



Climate Change and Cancer Care

Deborah K. Mayer, PhD, RN, AOCN®, FAAN, and Mary McCabe, RN, BS, MA

The summer weather forecast was recently announced, predicting a greater number of storms along the East Coast (Rice, 2013). That forecast includes a prediction for 18 tropical storms and 9 hurricanes—a typical year has 12 and 7, respectively. This prediction may be frightening for those who survived Hurricane Katrina or Sandy, flooding in Illinois, or fires in northern California.

So what is the connection between this prediction and climate change? And between climate change and cancer care? At a minimum, extreme weather events cause disruption of services, but they also can lead to loss of life and inflict massive damage to the environment and the economy (Costello et al., 2009). These events have always existed but have been shifting in patterns and frequency because of climate changes (Dutzik & Willcox, 2012; National Academy of Sciences, 2013). We have all been affected by some form of extreme weather, including prolonged droughts, hurricanes, fires, and new super storms, which have affected 49 of the 50 states in the United States since 2007, impacting 80% of the U.S. population (Dutzik & Willcox, 2012) (see Figure 1). And these climate changes are directly and indirectly affecting our health (Costello et al., 2009).

In 2009, *Lancet* and the University College London Institute for Global Health Commission issued a detailed report describing the health effects of climate change, which they identified as the biggest global health threat of the 21st century (Costello et al., 2009). The report portrayed issues with changing patterns of diseases and morbidity, food, water and sanitation, shelter and human settlements, extreme events, population, and migrations (Costello et al., 2009). More detailed briefs on each of these topics

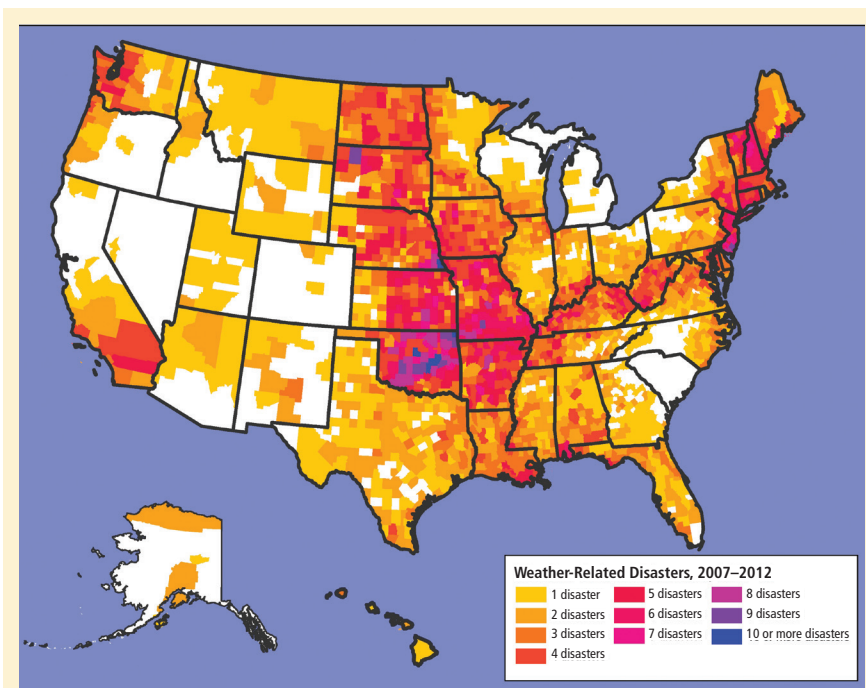


FIGURE 1. Number of Declared Weather-Related Disasters Since 2007 by County

Note. Image courtesy of Environment America Research & Policy Center. Used with permission.

have been posted and can be found at www.thelancet.com/global-health and www.ucl.ac.uk/igh/research/projects/all-projects/lancet-1.

So what does this mean for cancer care? Our colleagues along Hurricane Sandy's path can tell you (Rosenthal, 2012). Some patients with cancer were transferred from one healthcare system to another. Other patients were unable

to get their planned treatments or contact their providers. For example, in the transition of patients with cancer to Memorial Sloan-Kettering, details were needed about actual treatments delivered, including timeframes and information about comorbidities. The information was not always readily available.

Hospitals are focusing on refining their disaster plans. However, it may not be a

Deborah K. Mayer, PhD, RN, AOCN®, FAAN, is an associate professor in the School of Nursing at the University of North Carolina—Chapel Hill, and Mary McCabe, RN, BS, MA, is the director of the Survivorship Center at Memorial Sloan-Kettering Cancer Center in New York, NY. The authors take full responsibility for the content of the article. No financial relationships relevant to the content of this article have been disclosed by the editorial staff. Mayer can be reached at CJONEditor@ons.org.

Digital Object Identifier: 10.1188/13.CJON.231-232

priority for private practices until a local experience occurs that raises awareness. In addition, to the best of our knowledge, nothing of note is being done specifically to prepare patients with cancer in advance for extreme weather. This gap presents an important teaching opportunity for nurses, which can be done by adapting efforts that are already being used and/or planned. For example, when electricity is out and access to the Internet is limited, paper records come to the rescue, along with the American Red Cross. Saving information on a memory stick can ensure access to needed health and cancer treatment information if, for example, a patient has to be transferred from one institution to another.

One of the Joint Commission's national patient safety goals is medication reconciliation, which requires that a patient's medications are reviewed at each visit or admission. This document is very valuable for patients to have in hard copy if they find themselves dislocated from their home and/or needing new medical personnel.

Groups are focusing on the new American College of Surgeons guidelines requiring the development of a treatment summary and care plan for patients with cancer (American College of Surgeons Commission on Cancer, 2012). The guide-

lines take on new importance when they become the only records available that the patient takes with him or her when seeking care in a new location or with providers who have limited access to information. Patients also should receive a written copy of their diagnosis and treatment plan for the same reasons. In addition, more attention is being given to the sharing of information or test results through patient Web portals. This information can be downloaded and kept along with other key health documents.

So what can you do? Thinking about and preparing for a hurricane or other natural disaster before it occurs is prudent. Think about how to prepare your patients and practices for potential disruptions in care in places vulnerable to extreme weather. Make sure patients have some type of documentation about their diagnosis and current treatment plan. Participate in safety committees or discussions about emergency readiness. And then learn more about the global implications of climate change on health.

References

American College of Surgeons Commission on Cancer. (2012). *Cancer program stan-*

dards 2012: Ensuring patient-centered care. Retrieved from <http://www.facs.org/cancer/coc/programstandards2012.pdf>

Costello, A., Abbas, M., Allen, A., Ball, S., Bellamy, R., Friel, S., . . . Patterson, C. (2009). Managing the health effects of climate change: Lancet and University College London Institute for Global Health Commission. *Lancet*, 373, 1693-1733.

Dutzik, T., & Willcox, N. (2012). *In the path of the storm: Global warming, extreme weather, and the impacts of weather-related disasters in the United States*. Retrieved from <http://www.environmentamerica.org/sites/environment/files/reports/In%20the%20Path%20of%20the%20Storm-2013.pdf>

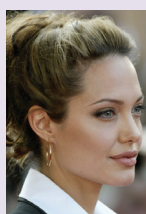
National Academy of Sciences. (2013). A review of the draft 2013 national climate assessment. Retrieved from <http://bit.ly/11OmSBx>

Rice, D. (2013). Hurricane forecast: Above-average Atlantic season. Retrieved from <http://www.usatoday.com/story/weath er/2013/04/10/2013-atlantic-hurricane-season-forecast-colorado-state/2067953>

Rosenthal, E. (2012). How the cancer community fared during Hurricane Sandy's Mid-Atlantic sweep. *Oncology Times*, 34(23), 8, 10.

Celebrity Cancers

Deborah K. Mayer, PhD, RN, AOCN®, FAAN, and Seth M. Noar, PhD



You may be aware that Angelina Jolie announced her recent prophylactic bilateral mastectomies and reconstructive surgery (Jolie, 2013). Her mother died of ovarian cancer and Ms. Jolie has the *BRCA1* mutation. It certainly received a fair amount of news coverage. Her op-ed piece in the May 14th *New York Times* quickly generated more than 1,500 comments, and Google reported a huge surge in searches for Angelina Jolie. We hope the message people take home from this is about knowing your family history about cancer and the possibility of genetic counseling and testing in high-risk

individuals (not necessarily about having bilateral mastectomies).

This public attention is not unusual when a public figure has a health issue. We saw a mammography bump when Betty Ford had breast cancer surgery in 1974 and an uptick in colonoscopies after Katie Couric had the procedure in 2000 as part of a weeklong TV series on colon cancer. A recent review demonstrates that celebrity events like these not only garner the public's attention but also have measurable effects (Noar, Willoughby, Myrick, & Brown, in press). For those interested in following celebrity health issues, go to www.celebritydiagnosis.com to get the facts behind the news. And be prepared to educate your patients, their families, and others in response to questions about this issue.

Jolie, A. (2013). My medical choice. *New York Times*. Retrieved from <http://nyti.ms/YsjkBU>

Noar, S.M., Willoughby, J.F., Myrick, J.G., & Brown, J. (in press). Public figure announcements about cancer and opportunities for cancer communication: A review and research agenda. *Health Communication*.

Deborah K. Mayer, PhD, RN, AOCN®, FAAN, is an associate professor in the School of Nursing and Seth M. Noar, PhD, is an associate professor in the School of Journalism and Mass Communication, both at the University of North Carolina—Chapel Hill. The authors take full responsibility for the content of the article. No financial relationships relevant to the content of this article have been disclosed by the editorial staff. Mayer can be reached at CJONEditor@ons.org.

© iStockphoto.com/GYI NSEA