



American
Public Health
Association

800 I Street, N.W. • Washington, DC 20001-3711
Phone: (202) 777-APHA • Fax: (202) 777-2534
www.apha.org • comments@apha.org

Protect, Prevent, Live Well

The World Health Organization's Commission on Social Determinants of Health has declared that community design impacts both health and health equity. Improving two key elements of community design, transportation and land use patterns, through effective policies and practice can improve health by reducing crash risk and pollution emissions while increasing physical fitness. Conventional transportation planning gives relatively little consideration to indirect health impacts of transportation policies and as a result, if it is considered at all, planners tend to understate the health costs of these decisions. With national health care expenditures surpassing \$2 trillion annually in 2006 (about 16% GDP), and projected to constitute 17% of GDP by 2011, effective transportation and land use strategies will improve the health and well being of Americans and alleviate demand on an already overextended health care system.

The impact of transportation and land use patterns on unintentional injuries and fatalities:

Traffic injuries and fatalities are an enormous public health and health care problem, accounting for over 41,000 deaths annually, 2.5 million non-fatal injuries and over \$200 billion in annual expenditures. More Americans under the age of 34 die from traffic crashes than from any other cause of death; and more Americans, of all ages, die from traffic crashes than any other type of injury related death. However, traffic injuries and fatalities can be *prevented* through effective traffic safety policies and practices.

The impact of transportation and land use patterns on physical activity:

According to the U.S. Surgeon General, 60% of American adults do not meet recommended levels of physical activity, and 25% are completely sedentary. An emerging body of evidence shows that particular transportation and land use patterns can influence people's decision to be physically active or not, making transportation and land use decisions an opportunity to increase levels of physical activity. The specific land use characteristics associated with higher levels of physical activity include high density and mixed use development, good public transportation, and proximity to destinations. Characteristics such as bicycle and pedestrian facilities, good street connectivity, presence of parks and open space, and residents' perceived safety have also been shown to enhance physical activity in some communities.

The impact of transportation and land use patterns on air quality:

Research indicates that living, working, playing or going to school near major roadways increases the risk of a variety of adverse health impacts. Particulate matter and other pollution are often present at high concentrations along traffic heavy roads, especially when a large fraction of this traffic uses diesel fuel. According to the U.S. Environmental Protection Agency, 35 million people are exposed to air toxins emitted from road traffic. Several studies have documented that children going to school near major roadways have higher rates of respiratory symptoms, asthma diagnoses, and allergic sensitization and children living near major roadways are more likely to suffer from asthma. Adults near roadways are also more likely to suffer from asthma and other respiratory diseases as well as atherosclerosis and other cardiovascular problems. Other health effects associated with roadway exposure include cancer, adverse reproductive outcomes, and impaired neuro-cognitive performance in children. In addition, the US transportation sector emits approximately 10% of all energy-related greenhouse gas emissions worldwide and over a third of all transportation emissions worldwide. Over the next 50 years, greenhouse gas emissions from the US transportation sector are poised to grow another 80% above current levels.



Equity in transportation and land use patterns. Barriers to necessary community resources such as healthy food and physically activity opportunities do not affect all Americans equally and have disproportionately contributed to poor health among particular populations in the United States. Many low in-come families have been forced to live outside city centers where housing is more affordable and access to public transportation is limited. These families often spend more on driving than health care, education, or food. The poorest fifth of US families pay 42% of their income to own and drive a vehicle. In addition, lower income neighborhoods often lack safe places to walk, bike or play and access to healthy and affordable food.

Transportation and housing are the 2 biggest household costs. Often affordable housing and employment are not accessible to lower income families who want to use public transportation. Some family members may take multiple bus or other public transit routes to obtain employment. These families may be forced to purchase a car, which if it is even affordable, is a huge financial drain.

In urban settings, busy roads and transit facilities are often located in low-income neighborhoods and in communities of color - exposing these residents to harmful air pollutants.

APHA recommends the following policies:

1. Transportation and land policies need to include consideration of the impacts on social determinants of health and equity such as access to health services, healthy food, safe physical activity resources, education, and employment - paying particular attention to addressing disproportionate impacts on vulnerable populations.
2. “Smart growth” land use policies (i.e., more compact, mixed, multimodal land use patterns) that help create more accessible and walkable communities.
3. All future transportation planning and policies should require an assessment of their impact on health and safety prior to implementation.
4. Federal incentives, mandates and regulations that promote state expansion of programs that have been proven to improve traffic injury prevention. While states have primary responsibility for traffic injury prevention, funding and an overarching emphasis at the federal level should be aligned with state and local activity.
5. Funding and guidance should be provided to states, metropolitan planning organizations, and localities in order to improve facilities and safety for bicyclists and pedestrians and to expand public transit services. Federal, state, and local transportation agencies should improve and expand data collection on the availability, use, and users of non-motorized modes of travel and public transit.
6. Additional research initiatives should be funded to document the adverse as well as beneficial health impacts and costs to society - especially on vulnerable populations - of all transportation, built environment and land use policies.