

▶ DIRECT FROM CDC ENVIRONMENTAL HEALTH SERVICES BRANCH



CDR Jasen Kunz, MPH, REHS



Michael Beach, PhD

The First Edition of the Model Aquatic Health Code Is Now Available: What's Next?

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, tribal, 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 conclusions in this article are those of the author(s) and do not necessarily represent the views of CDC.

CDR Jasen Kunz is a commissioned officer in the U.S. Public Health Service. CDR Kunz serves as the Model Aquatic Health Code (MAHC) coordinator from CDC's National Center for Environmental Health. Michael Beach is associate director for Healthy Water at CDC's National Center for Emerging Zoonotic and Infectious Diseases and is a member of the MAHC steering committee.

The first edition of the Model Aquatic Health Code (MAHC) was released on August 29, 2014, and is now available on the Centers for Disease Control and Prevention's (CDC's) Web site (www.cdc.gov/mahc, see Figure 1). The MAHC is a set of free guidelines based on science and best practices to help jurisdictions reduce outbreaks, drowning, and chemical injuries at public aquatic facilities. The MAHC is a model—not a federal law—that local and state agencies can use to update or implement aquatic facility codes, rules, regulations, guidance, laws, or standards. The MAHC

is inclusive; it covers all health and safety issues by providing sample code language and explanatory text addressing design and construction, operation and maintenance, and policies and management. The MAHC is voluntary; jurisdictions can use some, all, or none of the MAHC, and they can change any part of it to suit their needs (see Figure 2).

MAHC development was a collaborative effort, stemming from a 2005 national workshop recommendation, between CDC and more than 140 volunteer experts from across the U.S. These experts included federal, state,

and local public health officials; researchers; aquatics sector representatives and associations; building code officials; and certification organizations. The MAHC also went through two rounds of public comment and received more than 4,400 comments from stakeholders.

In the U.S., no federal regulatory agency is responsible for aquatic facilities. Swimming pool programs have long been considered a core function of state or local health departments; 68% have programs that regulate, inspect, or license public swimming pools (National Association of County and City Health Officials, 2013). This has led to significant variability in standards and requirements, as well as time and resources spent in individual jurisdictions as they create and update codes. The MAHC will help local and state agencies to incorporate science and best practices into their codes and pool programs and prevent the duplication of effort.

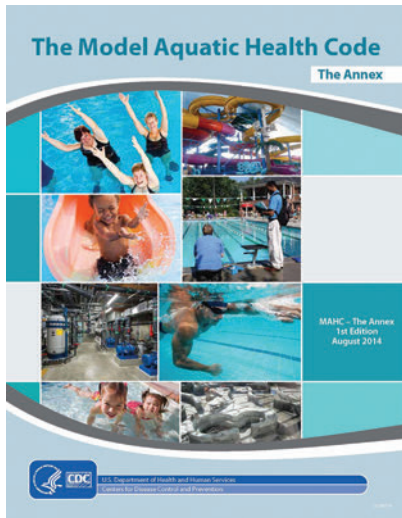
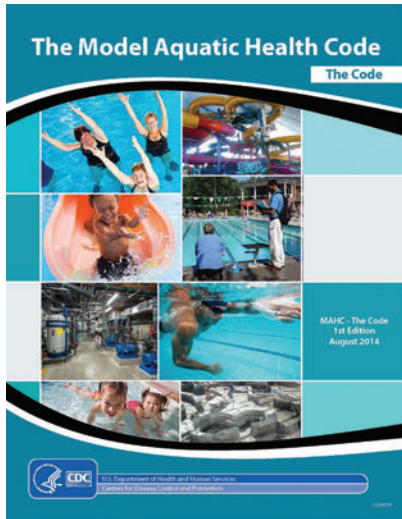
Expected Impact

Local and state agencies voluntarily adopting key elements of the MAHC are expected to

- prevent injuries, disease transmission, outbreaks, and associated costs;
- reduce pool code violations and imminent health hazard–related closures;
- facilitate use of a systems-based, risk-reduction approach to pool design and operation;
- incorporate science and best practices into pool inspection programs;
- improve data collection through standardized inspection forms and inspector training;
- expand the use of inspection data to improve surveillance and decision making; and
- decrease resources needed for creating and regularly updating pool codes.

FIGURE 1

Cover Images for the 1st Edition of the Model Aquatic Health Code (Code and Annex), Released August 2014



The code provides guidelines based on science and best practices. The annex provides references and rationale for the guidelines.

FIGURE 2

Section of the Model Aquatic Health Code (MAHC) Infographic Available From the MAHC Web Site

The Product
The Model Aquatic Health Code

The MAHC is a free resource, based on science and best practices, to help state and local health professionals make swimming and other wateractivities healthier and safer.

68% of local health departments regulate or inspect public swimming pools and facilities.

The MAHC is **NOT** a federal law. It's voluntary, model guidance to help reduce the burden on state and local pool programs that individually write their own codes.

Use the MAHC

- To update existing codes for public swimming pools and other aquatic facilities
- To incorporate guidelines based on science and best practices into state and local aquatic programs
- However you want: use, change, and incorporate the entire MAHC—or just pieces of it—into state or local health codes

The MAHC can help:

- Prevent drowning, illness, and injury
- Raise minimum standards and reduce inspection violations
- Keep pools open for more summer and year-round fun

Help make swimming healthier and safer.

Learn more about The Model Aquatic Health Code: www.cdc.gov/mahc

What's Next?

CDC recognizes that the MAHC must remain relevant and respond to the latest industry trends and research. To keep the MAHC up to date, an independent 501c3 nonprofit organization, the Conference for the Model Aquatic Health Code (CMAHC), was created in 2013 by MAHC stakeholders to manage future MAHC updates. The CMAHC will

partner with CDC to collect, assess, and relay national input on MAHC revisions back to CDC for final acceptance. This will keep the MAHC current and up to date with the latest public health issues and aquatics sector advances. CDC encourages people to join and help build the CMAHC into a driving force for improved health, safety, and fun at the nation's public swimming facilities. More

information about the CMAHC can be found at www.cmahc.org.

Building Partnerships with Building Officials

To prevent recreational water injury and illnesses, strong codes built on a foundation of science and best practices that avoid conflict with other complementary codes are needed

by both public health professionals and building code officials. Recognizing this need, in 2012 representatives from the International Association of Plumbing and Mechanical Officials, International Code Council, NEHA, and CDC entered into historic memorandums of understanding (MOUs) intended to bring enhanced public health, safety, and code alignment to design, installation, operation, and maintenance of public aquatic facilities.

These MOUs built on the overriding principle that public health professionals and building officials must work together closely. Coordination is key to preventing recreational injury and illnesses, because an improperly designed or constructed pool will result in potential health, safety, and cost issues for both building and public health officials and the communities

they serve. The MOU partners sought to eliminate all conflict among their respective codes, use evidenced-based principles to further align the codes, and agree to continued partnership to ensure alignment in future code editions.

Who will benefit from building and public health officials working together? The answer is the general public, pool owners, code officials, plan examiners, inspectors, health officials, design professionals, pool contractors, and others.

The future of aquatic health and safety is bright, and in the coming years increased emphasis will be put on strengthening partnerships with all stakeholders to make the MAHC release just the first step towards redefining aquatic health and safety in this country. Explore the MAHC as a resource for reducing

risk in your jurisdiction, and get involved in the national CMAHC effort to guide improvement in future MAHC editions. 🐼

Corresponding Author: Jasen Kunz, Environmental Health Officer, Division of Emergency and Environmental Health Services, National Center for Environmental Health, CDC, 4770 Buford Highway NE, MS F-58, Atlanta, GA 30341. E-mail: izk0@cdc.gov.

Reference

National Association of County and City Health Officials (2013). *National profile of local health departments*. Retrieved from http://nacchoprofilestudy.org/wp-content/uploads/2014/02/2013_National_Profile_021014.pdf

Did You Know?

National Handwashing Awareness Week is December 7–13. Its goal is to decrease the spread of infectious diseases through community education on proper hand washing and hygiene behaviors.

mycometer
rapid microbiology – on-site technology

KNOW YOUR WATER QUALITY

Bactiquant Water is the Only Rapid Test for Total Bacteria That has been Verified by the EPA.

Improve your water quality with Bactiquant Water Technology, call for a demonstration today.

- Use for rapid risk assessment for Legionella
- Emergency response for water breaks
- Routine Potable water monitoring
- Monitoring recreational water
- Evaluating Aquariums, aquaculture
- Process and stored water systems

For questions or to order go to: **mycometer.com** Call Lisa Rogers at **(813) 831-6511**

