Six years ago, the residents of Montgomery County, Maryland, found a way to make their streets more walkable. The county council adopted a law requiring county residents to clear ice and snow from the sidewalks in front of their houses within 24 hours of a snowfall. Even senior citizens and the disabled supported the law.

A few years later, the law came back into the limelight in an unexpected way. While considering areas for sidewalk extensions, county planners encountered a small but vocal group of citizens who balked at the proposed projects. They said they didn't want to be responsible for cleaning the sidewalks. They wanted to stay sidewalk-free.

Partly as a result of this opposition, in 2003 the county began awarding an annual Sidewalks Are for Everyone (SAFE) Golden Shovel Award. The award recognizes individuals who have helped others clear ice and snow from county sidewalks. Eleven county residents received the award in 2006.

The Golden Shovel Award is just one way that elected officials have encouraged actions to make the county more conducive to walking. In addition to building and maintaining its sidewalks, the county has built pedestrian bridges and trails and provided traffic calming measures to create a more walking-friendly environment. Now it is considering changes to road design to better serve pedestrians. Legislation proposed in December would require narrower roads and more street trees and sidewalks, when appropriate.

The county also has adopted land-use policies that have led to the creation of transit-friendly, pedestrian-oriented projects. It has promoted transit-oriented development around the Bethesda metro rail station and more recently around the Silver Spring metro station. Without this purposeful planning, prevailing regulations would have prevented transit oriented development at all.

By many measures, Montgomery County is a guiding light in the promotion of healthy environments. In April 2006, the county parks department unveiled the 100-mile challenge, which encourages residents to take advantage of the county's 200 miles of paved and natural surface trails to walk 100 miles on 100 summer
Walking and bicycling have been made easier in Montgomery County. Facilities include Millennium Trail in Rockville (opposite), traffic calming measures on Leland Street in Bethesda (left), and bicycle parking in Ritchie Park, Bethesda (below).

Choice

By Daniel A. Rodriguez, Kelly R. Evenson, and David Salvesen

days. In a similar vein, the county parks department inaugurated three heart-smart trails, each one mile or less. Each trail has bronze medallions at 1/10 mile marks to allow walkers to keep track of their progress.

The county's emphasis on policy, infrastructure projects, and program development for healthy lifestyles is consistent with the message from individuals and organizations advocating policy and environmental changes to support active lifestyles.

Wealthy and healthy?

Montgomery County's approach to promoting active lifestyles is somewhat unusual. First, many of its efforts to promote active lifestyles are rooted in its approach to regional planning. The county continues to lead the U.S. in the implementation of planning and growth management tools. Its planning pedigree dates to the mid-1960s, when it adopted an aggressive strategy to manage the rate, location, type, and intensity of land development. This strategy was embodied by the popular Wedges & Corridors Plan of 1964, updated several times since then.

Key to the county's approach to managing growth is its decision to control the fiscal, transportation infrastructure, and environmental impacts of development with formal policies designed to be updated periodically to reflect changing conditions.

Second, the county has faced unique geographic and sociodemographic changes that have translated into severe development pressures and gentrification in some areas. Montgomery County has 497 square miles of land area and shares a border with Washington, D.C. According to the census, the county's population reached 873,341 in 2000. It was 65 percent white, 15 percent African American, 11 percent Asian, and 9 percent other; 12 percent were of Hispanic or Latino origin, regardless of race. Proximity to Washington has stimulated rapid development. Between 1980 and 2005 the county's population grew by 62 percent, while the average county household had an income 21 percent higher than in 1980, adjusted for inflation. With growth in development and income came higher land values. Today, the average county resident is older, more educated, and wealthier than the average Maryland resident.

Despite the higher income, education, and planning environment to support active lifestyles, a growing number of Montgomery County residents are overweight or obese and remain physically inactive. According to Centers for Disease Control and Prevention data from 2002 and 2005 on both Montgomery County and Frederick County, Maryland, 16 percent of the adult population reported no exercise in the previous month, down from 20 percent in 2002. Some 17 percent were classified as obese, up from 13 percent in 2002. This parallels changes in obesity and inactivity at the state and national levels.

The chasm between the county's proactive planning, its deliberate intent to improve the walking environment, its connections to healthy lifestyles, and the increasing inactivity and obesity intrigued us. Although many might say the evidence proves that planning isn't particularly useful in promoting physical activity, others might view it as an inevitable trend resulting from our contemporary lifestyle.

Through a series of interviews conducted dur-
Bike lanes, shared paths, and park trails are mapped in Montgomery County's bikeway functional master plan.

In total, we conducted 17 in-person interviews with 26 individuals, ranging from local and state elected officials to board of education members, planners, bikeway and pedestrian planners, transportation planners, school facility planners, and staff from departments of parks, health and human services, and recreation.

The opportunity of linking to health

Our interviews confirmed that the county has an impressive array of planning-based strategies to support active lifestyles. Many strategies were enabled, supported by, or built on concepts and implementation tools articulated in countywide plans, a master plan for parks, a countywide plan for trails within parks, and an open space plan. The county also has vibrant programs and initiatives that originate in the health department, such as a childhood obesity forum, an African American Health Program, and a Latino Health Initiative.

But most striking were the explanations for why planning was sometimes very successful and other times unsuccessful in guiding development that encourages active lifestyles. These factors tended to cut across the spectrum of the county's planning and health-based strategies. Together with projects, programming, policies, and promotion, they provide insights for planners wishing to initiate or support an effort towards promoting active lifestyle communities.

Awareness of the connection between planning and health

Few of the planners we interviewed thought that their plans and actions deliberately focused on increasing active lifestyles. Rather, they said their work improved quality of life, reduced traffic congestion, or enhanced air quality. Providing opportunities for active lifestyles seemed to be an inadvertent or even accidental impact of certain policies or plans. For example, planners may take steps to encourage more people to use bike paths as a means of reducing congestion on roads, but not explicitly to increase physical activity. This absence of deliberate intent to improve health outcomes means that there are unexplored opportunities for collaboration between health and planning practitioners.

Similarly, few health professionals viewed planning as a way to increase active lifestyles, although experts argue that linking planning and health could provide access to resources, data, and institutional support to achieve planners' goals. Programming and promotion for
the use of existing infrastructure will be more effective if planning and health departments coordinated their approach. One successful Montgomery County example is the use of funds partly provided by the Kaiser Permanente HMO to build and maintain the trails in the heart-smart trail system.

Other cities have certainly found ways to make the connection between planning and health. In San Francisco, the local health department has spearheaded an effort to include health impact assessments of development projects in three neighborhoods. (See the accompanying sidebar.)

A more comprehensive approach that is receiving widespread support from planning and health professionals is taking place in the United Kingdom. In 2000, London's mayor created a commission to conduct health impact assessments of the city's transportation, economic development, waste, and energy policies. A year later, Australia passed guidelines on conducting health impact assessments of site-specific development projects as complements to environmental impact assessments.

Mechanisms to support coordination across disciplines and departments. Montgomery County has institutionalized mechanisms to foster coordination. For public projects, its mandatory referral system requires public agencies to submit their proposed projects to the county planning board for review and comment. Although comments have no teeth, the referral process provides a way for county agencies to comment on a project and to argue in favor of additions or modifications that help them achieve their mission.

For private development projects, the county reviews proposals through the development review committee. That committee holds bi-monthly meetings of assorted regulatory agencies to comment on proposed development projects. It scrutinizes proposals to help develop links in its trails system, to secure much-needed school sites, and to coordinate the improvements of roads and bike paths.

Relatively few localities in the U.S. mandate referrals or joint project reviews. Courtesy referrals and reviews have, however, become increasingly popular for projects that create impacts across jurisdictions. Why not argue for similar approaches when a project spans several local departments or disciplines? Development proposals can be reviewed not only by city planners but also by transportation planners, park planners, and the county health department in the ways set out by the health impact assessments in San Francisco, London, and Australia.

But coordination among government agencies should not be limited to project review. In the project planning phase, coordination can smooth government operations, lead to cost savings, and create, intentionally or not, opportunities for greater physical activity. Co-locating schools and recreational facilities, piggybacking bike lanes onto road projects, and requiring that developers set aside land for parks trails all could lead to increased physical activity.

Data generation and sharing. Another reason for the limited link between planning and health is the absence of data to identify problems, track their progress, and evaluate the effectiveness of proposed changes. Data can be critical for identifying common policy goals, stimulating change, and supporting leadership roles. As one interviewee remarked, "I have the knowledge, but may not have the data to support a particular policy."

Although new data can be collected, data collected for particular purposes may be useful to other agencies. Transportation planners often conduct employer surveys to monitor the use of alternative modes of transportation for commuting to work. Such surveys can be used by a county health agency to gauge employers' interest in promoting walking.

Similarly, counts of trail users often done by parks and recreation departments or student height and weight measures taken during a physical education class can be used by a health agency as a surveillance measure (to track progress) or to measure the effectiveness of related interventions.

'Good' conflict. Planners face many potential
conflicts—with citizens, interest groups, local and federal agencies, and even within a single agency. The negative side of conflict is that it frequently causes delays. The positive side is that conflict often leads to better solutions.

In Montgomery County, an extensive public participation process in planning decision making suggests that conflict with citizens arose frequently as not-in-my-backyard reactions to proposed projects. Such NIMBY reactions frequently mask negative perceptions about risk—perceptions that, if not addressed adequately, can thwart even well-designed projects.

Other conflicts are more predictable and therefore enable strategic and opportunistic behavior from planners. Some interviewees mentioned the preference for automobile-based solutions of many highway and road engineers as an example of conflict.

To make sure that the automobile isn’t always the default choice, Montgomery County planners work closely with state agencies to piggyback improvements onto the state’s projects. If the state highway administration is planning to resurface a road, the county bikeway coordinator determines if there is a gap in the sidewalk along that road and can request that the state include the missing piece of sidewalk in the project.

In some cases, policy goals may conflict. A policy aimed at improving walkability may compete with a goal of preserving the environment. Planners have faced similar dichotomies between economic development and environmental preservation. Interviewees recalled how selected environmental groups opposed the construction of a bicycle lane because it increased the impervious surface beyond established limits. Similarly, the county policy of requiring sidewalks in new developments is sometimes waived due to environmental considerations, despite the potential benefits that sidewalks confer.

What is needed is additional knowledge of the health impacts of the various policy goals. Would the additional sidewalk or the bicycle lane increase physical activity, enhance quality of life, reduce congestion, and improve air quality enough to justify the relaxation of current environmental standards? We don’t know the answer, but as our awareness of the connection between planning and health continues to grow, these questions are bound to arise.

What next?

Although some stubborn challenges remain, Montgomery County has established at least three important mechanisms for linking planning with health. First is the ability to coordinate across departments through mandatory referrals and coordinated project reviews. Second, elected officials and county staff are becoming increasingly aware of the importance of using residents’ health status as a barometer of the county’s quality of life. And third, the county has a solid institutional base upon which to negotiate emerging challenges.

Lessons abound: Interventions, infrastructure projects, policy changes, promotion, and programming are helpful in jumpstarting the process that can gain momentum over time.

Infrastructure projects do not necessarily require costly investments. In a rural area, such a project may consist of building a climbing wall in a community center, whereas for a small town it may mean partnering with a local hospital to build and maintain a garden trail. In a rapidly growing area, it may mean fostering coordination among the school district, local planners, regional planners, law and safety enforcement, the state department of transportation safe routes to school coordinator, and related stakeholders. For an area that is losing residents, it may mean turning a school with low enrollment into a community center that promotes exercise and healthy lifestyles.

Although it is good to focus on a single strategy—from projects to policy to promotion—the effectiveness of the strategies hinges partly on the presence of complementary strategies. Thus, communities that engage in many of these are more likely to be successful in promoting active lifestyles.

In addition to specific interventions, planners could more effectively incorporate health concerns into their practice. One approach is to break down disciplinary and departmental barriers. With goals such as livability and sustainability becoming increasingly shared across agencies, agency and disciplinary barriers will become more porous. Challenges can be overcome by identifying common data and information needs and sources.

Another approach is to raise awareness among elected officials and citizens about strategies to support and increase physical activity. This, in turn, will facilitate more collaboration across agencies. And finally, planners can view conflict between health-related goals and other goals as a way to initiate a discussion about reconsidering existing goals in light of emerging evidence about the role that the built environment can play in supporting physical activity.

In this way, planners can welcome and anticipate the consideration of health into comprehensive planning and of planning into public and community health.

The three authors work at the University of North Carolina, Chapel Hill. Daniel A. Rodriguez is associate professor of city and regional planning and director of the Carolina Transportation Program. Kelly Evenson is research associate professor of epidemiology. David Salvesen is director of the Program for Smart Growth and the New Economy. Funding for the interviews was supported by a Centers for Disease Control and Prevention grant to the North Carolina Physical Activity Policy Research Network. Preparation of this article was supported in part by a grant from the Robert Wood Johnson Foundation Active Living Research program.

**Resources**

**Research.** Active Living by Design and Active Living Research are national programs of the Robert Wood Johnson Foundation. Active Living Research supports research to identify environmental factors and policies that influence physical activity. Findings from the research are used to help inform policy, design of the built environment, and other factors to promote active living: www.activelivingresearch.org. Active Living by Design establishes innovative approaches to increase physical activity through community design, public policies, and communications strategies: www.activelivingbydesign.org.

The Centers for Disease Control and Prevention created the North Carolina Physical Activity Policy Research Network in October 2004 to study the effectiveness of policies related to increasing physical activity in communities. See http://prc.slu.edu/paprn.htm. CDC’s Physical Activity Community Guide provides systematic reviews of the effectiveness of selected population-based interventions designed to increase levels of physical activity; the focus is on information approaches, behavioral and social approaches, and environmental policy approaches: www.thecommunityguide.org/pa/.

The American Planning Association and the National Association of County and City Health Officials are exploring shared objectives, providing tools, and recommending options and strategies for integrating public health considerations into planning. See www.planning.org/research/healthcommunities.htm.

Demographic information on Montgomery County is available from the Research and Technology Center of the parks and planning department: www.mcparkandplanning.org. For more on health statistics, see www.cdc.gov/nchs.