed under the Stafford Act.”</p> |