

Pediatric Disaster Readiness: How Far Have We Come?

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Numerous events in the United States and abroad have demonstrated the vulnerabilities of children during and after disasters in the past decade. In 2002, an issue of *Clinical Pediatric Emergency Medicine* (CPEM) focused on pediatric disaster management and explored the consequences to children of a terrorist attack and natural disasters. Unfortunately, experiences continue to remind us that the inclusion of children in the preparation for disasters remains incomplete and results in tragic consequences.

Due to the severe force of the storm, the large area of damage, and vast numbers of persons requiring assistance, more than 5000 children were separated from their families during Hurricanes Rita and Katrina in 2005.¹ In 2008, during the earthquake in Sichuan, China, the shoddy construction of schools caused more than 7000 schoolrooms to collapse leading to significant pediatric morbidity and mortality.² The spread of novel H1N1 influenza in the United States during the Spring 2009 primarily impacted children. Although the overall clinical presentations of illness were mild, this outbreak resulted in a pediatric surge in clinics and hospitals. This sudden surge added considerable strain to an overloaded health care system and reinforced the need for preparedness across the pediatric continuum of home, schools, and the medical system.

Because children are unable to lobby for themselves, the optimal preparedness for disasters to include children depends heavily on child advocates. There has been ongoing recognition

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1522-8401/\$ - see front matter
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that the needs of children must be included in federal, state, and local planning. The National Advisory Committee on Children and Terrorism established by Congress in 2001 made several recommendations for the creation of a comprehensive public health strategy to meet the needs of children in planning and responding to terrorism.³ Participants of the “Pediatric Preparedness for Disasters and Terrorism: A National Consensus Conference” in 2003,⁴ and again in 2005,⁵ also developed many guidelines for planning and treating children during disasters.

Despite these recommendations, there remains a large gap in preparedness. As recently as 2006, the Institute of Medicine advocated for the need to improve pediatric emergency preparedness and response for children involved in disasters.⁶ Organizations such as the American Academy of Pediatrics, through its Disaster Preparedness Advisory Council, continue to work toward fulfilling this need through education, training, and advocacy.⁷ In 2008, the National Commission on Children and Disasters was authorized by Congress and charged to examine and assess children's needs related to preparedness and to provide their findings and practical recommendations to the President and Congress in 2010.⁸

Within each field, there are challenges. Pediatric disaster preparedness is not immune to this, and one might argue that there are greater challenges to overcome. Some of the major challenges include the following:

- How can we translate national recommendations into local policy and practice?
- How do we best train our emergency health care professionals for extremely low-frequency but high-impact events in a time when our health care system is operating at near capacity levels?
- How do we know we are prepared? Can we determine meaningful and objective performance measures to assess pediatric preparedness?

Disasters start locally. Those in the emergency departments will always be on the frontlines for responding to any event. With this in mind, the goals for this issue of CPEM were the following:

- To provide an overview of the current state of pediatric disaster preparedness including future directions
- To describe the plans for pediatric preparedness at the national level and to understand the roles of the federal, state, and local governments during a disaster

- To discuss best practices and offer practical recommendations at the local level for children in regard to prehospital mass casualty events, decontamination, reunification of families, hospital preparedness, and mental health
- To propose possible objective performance measures for pediatric disaster readiness

During the development of this CPEM issue, those in pediatrics experienced a great loss when Dr Michael Shannon died unexpectedly this past March 2009. In addition to contributing to the fields of toxicology and pediatric emergency medicine, Michael was one of the early leaders who recognized and advocated for the need for pediatric disaster preparedness. I feel personally honored to have worked with Michael on several projects on this topic and appreciate even more so now the guidance he provided for this particular issue. Michael had graciously agreed to describe the current state of pediatric preparedness. As a tribute to Michael Shannon, many leading pediatric disaster preparedness experts have expanded on his initial work and contributed their expertise describing the latest developments in research, policy, and clinical care in this field. As a mentor, teacher, friend, and colleague, Michael inspired many to develop to their full potential and was always available with his warm smile and encouragement. I am grateful to Michele Burns Ewald and Ken Mandl for sharing their personal reflections of Michael and his accomplishments with us. This issue of CPEM is dedicated to the memory of Michael Shannon and all that he represented—a love for life and family and a tireless advocate for the well-being of children.

ACKNOWLEDGMENTS

I would like to acknowledge and thank all the authors for their diligence and work in sharing their expertise: Michael Anderson, Terry Adirim, Carl Baum, Eric Fleegler, George Foltin, Daniel Fagbuyi, James Graham, Robin Gurwitch, Dennis Heon, Fred Henretig, Steve Krug, Leonard Levy, Kristin Lyle, Katherine Mason, Deborah Mulligan, Steve Monteiro, David Markenson, Alan Nager, Irwin Redlener, Cecilia Rokusek, Thomas Sandora, David Siegel, David Schonfeld, Tonya Thompson, Jeffrey Upperman, Mark Waltzman, and Debra Weiner. I am also grateful for those who on short notice willingly contributed their time and insights to transform Michael Shannon's initial work into a true collaborative effort. Finally, many thanks are in order to Steve Krug in giving me this opportunity and taking an active role in offering me advice and guidance

with this issue. On behalf of the authors, I hope you find this volume of work valuable in your service and care of children.

This work was supported, in part, by Health Resources and Service Administration (EMS-C Targeted Issues) Grant #H34MC10575-01-01. 

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