

The Connection Between Transportation and Health



You Can Help With...

- Political Support
- Local Data
- Prioritizing Funding

Work is Underway!

Public Health and Transportation (PH&T)
An ad hoc coalition of PH&T, Portland Trails, Walk Coalition of Maine, PACTS Portland Area Comprehensive Transportation Strategy and Cumberland County.

The mission: to build awareness of the relationship between transportation design and health, and to influence decisions that lead to improved health and safety.

Getting there in Maine

- Changes in State & Local Policy
- Education & Social Marketing
- Changes in Built Environment

The Missing Link...

Health impacts and costs NEED to be factored into transportation policy, planning, and funding decisions.

Health Impacts

Transportation systems are a major source of air pollution, noise, and other environmental stressors. These stressors can contribute to a range of health problems, including respiratory disease, cardiovascular disease, and cancer.

Safety

Traffic crashes cause over 40,000 deaths per year in the United States. Transportation systems that are designed to be safe can reduce the risk of injury and death.

Pollution

25 million people live within 500 feet of a major roadway, and are at higher risk of lung cancer, asthma and other respiratory illnesses.

Equity

Most people who live in urban areas, and in areas with high concentrations of jobs, schools, and services, have access to public transit, walking, and biking. However, many people in rural areas and in low-income neighborhoods do not have access to these transportation options.

Access to Health Equity

Those who are most vulnerable - of color, older, low-income, and people living in underserved areas - have the greatest need for transportation options that can help them access health care and other services.



The Solution

Transportation systems and community design that engineers physical activity, safety and transportation options into peoples' daily lives.

A "healthier" transportation system would include...

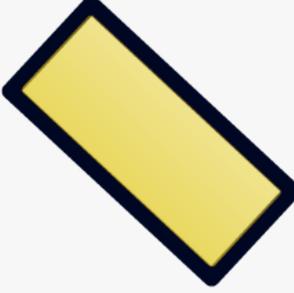
- Convenient and safe walking and biking options
- Modes of transport
- Connectivity and social interaction



Health Benefits of Active Transportation

Regular walking, biking, and other active transportation can reduce blood pressure, cholesterol, and risk of heart disease, stroke, and obesity.

A Bay Area study found that a 1% extra transportation mode share would reduce the burden of heart disease by 14%, diabetes and depression by 17%, and breast and colon cancer by 2%.





The Connection Between Transportation and Health

**What does
transportation
have to do with
people's health**



Transportation investments, and the systems that emerge from them, shape our lives and communities. Land use patterns and the "built" environment play a major role in:

Safety

Levels of Pollution

Opportunities for Physical Activity

Access & Health Equity



Sadly, our current transportation system's focus on the private car and road building, has profound negative impacts on our health.

Safety:

Traffic crashes cause over 40,000 deaths per year. Pedestrians and bicyclists account for more than one out of 10 deaths. Injuries result in pain and lost quality of life.

Pollution

35 million people live within 300 feet of a major roadway, and are at higher risk of lung cancer, asthma and other respiratory illnesses.

Inactivity

About one-third of adults are estimated to be obese, and another third are overweight, leading to high rates of chronic diseases including high blood pressure, heart disease, cancer, stroke and diabetes.

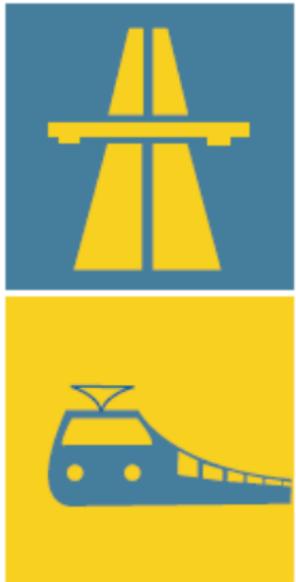
Access & Health Equity

Those who are most vulnerable - elderly, children, new Americans, and people living in poverty - have worse health outcomes and suffer more from lack of access to active environments, healthy foods and services.

TABLE 1

HOW TRANSPORTATION IMPACTS HEALTH AND EQUITY COSTS

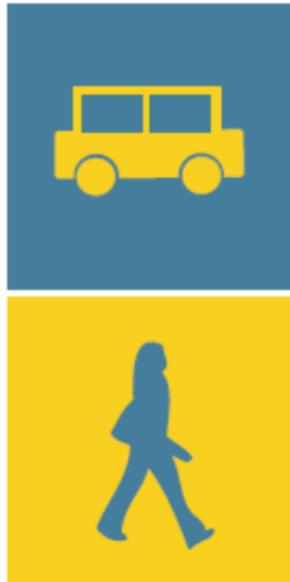
TRANSPORTATION INVESTMENTS



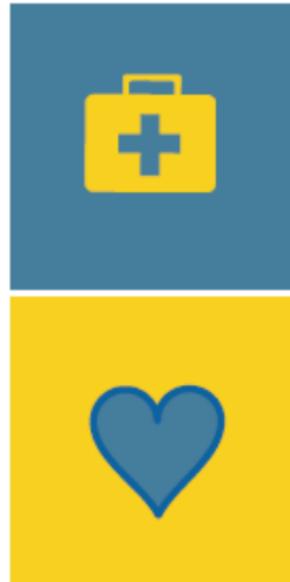
LAND USE PATTERNS



TRAVEL BEHAVIOR



HEALTH



COSTS



The National Health Costs of...	\$\$ (Billions)	Estimate Includes	Source
Obesity and overweight	\$142	<ul style="list-style-type: none"> Healthcare costs Lost wages due to illness & disability Future earnings lost by premature death 	<p>National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases. Statistics Related to Overweight and Obesity: The Economic Costs.</p> <p>Available at: http://win.niddk.nih.gov/statistics/index.htm</p>
Air pollution from traffic	\$50-80	<ul style="list-style-type: none"> Health care costs Premature death 	<p>Federal Highway Administration. 2000. Addendum to the 1997 Federal Highway Cost Allocation Study Final Report, May 2000.</p> <p>Available at: www.fhwa.dot.gov/policy/hcas/addendum.htm</p>
Traffic crashes	\$180	<ul style="list-style-type: none"> Healthcare costs Lost wages Property damage Travel delay Legal/administrative costs Pain & suffering Lost quality of life 	<p>AAA. Crashes vs. Congestion? What's the Cost to Society? Cambridge, MD: Cambridge Systematics, Inc.; 2008.</p> <p>Available at: www.aaanewsroom.net/assets/files/20083591910.crashesVscongestionfullreport2.28.08.pdf</p>

All cost estimates adjusted to 2008 dollars.

The Solution

Transportation systems and community design that engineers physical activity, safety and transportation options into peoples' daily lives.

A “healthier” transportation system would include ...

- Convenient alternatives
- Opportunities for active modes of transport
- Connectivity and social interaction



THE ROLE OF

Transportation

IN PROMOTING PHYSICAL ACTIVITY

SIDEWALKS

People who live in neighborhoods with sidewalks on most streets are

47%

more likely to be active at least 30 minutes a day.

TRAFFIC CALMING

Medians, speed bumps and other traffic-calming efforts can reduce the number of automobile crashes with pedestrian injuries by up to

15%

PUBLIC TRANSPORTATION

Public transit users take

30%

more steps per day than people who rely on cars.

BIKE FACILITIES

In Portland, Ore., bicycle commuters ride

49% of their miles

on roads with bike facilities, even though these are only 8% of road miles.

Active Living Research

www.activelivingresearch.org

Sources: SIDEWALKS: Sallis J, Bowles H, Bauman A, et al. "Neighborhood Environments and Physical Activity among Adults in 11 Countries." *American Journal of Preventive Medicine*, 36(6): 484-490, June 2009. BIKE LANES: Dill J et al. *Bicycling for Transportation and Health: The Role of Infrastructure*. *Journal of Public Health Policy* (2009) 30, 595-5110. doi:10.1057/jphp.2008.56). TRAFFIC CALMING: Bunn F, Collier T, Frost C, et al. "Area-Wide Traffic Calming for Preventing Traffic Related Injuries." *Cochrane Database of Systematic Reviews* (1), January 2003; Elvik R. "Area-Wide Urban Traffic Calming Schemes: A Meta-Analysis of Safety Effects." *Accident Analysis and Prevention*, 33(3): 327-336, May 2001. PUBLIC TRANSPORTATION: Edwards R. "Public Transit, Obesity, and Medical Costs: Assessing the Magnitudes." *Preventive Medicine*, 46(1): 14-21, January 2008.

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on roads with bike facilities, even though these are only 8% of road miles.

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Health Benefits of Active Transportation

Reduced risk of heart disease, lower blood pressure, and reduced risk of overweight and obesity.

A Bay Area study found that a 15% active transportation mode share would reduce the burden of heart disease by 14%, dementia and depression by 6-7%, and breast and colon cancer by 5%.

The Missing Link...

Health impacts and costs NEED to be factored into transportation policy, planning, and funding decisions.

Getting there in Maine

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- **Changes in Built Environment**

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