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When Every Drop Counts— Drought Guidance for Public Health Professionals

Editor’s Note: NEHA strives to provide up-to-date and relevant information on environmental health and to build partnerships in the profession. In pursuit of these goals, we feature a column from the Environmental Health Services Branch (EHSB) of the Centers for Disease Control and Prevention (CDC) in every issue of the *Journal*.

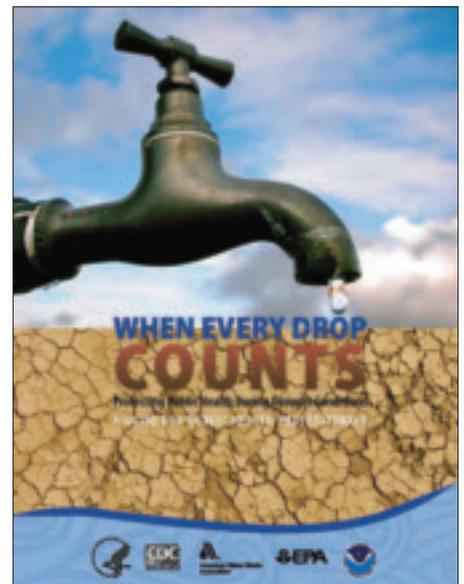
In this column, EHSB and guest authors from across CDC will highlight a variety of concerns, opportunities, challenges, and successes that we all share in environmental public health. EHSB’s objective is to strengthen the role of state, local, and national environmental health programs and professionals to anticipate, identify, and respond to adverse environmental exposures and the consequences of these exposures for human health. The services being developed through EHSB include access to topical, relevant, and scientific information; consultation; and assistance to environmental health specialists, sanitarians, and environmental health professionals and practitioners.

The conclusions in this article are those of the author(s) and do not necessarily represent the views of the Centers for Disease Control and Prevention.

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The July/August 2009 issue of the *Journal of Environmental Health* reported that the Centers for Disease Control and Prevention’s (CDC’s) Environmental Health Services Branch (EHSB) was developing a guide for public health and other professionals that addresses the health implications of drought (Kalis, Miller, & Wilson, 2009). The lack of data and consolidated scientific evidence or guidance on drought as it pertained to public health initiated this effort. In fact,

this data gap has caused public health experts across the country to operate with limited guidance about drought preparedness and with an inadequate understanding about how water shortages can affect the health of their communities. After a thorough development process and in collaboration with the American Water Works Association (AWWA), U.S. Environmental Protection Agency (U.S. EPA), National Oceanic and Atmospheric Administration (NOAA), and other key partners, EHSB



released in September 2010 *When Every Drop Counts: Protecting Public Health During Drought Conditions—A Guide for Public Health Professionals* (CDC, U.S. EPA, NOAA, & AWWA, 2010) (See photo above).

Document Overview

In addition to addressing basic drought- and water-related information and principles, the document addresses numerous drought-related public health effects, organized into several broad categories:

- compromised quality and quantity of potable water;
- compromised food and nutrition;
- diminished living conditions (as they pertain to energy, air quality, and sanitation and hygiene);
- recreational risks;

- mental and behavioral health;
- vulnerable populations; and
- increased disease incidence (for infectious, chronic, and vectorborne/zoonotic diseases).

The document also contains information about drought preparation and response for public health professionals. Activities are listed as those conducted before drought, those in the early stages of drought, and those during late-stage, severe drought conditions. Tables and tools provide further guidance on preparedness activities, such as identifying potential at-risk populations, the health implications relevant for specific groups, potential partners in drought preparedness activities, and communication objectives and actions relevant to specific target audiences. The document concludes with a discussion of much-needed research and initiatives that further explore the public health impacts of drought. The extensive recommendations for future needs are organized into research-related endeavors and those pertaining to initiatives and resources. At the end is a list of drought-related resources for those who are committed to protecting the health of the U.S. public.

More Research, Guidance, and Activities Needed

The release of *When Every Drop Counts: Protecting Public Health During Drought Conditions—A Guide for Public Health Professionals* is a step in the right direction. But much remains to be learned about drought and its impact on public health. Quantitative public health data are extremely limited about

the short- and long-term effects of drought on health, as well as the direct and indirect health effects that water shortages have on different segments of the population. To ensure improved public health preparedness for, response to, and recovery from drought, new epidemiologic and other studies will need to provide stakeholders with basic drought-related health data. In addition to research, other types of drought preparedness activities and resources must be developed for those engaged in protecting the public's health during times of drought.

The document provides an extensive list of drought-associated research gaps. Addressing these gaps will help improve public health preparedness, response, recovery, and mitigation for drought events. Additional future resources and initiatives that public health professionals could use to strengthen their existing drought efforts are also offered as follows:

- identifying both the changes in drinking water quality and the health effects associated with drought over time;
- determining the perceptions of public health officials regarding the importance of drought;
- analyzing existing surveillance data (e.g., hospital admissions, drought-sensitive diseases) to determine chronic diseases reported more frequently during a drought; and
- conducting focus groups to determine community perceptions of drought so that communication planning and strategies will be most effective with various target audiences.

Where Can I Access the Document?

To access *When Every Drop Counts: Protecting Public Health During Drought Conditions—A Guide for Public Health Professionals*, please visit www.cdc.gov/nceh/ehs/Publications/Drought.htm. 

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References

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Kalis, M.A., Miller, M.D., & Wilson, R.A. (2009). Public health and drought. *Journal of Environmental Health*, 72(1), 10–11.

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