

Breaking New Ground in WMD Risk Communication: The Pre-Event Message Development Project

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MANY ESSENTIAL LESSONS have been learned since the anthrax letter incidents that occurred in September, October, and November 2001. Among the most crucial of those lessons is the importance of being better prepared for the massive communication challenges posed by terrorist incidents involving unconventional agents. In such situations, time is short, the need for health advice and treatment recommendations is urgent, scientific uncertainty can be profound, and the demand for information by health departments, clinicians, the media, and the general public can be staggering. Responding ineffectively or too slowly risks creating information vacuums, rumors, inconsistencies, and confusion. These, in turn, can contribute to frustration and a loss of trust. In some situations, people may even undertake unwise or ineffective measures, potentially endangering individual health and well-being or complicating the overall situation.

The urgency of providing accurate and rapid information during an emergency presents a double challenge to organizations that combine science and government functions. Recommendations for protecting public health must be developed and cleared by scientists not only for accuracy but also for consistency with previously established and related science. Guidelines and information must be coordinated across multiple agencies and multiple levels of government that are responding collaboratively to a crisis. The time required to accomplish these goals is cut short by changing events and urgent public concerns. The reliability required for health recommendations is challenged by the uncertainty of a crisis and, often, by the novelty of the way terrorists might use hazardous substances or agents for attacks.

A crucial strategy for overcoming these obstacles is to anticipate possible terrorist scenarios and carefully develop materials before any incident occurs. Critical informational materials about unconventional terrorism

agents and scenarios, along with recommendations for protection, can be developed before a crisis. This “pre-event” message development approach provides an opportunity for careful consideration, appropriate clearance, audience research, and audience testing. During an actual emergency, the focus of attention can be on developing incident-specific information, building on the already cleared, already tested content of pre-event information. Such a proactive approach, the 2001 anthrax episode made clear, is imperative if health, safety, and emergency management agencies are to stay ahead of demands for information.

To put this approach into action, the U.S. Centers for Disease Control and Prevention (CDC) entered into a cooperative agreement in 2002 with the Association of Schools of Public Health (ASPH). The goal was as ambitious as it was urgent: to develop an armory of “pre-event” message content for a range of terrorism agents and scenarios. Schools of public health were invited to apply for this vital research opportunity, and, after a highly competitive selection process, four universities were awarded multiyear grants to develop and test audience-based weapons of mass destruction terrorism communication content. The four schools of public health were the University of Alabama at Birmingham, the University of Oklahoma, Saint Louis University, and the University of California at Los Angeles.

In the first year of the cooperative agreement (2003), the four universities and their subject matter experts partnered with CDC’s subject matter experts (including scientists and health communicators) to identify core message content for key biological agents, chemical events, and terrorist events involving radioactive materials. Given the range of potential terrorist threats facing the U.S., it was decided that work should be done on all of the major classes of unconventional threat agent: chemical, biological, radiological, and nuclear. In the chemical

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category, VX was chosen as a surrogate for a variety of highly toxic agents. In the radioactive materials category, a radiological dispersal device (“dirty bomb”) scenario was chosen as a focus, because many in the preparedness community see this as one of the more likely radiological threats. Also chosen for investigation were improvised nuclear device scenarios. Although these are seen as far less likely, it was decided that carrying out research on these scenarios could provide useful insights on a host of radiation- and contamination-related concerns. In the biological category, plague was chosen as an example of an infectious bacterial agent, and botulism was selected as an example of a biotoxin.

The first phase of the Pre-Event Message Development Project involved gathering data on the views and information needs of potential audiences. Rather than having the universities work separately, CDC, ASPH, and the four schools agreed to develop a single, unified research protocol and to work collaboratively. The aim of this joint approach was threefold: first, it enabled the four institutions to pool their data, creating a much more comprehensive understanding of the issues than four separate research efforts would have provided; second, it ensured against duplication of effort, thereby maximizing the effective use of the available funds; and third, it enabled a much more diverse set of population groups to be tapped, enabling the project team to understand the views of a wide range of ethnic, regional, and other groups.

At the same time, each of the four universities was able to draw upon and contribute its special expertise in the development of the research protocol and in analyzing and reporting information. Based on that expertise, lead responsibilities were divided as follows: radiological and nuclear terrorism, the University of Alabama at Birmingham; chemical agents, the University of Oklahoma; plague, Saint Louis University; botulinum toxin, the University of Los Angeles at California.

A total of 55 focus groups with more than 500 people were conducted across the Southeast, Midwest, Southwest, and West Coast. Forty-five of the groups were conducted with the general public. To assess cultural and other sociodemographic subtleties, focus group participants were recruited from among nine segments of the general public: Rural Caucasians, Urban Caucasians, Rural African Americans, Urban African Americans, Rural Hispanics, Urban Hispanics, Asians, Native Americans, and ESL (English as a second language). Ten of

the 55 focus groups were conducted with first responders, hospital emergency department personnel, and frontline public health workers.

In the general public focus groups, participants were asked to respond to hypothetical threat scenarios. As a result, specific information was gained on emotional responses to the threat, knowledge, behavioral response, information seeking, preferred information sources, and the adequacy of draft CDC information materials. The focus groups with responders and public health and hospital personnel used the same hypothetical scenarios, but also asked questions about professional roles and concerns. In addition, these focus groups provided feedback on draft materials prepared by the National Institute for Occupational Safety and Health, a division of CDC focused on worker safety and protection.

The results of this formative research have broken new ground in the area of WMD risk communication. The four university teams, working with ASPH, CDC, and NIOSH, have not only succeeded in shedding light on people’s views and pressing concerns related to various WMD agents and scenarios; they have also helped to identify terms and concepts used in current health and safety information sheets that are unclear, misunderstood, or confusing. Correcting the problems that have been identified, and making current messages more responsive and effective, is the immediate priority. In the next phase of the Pre-Event Project, these and related findings will be used to develop, test, and revise draft content for the web, radio, and television.

The following suite of articles summarizes critical findings related to developing audience-centered WMD communication content. In addition to representing a valuable contribution to the research literature, these articles provide important new information for local, state, and federal agencies that must prepare for, and respond to, WMD terrorism events.

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