

## FACTSHEET:

# Zoning Code Reforms are Associated with Walking Behaviors in a Nationwide Evaluation

This factsheet serves as a companion document to the product [Components of Local Land Development and Related Zoning Policies Associated with Increased Walking: A Primer for Public Health Practitioners](#). This factsheet summarizes key findings from a recently completed nationwide evaluation of the relationship between zoning code reforms and both leisure time and active travel-related walking and activity and supports recent recommendations from the Community Preventive Services Task Force entitled, *Physical Activity: Built Environment Approaches Combining Transportation System Interventions with Land Use and Environmental Design*.<sup>1</sup>

Zoning code reforms support the development of infrastructure that is supportive of walking and a mix of land uses that are associated with walking, biking, and public transit.<sup>2,3</sup> Specific types of zoning code reforms are described in detail in the [Primer](#) and include form-based codes, new urbanist districts or zones, pedestrian-oriented districts or development (POD), transit-oriented districts or development (TOD), and traditional neighborhood development or districts (TND).

*This nationwide evaluation found that although zoning code reforms are not very prevalent nationwide, they support physical activity. Areas with zoning code reforms are likely to have higher rates of leisure-time walking and active travel to work. These areas are also less likely to have leisure-time physical inactivity.*

## What Types of Communities Have Adopted Zoning Code Reforms?

- ▶ Zoning code reforms are not highly prevalent in the U.S.; only 18.4% of the counties with zoning authority and only 14.5% of the municipalities in the study sample had adopted zoning code reforms (in whole, in part, or as an overlay) as of 2010.
- ▶ Zoning code reforms have predominantly occurred in the Southern region of the country; 70.8% of the sampled counties and 44.0% of municipalities with zoning code reforms were located in the South. Zoning code reforms are least prevalent in the Northeast and Midwest regions of the country.
- ▶ At the county level, zoning code reforms are more common in counties with a larger population size and with a higher percentage of workers taking public transit to work. At the municipal level, zoning code reforms are more common in communities with a larger population size, with higher median home values, with a higher percentage of workers taking public transit to work, and with a younger median age of the population.

## What is the Relationship between Zoning Code Reforms and Leisure-time Walking?

- ▶ Zoning code reforms are associated with:
  - ▶ 4% greater probability of adults aged 18-64 engaging in leisure-time walking
  - ▶ 4% greater probability of older adults age 65+ walking for leisure



There are a number of strategies that can help support walkable communities through community design and zoning policies. See the companion document, [Components of Local Land Development and Related Zoning Policies Associated with Increased Walking: A Primer for Public Health Practitioners](#), for actions that different sectors can take to implement the strategies to create walkable communities.

## What is the Relationship between Zoning Code Reforms and Rates of Leisure-time Physical Inactivity?

- ▶ Zoning code reforms are associated with:
  - ▶ 13% lower probability of leisure-time physical inactivity among adults aged 18-64<sup>6</sup>
  - ▶ 11% lower probability of leisure-time physical inactivity among older adults age 65+

## What is the Relationship between Zoning Code Reforms and Active Travel to Work?

- ▶ Municipal-level zoning code reforms are associated with:
  - ▶ Higher rates of adults engaging in active travel (walking, biking, or public transit) to work (7% with zoning code reforms vs. 6.1% without zoning code reforms),<sup>4</sup>
  - ▶ Increased active travel to work in municipalities with higher vs. lower percentages of households in poverty after adjusting for municipal characteristics.
    - ▶ Without zoning code reforms, poverty is not associated with active travel to work, but with zoning code reforms, each additional percentage point of households in poverty is associated with a 0.19 percentage point increase in the percent of workers taking active travel to work.<sup>8</sup>
- ▶ Municipal-level transit-oriented development (TOD) zoning, a type of zoning code reform, is associated with:
  - ▶ A 2.5 percentage-point increase in the rate of adult active travel to work (8.6% with TOD zoning vs. 6.1% without TOD zoning).<sup>7</sup>

### ACKNOWLEDGEMENTS

Funding for the development of this product was provided by the Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion, Division of Nutrition, Physical Activity and Obesity (contract number 200-2016-M-91106) and the CDC-funded Physical Activity Research Network Plus (PAPRN+) Collaborating Center at the Illinois Prevention Research Center (grant number U48DP005010, SIP 14-025). The views presented in this document do not necessarily reflect the views and/or positions of CDC.

Data on the zoning codes and associations between the zoning codes and the activity outcomes were originally compiled by researchers at the Institute for Health Research and Policy (IHRP) at the University of Illinois at Chicago (UIC) as part of a grant from the National Institutes of Health, National Cancer Institute (grant number R01CA158035, PI Jamie Chiqui).

Graphic design and layout were completed by Claudia Grosz.

**SUGGESTED CITATION:** E Thrun, J Leider, A Sanghera, JF Chiqui. *Zoning Code Reforms are Associated with Walking Behaviors in a Nationwide Evaluation—A Factsheet*. Chicago, IL: Institute for Health Research and Policy, University of Illinois at Chicago. January 2018. **Available:** [go.uic.edu/zoningfactsheet1](http://go.uic.edu/zoningfactsheet1).

### BRIEF OVERVIEW OF STUDY METHODS

Zoning codes in effect as of 2010 were compiled and evaluated for the largest 496 counties and 4 consolidated cities in the United States (U.S.) and 3,921 municipalities located in 472 of those counties and 3 consolidated cities. Collectively, the counties and consolidated cities covered 75.03% of the U.S. population and the municipalities covered 47.40% of the U.S. population with unincorporated county areas covered by county zoning. Each jurisdiction's zoning code was evaluated for the presence of zoning code reforms and then linked to data from the Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System (BRFSS) for county-level leisure time-related walking and inactivity and to the Census Bureau's American Community Survey for municipal-level active travel to work-related behaviors. Full descriptions of the study methods are described elsewhere.<sup>4-8</sup>

## References

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7. Thrun E, Leider J, Chiqui JF. Exploring the cross-sectional association between transit-oriented development zoning and active travel and transit usage in the United States, 2010-2014. *Frontiers in Public Health*. 2016;4:113. doi: 10.3389/fpubh.2016.00113.
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