Progress in Disaster Planning and Preparedness Since 2001

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The September 11, 2001, terrorist attacks and the anthrax letters of 2001 were followed by a decade of major domestic and international disasters. Whether wrought by terrorist attacks, nuclear or chemical incidents, rapidly moving pandemics, record-breaking hurricanes, massive earthquakes, or other natural catastrophes, deadly disasters will continue to occur, and prompt and effective response will be required when lives are at stake.

The good news is that disaster preparedness has improved during the past 10 years. For the health care community, 3 important developments are worth noting: (1) medical and public health professionals have joined the ranks of the disaster preparedness community; (2) the US federal government has increased its investment in preparedness, resulting in major improvements at the state and local levels; and (3) to an increasing extent, community participants who should be involved in disaster preparedness are getting involved.

Medicine and Public Health in Disaster Preparedness

The disasters of the past decade led to the acknowledgment that disaster preparedness and response needed to include not only the mainstream—emergency management, paramedics, police, and fire personnel—but also public health officials and other health care professionals. Public health officials were recognized as critical because of their expertise in investigating and responding to disease outbreaks, knowledge of postdisaster health risks, and ability to communicate and respond to safeguard the public’s health in crisis. Health care professionals were recognized as crucial to hospital preparedness, planning for medical management of mass casualties, and preparing for the care of injured, contagious, or contaminated patients.

Public health preparedness has become a critical part of federal, state, and local public health programs. Hospital disaster preparedness planning has become an important effort mandated by Joint Commission guidelines and run by dedicated professionals. Public health agencies that were antiquated and disconnected in 2001 now have information technology systems and communication networks. Fiercely competitive hospitals have found ways to work together, share information, and coordinate resources.

The value of these efforts has been repeatedly demonstrated, most recently during Hurricane Irene. Preparedness planning enabled safe and efficient evacuations of more than a million people from many communities on the East Coast. In New York City alone, more than 1000 patients from 5 hospitals and 9000 residents of nursing homes were safely transferred to other facilities. Without active engagement of the medical and public health communities in disaster planning, efforts like these would not have been possible.

New Investments and Ideas

Since 2001, the federal government has introduced new programs to support disaster planning and preparedness. The Federal Emergency Management Agency (FEMA) has provided funding for multiple programs (eg, regional catastrophic planning, the Urban Area Security Initiative, and the Metropolitan Medical Response System) that has enabled cities to improve communication and training, purchase essential equipment, engage in regional planning, and conduct preparedness exercises. Funding from the Centers for Disease Control and Prevention to increase preparedness of public health departments around the country has built capacity in many ways, including an increased number of trained experts and effective laboratories, improved surveillance programs, functioning information technology systems, and 24/7 response time to epidemics and disasters. Grants for hospital preparedness have created functioning consortia of hospitals and health departments that have helped improve important measures of hospital preparedness.

These investments have been accompanied by important new trends in disaster preparedness and planning. One development has been a stronger emphasis on pursuing an “all hazards” approach to disaster preparedness, which provides a standard, systematic way to prepare for a wide range of disasters. Medical and public health professionals have adopted the principles of all hazards planning, including, for example, the need for incident command, communication planning, volunteer coordination, and medical surge capacity strategy.

Federal efforts, in conjunction with expert discussions and initiatives at the local and hospital levels, also have helped to...
spur new crisis standards of care and plans for provision of medical treatment when there are not enough resources to care for all. This type of desperate situation occurred in New Orleans after Hurricane Katrina in 2005 and in Haiti after the massive earthquake of 2010. Until recently, discussions about rationing care and resources were taboo, but now such planning is recognized as essential for disaster preparedness.4

Engagement of the Community in Disaster Response

Before 2001, disaster planning in the United States often started with the assumption that the public would panic in a crisis, act irrationally, and have to be controlled, possibly with force. As evidence to the contrary mounted, judgments and perceptions about the public response shifted. It became clear that most people think rationally in a crisis and help themselves, families, neighbors, and even strangers. It also becomes evident that what people need from leaders and the emergency response community is good information.5 As a result, disaster planning began to appropriately place priority on informing the public about ways to help and protect themselves.

Disaster planning has increasingly appreciated the value of volunteers, and crisis volunteer programs have been established or expanded. For example, citizen Community Emergency Response Teams (CERT) now exist around the country to train people in disaster response: what to expect, how to prepare, how to do the greatest good for the greatest number, and how to organize teams to help survivors. Most recently, CERT volunteer teams showed their value in preparedness and response in communities all along the path of Hurricane Irene. The program’s goal for the next 2 years is to have trained 400,000 or more people.6

Moreover, FEMA has set forth a valuable new “whole community” approach to emergency management. It is built on 3 key principles: meeting the needs of the entire affected community; engaging all aspects of the community (public, private, and civic); and, strengthening assets, institutions, and social processes to improve resilience.7 If successful, one result will be even greater community participation, with businesses, civic organizations, faith-based organizations, and other community-level organizations fully integrated in disaster planning processes.

Progress Still Needed

Although management of more common natural and smaller disasters has improved, less progress has been made in preparedness for catastrophic disasters, such as a nuclear detonation or a widespread bioterrorist attack. The disaster response community needs to find more effective ways to prepare for these types of catastrophic events, because large numbers of lives could be saved through advance planning.

Another area in which continued progress is needed is in the effective use of new technologies in disaster response.8 Many have already proved quite valuable. For instance, Facebook and Ushahidi (free software developed in Kenya that helps people share information during a crisis) were valuable in the massive earthquakes in Haiti and Chile and the tsunami in Japan. Members of the public used Twitter and Flickr during the Mumbai attacks in 2008. In the aftermath of the tsunami in Japan, a Google application helped find missing persons. Smartphones have been used to locate people in the rubble of earthquakes. The US government is improving its ability to provide lifesaving information with these tools. However, as seen in recent exercises and real events, disaster response officials often do not have the capacity to manage or effectively act on incoming information they receive from the public via these channels.

Commitment to a stable level of investment in disaster preparedness at the federal, state, and local levels is needed. Recently, however, substantial reductions have been made in important areas: since 2002, public health preparedness grants from the Centers for Disease Control and Prevention have been reduced by nearly $200 million (20%), and the grants for hospital preparedness have been reduced by more than $100 million (25%).9 The gains of the last 10 years are now at risk with this decreased funding and will be further threatened if resources continue to decline. Given the frequency of disasters and the demonstrated value of preparedness efforts to cope with them, disaster preparedness should be prioritized and funded at the levels necessary to maintain and strengthen response capacity.

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