

How Environmental Health Can Address Global Climate Change

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Environmental Health practice is in an opportune position to document and respond to the impacts of climate change—from increased vector-borne disease to health impacts from more extreme weather—and also in a position to provide solutions to near-term and long-term climate change problems.

In a sense, this is what we have always done. For centuries, most of the significant gains in life expectancy across the planet have been due to the advances in environmental public health. Major 18th and 19th century killers like cholera, typhoid, and dysentery were brought under control by attention to sewage management, sanitation and vector control, water purity, and food safety.

In 1900, the average person living in the United States could expect to live 47 years. By 1950 life expectancy from birth was 68—an almost 50 percent gain. In large measure this was due to the work of Environmental Health professionals, who were charged to enforce rules and regulations for restaurants, dairies and meat processing facilities, water and sewage plants, and garbage dumps.

Unfortunately, these gains have not been enjoyed equally across race and class, nor across borders from developed to developing world.

In the 1960s, Environmental Health expanded to address emerging concerns like air pollution, toxic chemicals and hazardous waste, an effort that gave rise to organizations such as the Environmental Protection Agency and the Occupational Safety and Health Administration.

At Public Health - Seattle & King County, in other health departments throughout Washington

State and possibly in other states, the environmental public health profession seemed lukewarm to this new direction. Air pollution control was split off. Toxics control was typically given to federal and state agencies to manage. Even drinking water control was a state function. Locals focused on fee-based, compliance inspection programs that stuck to the traditional—primarily wastewater, food safety, solid waste, and nuisance control.

Enter the 21st century. Global climate change is part of all our vocabularies, yet on a local level, what role does the environmental public health practitioner have? Environmental health challenges that may be brought on by climate change include: increased zoonotic disease and vector-borne illness, increased air pollution, and impacts from variable weather, including heat waves and floods, water and wastewater management concerns, and many others.

The question facing Environmental Health practitioners is how will this added level of environmental health complexity change the focus of local work? Will climate change in our region disproportionately affect some residents, and if so, how can we ensure we keep social justice and equity at the core of our work?

At Public Health - Seattle & King County, we are in a strategic planning process that we expect will place our environmental health specialists squarely in the middle of climate change mitigation and adaptation.

Our approach to climate change is within the context of the larger King County Climate Change Plan, which was launched by the county executive in 2007. Our strategic planning process will incorporate the goals of the county into our own operations. Our workforce can use our vehicles more wisely, plan better routes, walk wherever possible, and use field-based technologies to reduce the need to come back and forth. We will also explore the use of alternative work schedules to reduce the number of staffed days at work as long as our customers' needs can be accommodated.

Another King County priority is converting waste to energy, for example, at our landfills. Environmental



Photo: Lisa Nerat

King County food inspectors had a challenge of reopening restaurants that had been flooded.



Photo: Lisa Nerat

climate change activities. Through our strategic planning process we will develop goals and strategies for bringing a climate-focused approach to the work that we do.

Returning to our basic concern, will the environmental public health profession embrace the new environmental health challenges posed by climate change? Will we learn to structure our work to encompass the

health specialists can incorporate best practices into permitting requirements for landfills to encourage this untapped energy opportunity.

Environmental Public Health can play an enormous role in educating the people and businesses we inspect and permit. While changing codes to require climate-friendly actions is one possibility in the long run, in the short term we can also use education to raise awareness and promote behaviors. For example, we can encourage our 10,000 King County food establishments to recycle used oils rather than disposing of them. We can encourage these establishments to recycle their food waste and purchase as much of their food as they can locally.

We can explain how climate-friendly plumbing systems save water and energy to the thousands of homeowners and businesses we provide plumbing and gas piping permits to each year. We can stay up-to-date about on-site sewage systems that minimize water use and reduce the chance of septic system failures under extreme conditions.

We can participate in policy and code development that does the same. Our zoonotic disease and vector control work will be key to understanding and acting upon the new and reemerging vector-borne diseases that climate change may bring to our region. This work will also guide how we educate our communities about protecting themselves from diseases such as West Nile virus.

The county plan emphasizes the importance of land use. Through our new Built Environment and Land Use (BELU) program, we are bringing health to the planning table, encouraging safe, walkable, and sustainable neighborhoods for all our residents. We are already using health impact assessments to focus attention on the health implications of projects from bridges to neighborhood redevelopment.

While our BELU program may be just getting underway, we expect to be using it as a hub for our

necessary mitigation and adaptation strategies?

The answer—we think at least here in King County—is a resounding yes, because we have already begun to make the investments in this arena. For the past two years, the Local Hazardous Waste program has been implementing a strategic focus on toxics reduction and elimination, product stewardship and prevention through the precautionary principle.

One of the products of this work is the new Green Purchasing policy, which will be piloted in Public Health. Success would reduce energy use in production and waste disposal, which will in turn mean less pollution in the environment that contributes to climate change.

The plumbing program is reviewing how it can support rainwater harvesting. This year, plumbing inspectors are using field-based technology such as tablet computers, which will increase the efficiency of their time in the field and decrease the number of miles that they drive.

Our strategic planning efforts will examine our operations, including the rules and regulations that integrate climate mitigation and adaptation strategies. We will employ an equity lens so that communities of color and people in poverty do not suffer disproportionately from the effects of our climate change policies.

Through all of these efforts, Environmental Health will take a position that is familiar to our profession—at the forefront of building communities that sustain and improve the number of healthy years lived for each of our residents. ■

Authors

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