

Study finds walking more likely in neighborhoods with more 4-way intersections

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People are more likely to walk when they live in neighborhoods where there are more four-way intersections and a diverse mixture of businesses, according to a RAND Corporation study issued today.

A greater density of housing also may encourage walking, but only once density reaches a relatively high level, according to the RAND Health study that is one of the first to test whether urban design recommendations for creating walkable communities may help achieve their goal.

"Our findings may provide some guidance to designers and urban planners as they try to create communities where people are encouraged to walk instead of always traveling by car," said Rob Boer, a RAND natural scientist and lead author of the study. "This is one of the first studies to test the notions about what factors in the built environment may increase walking."

Researchers from RAND, a nonprofit research organization, examined survey information from residents in 10 major U.S. cities about their walking habits and compared the results to the characteristics of the neighborhoods where those people lived.

Published in the February edition of the American Journal of Preventive Medicine, the study was designed to test four basic criteria developed as a part of the New Urbanism Smart Scorecard to help urban planners create communities that encourage walking.

Researchers found no evidence that shorter blocks encouraged more walking as suggested by the Scorecard. The effect of housing density on walking was mixed. Only when density reached 14 units per acre or more did the number of walking trips increase, according to the study.

Business diversity increased walking until there were four types of businesses in a neighborhood, and then the impact plateaued. While there was a consistent link between the number of four-way intersections and walking, the impact was not particularly strong, researchers say.

"We will need to examine whether these items have to be done in concert in order to have a big impact on walking," Boer said. "We also need to explore other factors, such as whether people who are interested in walking may seek out certain types of neighborhoods."

Data for the study was taken from the National Personal Transportation Survey of 1995 that included interviews of 42,033 households nationwide. The main cities were Boston, Chicago, Dallas, Detroit, Houston, Los Angeles, New York, Philadelphia, San Francisco and Washington. Information about the urban makeup of study neighborhoods was taken from the 2000 Census.

Source: RAND Corporation

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