Center for Biosecurity of UPMC

Hospitals Rising to the Challenge: The First Five Years of the U.S. Hospital Preparedness Program and Priorities Going Forward

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Executive Summary

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Hospitals are the backbone of the healthcare response to common medical disasters (i.e., mass casualty events that occur with relative frequency, overwhelm a single hospital, and require a communitywide health response) and, in particular, to catastrophic emergencies, such as an influenza pandemic or large-scale aerosolized anthrax attack. The need for hospitals to be prepared to respond to disasters has increasingly become a priority for hospital leaders. They have been influenced by events such as the 2001 terrorist attacks and Hurricane Katrina and the increased emphasis placed by accreditation organizations and regulatory agencies on the importance of such disasters.

Established by the U.S. Department of Health and Human Services (HHS) in 2002, the goal of the Hospital Preparedness Program (HPP)[1] is to enhance the ability of hospitals and healthcare systems to prepare for and respond to bioterror attacks on civilians and other public health emergencies, including pandemic influenza and natural disasters. Current HPP priorities include strengthening hospital capabilities in the areas of interoperable communication systems, bed tracking, personnel management, fatality management planning, and hospital evacuation planning. Past priorities include improving bed and personnel surge capacity, decontamination capabilities, isolation capacity, pharmaceutical supplies, training, education, drills, and exercises.

The HPP was initially administered by the Health Resources and Services Administration (HRSA). Congress directed the transfer of the HPP to the Office of the Assistant Secretary for Preparedness and Response (ASPR) under the 2006 Pandemic and All-Hazards Preparedness Act (PAHPA).[2] All 50 states, as well as the District of Columbia, the nation's three largest municipalities (Chicago, Los Angeles, and New York City), the Commonwealths of Puerto Rico and the Northern Mariana Islands, three territories (American Samoa, Guam, and the U.S. Virgin Islands), Micronesia, the Marshall Islands, and Palau, have received over $2 billion in HPP funding through grants, partnerships, and cooperative agreements since 2002.

In 2007, ASPR contracted with the Center for Biosecurity of the University of Pittsburgh Medical Center (UPMC) (Center) to conduct an assessment of U.S. hospital preparedness and to develop recommendations for evaluating and improving future hospital preparedness efforts. The first deliverable was the Center's *Descriptive Framework for Healthcare Preparedness for Mass Casualty Events*,[3] which is a description of the most important components of preparedness for mass casualty response at the local and regional hospital and healthcare system levels (Appendix B). *Hospitals Rising to the Challenge: The First Five Years of the U.S. Hospital Preparedness Program and Priorities Going Forward* is the second deliverable under the contract. It is the Center's assessment of the impact of the HPP on hospital preparedness from the time of the program's establishment in 2002 through mid-2007, as well as our preliminary recommendations for improving the state of U.S. hospital preparedness going forward. This evaluation report is based on extensive analyses of the published literature, government reports, and HPP program assessments, as well as on detailed conversations with 133 health officials and hospital professionals representing every state, the largest cities, and major territories of the U.S.

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1 The original name of the program was the National Bioterrorism Hospital Preparedness Program (NBHPP).

2 Public Law No. 109-417.

3 Toner E, Waldhorn R, Franco C, et al. *Descriptive Framework for Healthcare Preparedness for Mass Casualty Events*. Prepared by the Center for Biosecurity of UPMC for the U.S. Department of Health and Human Services under Contract No. HHSO100200700038C. 2008.

Key Findings

Disaster preparedness of individual hospitals has improved significantly throughout the country since the start of the HPP.

Since 2002, individual hospitals throughout the U.S. have made considerable progress in disaster preparedness. For the most part, hospital senior leadership is actively supporting and participating in preparedness activities, and disaster coordinators within hospitals have given sustained attention to preparedness and response planning efforts. Hospital emergency operations plans (EOPs) have become more comprehensive and, in many locations, are coordinated with community emergency plans and local hazards. Disaster training has become more rigorous and standardized; hospitals have stockpiled emergency supplies and medicines; situational awareness and communications are improving; and exercises are more frequent and of higher quality.

The emergence of Healthcare Coalitions is creating a foundation for U.S. healthcare preparedness.

One of the most significant factors contributing to strengthened healthcare preparedness is the emergence of Healthcare Coalitions, which, since the establishment of the HPP, have involved collaboration and networking among hospitals and between hospitals, public health departments, and emergency management and response agencies. These coalitions represent the beginning of a coordinated communitywide approach to medical disaster response. If they can continue to be developed and strengthened around the country, coalitions would logically become the foundation of a more robust national disaster health and medical response capacity, as envisioned in Homeland Security Presidential Directive 21 (HSPD-21),[1] to respond to catastrophic emergencies in which one community's Healthcare Coalition could come to the assistance of another's coalition. The HPP has played a critically important role in catalyzing the creation of these coalitions, which did not exist in most communities before the program's establishment.

Healthcare planning for catastrophic emergencies is in early stages; progress will require additional assistance and direction at the national level.

The U.S. healthcare system is not currently capable of effectively responding to a sudden surge in demand for medical care that would occur during catastrophic events, such as those described in the Department of Homeland Security (DHS) National Planning Scenarios.[2] Emergencies of this magnitude would overwhelm the medical capabilities of communities, regions, or the entire country and require drastic departures from customary healthcare practices. Such a "phase shift" in the provision of care to disaster standards would be unlike anything that has ever been done in the U.S. It also is extremely difficult to plan for because it involves the development of clinical standards of care for disasters and a process for implementing such standards, both of which raise complex clinical, legal (federal and state), and ethical issues. Most hospitals and states have begun to address this problem and have found the Agency for Healthcare Research and Quality (AHRQ)/ASPR guidance documents,[3,4] to be very useful, but none are adequately prepared. While many issues related to developing and implementing disaster standards are ultimately state responsibilities, continued national leadership and direction are essential for sustained state and local progress in catastrophic emergency planning.

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1 The White House. Homeland Security Presidential Directive/HSPD-21. October 18, 2007. http://www.whitehouse.gov/news/releases/2007/10/print/20071018-10.html. HSPDs were issued by President Bush to communicate decisions about the nation's homeland security policies.

2 U.S. Department of Homeland Security (DHS). National Preparedness Guidelines. http://www.dhs.gov/xlibrary/assets/National_Preparedness_Guidelines.pdf. September 2007.

3 Agency for Healthcare Research and Quality (AHRQ), Assistant Secretary for Preparedness and Response (ASPR). *Altered Standards of Care in Mass Casualty Events.* Prepared by Health Systems Research Inc. under Contract No. 290-04-0010. AHRQ Publication No. 05-0043. Rockville, MD: Agency for Healthcare Research and Quality. April 2005.

4 Phillips SJ, Knebel A, eds. *Mass Medical Care with Scarce Resources: A Community Planning Guide.* Prepared by Health Systems Research, Inc. under Contract No. 290-04-0010. AHRQ Publication No. 07-0001. Rockville, MD: Agency for Healthcare Research and Quality 2007.

Surge capacity and capability goals, assessment of training, and analysis of performance during actual events and realistic exercises are the most useful indicators for measuring preparedness.

The most useful metrics for measuring individual hospital preparedness were those that were clearly defined and not overly burdensome for hospitals. Useful HPP metrics included numerical surge capacity and capability goals (e.g., targets for staff, supplies, and space), training of personnel, and performance during actual events and structured exercises. Measuring individual hospital preparedness should also be based on the Joint Commission Standards for Emergency Management, which already significantly overlap with HPP guidances. Assessment of Healthcare Coalition preparedness should be based on the ability of coalitions to perform critical coalition functions, such as providing situational awareness during an event and maintaining and operating reliable and redundant communications systems.

Conclusions

The HPP has improved the resilience of U.S. hospitals and communities and increased their capacity to respond to "common medical disasters."

Prior to 2002, most hospitals did not have adequate plans to handle common medical disasters, much less catastrophic emergencies comparable to the National Planning Scenarios. Over the course of six years, the HPP has catalyzed significant improvements in hospital preparedness for common medical disasters. Hospitals have implemented communications systems, incident command system concepts, stockpiles of medicines and supplies, situational awareness tools, and memoranda of understanding for sharing assets and staff during disasters.

The HPP should focus on building, strengthening, and linking Healthcare Coalitions to lay the foundation for a national disaster health and medical response system.

The development of Healthcare Coalitions has been the single most important step toward preparing the U.S. healthcare system to respond to catastrophic disasters that require the healthcare assets of an entire region or the country. A national system of functional Healthcare Coalitions capable of responding to such disasters is unlikely to develop without further federal support and guidance. To be able to respond collectively to these types of catastrophes, the coalitions would need to be coordinated and linked with each other through a nationwide system that could effectively call upon and coordinate all necessary national assets. The development of such a system would clearly need to be integrated with existing federal and state disaster response programs and with the development of a more robust national disaster health and medical system, as outlined in HSPD-21.[1]

Administrative adjustments to the HPP could improve the program's effectiveness and efficiency.

These changes include: transitioning the HPP grant to a multi-year project cycle, where awardees would have at least two years to complete grant work; streamlining and coordinating all federal grants that contain guidance for hospitals and public health agencies; creating or adopting a healthcare-specific National Incident Management System (NIMS) training program for use by hospitals and public health agencies that participate in the HPP; and continuing to phase in the Homeland Security Exercise and Evaluation Program (HSEEP) standards for hospital exercises and drills in the HPP guidance.

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1 The White House (2007).

To prepare the nation to respond to catastrophic emergencies, HHS should provide continued leadership to assist states in their efforts to address the many procedural, ethical, legal, and practical problems posed by a shift to disaster standards and alternate care facilities (ACFs) that is required when demand for care overwhelms available resources.

Hospitals and Healthcare Coalitions are struggling with how best to prepare for catastrophic emergencies that may require a shift to disaster standards of care. While many of these issues must ultimately be addressed and resolved at the state and local levels, states continue to struggle with some fundamental issues, including developing clinical guidelines and procedural or legal frameworks for shifting to and using disaster standards. HHS should continue to provide leadership and direction on these issues by: creating a resource for planners across the U.S. to share information on approaches, guidelines, and tools for disaster standards that have been developed by states, medical experts, professional societies, and others; convening a working group specifically focused on implementing disaster standards of care and ACFs and on exploring the development of model legislation or draft executive orders that states could use as templates and adapt; and developing a comprehensive list and description of the common federal and state legal, regulatory, and reimbursement issues associated with creating and implementing disaster standards of care and ACFs to facilitate state and local level planning efforts.

Catastrophic emergency preparedness is a national security issue and requires the continued funding of the HPP.

Significant decreases in annual HPP funding levels would likely stall or impair progress in hospital preparedness and indefinitely delay the country's ability to cope with mass numbers of sick and injured individuals following catastrophic emergencies. Hospitals are already investing their own resources in preparedness. It should not be expected that they can independently maintain and improve upon their levels of readiness for events of national significance without sustained funding. Building a distinct, robust national disaster health and medical system—a national network of healthcare and public health institutions capable of reorienting and coordinating existing resources to respond to mass casualty disasters, as described in HSPD-21—will require planning, staff, supplies, equipment, time, and, in all likelihood, increases in federal funding.

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