

## Direct from CDC

### Environmental Health Services Branch

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# Recreational Water Illness Prevention, 2008

*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.*

**R**ecreational water illnesses (RWIs) are an increasing public health problem, but local and state health departments can use existing tools and innovative procedures to control them in the recreational water venues in their areas. Effective RWI prevention requires sound environmental health interventions, education for the public and industry, effective team approaches to outbreaks, and additional research into issues such as disinfection effectiveness and air quality in indoor pool areas.

An estimated 7.4 million swimming pools are in public or residential use in the United States. Every year, more than 360 million visits are recorded for recreational water venues (e.g., swimming pools, spas, lakes, oceans), making swimming the second most popular recreational activity in the United States—and the most popular activity for children. This use of recreational water, however, is associated with public health consequences such as drowning, injuries, and spread of infectious diseases.

Public health jurisdictions need a multifaceted prevention and response plan to prevent *Cryptosporidium* in recreational venues. The spread of diarrheal RWIs is facilitated by poor pool maintenance, low public awareness of RWIs, and the emergence of chlorine-resistant pathogens such as *Cryptosporidium*. In fact, an average of five *Cryptosporidium* outbreaks were reported in 1995–2004. In 2006, 22 outbreaks were reported; preliminary data for 2007 indicate at least 29 outbreaks reported.

National reporting of RWIs to Centers for Disease Control and Prevention (CDC) is

poor. Environmental health programs have the responsibility to ensure that these RWI outbreak reports are submitted through state epidemiologists to the CDC RWI surveillance system. A complete toolkit for outbreak reporting, response, and investigation is available online at the Healthy Swimming Web site ([www.cdc.gov/healthyswimming/outbreak.htm](http://www.cdc.gov/healthyswimming/outbreak.htm)). The toolkit includes an environmental health systems approach outbreak investigation report, sample letters, questionnaires, and forms to use for reports. In 2008, RWI reporting will move ahead with a new CDC online reporting system that will be linked to foodborne and other waterborne disease reports.

Using inspection reports as a surveillance or indicator tool in our RWI prevention efforts is a good way to track important trends both nationally and locally. In 2003, CDC Environmental Health Services Branch (EHSB), in collaboration with CDC Division of Parasitic Diseases (DPD) and six state and local environmental health programs, examined critical violations that were listed in the 2002 inspection reports of more than 5,000 spas and 22,000 swimming pools. Study results were reported in two *Morbidity and Mortality Weekly Report (MMWR)* issues available at [www.cdc.gov/nceh/ehs/Topics/recreationalwater.htm](http://www.cdc.gov/nceh/ehs/Topics/recreationalwater.htm). An expanded 2007 aquatic inspection report study is under way, and it is not too late to participate. Contact the corresponding author if your program wants to be a part of this study.

Results from the 2002 studies showed that collecting, organizing, and analyzing

pertinent data will provide the information needed for environmental public health program decision making. For example, one county pool inspection program withstood a challenge to its mandatory pool-operator training program because the program had followed the recommendations in these *MMWR* articles and was able to show in its own pool inspection data that operator training reduces the occurrence of critical violations. The recommendations in the two *MMWR* articles are not only important for RWI prevention programs but also are applicable to all environmental health programs.

In 2005, CDC EHSB and DPD cosponsored an RWI prevention workshop at the request of the Council of State and Territorial Epidemiologists. Experts from state, local, and federal public and environmental health agencies and representatives from aquatics industries and nongovernmental organizations formed multidisciplinary working groups and made recommendations for improving prevention efforts in four areas:

- surveillance;
- public awareness and action;
- environmental health prevention programs' impact; and
- research on treatment, monitoring, and management practices.

An immediate result of the workshop was the creation of a grassroots and national patron, operator, and agency awareness campaign—Recreational Water Illness Prevention Week. An RWI Prevention Week toolkit, which included a sample press release and a list of 16 ways to increase public, industry, and media awareness of the programs' ongoing efforts to promote healthy swimming, was distributed to local, state, federal, territorial, and tribal partners. In 2008, RWI Prevention Week will be May 19–25, the week before Memorial Day. This year the program will be expanded to include natural swimming venues and a special toolkit for the aquatics industry to use along with an improved toolkit for regulatory programs.

Another project that developed from the RWI Prevention Workshop was the creation of a national Model Aquatic Health Code (MAHC). This project involves all stakeholders through a consensus process modeled after the Conference for Food Protection for maintaining the FDA Food Code. We encourage you to lend your expertise to one of the technical committees forming to draft chapters for the MAHC. More information is available at [http://www.cdc.gov/healthyswimming/model\\_code.htm](http://www.cdc.gov/healthyswimming/model_code.htm). 🗨️

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