## **DISASTERS AND DISABILITIES**

Disasters affect millions of people worldwide each year. Disasters involve the occurrence of a natural catastrophe, technological accident, or human-caused hazard that results in severe property damage, deaths, and/or multiple injuries (Federal Emergency Management Agency, 2009). Disaster events occur when the resources needed due to an unexpected impact exceed the capacity of a community or society to respond to that impact (World Health Organization, 2008). Among those who are affected by disasters are individuals with disabilities. People with physical disabilities are placed at risk in disaster when they have difficulties evacuating from the direct impact of a disaster or must rely on physical assistance from others when evacuating. Individuals with cognitive impairments may have difficulty understanding or following emergency instructions during disasters. People with sensory disabilities, such as blindness or hearing impairments can experience difficulties in receiving timely communication about emergency events. In addition, people with disabilities are more likely to live in housing that places them at risk in disaster, such as in flood plains or in substandard structures (Hemingway & Priestly, 2006; Peek & Stough, 2010). Together these factors can place individuals with disabilities at disproportionate risk in disaster situations.

Research and governmental reports document discrepancies in disaster services provided to individuals with disabilities during the response and recovery phases of disaster (Rowland, White, Fox. & Rooney, 2007; Stough, 2009). Accounts report difficulties in physically evacuating buildings, finding accessible transportation, and obtaining sheltering postdisaster. For example, the National Council on Disability (2006) reported that many people with physical disabilities were unable to evacuate during Hurricane Katrina due to inaccessible transportation. Three weeks later, during Hurricane Rita, deaf evacuees encountered numerous communicational barriers when staying in large public shelters (White, 2006). During the Southern California wildfires of 2008 individuals with disabilities had difficulties in getting transportation between shelters and disaster assistance centers (Kailes, 2008). Studies have also found difficulties in accessing services, such as case management or unemployment benefits, following disaster (Stough, Sharp, Decker & Wilker, 2010). Children with disabilities can be particularly affected by disaster as they are physically more vulnerable and rely on adults for psychological and custodial support (Peek & Stough, 2010). Educational programs for children may also be affected, for example, special education services were disrupted for several months following Hurricane Ike when schools were closed and programs were reorganized (McAdams Ducy & Stough, 2011).

Individuals with disabilities in the United States are entitled to equal access to emergency services, such as evacuation procedures and sheltering. The Stafford Act, which gives the Federal Emergency Management Agency (FEMA) the responsibility for coordinating governmentwide disaster efforts, specifies that the needs of individuals with disabilities be included in the components of the national preparedness system (FEMA, 2007). Title II of the Americans with Disabilities Act requires modifications to policies, practices, and procedures to avoid discrimination against people with disabilities. State and local governments must comply with Title II of the ADA in the emergency and disaster programs, services, and activities they provide. This requirement also applies to programs, services, activities provided through third parties, such as the American Red Cross, private nonprofit organizations, or religious entities. Specifically, entities must make reasonable modifications and accommodations, cannot use eligibility criteria to screen out people with disabilities, and must provide effective communication to individuals with disabilities (American with Disabilities Act, 2007).

Most individuals with disabilities live and work in the community, as do those without disabilities. However, approximately 600,000 people with disabilities spend significant parts of their day in some type of congregate care (Braddock et al., 2011). For individuals with disabilities who live in group homes, nursing facilities, or hospitals, most state preparedness plans include point-to-point evacuation plans to ensure that these groups are moved in advance of predictable natural events such as hurricanes or floods. Plans also are made for relocation of these groups postdisaster in events such as earthquakes or tornados. An important factor in both cases is that caretaker and medical supports are ensured to provide continuity of care during the disaster event (National Council on Disability, 2009). Consideration for caretaker supports is also essential in the case of young children and schoolage children with disabilities who may need supervision from day care providers or teachers to take preparedness measures or to follow evacuation orders. Children with disabilities also may need provisions for medical and special nutritional needs if separated from their parents during disaster. In addition, some researchers (e.g., Christ & Christ, 2006; McAdams Ducy, & Stough, 2011) have documented that teachers can provide effective emotional, as well as instrumental, support to students with disabilities during disasters. Similarly, employers who provide supported work environments need to consider medical and other special needs of their employees with disabilities should a disaster occur during the work day. In both congregate housing and work environments, an accessible built environment (Christensen, Collins, Holt, & Phillips, 2006) is an important element to consider when determining evacuation routes or areas in which to shelter-in-place.

Historically, emergency management tended to segregate people with disabilities in separate shelters and provided differentiated services for those labeled as having "special needs" (U.S. Department of Justice, 2006). A focus on the functional needs of individuals with disabilities,

rather than on their diagnostic label or limitations, is the current and most appropriate, practice in emergency situations (FEMA, 2010). The functional needs approach to emergency management identifies disaster supports that individuals require in the five areas of communication, health, maintaining independence, transportation, or supervision (Kailes & Enders, 2006). For example, individuals with auditory limitations may need modifications in how they receive emergency communications, while individuals with remembering or decision making may require some supervision while in a shelter. The functional needs approach to disaster services also may benefit individuals who are not labeled as having a disability; for example, providing text announcements about emergency procedures in a noisy environment may not only assist individuals who are deaf, but also be helpful to seniors who use hearing aids.

Recent attention on national policies concerning the needs of individuals with disabilities has resulted in changes to the Stafford Act and led to the inclusion of the functional needs approach in the U.S. National Incident Management System, which guides governmental and nongovernmental agencies in providing a coordinated response to disasters. In addition, disability experts and individuals with disabilities themselves are increasingly included by emergency managers and disaster personnel in designing and carrying out emergency plans that incorporate provisions for individuals with functional needs.

## REFERENCES

- Americans with Disabilities Act. (2007, July). The ADA and emergency shelters: Access for all in emergencies and disasters. Retrieved from http://www.ada.gov/pcatoolkit/chap7shelter prog.htm
- Braddock, D., Hemp, R., Rizzolo, M., Haffer, L., Shea, E., & Wu, J. (2011). State of the states in developmental disabilities. Retrieved from University of Colorado Department of Psychiatry website, http://sos.arielmis.net/documents/United States.pdf
- Christ, G. H., & Christ, T. W. (2006). Academic and behavioral reactions of children with disabilities to the loss of a firefighter father. Review of Disability Studies, 2(3), 68–77.
- Christensen, K. M., Collins, S. D., Holt, J. M., & Phillips, C. N. (2006). The relationship between the design of the built environment and the ability to egress of individuals with disabilities. *Review of Disability Studies*, 2(3), 24–34.
- Federal Emergency Management Association (FEMA). (2010). Guidance on planning for integration of functional needs support services in general population shelters. Retrieved from http://www.fema.gov/pdf/about/odic/fnss\_guidance.pdf
- Federal Emergency Management Association (FEMA). (2009, July). Acronyms, abbreviations, and terms (FEMA P-524). Retrieved from http://training.fema.gov/EMIWeb/emischool/ EL361Toolkit/assets/FAATBook.pdf
- Federal Emergency Management Association (FEMA). (2007). Robert T. Stafford Disaster Relief and Emergency Assistance

- Act, as amended, and Related Authorities. Retrieved from https://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=3564
- Hemingway, L., & Priestley, M. (2006). Natural hazard, human vulnerability and disabling societies: A disaster for disabled people? *Review of Disability Studies*, 2(3), 57–59.
- Kailes, J. I. (2008, September). Southern California wildfires report. Prepared in partnership with the Access to Readiness Coalition, the California Foundation for Independent Living Centers, and the Center for Disability Issues and the Health Professions at Western University of Health Sciences. Retrieved from www.jik.com/CaliforniaWildfires.pdf
- Kailes, J. I., & Enders, A. (2006). Moving beyond "special needs." A function based framework for emergency management and planning. *Journal of Disability Policy Studies*, 17(4), 230–237.
- McAdams Ducy, E., & Stough, L. M. (2011). Exploring the support role of special education teachers after Hurricane Ike: Children with significant disabilities. *Journal of Family Issues*, 32(10), 1325–1345.
- National Council on Disability. (2009). Effective emergency management: Making improvements for communities and people with disabilities. Retrieved from http://www.ncd.gov/policy/emergency\_management
- National Council on Disability. (2006). The impact of Hurricanes Katrina and Rita on people with disabilities: A look back and remaining challenges. Retrieved from http://www.ncd.gov/policy/emergency\_management
- Peek, L., & Stough, L. M. (2010). Children with disabilities in disaster. *Child Development*, 81(4), 1260–1270.
- Rowland, J. L., White, G. W., Fox, M. H., & Rooney, C. (2007). Emergency response training practices for people with disabilities. *Journal of Disability Policy Studies*, 17(4), 216–222.
- Stough, L. M. (2009). The effects of disaster on the mental health of individuals with disabilities. In Y. Neria, S. Galea, & F. H. Norris (Eds.), *Mental health and disasters* (pp. 264–276). New York, NY: Cambridge University Press.
- Stough, L. M., Sharp, A. N., Decker, C., & Wilker, N. (2010). Disaster case management and individuals with disabilities. Rehabilitation Psychology, 55(3), 211–220.
- U.S. Department of Justice. (2006, August). An ADA guide for local governments—Making community emergency preparedness and response programs accessible to people with disabilities. Retrieved from http://www.ada.gov/emergencyprep .htm
- White, B. (2006). Disaster relief for Deaf persons: Lessons from Hurricanes Katrina and Rita. *Review of Disability Studies*, 2(3), 49–56.
- World Health Organization (2008, July). ReliefWeb glossary of humanitarian terms. Retrieved from http://www.who.int/hac/about/reliefweb-aug2008.pdf

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