Hero Images

Health Impact Assessment and Housing

Opportunities for the housing sector
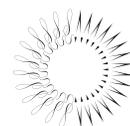
HEALTH **IMPACT**
P R O J E C T

Overview

The housing and public health sectors have a long history of working together to protect and promote health. Beginning in the late 19th century, efforts to eradicate infectious diseases, including typhoid, cholera, and tuberculosis, resulted in policies and programs, such as building codes and housing inspection systems, that have been critical in improving housing quality and preventing disease for more than 100 years.[1] Today, as scientific understanding of and policymaker attention to the impacts of physical environments on health have evolved, professionals engaged in housing, community development, and planning once again have a critical role in curbing negative health outcomes and their associated costs.

Over the past 15 years, research has consistently demonstrated the link between housing and health.[2] For example, a lack of affordable housing not only affects people's ability to acquire and maintain adequate shelter but also limits their capacity to meet other basic needs.[3] Financial constraints can force families to make tough choices between paying for rent, utilities, food, or medical care.[4] The design and quality of housing can also affect health outcomes such as asthma, cardiovascular disease, cancer, and injury, while location and social, economic, and built environments in surrounding neighborhoods can improve or constrain access to health-supportive resources, opportunities, and social networks and relationships among neighborhood residents.

Nationwide, housing officials are at the forefront of efforts to address many of these challenges by building affordable housing, supporting improvements in neighborhood infrastructure, and advancing social and economic opportunities. Every day, decision-makers in the housing sector have chances to consider health in their policies, programs, and projects in order to help mitigate pressing public health problems such as cancer, depression, obesity, injury, asthma, and diabetes that take a toll on Americans' quality of life and substantially increase health care costs for taxpayers. Understanding how to integrate public health considerations into housing decisions can improve the health of residents and the quality of the environment and ensure strong financial stewardship of public funds.

This brief introduces housing professionals and policymakers to the concept of health impact assessments (HIAs) and explains how these studies can improve decisions about projects, policies, and programs in the areas of housing and community development. It draws upon findings from a review, conducted by the National Center for Healthy Housing (NCHH) in consultation with the Health Impact Project and the National Housing Conference, of 40 HIA reports on housing-related programs, projects, and policy decisions conducted in the U.S. between 2002 and 2013.[5] For each HIA reviewed, NCHH identified information such as the lead organization, the health determinants and outcomes assessed, data sources and analytic methods used, methods of stakeholder engagement, and priority recommendations.

> " I was driving to the [Centers for Disease Control and Prevention] director's office one day for a big meeting on the 21st-century health threats, and I saw a woman struggling, walking alongside Buford Highway in 95-degree heat. She was elderly, bent over carrying shopping bags, and she looked like my mother. … If she had collapsed and died from exhaustion, the cause of death would likely have been heat stroke. It wouldn't have been an absence of trees or an absence of public transportation. And if she had been killed by a truck going by, the cause of death would have been motor vehicle trauma, not absence of sidewalks, no public transportation, or poor urban planning. … We have forgotten that much of our health is dictated by where we live, what surrounds us all the time: the physical, the social, the cultural, the nutritional environments that we're in."
>
> Richard Jackson, *former director, National Center for Environmental Health, Centers for Disease Control and Prevention*

Housing matters to health

Many of the nation's most pressing public health problems, such as asthma, depression, diabetes, and obesity, are influenced by the places where people live, work, and play. For example, an estimated 21 percent of asthma cases in the U.S. are attributable to dampness and mold exposure in housing.[6] Similarly, the difficult trade-offs that many families must make among paying for essential items such as rent and food, commonly referred to as material hardship, have implications for health through food insecurity, exposure to extreme temperatures, housing instability, or forgone medical care and medications. Many families also make tough choices between affordability and quality in their housing, often sacrificing one for the other.

Further, neighborhood characteristics, such as availability of public transportation and grocery stores, levels of racial and economic segregation, crime rates, and perceived safety are also important factors for health. For example, racial and economic segregation is a well-documented predictor of health disparities for racial and ethnic minority populations and can restrict access to educational and employment opportunities, healthy foods, medical care, and other health-promoting resources.[7] Additionally, studies have shown that living in close proximity to high-volume roads and the resulting exposure to air pollution can lead to increased rates of respiratory disease, such as asthma and bronchitis, as well as increased hospital visits.[8]

In addition to their significant effects on residents, housing-related health issues have implications for state, local, and federal budgets. According to the U.S. Government Accountability Office (GAO), health care spending is a primary threat to the long-term fiscal health of state and local governments.[9] In 1987, state and local government spending on health care as a share of revenue was approximately 16 percent; by 2012, it had risen to 31 percent, and the GAO expects the gap between revenue and expenditures to continue climbing.[10]

The housing sector can play a substantial role in controlling health care costs. For example, making housing and supportive services available to high-need and high-cost chronically homeless individuals can help reduce the use of emergency rooms and other public services. Cost studies in New York; rural Maine; Denver; Los Angeles; Portland, Oregon; and Seattle found that such efforts yielded annual, per-person savings in reduced use of services such as hospitalizations, shelters, and jails and prisons.[11] For example, such efforts have yielded annual savings of $8,260 per individual in New York as a result of decreased psychiatric hospitalizations and annual savings of $6,844 per individual in Denver owing to decreased use of shelters.

Research has also documented cost savings associated with improved children's health and reduced emergency room visits and hospitalizations resulting from upgraded housing conditions. For example, one study found that Medicaid-enrolled children living in unrenovated public housing were 39 percent more likely to visit an emergency room more than once in a given year compared with those living in a redeveloped public housing property.[12] The average cost of an ER visit is more than $2,000, so the savings to Medicaid from these housing interventions could be substantial.[13]

What is a health impact assessment?

HIA is a rapidly growing field that can help decision-makers make better choices by bringing together scientific data, health expertise, and public input to identify the potential and often overlooked effects, both positive and negative, of proposed laws, regulations, projects, policies, and programs on public health.[14] Federal, state, and local organizations are increasingly using HIAs to help housing and community development professionals consider health implications when making decisions.[15]

HIAs broadly take into account environmental, social, and economic factors related to health and evaluate the potential impacts of a proposed project, plan, program, or policy on the health and well-being of the community, including the full range of potential positive and negative effects. HIAs employ a variety of data sources, including qualitative and quantitative analysis and input from stakeholders, to identify health concerns related to the proposal and to determine how these impacts may be distributed among the population, especially vulnerable groups such as seniors, children, and low-income families. Finally, HIAs provide pragmatic, evidence-based recommendations about how to reduce risks, promote benefits, and monitor the health effects of the implemented decision.[16]

Housing-related health factors generally fall into four categories: housing quality, affordability, location, and social and community attributes. Figure 1 illustrates the links among these categories and health effects. Housing HIAs typically address a range of issues, including access to transportation and jobs, availability of healthy foods, indoor environmental quality, access to parks and open space, and neighborhood segregation by race and socioeconomic status. The HIA practitioners define the scope of the factors considered with input from the communities that are likely to be affected by the proposed action and from other relevant stakeholders and decision-makers. A core tenet of HIA is to engage stakeholders throughout the process by bringing residents, decision-makers, business interests, and others together to inform the scope, analysis, and recommendations.

HIAs can be fairly quick, using a "rapid" or "desktop" model, or they can take a longer, more comprehensive approach. Rapid HIAs can be completed in weeks or months. They allow consideration of health factors in decision-making—while retaining an emphasis on stakeholder engagement and equity—in cases of compressed timelines, limited resources, or smaller scope of analysis. Full-scale HIAs can take between several months and more than a year to complete and often involve a series of public meetings, extensive stakeholder consultation, and collection of new data.[17]

Practitioners have also used the basic principles of HIA to develop related tools such as checklists, guidelines, and simplified frameworks. These alternatives can be used to ensure that health benefits are optimized during housing decision-making in cases where an HIA is not possible or appropriate or where sufficient evidence and support exist to embed health directly into policies or projects.[18] Additionally, housing professionals can build upon and use the evidence base gathered through prior housing HIAs to inform their work.

By helping stakeholders recognize the trade-offs inherent in a proposed action, HIAs ensure that officials and policymakers have the best health information to guide their decisions. As highlighted in the practice standards for HIA, "recommendations are effective only if they are adopted and implemented."[19] Therefore, to maximize their impact on decision-making, HIA practitioners should:

- Build time and resources for facilitating implementation of the recommendations into the HIA process from the outset.
- Engage with decision-makers to ensure that the recommendations are actionable and to increase buy-in for implementation.
- Develop a monitoring plan that can assist in tracking implementation of the recommendations as well as the health effects and outcomes of the decision.

Figure 1

Housing Quality, Affordability, Location, and Surrounding Social and Community Attributes Are Important to Health

Links between housing and health

⚒ Housing quality

Housing that is safe, dry, clean, maintained, adequately ventilated, and free from pests and contaminants, such as lead, radon, and carbon monoxide, can reduce the incidence of negative health outcomes such as injuries, asthma, cancer, neurotoxicity, cardiovascular disease, and poor mental health.

$ Housing affordability

Affordable housing enables people to pay for other basic needs such as utilities, food, and medical care, which can reduce the incidence of negative health outcomes such as malnutrition, diabetes, anxiety, and depression.

🏘 Housing community

Neighborhoods free from segregation and concentrated poverty, and in which residents have close and supporting relationships with one another, can improve physical and mental health by reducing stress and exposure to violence and crime as well as improving school performance and civic engagement.

📍 Housing location

Easy access to public transportation, parks and recreation, quality schools, good jobs, healthy foods, and medical care can help reduce the incidence of chronic disease, injury, respiratory disease, mortality, and poor mental health.

The HIA Process

Step 1: Screening. The HIA team and stakeholders determine whether an HIA is needed, can be accomplished in a timely manner, and would add value to the decision-making process.

Step 2: Scoping. The HIA team and stakeholders identify the potential health effects that will be considered and develop a plan for completing the assessment, including specifying their respective roles and responsibilities.

Step 3: Assessment. The HIA team evaluates the proposed project, program, policy, or plan and identifies its most likely health effects using a range of data sources, analytic methods, and stakeholder input to answer the research questions developed during scoping.

Step 4: Recommendations. The team and stakeholders develop practical solutions that can be implemented within the political, economic, or technical limitations of the project or policy to minimize identified health risks and to maximize potential health benefits.

Step 5: Reporting. This step involves dissemination of information—including the HIA's purpose, process, findings, and recommendations—to a wide range of stakeholders.

Step 6: Monitoring and evaluation. The team and stakeholders evaluate the HIA according to accepted standards of practice. They also monitor and measure its impact on decision-making and health.

Source: R. Bhatia et al., *Minimum Elements and Practice Standards for Health Impact Assessment, Version 3* (September 2014)

HIA's role in housing decision-making

Housing professionals are becoming increasingly familiar with HIAs. Between 2012 and 2014, 17 housing HIAs were completed or underway, up from just one completed between 2002 and 2004. Housing HIAs cover a wide range of topics, including affordability, zoning and planning decisions, energy assistance, inspections, building codes, community design elements, and energy systems in residential structures. Many focus on specific housing features, such as home energy delivery systems, or on individual housing programs and policies, such as rental vouchers, affordable housing inspection programs, and local building codes and enforcement.[20] For example, an HIA conducted on the Massachusetts Rental Voucher Program addressed the health implications of proposed changes to a housing assistance and homelessness prevention program for fiscal year 2006. Specifically, the HIA examined program components such as time limits, work requirements, eligibility criteria, and required tenant rent contributions, as well as health effects of poor quality housing on children. The evidence provided through the HIA played a key role in the state's decision to not move forward with the proposed changes.[21]

In another example, an HIA of code enforcement practices in Portland, Oregon, compared the standard rental housing inspection program with a proposed enhanced model as part of a discussion of whether the city's code

enforcement process should be updated and, if so, how.[22] The standard process relied on complaints from neighbors, tenants, and members of the public to trigger an inspection, while the enhanced model featured inspections of all of a property owner's buildings if multiple complaints were received for any of the properties.

However, during budget discussions, city policymakers proposed decreasing the program's funding. As a result, the data and information provided in the HIA were used not to select between the two operational models but to support maintaining funding for the inspection program, which the Portland City Council ultimately decided to do.[23]

Other HIAs address housing as part of broader community development proposals, focusing on policies and programs related to the built environment, such as how housing connects to transportation planning or mixed-use developments. For example, two organizations in the Twin Cities region, ISAIAH and TakeAction Minnesota, teamed with PolicyLink—a national research and action institute dedicated to advancing economic and social equity—to complete an HIA in 2012 of proposed land-use changes related to a new light-rail transit line between St. Paul and Minneapolis. The proposed plan would affect residential zoning and the availability of affordable housing. Although the final rezoning proposal did not incorporate all of the HIA recommendations, the St. Paul City Council did implement several mechanisms to help address some of the affordability issues identified by the assessment, including creating an affordable housing workgroup and commissioning feasibility analyses on affordable housing preservation strategies, including those recommended in the HIA. Overall, the assessment helped shift the policy debate around the rezoning to include more community stakeholders and focus on health and affordable housing policies.[24]

Housing agencies taking the lead on HIAs

For the most part, public health organizations have led the HIA teams, but housing officials, including state housing finance agencies, public housing authorities, community development organizations, and planning officials, have increased their capacity to lead HIAs. As housing professionals have become more engaged in the HIA process, they have moved from simply being recipients of HIA information to actively collaborating with health professionals and sometimes initiating HIAs themselves.

In 2009, for instance, the Denver Housing Authority conducted an HIA that established baseline health conditions for tenants in the South Lincoln Homes public housing development and surrounding neighborhood and offered recommendations to reduce possible negative health outcomes and capitalize on potential health benefits that might result from redevelopment of the property.[25] More recently, the Ohio Housing Finance Agency (OHFA) collaborated with the Ohio State University School of Public Health to conduct an HIA on a proposal to streamline inspection and code enforcement processes. If implemented, the changes would directly affect about 5,000 affordable housing units, and could have implications for as many as 35,000 units, across the state.[26] Based on the findings, OHFA recommended several actions to minimize potential negative health impacts related to the proposed policy, including establishing a single inspection standard for all agencies, creating training to improve the quality of the inspections and raise awareness of housing-related health issues, and implementing a risk-based inspection agenda.[27] Multiple federal, state, and local agencies require inspection of affordable housing units, and the findings from this HIA will inform final proposed language not only for OHFA's policies but also for the federal Rental Policy Working Group's physical inspection regulations.[28]

One County Uses HIA to Help Families Replace Unsafe Manufactured Housing

In Curry County, along Oregon's rugged southern coast, many families live in poverty, and 33 percent of residents live in manufactured homes that have exceeded their intended life span. Furthermore, 40 percent of the county's manufactured homes are substandard. County officials recognized that families living in older manufactured housing were suffering more frequently from injuries from falls and respiratory conditions such as asthma, but because such housing does not qualify for replacement or repair assistance provided by the U.S. Department of Housing and Urban Development and the state of Oregon, they needed to identify an alternative strategy to address these concerns. They launched a health impact assessment to inform a proposed pilot project called the Housing Stock Upgrade Initiative, which would provide lower-cost loans or other funds to make repairing or replacing a manufactured home more affordable for county residents.

The HIA found that replacing older housing could significantly improve residents' physical and mental health by improving the quality and safety of their indoor environments. The HIA also identified opportunities for local hiring in construction and repair and for employment of new design standards to enable aging residents to remain in their homes longer.

The HIA's recommendations have yielded promising results:

- A strong coalition of state and local organizations is implementing the pilot project.
- Almost 3,000 county residents may be eligible for financial assistance to replace their current manufactured homes.
- Builders of manufactured housing are implementing new design standards.

The HIA was conducted by Curry County, the Oregon Health Authority, Upstream Public Health, and NeighborWorks Umpqua, with support from the Healthy Community Design Initiative of the National Center for Environmental Health at the Centers for Disease Control and Prevention.*

* To learn more about this HIA, watch the video available at Health Impact Project, "Health Impact Assessment Helps Families Replace Unsafe Manufactured Housing," http://www.pewtrusts.org/en/multimedia/video/2015/health-impact-assessment-helps-families-replace-unsafe-manufactured-housing.

The value of HIAs

HIAs offer housing decision-makers and those affected by proposed projects, plans, programs, or policies numerous benefits. They can provide evidence to inform the decision-making process, giving stakeholders an opportunity to consider potential impacts and weigh options. They also are flexible tools, readily adaptable to fit the scope, resources, and timeline of any given housing decision.[29] By explicitly considering health in housing and community development initiatives, housing professionals and policymakers can:[30]

- **Reduce unit turnover and the substantial associated costs.** Two recent studies found that residents, particularly the elderly, had health improvements, including fewer falls and better mental health, after their homes were renovated using green building practices, which focus on conserving resources and supporting health through design, construction, and operations. Such efforts have the potential to enable residents to stay healthier and remain in their homes longer, which may decrease the costs of administration, advertising, repair, and lost income associated with tenant turnover.[31] Additionally, by incorporating a health focus into the construction, rehabilitation, and maintenance of properties, housing professionals may also enhance the overall marketability and economic value of their developments.

- **Leverage partnership opportunities available through the Affordable Care Act (ACA).** With its emphasis on improving health through changes outside the health care system, the ACA paves the way for housing officials and community developers to partner with public health and health care practitioners in new, strategic ways.[32] For example, nonprofit hospitals are required to undertake initiatives and activities to improve local health, commonly known as community benefits, in order to maintain their nonprofit status. The ACA strengthened these community benefit requirements and required hospitals to report on their efforts in a standardized way.[33] In 2011, the federal government further clarified that some community-building activities—which may include housing and physical improvement—may qualify as community benefits.[34] HIAs can bring housing organizations, hospitals, public health practitioners, and Accountable Care Organizations (ACOs)—networks of doctors, hospitals, and other health care providers who provide coordinated care to their Medicare and Medicaid patients—together to have a collective impact. These collaborations can yield new funding streams or business ventures, as well as opportunities to blend resources across the housing and health sectors to provide more efficient and effective service delivery, such as shelter for an ACO's high-cost patients. For example, a nonprofit hospital in Columbus, Ohio, has partnered with a faith-based community development corporation, the local government, and other organizations to build and rehabilitate affordable housing in its immediate neighborhood.[35]

- **Build community and decision-maker buy-in and support for proposed actions.** A study of professionals in the diverse fields of health care, public health, housing, transportation, education, human services, early childhood education, and community development finance found that community engagement can influence the success of projects and collaboration can create new opportunities to leverage and pool funding sources and spread financial risk.[36] Having a range of stakeholders and decision-makers at the table early in the process improves buy-in for a project because all the affected parties have been involved and are invested in the process.[37]

Previous evaluations of the impact of HIAs suggest that, in addition to directly influencing some decisions, they can improve collaboration among stakeholder groups and give community members a stronger voice in decisions that affect them.[38] The inclusiveness of the HIA process and the level of stakeholder engagement can help ensure the integrity and transparency of the development process. All stakeholder groups review the HIA findings to help inform recommendations. One of the critical lessons learned from the first HIAs conducted in the U.S., which were undertaken by the San Francisco Department of Public Health (SFDPH), was

how to engage with and inform stakeholders from sectors outside public health.[39] An evaluation of one SFDPH assessment found that "72 percent of the participants from community-based organizations, the private sector, and government agencies reported an improved relationship—including more-open communication, increased trust, and greater sharing of information—with the Department of Public Health."[40]

Housing and community development professionals often have experience in community building and stakeholder engagement in the neighborhoods they serve and often undertake these efforts as part of their initiatives. Therefore, the stakeholder engagement process for HIAs focused on housing decisions should seek to complement and strengthen, rather than duplicate, existing engagement efforts for a given project or decision.

- **Strengthen and complement analyses required by law.** In considering not only the probable effects of proposed projects, plans, programs, and policies but also the likely health outcomes of those effects, HIAs go beyond the analyses of potential building and development impacts that are traditionally required by law. For example, although Environmental Impact Assessments (EIAs) may be required for some federally funded housing projects, their analyses are often limited to explaining the proposed project's impact on the environment (e.g., water, soil, and particulate matter). An EIA might examine the effect of new development on traffic counts, but it would not typically extend the analysis to evaluate the impact of changes in traffic volume on issues such as pedestrian injuries or asthma. HIAs fill this gap to provide more complete information and maximize the usefulness of required studies.

Data in Action: HIA Helps Improve Public Housing in Galveston, Texas

The Georgia Health Policy Center and the University of Texas Medical Branch conducted an HIA to help inform the Galveston Housing Authority's planning process. The assessment offered recommendations for improving neighborhoods through the development of scattered-site public housing and for replacing public housing destroyed by Hurricane Ike in 2008. The HIA team used data from the County Health Rankings to examine local baseline health conditions, such as diabetes and obesity rates, as well as social and economic conditions, including access to healthy foods and unemployment rates. The assessment used American Community Survey data as well as local indicators to compare demographic data—such as race, ethnicity, and age distribution—for the city, county, and state with those for households displaced from public housing by Hurricane Ike to determine if the latter population was particularly vulnerable to any health risks that could be mitigated through improvements in neighborhood conditions. The team then used 23 health-related indicators, drawn from publicly available sources such as the U.S. Census Bureau, to identify optimal sites to locate the replacement public housing units. The Texas General Land Office ultimately required the contractors leading the redevelopment to use the HIA results when selecting housing sites.

Tools to conduct housing HIAs

Housing practitioners interested in leading HIAs can access a broad array of tools to help them document the baseline health conditions in a community and evaluate the impact on health of proposed housing actions. The U.S. Census Bureau, Bureau of Labor Statistics, Centers for Disease Control and Prevention, and Environmental Protection Agency provide multiple national data sets on key health and community indicators. (See Table 1.) Many local and state agencies also track and monitor data important to the HIA process.

Table 1

Housing and Community Development Practitioners Have Access to Many Data Sets
Collections of data that are useful for housing HIAs

Data set	Housing data*	Demographic data†	Health data‡	Social and community data§	Economic data‖	Environmental data#
U.S. Census Bureau, American Housing Survey (http://www.census.gov/programs-surveys/ahs.html)	✓	✓		✓	✓	
U.S. Census Bureau, American Community Survey (https://www.census.gov/programs-surveys/acs/)	✓	✓	✓		✓	
Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System (http://www.cdc.gov/brfss/)		✓	✓			
Bureau of Labor Statistics data sets (http://www.bls.gov/data/)					✓	
U.S. Department of Housing and Urban Development, Picture of Subsidized Households (https://www.huduser.gov/portal/datasets/picture/yearlydata.html)	✓				✓	
County Health Rankings data (http://www.countyhealthrankings.org/)		✓	✓	✓	✓	
Regional Housing Needs data	✓					
U.S. Vital Statistics Data (http://www.cdc.gov/nchs/data_access/vitalstatsonline.htm)		✓				
State and local public health department data (e.g., neighborhood health indicators and health care utilization from municipal hospitals)			✓			

Continued on next page

Data set	Housing data*	Demographic data†	Health data‡	Social and community data§	Economic data‖	Environmental data#
Federal, state, and local environmental and/or planning agency data (e.g., neighborhood environmental factors)	✓	✓		✓		✓
Federal, state, and local transportation and/or public works department data (e.g., transit usage, traffic patterns, and accident data)				✓		
State and local education department data (educational usage and outcomes)				✓		
State and local housing department data (e.g., housing code violations, housing inspection data, and housing demographics)	✓			✓		
National Energy Assistance Directors' Association telephone survey of Low-Income Home Energy Assistance Program recipient households (http://www.neada.org/)	✓	✓		✓		
U.S. Department of Agriculture data sets related to food security (http://www.ers.usda.gov/data-products.aspx)				✓		

* Housing data include information on housing characteristics and condition (e.g., year of construction, building type, number of floors, presence of basements, and housing code violations).

† Demographic data include socioeconomic characteristics of the population (e.g., age, annual income, race and/or ethnicity, highest level of education, and gender).

‡ Health data include statistics related to the health of the population (e.g., health care utilization and prevalence of chronic conditions and diseases).

§ Social and community data include information on neighborhood characteristics (e.g., education usage, employment rates, poverty rates, health indicators, and traffic usage).

‖ Economic data include statistics on household expenditures, sources of income, benefits, and energy usage.

Environmental data include analytical results (e.g., particulate matter data from nearby pollution sources and other regulatory monitoring data).

Several nonprofit and for-profit organizations and foundations also provide data and spatial analysis (e.g., Geographic Information System) tools that can help illustrate existing conditions within geographic areas under consideration. Housing officials can contact these local, state, and community-based organizations, as well as academic institutions, to identify other data resources and pursue opportunities for partnering on HIAs. In addition, housing officials interested in conducting HIAs can review research literature and regulatory standards and criteria.

Several organizations involved in HIAs, such as the Health Impact Project and Human Impact Partners, post case studies of completed HIAs on their websites that can provide guidance to housing officials interested in pursuing HIA. Other organizations also have websites featuring information on HIAs, including examples and case studies. (See "Selected Resources.")

Even if housing agencies or community developers choose not to conduct an HIA for a particular project or decision, tools such as the San Francisco Indicator Project's Healthy Development Checklist may prove valuable to identifying and addressing important health issues in the decision-making process. More than 30 cities have created similar indicator projects, which track neighborhood-level data on a variety of measures important to local health. Housing officials can check to see if an indicator project is available in their community through the National Neighborhood Indicators Partnership or the Community Indicators Consortium.[41] Reviewing indicators available through these projects can help housing officials consider health implications in the decision-making process even when a full HIA is not conducted.

Selected Resources

Planning for Healthy Places With Health Impact Assessments. The American Planning Association and the National Association of County and City Health Officials offer an online guide to HIA along with training at http://advance.captus.com/planning/hia2/home.aspx.

Georgia Tech Built Environment and Public Health Clearinghouse. The Georgia Institute of Technology catalogues a range of in-person, one- to five-day HIA training courses. Visit http://bephc.gatech.edu/hia/professional/inperson.

Enterprise Green Communities. The 2015 Green Communities Criteria strengthen and expand the organization's guidelines for consideration of health. They draw upon the principles of HIA and integrative design to outline ways that architects, designers, and developers can consider the connections between their work and public health (http://www.enterprisecommunity.com/criteria).

EPA Smart Location Database. This database summarizes approximately 100 different indicators associated with the built environment and location efficiency that can help inform quantitative analyses in HIAs. Indicators include density of development, diversity of land use, street network design, and accessibility to destinations as well as various demographic and

employment statistics. Most attributes are available for all U.S. census block groups (http://www.epa.gov/smartgrowth/pdf/sld_userguide.pdf).

Health Impact Project. A collaboration between the Robert Wood Johnson Foundation and The Pew Charitable Trusts, this project is designed to promote and support the use of HIAs as a decision-making tool. The project maintains an interactive map and database of completed and ongoing HIAs in the U.S. as well as other resources at http://www.healthimpactproject.org.

Human Impact Partners. This nonprofit organization offers an array of tools and resources for new HIA practitioners at http://www.humanimpact.org.

NeighborWorks America. This organization offers health-related resources, including videos, training resources, and data tools, to support the community development field in creating healthy homes and neighborhoods. Visit http://www.neighborworks.org/Community/Health.

UCLA Health Impact Assessment Clearinghouse. Created by UCLA's HIA Project with funding from the Robert Wood Johnson Foundation, the clearinghouse has a database of U.S. HIAs, including a summary of each assessment and links to background information on the health topics addressed and methods used. Visit http://www.hiaguide.org.

San Francisco Indicator Project. The project is a system of indicators for livable, equitable, and prosperous cities. The site provides a list of case studies, including projects that adapted the indicators or its associated Healthy Development Checklist for use in their HIAs. Visit http://www.sfindicatorproject.org.

Society of Practitioners of Health Impact Assessment. SOPHIA is a membership network of HIA practitioners that provides HIA resources, reports, journal articles, other publications, and links to HIA courses and workshops on its website (http://hiasociety.org).

Getting started

Here are some simple first steps that housing officials can take:

- **Determine whether HIA is the most appropriate tool for ensuring that health is considered in a given housing decision.** Proposed projects, programs, plans, and policies pertaining to public housing programs, housing choice voucher programs, project-based rental assistance, low-income housing tax credits, code enforcement and inspection policies, and zoning decisions may all be suitable for HIA.

- **Attend a training session on how to conduct an HIA.** See the selected resources listed above to find an organization offering HIA information and training. Local colleges and universities may also offer courses on HIA.

- **Reach out to national HIA experts and organizations that support HIA practitioners.** Many organizations are working around the country to advance the use of HIA in decision-making. These experts can offer advice about how to get started. (See "Selected Resources.")

- **Use existing data sources to examine the project's potential connections to health.** Readily available data sets can help officials and developers identify prevalent public health issues among the communities most likely to be affected by the proposed project, program, or policy.

- **Review available online tools**. Explore SOPHIA's minimum elements and practice standards (http://hiasociety.org/wp-content/uploads/2013/11/HIA-Practice-Standards-September-2014.pdf), the Healthy Community Design Checklist Toolkit available on the Centers for Disease Control and Prevention's website (http://www.cdc.gov/healthyplaces/toolkit), or the San Francisco Indicator Project's website (http://www.sfindicatorproject.org) to find ways to start incorporating health issues into proposed actions.

- **Identify a local health practitioner.** Staff members from local health departments, public health institutes, public health nonprofits, and public health departments at local colleges and universities may have experience and an interest in partnering on an HIA.

- **Determine what organizational resources (staff and funding) are available to conduct an HIA and the timeline for the decision.** Early screening and scoping can determine whether a full HIA, rapid HIA, or other tool is the best approach to understand the health effects of the proposed housing project, plan, or policy.

An HIA will not be the most appropriate tool for all housing decisions and should be conducted only when the program, policy, or project is likely to have important health implications and when the assessment can yield important, new, and actionable recommendations. HIAs should also focus on a priority set of issues that are feasible to assess within resource, timeline, and other constraints. When used appropriately, HIAs can help housing officials and public health professionals improve public health outcomes, lower health care costs for families and local governments, create healthier housing and communities, and better our built environment, while maintaining strong financial stewardship of local funds.

Endnotes

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The Health Impact Project, a collaboration of the Robert Wood Johnson Foundation and The Pew Charitable Trusts, is a national initiative designed to promote and support the use of HIAs as a decision-making tool. The project works with government agencies and policymakers to help them implement HIAs; partners with foundations to fund HIAs; provides training and technical assistance; conducts research and policy analysis to support the field; and convenes the National HIA Meeting. The project also partners with foundations to guide and support regional HIA initiatives and collaborates with government agencies and nonprofits around the United States to find practical ways to build health into decisions.