

Using Local Land Use Laws to Facilitate Physical Activity

Local zoning and land use laws specify allowable uses of land within a community to help guide new development and protect community resources. The laws may specify requirements for structural improvements, such as adding or maintaining sidewalks, bike lanes, or open space, that affect residents' ability to be physically active.

This brief examines the extent to which local land use laws require structural improvements that facilitate physical activity. It also examines whether such requirements vary based on community income. The data was collected in 2010 from 264 communities across the United States.

- *Policy requirements for open space and pedestrian-friendly improvements, such as sidewalks and crosswalks, are more common than requirements for trails, bike lanes, or active recreation areas, such as playgrounds and sports fields.*
- *Lower- and middle-income communities are less likely than higher-income communities to require pedestrian-friendly improvements, active recreation areas, open space, trails and bike lanes in their local land use laws.*

Introduction

The *Physical Activity Guidelines for Americans* recommend that children and adolescents participate in at least 60 minutes of daily physical activity to prevent and/or reduce obesity.¹ However, many families live in neighborhoods that inhibit physical activity. In communities across the country, many streets are designed for cars and are unsafe for pedestrians and bicyclists because they lack sidewalks, safe crossings or bike lanes. Research shows that children who live in neighborhoods that lack sidewalks, paths, parks, playgrounds or other amenities that support physical activity are more likely to be obese or overweight.²

The Task Force on Community Preventive Services recommends using community and street-scale design and land use policies to promote physical activity.³ Local governments can use their zoning and subdivision authority to facilitate walking, bicycling and other opportunities for physical activity. Through its zoning powers, a local government can regulate the location of park and recreation facilities, trails and other facilities that promote physical activity; regulate land use patterns (e.g., open space zones); and specify infrastructure requirements, such as sidewalks and open space. Subdivision regulations control the division of land for development purposes. They include design standards for the layout of lots, streets and other public

improvements.⁴ Through subdivision regulations a local government can require features such as sidewalks, bike lanes or trails in new development.

This brief examines the extent to which local land use laws, including county and municipal zoning ordinances and subdivision regulations, require infrastructure-related features or improvements that facilitate physical activity. It also examines whether such provisions vary based on community income. The zoning ordinances and subdivision regulations were collected in 2010 from 264 communities surrounding 154 public middle and high schools nationwide. The findings identify opportunities for strengthening local land use laws and provide guidance for local policymakers and advocates who are working to increase opportunities for physical activity in their communities.



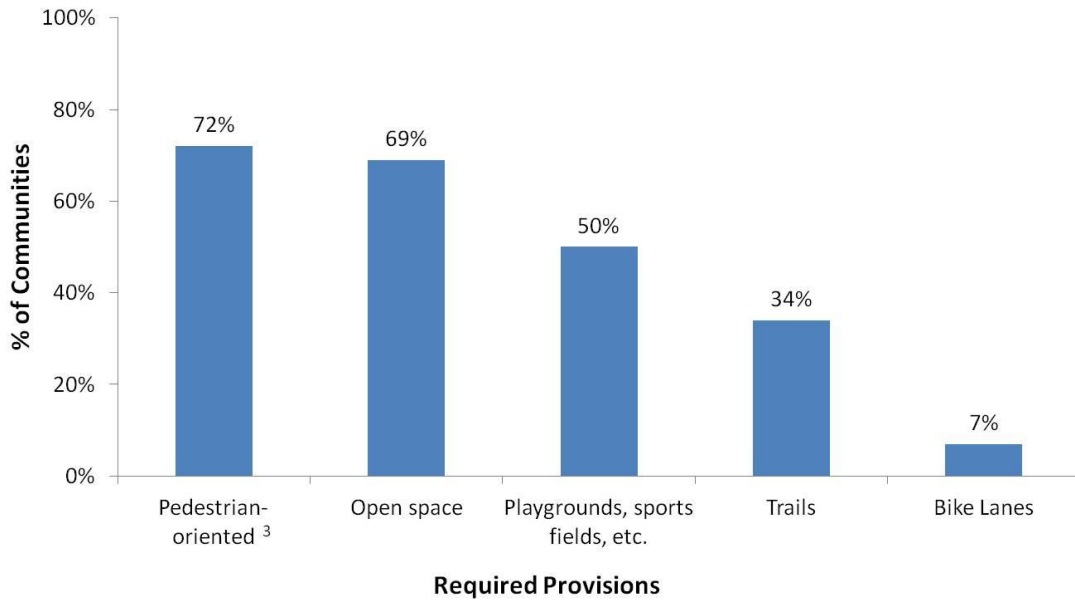
Source: www.pedbikeimages.org / Laura Sandt

Key Findings

Local land use laws were more likely to require open space and pedestrian-friendly structural improvements, such as sidewalks and crosswalks, than they were to require trails, bike lanes, or active recreation areas, such as playgrounds and sports fields (see Figure 1). The requirements for provisions that support physical activity also varied by median household income in their community (see Figure 2).

- Land use laws in lower- and middle-income communities were significantly less likely to require pedestrian-friendly improvements, such as sidewalks and crosswalks, than were land use laws in higher-income communities (58%, 66% and 91%, respectively).
 - Land use laws in lower- and middle-income communities also were significantly less likely to require open space and active recreation areas, such as playgrounds and sports fields, than were land use laws in higher-income communities (open space: 55%, 68% and 84% and active recreation areas: 39%, 47% and 66%, respectively).
 - Higher-income communities also were more likely to require trails than were middle- or lower-income communities (55% vs. 33% and 16%, respectively).
- ## Conclusions and Policy Implications
- In communities across the country, local land use requirements for pedestrian-friendly structural improvements, such as sidewalks and crosswalks, open space, active recreation areas, trails, and bike lanes varied by type of provision and community income. Generally, lower- and middle-income communities were less likely to include requirements for provisions that support physical activity in their land use laws than were higher-income communities. Local governments have a number of policy options to help increase opportunities for physical activity:
- Local governments should review their existing zoning ordinances and modify them to address infrastructure improvements that could be made to promote physical activity. For example, a locality can adopt policies that require the construction of sidewalks, crosswalks, trails or bike lanes in new development.
 - Local officials should modify their subdivision regulations to require developers to dedicate land or pay a fee to contribute to land used for parks or recreation facilities to increase opportunities for recreation.⁵
 - Local governments could modify their zoning code to include zones or districts that facilitate physical activity, such as mixed use, traditional neighborhood, transit-oriented development or pedestrian-oriented districts.⁶ These areas often are pedestrian-friendly and are characterized by a mixture of residential, commercial and office uses that are located in close proximity to each other and support walking and bicycling as a transportation option.

Figure 1 Requirements for Provisions that Promote Physical Activity in Community¹ Zoning and Land Use Laws²

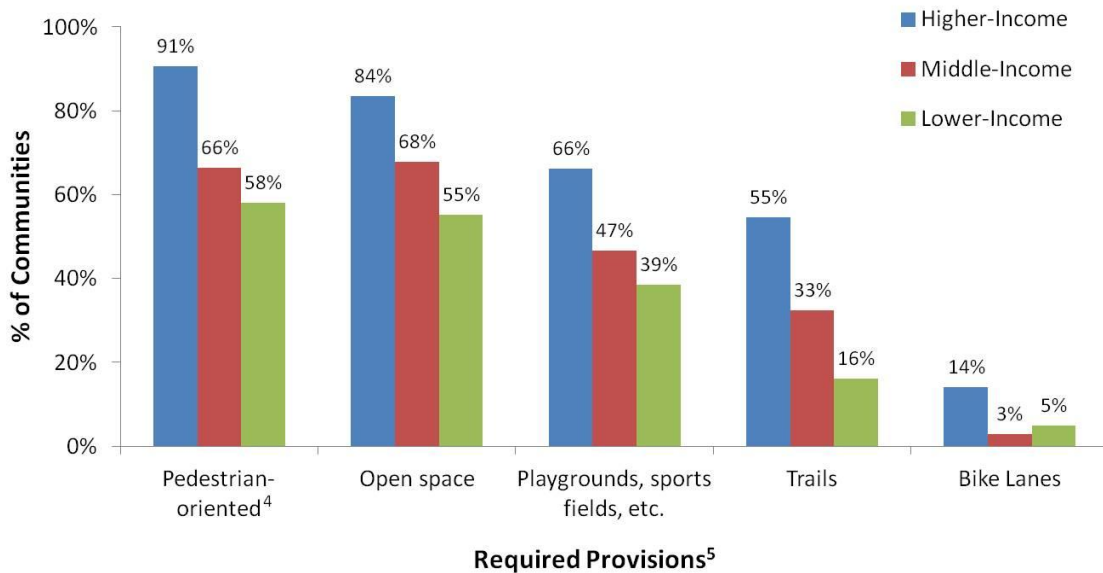


¹ N=264 counties and municipalities nationwide.

² Includes zoning ordinances and subdivision regulations.

³ Pedestrian-oriented provisions require sidewalks, crosswalks, paths and other features that would facilitate pedestrian access.

Figure 2 Requirements for Provisions that Promote Physical Activity in Community¹ Zoning and Land Use Laws² Vary by Community Income³



¹ N=264 counties and municipalities nationwide.

² Includes zoning ordinances and subdivision regulations.

³ Communities are grouped in tertiles based on the median household income of the community. One-third of communities were grouped in each of three categories: lower-, middle- and higher-income.

⁴ Pedestrian-oriented provisions require sidewalks, crosswalks, paths or other features that would facilitate pedestrian access.

⁵ With the exception of bike lanes, required provisions were significantly lower (at $p \leq .05$) for lower- and middle-income communities than higher-income communities. For bike lanes, only middle-income communities were significantly lower ($p < .05$) than higher-income communities.

Other strategies to help local governments increase opportunities for physical activity include:

- Local officials can create incentive policies to support the development of open space, recreation facilities, or sidewalks and trails. For example, a policy could allow for an increase in dwelling units per acre if a developer dedicates a certain amount of land for public open space or recreation.
- Local policymakers should consider adopting a Complete Streets policy to support infrastructure improvements for creating pedestrian-friendly neighborhoods.⁷ Local officials also can adopt complete streets concepts in their policies by incorporating sidewalks and bike lanes in their street design standards or requiring transportation departments to consider safe access for all users as part of roadway projects.⁸
- Local governments and schools can adopt agreements pertaining to joint/shared use of facilities for recreational purposes to increase opportunities for physical activity.

Future studies and reports by Bridging the Gap will examine the impact of all these strategies, as well as requirements that are addressed within a community's zoning ordinance or subdivision regulations to help inform policymakers and advocates who are working to increase access opportunities for physical activity among residents in communities nationwide.

For additional information on model Complete Streets policies and zoning ordinances, the National Policy and Legal Analysis Network to Prevent Childhood Obesity provides resources for communities seeking to develop policies related to community health.^a The American Planning Association also provides additional resources about planning for physically active communities through their Planning and Community Health Research Center.^b

^a More information about NPLAN's resources is available at www.phlpnet.org/healthy-planning.

^b More information about the American Planning Association's resources is available at www.planning.org/nationalcenters/health/resources.htm



Source: www.pedbikeimages.org / Dan Burden

Study Overview

The findings in this brief are based on data from the Bridging the Gap Community Obesity Measures Project (BTG-COMP), an ongoing, large-scale effort conducted by the Bridging the Gap research team. BTG-COMP identifies local policy and environmental factors that are likely to be important determinants of healthy eating, physical activity and obesity among children and adolescents. BTG-COMP collects, analyzes and shares data about local policies and environmental characteristics relevant to fast-food restaurants, food stores, parks, physical activity facilities, school grounds and street segments in a nationally representative sample of communities where public school students live.

This study was based on an analysis of zoning ordinances and subdivision regulations collected by BTG-COMP researchers at the University of Illinois at Chicago in 2010. Zoning ordinances were obtained from 264 county and municipal (i.e., municipalities, towns, townships) governments surrounding a nationally representative sample of 154 school enrollment zones where students attending public middle and high schools live in the United States. The zoning ordinances and subdivision regulations were reviewed and analyzed by BTG-COMP researchers using a policy audit tool developed for this study^c to determine whether they required provisions that would promote walking, bicycling, and/or

^c More information about the policy audit tool is available from Bridging the Gap at info@bridgingthegapresearch.org.

active or passive recreation. This analysis was based on provisions required for anywhere in the community (i.e., regardless of which zone(s) or district(s) where the provision would be required).

For this study, communities were classified into three mutually exclusive and exhaustive income categories based on the U.S. Census Bureau, American Community Survey, 2005–2009 series. At the county level, households living in higher-income counties made, on average, greater than \$54,379 per year; those living in middle-income counties made, on average, between \$45,643 and \$54,378; and those in lower-income counties made less than \$45,643. At the municipal level, households living in higher-income communities made on average, greater than \$58,782 per year; those living in middle-income communities made, on average, between \$46,258 and \$58,781 per year; and those living in lower-income communities made less than \$46,258 per year.

A secondary public school can draw its students from several local governments. To account for the relative weight of the zoning ordinances and /or subdivision regulations from multiple local governments pertinent to the same school catchment, the data presented in this report were weighted proportional to the population of the local jurisdiction.

Authors

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About Bridging the Gap

Bridging the Gap is a nationally recognized research program of the Robert Wood Johnson Foundation dedicated to improving the understanding of how policies and environmental factors affect diet, physical activity and obesity among youth, as well as youth tobacco use. The program identifies and tracks information at the state, community and school levels; measures change over time; and shares findings that will help advance effective solutions for reversing the childhood obesity epidemic and preventing young people from smoking. Bridging the Gap is a joint project of the University of Illinois at Chicago's Institute for Health Research and Policy and the University of Michigan's Institute for Social Research. For more information, visit www.bridgingthegapresearch.org.

Endnotes

1. U.S. Department of Health and Human Services. *2008 Physical Activity Guidelines for Americans*. Washington, D.C.: U.S. Government Printing Office; 2008.
2. Singh GK, Siahpush M, Kogan M. Neighborhood socioeconomic conditions, built environments, and childhood obesity. *Health Affairs*. 2010;26:503-512.
3. Heath GW, Brownson RC, Kruger J, et al. The effectiveness of urban design and land use and transportation policies and practices to increase physical activity: a systematic review. *J Phys Act Health*. 2006;3(Suppl 1):S55-S76.
4. American Planning Association. *Planning and Urban Design Standards*. Hoboken, NJ: John Wiley & Sons; 2006.
5. Morris M. *Planning Active Communities*. Chicago: American Planning Association Planning Advisory Service Report Number 543/544. 2006.
6. Schilling J, Michkovsky N. *Creating a Regulatory Blueprint for Healthy Community Design: A Local Government Guide to Reforming Zoning and Land Development Codes*. Washington, D.C.: International City/County Management Association; E-43346, 2005.
7. *What are Complete Streets?* Oakland: National Policy and Legal Analysis Network (NPLAN), 2010. http://www.nplanonline.org/sites/phlpnet.org/files/nplan/CompleteStreets_FactSheet_FINAL_20100223.pdf. Accessed February 6, 2012.
8. *Complete Streets Talking Points*. Oakland: National Policy and Legal Analysis Network (NPLAN), 2010. http://www.phlpnet.org/sites/phlpnet.org/files/PHLP_CompleteStreets_1.pdf. Accessed February 6, 2012.