

Data on Healthy Community Design

Learn more about healthy community design and CDC's Built Environment and Health Initiative (also known as the Healthy Community Design Initiative).

Healthy community design can increase physical activity levels.

- Less than half of U.S. adults meet the *2008 Physical Activity Guidelines for Americans*. Less than 3 in 10 high school students get at least 60 minutes of physical activity every day.¹
- Community and street scale design interventions that improve walking and bicycling infrastructure lead to increases in physical activity.² This could reduce the estimated annual medical cost of obesity (\$147 billion in 2008 U.S. dollars).³
- Walking is the most commonly reported form of physical activity, but a growing proportion of roadway deaths involve pedestrians. Design interventions to improve transportation systems can both increase physical activity and help improve safety.
- 43% of all vehicle trips are for distances of 3 miles or less.⁴ Thus, the opportunity to increase physical activity by walking and bicycling is huge.

Healthy community design can reduce motor vehicle fatalities involving pedestrians and bicyclists.

- In 2012, 4,743 pedestrians and 726 bicyclists were killed and an estimated 76,000 pedestrians and 49,000 bicyclists were injured in crashes with motor vehicles.
- More than one-fifth (22%) of the traffic fatalities in kids younger than 15 years were pedestrians.⁵
- Great disparities in safety exist among cities; some cities have 10 times more pedestrian and bicyclist fatalities per pedestrian and bicyclist commuter than others.
- Proven safety interventions include street medians and pedestrian crossing islands, road diets, and enhanced pedestrian crossing signals with crosswalks.⁶ A road diet is a technique in transportation planning that decreases the number of travel lanes and/or the effective width of a road is narrowed in order to achieve systemic improvements such as reducing crashes. Enhanced pedestrian crossing signals include additional lights and specialized surface treatments for busy street crossings.

Healthy community design can reduce exposure to traffic-related air pollution.

- Traffic-related pollutants (for example, particulate matter and ozone) are one of the largest contributors to unhealthy air quality. Exposure to traffic emissions has been linked to many adverse health effects including exacerbation of asthma symptoms, diminished lung function, adverse birth outcomes, childhood cancer, and cardiovascular disease.
- Reducing automobile trips by improving the availability of mass transit, walking, and bicycling could help reduce air pollution, especially in urban areas.
- Creating pedestrian and bicycling routes that provide options to travel away from major roads can help reduce exposure to pollution while walking or bicycling.

¹ Centers for Disease Control and Prevention. Facts about physical activity. Available from URL: <http://www.cdc.gov/physicalactivity/data/facts.html> [accessed 15 Oct 2014].

² The Guide to Community Preventive Services. Environmental and policy approaches to increase physical activity: community-scale urban design land use policies. Available from URL: <http://www.thecommunityguide.org/pa/environmental-policy/communitypolicies.html> [accessed 15 Oct 2014].

³ Centers for Disease Control and Prevention. Adult obesity facts. Available from URL: <http://www.cdc.gov/obesity/data/adult.html> [accessed 15 Oct 2014].

⁴ Federal Highway Administration. 2009 National Household Travel Survey. http://nhts.ornl.gov/tables09/fatcat/2009/vt_TRPMILES.html [accessed 22 Sept 2014].

⁵ National Highway Transportation Safety Administration. 2014. Traffic safety facts, 2012 data. Available from URL: <http://www-nrd.nhtsa.dot.gov/Pubs/812011.pdf> [accessed 15 Oct 2014].

⁶ Federal Highway Administration. Proven safety countermeasures. Available from URL: <http://safety.fhwa.dot.gov/provencountermeasures/> [accessed 15 Oct 2014].

The health benefits of community design outweigh the costs.

- Investments in transportation infrastructure, such as off-street trails, dedicated bicycle lanes, and pedestrian bridges promote health and save money. For every dollar invested in these projects, between \$1.20 and \$3.80 is saved as a result of reduced health care utilization and fuel consumption.⁷
- Sidewalks have a notable return on investment. A recent study from the United States using National Household Travel Survey data determined that sidewalk construction yields a cost-benefit ratio of 1.87 over a decade.⁸

Health impact assessment (HIA) is a process that communities use to improve public health through community design. For information about steps in the HIA process, visit <http://www.cdc.gov/healthyplaces/hia.htm>

- Doctors advise their patients on how they can stay healthy. In many ways, health impact assessment provides the same advice to communities. This advice helps communities make informed choices about improving public health through community design.
- HIA is a process that helps evaluate the potential health effects of a plan, project or policy before it is built or implemented. An HIA can provide recommendations to increase positive health outcomes and minimize adverse health outcomes.
- HIA brings potential public health impacts and considerations to the decision-making process for plans, projects, and policies that fall outside the traditional public health arenas, such as transportation and land use.
- CDC's Built Environment and Health Initiative has funded or provided technical assistance to almost one-third of the more than 350 HIAs completed or underway in the United States to date.
- Small amounts of federal support for HIAs have led to big changes for communities. For example, with only \$15,000 in CDC funding, Crook County, Oregon, used its HIA data to make a case for improved pedestrian and bicycle paths. As a result, its county seat received half a million dollars from the state Department of Transportation.

Strategic partnerships maximize our efforts. For example, we partner with

- The U.S. Department of Transportation on the development of a web-based Transportation and Health Tool to help decision-makers examine state or regional comparisons of selected health and transportation indicators.
- The National Park Service to develop and use the Parks, Trails, and Health Workbook to help communities increase access to parks and trails.
- The American Planning Association to help planners understand the health impact of their work by identifying and disseminating best practices for regional comprehensive plans that promote the development of communities where healthy choices are easy choices.
- The Nashville Metropolitan Planning Organization to define health criteria, including opportunities for physical activity and addressing health disparities, and to develop health and transportation modeling techniques for choosing their transportation projects. This effort has the potential to become a model for other cities.

Handy URLs

- CDC's Built Environment and Health Initiative (Healthy Community Design Initiative): <http://www.cdc.gov/healthyplaces>
- Health impact assessments: <http://www.cdc.gov/healthyplaces/hia.htm>
- Communities we've impacted: <http://www.cdc.gov/healthyplaces/stories/default.htm>
- Free resources developed by the program: <http://www.cdc.gov/healthyplaces/media.htm> and <http://www.cdc.gov/healthyplaces/factsheets.htm>

⁷ Gotschi T. 2011. Costs and benefits of bicycling investments in Portland, Oregon. *J Phys Act Health*. 8(1):S49-58.

⁸ Guo JY, Gandavarapu S. 2010. An economic evaluation of health-promotive built environment changes. *Prev Med*. 50:S44-9.