CHAPTER 5

Managing Expectations

A laboratory director is likely to encounter unique management challenges in a mass fatality incident. Uncertainty, ambiguity, and stress are the hallmarks of the early stages of a mass fatality incident response. Also, a laboratory director will encounter new constituents: the victims' families, public officials, the media, and the general public all will have expectations about the technology of DNA analysis and the timeline for DNA-based identifications.

A laboratory director who is faced with responding to a mass fatality incident will encounter a host of new constituents, in addition to the laboratory's traditional constituents; exhibit 5 describes the constituents that a laboratory director may serve during a mass fatality incident response.

Although these constituencies seek the same outcome—the maximum number of identifications and the maximum quantity of remains accurately returned to the family—their priorities may not be the same as the laboratory's. For example, elected officials may focus on the speed of the identification process, whereas the laboratory's primary focus may be on the quality of the collection and analysis processes. Although these goals are not mutually exclusive, they may occasionally clash.

The media, which play an important role in keeping the public informed, can place additional demands on the laboratory director. During the World Trade Center (WTC) identification project, the laboratory was able to decrease media demands by widely disseminating routine information. The laboratory director's challenge is to strike a balance among the constituencies and be prepared for the high-pressure environment that is spawned by a mass fatality event.

The laboratory director must lead the staff through these challenges while continuing to ensure that the laboratory meets its charge of traditional casework and databasing. Because it is impossible to predict all the challenges of a mass fatality response, flexibility is a critical quality for the laboratory director.

As discussed in chapter 3, the first hours after a mass fatality incident are critical. If requested to do so by the ME, the laboratory director must be prepared to provide realistic timelines and information about the DNA identification effort to the families, public officials, and the media. This important contribution may require a higher level of assertiveness and exposure than is customary for a laboratory director, requiring conversations with government officials on strategic planning of the disaster response. However, no matter how unfamiliar or uncomfortable this role may be, only the laboratory director can accurately explain what is needed to ensure the most successful DNA identification effort possible.

A number of variables affect the identifications that can be made in any mass disaster event. For example, it may not be possible to obtain family reference samples or a victim's personal effects, there may be no biological offspring, or the condition of the remains may preclude successful DNA typing.

Robert Shaler

The laboratory director should assume that the public, including public officials and the media, knows little about the realities of DNA identification analysis, popular television shows notwithstanding. The public will have to be educated in order to develop realistic expectations about the speed and power of DNA testing. The public must be encouraged to understand that the nature and scope of a mass fatality disaster can affect the laboratory's ability to make DNA identifications, including the fact that some of the victims and

Exhibit 5: Laboratory Director's Constituents

Constituency	Constituency's Goals	Laboratory Director's Goals
Victims' families and friends	Receive rapid and accurate identification of loved one. Support during the grieving process.	Be available as an information source to explain the DNA identification process. Provide data and statistics to demonstrate the progress of the identification effort.
Public officials	Restore order as quickly as possible. Reassure citizens by being responsive and sympathetic. Promptly and accurately respond to questions from the public and the media.	Be available as an information source to explain the DNA identification process. Provide data and statistics to demonstrate the progress of the identification effort. Manage expectations regarding the speed and accuracy of identifications.
Media	Rapidly report on the status of all aspects of the event, including the DNA identification process.	Be available as an information source to explain the DNA identification process. Provide data and statistics to demonstrate the progress of the identification effort. Manage expectations regarding the speed and number of identifications.
Law enforcement	Secure the incident site. Support the investigation of the mass fatality incident (if applicable) while continuing to support the investigation of routine cases.	Impart clear information about sample collection and preservation. Delineate responsibilities and roles of laboratory staff and law enforcement officers for maximum efficiency and integrity of sample collection.
Laboratory staff	Support the identification effort while continuing routine casework.	Educate and orient the staff to the challenges unique to a mass fatality incident. Avoid burnout and long-term emotional effects on staff.

some of the remains may not be identified. In mass fatality incidents, fragments may be collected and analyzed, but never identified. A laboratory director's effort to frame realistic expectations and candidly discuss issues such as the limitations of the technologies can limit disappointments in the future.

The laboratory director can help officials and the public understand the identification process by collecting, monitoring, and reporting key facts and metrics. Frequent status updates to stakeholders can save the laboratory time by reducing the need to respond to ad hoc requests for information. Exhibit 6 lists the types of information that were provided during the WTC response.

The public's ultimate measure of the laboratory's performance is the number of victims identified. The importance of educating constituencies about the many steps in the analytical process is critical to reducing unrealistic expectations. Raising awareness that DNA testing takes longer—sometimes much longer—than depicted in television dramas is an important message. Using metrics such as the number of samples received

Exhibit 6: Information Provided to the Public

Metric	Description
Number of victim samples received	The number of human remains samples collected at the incident site and submitted to the DNA laboratory in a specified timeframe (e.g., twice daily, daily, weekly).
Number of samples analyzed from victims	The number of human remains samples that have been analyzed. Combined with the number of samples received, this metric provides transparency into the laboratory's backlog and shows how well the laboratory is keeping pace with the recovery effort. The public should be aware that there are several analytical steps involved in the identification of a victim. This metric could be divided into several steps—extraction, quantitation (if used), etc.— to highlight the laboratory's workloads.
Number of samples analyzed from reference samples	This metric shows that, in addition to often-damaged samples from the disaster site, the laboratory has many other samples to analyze before a reliable identification can be made.
Number of victims identified	The number of victims that have been identified by any modality.
Number of victims identified by DNA only	The number of victims that have been identified exclusively by DNA.
Number of remains reassociated with victims	Eventually, the number of fragmented human remains associated with specific victims may become an important metric. Such a metric can be used to estimate the longitudinal efficacy of the effort and help determine when the DNA identification effort ends.

and the number of samples analyzed, the laboratory director can help convey the complexity and time requirements of DNA analysis. Activity metrics can demonstrate that the laboratory is working hard and that seemingly low numbers of identifications may be attributable to factors such as the quality of the DNA from the remains or the availability of appropriate reference samples.

The laboratory director should initiate discussions with those responsible for disseminating information on what metrics will be used to describe the laboratory's progress. Without this direction, people unfamiliar with forensic DNA identification testing will use their own perceptions to measure progress and success. This could result in the laboratory being unjustly criticized about the speed and number of identifications—and this, in turn, can create a credibility gap when laboratory directors and their supervisors are asked to explain seeming "delays" or "deficiencies" in results and reports. Therefore, it is incumbent on the laboratory director to educate the various constituencies regarding what DNA information can and cannot reasonably be provided and why. To the extent possible, the laboratory director also should determine the frequency and duration of progress reports. Ideally, periodic status reports will be automatically generated by the Laboratory Information Management System (LIMS).

Mass fatality events are all about people. If the public and the families are not kept informed of the identification effort, they will lose faith in and respect for the agency that is performing the work.

Robert Shaler

Although the vast majority of victim identifications will be properly made and reported, a prudent laboratory director will be mindful of the potential for civil action—over issues such as misidentification, release of information, control

Speed versus accuracy will always be a tightrope in the identification of victims of a mass fatality event. Striking the balance was one of the greatest challenges in the World Trade Center effort. Pressure to establish working guidelines for the rapid reporting of results, while maintaining a high threshold to reduce the probability of misidentifications, was a constant concern—a concern that should be paramount throughout an identification effort.

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of remains, intellectual property—against a laboratory that is responding to a mass fatality incident. It would be prudent for the laboratory director to work closely with the agency's contracting officers and attorneys on issues such as contracts, intellectual property rights, and privacy issues, including the creation of a next-of-kin release policy.

Advance planning allows the laboratory director to design safeguards, like ensuring appropriate sample collection processes and preparing an informatics framework that can avoid sample mixups. And, since a mass fatality incident response may have a measurable impact on a laboratory's capabilities and capacity, the response plan should contain a procedure for informing—and updating—superiors on this issue.

Faced with the reality that backlogs and turnaround times may suffer during a mass fatality incident response, a laboratory director should be prepared to: (1) request additional resources (including people and equipment) early and often, and (2) justify requests with estimations of time delays should additional resources not be forthcoming.

The laboratory director will need to use numerous skills to organize and manage a mass fatality incident response. Flexibility, innovation, and creativity likely will be demanded. Mass fatality incidents intensify the routine pressures faced by laboratories and often expose the laboratory to heightened scrutiny.