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Environmental and Policy Change to Support Healthy Aging

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*Given the growing evidence of the influence of the environment
on older adult health, the need to design and implement effective
environmental policy around healthy and vital aging is urgent.*

This article describes issues amenable to improvement through policy change, evidence supporting specific policy approaches and outcomes, and promising strategies for implementing those approaches. Key areas of focus are neighborhood design and safety, housing, transportation, and mobility. Strategies to build capacity for policy change are also addressed. Our goals are to foster greater attention to environmental change in support of healthy aging and to illuminate directions for policy change.

KEYWORDS   *aging, environment, housing, neighborhood design, physical activity, policy, safety, transportation, universal design*

INTRODUCTION

A growing body of research points to the influence of social, physical, and built environments on older adult health. To date, however, environmental policy that supports healthy aging and helps prevent or delay functional decline and disability has been limited. Given the demographic imperative of our rapidly aging society, the need to design and implement effective environmental policy around healthy and vital aging is urgent. The time has come to mobilize stakeholders and policy communities to work toward policy change during the second decade of the 21st century.

In this paper, we describe the evidence that links a broad array of environmental factors to healthy aging, identifying crucial areas amenable to improvement through policy change and offering examples of promising approaches. We argue for the necessity of action at all levels from national to local by diverse institutional sectors whose actions are informed by knowledge of and coordination with others. Given the absence of a unified policy community committed to aging and the environment, we discuss the need for increased collaboration among different policy communities, defined as those "actively involved in policy making in a particular domain" (Birkland, 2005, p. 97). We also identify strategies that may ultimately support implementation of effective policies that will achieve positive outcomes. Our goals are to foster greater attention to environmental change in support of healthy aging and to illuminate directions for policy change.

Our suggestions for policy changes draw on the work of the Centers for Disease Control and Prevention's (CDC) Healthy Aging Research Network (HAN), a consortium of eight university-based member centers, affiliates, and their community partners (www.prc-han.org/). Funded by the CDC Healthy Aging Program, CDC-HAN is now in its ninth year as a thematic network, during which time it has engaged in translating research into practice and policy. This paper builds on the proposals for policy change growing out of three national CDC-HAN symposia, one each on physical

activity, depression, and environmental and policy change. It reflects a systematic effort to seek out multidisciplinary, cross-sector consensus regarding proposed directions, priorities, and action steps.

Environment and Healthy Aging

CDC-HAN defines healthy aging as "the development and maintenance of optimal physical, mental, and social well-being and function in older adults" (The Healthy Aging Research Network Writing Group [HAN], 2006, p. 3). Research consistently supports physical activity, social engagement, access to nutritious food, and protection from environmental hazards as keys to healthy aging. Social engagement has been shown to reduce risk of disability and depression and to offer some protective effects for cognitive decline (Fratiglioni, Wang, Ericsson, Maytan, & Winblad, 2000; Mendes de Leon, Glass, & Berkman, 2003). Likewise, research demonstrates that regular physical activity reduces the incidence of chronic disease and delays functional decline (Warburton, Nicol, & Bredin, 2006). The CDC-HAN definition also notes that healthy aging is "most likely to be achieved when physical environments and communities are safe and support the adoption and maintenance by individuals of attitudes and behaviors known to promote health and well-being" (HAN, 2006, p. 3).

There is clear evidence of a relationship between environmental characteristics and healthy aging. In neighborhoods with challenges, including high noise levels, heavy traffic, inadequate lighting, and perceived crime, research shows that older residents are at increased risk of functional loss (Balfour & Kaplan, 2002; Clark et al., 2009). Conversely, those who reside in more favorable environments are more likely to be physically active, have access to nutritious food, and be independent in activities of daily living (Clarke & George, 2005). Researchers have also established links between features such as green common spaces and social ties that are important to well-being (Kweon & Sullivan, 1998; Sugiyama & Thompson, 2007). Most research in this area to date is cross-sectional, and accordingly causality is difficult to establish. Socioeconomic status is relevant in that healthier older adults with financial resources are more likely to live in more favorable environments. Nonetheless, demonstration of a longitudinal relationship by a limited number of studies provides more compelling evidence that environmental factors contribute to the likelihood and intensity of physical activity in older populations (Yen, Michael, & Perdue, 2009).

Much of built environment research has focused on walking because of its importance to health. Walking also provides an important means of interface with the larger community to address fundamental needs, such as social interaction and food access. Only 24.8% of older adults report walking on a regular basis (Eyler, Brownson, Bacak, & Housemann, 2003), and it is likely that unfavorable environmental conditions are at least partly responsible.

Studies clearly point to neighborhood-based variations in older adult walking patterns, with more walking in neighborhoods with high housing density, attractive destinations, and green spaces (Berke, Koepsell, Vernez Moudon, Hoskins, & Larson, 2007).

Safety concerns are frequently identified as barriers to older adult walking (Nagel, Carlson, Bosworth, & Michael, 2008; Wijlhuizen, de Jong, & Hopman-Rock, 2007). These concerns may be based on either accurate or inaccurate perceptions of actual conditions, but nonetheless, they do affect behavior. For example, perceptions of crime risk have been associated with low levels of walking (Foster & Giles-Corti, 2008), along with other risks, such as falling or being struck by a motor vehicle. In 2007, the rate of pedestrian deaths was almost twice as high for adults aged 70 and older than for younger people (Insurance Institute for Highway Safety, 2007), with nonfatal accidents likely to cause serious injury (National Highway Traffic Safety Administration's National Center for Statistics and Analysis, 2007).

Older adults indicate particular concern about sidewalks and other pathway features, such as surface quality—for example, absence of cracks and bumps—and maintenance. Booth, Owen, Bauman, Clavisi, and Leslie (2000) found that older adults who reported that they had access to safe footpaths achieved higher levels of physical activity than those who did not have such access. Going a step further, Joseph and Zimring (2007) found that footpath quality influences walking behavior.

There is pronounced variability in levels of health and functioning in older populations (Satariano, 2006). Older adults also vary markedly in their susceptibility and exposure to environmental hazards (Geller, 2009). Those with chronic diseases or functional limitations may be even more adversely affected than their peers by environmental problems. They are also at increased risk for falls, immobility, and social isolation (Li et al., 2006; Shumway-Cook et al., 2003). Compared to older adults with disabilities, those without disabilities travel greater distances, complete more errands, and, most important, are better able to circumvent environmental barriers such as poor street conditions (Clarke & Nieuwenhuijsen, 2009; Shumway-Cook et al., 2003). This is consistent with "person-environment fit" theory, which suggests that the constraining effects of the environment become more pronounced with age-related declines in health and functioning (Lawton, 1999).

In addition to community- and neighborhood-level environmental factors, accessible home environments support healthy aging. Accessible features help ensure that everyone, regardless of age, functional status, or use of assistive devices, can have full access and use of their dwelling. Important are interior features, such as wide doorways and curbless showers, as well as exterior features such as step-free entrances and pathways to the sidewalk or street. Currently, the majority of single-family homes have steps to entrances, as well as doorways too narrow for wheelchairs

or walkers to pass through easily, if at all (Maisel, Smith, & Steinfeld, 2008). Residents of homes constructed with accessible features reportedly have greater independence and well-being (Oswald et al., 2007). Unfortunately, most single-family homes are still built without these more supportive features and thereby are unable to accommodate changes in residents' needs over time (Campbell & Memken, 2007). Data suggest that interventions to improve the usability of existing homes, although very expensive, support better functioning (Wahl, Fänge, Oswald, Gitlin, & Iwarsson, 2009).

Also of vital importance to healthy aging is transportation, providing access to community life and a lifeline for meeting everyday needs. Research indicates a relationship among inadequate transportation, social isolation, and nutritional risk (Locher et al., 2005) as well as increased functional loss over time (Balfour & Kaplan, 2002). Inadequate transportation can stem from limited personal or public transportation options or poor accessibility and safety of those options, becoming more problematic after driving cessation. Older adults overwhelmingly prefer travel by personal vehicle, which accounts for 89% of their travel (Collia, Sharp, & Giesbrecht, 2003). While non-drivers and urban dwellers are more likely to use public transportation, 75% of older adults polled by Harris Interactive (2005) indicated they had never used public transportation in their communities. Moreover, 44% of older adults in the United States lack accessible public transportation, especially in rural communities (Skufca, 2008). Specialized transportation options that do exist often provide access to key destinations like medical offices, but no access to shopping, physical activity, or social outlets.

Finally, air and water pollution and other toxicants, such as lead or the metabolites of polychlorinated biphenyls (PCBs), are known to have cumulative health effects most often becoming evident in late life (Stein, Schettler, Roher, & Valenti, 2008). Climate change is also increasingly acknowledged as one of the most serious global health threats of the 21st century (Costello et al., 2009), posing huge risks to vulnerable older adults from changing patterns of disease, food insecurity, and extreme weather events. A thorough treatment of these critical issues is beyond the scope of this paper, but we acknowledge their importance and the potential for their mitigation through some of the policy initiatives we will describe.

THE NEW DECADE—WHAT NEEDS TO BE DONE

On the strength of evidence, such as that summarized above, policies are clearly needed to modify environmental factors that affect healthy aging. In the next 10 years, communities will increasingly need accessible housing that enables aging in place and neighborhoods that provide easy access to goods and services, physical activity, and social interaction. Older citizens will need a range of transportation options as well as protection from environmental

hazards. In the remainder of this paper, we outline specific policy foci in key areas, highlight the current policy environment, and discuss strategies for building capacity for policy change.

Housing

When properly designed, homes will meet the needs of occupants throughout their lifetimes. Universal design (UD) principles focus attention on design of structures, products, and even neighborhoods that enable individuals to maintain routine activities despite functional impairments. UD also favors sustainability and is advocated as part of the U.S. Green Building Council's rating system (www.usgbc.org/). Unfortunately, without consumer demand for UD features, builders rarely include them in new construction. Gobtop and Memken (2005) estimate the cost to integrate UD features into a new home at a mere $3,700; the cost to retrofit, however, is a staggering $50,000 to $65,000. Clearly a need exists for education for consumers, planners, architects, public health, and aging services about the importance of these features and the wisdom of wider use in construction.

Governments can influence the availability of homes with UD through funding, zoning, and development incentives or design requirements through state housing finance agencies, local and county zoning boards, and local housing funders. The most common response to date has been passage of state laws and local ordinances requiring use of a limited number of universal design features (often referred to as "visitable" features) in publically funded construction. In addition, approximately 45 communities and states have adopted voluntary or mandatory ordinances requiring selected features in all new single-family homes (Maisel et al., 2008). In Arizona, Pima County and Tucson enacted mandatory ordinances in 2002 and 2007, respectively, yielding to date almost 22,000 new homes with key features in Pima County alone. William and Colette Altaffer, advocates for the ordinances, report that initial resistance by the building community, fueled largely by cost concerns, has largely disappeared, replaced in many instances by marketing that touts the advantages of access features (personal communication, September 16, 2010). Data reported by Maisel et al. (2008) clearly point to the relatively greater impact of mandatory ordinances in numbers of homes constructed and acceleration of endorsement by the public and by builders. Such data inform choice of approaches, while leaving room for other strategies including recognition of exemplary practices, education of consumers, and development of a range of supportive housing models.

Neighborhood Design and Safety

Current ideas about neighborhood design are heavily influenced by concepts like "smart growth" that advocate development patterns that create

attractive, distinctive, walkable communities, promising people of all ages, socioeconomic conditions, and physical abilities a range of safe, afford-able, and convenient housing and transportation choices. Smart growth also addresses environmental concerns, such as greenhouse gas emissions, as well as human health effects from air pollution and water contaminants. Many new developments and communities designed with smart growth prin-ciples support healthier aging, while others fall short because attention was not specifically directed toward the needs of older adults, including those with functional limitations. Accessible housing, pedestrian countdown sig-nals that account for slower walking speeds, adequate lighting, clear signage, and benches are just a few of the factors that need special consideration for older residents.

While addressing the range of older adults' needs is challenging in new development, it is greater in retrofitting of older neighborhoods. Fewer resources may be devoted to upgrading, and those that do exist, for exam-ple, sidewalk improvement dollars, may not be allocated with older adult residents in mind. Suburban and rural settings are especially difficult to make more age-friendly, particularly where zoning prohibits desirable changes. Dunham-Jones and Williamson (2009) argue that suburban redevelopment should be a priority, with strategies such as conversion of big box stores to other uses or development of homes and businesses along transit corridors. This type of work will be aided as key disciplines gain more experience in retrofitting and knowledge of design features and neighborhood config-urations that support healthy aging. Other policy tools include county and municipal zoning changes, requirements that older adults need to be consid-ered in planning at every level, and tax incentives for incorporating lifelong community concepts. Requiring objective indicators of a match between the size of the older adult population and presence of neighborhood amenities is a concrete way to guide responsive planning.

Although aging-sensitive environmental design and improvements are invaluable, such changes are expensive and, by necessity, incremental. Difficult choices must be made regarding use of resources, especially at the community level. With regard to the walking environment, for exam-ple, a community's planners, elected officials, and citizens have to decide how best to use finite resources to improve sidewalk connectivity, redesign sites where accidents have taken place, enhance routes to school, improve Americans with Disabilities Act compliance, or reduce falls risk in areas where many older adults live. Accordingly, policy must also include inter-mediate strategies. For example, one community created senior-friendly walking routes by making improvements to a limited number of routes frequently used by older adults (Hunter & Hunter, 2008). Residents and visitors received maps of these special routes, which were marked with sym-bols so that they could be easily followed. Highlighting safe walking routes may improve the likelihood of walking and increase access to goods and

services, thereby adding an economic benefit to the community (Satariano & McAuley, 2003).

Transportation and Mobility

The focus of transportation policy varies markedly among different policy communities, including those attending to areas as diverse as roadway and vehicle design, public transit, pedestrian and bicycle advocacy, commerce, and safety. Adding to the complexity are the immense differences in urban, suburban, and rural areas and the implications for workable policy solutions. To address challenges in aging and to do so effectively across communities, we must move beyond transportation policy that focuses on one mode of transportation in isolation instead considering policies from the broader perspective of available and safe mobility (Satariano, 2007). This theme receives greater attention elsewhere in this issue, where Marottoli and Coughlin address the need for a systems approach to transportation policy that includes both safety and mobility considerations and takes into account a full range of needs and resources.

Because driving is ubiquitous and highly valued by older adults, enhancements to automobile and highway design are critical and should be addressed (Rosenbloom, 2003; Satariano, 2007). Dumbaugh (2008) argues that prevailing policy responses to an aging society, such as increased driver testing and emphasis on use of paratransit, often serve to isolate older adults rather than ameliorating problems. He stresses design and land use solutions such as increasing the number of lower speed routes to provide safer driving alternatives, enhancing the connectivity of streets, reducing intersection width, and replacing strip development with community centers. Guidelines such as these are widely endorsed by the "complete streets" movement but may conflict with well-established design practices encouraging vehicle speed and moving as many vehicles as possible at any given time. States should be urged to adopt federal guidelines for designing safer roads for older drivers and pedestrians (Staplin, Lococo, Byington, & Harkey, 2001) and encouraged to invest transportation dollars on a full range of alternatives to meet mobility needs, including specialized transport programs and systems that serve the special needs of rural communities. Since engineers and transportation planners typically have little exposure to aging issues, continuing education is indicated.

Current Policy Environment

The next logical consideration is the likelihood that these or related policy solutions will in fact be implemented. Historically, aging policies have centered on issues such as Social Security, retirement, long-term care, and

health care. These foci reflect longstanding perceptions of old age as a time of dependency and vulnerability. For example, housing policy in the 1950s was driven by the poor economic status of many older adults, shifting by the 1980s to greater attention to a range of issues such as assistance for supportive housing (Committee on an Aging Society, Institute on Medicine and National Research Council, 1988). More recently, in housing as in other areas, there is growing recognition of the need for policies that support independence and active aging.

The European Union and other countries already experiencing the aging boom are noteworthy in their explicit recognition of environmental policy to support healthy aging. For example, the United Kingdom's Lifetime Homes, Lifetime Neighbourhoods initiative specifies that new housing built with public funds should meet identified lifetime standards, such as having wide entryways. This initiative is coupled with funds for adapting existing homes and a vision of lifetime neighborhoods in which all community members have ready access to services, shops, recreation, and other needs within a small navigable area (Department for Communities and Local Government, 2008). Japan is applying the concept of universal design to all public spaces (Japanese Ministry of Land, Infrastructure and Transport, 2005), and the Australian Local Government Association (2005) is tackling several built environment challenges, creating the expectation that older adult needs will be addressed in all local planning initiatives, with attention to community renewal, education of developers, and features such as nonslip walkways. New Zealand also has embarked on a national program of modifying existing homes to save long-term care expenses (Centre for Housing Research, 2009). And finally, calling attention to environmental issues in older adult health, the World Health Organization (WHO) has created the Age-Friendly Cities Project to stimulate policies to support healthy aging. WHO has recognized two U.S. cities, New York City and Portland, Oregon, as "age-friendly" (Neal & DeLaTorre, 2009).

In the United States, planning efforts and policies specifically linking environmental issues to healthy aging are less evident. In fact, a survey of 10,000 local governments revealed that only 46% had started planning of any type for the rapidly increasing aging population (National Association of Area Agencies on Aging, 2006). Nonetheless, several environmental policy initiatives, although not designed specifically to promote healthy aging, are very aging-relevant. For example, the "green" movement's attention to protection from hazards and to remodeling existing structures supports healthy aging principles. UD, likewise, is highly relevant to aging. Although popular in other aging societies, UD policies do not yet have wide application in the United States. Change in U.S. housing-related policies has been slow, reflecting the many agencies involved and the limited public demand for UD. For example, during the last decade, the Inclusive Home Design Act (requiring limited usability features in just a small portion of newly built homes) has

been introduced repeatedly in the U.S. House of Representatives, only to stall in committee.

"Smart growth" is an important movement encompassing many planning principles of relevance to healthy aging. These principles are integrated into planning law in a number of states and have been widely applied. To date, evaluation of implementation has been mixed. In a study of Wisconsin communities, Edwards and Haines (2007) note that communities tend to emphasize some smart growth goals over others and may fail to link specific policy initiatives to general goals.

Similarly emphasizing a broad range of housing options and mobility alternatives for all ages, the livable or lifelong community concept has been embraced by both states and regions. The Atlanta Regional Commission's Lifelong Communities Initiative is an excellent example of a productive approach (McKenzie, 2010).

Federal and state governments, as well as interest groups, are promoting policy change and issuing calls to action with greater frequency. The CDC promotes policy and environmental change through projects intended to assist communities and local governments to plan and monitor environmental policy implementation. The National Center for Chronic Disease Prevention and Health Promotion provides leadership in this area, while a key resource is *The Guide to Community Preventive Services* (www.thecommunityguide.org). Systematic reviews of interventions (www.thecommunityguide.org/uses/policyinterventions.html) are an essential step in this process, providing information on whether interventions work, at what cost, and for whom. The CDC also provides resources for health impact assessment (www.cdc.gov/healthyplaces/hia.htm) and has identified community-scale or street-scale urban design and land use policies deemed effective in increasing levels of physical activity (Khan et al., 2009). Implementation and measurement tools are being developed and tested in state surveillance systems. The effect of these broad-based initiatives on independence and quality of life for older individuals has yet to be studied.

The U.S. Environmental Protection Agency (EPA) has a successful recognition initiative called "Building Healthy Communities for Active Aging" (www.epa.gov/aging/bhc/). The communities and regions recognized to date range in population size from 9,500 to 3.5 million. Past award winners have developed extensive walking and biking trails, improved street design, and promoted mixed use through changes in local zoning. Also, the Environmental Protection Agency recently joined the Department of Transportation and Housing and Urban Development to form the Partnership for Sustainable Communities (http://www.sustainablecommunities.gov/) to help improve access to affordable housing, create more transportation options, and lower transportation costs while protecting the environment in communities nationwide. The partnership released a set of guiding livability principles and a partnership

agreement to coordinate federal housing, transportation, and other infrastructure investments. This initiative, along with *The Surgeon General's Call to Action to Promote Healthy Homes* (Office of the Surgeon General, 2009), renewing focus on healthy homes, may help to stimulate policy change in these key areas.

Outside of government, organizations such as AARP's Public Policy Institute (www.aarp.org/research/ppi/) are increasingly active in this arena, addressing housing and transportation issues and advocating for community- and street-level designs that support older adult safety and activity. In many instances, such work has facilitated translation of planning concepts, such as Complete Streets, into an aging framework.

Integration of Effort

In the current policy environment, different policy communities address the core areas of housing, neighborhood design and safety, transportation, and environmental protection, often with little or no integration of effort. The patchwork of poorly related policies that results is familiar to every municipality, as exemplified by sidewalks that lead to "nowhere" or senior centers remotely sited in locations with no public transportation. Even if well-maintained, barrier-free pathways are developed, they may be little utilized by older adults or people with health problems if attention is not also directed to air quality, noise, or crime issues. At present, for example, the definition of "walkability" typically is focused on land use and streetscape features without regard to air quality issues. The fallacy of this narrow thinking was underscored in recent research showing high levels of air pollution in Vancouver, British Columbia, neighborhoods identified as "highly walkable" (Marshall, Brauer, & Frank, 2009).

While specific environmental challenges require the specialized knowledge of experts within each area, effective overall solutions may be best achieved through a collaborative approach. This is the position of the European Organisation for Economic Co-Operation and Development (Oxley, 2009), calling for a crosscutting framework to address environmental policy relative to older adults, taking into account the potential for interaction among different approaches. The merits of such an approach are demonstrated by the work of the Atlanta Regional Commission's Lifelong Communities Initiative (LLC) (McKenzie, 2010). Launched in 2007, the LLC brings together citizens and stakeholders from diverse sectors such as planning, engineering, private development, public health, and aging services to plan for Atlanta's growing older adult population, while also addressing the needs of all ages. Facing sprawl, uncontrolled and rapid development, poor pedestrian and transportation infrastructure, and unhealthy lifestyles, the LLC conducted a comprehensive charette process (intense period of design activity) in 2009 to "reimagine" future development as well as

change to existing neighborhoods. A tool kit was developed for community planners and policy solutions planned and implemented. For example, DeKalb County now reviews all policies to determine whether they are aligned with the lifelong communities' goals of promoting housing and transportation options, encouraging healthy lifestyles, and providing access to information. Mableton in Cobb County is redesigning the downtown area and initiating major policy change in a shift to form-based codes to allow for greater integration of diverse activities. According to Kathryn Lawler of the Atlanta Regional Commission (personal communication, July 29, 2010), the success to date of the LLC rests with factors such as the shared desire across sectors to improve quality of life in the region, the emergence of champions, especially city officials who were previously unaware of the burgeoning aging population, and the attention to the goals of each stakeholder group, accomplished in large part through charette dialogue. Change is evident in specific communities, and now the major challenge is moving to scale, especially difficult in hard economic times. Nonetheless, the LLC has created a climate where consideration of aging issues is routine, and its comprehensive approach has now been embraced by the state of Georgia in its Georgia for a Lifetime campaign. For other communities and regions, it serves as a model of a comprehensive, integrated approach to policy development and change.

Even where collaboration prevails, however, resolving difficult trade-offs and avoiding unintended consequences is admittedly tough. The city of Hendersonville, North Carolina, has an older adult population approaching 32% and a demonstrated commitment to create a safe and walkable community for all. The city also is highly dependent on tourism, and to better accommodate tourist vehicle traffic, the city council decided in 2008 to remove traffic signals from the central business district, creating four-way stops and restructuring pedestrian walkways to improve vehicle traffic flow. While the new policy accommodated some pedestrians and motorists very well, it presented significant challenges to slower-moving pedestrians and those with vision or hearing impairments. The number of pedestrian-vehicle "near misses" and avoidance maneuvers increased, along with vehicle-vehicle near misses, and after 6 months, the policy was reversed and traffic signals reintroduced (Hunter & Hunter, 2008).

ADVANCING ENVIRONMENTAL POLICY

Both Atlanta and Hendersonville exemplify the attention to their aging citizens needed in the new decade. Advancing solutions to environmental challenges will necessitate that other communities, regions, and states build their capacity to implement environmental policy change. This is no small task given the lack of a unified policy community to advance this work.

Experts from areas including environmental protection, research, public health, aging, planning, transportation, and the design community can all contribute, but they are often narrowly focused and lack awareness of the relevance of their work for healthy aging. Citizens, advocates, and government officials also have key roles to play but may be unaware of or unable to envision what could be accomplished via policy change.

The lack of readiness to advance a policy agenda for environment and aging was evident in HAN's September 2009 environmental and policy change symposium. The 161 attendees represented practitioners, researchers, and leaders from public health, aging, engineering, architecture, planning, landscape architecture, health care, advocacy, environmentalism, and recreation. All were in a position to influence policy at local, state, regional, or national levels, although only a few held positions specifically focused on policy design and implementation.

Participants identified their own goals for action, and these, along with post-conference feedback, are instructive in understanding their readiness as stakeholders to pursue policy change. Almost without exception, participants were looking for guidance in the policy arena. Those from the practice community, whether aging, public health, or health care, were familiar with individual-level programmatic interventions but markedly less clear about more upstream approaches and what they might accomplish. They asked for the basics, including what characterizes effective policies, how they are created, and what steps are necessary to get them implemented. Also requested were tool kits, best practices, case studies, and guidelines for working with decision makers at various levels of government and for relevant data (for example, economic and health impact assessments) to convince leaders of the merits of specific approaches.

Many participants viewed policy almost exclusively through a national lens and were startled to recognize the potential for valuable policy change at the local level. When participants were equipped with this insight and with a vision of what might be accomplished, they indicated that they felt more empowered to act. The importance of envisioning alternatives was especially true in the area of design, whether of highways, homes, walkways, or neighborhoods.

Advancing environmental policy change in the new decade will also be fostered by communication and problem solving across sectors and policy communities. Cross-sector communication, as demonstrated in the HAN conference and the Atlanta Regional Commission charettes, is invaluable for fostering identification of areas of common interest and clarity regarding the roles and expertise of others that are vital to one's own concerns. Moreover, it builds consensus regarding proposed directions, priorities, and action steps among the various individuals and organizations with regard to policy change and implementation. This potentially reduces the profusion of sector- or discipline-specific initiatives, which may overlap but may also

compete for attention and resources. Cross-sector communication can be advanced through professional meetings, such as the New Partners for Smart Growth series, and state, regional, or community-based meetings to create dialogue. Aging interests share common ground with pedestrian advocates and those concerned with other groups, such as children or people with disabilities, and all serve to gain by leveraging efforts. Citizen education should be included as well so that all can better understand the implications of an aging society and the potential benefits for older adults and others of environmental change. Improved understanding may also drive demand for relevant policy change.

Research and policy evaluation are also needed to inform our efforts. Decision makers require data to weigh alternatives and make good decisions. Policy makers must understand what policies and instruments are most effective, as well as their relative costs. Professionals in all fields need to understand how best to achieve the outcomes of healthy and vital aging.

SUMMARY

Today and in the foreseeable future, we face significant environmental challenges with proven health implications for older adults. In this new decade, it is imperative that we initiate a comprehensive, integrated policy response in the United States, stimulating activity at all levels of government, engaging citizens and the private sector, and finding common cause among groups with parallel interests. With coordination and collaboration across disciplines and sectors and assessment of outcomes of policy initiatives, especially at the community level, we can create sustained change that will benefit not only older adults but also all of our citizens.

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