

## ▶ DIRECT FROM CDC ENVIRONMENTAL HEALTH SERVICES



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## Environmental Health Shelter Assessments: Using Tools to Protect Occupants After Disasters

**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.

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Every year, disasters affect jurisdictions across the U.S. and its territories. These disasters, whether natural or human-made, often result in displaced people—either ahead of the event to protect people or following the event because of damage and destruction to homes.

Many of these displaced individuals will be housed in a disaster shelter. Public health and environmental health teams have a key role in protecting the health of people in shelters. Meeting the basic human needs of people for safe shelter, food, water, and space are high priorities for any disaster response and recovery operation.

The types of facilities used as shelters can vary from open or congregate shelters that house a few individuals to large megashelter facilities that hold thousands. Noncongregate shelter arrangements can include ves-

sels, hotels, and dormitories. Other types of shelters include medical shelters and Federal Medical Stations, tent cities, flotation barges, and impromptu shelters.

While disaster shelters protect people from the direct effects of the natural environment, a number of public health issues can arise in the living environment. Postdisaster environmental conditions can result in outbreaks of diseases and exacerbate other health conditions. Some of the reported outbreaks occurring in shelters used in emergencies have been respiratory, gastrointestinal, and skin infections.

Environmental health teams need simple tools that are easy to implement across various disaster types to evaluate and document potential health threats in shelters. The 2005 hurricane season, which included hurricanes Wilma, Katrina, and Rita, was a wake-up call

for how we need to care for large numbers of displaced people after a major disaster. These events demonstrated the importance of having standard systems for monitoring shelters, locally and nationwide. For example, at the peak of the event, more than 1,200 shelters were in operation in over 20 states. Existing systems, such as the National Shelter Systems operated by the American Red Cross, maintain information about registered facilities—locations, size, capacity, and occupant census—but do not provide information about hygiene, sanitation, and other important public health issues. As part of the preventive efforts by public health agencies, on-site shelter assessment can be conducted to evaluate any health and safety risks to occupants.

Following the 2005 hurricane season, The Centers for Disease Control and Prevention's (CDC) National Center for Environmental Health (NCEH) reviewed existing guidance and standards for disaster shelter assessments, working with experts from local, state, and federal government agency representatives; academia; and nongovernmental organizations. To address the findings of the review, CDC released in 2008 its first shelter assessment tool. The assessment tool and tool instructions included 98 safety areas or variables in 10 categories. Over the next 10 years, the tool or modified versions of the tool became the official shelter assessment in many state and local preparedness programs and has since been used in a number of domestic and international disaster events. This form became the adjunct tool for teaching environmental health professionals how to assess disaster shelters in CDC's Environmental Health Training in Emergency Response (EHTER). Since EHTER launched, thousands of environmental health

professionals have been trained on how to use this assessment tool.

In light of the evolving and increasingly complex nature of emergencies, CDC and its partners saw the need to update the 2008 version of the Environmental Health Assessment Form for Disaster Shelters. In 2018, the revision process began by convening partners from local, state, and federal government agencies and nongovernmental organizations within environmental health and emergency management professions. Through a series of interactive web conferences, more than 100 suggested changes were received. NCEH subject matter experts evaluated all suggestions and shared the draft document for approval by the partners. The new version of the form adds safety areas to be assessed such as prepared food, potable water, hygiene routines, hazard-

ous material handling, medical waste disposal, child care areas, and companion animals.

People will continue to be at risk during disasters as the dynamic complexity and range of public health issues evolves. These interagency workgroup efforts serve as a model of collaboration among disaster partners for improving an existing disaster assessment tool. Although no one can predict the next disaster, environmental health professionals need to be equipped with the appropriate tools and resources to assist in ensuring that disaster shelter facilities remain safe, clean, and monitored for potential environmental hazards. 🗺️

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Quick Links
<ul style="list-style-type: none"><li>• Download the Centers for Disease Control and Prevention's updated Shelter Assessment Tool: <a href="https://emergency.cdc.gov/shelterassessment/">https://emergency.cdc.gov/shelterassessment/</a></li><li>• Learn more about Environmental Health Training in Emergency Response (EHTER): <a href="http://www.cdc.gov/nceh/ehs/elearn/ehter.htm">www.cdc.gov/nceh/ehs/elearn/ehter.htm</a></li></ul>

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# Did You Know?

Work is underway to update the Model Aquatic Health Code. Change requests can be submitted to the Council for the Model Aquatic Health Code by January 6, 2020. The new edition will be released in 2021. To submit a change request, visit [www.cmahc.org/enter-change-request.php](http://www.cmahc.org/enter-change-request.php).



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