

DIRECT FROM CDC ENVIRONMENTAL HEALTH SERVICES

# Preventing Legionnaires' Disease Through a New Learning Opportunity: A Training on Legionella Water Management Programs

**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 this column on environmental health services from the Centers for Disease Control and Prevention (CDC) in every issue of the Journal.

In these columns, authors from CDC's Water, Food, and Environmental Health Services Branch, as well as guest authors, will share insights and information about environmental health programs, trends, issues, and resources. The conclusions in these columns are those of the author(s) and do not necessarily represent the official position of CDC.

LCDR Candis M. Hunter,  
MSPH, PhD, REHS  
LCDR Shaun McMullen, MPH  
Chris Edens, PhD  
Centers for Disease  
Control and Prevention

Liljana Johnson Baddour, MPH  
Jennifer McKeever, MPH, MSW  
National Network of  
Public Health Institutes

Kelly A. Reynolds, PhD  
Douglas L. Taren, PhD  
University of Arizona  
Mel and Enid Zuckerman  
College of Public Health  
Western Region Training Center  
at the University of Arizona

## The Need for Water Management Program Training

The number of reported Legionnaires' disease (LD) cases increased by more than 250% over the past decade, with at least 8,400 cases reported in 2018 (Centers for Disease Control and Prevention, 2018). A recent review of Centers for Disease Control and Prevention (CDC) field investigations indicates that 85% of LD outbreaks were caused by problems that could have been prevented with more effective water management (Garrison et al., 2016). Water management programs (WMPs) can help prevent cases of LD by identifying and addressing conditions that might lead to the growth and spread of Legionella bacteria within premise plumbing systems. WMPs can mitigate risk factors such as stagnation of water, inadequate residual disinfection levels, and improper maintenance of aerosolization devices (e.g., decorative fountains). The Centers for Medicare & Medicaid Services now requires healthcare facilities to have WMPs to minimize the risk of Legionella and other pathogens in hospi-

tals, skilled nursing facilities, and critical access hospitals.

A proactive approach to water management requires a diverse team with skill sets in engineering and environmental health. In health-care settings, the team should also include the skill set of infection control. This WMP team must have adequate knowledge of the building's water system, the capacity to identify proper control locations and limits, and the authority to implement appropriate corrective actions when necessary. Additionally, this team should have the ability to reconcile environmental data with clinical surveillance for LD. Effective educational resources and templates can help facility management and operations staff design and carry out a WMP (Lucas, Cooley, Kunz, & Garrison, 2016). In response to CDC's Federal Register Notice (Docket No. CDC-2017-0069) to assess WMP implementation methods, respondents indicated that inadequate awareness, knowledge, or expertise were major barriers to implementation. To address these needs, CDC developed a WMP toolkit ([www.cdc.gov/legionella/wmp/toolkit/index.html](http://www.cdc.gov/legionella/wmp/toolkit/index.html)), a

suite of tools and materials for LD response and prevention (Table 1), and online training.

In December 2018, CDC and partners launched Preventing Legionnaires' Disease: A Training on Legionella Water Management Programs (PreventLD Training). The online training was designed for public health professionals, building managers, maintenance and engineering staff, safety officers, equipment and water treatment suppliers, infection control specialists, and other professionals involved in WMP design and implementation. CDC worked in partnership with the National Network of Public Health Institutes, the University of Arizona Mel and Enid Zuckerman College of Public Health, and the Western Region Training Center at the University of Arizona to create the PreventLD Training. A team of LD subject matter experts from federal agencies, industry, and health departments reviewed and provided consultation at every stage of the training development. The training meets CDC quality training standards, including a training needs assessment, accurate and relevant content, and learner engagement opportunities.



