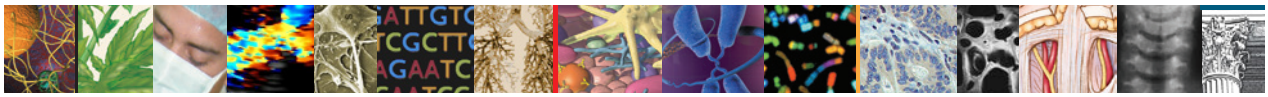

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Perspective

Creating Healthy Communities after Disasters

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Recently, our country's heart was broken by the devastation wrought by three hurricanes affecting several U.S. states and territories. These tragedies remind us that natural disasters happen frequently and that no community is immune to them. Each year, the United States experiences approximately 60 presidentially declared major disasters, and billions of dollars are spent on recovery.[1] We believe these disasters should serve as a vivid call to action for health and social service professionals to work collaboratively with other key stakeholders to ensure that their communities have engaged in the disaster planning necessary to mitigate health challenges, respond to the immediate effects, and — too often overlooked — prepare for the longer-term recovery and rebuilding efforts required for infrastructure to support the health and welfare of all community members.

Regrettably, most U.S. communities are not as healthy as they could be.[2] It is disappointing that despite the billions of dollars associated with disaster recovery, the goal of using these resources to rebuild communities that are healthier than they were prior to the disaster is not often realized. To address this deficiency, in 2015, the Department of Health and Human Services (HHS), in partnership with the Federal Emergency Management Agency (FEMA), the Department of Veterans Affairs, and the Department of Housing and Urban Development, commissioned the National Academy of Medicine (NAM) to recommend actions that would optimize health recovery after disasters. NAM's report, *Healthy, Resilient, and Sustainable Communities after Disasters*, revealed that communities that were forced to rebuild roads, houses, grocery stores, health care institutions, parks, and other critical elements of their infrastructure too often faced a lack of coordination between disaster-response officials and their counterparts in health and social services. As a result, funding resources that could have supported rebuilding efforts that also contributed to improving long-term community health status have been used suboptimally. This disconnect diminishes the capacity of communities and individuals to bounce back from disasters and misses the opportunity to enhance the infrastructural elements necessary for its residents' best achievable health.

On the basis of the findings of the NAM report (key recommendations relevant to public health, clinical care, and human service professionals are listed in the box) and our own experiences, we offer the following recommendations for health and social service professionals to translate the compassion generated by the aftereffects of the recent hurricanes into

Key Recommendations from the National Academy of Medicine Applicable to Health and Social Services Professionals.

- Engage with public officials and community leaders to develop and incorporate a healthy community vision into disaster-recovery planning activities.
- Engage with public officials to advocate for the training and support necessary for integrating health considerations into recovery decision making through the National Disaster Recovery Framework. Such officials should include those involved in housing, transportation, the environment, and public safety.
- Engage with leaders of the community's social networks to enhance programs designed to increase resilience and trust among community members.
- Engage with public officials and health care stakeholders to enhance local health information technology infrastructures, analytic capabilities, and pathways for health information to continuously inform the process of recovery decision making, and then develop indicators to track progress.
- Behavioral health professionals should engage with local officials to develop behavioral health strategies that can be integrated into overall health disaster planning and that are appropriate for population-level health recovery.
- Social services professionals should engage with local officials to develop an integrated social services recovery framework that coordinates faith-based and other community social service organizations.

tangible actions applicable to their own communities.

First, before a disaster occurs, we would urge clinical and public health professionals to partner with their community's stakeholders to outline a holistic shared vision for health that is informed by a critical assessment of the current health of the population and pertinent community-level risk factors. Since the delivery of medical care itself, though of great importance, has been estimated to contribute less than 15% to a population's health status,[3] this shared vision should lead to a locally based prioritization of the comprehensive social and clinical elements that determine a community's healthiness. These include housing, transportation, recreational and exercise resources, environmental threats, nutritional status and food availability, adequacy and quality of the clinical care and human service infrastructures, the resilience of community residents, and the strength of social networks, among other factors.

Health Resources in Action (HRiA), a Boston-based public health institute, provides a useful consensus definition of a shared vision for health as "one in which a diverse group of stakeholders collaborates to use their expertise and local knowledge to create a community that is socially and physically conducive to health." In such a collaboration, notes HRiA, the "community members are empowered and civically engaged, assuring that all local policies consider health. The community has the capacity to identify, address, and evaluate their own health concerns on an ongoing basis, using data to guide and benchmark efforts." Ideally, such a vision leads to a community that "is safe, economically secure, and environmentally sound, as all residents have equal access to high quality educational and employment opportunities, transportation and housing options, prevention and healthcare services, and healthy foods and physical activity opportunities."[4]

Second, assessments of what is needed to achieve a maximally healthy community can then be integrated into the hazard and vulnerability assessments routinely undertaken by disaster-preparedness officials, thereby ensuring that a community's health infrastructure needs are intimately connected with local comprehensive disaster-planning goals, resources, and efforts. Since the release of the NAM report, we have observed a persistent lack of recognition by health professionals of the importance of reaching out to the disaster-planning community, which remains entrenched in existing disaster-planning models. We would urge health and clinical leaders to initiate this outreach to local disaster-preparedness officials now, before a disaster hits their community. As the NAM report noted, "Tensions inevitably arise between the need to restore infrastructure and a sense of normality as quickly as possible and the desire to leverage the recovery process as an opportunity for community betterment. Without a preexisting vision and associated goals, reactive decision making early in the recovery period may severely limit the range of options for betterment during later recovery phases."[1]

In addition, the sheer complexity of the patchwork of funding pathways made available through the federal government's National Disaster Recovery Framework — a key guide for coordinating and funding the national response to disasters, including resources from HHS, FEMA, the Department of Transportation, the Environmental Protection Agency, and the Centers for Disease Control and Prevention[5] — makes predisaster-planning collaborations imperative. We offer as a useful model the Cedar Rapids, Iowa, strategy, which used a community-engagement process involving thousands of commu-

nity residents led by the city council and manager, prior to the devastating flood of 2008. Together, they developed a shared community vision and established a systems approach to government operations that included strategic, financial, and operational planning. As a result, it was possible for the community to come together shortly after the flood to develop the Cedar Rapids Flood Recovery and Reinvestment Plan to rebuild as a better and safer place to live; this has become a model for other communities.[1]

Third, in communities currently responding to and recovering from the effects of hurricanes, it is imperative for public health and clinical leaders to rapidly gather and analyze credible existing community health assessments and deliver them to political and public-disaster officials as the process shifts from the disaster-response phase to the longer-term, expensive, and complicated recovery phase. Important lessons can be learned from the Rutgers Planning Healthy Communities Initiative, which used health impact assessments to inform the post-disaster decision making and recovery planning for a community in the aftermath of Hurricane Sandy. They provided officials with an assessment of the potential physical and mental health consequences relevant to determining whether to offer voluntary buyouts of properties in a flood-prone neighborhood. They recommended that buyout programs should be funded, expeditiously activated, and proactively planned to address critical needs such as mental health service challenges for low-income populations and developing new open spaces dedicated to physical health needs. Their model is useful to other communities faced with similar decision-making challenges.

Other lessons come from the post-Katrina Columbia Parc at the Bayou District Initiative, which, in partnership with the Bayou Health District Foundation in New Orleans, created a collaboration between private-sector innovators in construction of low-income housing and public health and clinical leaders to develop a health-enhancing community environment that includes recreation space, access to healthy foods, and case-management services, among other key amenities. The central lesson conveyed by both these projects is the importance of the health community's active engagement with other sectors to take advantage of opportunities to create health-enhancing community infrastructure.

We believe that health and social service professionals can translate our heartache over the suffering due to Hurricanes Harvey, Irma, and Maria into strategically focused and proactive engagement with our communities in order to assess health status and then integrate these assessments and related best practices and strategic plans into the local disaster-planning infrastructure. Restoring communities to their preexisting status after disasters is almost always short-sighted. After disasters, the rebuilding opportunity can be used to create the conditions necessary for the best achievable health of communities.

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