

Development and Public Health

Could our development patterns be affecting our personal health?

A nostalgic view of American cities suggests they were once designed for and accommodated people. In that bygone era, public places, local stores, and transit stops were readily accessible by foot or bike. But then automobiles, highways, suburbia, and strip malls moved into the scene, bringing a new, but not necessarily better, way of life.



Accounts like this often preface passionate discussions among planners, architects, and developers of what constitutes appropriate practice. But these debates, which often center on the environment, usually bypass another consequence of growth: how it has wrought havoc on lifestyles and personal health.

Advocates of the new urbanism have been enumerating the effects of land use and transportation on communities for more than a decade. Today, an old partner of planning—public health—has resurfaced and is proving to be an important asset for advancing issues of smart growth, better community design, and equitable transportation systems.

In 1996, the U.S. surgeon general released a landmark report, “Physical Activity and Health,” and concluded that a sedentary lifestyle is a primary factor in more than 200,000 deaths each year—equivalent to about 25 percent of all deaths from chronic disease and 10 percent of all deaths in the United States. Cardiovascular disease, diabetes, hypertension, obesity, osteoporosis, and some cancers are linked to a sedentary lifestyle, making physical inactivity second only to smoking as a lifestyle risk factor for disease and premature death.

For public health practitioners, the issue centers on access to settings or environments that support physical activity, especially for the 75 percent of U.S. adults that do not engage in 30 minutes of moderate physical activity at least five days a week, as recommended by the Centers for Disease Control and Prevention (CDC). Combine this with the reality that nearly one in four Americans is obese and 61 percent are overweight, and the result is an enormous national public health burden. In addition, there is the economic cost to society: CDC researchers say that direct and indirect costs associated with physical inactivity may total more than \$150 billion annually.

These statistics should convince planners, architects, developers, and engineers to explore how community design and transportation systems affect behavior and, ultimately, personal health. How can this national crisis be best addressed, especially when most Americans have become anesthetized to national health problems, particularly when they are the result of their own carelessness?

A prevalent thought in the public health field is that individuals can govern their own behavior up to a point, but decisions on more complicated issues that affect lifestyle behavior, such as those involving development practices, are best addressed through communitywide efforts. This suggests that planning and development work should involve public health agencies so that the concepts of a healthier and more livable community can be more easily marketed to the people who need them. Two broad strategies may provide an opportunity to enhance such collaboration.

First, change land use practices and policies to support the design of active community environments (ACEs). ACEs are places that are close to home or work, are safely and easily accessible, and that allow people to be physically active. An example would be a mixed-used neighborhood with sidewalks, trails, parks, and other facilities that encourage physical activity. The importance of these types of communities is that as they become more prevalent, they provide an opportunity for people to reintroduce physical activity into their daily lives.

Second, create transportation alternatives and policies to shift automobile trips to walking and bicycling, particularly trips to locations that are close to home such as schools, parks, and stores. Integrating walking and bicycling is appropriate because 25 percent of all trips are less than one mile, but 75 percent of those trips are made by car. With Americans using cars for 89 percent of all their trips, it is

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not surprising that the number of trips the average American adult takes on foot each year dropped 42 percent between 1975 and 1995. For children, trips to school by walking and bicycling dropped 40 percent in the past 20 years. Today, only 10 percent of children walk or bicycle to school, compared with a majority of children a generation ago, and these children now must be chauffeured to places that traditionally could be reached by foot or bicycle. This problem is compounded by the trend of schools to minimize requirements for physical education and recess periods.

At first glance, it may not appear that walking to school, to a transit stop, or to a restaurant can provide meaningful health benefits, but the fact is that these simple, routine activ-

ities provide a tremendous opportunity to accumulate physical activity throughout the day to achieve the recommended 30 minutes of exercise. This strategy is also a better approach than advocating sports, aerobics, or weightlifting because structured activities only resonate with a small percentage of the population. ACEs, on the other hand, could enable millions of sedentary Americans to integrate physical activity into their lives seamlessly.

The safety aspect of ACEs also is important. Each year, about 6,000 pedestrians are killed by automobiles, representing about one in every seven vehicle-related deaths. A nationwide study by the Surface Transportation Policy Project showed that the deaths are more likely to occur in newer, sprawling, Sunbelt communities where transportation systems are most biased toward the car, including cities such as Fort Lauderdale, Miami, Atlanta, and Dallas. Safest are older cities that provide greater pedestrian amenities, such as Pittsburgh, Milwaukee, Boston, and New York.

As a result of these problems, dozens of bicycle and pedestrian advocacy groups have been organized. In San Jose, California, their activism led the mayor and city council to allocate \$5 million to make the city more pedes-

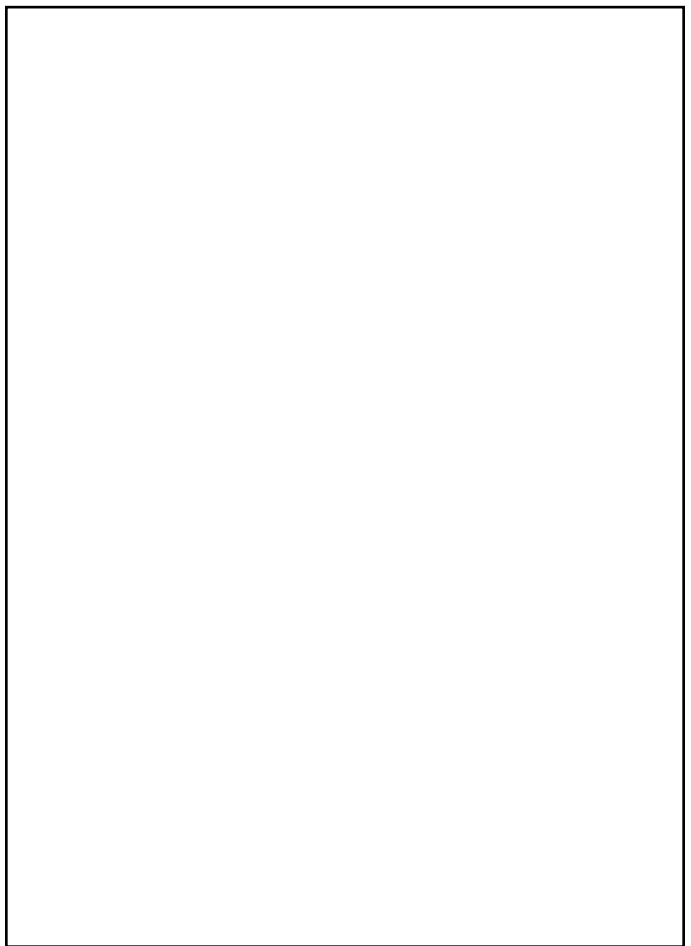
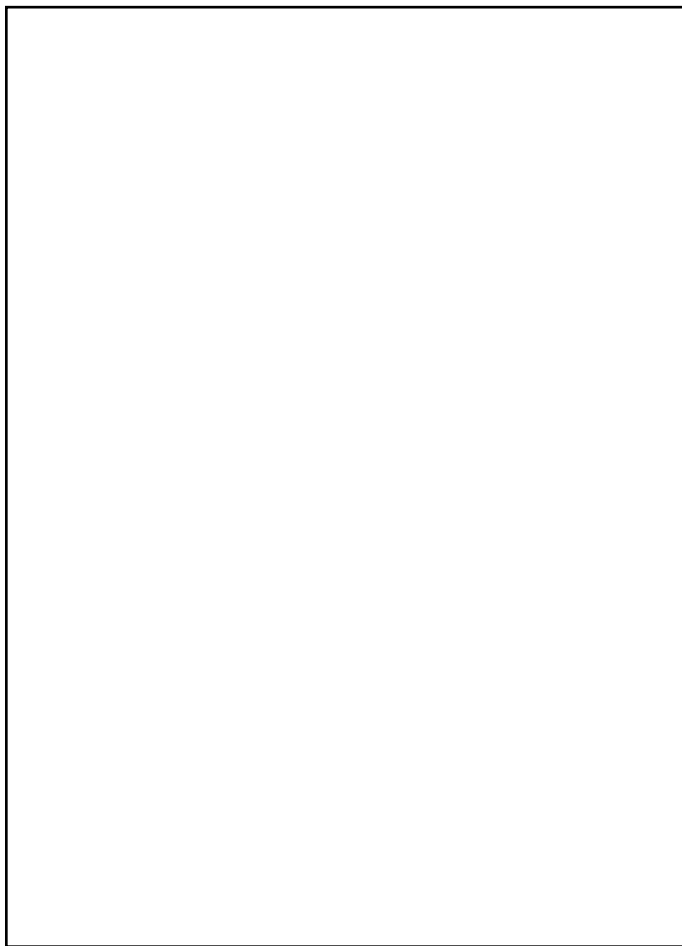


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trian friendly. In Boston, advocates persuaded officials to build pedestrian-friendly roads above the depressed central artery and to try slowing traffic on Congress Street. In Nashville, bike supporters are working on a network of on-street bicycle lanes through the downtown corridor and Music Row. The importance of these projects increases with recognition of the diminishing mobility of the elderly and how their access to grocery stores, medical care, or social outlets will be severely restricted unless the country's land use and transportation policies are reexamined.





Light rail in Portland, Oregon.

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ACEs solve problems faced by a variety of disciplines and provide benefits in a number of areas. The relationship between ACEs and the vibrancy of retail districts, for example, can be seen in countless projects—from Boca Raton’s redeveloped downtown center Mizner Park, to San Diego’s Gaslamp District, to Santa Monica’s Third Street Promenade. ACEs also appeal to market demand. A 1999 ULI study suggested that homebuyers were willing to pay a \$20,000 premium for homes in compact, walkable new urbanist-style neighborhoods, as compared with similar houses in more conventional developments nearby. New economy economic development experts in recent years have begun emphasizing the need for in-

tegrated, walkable city centers that promote interaction and networking. And law enforcement, architects, and planners also have begun to look at how design of neighborhoods and housing developments can reduce crime by building a sense of shared ownership and community interaction. The savings on medical costs alone achieved from less auto-dependent and more activity-oriented people could reach into the billions of dollars annually. Moving toward more ACE-oriented development, however, requires changing public policy through close collaboration among a variety of disciplines, plus strategic planning, marketing, education, advocacy, and research.

But land use and transportation planners, for example, historically have not been close collaborators, says Reid Ewing, research director for the Surface Transportation Policy Project. They are housed in different agencies at different levels of government, use different planning methods, and have different planning horizons. So it is no wonder that coordinated efforts to create healthier cities and more walkable neighborhoods are infrequent.

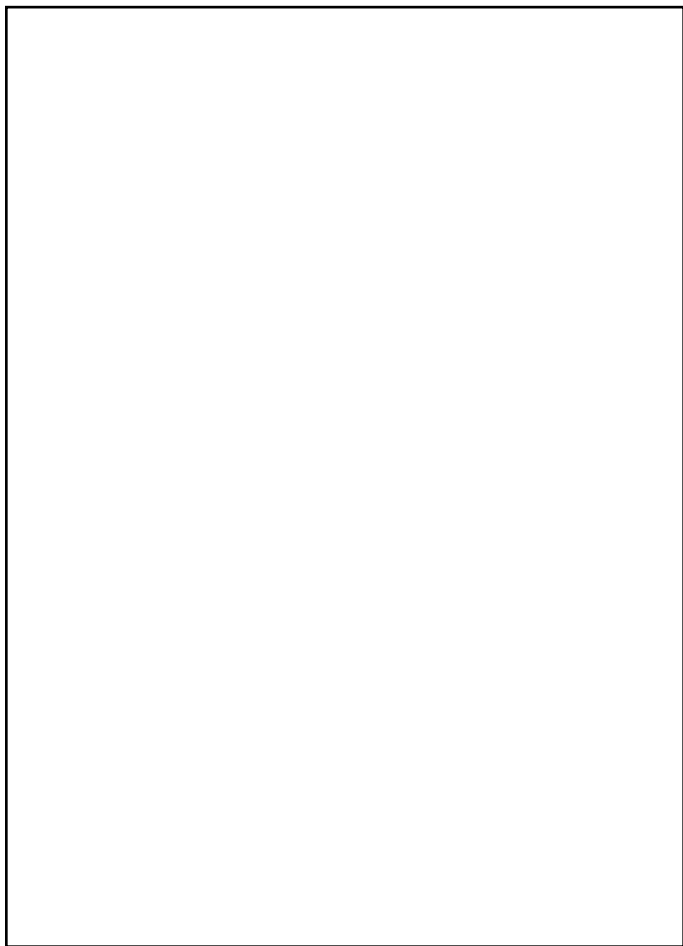
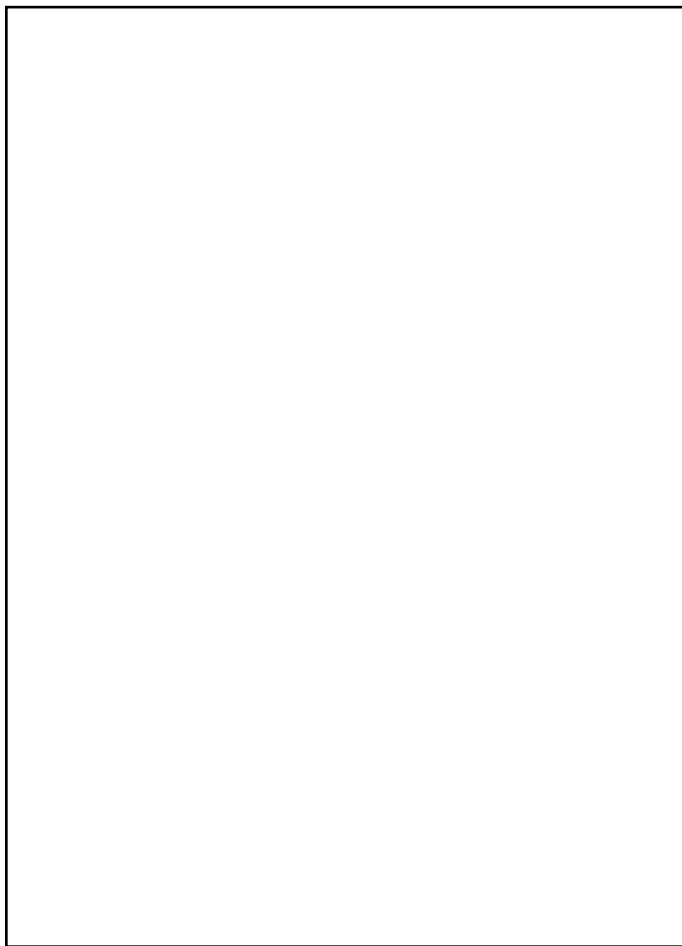
However, a conceptual breakthrough did occur in the 1990s when land use and transportation planners in Portland, Oregon, col-

laborated on a vision of coordinated light rail and transit-oriented development on the city’s west side, points out Ewing. The project, called Land Use, Transportation, and Air Quality (LUTRAQ), replaced plans for unchecked urban sprawl and the Western Bypass, yielding a projected reduction in vehicle trips and miles traveled. Metropolitan air quality improved through decreased vehicle emissions. However, as many critics have noted, the traffic-related benefits of this and successive regional planning initiatives in regions like Charlotte, North Carolina, and Salt Lake City are limited.

The CDC, the Surface Transportation Policy Project, and Rutgers University have embarked on a study to explore the links between urban sprawl and morbidity issues such as obe-



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sity, Ewing says. Such research may bring a call for human impact statements—similar to environmental impact statements for land use—that identify the consequences of community design and transportation choices for residents.

Many communities are taking steps to expand traveler choices, comments Michael Replogle, transportation director of Environmental Defense, by combining new technologies with incentives and accountability standards. In Atlanta, residents face mounting traffic, congestion, air pollution, energy consumption, and other sprawl-induced problems. After failing to agree on transportation plans consistent with state mandates for air pollution control, the Clean Air Act helped Georgia officials redirect hundreds of millions of dollars from sprawl-inducing roads to transit, sidewalks, bike paths, traffic signals, and safety projects. Georgia Governor Roy Barnes subsequently established the Georgia Regional Transportation Authority to guide regional transit and encourage more responsible local land use decisions.

Recent changes in the federal tax code make it attractive for employers to offer “pay-me-not-to-drive” incentives, such as nontaxable transit and vanpool benefits, and cash in lieu of a parking space. In southern California and Minnesota, where employers are offering a \$2 to \$3 a day cash incentive for employees to give up their parking space at work, one of eight employees who used to drive is finding another way to get to work, Replogle says. Several states have incentives to reinforce this, such as Maryland, where since the beginning of this year, employers get a 50 percent tax credit for transit, vanpool, or cash-in-lieu-of-parking commuter incentives.

In San Diego, the fees paid by solo drivers for access to high-occupancy vehicle lanes support new express bus service, with bike racks provided on buses. In metropolitan New York, tolls from bridges and tunnels are higher during rush hours and lower off-peak, and help fund improved transit service. And new bicycle service centers are being set up at transit stops in California, Colorado, and elsewhere to make it easier to link bicycles with public transportation to reach more destinations. With abundant bike lanes and paths in Davis, California, bicycle trips now account for more than a quarter of all trips, according to Replogle. In Annapolis, Maryland, the Smart Bikes program makes bicycles available to people with a credit card to enhance mobility in districts where parking is limited. These examples provide evidence that a number of places are seeking solutions that support development where one can walk, bike, or use transit.



Riverwalk in Minneapolis provided healthful new walking options for downtown workers.

“We have found that walkable, mixed-use, mixed-income communities designed to have a sense of place are not only healthier for their residents, but they are also healthier for the developer because they appeal to multiple markets and mitigate development risk,” says Jonathan Rose, president of Affordable Housing Development Corporation, based in Katonah, New York.

The Highlands’ Garden Village project in Denver, for example, places single-family homes, townhomes, cohousing, affordable and market-rate senior and multifamily rental housing, live/work studios, retail facilities, and offices around a series of linked open spaces. The project is an easy bus ride to downtown Denver, is internally walkable, and is near local main streets and a typical supermarket-anchored shopping center. A primary school sits adjacent to one of the parks so that students can walk to school and play outdoors. Residents who do not want the economic burden of car ownership can use one of the electric vehicles in the neighborhood car-share program fleet, an amenity provided by the developer as a neighborhood benefit.

In 1904, planner and architect Alfred Clas designed promenades to downtown Milwaukee’s river. Like his plan for Chicago’s Wacker Drive, the Milwaukee plan was grand in scope. But unlike Chicago’s project, it was never built—that is, until nearly a century later. In 1993, Milwaukee hired San Francisco landscape architect Ken Kay, who, inspired by Clas, developed a design connecting downtown Milwaukee to its river. It cost the city \$9.5 million but spawned 15 times that in private investment, says Mayor John Norquist.



The Riverwalk introduced healthy new walking options for downtown workers. It also does a better job of connecting downtown’s restaurants, apartments, stores, and offices. New river views inspired building owners and developers to transform empty buildings into condominiums with dining on the first floor, making the riverside a destination. Rowers travel the river, attracted by the audience of walkers and diners who cheer them on. The Riverwalk connects downtown to nature: trout, steelhead, and salmon have added the fishing crowd to the downtown mix.

The public walkway has been extended a mile north from downtown, and construction starts soon on an extension a mile south to Lake Michigan. Real estate values have skyrocketed as people reconnect with a river that had been ignored for a century. This is a time when cities spend hundreds of millions of dollars on convention or sports centers, desperately seeking the biggest complex, although almost all such facilities lose money. Many such projects are built in isolation from their surroundings. “Alas, we’ve made this mistake in Milwaukee a few times, and it almost always leads to disappointment. But with our modest investment in our riverside walk, we got it right. We connected, and it has added great value and excitement to our downtown, and people are walking,” points out Norquist.

“To solve the problem of getting people walking and bicycling again would require collaboration at all levels,” notes Harriet Tregoning, Maryland’s secretary of planning. Transportation engineers would need to deliver safe, inviting ways to get around on foot. Land use planners would have to give people something to walk to, mixing uses to bring

homes and shopping, schools, and jobs closer together. Public safety officials would need to make places feel safer, with better lighting and more enforcement of traffic laws, explains Tregoning. Urban designers would have to make places attractive, paying attention to wall heights, storefronts, and street buffers.

The benefits would accrue to more than just pedestrians. Economic development experts will find that people making routine errands become new customers for local businesses. Community policing organizations already know that more people on the street make places more inviting for visitors and less attractive for criminals. Use of public transit would increase as pedestrians learn that the easiest way to increase the range of their legs is by riding a bus or train, notes Tregoning.

But the most immediate and important benefit would be to the health, both physical and mental, of many more people. For children, who have become increasingly sedentary and overweight, the opportunity to walk to school or a friend's house could make a dramatic difference in their health and ability to concentrate in class. Events and programs such as National Walk to School Day and the recent Safe Routes to School legislation passed in California are important components in the livability of communities.

As Peter Calthorpe has said, "Every project has a political, economic, ecological, social, technical, aesthetic, and ideological dimension." Health is an embedded characteristic within those dimensions; it is important that it is reflected in the planning and development process to improve the livability of communities.

Many professionals believe it is impossible to solve development problems because people are not naturally inclined to accept new practices. A growing belief, however, is that this reluctance exists because people continue to operate within the constraints of their respective disciplines and fail to recognize the potential success of multidisciplinary collaboration. Professionals from a variety of fields need to recognize their role in the larger scheme of public health and understand that their practices can affect the behavior and health of everyone. The planner, developer, architect, engineer, and public health practitioner should work collaboratively to identify the effects of their decisions and develop healthier communities.

Ultimately, people strive to leave a legacy that affects future generations. As the 21st century continues, the choice is to create places that can improve the quality of life, or to continue along the same path and suffer the economic and medical consequences of the nation's practices. ■