

► **DirectTalk** MUSINGS FROM THE 10TH FLOOR



David Dyjack, DrPH, CIH

Go Big or Go Home

My rickshaw driver weaved in and out of traffic with the skill and agility of Houdini, skirting high impact collisions by mere millimeters. What in the world was I doing in Bangladesh? I represented NEHA and moderated a panel session at the International Conference on Urban Health in Dhaka, May 24–27, 2015. In the midst of the inner city bedlam I marveled that 1,000 people a day move to Dhaka, a teeming metropolis of some 18 million, most who are seemingly committed to being on the road all at the same time. One thousand people a day. That's one city absorbing more people per day than the number who migrate to the entire state of Colorado, over the same time period.

We find ourselves in the midst of the Century of Urbanization. Today, for the first time in history, more than half of the world's population resides in cities, with an estimated migration trend inflating that number to 70% by 2050. For the record, this is not news. Today, 5% of the nation's 2,800 local health departments provide services to 50% of the U.S. population, which suggests that most of us already prefer to reside in large urban areas.

This reversal of suburbanization creates a wealth of opportunities and challenges for those of us in the environmental health professions, bringing new significance to trans-disciplinary collaboration. Ironically, this lesson came home to roost recently during a torrential downpour here in Denver. As shown at right bottom, the vehicle I was in stalled in three feet of water just outside an apartment complex in the downtown area of Cherry Creek,



The streets of Dhaka fill with frantic activity and numerous people.



Flooding in the streets of Denver creates numerous challenges.

a hop, skip, and jump from NEHA's office. As the water gushed in through the seams of the vehicle door, I opted to partially disrobe and escape the deluge through an open window. The city estimates it will require a \$1.5 billion investment to redesign the drainage system

to accommodate heavy downpours, just like those predicted by climate change models. A good land use planner with an environmental health orientation would be a welcomed addition to the design and development team dedicated to urban conditions that maximize percolation and minimize run-off during torrential precipitation. That's environmental health in the great outdoors; the indoor environment merits its own consideration.

Indoor air quality specialists take note. Forty percent of global energy consumption originates in buildings, producing some 40% of the CO₂ emissions, a major greenhouse gas. Undoubtedly greater emphasis on heating, ventilating, and air conditioning (HVAC) system efficiency will be achieved over the near term, which will drive a commensurate demand in preventive environmental health services as each of us takes some 23,000 breaths a day in highly sealed, energy efficient building conditions. Ironically, building ventilation systems frequently use public water as a source of humidification and cooling. Many U.S. water distribution systems are plagued by biofilm, a product of aging pipes. Again, environmental health professional skills and sensibilities will be highly desired at the intersection of engineering and health in the modern built environment. Speaking of aging, the silver tsunami is upon us.

In 2010 roughly 13% of the world's population was over the age of 65. By 2050 that proportion is estimated to be roughly 20%. That's a boatload of old folks, of which I will be one. What are the characteristics of an

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age-friendly city that will keep me vibrant? For starters, well-designed housing, access to transportation, and proximity to clinical services. Those clinical services will ideally be free of health care-acquired infections and modern antibiotic-resistant superbugs. A new generation of environmental health professionals will be needed to assess these innovative, space conscious, built environments, not as they exist today, but the highly integrated ones of the not-so-distant future.

Urban green space is another area where the environmental health professional of the future may create and deliver value. Research has shown that children of color and low-income communities who have more access to green space have lower rates of obesity than children whose activities are limited to streets and sidewalks. In a country inundated with chronic disease and health disparities, this is a no-brainer. Before urban or industrial space is reclaimed for recreation, environmental health professionals are essential promoters and protectors of the public's health through care-

ful real estate assessments and brownfields approaches, as necessary. This has our profession written all over it.

We also need to prepare ourselves and future practitioners to engage in policy issues related to sustainability. While conducting a Council on Education in Public Health (CEPH) site visit recently I stayed at a hotel that was hosting a well-known global health product provider, who evidently was convening their annual technical meeting. I was delighted to see that they had added an "s" on the end of their division. They are no longer limited to the traditional environmental health and safety (EHS); they had taken on sustainability as part of their corporate mission (EHS&S). Urbanization will benefit from our policy contributions to the sustainability conversation. These policies will promote employment opportunities, adequate infrastructure for water and sanitation, renewable energy, and active living. All the while working to preserve natural assets within the city and surrounding areas that are vital to our spiritual, physical, and mental health. Sustainability is central to our emerging roles and responsibilities and our profession needs to claim this space.

The fact is, cities are at the crossroads of social, cultural, and economic innovation. People increasingly want to live in cities, bringing new challenges to our profession and way of life. As my friend Shelley Hearne, director of the National Association of County and City Health Officials Big City Health Coalition, recently conveyed to me: "Place matters. And cities are becoming the lead innovators in how to make their places the healthiest possible. Often environmental health programs are leading the pack and helping drive health into all aspects of city life—from housing to transportation to local food systems. You might almost say it's 'environmental health in all policies.'"

Urban infrastructure should be designed and renovated sensibly to accommodate the "new normal" associated with climate change and shifting demographics. Yes indeed, Shelley is correct. In public health place does matter, and society will benefit when environmental health in all polices is the standard bearer in the age of Big Cities. 🐼



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NEHA NEWS



Dr. Pat Breyse (back row, second to the right) stops to take a photo with NEHA Executive Director Dr. David Dyjack (back row, third to the right) and many of the staff during his July visit.

VIP Visitor at the NEHA Office

NEHA was honored on July 7, 2015, with a visit from Dr. Pat Breyse and several of his staff. Breyse, director of the National Center for Environmental Health/Agency for Toxic Substances and Disease Registry (NCEH/ATSDR) at the Centers for Disease Control and Prevention (CDC), took time out of his busy schedule

to meet with Dr. David Dyjack, NEHA's new executive director, and address the NEHA staff. Breyse joined CDC in December 2014 and leads its efforts to investigate the relationship between environmental factors and health. He has an impressive and broad environmental health background and shared with NEHA that he is carrying on the "family business" as his dad was a sanitarian.

Breyse discussed with NEHA a few of the priorities within NCEH/ATSDR such as asthma health disparities and the importance of the Environmental Public Health Tracking Program. He went on to emphasize that environmental health needs to be more vocal in telling its stories and educating the public on the importance of environmental health.

NEHA was privileged to have Breyse attend the recent 2015 Annual Educational Conference (AEC) & Exhibition in Orlando and provide the opening welcome. We are grateful to Breyse for taking the time to address the AEC attendees and our staff. We look forward to collaborating more closely with Breyse and NCEH/ATSDR in the future with the combined goal of advancing the environmental health profession. 🐼