

## CHAPTER 2

### **Five Strategic Points of Intervention and Collaboration Between Planning and Public Health**

*By Marya Morris, AICP*

**T**here are numerous aspects of public health and environmental health directly affected by land-use policies and land development in general. APA has chosen to address these areas of common interest between planning and public health by looking at the points in the planning process where public health officials should have a stronger voice. In general, by involving local public health officials at the earliest stages of policy formation and keeping them involved in the planning process until changes are observable on the ground, we can create better plans that provide communities strong tools to protect and even improve health.

The framework that APA is using to promote an interdisciplinary, multi-objective approach to policy making and implementation is what we call the Five Strategic Points of Intervention:

1. Visioning and Goal Setting
2. Plans and Planning
3. Implementation Tools
4. Site Design and Development
5. Public Facility Siting and Capital Spending

Where the points of intervention are aimed at specific outcomes (e.g., revised plans that address the health impacts of land-use policies), we also recommend readers consider the tactical and process-oriented aspects of these interventions. To that end, we recognize these as the five strategic points of *collaboration* to drive the actual interventions.

### THE FIRST POINT OF INTERVENTION: VISIONING AND GOAL SETTING

When a plan is being prepared or revised, planners call on a broad mix of stakeholders—the public, developers, builders, housing experts and advocates, transportation specialists, environmentalists, advocates for specific populations (e.g., the elderly or persons with a disability)—to provide input for the plan’s goals, objectives, and strategies. Despite the breadth of this stakeholder list, public health professionals and advocates are not usually included. For communities to be successful in planning for and designing health-promoting, active, and accessible environments, planners will have to seek out public health professionals and include them at the very outset of planning processes.

At the initial visioning sessions, a planner or other representative of the coordinating agency gives an overview of the scope of issues. This is followed by a facilitated discussion, breakout groups, or some other type of session in which the public can say what it would like to see the plan contain, what it would not want it to contain, what changes to the built environment it would like to see happen, and what changes it does not want to occur. What emerges from these sessions is some consensus on shared values and a set of principles that provides a broad context within which planners establish the plan’s goals.

Protecting and enhancing quality of life is a value that invariably arises in such visioning sessions. From the health profession’s standpoint, it is a concept that relates directly to the health and physical well being of individuals. But the quality-of-life discussion affecting land-use planning rarely addresses how the built environment—and the changes being proposed in whichever plan is being prepared—will either enhance or hinder the public’s health. Instead, planners define quality of life by a broader set of factors (e.g., the impact of proposed changes on traffic congestion, housing affordability, loss of open space, children’s safety outside their homes, availability of local services, and building or code enforcement).

The absence of health, disability, and physical activity representatives at visioning and plan preparation stages results in several missed opportunities. First, planners and public health practitioners could use such sessions to educate the public about how communities develop and the effect development patterns have on:

- a) their mobility choices (e.g., whether they can walk, take transit, or must drive to where they are going;
- b) their ability to be physically active when following their daily routines;



*Everyone benefits when public health officials are invited to visioning sessions. Their input can inform planners and other typical stakeholders of the potential health impacts—either positive or negative—of the plans being created or critiqued in a visioning meeting.*

- c) the effects of land-use and transportation planning decisions on neighborhood and communitywide air quality and water quality;
- d) the effects of various proposed development patterns and scenarios on stormwater runoff, which affect groundwater and drinking water quality;
- e) the potential impacts of local industry or hazardous waste transportation corridors and facilities on the surrounding community; and
- f) the impact of neighborhood design on factors such as crime and mental health.

Second, the public health field has become a strong advocate for smart growth planning, bringing its expertise and support to built environment issues (e.g., compact, walkable neighborhoods, mixed use, street connectivity, traffic calming, parks, recreation and trails planning, reducing impervious surfaces, and supporting transit). The endorsement of these professionals can add significant political weight to the inclusion of health goals in a plan.



*Walkable communities expert Dan Burden, center, meeting with Arapahoe County, Colorado, planners, developers, and Tri-County staff to evaluate a proposed 900-acre PUD for traffic calming and other changes to make the project more pedestrian and bicycle friendly.*

Beyond this opportunity for specific points of intervention in the planning process, planners and public health people should be collaborating routinely on areas of overlap—there is no reason to wait until a plan gets underway. In fact, to the extent that the two disciplines begin collaborating and sharing information formally or informally as a matter of course, the easier it will be to bring public health practitioners to the table when a planning process gets underway. To that end, the activities recommended here should not only be undertaken at the beginning of a planning process, but as a matter of routine.

Prior to the visioning sessions or workshops:

- Public health practitioners should convene to discuss obesity, physical inactivity, and other public health issues related to land use and the built environment.
- Public health professionals should make presentations to planning staff, planning commissioners, and other local officials to explain the connections between planning, community design, and health problems (e.g., obesity, physical activity, asthma, and waterborne disease and outbreaks).
- Public health practitioners can also educate land-use and transportation planners about the issues they as health professional plan to bring to the table (e.g., pedestrian safety, environmental justice, accessibility for those with a mobility impairment, and drinking water protection).
- Planners should brief local public health practitioners about what to expect in the planning process.
- Planners and public health officials can form a standing committee (i.e., a working group) that meets regularly on the relationship between health and the built environment. For example, this group could: a) keep up to date on issues of shared concern; b) pursue collaborative projects (e.g., conducting a community environmental health assessment); c) prepare for future planning processes; and d) monitor plan implementation to ensure that health and physical activity objectives are being met. (See also Chapter 6, Health Impact Assessment, for another example of a collaborative task.)

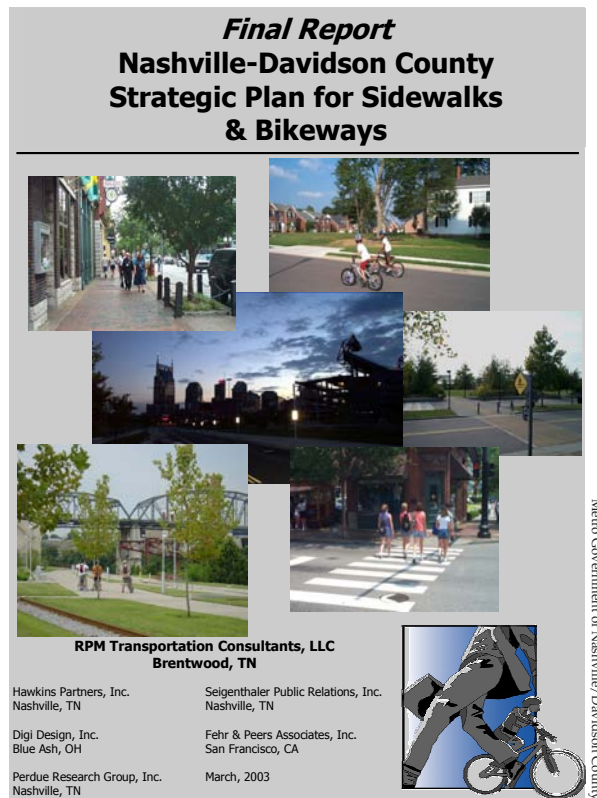
During the visioning process:

- Planners should extend invitations and encourage public health representatives to attend the public visioning and goal-setting sessions.
- Public health representatives should offer to chair or participate in advisory committees or work groups.
- Public health and planners should champion the inclusion of goals and objectives that explicitly relate to improving air and water quality, increasing opportunities for physical activity, reducing obesity, preventing injury, protecting mental health, building social capital, and promoting equity and accessibility.
- Planners should revisit smart growth goals and policies currently in place that support healthy communities.

### **THE SECOND POINT OF INTERVENTION: PLANS AND PLANNING**

The specific goals for public health established in the visioning sessions or the early stages of a planning process can be conveyed in a plan in a number of ways. How that is done will depend on the plan's overall format and the plan's focus (e.g., parks and open space, housing, transportation, etc.). The most effective way of ensuring that public health improvement is addressed by the plan is to make it one of the plan's overarching goals.

In addition to concisely worded goals, the plan can also include a narrative description of the relationship of planning to health. This would provide the public and other plan users with an explanation of the focus on health and



*Nashville is committing to transportation choice, greater mobility, safer streets, cleaner air, less traffic congestion, healing their citizens, stronger communities, a more sustainable economic climate, and a higher quality of life for all Nashvillians.*

physical activity, which will signify a new policy direction for most jurisdictions. In 2005, communities prepared hundreds of excellent plans that contain all that is necessary to achieve the smart growth goals of walkable streets and districts, the inclusion of bike lanes and trails, street connectivity, human-scale architecture, traffic calming, and many other measures that never expressly address health as one of the plan's goals. That is changing gradually. King County, Washington, and Orange County, Florida, in 2005 both incorporated explicit language in their plans making it clear that these plan policies are intended to be in furtherance of both smart growth and public health.

With the overarching goals in place, more targeted health-related objectives and policies can be incorporated into relevant plan elements (i.e., subsets of the plan that address specific issues; for example, land use, needed public health infrastructure, transportation, economic development, etc.) as well as the implementation program, or schedule, for the plan. For example, a broad goal to increase opportunities for people to be physically active as part of their daily routine could be carried forward by policies in the transportation element (among others) to require developers to install sidewalks on both sides of the street. A description of the importance of making it possible for people to make daily trips from home to work, school, or shopping would be well placed in a transportation element, a bicycle and pedestrian plan element, a trails element, and others.

### Plan Content and Planning Process Interventions: How to Incorporate Health Objectives into Plans

#### *The Comprehensive Plan*

- Provide a narrative description of the rationale for addressing health, physical activity and accessibility for all people in the comprehensive plan, including a description of how smart growth principles already being implemented in the community are supportive of active living.



- Develop overarching goals that tie cardiovascular health, safety, physical activity, and obesity to planning, community design, and land use.
- Establish more specific goals relating to health in each plan element or functional plan adopted as part of the comprehensive plan.
- Create an implementation schedule or program to achieve health-related goals that identifies which agency or organization will lead the implementation, prescribe the timeline, and pinpoint funding sources.

#### *Special Area Plans, Neighborhood Plans, Redevelopment District Plans, Subarea Plans*

- Provide a narrative description of the planning/health issue as in the comprehensive plan but include specific language relevant to the physical planning area.
- Reference related goals in the comprehensive plan.
- Give a narrative description of the rationale for addressing health and physical activity in such a plan if it is a stand-alone plan (i.e., a plan adopted and implemented separately from the comprehensive plan such as a stormwater management plan and a trails and recreation plan, for example).

#### *Functional Plans (Comprehensive Plan Elements or Chapters)*

- Land use
- Transportation
- Streets and circulation
- Sidewalks
- Bicycle and pedestrian
- Parks, open space, recreation, trails
- Transit
- Health and social services
- Housing
- Economic development
- Schools and campuses
- Accessibility and universal design

### **THE THIRD POINT OF INTERVENTION: IMPLEMENTATION TOOLS**

As is the case whenever a community revises its planning goals to address new concerns or new ways of thinking, achieving the goals related to health and physical activity in the comprehensive plan, function plans, or special area plans will require communities to rethink and retool their land development regulations (i.e., zoning and subdivision ordinances or unified ordinances) and other development regulations.

For example, a community could revise its ordinances to permit new urbanist or traditional neighborhood developments, either as an overlay, as a requirement in certain districts, or communitywide. Some communities will want to consider implementing a form-based code as an alternative to a conventional zoning ordinance. Such a code would help create neighborhoods and commercial districts without rigid constraints on land use. The emphasis

**SELECTED PUBLIC HEALTH-RELATED PROVISIONS IN THE SAN DIEGO REGIONAL  
COMPREHENSIVE PLAN (ADOPTED BY THE SAN DIEGO ASSOCIATION OF  
GOVERNMENTS, JULY 2004)**

**Chapter 4d: Healthy Environment:**

**Enhancing Our Natural Habitats, Air, Water, and Beaches**

**Vision 2030**

The air we breathe is clean. We enjoy exercising and playing outdoors. We drive less frequently, taking advantage of convenient transportation options such as transit, bicycling, and walking. Our cars and trucks are more fuel-efficient and use cleaner-burning fuels, and we have increased numbers of electric vehicles and those that run on alternative fuels. Industrial plants continue to upgrade pollution-control equipment and curb emissions. Residential neighborhoods are free of potentially harmful industries. We now lead the country in compliance with state and federal clean air standards, and as a result, see fewer people with respiratory disease.

**Water Quality [Sub-part of Chapter 4D Healthy Environment Element]**

*Existing Setting [excerpt]*

Water bodies within the region, including groundwater, lakes, reservoirs, rivers, streams, lagoons, estuaries, vernal pools, bays, and the ocean are among our most valuable resources. They provide a wide range of “beneficial uses,” or the uses of water necessary for the survival or well being of humans, plants, and animals. Beneficial uses of water serve to promote both tangible and intangible economic, social, and environmental goals. Urban runoff can adversely impact the quality of our local drinking water. The significance of urban runoff with respect to drinking water quality has only recently come to be recognized in the region. The deterioration of water quality also can result in a reduced water supply and increased water treatment costs.

*Key Issues: Drinking Water [excerpt; one of seven key issues described in the water quality section]*

Water imported from the Colorado River already contains some level of pollutants before it reaches our storage reservoirs. That water can be further polluted in the reservoirs. Continued development within our watersheds, and along our rivers and reservoirs, affects water quality and therefore affects local reservoirs and the quality of the water stored within them. Rainfall and melting snow flow to our rivers, become trapped in the region’s dams, and is then stored in local reservoirs, such as the Loveland and Sweetwater Reservoirs in the San Diego region. These reservoirs store billions of gallons of water each year and are used as a water supply for almost 3 million local residents.

**Water Quality Policy Objectives and Recommended Actions**

*Policy Objectives*

1. Restore, protect, and enhance the water quality and the beneficial uses of local coastal waters, inland surface waters, groundwaters, and wetlands.
2. Reduce or eliminate pollutants at their source before they enter our region’s water bodies.
3. Protect local drinking water sources.

*(continued)*

**SELECTED PUBLIC HEALTH -RELATED PROVISIONS IN THE SAN DIEGO REGIONAL COMPREHENSIVE PLAN (ADOPTED BY THE SAN DIEGO ASSOCIATION OF GOVERNMENTS, JULY 2004) (continued)**

**Air Quality [Sub-part of Chapter 4D Healthy Environment Element]**

*Existing Setting [excerpt]*

In general, air quality in the San Diego region has improved dramatically over the past two decades, but continued efforts are needed to sustain this positive trend and ensure clean air. The region has seen remarkable reductions in common air pollutants such as carbon monoxide (CO), ozone, oxides of nitrogen (NO<sub>x</sub>), and reactive organic gasses (ROG), as well as reductions in more harmful, toxic air contaminants. The air quality improvement is the result of an ambitious undertaking at the federal, state, and local levels to implement the federal and state Clean Air Acts.

...

Exposure to polluted air can cause health problems, especially in children and adults who are active outdoors, and in people with respiratory diseases, such as asthma. According to the Air Resources Control Board, air pollution in California contributes annually to as many as:

- 17,000 premature deaths,
- 55,000 hospital admissions,
- 1.3 million asthma attacks, and
- 3.3 million lost workdays.

Air quality standards are set by the state and federal governments to provide an adequate margin of safety in protecting public health.

*Key Issue: Reducing Air Pollution [excerpt; one of three Key Issues in the Air Quality section]*

Exposure to polluted air can cause health problems, especially in children and adults who are active outdoors, as well as to people with respiratory diseases, such as asthma. Pollutants are caused by on-road motor vehicles, such as autos, trucks, and buses; off-road mobile sources such as utility engines, ships, airplanes, and trains; and stationary sources such as power plants and manufacturing and industrial facilities. Many pollutants are also generated from our homes. Fireplaces and aerosol consumer products, for example, are area wide sources of air pollution.

*Key Issue: Environmental Justice [excerpt; one of three Key Issues in the Air Quality Section]*

Low-income and minority communities may be more likely to experience air pollution caused by the siting of facilities, such as freeways and industrial parks, and services, such as dry cleaners and gas stations, in their neighborhoods near schools and homes. The region needs to work hard to ensure that all our residents, regardless of income or ethnicity, share the benefits of a healthy environment.

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**SELECTED PUBLIC HEALTH-RELATED PROVISIONS IN THE SAN DIEGO REGIONAL  
COMPREHENSIVE PLAN (ADOPTED BY THE SAN DIEGO ASSOCIATION OF  
GOVERNMENTS, JULY 2004) (continued)**

**Air Quality Policy Objectives and Recommended Actions**

*Policy Objective*

Achieve and maintain federal and state clean air standards.

*Recommended Actions*

Planning, Design, and Coordination:

1. Implement transit-oriented development to reduce automobile trips.
2. Encourage and create incentives for energy-efficient design in new development.
3. Promote reduction of industrial emissions through use of least-polluting cost-effective processes and technologies.
4. Promote reduction of mobile source emissions through the adoption and enforcement of fuel specifications and the improvement of engine and emission equipment systems.

Program and Project Development and Implementation:

1. Continue to implement the Regional Air Quality Strategy to achieve federal and state air quality standards.
2. Implement emission control programs for stationary sources.
3. Site industries and high-traffic corridors in a way that minimizes the potential impacts of poor air quality on homes, schools, hospitals, and other land uses where people congregate, and implement programs to ensure low-income and minority populations are not disproportionately negatively affected. ■

## SELECTED PUBLIC HEALTH-RELATED ELEMENTS, GOALS, AND ACTION STEPS IN THE BROOMFIELD, COLORADO, 2006 COMPREHENSIVE PLAN

### VISION

#### Walkable Community

"A walkable community is the cornerstone to an active and thriving community. The construction of a walkable community provides and affordable transportation system that makes it easy to enjoy physical activity and choose alternatives to driving to schools, parks and nearby activity centers. Everyone benefits from walking, enjoying improved fitness, cleaner air, reduced risks of certain health problems and a greater sense of community. Providing safe, inviting, walking alternatives leads to more social interaction, physical fitness and diminished crime and other social problems. Provision of an interconnected system of on and off street paths and safe places to cross streets will encourage opportunities for activity within the everyday living environment."

### OPEN SPACE, PARKS, RECREATION AND TRAILS ELEMENT

Connecting it all together: "A second priority strongly and consistently voiced by the Broomfield community is the need to develop well connected trails network to create a "walkable" community. Addressing this need presents an opportunity to provide biking and walking, alternate modes of transportation that link key public areas together. Trail connectivity provides an opportunity for citizens to walk and ride to many destinations instead of relying solely on the automobile to meet transportation needs."

"A third priority identified by Broomfield citizens is to fulfill a need for more large parks an athletic fields and otherwise promote a better balance of large and small parks."

#### Goal OP-B: Connected Public Spaces

"Create connected public spaces in order to provide continuous green space throughout the community benefiting wildlife, enhancing recreational experiences and increasing Broomfield's walkability."

*Rationale:* Parks and open space properties should be linked to the community trails system to further enhance Broomfield's walkability. The creation of an interconnected open lands systems will enable children to walk or bike safely from home to school and to play.

#### Policies and Action Steps

*Policy OP-B.1:* Design trail connections to link open space, parks, recreation facilities and other public places (such as schools, libraries or employment areas) into an integrated system.

*Action Step OP-B.1.1:* Prioritize and develop the key missing links and needed facilities to overcome community barriers in Broomfield's trail system.

#### Goal OP-C: Community Image and Identity

"Use open space, parks, trails and recreational facilities to establish a strong community image and identity."

*Rationale:* An interconnected system of parks, open space and trails within easy walking distance of residential neighborhoods will underscore the value placed on community health and walkability by offering residents the opportunity to:

- Enjoy the beauty of open lands
- Cross paths with other residents
- Have space for reflection, and
- Participate in passive or active recreation.

Incorporate public art into parks and trail locations to reflect Broomfield's appreciation for artistic expression.

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## **SELECTED PUBLIC HEALTH-RELATED ELEMENTS, GOALS, AND ACTION STEPS IN THE BROOMFIELD, COLORADO, 2006 COMPREHENSIVE PLAN** *(continued)*

### **Goal OP-F: Distribution of Facilities**

"Promote the equitable distribution of open space, parks, recreational and trail facilities."

*Rationale:* Goal is intended to provide all residential areas of Broomfield with comparable access to open lands, parks and recreation facilities and programs and trails.

### **Policies and Action Steps:**

*Policy OP-F.1:* Promote access for populations with special needs

*Policy OP-F.3:* Promote accessibility to facilities and programs for residents regardless of income level.

## **ENVIRONMENTAL STEWARDSHIP ELEMENT**

### **Current Situation and Future Trends**

"Efforts also are under way to create a "wellness collaboration" promoting "healthy community initiatives" and an overall active community life for Broomfield residents and employees."

### **Policies and Action Steps**

*Policy ES-B.3:* Prepare and consider programs and policies that create a walkable community and heighten the demand for overall physical activity in the community. Some programs may help raise awareness of active-living issues, while other programs will mobilize the public to advocate for policy change.

*Action Step ES-B.3.1:* Enhance the link between environmental quality and community and individual health. Promote walking as a means of transportation; develop planning design standards that encourage opportunities for activity within the everyday living environment, and promote alternatives to vehicle transportation.

*Action Step ES-B.3.2:* Continue efforts to create a strong "wellness collaboration" promoting health community initiatives and overall active community life for Broomfield residents and employees. ■

### FORM-BASED CODES

A form-based code regulates the physical form of a community or a district within a community. This approach is in contrast to conventional Euclidean zoning, which primarily regulates land use and, to a much lesser extent, the physical form of such uses. The practice is still new and relatively untested, although there are increasing numbers of cities and regions making the transition from conventional zoning to form-based codes.

The standard provisions in a form-based code include:

1. Building height—both minimum and maximum
2. Siting standards—placement of structure in relation to fronting streets and adjacent building lots
3. Permissible uses stated in general terms (e.g., retail, residential)
4. Thoroughfare standards for range of recommended street types
5. Landscape standards with appropriate tree and groundcover species
6. A glossary

Communities that want more control over the physical appearance of buildings may include architectural standards, including exterior colors, materials, and construction techniques.

The most common approach to date has been to apply the code on district level (e.g., Louisville/Jefferson County, Kentucky, and Saratoga Springs, New York) or for a specific development project (e.g., the Peninsula neighborhood in Iowa City, Iowa). In 2006, planners and urban designers were still learning how to draft and implement form-based codes. Advocates of the approach expect to eventually see it applied on a communitywide or even regionwide scale. Other examples where it is in use or under consideration include Kentlands, the new urbanist development in Gaithersburg, Maryland; the Columbia Pike Corridor in Arlington, Virginia; a large, mixed-use development Contra Costa County, California; and Denver, Colorado.

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in a form-based code on the scale and orientation of buildings relative to the street could also be used to create neighborhoods where walking is possible and pleasurable. Other tools that a health-savvy community might want to incorporate into its development regulations include:

- increasing residential development densities to support transit use and walkability;
- enacting wellhead protection ordinances to secure safe drinking water supplies;
- requiring sidewalks and trails in new developments and retrofitting already developed areas with sidewalks, trails, and bike paths;
- instituting traffic calming measures; and
- requiring street connectivity.

*Smart code reforms of zoning and subdivision regulations should address:*

- land use;
- minimizing impervious surfaces;
- increasing development densities in strategic locations;
- mixing land uses;
- new urbanist/traditional neighborhood development (such specifics may be in furtherance of a Transect Plan being implemented on a communitywide scale or, otherwise applied through overlay districts or special districts);
- urban villages; and
- transit-oriented development and the expansion of transportation choices to reduce vehicle emissions.

*Open space and recreation facility reforms should address:*

- equitable access to parks, trails, open space in all neighborhoods; and
- land set-asides and in-kind developer contributions for parks, open space, and trails.

*Mobility, transportation and traffic circulation reforms should address:*

- sidewalk requirements in residential areas;
- pedestrian and bicycle facilities requirements and standards;
- traffic calming in neighborhoods;
- pedestrian overlay districts and zones;
- street connectivity requirements;
- street design improvements (e.g., “complete streets”);
- universal design and accessibility;
- safe routes to schools; and
- safety and injury prevention.

**Public investment reforms should address:**

- directing public investment to targeted growth areas;
- capital improvement programs; and
- equitable allocation of capital improvements spending on activity-friendly projects.

**THE FOURTH POINT OF INTERVENTION: SITE DESIGN AND DEVELOPMENT**

Communities can make numerous improvements to the public realm and streetscapes to create attractive, safe places where people will want to walk, where it is safe for people of all ages and mobility levels to cross the street, where there is protection from inclement weather, where people feel protected from crime, and where there are opportunities for people to interact with one another. Planners can use a combination of design guidelines and urban design standards to work with developers to create such environments. Common tools include standards that: prohibit long, blank walls abutting sidewalks; require ground floors to have retail stores with windows; specify that buildings, especially those along transit routes and with heavy pedestrian traffic have awnings; require trees, landscaping, and street furniture to be added to the streetscape; and locate parking on the side or in the rear of commercial buildings. The planning department can negotiate with developers for these types of amenities or modifications to building and site design during the site plan review or design review process.

Planners will also need to address additional site design and development considerations when meeting other public health goals affected by land use (e.g., protecting drinking water and minimizing stormwater runoff). These include stormwater management standards for new subdivisions; requirements to minimize the amount of impervious surfaces on a site; and low-impact development site plans, which aim to maintain predevelopment hydrology, using infiltration technology to reroute clean water so that aquifers are recharged. Other erosion and sedimentation control (ESC) measures (e.g., planting vegetation and minimizing soil exposure during construction) should also be addressed during site plan and development review.

There are many intervention points in the site design and development stage that will support and protect public health, including:

- Implement streetscape enhancements that include shade trees, awnings, art work, and pedestrian amenities, such as benches, to encourage people to be physically active.
- Use architectural features to demarcate building entrances; require additional building entrances proportionate to building footprint and orientation to transit, sidewalks, and parking.
- Use building setback and orientation standards to create pedestrian-friendly environments that accommodate people on foot or who use transit equally or preferentially to people in cars.
- In public places or as a recommendation to a developer, include stairs that are safe, conspicuous, and pleasant to use in lieu of elevators.
- Place signage inside and outside of public buildings and facilities to encourage people to use the stairs (e.g., “Make the first choice, the healthy choice”; “Take the stairs, for your heart’s sake”).
- Use traffic calming, parking lot landscaping, and street redesign to reduce pedestrian and vehicle crashes.

**FORM-BASED CODES** *(continued)*

Form-based codes can be applied within a spatial basis called a transect. In the context of the built environment, the transect is a geographical cross section that displays a continuum with an increasing degree of human activity and intensity of development. Architect and new urbanist Andres Duany introduced the transect as a means of integrating community design across scales, from regional tiers, to community codes, to architectural design standards. He borrowed the idea from ecology, where it is applied as a cross section through different habitats as a means of understanding their interrelationships across a continuum (Local Government Commission 2005).

Form-based codes are applied to development in each of the six districts the prototypical transect contains. Rural lands (either farmed or wild) are on one end of the continuum; a suburban, village-centered development and an urban center district (which is urbanized but not considered to be a downtown) form the middle districts; and the urban core is at the other end of the continuum. For more information about form-based codes, see:

- Congress for the New Urbanism. 2004. *Codifying New Urbanism: How to Reform Municipal Land Development Regulations*. Planning Advisory Service Report No. 526. Chicago: APA.
- Katz, Peter. 2004. “Form First: The New Urbanist Alternative to Conventional Zoning.” *Planning* (November), 16-21.
- Local Government Commission. 2005. “Form-Based Codes: Implementing Smart Growth.” Fact Sheet. Available at [www.lgc.org/freepub/land\\_use/fact-sheets/form\\_based\\_codes.html](http://www.lgc.org/freepub/land_use/fact-sheets/form_based_codes.html)
- Rouse, David and Nancy Zobl. 2004. “Form-Based Development Codes.” *Zoning Practice*.

- Apply SafeScape and Crime Prevention Through Environmental Design (CPTED) principles of security, lighting, visibility, and circulation to neighborhood planning to reduce crime, fear, and personal injury.
- Require onsite stormwater management to both protect drinking water and minimize flooding.
- Require buffering between incompatible land uses to reduce noise and improve air quality.
- Provide safe, well-marked connections between commercial areas and neighborhoods.
- Provide landscaping, shade trees, and safe routes within parking lots.
- Preserve trees in suburban and urban areas and increase tree canopy to counteract heat island effects.

#### THE FIFTH POINT OF INTERVENTION: PUBLIC FACILITY SITING AND CAPITAL SPENDING

Deciding where to locate and how to design public facilities (e.g., post offices, libraries, schools, and community centers) is important for communities serious about creating walkable environments. The most significant part of an individual's decision when making a trip on foot is having a purpose or a destination in mind. In addition to regular destinations like stores, schools, and workplaces, these public facilities serve as regular walking destinations and community gathering places. This is especially true for seniors and persons with a disability, who in general are more dependent on walking and transit for transportation than is the general population.

A recent and very popular approach to combating childhood inactivity and weight problems is to create safe routes for children to walk or bike to school. Researchers have found that children who live in neighborhoods with sidewalks are more likely to walk to school than those who live where there are no sidewalks (Ewing 2005). In Marin County, California, a safe-routes-to-school program that included both street safety improvements and encouraged students to walk increased the number of students walking to school by 64 percent in two years (Staunton et al. 2003).

Health considerations can also be brought to the fore in decisions related to the siting of public housing and to the construction standards applied to such housing. Researchers at Harvard University have found evidence of positive effects on health through interventions that address hazardous physical, chemical, and biological exposures at the individual housing-unit level. In the case of childhood lead exposure, research has documented the positive impact that various methods of lead hazard control have on lead levels in blood (Acevedo-Garcia and Osypuk 2005).



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*Substandard housing conditions—a common problem in low-income communities—pose numerous health risks to the adults and children who live there. According to the CDC, about 24 million housing units in the U.S. have deteriorated leaded paint. More than 4 million of these dwellings are home to one or more young children. Public investments in affordable and subsidized housing should make lead abatement a top priority.*



**TABLE 2-1. PUBLIC HEALTH IN THE PLANNING PROCESS**

*This table describes five common steps in the preparation and adoption of a local comprehensive plan. The right-hand column lists strategies and actions that a public health stakeholder should consider undertaking in the comprehensive planning process to ensure that health considerations are taken into account. Though this model describes the comprehensive planning process, the strategies and actions that public health may undertake are transferable to other plan preparation processes, such as bicycle, pedestrian, and trails plans, an environmental protection plan.*

STEP 1: VISIONING AND GOAL SETTING	
Comprehensive Plan Action	Public Health Agency Role
<ul style="list-style-type: none"> <li>• Engage the public and stakeholders; discuss community goals and values</li> <li>• Refine and articulate a vision for the future</li> <li>• Set goals and priorities</li> <li>• Establish plan scope</li> </ul>	<ul style="list-style-type: none"> <li>• Attend, initiate, or facilitate visioning sessions</li> <li>• Familiarize public health staff with planning process and potential roles for health</li> <li>• Educate planners on role of public health in planning</li> <li>• Recommend inclusion of a Health Element and/or health goals in the plan</li> <li>• Chair or participate in plan committees, work groups</li> </ul>
STEP 2: DATA COLLECTION, NEEDS ASSESSMENT	
Comprehensive Plan Action	Public Health Agency Role
<ul style="list-style-type: none"> <li>• Collect data, track trends, conduct capacity studies, etc.</li> <li>• Survey the public, hold forums and hearings</li> <li>• Use GIS to map needs</li> <li>• Analyze needs and address how to meet them</li> </ul>	<ul style="list-style-type: none"> <li>• Provide health data and statistics to planners, stakeholders, and decision makers</li> <li>• Attend planning and zoning meetings</li> <li>• Disseminate information to the public, including “real life” stories</li> <li>• Introduce Health Impact Assessment (HIA) options (e.g., walkability audit)</li> </ul>
STEP 3: DRAFTING THE PLAN	
Comprehensive Plan Action	Public Health Agency Role
<ul style="list-style-type: none"> <li>• Use technical data and community input to form plan policies that meet established goals</li> <li>• Develop alternative growth scenarios</li> <li>• Develop implementation strategies reflecting costs and potential funding sources</li> <li>• Make plan available for public comment</li> <li>• Hold hearings on final draft plan, formal adoption by governing body</li> </ul>	<ul style="list-style-type: none"> <li>• Continue participation in the plan preparation process; comment on health concerns</li> <li>• Provide decision makers with model or sample functional plans (i.e., pedestrian plan, housing plan) that address health</li> <li>• Encourage citizens to use comment time to address health concerns</li> <li>• Attend planning and zoning meetings</li> <li>• Appoint or elect public health officials to decision-making boards</li> </ul>

**TABLE 2-1. PUBLIC HEALTH IN THE PLANNING PROCESS** *(continued)*

STEP 4: ADOPTION AND IMPLEMENTATION	
<b>Comprehensive Plan Action</b> <ul style="list-style-type: none"> <li>• Plan goes to legislative body for adoption</li> <li>• Plan serves as a guide to future land use decisions</li> <li>• Additional functional plans are prepared (i.e., pedestrian plans)</li> <li>• Plan is implemented through schedule set forth in the plan</li> </ul>	<b>Public Health Agency Role</b> <ul style="list-style-type: none"> <li>• Be an advocate for adoption of the plan if it meets health goals</li> <li>• Take responsibility for implementation of health goals, or work to keep them as a priority</li> <li>• Review development proposals for health aspects</li> <li>• Attend public planning and zoning meetings</li> </ul>
STEP 5: REVISE DEVELOPMENT REGULATIONS AND EVALUATE PLAN PERFORMANCE	
<b>Comprehensive Plan Action</b> <ul style="list-style-type: none"> <li>• Revise zoning and subdivision regulations to be consistent with the new plan</li> <li>• Support rezoning initiatives when applicable</li> <li>• Schedule public investments (e.g., streetscape improvements, housing upgrades)</li> <li>• Monitor plan implementation using benchmarks and indicators</li> </ul>	<b>Public Health Agency Role</b> <ul style="list-style-type: none"> <li>• Provide decision makers with model zoning codes, comprehensive plans, and land use ordinances that relate to public health</li> <li>• Support rezoning initiatives when applicable</li> <li>• Attend planning and zoning meetings</li> </ul>

Source: Land Use Planning Project Staff, National Association of County and City Health Officials

## CONCLUSION

It is important to note that the Five Strategic Points of Intervention framework essentially mirrors a typical planning process (i.e., one that begins with visioning and goal-setting sessions and ends with implementation of the plan through land-use regulations). In practice, users of this report may opt to begin with any of the five points, depending on what is happening in their jurisdiction and what is likely to have a positive impact on the public's health in the short or long term. We recognize, for example, functional plans are not necessarily prepared concurrently with a broader comprehensive planning effort. A trails and greenways plan may be undertaken separately, but in and of itself provides a key intervention point where health should be interjected. Further, a streetscape improvement plan in a specific neighborhood commercial core could provide an ideal opportunity for the community to consider measures to improve pedestrian safety, solve stormwater runoff problems, and address crime.

The five points approach is intended to help planners and public health leaders and their staffs conceptualize how, when, and in what form health matters should be addressed in the planning process. There are no doubt other successful approaches used in communities that have already retooled their planning and land development regulations with the aim of creating healthier communities, including those described in Chapter 7 of this PAS report.