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 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...
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 Ameri-
can 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 recon-
ciliation, 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.

In addition, more attention is being given
to the sharing of information or test re-
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 pru-
dent. Think about how to prepare your
patients and practices for potential dis-
rup tions 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
cancer/coc/programstandards2012.pdf
Costello, A., Abbas, M., Allen, A., Ball, S., Bel-
Managing the health effects of climate change:
Lancet and University College London Insti-
tute for Global Health Commis-

National Academy of Sciences. (2013). A
review of the draft 2013 national climate
ly/110mSBx
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/2067
953
Rosenthal, E. (2012). How the cancer com-
munity fared during Hurricane Sandy’s
Mid-Atlantic sweep. Oncology Times,
34(23), 8, 10.

You may be aware that Angelina Jolie an-
nounced her recent prophylactic bilateral
mastectomies and re-
constructive surgery
(Jolie, 2013). Her moth-
er died of ovarian cancer and Ms. Jolie
has the BRCA1 mutation. It certainly re-
ceived 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 ef-
effects (Noar, Willoughby, Myrick, & Brown,
in press). For those interested in following
celebrity health issues, go to www.celebri-
tydiagnosis.com to get the facts behind the
news. And be prepared to educate your pa-
tients, their families, and others in response
to questions about this issue.

ms/Y5kjBU
Noar, S.M., Willoughby, J.F., Myrick, J.G.,
& Brown, J. (in press). Public figure
announcements about cancer and oppor-
tunities 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 CJOINeditor@ons.org.
© iStockphoto.com/GYI NSEA