2016 Annex to the Model Aquatic Health Code

Scientific Rationale

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isease
Control and Prevention

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Annex to the 2016 Model Aquatic Health Code

SCIENTIFIC RATIONALE

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This information is distributed solely as guidance for the purpose of assisting state and local health departments, aquatic facility inspection programs, building officials, the aquatics industry, and other interested parties in improving the health and safety at public aquatic facilities. This document does not address all health and safety concerns associated with its use. It is the responsibility of the user of this document to establish appropriate health and safety practices and determine the applicability of regulatory limitations prior to each use.

Foreword

Swimming, soaking, and playing in water have been global pastimes throughout written history. Twentieth-century advances in aquatics—combining disinfection, recirculation, and filtration systems—led to an explosion in recreational use of residential and public disinfected water. As backyard and community pool use has swept across the United States, leisure time with family and friends around the pool has increased. Advances in public aquatic facility design have pushed the horizons of treated aquatic facilities from the traditional rectangular community pool to the diverse multi-venue waterpark hosting tens of thousands of users a day. The expansion of indoor aquatic facilities has made the pool and waterpark into year-round attractions. At the same time, research has demonstrated the social, physical, and psychological benefits of aquatics for all age groups.

However, these aquatics sector changes—combined with changes in the general population, chlorine-tolerant pathogens, and imperfect bather hygiene—have resulted in significant increases in reports of waterborne outbreaks, with the greatest increase occurring in man-made disinfected aquatic venues. Drowning continues to claim the lives of far too many, especially children, and thousands of people visit hospitals every year for pool chemical-related injuries. The increase in outbreaks and continued injuries suggests there would be benefits from building stronger public health regulatory programs and supporting them with strong partnerships to implement health promotion efforts, conduct research, and develop prevention guidance. It also would be useful for public health officials continue to play a strong role in overseeing design and construction, advising on operation and maintenance, and helping inform policy and management.

The Model Aquatic Health Code (MAHC) is a set of voluntary guidelines based on science and best practices that were developed to help programs that regulate public aquatic facilities reduce the risk of disease, injury, and drowning in their communities. The MAHC is a leap forward from the Centers for Disease Control and Prevention's (CDC) operational and technical manuals published in 1959, 1976, and 1981 and a logical progression of CDC's Healthy Swimming Program started in 2001. The 2016 MAHC underscores CDC's long-term involvement and commitment to improving aquatic health and safety. The MAHC guidance document stemmed from concern about the increasing number of pool-associated outbreaks starting in the mid-1990s. Creation of the MAHC was the major recommendation of a 2005 national workshop held in Atlanta, Georgia charged with developing recommendations to reduce these outbreaks. Federal, state, and local public health officials and the aquatics sector formed an unprecedented collaboration to create the MAHC. The MAHC will be regularly updated using input from a national stakeholder partnership called the Council for the Model Aquatic Health Code (CMAHC). The CMAHC was formed to keep the MAHC up to date and current with the latest advances in the aquatics industry while also responding to public health reports of disease and injury. The partnership hopes this truly will lead to achieving the MAHC vision of "Healthy and Safe Aquatic Experiences for Everyone" in the future.

Atlanta GA 2016

Acknowledgments

The 2016 MAHC utilized the first time CMAHC conference process to collect, assess, and relay MAHC Change Request recommendations to CDC. The first *CMAHC Vote on the Code Biennial Conference* was held October 6-7, 2015 in Phoenix Arizona, a little over one year after CDC's release of the 2014 MAHC, 1st Edition. CDC utilized CMAHC's input to revise the MAHC and plans to utilize the CMAHC conference process to update future versions of the MAHC. CDC would like to acknowledge the hard work and dedication of the CMAHC Executive Director, CMAHC Technical Review Committee, CMAHC Board of Directors, and CMAHC membership for developing and implementing the 1st CMAHC conference process. It is only through the dedicated efforts and contributions of experienced professionals that a scientifically sound, well-focused, and up-to-date MAHC is possible. CDC acknowledges with immense gratitude the substantial assistance of those who contributed to public health and aquatic safety in the development of the 2016 MAHC. They deserve our heartfelt thanks and appreciation for volunteering their time, energy, and creativity to create the 2016 MAHC. In addition, we would like to also give our thanks to all the reviewers across the country who provided public comments, and spent a great deal of time combing through the detail of the MAHC code and annex to submit Change Requests for improvement. Their effort was worth the time investment; the MAHC was greatly improved after the Conference process and associated public comment periods.

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