Health impact assessment (HIA), a systematic way of incorporating health considerations into the public policy decision-making process, has been set into motion in North Carolina. The state’s public health and planning fields are well positioned to become leaders of HIA and should prepare to take proactive measures to promote health in their communities.

I once asked a colleague at the Centers for Disease Control and Prevention (CDC) why he left a profitable practice in family medicine to join the Public Health Corps. His answer surprised me. I expected him to say the malpractice insurance was too expensive or the hours too demanding. Instead, he simply said he had reached the point where he felt that if he saw another child who was obese, asthmatic, or prediabetic, he would go insane. It was time for a change, he said, and he thought it would be better to help prevent health problems rather than just treat the diseases. He was embracing an upstream approach to health that would have a profound influence on public health by focusing on preemptive strategies such as making changes to the built environment and passing health-promoting policies.

Because I was a city planner working for the first time in public health, this concept took a while to resonate with me. After all, at the time I defined health as the opposite of being sick. I had a lot to learn. Fortunately, at the CDC, I was in one of the best places possible to learn about public health, the social determinants of health, health inequities, and a process that considers all of these: health impact assessment (HIA).

What Is Health Impact Assessment?

The National Research Council proposes the following technical definition for HIA:

> HIA is a systematic process that uses an array of data sources and analytic methods and considers input from stakeholders to determine the potential effects of a proposed policy, plan, program, or project on the health of a population and the distribution of the effects within the population. HIA provides recommendations on monitoring and managing those effects [1].

The HIA process is broken into 6 steps: screening, scoping, assessment, recommendations, reporting, and monitoring and evaluation. These steps, which are elaborated on in Figure 1, are fluid and tend to influence one another.

HIA uses a combination of sources and methods of analysis, depending on the topic and the sector (eg, transportation, housing, energy) in which the assessment is being conducted. Each sector is unique, and the flexibility of the HIA process, which makes it possible to evaluate potential health outcomes of diverse types of decisions, is one of its greatest strengths. HIA is a participatory process; it gathers stakeholder input and incorporates public engagement at every stage. Public engagement can take many forms and should be appropriate for each stakeholder group. HIA can also be applied to the 4 Ps, which include policies, plans, programs, and projects. For example, it can be used to inform decisions concerning the built environment (typically in the form of plans, projects, and policies, such as a comprehensive transportation plan, specific transit project, and local planning ordinances), as well as programs and policies outside of the built environment (such as the Supplemental Nutrition Assistance Program and a minimum wage policy).

It estimates the distribution of health impacts across a population and can be used to study and address health inequities. One of the main tenets of HIA is that it considers those who, as a result of various circumstances, may be more adversely affected by the decision being made than other people are. Therefore, community engagement and empowerment are key components of HIA. HIA is proactive and provides suggestions to promote positive health impacts and to prevent or mitigate negative ones. This means that HIA must be completed before a decision is made, preferably early enough in the planning or policy development process for recommendations to be incorporated.

The Value of HIA

The value of HIA is felt by those participating in it—from health professionals to community members. For health professionals, HIA is a way to bring health concerns to the attention of decision makers and to form partnerships with professionals in other fields, such as planning, in order to...
incorporate health considerations into local policies and procedures. For planners, HIA is another source of information to strengthen plans and an additional means of community engagement. For members of a community, HIAs can be a form of empowerment and can provide useful information for grassroots community action. For decision makers, HIA can provide additional perspectives on and information about a decision, and can also facilitate community buy-in. Ultimately, the value of doing an HIA is to create health-promoting policies and a healthier built environment.

**HIA in the United States and North Carolina**

HIA was initially developed in the early 1990s in Europe (mainly the United Kingdom) and the Australasian region [2]. International banking corporations such as the International Finance Corporation also incorporated HIA into the evaluation process for development loans in third-world nations [2]. As the practice grew, guides for conducting HIAs were developed, and the process was refined and tailored to serve the needs of specific sectors, such as transportation and housing [2].

By April 2012, more than 170 documented HIAs had been conducted or were in progress in the United States, with about half of them taking place on the West Coast or in Alaska [3]. The practice of HIA has developed slowly in the United States. The first recognized HIA report in this country was completed in San Francisco in 1999 on a proposed minimum wage policy [3].

By April 2012, when the inaugural HIA conference in the United States was held, 13 HIAs had been carried out or were under way in other southeastern states, including 7 in Georgia, 2 in Tennessee, 2 in Kentucky, 1 in South Carolina, and 1 in Virginia [2]. Two HIAs have been completed in North Carolina, one in association with the comprehensive bicycle plan for Haywood County (November 2011) [4], and another with regard to the Aberdeen pedestrian transportation plan (December 2011) [5]. In Raleigh, 2 HIA efforts have been under way since early 2012, one regarding the Blue Ridge Road District study [6] and the other, the New Bern Avenue Corridor study [7].

**HIA Efforts in Davidson: The Davidson Design for Life Initiative**

Davidson, a small college town about 20 miles north of Charlotte with a population of approximately 11,000, has set a precedent. By launching Davidson Design for Life (DD4L), a 3-year initiative using HIAs to promote healthy community design, the town is one of the first municipalities and the first small town in the nation to make a concerted effort to establish a continuous HIA program.

In September 2011, Davidson was awarded a grant by the Healthy Community Design Initiative of the CDC's National Center for Environmental Health. The 5 other grant winners were the local health departments in San Francisco, Baltimore, and Douglas County, Nebraska, and the state health departments of Oregon and Massachusetts. As the only grantee operating outside of a health department (DD4L is operated within the town's planning department), Davidson has a unique opportunity to test how HIA works within a local government setting and how it can be used to...
improve health in a small town.

With unique opportunities come unique challenges, including limited localized health data, limited resources external to the grant, and a small, though dedicated, staff. To overcome these challenges, Davidson has needed to rely on partnerships to conduct the 3 HIAs and 2 trainings required by the grant each year. These partnerships have been solidified with the formation of the DD4L Regional Advisory Commission, which consists of statewide leaders from public health and planning, local nonprofit organizations, and universities within the region.

In the first year of the grant, DD4L selected 3 HIAs to estimate the potential health impacts of state policies, regional transportation projects, and local planning ordinances that could significantly affect Davidson. Senate Bill 731 (Session 2011-2012) [8] is proposed state legislation that would limit a municipality’s ability to implement specific design standards in low-density residential areas (those with 5 or fewer units per acre). Removing local authority to regulate garage door location through a municipal design standard is of particular concern. Garages that protrude in front of the main entrance of a house encroach upon the pedestrian realm and may reduce the likelihood that people will walk. Such garages may also make those who continue to walk by choice or necessity less safe.

An HIA on the Red Line Regional Rail project, a proposal to convert a heavy-rail freight line to include commuter rail service from Charlotte to Mooresville, is currently underway and will likely demonstrate that the project will result in multiple health improvements. In particular, air pollution will be reduced as drivers become transit riders, and physical activity will increase as passengers walk to and from the train station. Health concerns over noise, dust, and increased rail traffic will also be examined.

The third HIA being conducted considers updates to Davidson’s street design ordinances to promote physical activity and enhance safety for all road users. As a bronze-level bicycle-friendly and walk-friendly community (as recognized by the League of American Bicyclists and Walk Friendly Communities, respectively), Davidson’s standards are already considered advanced within the state. By comparing them with national best-practice standards and models from other localities, Davidson hopes to further improve its planning ordinance.

Growing the Practice of HIA in North Carolina

North Carolina is in a good position to become a leader in HIA efforts in the Southeast. The state already has strong partnerships and state-level expertise, and innovative efforts to promote healthy communities are underway. For example, the Healthy Environments Collaborative, composed of representatives from the North Carolina Departments of Transportation, Environment and Natural Resources, Commerce, and Health and Human Services, is working to integrate and align departmental efforts to improve the health of North Carolina’s people, economy, and environments. We have excellent education and training centers in the state as well. The University of North Carolina at Chapel Hill has highly regarded graduate programs in both public health and city and regional planning, including a 3-year dual degree program combining the two fields. Active Living By Design, funded by the Robert Wood Johnson Foundation and located in North Carolina, provides communities nationwide with support for built environment projects to promote public health. In addition, the state has a very diverse population and geographic composition, with both small rural towns and large metropolitan areas, sometimes in close juxtaposition to one another, as in the case of Davidson and Charlotte. This diversity allows for HIAs to be conducted on a wide variety of topics and for various community engagement techniques to be developed.

For the practice of HIA to expand in North Carolina, 3 things must take place. First, capacity must be built through the training of current and future professionals in several fields, including public health and planning. Second, dedicated funding for HIAs must be found, whether from state funds, health foundations, or some other source. And last, a statewide network of those interested in conducting or promoting the use of HIA must be developed.

The foundation for all of these activities is currently being laid through initial HIA trainings and the statewide discussion of HIA that has begun. However, it will take the continued coordination and dedication of many sectors, agencies, and organizations to construct a firm foundation on which to build the HIA field in North Carolina.

Conclusion

To return to the story of my friend the physician-turned-public-health-professional, I am not suggesting that every physician make such a career change. We need physicians to treat patients with diseases and to help educate individuals on how to live healthy lifestyles. What I am suggesting is that it is time for physicians to return to the status of being mainstays regarding the health in their communities and to learn how decisions being made outside of the health sector are affecting their patients. I have had the chance to work with individuals from multiple sectors through my HIA efforts, and it has definitely been one of the most challenging and rewarding experiences of my life. I encourage all of you reading this article, including physicians, public health officials, and planners, to spend some time learning more about HIA and to become a champion for HIA in your communities. The time for a new approach to chronic disease prevention and health inequity is long overdue. NCMJ

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Acknowledgments

The author would like to thank Dr. Bill Williams, Chair, DD4L Regional Advisory Commission; Lori Rhew, Physical Activity Unit Manager, Division of Public Health, North Carolina Department of Public Health; Katherine A. Hebert, MCRP coordinator, Davidson Design for Life, Davidson, North Carolina; Lori Rhew, Physical Activity Unit Manager, Division of Public Health, North Carolina Department of Public Health; Regional Advisory Commission; and the staff of DD4L.
Potential conflicts of interest. K.A.H. is the Davidson Design for Life Coordinator and a recipient of funding from the Centers for Disease Control and Prevention’s Health Impact Assessment to Foster Healthy Community Design cooperative agreement UE1EH000897-01. The contents of this article are solely the opinion of the author and do not necessarily represent the official views of the Centers for Disease Control and Prevention.

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