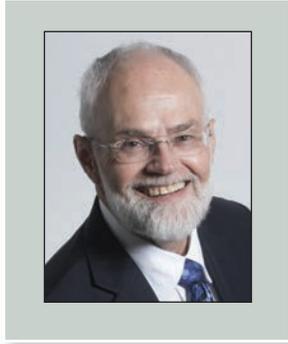


▶ PRESIDENT'S MESSAGE



Vince Radke, MPH, RS,
CP-FS, DLAAS, CPH

Can You Hear Me?

The lesson for all of us is to listen to the people in our communities.

Back in the early 1980s, I was director of environmental health for the city of Stamford, Connecticut, and had a staff of eight sanitarians and a secretary. We did the typical work of an environmental health staff. We performed inspections of restaurants (all paper based with carbon copies), septic systems, private drinking water wells, solid waste, complaints, and foodborne and waterborne illness outbreaks. We also had programs for outdoor air monitoring, recreational water (beaches and swimming pools), and recreational shellfishing.

At that time, the U.S. Environmental Protection Agency (U.S. EPA) put out a request for proposals for grant money to local public health departments for noise reduction projects. We submitted our proposal and it was approved. Our noise reduction project had several components. Our environmental health staff worked with community leaders, faith-based groups, businesses, and schools to draft an ordinance for the mayor and city council to consider. After discussion, debate, and some amendments, the ordinance was approved. The ordinance established noise levels that were based on the science, medicine, and technology of the time for both stationary and mobile (e.g., trucks and cars) sources of noise. Our environmental health section handled the stationary sources of noise. The local police department handled the mobile sources of noise. We did not handle workplace noise issues. As part of the U.S. EPA grant, the health and police departments received noise meters, training, and consultation from subject matter experts from U.S.

EPA. Part of the training included the negative health impacts of noise.

The ordinance required the health department to investigate complaints of noise within the city limits of Stamford. Based on the complaint, we would monitor the noise levels over time. Sometimes we were required to monitor noise levels late at night. If necessary, we would issue warnings to those causing the noise. If after multiple warnings the noise level continued to be above the level established in the ordinance, a court summons was obtained and a fine could be assessed.

Noise is defined as unwanted sound. It has been well established by U.S. EPA, the World Health Organization, and other medical and health organizations that excessive noise causes serious harm to human health and interferes with people's daily lives. Noise, by some, is considered the most pervasive pollutant. Given the extent of its negative impact on health, noise is a very important hazard to monitor and control. Excessive noise can result in negative physiological and psychological effects on exposed individuals. The physiological effects include hearing loss, increased high blood pressure, stress, and

fatigue. The psychological effects can be loss of concentration, reduced performance, sleep disturbance, and depression. Excessive noise interferes with communication, including the difficulty in hearing a conversation, misunderstanding what is being said, or missing a warning signal.

The National Institute for Occupational Safety and Health (2019) states that in the U.S., hearing loss is the third most common chronic physical condition among adults. It is twice as prevalent as diabetes or cancer. About 11% of the working population has hearing difficulty and about 24% of the hearing difficulty among U.S. workers is attributed to occupational exposures.

Excessive noise leading to hearing loss also has a negative economic impact. Hearing loss not only contributes to lower productivity but also leads to lower income. Furthermore, there is the additional cost to provide health and other services for those with hearing loss. It is estimated that hearing loss cost \$297,000 over the lifetime of every affected person (Mohr et al., 2010). The national cost of initial hearing loss treatments is projected to multiply 6-fold between 2002 and 2030 from \$8.2 billion to \$51.4 billion (Stucky, Wolf, & Kuo, 2010).

As I mentioned at the beginning of this column, I applied for a U.S. EPA noise grant. I applied for the grant because the health department had received noise complaints from Stamford residents. The lesson for all of us is to listen to the people in our communities.

In 1974, a U.S. EPA report identified 70 decibels (dB) over 24 hours (75 dB over 8 hours) as the average exposure limit to environmental

noise. They identified levels of 55 dB outdoors and 45 dB indoors as the highest average levels of noise that will permit spoken conversation, sleeping, working, and recreation. These are average levels, not peak levels. Occasional higher noise levels should not cause noise-induced hearing loss if the 24 hours include a sufficient amount of quiet time for hearing recovery between high noise level exposures. These limits are not regulations but guidance. They give you, your community, and local and state governments the basic information to use in setting regulations. As I did with my community, you can work with individuals and organizations in your community to draft ordinances related to noise. Our noise ordinance in Stamford was related to complaints—noise annoyance rather than hearing hazard risks. Your ordinance might require warning

signs, the use of hearing protection, or lower noise levels between certain hours. In 2014, the Minneapolis city council passed an ordinance that required bars and clubs to offer free ear plugs to customers.

I will end with a few personal notes. I have some noise-induced hearing loss. I carry ear plugs with me and have a sound meter app on my smartphone. I look forward to hearing from all of you (at 45 dB or lower) at the National Environmental Health Association's 2019 Annual Educational Conference & Exhibition in Nashville, Tennessee, in just a few months on July 9–12 (see page 46 for information on the conference). 🎧

Vince _____
 President@neha.org

References

- Mohr, P.E., Feldman, J.J., Dunbar, J.L., McCorkney-Robbins, A., Niparko, J.K., Rittenhouse, R.K., & Skinner, M.W. (2000). The societal costs of severe to profound hearing loss in the United States. *International Journal of Technology Assessment in Health Care*, 16(4), 1120–1135.
- National Institute for Occupational Safety and Health. (2019). *Occupational hearing loss (OHL) surveillance*. Retrieved from <https://www.cdc.gov/niosh/topics/ohl/default.html>
- Stucky, S.R., Wolf, K.E., & Kuo, T. (2010). The economic effect of age-related hearing loss: National, state, and local estimates, 2002 and 2030. *Journal of the American Geriatric Society*, 58(3), 618–619.

Did You Know?

NEHA will host its Third Annual Hill Day in Washington, DC, on May 1. NEHA's board of directors will meet with elected officials and their staff to discuss the importance of environmental health. Stay tuned to www.neha.org for more information about this event!

SUPPORT THE NEHA ENDOWMENT FOUNDATION

The NEHA Endowment Foundation was established to enable NEHA to do more for the environmental health profession than its annual budget might allow. Special projects and programs supported by the foundation will be carried out for the sole purpose of advancing the profession and its practitioners.

Individuals who have contributed to the foundation are listed below by club category. These listings are based on what people have actually donated to the foundation—not what they have pledged. Names will be published under the appropriate category for 1 year; additional contributions will move individuals to a different category in the following year(s). For each of the categories, there are a number of ways NEHA recognizes and thanks contributors to the foundation. If you are interested in contributing to the Endowment Foundation, please call NEHA at (303) 756-9090. You can also donate online at www.neha.org/about-neha/donate.

Thank you.

DELEGATE CLUB

(\$1–\$99)

Name in the Journal for 1 year.

Clora Aikens
 Thomas E. Arbizu
 Lisa Bushnell
 Angelo Campione
 Kimberly M. Dillion
 Catherine A. Dondanville
 Bruce M. Etchison
 Wendy Fanaselle
 Darryl J. Flaspaler
 Christopher J. Foster
 Gerald Freeman
 Roberta E. Frick
 Monica A. Fry
 Heather Gallant
 David P. Gilkey
 Carolyn J. Gray
 Eric S. Hall
 Trefa Hinds
 Donna M. Houston
 Soheila Khaila
 Jim Langevin
 Maria G. Lara

Sandra Long
 James C. Mack
 Robert E. McDonald
 Brion Ockenfels
 Priscilla Oliver
 David Piergiacomini
 Kathryn Pink
 Joy L. Ramsey
 Jacqueline Reszetar
 Labib Sarikin Samari
 Janu Shrestha
 Anton Shufutinsky
 Crystal Stevenson
 Daniel Sullivan
 Emilia A. Udofia
 Tom Vyles
 James M. White
 Regina Young
 Linda L. Zaziski

HONORARY MEMBERS CLUB

(\$100–\$499)

Letter from the NEHA president and name in the Journal for 1 year.

Imran Khan

Iowa Public Health Association
 Roy Kroeger
 Adam London
 Lynne Madison
 Larry Ramdin
 Matthew Reighter
 Ned Therien
 Gail P. Vail

21st CENTURY CLUB

(\$500–\$999)

Name submitted in drawing for a free 1-year NEHA membership and name in the Journal for 1 year.

Brian K. Collins
 Tim Hatch
 LCDR James Speckhart
 Leon Vinci

SUSTAINING MEMBERS CLUB

(\$1,000–\$2,499)

Name submitted in drawing for a free 2-year NEHA membership and name in the Journal for 1 year.

James J. Balsamo, Jr.
 Bob Custard
 David Dyjack
 Jeffrey J. and Mary E. Burdge
 Charitable Trust
 George A. Morris

AFFILIATES CLUB

\$2,500–\$4,999)

Name submitted in drawing for a free AEC registration and name in the Journal for 1 year.

EXECUTIVE CLUB AND ABOVE

(\$5,000–\$100,000)

Special invitation to the AEC President's Reception and name in the Journal for 1 year.

Vince Radke