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Disaster Recovery Also Involves Human Recovery

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With mounting costs and consequences of the Deepwater Horizon oil spill in the Gulf of Mexico and with increasing feelings of hopelessness and depression among those most severely affected,1 questions emerge about how the affected communities will recover. Also questioned is how long recovery—physical, psychological, and social—will take. Answering these questions assumes a realistic and robust plan for recovery. However, the United States does not yet have such a plan, or the requisite capabilities to put a recovery plan in motion.2

After the terrorist attacks of September 11, 2001, and Hurricane Katrina, the United States invested more than $5 billion for local health departments and hospitals to plan for and respond in the acute phase of a disaster, but only now is the country discussing the length, cost, and complexity of recovery. Emergency planners in the public and private sectors have plans for restoring physical infrastructure, but have given comparatively little thought to the equally compelling issue of human recovery—that is, how to restore the psychological health of communities and their residents. Given the recent frequency of disasters, and the heavy burden borne by Gulf Coast states, it is startling how little progress has been made in developing systems that strengthen community resilience and accelerate recovery.

The Draft National Disaster Recovery Framework3 outlines core components of recovery but focuses primarily on infrastructure. Critical gaps persist in the capability to coordinate, implement, and finance both infrastructure and human recovery. If the United States continues to focus on one aspect and ignore the other, the nation will have learned little from the lessons of the past 9 years. Furthermore, unless the United States examines and plans for the psychological consequences of these disasters, the nation will be left with communities struggling to address acute and chronic health issues while trying to rebuild.

Insights From Recent Disasters

The United States can improve disaster recovery only by acknowledging that recovery requires attention to restoring both human needs and infrastructure needs. Previous work with recovering communities has generated the following insights.

First, no one is really in charge of the human side of recovery following a US disaster. National leaders at the White House, the US Department of Health and Human Services,4 and the US Federal Emergency Management Agency are piecing together plans for recovery. However, in contrast to the elaborate plans and systems to promote recovery of vital infrastructure, there are no guidelines on who should do what to restore the psychological health and social functioning of a community. Although much of this recovery work is performed by local nongovernmental organizations, there is confusion about how the federal and state government and nongovernmental organizations should coordinate to marshal resources and provide continuity of care.5

Second, the US policies that do exist presume that disasters are discrete periods, and the United States simply can activate the same recovery plan for each event. Disaster planning, response, and recovery are not linear processes with clear transitions from one phase to the next. Recovery is a long and uncertain process with no clear beginning or end. Progress toward recovery is slowed by multiple incidents; for example, states along the Gulf Coast that are still struggling to recover from hurricanes Katrina and Rita are now responding to the oil spill. Competing priorities make it difficult to assign dedicated resources in communities that are in the response or recovery phase of multiple incidents simultaneously.

Third, individuals with more health and social vulnerabilities have more difficulty with recovery. Individuals with disabilities or chronic health conditions or those who were socially isolated during Hurricane Katrina are still struggling to find permanent housing, adequate health care, and economic stability 5 years later.6 Although some progress has been made in identifying and mapping vulnerable populations, the United States has not done enough to ensure that these individuals have the critical capabilities to successfully recover.

Fourth, more effort is needed to lessen the psychological strain of recovery. Daily routines are disrupted by disaster. The resulting loss of family and peer networks increases the negative effects of disaster stress.7 In settings affected by sequen-
tial disasters, the psychological harm may be multiplicative—extending the timeline for human recovery from weeks or even years to over a generation. The psychological effects of disaster often persist far beyond infrastructure redevelopment.

Fifth, there is not a reliable way to project the length and cost of human recovery. Although Kates and Pijawka estimated that long-term recovery takes 10 times longer than disaster response, their estimate does not account for psychological effects. This underscores a critical problem that communities do not know how long physical and psychological recovery takes or how much it will cost, making it difficult to estimate appropriate resources.

**Developing a Systematic Approach for Human Recovery**

The United States has enough disaster experience to inform the development of a system for human recovery. A credible and coordinated system would ensure continuity of health and social services for long-term recovery. To achieve this system, policy makers and health care professionals need to take the following steps.

First, define health and human recovery. The United States must establish a common definition that identifies the indicators of community resilience, including benchmarks for a population’s health when the community has to start over and plan for new demography and new infrastructure. This information would help communities continuously monitor recovery. Physicians should be part of this discussion to identify the health metrics of recovery.

Second, estimate the cost of human recovery. A human recovery algorithm would provide a per-person accounting of what is needed for health (eg, primary care, behavioral health care) and social services based on a community risk profile.

Third, use mapping tools to identify and treat individuals with health and social vulnerabilities. Disaster planners should know the locations of neighborhoods with concentrations of vulnerable residents (eg, those who are chronically ill), and some of this information can be gleaned by working with health care professionals. A vulnerability index that captures predisaster health and social service needs could be used to estimate resources, manage expectations for the length and outcomes of recovery, and account for communities affected by a disaster (eg, oil spill) while still recovering from an earlier disaster (eg, hurricane).

Fourth, promote resilience. The United States needs to take steps to create an integrated community plan to bolster psychological resilience and improve community members’ ability to cope with stress. Research has identified factors related to psychological well-being, but the United States has not adequately engaged behavioral health professionals to test interventions that enhance psychological resilience. Physicians should use clinical encounters to consult with patients about their recovery plans (eg, appropriate supply of medicine, access to family and peer networks).

Although many health care professionals volunteer to help during acute response, there are no clearly defined roles or national guidance to ensure delivery of needed services over the long term. Health professionals must be engaged in the recovery process to ensure that patients obtain physical and behavioral health services to manage the stress of recovery as communities are rebuilt; link patients with related social services that will facilitate human recovery; and collaborate with other community responders in recovery monitoring by providing aggregate data on patient well-being.

The American College of Emergency Physicians recently developed national standards for all-hazards disaster core competencies, but those standards largely focus on response rather than recovery. More attention is needed to ensure patient tracking through the recovery period, to engage primary care physicians, to address clinical considerations related to recovery stress, and to foster linkages with nongovernmental organizations in recovery service delivery.

**Conclusion**

The massive Deepwater Horizon oil spill in the Gulf of Mexico is the latest in a series of disasters. It is particularly tragic that the same region that experienced the worst natural disaster in US history now contends with the most severe man-made disaster the nation has seen to date. If this stiffens the resolve to put realistic plans in place to promote human recovery from disasters, some small measure of good may come from this terrible event.

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