

Environmental Risks: Lessons From the Gulf

Although the oil has stopped flowing, it is heartbreaking to watch the oil spill damage in the Gulf of Mexico. We are seeing some of the effects on animals and marine life, but we are just beginning to see the effects on humans. How disheartening it is to think that, in 1962, naturalist Rachel Carson wrote *The Silent Spring*, warning us of the unintended consequences of using chemicals and pesticides in our natural world. Interestingly, this work was preceded by her other works about the sea and its inhabitants. Today, we still have not fully learned the lessons she so presciently tried to teach us. What would she think of the mess we are in now?

Beyond the environmental damage, we do not yet fully understand the potential physical, psychological, and social impact on those living along the Gulf of Mexico. People are being exposed to both the oil and dispersants, which can cause health problems. The National Institute of Environmental Health Sciences will be recruiting a cohort of 15,000–20,000 cleanup workers and residents to study the health effects on those exposed to the spill (Fleming, 2010). The Centers for Disease Control and Prevention (2010)

also will be developing surveillance systems to track population changes for illnesses and injuries. It will take years—or decades—before we can fully appreciate the acute and chronic impact that this devastating disaster has on health.

Environmental risks that promote cancer are not always as obvious as the Gulf oil spill. Although we all know that tobacco use can cause cancer, we may be less aware of other possible environmental exposures. The President's Cancer Panel recently published a report identifying areas where exposure to environmental contaminants or hazards may occur, such as industry and manufacturing, agricultural, lifestyle, military, natural, and, most relevant to us, medical sources (Reuben, 2010). Those include increasing exposures to ionizing radiation from imaging and medical procedures and pharmaceuticals in our water supply. In fact, medically related ionizing radiation has increased from 15% in the early 1980s to 48% in 2006, almost doubling the effective dose per individual in the United States (Reuben, 2010). Much of this increase is related to the use of computed tomography scans. No one would argue that we should not use advanced imaging or drugs to improve patients' health, but we can increase awareness of less-visible environmental exposures and take measures to minimize them. For example, efforts by the Oncology Nursing Society and hospitals to reduce, reuse, and recycle were highlighted in *ONS Connect* (Becze, 2009a, 2009b) along with a number of Web sites providing more information (see sidebar). It really makes me think about how we dispose of chemotherapy, other medications, and the IV tubing and bags used in the delivery of cancer care. How does your institution handle these things? Have you implemented programs to help reduce waste?

The Gulf of Mexico oil spill is not the first man-made environmental disaster nor, unfortunately, will it be the last. Rachel Carson (2010) said that “the human race is challenged more than ever before

to demonstrate our mastery—not over nature but of ourselves.” That is as true today as when she first said it decades ago. It is incredibly frustrating to watch the oil wreak havoc in the Gulf, but we can use this event to think about the ways we may be harming the environment and then do something about it. Anthropologist Margaret Mead (2007) said, “Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has.” So I ask you, what can we do to make a difference?

The author takes full responsibility for the content of the article. No financial relationships relevant to the content of this article have been disclosed by the author or editorial staff.

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References

- Becze, E. (2009a, June). Health care and the environment: Hospitals take steps to reduce waste. *ONS Connect*, 24, 18.
- Becze, E. (2009b, April). ONS does its part for the environment. *ONS Connect*, 24, 20.
- Carson, R. (2010). Thinkexist.com quotations. Retrieved from http://thinkexist.com/quotation/the_human_race_is_challenged_more_than_ever/187894.html
- Centers for Disease Control and Prevention. (2010). Gulf oil spill 2010: Health surveillance. Retrieved from http://www.bt.cdc.gov/gulfoilspl10/2010gulfoilspill/health_surveillance.asp
- Fleming, C. (2010, June 18). Looking at the Gulf oil spill health effects. *Health Affairs Blog*. Retrieved from <http://healthaffairs.org/blog/2010/06/18/looking-at-the-gulf-oil-spill-health-effects/>
- Mead, M. (2007). Quotation #33522. Retrieved from <http://www.quotationspage.com/quote/33522.html>
- Reuben, S. (2010). *Reducing environmental cancer risk: What we can do now. 2008–2009 annual report. President's Cancer Panel*. Washington, DC: U.S. Department of Health and Human Services.

For More Information

- EnviRN: Keeping Nurses Informed About the Environment and Health (www.envirn.umaryland.edu)
- Health Care Without Harm Nurses Welcome Kit and Resources (www.noharm.org/us_canada/nurses/welcome.php)
- Health Care Without Harm Nurses Workgroup (www.noharm.org/us_canada/nurses)
- National Community Pharmacists Association: Dispose My Meds (www.disposemymeds.org)
- Sustainable Hospitals Program (www.sustainablehospitals.org)
- U.S. Environmental Protection Agency: Hospital Pollution Prevention (www.epa.gov/region09/waste/p2/hospart.html)

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