THE MISSING PIECE MEETS THE BIG O: DISASTER MENTAL HEALTH RECOVERY AND COMMUNITY RESILIENCE

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However, even when planning and response is well-executed on local, state and federal levels, and the physical infrastructure of a community is restored, we cannot assume that recovery will be complete. Equally important to successful recovery are the potentially devastating psycho-social effects disasters have on individuals and communities. In other words, restoring infrastructure is likely necessary, but not sufficient, for meeting the goal of resilience. Equal, if not greater attention and resources must be placed on ensuring that the health – including the emotional and behavioral health - of the people who live and work in these communities also return to a state that is at least as well off as it was before the disaster. The focus on emotional and behavioral health during recent disasters has helped to illustrate their importance as elements critical to successful recovery.

Since Hurricane Katrina swept through New Orleans in August 2005, much of the physical infrastructure has been rebuilt and residents have reestablished themselves in communities. Yet, the emotional and social toll of the storm continues to deeply affect the everyday lives of the people who live there. One year after Katrina, 11.3% of the population reported suffering from serious mental illness; two years out the percentage suffering from PTSD had reached almost 21%. (http://www.adph. org/ALPHTN/assets/560handouts.pdf) Today, six years after the storm, children exposed to Katrina are still nearly five times as likely as other children to suffer from a serious emotional disturbance (SED).¹

Residents are not the only population whose emotional well-being is dramatically affected by disasters; first responders are often the most affected. After the 2001 September 11th attacks on the World Trade Centers, 12.4% of rescue workers (or 1 out of 8) developed PTSD (http://www.adph.org/ ALPHTN/assets/560handouts.pdf) Recognition of the mental health needs of emergency responders is critical to maintaining healthy, resilient communities.

Whether the term community is used to mean neighborhood, town or city, or to describe a group of people sharing a common interest or goal such

Evolving concepts of disaster management place significant emphasis on the concept of resilience. In physics, resilience is the ability of an entity to resume its original form after it has been deformed or stressed. As applied to emergency preparedness and response, it means that a community should be able to handle a disaster and return to normal. The concept of resilience suggests that day-to-day, preevent community practices, as well as what happens during the emergency response, have profound implications for quality of recovery, and hence, resilience. Resilience and recovery planning have traditionally focused primarily on rebuilding the physical infrastructure and ensuring the restoration of commerce. Making sure that individuals and families have a place to call home, and that medical care, grocery stores, schools and child care, and businesses bounce back quickly are of vital importance to the success of recovery from a disaster. Successful recovery is also dependent on how well-prepared a community is to cope with the disaster, (what it has planned for) and how well organized the acute response is. Both rest on a strong commitment to planning and on relationships between local, state and federal governments and agencies.

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as the responders during the World Trade Centers attacks, a strong community can contribute to creating both an environment that decreases the potential for members to develop mental, emotional and behavioral health disorders,² and one that provides a strong network of support to help speed up the healing process once an event has occurred. For instance, firefighters in New York City who responded to the 9/ 11 attacks were affected not only by their experiences as responders, but because they lived in firehouses three days out of the week also experienced the loss of 'family.' For many, the immediate impact of this two-fold trauma resulted in increased emotional and mental health issues, including PTSD, but over time because the community within each firehouse worked together and healed together, these issues were resolved more quick $ly.^3$

For both residents and responders, inadequate coping with an experience such as 9/11 or Hurricane Katrina may not only lead to PTSD and depression, but can also function as a kind of emotional priming, making those affected less able to cope with similar disasters in the future.⁴ During the 2010 Deepwater Horizon oil spill that deeply impacted communities in five states along the Gulf of Mexico, the need for an immediate medical response was considered small. However, for many residents who depended on the water as the source of their livelihood, elevated levels of stress and anxiety resulted from the financial and emotional burdens created by the spill. As weeks passed and oil continued gushing into the Gulf, rates of domestic violence, drinking and drug abuse, along with signs and symptoms of mild and severe depression began to $rise^5$ – all indications of the declining emotional well-being of the communities affected by the spill. The suicide of a boat captain from one of the Gulf Coast fishing communities

brought to the fore the urgency to address the mental and behavioral health needs of the affected communities.

When public health officials began noticing an uptick in the indicators of elevated levels of stress associated with the spill, the local, state and federal governments began developing resources to help residents cope, including a 24-hour oil spill distress help line. While these were appropriate measures for addressing the stress experienced by Gulf Coast residents, mental health providers in the New Orleans area also began receiving calls from some of their patients who had been treated for PTSD after Katrina. These patients were now experiencing similar kinds of stress and anxiety during the oil spill. Such higherthan-expected rates of stress, depression and PTSD resulting from repeated exposure to disasters highlights the need for better understanding of how to effectively treat patients who are exposed to repeated disasters, and how to develop effective preventative strategies for avoiding the onset of post-disaster mental illness.6

In an effort to build a more resilient nation, FEMA drafted the National Disaster Recovery Framework (NDRF) in conjunction with multiple federal agencies. This document provides a framework for enhancing long-term recovery and supporting state and local governments in their efforts, including the restoration of behavioral health services. The framework recognizes that post-disaster communities often suffer from unmet emotional health needs, and provides a structure for the federal government to assist states with ensuring continuity of care for affected individuals and continuity of essential health services (including behavioral health services).

The NDRF is a valuable document for bolstering long-term recovery efforts, but needs to be supplemented with evidence-based strategies to inform decision makers about the kinds of behavioral health services that can address the growing need for such services in communities affected by disasters. It is up to our nationwide community of researchers and clinicians to begin developing a research agenda to address disaster mental health prevention strategies, and to test these strategies through pilot programs in areas prone to frequent disasters. After all, if we are serious about resilience - serious about rebuilding communities after disasters to be better than they were before - we must invest in our human capital on an equal basis with the investment in our physical infrastructure.

While much is known about managing the psychological and emotional effects of disasters, there is still a lot of work to be done in terms of preventing long-term negative consequences. Although most people recover from disasters with time, not enough is known about how to effectively prevent individuals and communities from developing lasting emotional and behavioral health morbidity because of such events. Social science research specifically indicates that most individuals recover relatively quickly, but some recover at slower rates and others show long-term negative psychological effects. It is critical for us to have a better understanding of how to increase the number of people in the first group and decrease the number in the latter groups.

This issue of *Ethnicity* & *Disease* provides some examples of the type of research that has been done in this regard but highlights how much more we need to know. Our knowledge about prevention in this field remains remarkably limited. And, while we recognize that every disaster is different, the need for a set of evidence-based intervention strategies that can effectively shorten the period of distress, and prevent more people from developing DSM-IV disorders, will be relevant to a wide array of potential disasters.

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