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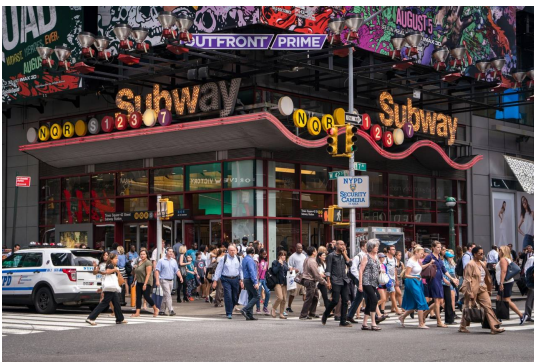
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HEALTH CARE

The Link Between Urban Sprawl and Life Expectancy

Study suggests Americans who live in compact counties live longer, on average, than those who reside in more sprawling ones



In higher-density areas, people walk and bike more, driving is less dangerous, and air quality is better because of public transit.
PHOTO: ISTOCKPHOTO/GETTY IMAGES

By *Heidi Mitchell*

Sept. 16, 2018 10:00 p.m. ET

Urban sprawl may be bad for your health.

So says a recent study published in the *International Journal of Environmental Research and Public Health* that found, all other things being equal, Americans who live in compact metropolitan counties live longer on average than those who reside in more sprawling ones.

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For years, the U.S.'s life-expectancy ranking has been falling compared with other developed nations, and sociologists have been looking at factors such as gender, race, education, income, population, environment and behavior to determine why. This study, conducted by Shima Hamidi, the director of the Institute of Urban Studies at the University of Texas at Arlington, identifies a potential new factor: the effect of urban sprawl on residents' health.

Dr. Hamidi began her research by updating an earlier study that defined urban sprawl based on traits such as a county's density, mixed-use neighborhoods, street connectivity (meaning, fewer cul de sacs) and

strong urban centers. Using 2010 census data, Dr. Hamidi measured the compactness of almost 1,000 urban, suburban and exurban counties in America, with the average score being 100. Areas that scored above 100 are considered more compact, those below 100 more sprawling, she explains. The most sprawling county, according to her research, is Oglethorpe County, Ga., with a score of 45; the most compact is, unsurprisingly, dense New York, at 425.

After controlling for income, education and other socioeconomic variations among counties, as well as behavioral and environmental factors, the study found that a doubling of a county score was associated with a 3.5% increase in its residents' life expectancy. For the average American with a life expectancy of 78 years, this translates into a 2.7-year difference. Put another way, if County A's score is twice as high as County B's, then on average the residents of County A will live 2.7 years longer than those residing in County B, Dr. Hamidi explains.

"There are disparities of more than 20 years between counties with the highest and lowest life expectancies, but we found that the impact of sprawl amounts to about a 2.7-year difference on average," she says.

For Dr. Hamidi, three main factors stood out in her research. First, while compact counties have more car crashes, they are 15% less likely to be fatal. "The speed of the car is slower, the emergency response time is faster and physical access to health-care facilities is easier," she says.

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Another factor, as she expected, is obesity. “It turned out to be a very significant factor, since compact areas provide opportunities for being physically active and being less car-dependent, not to mention having better access to healthy food,” she says.

The third factor, surprisingly, is air quality. “The concentrations of ozone and fine particulates are lower in compact areas than in sprawling areas, because denser places are more reliant on public transit systems or walking and biking in mixed-use areas,” she says.

“It isn’t an easy fix,” Dr. Hamidi says. “But if we can get started thinking about quality-of-life aspects of sprawl now, perhaps we can prioritize enacting zoning codes that encourage what we call smart growth: mixed-use developments, downtown residency and investment around transit stations.”

Dr. Hamidi favors a “poly-center” urban model, in which a superdense urban core is connected to dense subcenters by an efficient transit system. Portland, Ore., for instance, “has a significant set of subcenters that have their own identity and a relatively good public light rail that connects these subcenters to downtown,” she says. The score for Multnomah County, of which Portland is the county seat, is 157, and relative to its size that’s pretty high, she says.

“Change across America won’t happen quickly,” she says. But “we can make our cities more dense, walkable and accessible, and less car-dependent, and ultimately improve our overall health.”

Ms. Mitchell is a writer in Chicago. Email reports@wsj.com.

Corrections & Amplifications

Portland, Ore., is the county seat of Multnomah County. An earlier version of this article incorrectly referred to Portland County. (Sept. 17, 2018)

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