EDITOR'S CHOICE

Healthography

Geography matters to public health. Cancer, heart disease, stroke, and other chronic diseases vary—sometimes markedly—by nation, state, and local areas. Migrant studies have helped in understanding these differences. Tornadoes, hurricanes, floods, and other hazard-related deaths are hard to predict at a specific location, but the more that is known regarding a region's history of hazards, the better the predictions of where and when hazards will strike. Likewise, health is not randomly distributed in space. I have spent my career looking for high-risk populations in specific locations and advising decision-makers on where to make prudent investments to reduce risk. These efforts are sometimes termed medical or health geography, and at other times risk analysis. Now there is a new term: healthography.

Healthography underscores the reality that where you live impacts your health and well-being. I begin with words of caution. At a national meeting of the *Association of American Geographers*, I was asked to address geographers about pitfalls in medical geography, because certain colleagues had decided they were really public health scientists. Their evidence was maps of cancer death rates that showed correlations with hazardous waste sites at the county scale. Yet these studies contained fundamental errors, such as miscalculating death rates, inappropriately assuming exposures through water pollution when residents did not drink water from the local area, and so on. I ended by stating that if you want to talk like a public health scientist, you also need to walk the walk. By that I meant that medical geographers needed to learn the basic theories and tools of public health. Likewise, while I embrace the idea of healthography, I worry that certain public health scientists may believe they can map health outcomes without having any background in autocorrelation, multiple scale analysis, spatial weighting, and other methods that geographers routinely use. It would be easy for them to draw similarly inappropriate conclusions because they are not trained in the basic theories and tools of geography. They simply did not walk the walk.

Despite this misgiving, I am excited about the idea of public health workers and researchers using space to sort data and ideas. This might begin with "basic healthography," or learning to appropriately display spatial data for a community, municipality, or other jurisdiction in five distinct base layers of data: (1) demographics; (2) health and environmental monitoring; (3) the environment, with an emphasis on vulnerabilities such as floodplains and landslide areas; (4) assets and hazards in the environment, such as roads and bridges, medical facilities, and abandoned buildings; and (5) the social context that can aid in public communication, such as community centers, schools, and radio stations. Many locales already have all of these basic layers populated with dozens of attributes. These data layers are updated regularly and used for hazard mitigation and other planning purposes. Unfortunately, the vast majority of jurisdictions do not maintain up-to-date data, nor do many have mapping capabilities. I foresee that this will change as computing technology becomes less expensive and mapping software becomes more accessible.

Three articles in the current issue illustrate the use of scale as a way of sorting methods and ideas for testing. At the neighborhood scale, Robinowitz et al. studied the utility of a mobile wound clinic in Baltimore, Maryland, concluding that it appears to be an idea that would work in many neighborhoods (pp. 2057–2059). At the regional scale, Deren et al. found that HIV prevention and treatment have reduced drug-injection–related HIV in the mainland United States—but not in Puerto Rico—and argue for a federally supported intervention to diffuse evidence-based methods to the latter (pp. 2030–2036). At the international scale, Barthold et al. compared health outcomes and investments among 27 OECD (Organisation for Economic Co-operation and Development) countries during the period 1991 to 2007, observing major differences among nations and between men and women (pp. 2163–2169). As more communities and nations develop standardized healthography databases, public health researchers will be able to conduct multijurisdictional research to direct policymakers regarding the key places to make investments to protect the public and their homes. ■

Michael R. Greenberg, PhD
AJPH Associate Editor

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