



Roundtable on Hospital Communications in a Mass Casualty Radiological Event

Participants' Comments, Ideas,
and Recommendations

A Summary Report

Centers for Disease Control and Prevention
National Center for Environmental Health
Division of Environmental Hazards and Health Effects
Radiation Studies Branch

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Chapter I: Introduction

On January 14-16, 2003, the Centers for Disease Control and Prevention (CDC) held a communications roundtable in Atlanta, Georgia, to explore hospitals' challenges in communicating with internal and external audiences in communitywide emergencies involving radioactive materials. The roundtable, *Hospital Communications in a Mass Casualty Radiological Incident*, is part of CDC's effort to help prepare the nation's public health community for threats of terrorism.

CDC's Radiation Studies Branch (Division of Environmental Hazards and Health Effects, National Center for Environmental Health) organized the roundtable discussion. Participants included professionals from hospitals (administrators, clinicians, community planners, communications personnel, and mental health personnel); state and local emergency management agencies; professional associations; and federal, state, and local public health agencies, as well as experts in risk communications.

Objectives of the roundtable were to

- Determine needed products for improving hospitals' communications with the public and internal audiences in a mass casualty radiological event.
- Determine approaches for implementing the group's priority recommendations.
- Recommend messages or message themes for hospitals' communications with the public and internal audiences.

Over the 3 days, roundtable participants, working in small groups and plenary sessions, offered a variety of ideas and recommendations for enhancing hospitals' communications capabilities. The findings, summarized in this report, will guide CDC's work with state and local health departments in support of hospitals.

This report summarizes the participants' contributions; it represents neither a consensus of the roundtable nor the opinion of CDC and may contain errors in fact.

Chapter II: Hospital All-Hazard Emergency Preparedness

Emergency Planning

Roundtable participants identified a range of approaches for improving hospitals' mass casualty capabilities. They said hospitals should create one communications plan for all mass casualty scenarios, i.e., an all-hazards approach.

Participants said that procedures specific to radiological emergencies should be integrated with a hospital's overall emergency response plan and with processes required by the Joint Commission on Accreditation of Healthcare Organizations.

The group said that hospital emergency plans should address these issues:

- **Care for hospital employees:** In an event involving weapons of mass destruction (WMD), the staff needs to be assured of the physical security of the work environment. They also need to know that the hospital is addressing staff members' safety and well-being. Frequent communications with all internal hospital audiences is necessary. Screening may also be needed to assess how employees are affected by the stress and emotion of the situation.
- **Care for employees' families:** Establish a dependent-care plan for family members of staff. Ask staff about their families' needs. Inform staff that the hospital may need to lock down during an incident, but recognize that employees won't stay on the job if they think their loved ones are not being taken care of. Establish a separate telephone number for employees' families to call during emergencies.
- **Staff education:** Encourage professional interaction among staff and between staff and public health agencies. Offer incentives to improve staff performance in disaster preparedness. Prepare fact sheets, and use the hospital Intranet to educate staff about the clinical aspects of radiation, e.g., signs and symptoms of contamination, and short- and long-term health effects. Incorporate radiological preparedness into existing mass casualty training and educational forums.
- **Staffing:** Determine roles and responsibilities for each member of the response team.
 - Be ready to rotate communications staff during emergencies. Be aware of overload; you can't have the entire staff working at the same time. Employees need to get away from the stress once in a while to be effective when they return to the job.
 - Ask other departments, such as the billing office, to support the emergency communications function. Ask medical, nursing, and dental students to help out. Draw upon the nuclear medicine department for technical expertise.
 - Use volunteers, such as communications professionals from local universities.
- **Employee notification:** Create a checklist for notifying and recalling staff during mass casualty events. Identify all audiences in the hospital and determine how to communicate with each. In addition to medical and professional personnel, consider part-time staff, volunteers, vendors, and the board of directors. Assemble 24-hour contact information for all staff (home phones, cell phones, pagers, e-mail addresses). Determine who's responsible for calling these people.
- **Communications systems:** Implement and test redundant communications

systems. Don't rely solely on high-tech solutions for communications. Consider toll-free telephone numbers, paging systems, individual pagers, telephone chains, Intranet sites, Web sites, mass facsimiles, blast e-mail, runners, 800-megahertz radios, and ham radios. Establish a voice mail system for recording messages for staff during emergencies.

- **Physical space requirements:**

Hospitals' space requirements in mass casualty incidents include

- A place for the worried well to go, such as the general practitioner or orthopedic area (roundtable participants frequently raised concerns about hospitals being inundated with the worried well).
- A place for staff to take breaks, rest, and spend time together away from the chaos during high-stress emergencies. Encourage staff to gather in this area at the end of shifts to exchange information and share experiences.
- A "compassion center" for family members of patients to grieve in private.

- **Media relations:** Participants' recommendations included the following:

- Identify spokespersons and alternates. Consider designating a spokesperson to represent all area hospitals; this will reduce the demand on hospitals' individual public information officers and help ensure regional coordination. Identify subject matter experts within the hospital community who can participate in press conferences and handle technical media questions.
- Determine messages beforehand as much as possible. Involve the hospital's legal counsel in message development.
- Determine which issues would be most appropriate for the joint information center to address and which by the hospital. Your hospital may not want to

be a primary source of information on every topic.

- Develop plans for rumor control and for monitoring the media and public requests for information coming into the hospital. Prepare for frequently asked questions.
 - Establish good relationships with reporters. Determine which media outlets are interested in your hospital, what kinds of stories they cover, and how you communicate with them in emergencies.
- **Tracking staff:** Develop a registration system for tracking staff during emergencies. Hospitals need to be able to determine who's involved, how they're involved, and how to contact staff during the event. Hospitals may need this information for responding to inquiries from employees' families or for identifying personnel for follow-up clinical evaluations.
 - **Surge capability:** Establish a secondary assessment center (casualty collection points or congregate-care facilities) for routing people who do not need critical care during a mass casualty event.

Community Partnerships and Education

A central theme of the communications roundtable was the need for hospitals to build relationships with the community and with other hospitals.

- **Partnerships:** No hospital is an island. Emergency planning needs to occur on a regional basis.
 - Establish partnerships with other hospitals; public health, public safety, and emergency management agencies; and the American Red Cross. Determine each organization's roles and responsibilities. Develop procedures for coordinating partners' responses in emergencies.
 - Use planning meetings to identify issues and challenges. Determine partners' expectations of hospitals in mass casualty events and what services partners will provide. Develop ways for partners to communicate with each other during emergencies.
 - Establish agreements with health and emergency response agencies for handling the worried well in incidents involving WMD.
 - Coordinate planning meetings with partners with the Association for State and Territorial Health Officials, the National Association for City and County Health Officials, and similar organizations.
 - Meet with operators of nuclear power plants. Consider opportunities for sharing public education resources, e.g., nuclear facilities have people who can speak credibly about radiation.
 - Look for common interests with the Local Emergency Planning Committee.
- Coordinate planning with Citizen Corps Councils and Community Emergency Response Teams. These are community-based programs supported by the Federal Emergency Management Agency.
- **Hospital agreements:** Meet with other hospitals in the region to identify resources. Determine ways to work together in emergencies. Put agreements in writing.
 - Establish memoranda of understanding (MOUs) on the sharing of resources, e.g., patient triage procedures.
 - Establish MOUs with hospitals and the American Red Cross regarding the release of patient information. To fulfill its role relocating members of the public in disasters, the American Red Cross needs patient information from hospitals.
 - Consider approaches for sharing communications resources with other hospitals, e.g., to support facilities that are overwhelmed.
- **Area planning councils:** Georgia Emergency Medical Services (GEMA) is creating Area Planning Councils to facilitate emergency planning in the region. GEMA held a conference with hospitals and law enforcement, public safety, public health, and emergency management agencies to determine how the agencies will respond and communicate with each other in mass casualty events and how they can improve coordination.
- **Public education:** Participants recommended various means for educating the public about hospitals' emergency role in the community. Activities suggested for a communitywide campaign, "Your Hospital In Time of an Emergency" included the following:
 - Give presentations to professional organizations, community groups, and

elected officials on the hospital's role in community emergencies.

- Prepare materials on radiological preparedness and the hospital's role in mass casualty emergencies. Provide information in multiple media, e.g., print materials, public service announcements, CD-ROMs, Web sites. Use visual aids to illustrate technical concepts.
- Address the needs of susceptible populations and special audiences in the community, including non-English-speaking audiences and people with disabilities. Build relationships with organizations that represent these audiences.
- Partner with hospitals, hospital associations, and public health agencies to develop messages and materials. Provide materials to schools and community groups. Partner with the American Red Cross on community education initiatives.
- Involve the hospital's legal team in the development of communications plans and materials.

Training and Exercises

Roundtable participants strongly encouraged hospitals to work together to strengthen their training and exercise programs. Training specific to radiological emergencies, they said, should be part of an all-hazards approach.

- **Comprehensive approach:** Periodically exercise the hospital's all-hazards emergency response plan. Staff members need to practice carrying out their emergency assignments.
 - Because everyone is needed in emergencies, involve all shifts and all levels of personnel in training. Include the Hospital Emergency Incident Command, the Incident Command Center, medical staff, clinicians, nutritionists, administrators, full- and part-time employees, volunteers, cafeteria workers, and housekeepers.
 - Integrate the communications function with the hospital's emergency response plan and training program. Integrate radiological procedures with those related to other WMD.
 - Involve the media in hospital exercises. Give reporters access to department heads and emergency responders within the hospital. This will give media a better understanding of how the system works in emergencies and improve media coverage. Involve community groups and schools.
- **Community coordination:** Look for opportunities to exercise the joint information concept with area hospitals, hospital associations, and municipalities. Participate in regional and state exercises. Conducting joint drills is an effective way to meet the people who will make decisions in emergencies.
- **Equipment training:** Train staff in the use of personal protection equipment. Medical staff and clinicians need hands-on

training; administrators need basic information. Use video, an online demonstration, or print materials to demonstrate proper use of protection equipment.

- **Communications training:** Train hospital staff in risk and crisis communications. Provide media training. Take advantage of training modules developed by CDC (CDC unveiled risk communications training modules at the National Public Health Information Coalition Conference) or by other federal agencies. Offer Continuing Medical Education credits, and encourage personnel to take advantage of online tutorials.

Chapter III: Recommended CDC Initiatives

CDC Leadership

Participants' primary recommendation was that CDC provide national leadership in building hospitals' capabilities to respond to radiological or other mass casualty incidents. They agreed that CDC, as a federal public health agency, should play a lead role in forging a national consensus among the primary organizations involved in the issues discussed during the roundtable meeting.

They concluded that a consolidated national effort is needed to develop best practices, guidance, plans, training, and materials on a range of emergency preparedness and communications issues. Participants' specific recommendations are described below.

- **National consensus:** Base any new policies, procedures, guidelines, or products developed for hospitals on the issues discussed during the roundtable on a national consensus of the key players, including national hospital and professional associations, and government agencies. Participants said that hospitals get frustrated when responding organizations offer conflicting opinions. "We continue to get mixed messages," said a participant.

Participants encouraged CDC to take the lead in forging this consensus. They suggested CDC host additional national forums (building on the findings of this roundtable) involving such groups as:

- American College of Emergency Physicians.
- American Hospital Association.
- Department of Energy.
- Emergency Nurses Association.
- Environmental Protection Agency.
- Joint Commission on Accreditation of Healthcare Organizations.
- Nuclear Regulatory Commission.
- Radiation Emergency Assistance Center/Training Site.

- Society of Emergency Medicine Physician Assistants.

These organizations were recommended for partnerships related to first-responder issues:

- American Red Cross.
- Federal Bureau of Investigation.
- International Association of Chiefs of Police.
- International Association of Emergency Managers.
- International Association of Fire Chiefs.
- National Association of Emergency Medical Service Directors.
- National Association of EMS Physicians.

- **All-hazards approach:** Create a national mechanism for integrating radiological emergency preparedness products and materials into an all-hazards approach. Although the roundtable focused on radiological issues, participants emphasized the importance of integrating hazard-specific procedures and information into hospitals' overall emergency response systems.
- **Coordination with government programs:** Coordinate CDC's own counterterrorism programs within the Department of Health and Human Services and with other federal agencies. For example, CDC's terrorism work related to radiation should be coordinated with the Centers for Public Health Preparedness (CPHP), which provides professional development services to public health personnel. CPHP funds 19 academic centers at schools of public health, including message development research on public communications during terrorist events.
- **Literature/product review:** Review the literature to determine existing programs, initiatives, emergency preparedness plans,

and training products for use in materials development.

- **Financial resources:** Provide grants or identify other revenue streams for hospitals for implementing the recommendations discussed during the roundtable. Participants frequently cited hospitals' scarcity of resources.
- **Hospital staff education:** Improve skills, training, and education in disaster preparedness and radiological emergencies by offering Continuing Medical Education credits to clinicians and other staff. Collaborate with the American College of Emergency Physicians and the Emergency Nurses Association to distribute published articles, online courses, and evidence-based materials. Gather data on radiation accidents compiled by the Radiation Emergency Assistance Center/Training Site, and disseminate this information as case reports.
- **National information systems:** Establish a national clearinghouse or communications system for sharing information and data (such as the availability of beds and supplies) among hospitals, public health agencies, and first responders during emergencies. Provide real-time crisis information on a Web site or e-mail system. Link the Web site to the American Red Cross and professional organizations. Design a computerized disease surveillance system (linked to hospitals) to enhance early warning notification and hospitals' response capacities.

Guidance, Templates, and Algorithms

Throughout the roundtable discussion, participants encouraged CDC to work with national hospital and professional organizations to develop guidance for best practices, templates, and algorithms to help hospitals prepare for and respond to mass casualty radiological events.

- **Emergency preparedness benchmark for hospitals:** Establish a consensus with hospitals and professional organizations on what being a “prepared hospital” (for radiological, biological, or chemical threats) means. Establish best practices on emergency planning. Offer certifications to hospitals for meeting established criteria. Topics suggested for evaluating hospitals were

- Monitoring and detection capabilities
- Decontamination capabilities
- Personal protective equipment
- Dosimetry capabilities
- Long-term counseling services
- Laboratory capabilities

- **Best practices and guidance:** Participants offered a number of ideas and recommendations, including the following:

- Develop guidance on the release of patient information. Follow regulations established under the Health Insurance Portability and Accountability Act and by state and local agencies.
- Develop guidance (with assistance from professional associations in psychology, psychiatry, social work, public health, and other fields) on how best to address the worried well issue.
- Develop best practices for communicating with internal and external audiences during a mass casualty event.
- Work with the Department of Health and Human Services to develop a training

policy (objectives, core content, competencies) for emergency medical technicians, emergency physicians, and emergency nurses. Expand the consortium of 15 organizations originally involved in this project.

- **Algorithms:** Participants’ recommendations included the following:
 - Outline procedures for detecting and monitoring radiological substances in the emergency department and hospital.
 - Outline procedures for screening people after a radiological event and determining whom medical staff should see. Develop screening procedures for processing large numbers of people when staff is stretched and radiological detection equipment in short supply.
 - Describe medical procedures for treating victims of mass casualty events.
 - Outline procedures for managing the worried well, including how staff should interact with people arriving at the hospital, what questions staff should ask, the primary messages for the worried well, and ways staff can manage the public’s fear and anxiety.
 - Develop self-triage guidance for the public, e.g., who should stay home, who should report to a secondary assessment center, and who should report to a hospital.
- **Messages:** Develop messages and materials for communicating protective actions related to radiological, biological, and chemical health threats. Include procedures for addressing the needs of the walking wounded and worried well. (See Chapter IV: Communications Products.)

Partnership Opportunities

Roundtable participants suggested a variety of partnership initiatives. Several made commitments on behalf of their own organizations. Partnership opportunities are listed below:

- **Agency for Toxic Substances and Disease Registry:** Provides fact sheet design and content ideas; see *Medical Management Guidelines for Acute Chemical Exposures*. Visit <http://www.atsdr.cdc.gov/mmga.html>.
- **American College of Emergency Physicians:** Willing to play a lead role in coordinating future roundtables to develop core content on hospitals' emergency preparedness for WMD.
- **American College of Radiology:** Provides useful resources, including *Disaster Preparedness for Radiology Professional: Response to Radiological Terrorism*. Visit <http://www.acr.org>.
- **American Hospital Association (AHA):** Provides useful e-mails, newsletters, and listservs. Can assist in convening experts for creating crisis communication plans and emergency preparedness templates. The Professional Public Relations Society of the AHA can facilitate consensus building for crisis communications planning.
- **American Red Cross:** Has expertise in disaster messaging. Important resource for public education and materials distribution initiatives.
- **Association of Schools of Public Health:** Represents the deans, faculty, and students of the accredited member schools of public health.
- **Association of State and Territorial Health Officials:** Can help set up educational and networking forums.
- **Board of Certified Health Care Safety Professionals:** Has expertise in environmental health and safety.
- **California Emergency Medical Services Authority:** Developed the Hospital Emergency Incident Command System. Visit <http://www.emsa.cahwnet.gov/>.
- **Center for Health Care Environmental Management:** Has expertise in environmental health and safety.
- **Centers for Disease Control and Prevention Health Alert Network:** Maintains communications system for public health personnel that provides health alerts, prevention guidelines, distance learning, and national disease surveillance. Visit <http://www.phppo.cdc.gov/han/>. Also see, CDC Public Health Emergency Preparedness and Response at <http://www.bt.cdc.gov/>.
- **Center of Excellence in Disaster Management & Humanitarian Assistance:** Provides a helpful resource, *Disaster Response Principles of Preparation and Coordination*, by Erik Auf der Heide, MD, available at www.coe-dmha.org (use search engine on home page).
- **Conference of Radiation Control Program Directors:** Provides important information about radiation issues. Has Federal Response Plan responsibilities.
- **Disaster Research Center at the University of Delaware:** Is a social science research center. Visit <http://www.udel.edu/DRC/>.
- **Disasterfirst.gov:** Provides good information from the U.S. Department of Homeland Security on disaster preparedness.
- **Emergency Nurses Association:** Will assist CDC in developing clinical guidelines and training programs for physician assistants. Will continue to publish articles

in professional journals and convene national scientific conferences.

- **Federal Emergency Management Agency (FEMA):** Is developing a media course on WMD. The module will be circulated to its regional offices, and then locally.
- **Federal Radiological Emergency Response Plan (FRERP):** Covers any peacetime radiological emergency that could require a federal response. Participating agencies include the Nuclear Regulatory Commission, the Federal Emergency Management Agency, the Department of Health and Human Services, and the Department of Energy.
- **Federal Radiological Preparedness Coordinating Committee:** Comprises public affairs personnel representing such agencies as the Department of Homeland Security, the Department of Health and Human Services, the Federal Emergency Management Agency, the Nuclear Regulatory Commission, and the Environmental Protection Agency.
- **Georgia Poison Control Center:** Collaborates with other poison control centers to ensure consistency of CDC's emergency preparedness messages for the public.
- **Health Resources and Services Administration (HRSA):** Engages in hospital emergency preparedness issues. The 216 HRSA-funded emergency coordinators throughout the country can help increase awareness of counterterrorism issues. Can also facilitate CDC's involvement with hospitals by conducting pilot projects, document reviews, and emergency exercises.
- **Interagency Committee for Public Affairs and Emergencies (ICPAE):** Comprises Federal Emergency Management Agency and other federal agencies working to improve emergency communications.
- **Joint Commission on Accreditation of Healthcare Organizations:** Evaluates and accredits nearly 17,000 health care organizations and programs in the United States.
- **National Association for City and County Health Officials:** Can help set up educational and networking forums.
- **National Association of Broadcasters:** Can provide feedback on draft materials and help establish expectations and ground rules for mass casualty communications.
- **National Council on Radiation Protection and Measurements:** Provides extensive reports and resources. Visit <http://www.ncrp.com>.
- **National Hazard Research and Applications Information Center:** Is a clearinghouse for information on "natural hazards and human adjustments to hazards and disasters." Visit <http://www.colorado.edu/hazards>.
- **National Public Health Information Coalition:** Can facilitate emergency planning for hospitals. Members are certified in public health communications.
- **New York City Public Health Department:** Provides an example of a useful Web site. Visit <http://www.ci.nyc.ny.us/html/doh/>.
- **Pan American Health Organization:** Offers public services, collects health statistics, and aids in the control of communicable diseases. Provides disaster preparedness information.
- **Radiation Emergency Assistance Center/Training Site (REACTS):** Provides a 24-hour emergency response program at Oak Ridge Institute for Science and Education. Visit <http://www.ornl.gov/reacts/>.

- **Society of Emergency Medicine Physician Assistants:** Can assist CDC in increasing awareness about bioterrorism issues by distributing materials, posting Web site notices, and sending e-mail messages to members.
- **St. Louis University School of Public Health, Center for the Study of Bioterrorism & Emerging Infections:** Provides a CD-ROM series on bioterrorism agents for health care professionals. Visit <http://www.slu.edu/colleges/sph/csbei/bioterrorism/index.html>.

Chapter IV: Communications Products

Toolkits

Participants recommended creation of three communications toolkits. Although the discussion centered on radiological issues, they emphasized the all-hazards approach.

- **A pre-event communications toolkit** to help hospitals prepare for all hazards. Toolkit components could include
 - A list of public information officers and other resources in the community.
 - Guidance for training volunteers to support the hospital's mass casualty communications.
 - Fact sheets on radiation, exposure, contamination, short- and long-term health effects, self-care, clinical protocols, and decontamination.
 - Audience-specific fact sheets for hospital staff, patients, visitors, physicians, registered nurses, physician assistants, and nurse practitioners.
- **A toolkit for communicating during mass casualty events** could include
 - Message templates for media, staff, patients, the worried well, children, and the public.
 - Incident-specific information such as directions to secondary assessment centers and decontamination procedures.
 - Educational materials (e.g., videos, CD-ROMs, posters) for briefing staff on the signs, symptoms, and injuries associated with contamination, and the physical and psychosocial effects of radiation on staff, first responders, and patients.
 - Information for chemotherapy, dialysis, and other patients about suspension or relocation of regular services.
- Forms ("toe tags") for logging information about each patient entering the system, which could be distributed to command centers and other hospitals.
- A plan for helping staff cope with the psychological impact of such events. Individuals trained to help emergency department staff understand what they are about to deal with, supported by graphics or pictures of the injuries staff are likely to see.
- **A toolkit for addressing internal and external audiences' long-term needs** could include the following components:
 - Medical management guidelines, patient discharge sheets, and contact information for social services
 - Information about services being provided by the Federal Emergency Management Agency, the American Red Cross, and other organizations.
 - Reassuring messages that the hospital is open for business and operating in a safe environment.

Resource: Participants suggested using the Hospital Emergency Incident Command System (HEICS), developed by the California Emergency Medical Services Authority, as a basis for new toolkits and materials. HEICS is an emergency management system for hospitals based on public safety's Incident Command System. Visit <http://www.emsa.cahwnet.gov/>.

Emergency Information: Hospital Staff

Roundtable participants noted that although the information needs of internal and external audiences overlap, internal audiences need more detailed technical information to perform their roles in emergencies.

- **Approach:** In a mass casualty event, provide regular, truthful, and detailed updates about the event to medical staff, employees, and volunteers. Employees need to be kept informed about what's going on throughout the event. Explain what the hospital is doing to protect staff, patients, visitors, and families. Explain when more definitive information will be available. Frequent and redundant communications helps minimize distractions and keep staff focused.
- **Primary messages:** Participants suggested focusing on three message themes in staff communications:
 - *Employee protection:* Communicate that the physical environment has been secured. Provide guidance on how staff can help safeguard the internal environment. "If we're not safe and secure, how can we help anyone else?" In addition, consider the needs of employees' families in materials development. How will employees' families protect themselves? Where should they go? How will the hospital communicate with them during an emergency?
 - *Treatment modalities:* Determine how, in a radiological event, hospitals should care for patients. Inform staff about the symptoms, the issues, the best practices, and the treatment methods for pregnant women, children, and other special populations.
 - *Public health, safety, and well-being:* Determine how hospitals can help the at-

large community deal with the situation. Assess the psychological issues involved.

• **Topics for fact sheets or print materials**

- Management of forensic evidence contaminated by radiation.
- Differences between radiological and nuclear incidents.
- Interpretation of Geiger counter readings.
- Uses of potassium iodide.
- Radiation health effects.
- Treatment of radiation burns (targeting physicians, clinicians, and hospital staff).

• **Emergency response tools**

- Logbooks for controlling rumors.
- Frequently asked questions.
- Media guidelines.
- Instructions and diagrams for setting up information centers.
- Supply lists (telephones, computers, identification badges for the media).
- Contact lists.
- Status reports on other hospitals' capabilities, e.g., surge capacity.

Resource: The Agency for Toxic Substances and Disease Registry (ATSDR) developed *Medical Management Guidelines for Acute Chemical Exposures* to aid emergency department physicians and healthcare professionals who manage acute exposures resulting from chemical incidents. The guidelines address chemical exposure, potential health effects, emergency department management, and patient information. The guidelines are based on ATSDR manuals entitled, *Managing Hazardous Material Incidents*. Visit <http://www.atsdr.cdc.gov/mhmi.html>.

Emergency Information: External Audiences

Participants' recommendations for addressing external audiences' needs before and during mass casualty radiological incidents included

- **Material:** Produce a brochure or information packet describing the hospital's role in an emergency.
- **Message themes:** Address these issues in hospital communications:
 - Status of hospital, e.g., "we are receiving patients."
 - Number of patients being treated, types of injuries, general treatments, (without infringing on patients' confidentiality), number of patients released.
 - Self-triage: when to come to the hospital and when to stay home.
 - Self-decontamination (some participants believed that other organizations should be the lead source of information on this topic).
 - Self-care information for patients.
 - Hospital steps to minimize risks to staff, patients, visitors, and the public.
 - Use of potassium iodide and other "radioprotective substances."
 - Ways the public can help hospitals do their jobs well during the emergency.
 - A phone number to call for more information.
- **Crisis information:** Provide information about secondary assessment centers and referral services to enable the hospital to focus on the people who need treatment. Promote the toll-free "Disaster Welfare Inquiry" (American Red Cross), which can

handle 50,000 calls an hour. Be ready to provide the necessary information to the American Red Cross (an MOU may be appropriate). Have information ready for volunteers.

Approach to Product Development

These recommended approaches to product development apply to internal and external audiences.

- **Targeting:** Tailor educational campaigns, templates, and materials to specific demographics and to the culture(s) of the local area. Be sensitive to populations with special needs, people with disabilities, and people who do not speak English. Participants noted that the average American reads on a seventh-grade level. Use visual aids and graphics to illustrate technical concepts.
- **Psychosocial factors:** Develop materials that address the public's psychological needs in emergencies. Draw upon the learning from the terrorist attacks on September 11, 2001; the Oklahoma City bombing; and communities that have encountered major disasters. In general, it's much better to provide information than withhold it in crisis situations. People need information to make decisions.
- **Collaboration:** Develop materials in collaboration with CDC, state hospital authorities, and disaster response partners. Arrange for CDC or other credible organizations to endorse new documents. This will increase audiences' confidence in the credibility and accuracy of the science.
- **Field testing:** Test messages and new materials before releasing them.
 - Review the appropriateness of messages from a psychological or psychosocial perspective. A mass casualty radiological event could cause extensive fear and anxiety in both internal and external audiences.
 - Use focus group research to assess concepts and new materials. Test public information with audiences that are not familiar with the issues. We need to understand the perceptions and information needs of general public audiences who don't deal every day with these issues.
 - Test internal products with medical and clinical audiences. Involve the labor unions and lower-paid grade employees.

Chapter V: Participants' Written Recommendations

Priority Issues

Below are participants' written responses to the question, **What are the most important discussion topics for the meeting?**

- Pre-event, immediate, post-event, and long-term toolkits for all-hazards, endorsed by American Hospital Association, CDC, and Joint Commission on Accreditation of Healthcare Organizations.
- Conferences, funded and coordinated by CDC, for regulatory agencies and professional organizations to reach a consensus on needs for research and evidence-based best practice guidelines on disaster preparedness. The discussion should address how to expand previous efforts, such as the Department of Health and Human Services guidance document on mass casualty issues for physicians, nurses, and emergency medical service providers.
- Additional information on Community Emergency Response Teams and community response efforts.
- Recommendations for managing the worried well because ambiguous, incomplete, and incorrect information is being distributed. CDC should create definitive guidance, algorithms, and templates on WMD patient-management issues.
- Means for accessing annotated Web sites, bibliographies, demonstration projects, protocols, and other WMD materials.
- CDC's role in compiling radiation data and disseminating the information to hospitals. Solicit input from the Radiation Emergency Assistance Center/Training Site in this effort.
- Guidance for hospitals to leverage federal dollars to support training, exercises, equipment, and other components of radiological preparedness plans.
- Professional interaction at the local level. Hospitals and local emergency managers should jointly develop methods for delivering messages, utilizing resources, and developing disaster preparedness activities. Public affairs staff in health care organizations and emergency management agency representatives should meet regularly as well.
- CDC's role in the overall public health preparedness effort and the relevance of this function to local hospitals.
- Universal guidelines for all-hazards and criteria for "hospital preparedness" with consensus from appropriate professional organizations and societies.
- Stakeholders who CDC should engage in the consensus development process.
- The necessity for hospitals to actually implement disaster preparedness plans at this time because of resource and time constraints.
- CDC's potential role in creating one authority in the overall response effort using the Department of Health and Human Services provider framework.
- CDC's purpose for gathering information from the roundtable experts and plans to partner with other agencies to implement recommendations.
- Guidelines for developing and managing secondary assessment centers.

- Fact sheets describing clinical treatment directives for patients.
- Public education on risk reduction. Discussion is needed about developers of the project, delivery methods, and available resources.

Priority Materials

Below are participants' written responses to the question, **What are the most important materials to assist hospitals in communicating in a mass casualty event?**

- Telephone systems with the capacity to take thousands of calls.
- Brochures, guidebooks, and posters published by CDC about physical and mental health effects emergency department staff should expect to treat in WMD events. Publications should be designed in similar formats and specific to certain incidents, i.e., chemical, biological, or radiological.
- Desktop video conferencing technologies.
- Tools for hospitals to respond to a WMD event in immediate, intermediate, and long-term phases, including a 24-hour alert system; illustrations of signs and symptoms; a toll-free telephone number for public access; patient information; and clear instructions for hospital staff.
- Written or Web-based materials developed by CDC outlining goals, objectives, models, and best practices for solid communications during all hazards.
- Preprinted clinical treatment data with explanations of the following topics: differences between radiological and nuclear incidents; use of potassium iodide; appropriate method to interpret Geiger counter readings; treatment of pregnant women, children, and other special populations; and collective protection.
- Fact sheets and position papers developed by county emergency medical service providers and distributed to local hospitals.
- Evidence-based information sheets created by CDC.
- Workshops to coordinate efforts among professional societies and federal agencies.
- National Council on Radiation Protection and Measurements Report No. 138, particularly chapters on psychosocial aspects and communication issues.
- Standard disaster preparedness protocols from one authority that are disseminated to hospitals to train staff. Internet and Intranet links should be developed for all hospital personnel to access the protocols.
- Fliers on emergency preparedness to be posted on hospital bulletin boards.
- Media participation in disaster exercises directed by incident public information officers.
- Hazard and vulnerability analyses developed by hospitals.
- Blast e-mail messages to professional organizations describing the nature of the problem.
- Templates and guidelines to involve hospitals in the development phase of creating preparedness plans for a mass casualty radiological event.
- Contact sheets listing preselected personnel and groups to rapidly communicate with during WMD events.
- Clear and consistent messages for hospital staff and the public. CDC should coordinate the delivery of messages from appropriate agencies and groups.
- Media briefings twice per day.

Priority Recommendations

Below are participants' written responses to the question, **What are the most important recommendations for CDC to take away from the meeting?**

- Provide funding for hospitals to conduct public information activities.
 - Facilitate a regular and ongoing forum for professional organizations, health officials, regulatory agencies, federal agencies and other stakeholders to develop consensus-based policy and identify critical issues. This approach will improve hospital capacity in effectively communicating during all-hazards crises.
 - Play a major role in disseminating and coordinating clear, concise, and unified information from all federal agencies about radiological events and associated health effects.
 - Increase the visibility of CDC's role in the overall terrorism initiative by serving as the lead agency in coordinating a national radiological disaster preparedness plan.
 - Constantly and consistently serve as the health expert in chemical, biological, nuclear, and radiological preparedness, treatment and materials. Collaborate with other agencies and organizations to widely publicize CDC's role at the local level.
 - Convene partners that can collectively educate the public; coordinate the response effort; and overcome barriers to communicating and sharing information among agencies and other groups.
 - Serve as the conduit for distributing information to hospitals, health care providers and local groups during a disaster. Utilize poison centers and other partners for broader dissemination.
 - Integrate new hospital planning and preparedness initiatives into activities by
- the 19 centers CDC has funded throughout the country for public health preparedness.
 - Solicit input on human behavior and disasters from academic disaster research organizations, such as the Disaster Research Center, Natural Hazards Center, Carleton University, and West Texas University Disaster Research Center.
 - Ensure that CDC can provide leadership, information, and direction to internal and external audiences during an incident.
 - Use existing tools, models, resources, and materials whenever possible to accomplish goals of the terrorism initiative.
 - Create, endorse, and distribute biological, chemical and radiological fact sheets from the hospital perspective. Design materials for both the public and clinical staff.
 - Prepare all-hazards toolkits to strengthen hospital capacity in internal and external communications before, during, and after a WMD event.
 - Convene a roundtable and design protocols to manage the worried well in WMD events. Publish these findings in the guidance materials, and distribute the documents to hospitals and health departments.

Priority Communications Tools

Below are participants' responses to the question, **What are the most needed products to assist hospitals in communicating to internal and external audiences?**

- Hospital Online Telecommunications Video-capable Intelligence Exchange Wide-area (HOTVIEW). This redundant system allows online exchange of critical information during a crisis, with multiple modes and pathways that cannot be interrupted. HOTVIEW can be accessed from any location through a secure link and can accommodate CDC, hospitals, emergency medical service providers and other health care agencies at local and regional levels. The system can be expanded to include other groups in multiple states through an interactive video conference circuit and can be linked to existing surveillance tools. HOTVIEW transmits voices, data, and videos in real time.
- Biological, chemical, or radiological messages published by CDC on a Web site for hospital administrators, physicians, and spokespersons for use during WMD events.
- A computerized emergency notification system offering frequent hospital bulletins.
- A simple and user-friendly form or database to collect information on each patient who presents to the hospital.
- Prescribed messages and fact sheets to improve the flow of communication among hospital staff, patients, and the public.
- A uniform and encrypted radio system.
- A survey to identify hospitals' communication needs. Use findings to design, pilot, and distribute one-page guidance documents to hospital staff.
- An official spokesperson to regularly update all audiences.
- A "Disaster Preparedness Month," health fairs, or public awareness campaigns to educate the public and identify concerns about WMD events. Include
 - Emergency instructions.
 - Contact lists for community volunteers.
 - The mayor as the campaign spokesperson.
 - TV-radio-print advertisements; information in telephone books; a cell phone company promotion of a special telephone number for locating hospitals and shelters.
 - News programs on disaster preparedness.
 - Citywide mass casualty radiological drills with media presence.
 - Seminars at hospitals and health centers.
- Internet and Intranet programs that all employees at all hospitals can access.
- Prerecorded messages to play on hospital telephone systems when callers are placed on hold.
- The Community Alert Network in which a computerized telephone notification system is used to reach specific target groups or the general public.
- Television broadcasts, radio announcements, and an employees-only telephone number to inform off-duty hospital staff about changes in duty locations and work assignments during a crisis.
- Enhanced geographic information systems capacity for crisis management support and real-time satellite emergency support at the state level.
- Continued communication among CDC, state agencies, and local responders.

Appendix A: Roundtable Participants

Mr. Mark Ackermann, St. Vincent Catholic Medical Centers of New York

Dr. Steven Becker, University of Alabama at Birmingham

Mr. Thom Berry, South Carolina Department of Health and Environmental Control

Dr. Daniel Boatright, University of Oklahoma Health Sciences Center

Mr. Kevin Doolin, Methodist Hospital of Northwest Indiana

Mr. James Eastham, Valley Baptist Medical Center

Mr. John Erickson, Washington State Department of Health

Ms. Cathy Fontaine, Texas Bureau of Radiation Control

Dr. Fun Fong, American College of Emergency Physicians

Dr. Betsy Gard, American Psychological Association Disaster Response Network

Mr. Zachary Goldfarb, Incident Management Solutions

Ms. Mary Hudak, Federal Emergency Management Agency

Mr. Marlon Hunter, DeKalb County Board of Health

Mr. Don Jacks, Federal Emergency Management Agency

Mr. Dennis Jones, Georgia Emergency Medical Services

Ms. Mary Massey, Anaheim Memorial Medical Center

Mr. Stephen McGrail, Massachusetts Emergency Management Agency

Ms. Michelle Mott, Grady Memorial Hospital Emergency Department

Mr. Phil Nix, Society of Emergency Medicine Physician Assistants

Mr. Paul Penn, Environmental Hazards Management Institute

Mr. Scott Regan, Memorial Health University Medical Center

Mr. Paul Schmidt, Wisconsin Department of Health and Family Services, Radiation Protection Section

Ms. Marilyn Self, American Red Cross

Ms. Bettina Stopford, Science Applications International Corporation

Ms. Madhavi Vajani, Georgia Poison Control Center

Ms. Sheri Webster, Georgia Poison Control Center

CDC/ATSDR Representatives

Dr. Erik Auf Der Heide
Ms. Lisa Bridges
Ms. Bernadette Burden
Ms. Elizabeth Donnelly
Ms. Natasha Friday
Mr. Michael Grayson
Mr. Charles Green
Ms. Amy Guinn
Ms. Maire Holcombe
Mr. Mark Kashdan
Mr. Travis Kubale
Ms. Carol McCurley
Dr. Michael McGeehin
Dr. Charles Miller
Mr. Ed Shanley
Ms. Marie Spano
Ms. Diana Swindel
Dr. Marsha Vanderford
Dr. Robert Whitcomb
Mr. C.M. Wood

Facilitators

Mr. Michael Mills
Dr. John Parker, Science Applications
International Corporation

Conference Planners

Mr. Tom Wahle, Ogilvy Public Relations
Worldwide
Ms. Michelle Corrigan, Ogilvy Public Relations
Worldwide

Support Team

Ms. Sherry Moore, Visions USA