

## New Research and Tools for Public Health Practitioners Interested in Working with the Planning and Transportation Sectors to Improve Community Walkability

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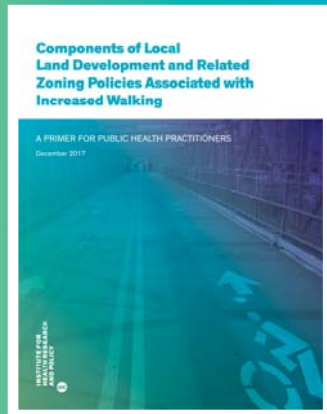
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## Components of Local Land Development and Related Zoning Policies Associated with Increased Walking

A PRIMER FOR PUBLIC HEALTH PRACTITIONERS

### ZONING PRIMER

## Overview of the Primer

- Brief **overview of role of the built environment** in influencing community walkability
- Brief **review of different types of land development policy approaches** that effect community walkability;
- Identify **strategies for incorporating pedestrian-oriented provisions** into land development and related policies;
- Highlight **other policy strategies for supporting community walkability**;
- Outline **cross-sectoral strategies** for supporting community walkability; and,
- Provide a **glossary of key terms and specific case examples** for the approaches described in the primer

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# ZONING PRIMER

## Land Development and Related Policies

### Land Development and Related Policies as a Strategy to Support Walkable Community Design

Local governments can use community planning and land development policies to guide future development and support walking in their communities. Examples of such policies include long-term development plans and land development regulations. Prior to engaging with local planning and development officials, it will help to understand key land development policy-related terminology.

In this section, we briefly review and provide specific examples of key planning and policy approaches that are relevant when discussing land development policy and walkability. The appendix provides a "quick reference" for each of the key terms discussed herein.

#### Examples of Land Development Policy Strategies to Support Walkable Community Design

**LAND DEVELOPMENT PLANS**

- Long-Term Land Development Plans
- Separate Topical Plans
- Future-Ready, or Trail Plans
- Park, Recreation, and Open Space Plans
- Transportation Plans

**LAND DEVELOPMENT REGULATIONS**

- Zoning Codes
- Subdivision Zoning Codes
- Zoning Code Reforms
- Accessibility Regulations
- Unified Development Ordinances or Codes
- Planned Land Developments
- Formal Zoning

**ADDITIONAL LAND DEVELOPMENT POLICY TOOLS**

- Smart Growth
- Design Guidelines
- Development Incentives

#### Land Development Plans

**Long-Term Land Development Plans** are comprehensive, general, or master plans used by local governments in their decision-making process to direct future physical, social, and economic growth in their community. They outline a community's vision with goals, objectives, policies, and implementation strategies related to different topics, areas including those that address walkability-related issues such as land use, design, transportation, open space/recreation, and health.

In one example, **New Orleans, Louisiana's** master plan, The 21<sup>st</sup> Century Plan, provides a vision and planning framework for the city's physical, social, environmental, and economic future. The master plan includes specific implementation strategies for topics including neighborhoods and housing, mobility, preservation, parks, open space, and recreation, health and human services, economic development, community facilities, parks and recreation, transportation, education, waste, and design with national health, environmental quality, and land use in addition. New Orleans has a separate park and recreation master plan<sup>10</sup> as well as separate neighborhood or community site plans, many of which were developed during year after Hurricane Katrina.

In **California**, cities and counties are required by state law to adopt **local general plans** that are intended to be comprehensive and long-term and include the following required elements: land use, circulation (including the circulation of people, goods, energy, water, sewage, storm drainage, and communication), housing, community open space including specific provisions for parks and recreation, noise, and safety.

#### Separate Topical Plans

A community may also develop **separate topical plans** either in addition to the long-term plan or as a part of existing them within the long-term development plan. For example, a community may have separate plans that address community walkability and physical activity such as a separate bicycle and pedestrian plan, separate park, recreation, and/or open space plan, separate bike plan, and/or separate transportation plan.

- Provides an overview of:
  - Land development plans and separate topical plans
  - Land development regulations (zoning and subdivision regulations)
  - Additional land development policy tools

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## Land Development and Related Policies

### EXAMPLES OF SEPARATE POLICY PLANS

#### Future-Ready, or Trail Plans

**Madison, New Jersey's** Future-Ready Plan is a strategic plan that identifies a public-private partnership to develop a network of trails and greenways that will connect communities, improve health and well-being, and provide recreational opportunities for all. The plan includes a vision, goals, and implementation strategies. The plan also includes a list of potential trail and greenway projects.

#### Transportation Plans

**Boulder, Colorado's** Transportation Master Plan is a comprehensive plan that provides a vision and implementation strategies for the city's transportation system. The plan includes a list of potential transportation projects and a list of implementation strategies.

#### Park, Recreation, and Open Space Plans

**San Jose, California's** Park and Recreation Master Plan is a comprehensive plan that provides a vision and implementation strategies for the city's park and recreation system. The plan includes a list of potential park and recreation projects and a list of implementation strategies.

#### Smart Growth

**Long-Term Land Development Plans** and **Separate Topical Plans** are comprehensive, general, or master plans used by local governments in their decision-making process to direct future physical, social, and economic growth in their community. They outline a community's vision with goals, objectives, policies, and implementation strategies related to different topics, areas including those that address walkability-related issues such as land use, design, transportation, open space/recreation, and health.

#### Land Development Regulations and Zoning

**Land Development Regulations** are rules that govern the use of land and the construction of buildings. They include zoning codes, subdivision codes, and other regulations that govern the physical form of a community. **Zoning** is a type of land development regulation that divides a community into different zones, each with its own set of rules for what can be built and how it should be built.

#### Design Guidelines

**Design guidelines** are used to guide the design of buildings and infrastructure. They provide a set of standards and best practices that can be used to ensure that buildings and infrastructure are designed in a way that is consistent with the community's vision and goals. Design guidelines can be used to guide the design of buildings, streets, parks, and other infrastructure. They can also be used to guide the design of signage, lighting, and other public infrastructure.

#### Development Incentives

**Development incentives** are programs that provide financial or other benefits to encourage certain types of development. They can be used to encourage the development of affordable housing, green buildings, and other types of development that are consistent with the community's vision and goals. Development incentives can be used in a variety of ways, including providing tax breaks, grants, and other financial benefits.

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**Strategies for Incorporating Pedestrian-Oriented Provisions into Land Development Plans and Zoning Codes**

In addition to adopting policy strategies such as form-based codes that by design are pedestrian-oriented, communities with more traditional zoning codes can ensure that certain structural elements that are a part of zoning are required as part of their land development plans and policies. These structural provisions include but are not limited to: street-use development, sidewalks, crosswalks, bike or pedestrian trails or paths, bike, pedestrian, and street network connectivity, parks and open space, and other types of pedestrian infrastructure such as street furniture and traffic calming measures. The following discussion briefly describes and provides examples of each of these structural provisions and how they can be incorporated into land development policies.

**Provisions for Mixed-Use Development**

Mixed land use can be an effective option to increase walking opportunities<sup>11</sup> when housing is located near jobs, retail, recreation, and schools, walking is a convenient option to meet everyday needs. Mixed-use policies can be addressed in land use or design sections of plans. To implement mixed-use provisions, a community can create a mixed-use district or allow a mixed-use development within a district. Mixed-use developments can be vertically integrated within a zoning code by combining different uses within the same building or allowing residential uses over retail uses in a building or they can be horizontally integrated by allowing a variety of multiple buildings with a range of uses within close proximity to each other.<sup>12</sup>

**Notes:** *Atlanta's* General Plan provides mixed-use development and design to encourage a walkable community by walkability by the development of multiple buildings with higher densities to serve surrounding neighborhoods as its intent. *Los Angeles* states that growth housing should be open space, goods, employment and services. To implement the objectives and policies within *Tempe's* plan, they have created

**Elements that Support Walkable Communities**

- Mixed-use development
- Sidewalks
- Crosswalks
- Bike and pedestrian trails or paths
- Bike/pedestrian and street connectivity
- Parks and open space
- Other types of pedestrian-friendly infrastructure (e.g. traffic calming measures, street furniture)

**Provisions for Sidewalks**

Sidewalks make streets safer by separating pedestrians from automobile traffic, and the presence of sidewalks is associated with higher levels of walking.<sup>13</sup> Communities can incorporate sidewalk policies within the transportation section of their plan or within separate pedestrian plans. Sidewalk regulations within land development regulations should ensure that they are designed to be appropriate with existing or current codes to American Disability Act (ADA) standards, and certain elements to provide access such as curb ramps.<sup>14</sup>

**Legislator, Colorado's** Multi-Modal Transportation Plan includes policies related to the development of sidewalks including identifying and completing missing segments of the sidewalk and integrating sidewalks into site design.<sup>15</sup>

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## Elements that support walkable communities

- Mixed-use development
- Sidewalks
- Crosswalks
- Trails/paths
- Bike/pedestrian and street connectivity
- Parks/open space
- Street furniture and other pedestrian features

# ZONING PRIMER

**Other Policy Strategies Communities Can Take to Support Walkable Communities**

In addition to land development approaches, there are several other policy strategies that communities can utilize to support community walkability. While the range of options to take advantage of some of the most common strategies include: Complete Streets policies, Safe Routes to Schools and Parks, Vision Zero policies, and policies related to ADA Transition Plans. Policy strategies such as these can complement a community's land development philosophy and approach.

**Complete Streets Policies**

**Complete Streets** is a Smart Growth initiative that directs local planning, transportation, and/or public works department members to design and create streets that are safe and accessible for all users.<sup>16</sup> The policies can be adapted in the form of resolutions, ordinances, policies, or executive orders/ directives as well as design guidelines, planning documents, or street standards. By design, Complete Streets are intended to enable pedestrians to safely walk to their destination by incorporating sidewalks, crosswalks, traffic calming measures, curb ramps, and street furniture such as benches as appropriate to streets.

**Reading, Pennsylvania**

Reading, Pennsylvania adopted a Complete Streets ordinance in 2014 that states that the city shall design, build, operate and maintain a safe, usable, efficient, integrated and connected multi-modal transportation network that will provide access, mobility, safety, and connectivity for all users.<sup>17</sup> This policy applies to all city-owned and privately constructed streets in the community.

**Additional Policy Strategies that Support Community Walkability**

- Complete Streets policies
- Safe Routes to school and park policies
- Vision Zero commitment
- America with Disabilities Act (ADA) transition plans
- Policies to promote alternative forms of transportation

**Safe Routes to Schools or Parks Policies**

**Safe Routes to Schools or Parks** policies are initiatives that encourage and enable children to walk or bike safely to and from schools and parks.<sup>18</sup> Better access to these destinations encourages people to engage in active transportation. These policies can enhance the walking environment in communities by funding the necessary pedestrian-oriented infrastructure and the necessary education programs for community members to safely walk to these destinations.<sup>19</sup> Funding for infrastructure improvements and programming are often obtained from separate state Safe Routes to School grants or other federal highway and transit programs (e.g. Congestion Mitigation and Air Quality Improvement (CMAQ) programming, or the Surface Transportation Block Grant (STBG) Program).<sup>20</sup>

Key elements for success in **Safe Routes to School** policies, also known as the six E's, include evaluation that collects data or maps to understand local street conditions, engineering built environment changes to create safe walking environments, education to raising children about the benefits of walking and following traffic rules, encouraging students and parents to walk, enforcement of local traffic laws around schools, and equity to ensure safe walking environments for

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## Other policy strategies to support walkable communities

- Complete Streets
- Safe Routes to School
- Vision Zero
- ADA Transition Plans
- Policies to promote alternative forms of transportation

## ZONING PRIMER

### Policy Strategies that Support Walkable Communities: What Can Different Sectors Do?

There are many actions that different sectors can take to implement the strategies discussed herein to create walkable communities. This section provides examples of some of these actions. See the **Resource** section at the end for links to documents and websites that provide additional information about these and other related strategies and issues.

**Public Health**

**Collaborate with planners, transportation officials, and other cross-sector partners to:**

- Form an interdisciplinary team, attend meetings and workshops, and provide feedback, expertise, and guidance throughout the land development policy process.<sup>10</sup>
- Coordinate with your community agency partners to adopt and implement transportation, land use, and community design policies given that these policies can be used to improve health by increasing physical activity, decrease fatalities and injuries by improving traffic safety, and improve air quality by decreasing motorized transportation.<sup>11</sup>
- Provide education and training that includes best practices in active design, design and policies. Participate in the development and implementation process of zoning strategies, such as Complete Streets and Vision Zero, to ensure planning and design align with walkability goals and health outcomes.<sup>12</sup>
- Ensure local governments are compliant with the Americans with Disabilities Act and provide safe, comfortable, and efficient access for people with disabilities.

**Create a research and evaluation agenda to:**

- Identify priorities in order to understand what strategies to implement and how to best implement them.<sup>13</sup>
- Monitor what built environmental features advance walking and pedestrian safety by collecting data on walking and health to allow program and policy evaluation.<sup>14</sup>

**Land Use and Community Design**

**Revise planning and zoning regulations to support walkable communities by:**

- Developing or updating existing long term development plans, zoning regulations, and other land development regulations to create walkable areas.<sup>15</sup>
- Including references to walkability, physical activity, and health as part of the goals, objectives, or strategies in the community's long term development plan.<sup>16</sup>
- Reviewing community planning documents and land development regulations to ensure the plan's vision, goals, and objectives are reflected in the land development policies.<sup>17</sup>
- Identifying and reaching out to other jurisdictions that have tested their plans and land development

## What Can Different Sectors Do To Support Community Walkability?

- Provides key policy and other strategies that can be taken to support community walkability.
- Organized by sector
  - Public health
  - Land use/community design
  - Transportation
  - Parks, Recreation, and Schools
  - Private employers, businesses, and developers

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### Resources

**American Planning Association:**

- Advisory Service Report SmartCodes Model Land Development Regulations <https://www.apa.org/publications/19020850/>
- Advisory Service Report The Rules That Shape Urban Form <https://www.apa.org/publications/19020850/>
- Benefits of Street Scale Features for Walking and Biking <https://www.apa.org/publications/19020850/>
- Health Impact Assessment Toolkit for Planners <https://www.apa.org/publications/19020850/>
- Health in the Development Review Process <https://www.apa.org/publications/19020850/>
- Healthy Place Making <https://www.apa.org/publications/19020850/>
- Living Your Walk: The Planner's Role <https://www.apa.org/publications/19020850/>

**Americans with Disabilities Act (ADA) Transition Plans:**

- Americans with Disabilities Act website <https://www.ada.gov/>
- Chicago Metropolitan Agency for Planning - ADA Transition Plans for Your Community [https://www.chicagometroplan.org/19020850/ADA\\_Transition\\_Plans\\_Community\\_Biking\\_Planet.pdf](https://www.chicagometroplan.org/19020850/ADA_Transition_Plans_Community_Biking_Planet.pdf)

**Centers for Disease Control and Prevention:**

- Built Environment Assessment Tool <https://www.cdc.gov/od/odc/ceast/built-environment-assessment/>
- Healthy Places website <https://www.cdc.gov/healthyplaces/>
- The Community Guide Physical Activity Built Environment Approaches Combining Transportation System Interventions with Land Use and Environmental Design <https://www.cdc.gov/communityguide.org/finding-useful-built-environment-approaches/>
- Step 4 of The Surgeon General's Call to Action to Promote Walking and Walkable Communities <https://www.surgeongeneral.gov/library/calls/walking-and-walkable-communities/>

**Complete Streets:**

- Active Transportation Alliance's Complete Streets, Complete Networks <https://www.atsa.org/complete-streets-complete-networks/>
- ChangeLab Solutions' A Guide to Building Healthy Streets <https://www.change-lab.org/complete-streets-building-healthy-streets/>
- National Complete Streets Coalition <https://www.nationalcompletestreetscoalition.org/>

**Design Guidelines:**

- American Association of State Highway and Transportation Officials (AASHTO) Guidelines for the Planning, Design, and Operation of Pedestrian Facilities [https://www.aashto.org/transportation/19020850/AAASHTO\\_Planet\\_Community\\_Biking\\_Planet.pdf](https://www.aashto.org/transportation/19020850/AAASHTO_Planet_Community_Biking_Planet.pdf)
- Center for Active Design Active Design Guidelines <https://centerforactivedesign.org/guidelines/>

## Key Resources

- Provides resources with web links for practitioners interested in finding out more about the various strategies discussed in the primer

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## Appendix

### Appendix Key Terms, Descriptions, and Application Examples from Communities Nationwide

#### Long-term Development Plans

**OUTLINE GOALS, POLICIES, AND OBJECTIVES OF THE COMMUNITY TO GUIDE FUTURE PHYSICAL, SOCIAL, AND ECONOMIC DEVELOPMENT.**  
POLICY EXAMPLE: San Diego, California adopted The City of San Diego General Plan in 2008, which they regularly update with amendments to provide clear guidance. The plan requires transit to be accessible to the majority of transit riders and recreation services. These sections discuss how to create walkable communities, connected transit networks, mixed-use neighborhoods, and recreation guidelines.<sup>144</sup>

**SEPARATE SPECIAL PLANS**  
Individual topic specific plans that can be in addition to the long-term plans or in lieu of including them within the long-term development plans.<sup>145</sup>  
Examples of separate plans that affect community walkability and physical activity include bicycle and pedestrian plans, parks, recreation, and/or other active uses and transportation plans.

**PROFESSIONAL DESIGN OR BUILT PLANS**  
Typical plans that guide pedestrian, bicycle, or trail improvements.  
POLICY EXAMPLE: Berkeley, New Jersey's Blue and Pedestrian Plan is essential in creating an environment that makes walking and jogging and active recreation a mode of "open" mobility. To create facilities consider intersection of on-street and off-street movement with the pavement, lighting, street trees and light poles, etc. Also pedestrian facilities or amenities include a wide shoulder, shoulder or left-side of the street that do not conflict with auto traffic, and that provide pedestrian amenities outside of sidewalks.

**RECREATION AND OPEN SPACE PLANS**  
Typical plans that guide the creation of a connected network of walking and jogging trails and open spaces and recreation amenities. Recommendations include adding trail amenities, such as mileage markers and bicycle parking, ensuring safe routes to existing trails and creating benefits to local residents by providing walking paths to local destinations to encourage recreational use and an internal local loop system.

**TRANSPORTATION PLANS**  
Typical plans that guide the development of parks, recreation, and open spaces.  
POLICY EXAMPLE: Boston, Massachusetts's seven-year action plan, Open Space & Recreation Plan 2016-2021, includes an analysis of current conditions and opportunities for development and investment. The plan identifies key focus areas including Complete Streets for people and pedestrian movement, a network plan for trails and jogging paths to accommodate recreation and development projects in and around Boston, and Transportation Management (TDM) strategies to offer people transit choices and options. Making service areas of transit in the Greater Boston by 2030 plan in 2016 is a major goal within the plan to make it easier for open space, bicycle trails to make pedestrian and bicyclist use.

**TRANSPORTATION PLANS**  
Typical plans that guide the development and improvement of a community's transportation system.  
POLICY EXAMPLE: Boulder, Colorado updated their Transportation Master Plan in order to meet demand in a sustainable manner for people and goods. The plan identifies key focus areas including Complete Streets for people and pedestrian movement, a network plan for trails and jogging paths to accommodate recreation and development projects in and around Boulder, and Transportation Management (TDM) strategies to offer people transit choices and options. Making service areas of transit in the Boulder Metro by 2030 plan in 2016 is a major goal within the plan to make it easier for open space, bicycle trails to make pedestrian and bicyclist use.

- Identifies and describes key terms used throughout the primer and provides real examples (with links) from communities nationwide

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

The factsheet includes sections on 'What Types of Communities Have Adapted Zoning Code Reforms?' and 'What is the Relationship between Zoning Code Reforms and Leisure-time Walking?'. It lists key findings such as 'Zoning code reforms are associated with an increase in walking' and 'The greater consistency of walkable space is related to higher walking behavior'.

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

<http://go.uic.edu/zoningfactsheet1>

## ZONING CODE REFORM FACT SHEET

**FACTSHEET:**  
**Zoning Code Reforms are Associated with Walking Behaviors in a Nationwide Evaluation**

This factsheet serves as a companion document to the product *Local Land Development and Public Policy: Strategies for Supporting Walkable Communities: 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: Changing Transportation System Interactions with Land Use and Environmental Design*.

Zoning code reforms support the development of infrastructure that is supportive of walking and a host of land uses that are associated with walking, biking, and public transit.<sup>1</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 18.6% of the counties with zoning authority and only 14.8% 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 64.0% 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 house 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 aged 65+ walking for leisure

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- Companion to the Primer
- Supports new *Community Guide* recommendations
- Briefly summarizes findings on the relationship between zoning code reforms and adult leisure and active travel-related activity from our NIH-funded study

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## FACTSHEET: Zoning Elements are Associated with Walking Behaviors in a Nationwide Evaluation

**FACTSHEET:**  
**Zoning Elements are Associated with Walking Behaviors in a Nationwide Evaluation**

This factsheet serves as a companion document to the product *Local Land Development and Public Policy: Strategies for Supporting Walkable Communities: A Primer for Public Health Practitioners*. This factsheet summarizes key findings from a recently completed nationwide evaluation of the relationship between zoning elements and walking and active travel-related walking and activity.

Communities seeking to create high-quality development policies and plans that support walking and biking should consider zoning code reforms that support walking and biking. This factsheet summarizes key findings from a recently completed nationwide evaluation of the relationship between zoning elements and walking and active travel-related walking and activity.

**Specific Zoning Elements are Associated with Walking and Additional Benefits**

The national evaluation of zoning code reforms found that zoning code reforms are associated with walking and active travel-related walking and activity. This factsheet summarizes key findings from a recently completed nationwide evaluation of the relationship between zoning elements and walking and active travel-related walking and activity.

**Prevalence of Elements in Zoning Codes that Support Walking and Biking**

Element	Prevalence (%)
Mixed-use development	11.3
Transit-oriented development	18.3
Form-based codes	22.4
Traditional neighborhood development	26.7
Neighborhood-oriented development	37.2
Other zoning elements	34.6
Other zoning elements	34.9
Other zoning elements	24.1

**ZONING FOR MIXED-USE DEVELOPMENT**

- 10% greater probability of adults aged 18-64 engaging in leisure-time walking
- 10% greater probability of older adults aged 65+ walking for leisure
- 10% greater probability of adults aged 18-64 engaging in leisure-time walking
- 10% greater probability of older adults aged 65+ walking for leisure

**ZONING FOR SIDEWALKS**

- 10% greater probability of adults aged 18-64 engaging in leisure-time walking
- 10% greater probability of older adults aged 65+ walking for leisure
- 10% greater probability of adults aged 18-64 engaging in leisure-time walking
- 10% greater probability of older adults aged 65+ walking for leisure

**FACTSHEET:  
Zoning Elements are Associated with Walking Behaviors in a Nationwide Evaluation**

<http://go.uic.edu/zoningfactsheet2>

## ZONING ELEMENTS FACT SHEET

**FACTSHEET:**  
**Zoning Elements are Associated with Walking Behaviors in a Nationwide Evaluation**

This factsheet serves as a companion document to the product *Local Land Development and Related Policy Strategies for Supporting Public Communities of Promise for Public Health Professionals*. This factsheet summarizes key findings from a recently completed nationwide evaluation of the relationship between zoning elements supportive of walking and both leisure time and active travel-related walking.

Communities seeking to make their land development policies and plans more supportive of walking may consider ensuring that specific elements are included in their zoning codes. Such elements or structural provisions include, but are not limited to mixed use development, sidewalks, crosswalks, bike or pedestrian trails or paths, pedestrian, and street network connectivity, parks and open space, and other types of pedestrian infrastructure such as street furniture and traffic calming measures.

**Prevalence of Elements in Zoning Codes that Promote Walking**

Land use compatibility	87.3
Neighborhood	76.2
Connectivity	22.4
Trail or path	56.7
Open space/parks	37.2
Street connectivity	34.6
Urban form	94.5
Urban form/structure/pedestrian infrastructure	74.1

**Specific Zoning Elements are Associated with Walking and Additional Benefits**

This nationwide evaluation of zoning codes found that places with zoning elements were more likely to have low physical inactivity among adults aged 65 and older. All zoning elements, with the exception of crosswalks, were associated with lower rates of physical inactivity among adults aged 18-64. All zoning elements except crosswalks were also associated with higher rates of recreational walking among adults aged 18-64.

**ZONING FOR MIXED USE DEVELOPMENT** IS ASSOCIATED WITH:

- 3.1% lower rates of physical inactivity among adults aged 18-64\*
- 4.1% lower rates of physical inactivity among older adults aged 65 and above
- 2% higher rates of recreational walking among adults (including both adults aged 18-64 and older adults aged 65 and above)

**ZONING FOR SIDEWALKS** IS ASSOCIATED WITH:

- 3.4% lower rates of physical inactivity among adults aged 18-64\*
- 4.1% lower rates of physical inactivity among older adults aged 65 and above
- 2.2% higher rates of recreational walking among adults (including both adults aged 18-64 and older adults aged 65 and above)
- Reduced income-based disparities in rates of active travel (walking, biking, or public transit to work)

- Focused on elements in zoning codes that may be supportive of community walkability
  - Sidewalks
  - Mixed-use
  - Open space
  - Pedestrian-friendly infrastructure
  - Trails/paths

<http://go.uic.edu/zoningfactsheet2>

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## ZONING ELEMENTS FACT SHEET

**ZONING FOR CROSSWALKS** IS ASSOCIATED WITH:

- 1.9% lower rates of physical inactivity among older adults aged 65 and above
- Reduced income-based disparities in rates of active travel to work\*
- Higher rates of active travel to work among communities with higher poverty rates relative to those with lower poverty rates†

**ZONING FOR BIKE AND PEDESTRIAN TRAILS OR PATHS** IS ASSOCIATED WITH:

- 3% lower rates of physical inactivity among adults aged 18-64\*
- 4.4% lower rates of physical inactivity among older adults aged 65 and above
- 3.8% higher rates of recreational walking among adults aged 18-64
- 3.5% higher rates of recreational walking among older adults aged 65 and above
- Reduced income-based disparities in rates of active travel to work\*

**ZONING FOR BIKE AND PEDESTRIAN CONNECTIVITY** IS ASSOCIATED WITH:


- 2.1% lower rates of physical inactivity among adults aged 18-64\*
- 3.8% lower rates of physical inactivity among older adults aged 65 and above
- 1.8% higher rates of recreational walking among adults aged 18-64
- Reduced income-based disparities in rates of active travel to work\*
- Higher rates of active travel to work among communities with higher poverty rates relative to those with lower poverty rates†

**ZONING FOR STREET CONNECTIVITY** IS ASSOCIATED WITH:

- 2.2% lower rates of physical inactivity among adults aged 18-64\*
- 3.4% lower rates of physical inactivity among older adults aged 65 and above
- 1.9% higher rates of recreational walking among adults aged 18-64
- Reduced income-based disparities in rates of active travel to work\*
- Higher rates of active travel to work among communities with higher poverty rates relative to those with lower poverty rates†

**ZONING FOR OPEN OR GREEN SPACE** IS ASSOCIATED WITH:

- 3.2% lower rates of physical inactivity among adults aged 18-64\*
- 4.3% lower rates of physical inactivity among older adults aged 65 and above
- 3.1% higher rates of recreational walking among adults aged 18-64
- 3.5% higher rates of recreational walking among older adults aged 65 and above



- For each zoning element, present data on the relationship between the zoning provision and adult activity/active travel to work
- All data are based on multivariate regression analyses

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# ZONING ELEMENTS FACT SHEET

**ZONING FOR OTHER TYPES OF PEDESTRIAN-FRIENDLY INFRASTRUCTURE**

• 3.1% lower rates of physical inactivity among adults aged 18-64<sup>1</sup>

• 4.4% lower rates of physical inactivity among older adults aged 65 and above

• 3.9% higher rates of recreational walking among adults (including both adults aged 18-64 and older adults aged 65 and above)

• 0.8% higher rates of active travel to work among adults<sup>2</sup>

**BRIEF OVERVIEW OF STUDY METHODS**

There are a number of strategies that can help support walkable communities through community design and zoning policies. See the companion document, Local and Statewide and Districtwide Strategies for Supporting Pedestrians, for additional information on supporting pedestrian-friendly communities. These strategies can help to improve the ability to create equitable communities.

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- Back page of both fact sheets provide references that will point you to our papers that have presented some of the findings presented in the fact sheets

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