

▶ PRESIDENT'S MESSAGE



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The U.S. has remarkable water systems—designed, built, and operated over nearly two centuries of technical, social, and economic advances. The infrastructures of these systems, however, are aging and deteriorating. Many urban distribution systems were designed and built in the first half of the last century with materials, such as lead, that either are now considered toxic or that threaten the quality of the drinking water that is delivered. In rural areas, small community drinking water systems were often built in a piecemeal fashion, growing sequentially without overall design or measure of potential capacity. Now those systems have undersized water sources, inadequate water treatment, and in many cases, insufficiently trained system operators.

The provision of safe drinking water to our communities, urban or rural, is the obligation of environmental health professionals. As practitioners, our profession provides the expertise to find and develop adequate water sources, investigate and upgrade aging or poorly designed distribution systems, and mitigate the effects of unacceptable materials.

In general and historically, environmental health practitioners have done a good job in protecting our communities by providing an adequate quantity and quality of drinking water. We, as professional practitioners, and NEHA, as our premier professional organization, however, must examine and take leadership in identifying and solving two undeniable problems in providing sufficient amounts of safe drinking water.

The problems associated with not having acceptable drinking water have a domino

Water and Environmental Equity

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effect in many environmental health areas. The negative effect of poor drinking water quality affects many of our other environmental practices in food safety, the built environment, and sewage transport and disposal. The first major problem our profession must target is the identification and remediation of decaying distribution systems, inadequate sources, and contamination by construction materials. Although this problem is large and complicated, it can be solved by straight forward identification and application of environmental health principles.

The second major problems that environmental health practitioners are best equipped to address and solve is water equity. Around the country, water equity is a term that has been used to define the interrelationship between local populations (e.g., rural, low income, city center) and the drinking water

supplies that influence their health and community sustainability. Water equity is defined as the proportional and equitable distribution of water related to environmental benefits and risks among diverse economic and cultural communities. Water equity ensures that policies, activities, and government responses do not differentially impact diverse social, cultural, and economic groups. Water equity promotes the provision of safe drinking water for all people.

Flint, Michigan, is an example of the failure to apply water equity principles. A low socioeconomic community was, according to media reports, the most affected population in Flint. Among the adverse consequences of the entire incident was an abiding mistrust of government agencies and expertise. A positive outcome is that public and political focus has been put on water infrastructure and the frailty of existing systems. Water inequities, however, exist not only in urban inner city areas, but now appear to be equally prevalent in small rural communities. These rural communities do not have the population or revenue to maintain and properly operate their water supply systems. Nor do these rural water systems have the financial ability to newly develop or upgrade existing water sources.

Environmental health professionals are—by education, experience, and training—best suited to identify the physical factors leading to inadequate drinking water, as well as the socioeconomic characteristics of urban and rural low-income communities. Water equity, as part of the larger environmental equity concern, is an emerging environmental practice within our profession.

- The problems extending to water include instances where urban and rural low-income communities are disproportionately burdened with drinking water hazards ranging from contamination and deteriorating distribution systems to inadequate water sources;
- land use planning and housing that perpetuate exposure to contaminants such as lead;
- failure to enforce water policies and regulations due to inadequate funding or lack of personnel;
- failure of policies, laws, and regulations to keep pace with science-based parameters for drinking water; and

- failure to study cumulative risks and impacts from the consumption and use of poor quality drinking water.

Regional studies and stories from across the country illustrate the water struggles of low-income urban centers and rural communities. Accurate, uniform data on water quality, quantity, and use do not exist in many places and are not collected and analyzed nationwide. There is also a lack of data analysis by demographics and socioeconomic factors.

The environmental health profession is uniquely qualified to address the problem of providing safe drinking water. Our profession must identify the physical conditions that

might result in water quality hazards. It is our obligation to promote scientific laws and regulations that assure safe drinking water. It is also our responsibility to ensure that activities that reduce water quality hazards are provided to all communities, regardless of economic or cultural factors.

The environmental health profession and NEHA need to be major influencers in the assurance of water equity in all our communities. 🐼

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Did You Know?

Water quality is a major area of focus for NEHA. Our water quality page is always being updated with new e-learning opportunities, relevant credentials, and upcoming events and webinars. Check it out today and learn more at www.neha.org/eh-topics/water-quality-0.

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