GRANT WATCH: REPORT

Establishing And Refining Hurricane Response Systems For Long-Term Care Facilities

The John A. Hartford Foundation was the lead funder of a Hurricane Summit to focus on the neglected needs of the elderly.

by Kathryn Hyer, Lisa M. Brown, Amy Berman, and LuMarie Polivka-West

ABSTRACT: In February 2006 the John A. Hartford Foundation funded a long-term care "Hurricane Summit," sponsored by the Florida Health Care Association. Representatives from five Gulf Coast states that sustained hurricane damage during 2005 and from Georgia, a receiving state for hurricane evacuees, attended. Summit participants evaluated disaster preparedness, response, and recovery for long-term care provider networks and identified gaps that impeded safe resident evacuation and disaster response. The meeting identified emergency response system issues that require coordination between long-term care providers and state and federal emergency operations centers. Five areas warranting further attention are presented as lessons learned and potential areas for grant making. [*Health Affairs* 25 (2006): w407–w411; 10.1377/hlthaff.25.w407]

FOLLOWING THE TRAGIC aftermath of the 2005 hurricane season, the John A. Hartford Foundation (JAHF) explored how to improve outcomes for the frailest of older adults—those living in nursing homes or assisted living facilities, generally referred to as long-term care (LTC) facilities—during future disasters. A researcher from the University of South Florida's (USF's) School of Aging Studies approached the Hartford Foundation in late 2005 with the idea of convening a Hurricane Summit of LTC provider associations from Gulf Coast states to address gaps in emergency planning systems and policies.

The JAHF, understanding the urgency of the work that needed to be accomplished before the start of the 2006 hurricane season, provided a $12,000 planning grant to the Florida Health Care Association (FHCA), in collaboration with USF, for the summit. This was supplemented by contributions of $2,500 from the American Health Care Association (AHCA), a national organization representing for-profit LTC facilities; $1,600 from AARP; and staff support from the FHCA, a federation of for-profit and nonprofit LTC providers, located in Tallahassee, Florida.

Participants in the Hurricane Summit, held in Tallahassee 27–28 February 2006, included

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representatives from LTC provider associations in Gulf Coast states (Alabama, Florida, Louisiana, Mississippi, and Texas) and in Georgia, which received nearly 3,000 hurricane evacuees in 2005; the U.S. Department of Health and Human Services (HHS); the Centers for Medicare and Medicaid Services (CMS); the Florida Department of Health; the FHCA; the AHCA; the Hartford Foundation; AARP; and USF.[1]

The Hurricane Summit had two goals: (1) to identify disaster preparedness issues and best practices and (2) to offer Florida's integration of LTC into the state Emergency Operations Center (EOC) as a model for disaster preparedness. Summit participants agreed to develop and refine disaster response systems that operate across state lines and to identify gaps between efforts of LTC providers and emergency response systems at the federal, state, and local levels. Five areas were identified for further investigation; they provide ample opportunities for grant making.

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Background

Hurricane Katrina focused national attention on the vulnerability and high mortality of elders during natural disasters. Although only 15 percent of the population in pre-Katrina New Orleans was age sixty and older, the Knight-Ridder database found that 74 percent of hurricane-related deaths were people in that age group, and nearly half of those were older than age seventy-five.[2] The deaths of thirty-four residents believed to have drowned in St. Rita's Nursing Home in Louisiana and an estimated thirty-six additional deaths in twelve more nursing homes during or in the days after Hurricane Katrina underscored the terrible consequences of insufficient preparation and inadequate response to hurricanes.[3] During all phases of this disaster (preparedness, response, and recovery) LTC providers—unlike hospitals—were not incorporated into existing emergency response systems. The deaths from catastrophic storms such as Katrina emphasize the importance of creating emergency management plans at the state and local levels that take into account frail elders living in nursing homes, assisted living residences, and senior housing.

■ **Homeland Security participation.** In 2004 the National Response Plan (NRP) was created by a Homeland Security Presidential Directive designed "to align Federal coordination structures, capabilities and resources into a unified, all-discipline, all-hazards approach to domestic incident management."[4] That plan requires an organized disaster response at the state and county levels within a unified management structure comprising fifteen Emergency Support Functions (ESFs). ESF-8, Health and Medical Services, is responsible during disasters for "public health and medical services." All state ESF-8s recognize hospitals as essential medical facilities, but few accord the same status to LTC facilities.

During the 2004 Florida hurricane season, LTC facilities initially were given the same priority as day spas for restoration of electricity, telephones, water, and other basic services. Recognizing the need to improve planning and disaster response for LTC residents, the FHCA requested that Florida's ESF-8 director establish a desk for LTC at the state's EOC. The Florida ESF-8 and the FHCA are now working to make sure that a parallel structure exists in all Florida counties.

The five other LTC associations, recognizing the need to improve hurricane response systems and regional disaster preparedness planning, agreed to participate in the Florida-hosted Hurricane Summit because the FHCA had a well-developed *Disaster Planning Guide*, which was used extensively during the 2004 and 2005 hurricane seasons. For example, in 2004 more than 10,000 Florida LTC residents were evacuated and sheltered during four major hurricanes over a forty-four-day period without a single death.[5]

■ **Regional meeting.** Recognizing the value of the Hurricane Summit to LTC organizations, the Florida ESF-8 director organized a subsequent regional meeting of hurricane-affected states' ESF-8 directors in Atlanta, Georgia, in March 2006 to create a parallel regional planning process. This meeting drew more than 100 participants, including representatives from fourteen states, the Federal Emergency Management Agency (FEMA), HHS, the CMS, the U.S. Department of Defense, and other agencies.

ESF-8 state directors articulated the need for development of standardized hurricane-response protocols. While their priority was the development of specifications for interoperable communications equipment and data systems for sharing and tracking of equipment, the directors agreed to address refinement of evacuation protocols to include LTC providers in state ESF-8 operation centers. The Hartford Foundation provided additional support for participation of FHCA, USF, and AHCA staffers at the meeting to promote LTC provider issues.

Lessons Learned And Associated Grant-Making Opportunities

Development of a unified regional plan addressing LTC in hurricane response was initiated at the Hurricane Summit and refined at the regional meeting of ESF-8 directors. In response to catastrophic storms endured by the Gulf Coast states in 2005, five areas were identified offering important opportunities for foundation grant making.

■ **Coordinating emergency management structures with long-term care services.** Few nursing home and assisted-living administrators understand the ESF structure, and few ESF-8s consider LTC facilities to be medical facilities. Because LTC facilities are not recognized as being essential, restoration of public utility services to them is not a high priority. As with hospitals, electricity is essential to LTC facilities for running life-sustaining equipment. Generators available at LTC facilities may provide short-term emergency power—typically no more than a few days—but they rarely support the full operation of air conditioning, laundry, and refrigeration.

State and local ESF-8s must include LTC representatives in EOCs for all phases of emergency management. Furthermore, during postdisaster recovery, the EOCs need data management systems that track evacuations and transfer of residents; monitor electrical, structural, and water problems; and provide updates on LTC bed availability. Opportunities exist for grantmakers to fund a discussion of respective state and local EOC responsibilities for LTC residents during disaster preparedness and research to identify and develop computer system enhancements needed to bridge EOC structures with LTC facilities.

■ **Establishing decision-making criteria and guidelines for resident evacuation.** Explicit guidelines for decision making on LTC residents' evacuation must be developed, including systematic pre- and postevent assessments of evacuations. The decision-making process regarding evacuation of LTC residents is neither consistent nor well understood. Evacuations are traumatic for frail elders and are time-consuming, when time is limited. When a nursing home administrator is ordered by local authorities to evacuate residents, the decision is straightforward. However, often the evacuation decision is left to the LTC administrator.

Decisions to evacuate are influenced by the physical location of the facility, owners, corporate managers, state and county authorities, weather reports, and staff. During Hurricane Katrina, some LTC facilities were not ordered by local authorities to evacuate, in the belief that the facility administrator would independently make the decision. Because some insurance carriers do not cover liability resulting from an evacuation if not ordered by civil authorities, many facilities waited for calls to evacuate, which never came.[6] Even when facilities were ordered to evacuate and had contracted for emergency transportation, that transportation proved unavailable during the upheaval of a mass evacuation.

Hospital evacuations are covered within the National Disaster Medical System

(NDMS), but LTC facilities are not.[7] The Louisiana legislature recently passed legislation that requires the state's Department of Health and Hospitals to review nursing homes' evacuation plans and compels the state and local parishes to assist them under certain circumstances. Details of the legislation, including sharing of costs and responsibilities, will be decided as new rules are promulgated.[8]

Because evacuation decisions impinge on various stakeholders, a grant-making opportunity exists to convene a national forum to discuss quality-of-care issues precipitated by an evacuation decision and the associated risks. Opportunities for grant making and topics to be discussed at such a forum include the following: (1) evaluation of ethics, legal issues, and liability, as well as the health risks and potential trauma to frail elders, resulting from evacuation; (2) development of methods to streamline the complex transport of residents, staff and their family members, medical equipment, medical records, disposables, food, and water; (3) education of LTC administrators, owners, and ESF-8s about evacuation decision making; (4) examination of the appropriateness of LTC facilities to shelter frail community-dwelling elders with special needs; (5) analysis of the cost-effectiveness of reimbursing LTC facilities for hazard mitigation activities; and (6) review of federal, state, and local transportation services available to LTC facilities during emergencies.

■ **Developing effective communication systems.** Telephones, computers, and other communication systems are compromised during disasters, as New Orleans health care providers will attest.[9] Planning for effective communication needs to occur before, during, and after a disaster; redundant communication systems, including ham radios and satellite phones, should be considered.

Grant-making opportunities exist for examining government and provider responsibility for communication systems for LTC residents, staff, residents' family members, and EOCs before, during, and after a disaster. Grants could also be made to LTC facilities for ham radios and satellite communication systems.

■ **Establishing resident tracking and case management systems.** Historically, "evacuation" plans have focused on sheltering in place and not on creating systems for placing residents in other facilities. In recent hurricanes, many evacuated LTC residents, lacking identification or having compromised communication ability or impaired cognition, became temporarily "lost."

Development of a universal patient-identification system, which would catalogue patient and facility information, is critical to resident care during a disaster and offers another philanthropic opportunity. A centralized tracking system, similar to the bar-code system used by shipping companies, could be developed to meet requirements of the Health Insurance Portability and Accountability Act (HIPAA) of 1996. A biometric system could be created to allow authorized health workers access to the medical records of relocated residents. The coordination effort; resolution of ethical issues; and the systems required by local, state, and federal emergency responders to track residents offer grant-making opportunities.

■ **Development and refinement of disaster preparedness guides.** Foundation support has been crucial in identifying critical gaps in hurricane preparedness and in supporting an update to the FHCA's *Disaster Planning Guide* to incorporate findings from the Hurricane Summit. This guide's main objective is to assist LTC providers in developing a comprehensive disaster procedure manual and emergency operations plan for their facilities. Role-specific guidance before, during, and after a natural disaster needs to be refined.

Grantmakers could fund the development of a computer-aided disaster planning and management system, which would facilitate the generation of disaster plans tailored to LTC providers. Similarly, grantmakers could assist in the development of a series of family guides. Research conducted by Kathryn Hyer and colleagues revealed that in addition to residents, LTC facilities evacuated or provided shelter to residents' and staffers' family members.[10] To ensure residents' safety during a disaster, family members must be made aware of

facility rules and disaster guidelines.

Other areas in need of foundation support include research on the impact of disasters and development of best practices that reduce related morbidity and mortality; and support for the drafting of model local, state, and federal legislation for better coordination of emergency responders with LTC providers and inclusion of LTC providers in emergency response systems.

Discussion

Encouraged by these initial steps toward including LTC considerations in emergency preparedness plans, the Hartford Foundation has requested a proposal from the FHCA in collaboration with USF to support the development of LTC evacuation decision models; the creation of emergency preparedness scenarios using tabletop exercises; revisions to the FHCA's *Disaster Planning Guide* to incorporate lessons learned; and disaster training and technical assistance for LTC facilities. The grant proposal, totaling more than $300,000, is to be presented to the foundation's board for its consideration in September 2006.

Although this paper is focused on work done under the JAHF's 2006 grant for identifying emergency systems issues for elders in LTC, this grant is but one of many philanthropic efforts in the aftermath of Hurricanes Katrina and Rita. The Foundation Center reported that "institutional donors," including foundations, had given $577.1 million for hurricane relief, recovery, and rebuilding as of early June 2006. Only 3.2 percent of that was donated for health needs.[11]

The Hurricane Fund for the Elderly, an initiative of Grantmakers in Aging (GIA), has raised $1.5 million from the Atlantic Philanthropies; the Robert Wood Johnson, Retirement Research, and AARP Foundations; and UJA-Federation of New York. GIA issued a call for proposals with the goal of supporting advocacy initiatives to ensure that elders' needs are addressed as Alabama, Louisiana, and Mississippi do large-scale planning and reorganization. It has received requests for funding totaling $4.5 million to strengthen the aging service delivery system in these states and is seeking additional funding partners to meet these requests.[12] GIA grants totaling $544,000 were announced 28 July 2006.

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NOTES

1. Florida Health Care Association, *Hurricane Summit Proceedings, February 27 and 28, 2006*, http://www.fhca.org/fhca/news/hartfordreport.pdf (accessed 26 June 2006).
2. J. Simerman, D. Ott, and T. Mellnik, "Early Data Challenge Assumptions about Katrina Victims," *Austin American Statesman*, 30 December 2005.
3. R. King, "Flood-Ravaged Hospitals Are Diagnosing Their Needs for This Hurricane Season," *New Orleans Times-Picayune*, 27 May 2006.
4. U.S. Department of Homeland Security, *National Response Plan*, December 2004, http://www.dhs.gov/interweb/assetlibrary/NRP_FullText.pdf (accessed 1 July 2006); and *Notice of Change to the National Response Plan*, Version 5.0, 25 May 2006, http://www.dhs.gov/interweb/assetlibrary/NRP_Notice_of_Change_5-22-06.pdf (accessed 1 July 2006).
5. K. Hyer et al., "Four Hurricanes in Forty-four Days" (Paper presented at the Gerontological Society of America Annual Meeting, Orlando, Florida, 18–22 November 2005).
6. Deborah H. Charron, Healthcare Practices Group, Seitlin Insurance and Risk Management, personal communication, 15 June 2006.
7. The National Disaster Medical System (NDMS) is a section within the FEMA Response Division, Operations Branch.
8. J. Moller, "Bill Mandates Evacuations for Elderly, Vulnerable," *New Orleans Times-Picayune*, 9 June 2006.
9. King, "Flood-Ravaged Hospitals."
10. Hyer et al., "Four Hurricanes in Forty-four Days."
11. L. Renz and S. Lawrence, *Giving in the Aftermath of the Gulf Coast Hurricanes: Report on the Foundation and Corporate Response*, August 2006, http://foundationcenter.org/gainknowledge/research/pdf/katrina_report_2006.pdf (accessed 9 August 2006).
12. Jennifer W. Campbell, Hurricane Fund for the Elderly, Grantmakers in Aging, personal communication, 20 June 2006.