



Research Summary – Health & Wellness

Active Transportation: Making the Link from Transportation to Physical Activity and Obesity

<http://www.rwjf.org/files/research/20091112alractivetransportationfinal.pdf>

Source: Robert Wood Johnson Foundation, 2009

Subject: Public health data showing the linkages between active transportation (biking, walking) and healthy children and adults.

Findings:

- During the past four decades, the obesity rate for children ages 6 to 11 has more than quadrupled (from 4.2% to 17%), and it has more than tripled for adolescents ages 12 to 19 (from 4.6% to 17.6%).
- Studies show less than half of US children and adolescents meet the recommended guidelines of at least 60 minutes of daily moderate-to-vigorous physical activity. The same studies indicate that less than 10 percent of adults in the US get the recommended 30 minutes of moderate-to-vigorous physical activity per day.
- Between 1977 and 1995, the number of all walking trips decreased by 32 percent, and there was a similar decrease in trips made by adults walking to work. Adults walk for only 21.2 percent of trips that are one mile or less, and children walk for only 35.9 percent of trips to school that distance.
- With few exceptions, living near trails or having trails in one's neighborhood has been associated with people being 50 percent more likely to meet physical activity guidelines and 73 percent to 80 percent more likely to bicycle. In a nationally representative study, individuals who reported using trails at least once per week were twice as likely to meet physical activity recommendations as were those who reported using trails rarely or never.
- In a sample of pre-adolescent girls, proximity to trails was related to 4.8 percent more physical activity and a 1.4 percent lower body mass index.

Health & Wellness Benefits

<http://atfiles.org/files/pdf/healthTGC.pdf>

Source: Trails and Greenways Clearinghouse

Subject: Summary of national research by public health officials into the health benefits of trails and greenways

Findings:

- After completing a study of environmental and policy factors associated with physical activity, Dr. Ross Brownson of St. Louis University concluded, "There certainly is no shortage of health messages reminding people to be physically active. But this study

suggests that changing communities by making them safer and offering people access to community parks, public recreation facilities, and walking and biking trails may help reduce the prevalence of overweight by promoting physical activity and healthy lifestyles.”

- In southeastern Missouri, 55 percent of trail users who responded to the Bootheel and Ozark Health Projects survey are exercising more now than before they had access to a trail.
- In Healthy People 2010, the US Department of Health and Human Services set specific objectives for increasing physical activity. They also call for walking to be the mode of choice for more than 25 percent of adult trips under one mile and 50 percent of trips to school under one mile. The report recommends providing more facilities like trails to provide a space for activity to help reach these goals.

Use of a Community Trail among New and Habitual Exercisers: A Preliminary Assessment

http://www.cdc.gov/pcd/issues/2004/oct/pdf/04_0058.pdf

Source: Centers for Disease Control, Preventing Chronic Disease, 2004

Subject: A cross-sectional study of 414 adults who accessed two new trails in a rural community of 26,809 residents conducted during the first summer of the trails' official operation.

Findings:

- Ninety-three (22.5%) trail users were classified as new exercisers, and 321 (77.5%) participants were classified as habitually active exercisers.
- Nearly all (98%) of the new exercisers reported that their exercise amounts had increased when asked, “Since using the trail, has the amount of exercise that you do increased, decreased, or stayed the same?” Only 52% of the habitually active exercisers reported an increase.
- Approximately 25% of the trail users became regular exercisers (three or more times a week) as a result of the development of the trail. Moreover, new exercisers were much more dependent on the trail as a principal place for engaging in physical activity than those who exercised regularly prior to trail development.

Increasing Physical Activity through Community Design: A Guide for Public Health Practitioners

<http://atfiles.org/files/pdf/IPAchap1.pdf>

Source: National Center for Bicycling & Walking, 2002

Subject: National Public Health and Transportation Statistics

Findings:

- The incidence of overweight or obese adults increased steadily from 47 percent in 1976, to 56 percent in 1994, and 61 percent in 1999. The prevalence of overweight children and adolescents almost doubled during the same period.
- Nearly 80 percent of obese adults have diabetes, high blood cholesterol levels, high blood pressure, coronary artery disease or other ailments.

- About 60 percent of overweight children between five and 10 years of age already demonstrate risk factors such as elevated blood pressure and increased insulin levels associated with heart disease.
- According to the U.S. Department of Transportation's Nationwide Personal Transportation Survey, the number of trips the average American adult takes on foot each year dropped 42 percent between 1975 and 1995.
- Among children, walking trips dropped 37 percent. Only 10 percent of public school students are estimated to walk to school today compared to a majority of students a generation ago.
- About 25 percent of all trips made in the United States are less than one mile in length, and 75 percent of those short trips are made by automobile.

Trails for Health

<http://atfiles.org/files/pdf/TrailsHealth.pdf>

Source: Centers for Disease Control

Subject: The linkage between trails, physical activity, and wellness

Findings:

- Scientific evidence from the *Guide to Community Preventive Services* shows that providing access to places for physical activity, such as trails, increases the level of physical activity in a community. Trails can provide a wide variety of opportunities for being physically active.
- Through Trails for Health, CDC provides information and technical assistance to states to promote the connection between trails and health. Trails for Health supports CDC's Active Community Environments (ACES), an initiative to promote walking, bicycling, and the development of accessible recreation facilities.
- Americans age 65 and older are the least active age group in the United States: approximately 35% of those aged 65-74 years and 46% of those aged 75 or older report no leisure-time physical activity at all. Most seniors (80%) have at least one chronic condition, and 50% have at least two. Research has shown that seniors who have healthy lifestyles that include regular physical activity reduce their risk for chronic diseases and have half the rate of disability of those who do not.

A Cost-Benefit Analysis of Physical Activity Using Bike/Pedestrian Trails

<https://files.pbworks.com/download/WABb3TAIDd/sienadeepservice/10365414/Cost%20Benefit%20Analysis%20--%20Health.pdf>

Source: Health Promotion Practice, 2005

Subject: Five Bicycle & Pedestrian Trails in Lincoln, NE

Findings:

- Per capita annual cost of using the trails was \$209.28 (\$59.28 construction and maintenance, \$150.00 of equipment and travel).
- Per capita annual direct medical benefit of using the trails was \$564.41.
- The cost-benefit ratio was 2.94, which means that every \$1 investment in trails for physical activity led to \$2.94 in direct medical benefit.

Promoting and Developing a Trail Network across Suburban, Rural, and Urban Communities

<http://www.rwif.org/files/research/4301.53031.promotingschasberger.pdf>

Source: American Journal of Preventive Medicine, 2009

Subject: 22 miles of trails in Wyoming Valley, PA

Findings:

- Messages promoting social and entertainment benefits of physical activity were more successful than those promoting health benefits. The existence of multiple small, independent trail organizations can help advance trail development through concurrent development efforts.
- Trails provide options for recreational and transportation-related physical activity across urban, suburban, and rural landscapes that are supported by all constituents. Trail builders can be strong allies in bringing active living to suburban and rural places.

Indiana Trails Study

<http://www.in.gov/indot/files/z-CompleteDocument.pdf>

Source: Indiana Department of Transportation & Indiana Department of Natural Resources, 2001

Subject: Six trails across the state of Indiana

Findings:

- Without exception, a large majority of trail users in each city indicated they were using the trail primarily for health and fitness (an average of 68%), with the second most frequent purpose being recreation. Roughly 95% or more of all responses fell into these two categories.
- In all cities, over 70% of trail users reported they participated more in their selected activity (walking, biking, etc.) as a result of the trail.
- Trail users reported weekly activity levels ranging from a median of 100 minutes in Goshen to 200 minutes in Muncie.

The Hidden Health Costs of Transportation

<http://www.apha.org/NR/rdonlyres/F84640FD-13CF-47EA-8267-E767A1099239/0/HiddenHealthCostsofTransportationShortFinal.pdf>

Source: American Public Health Association, 2010

Subject: Public Health Costs Attributable to Transportation Design

Findings:

- Since the 1950s our country has prioritized road building and the private auto when funding transportation, with proportionately little investment in transit, bicycle and pedestrian infrastructure. The US is, therefore, a country of drivers. Despite recent

downward trends in driving, over 80 percent of the country's workers drove or rode in a car to work in 2007, and in 2008 the average American drove nearly 10,000 miles.

- Total health care spending in the US is already astronomical and increasing rapidly, with estimated spending of \$2.4 trillion in 2008, \$3.1 trillion in 2012, and \$4.3 trillion by 2016.
- The health impacts of traffic crashes, air pollution, and physical inactivity alone add hundreds of billions of dollars in costs -- costs of health care, lost work days and productivity, and pain, suffering and premature death.
- The costs of obesity account for approximately nine percent of total US health care spending, and add an estimated additional \$395 per year to per-person health care expenses. A portion of these costs are attributable to auto-oriented transportation and land use development that inadvertently limit opportunities for physical activity and access to healthy food.
- Traffic crashes cost us \$180 billion yearly, and the health costs of transportation-related air pollution are between \$50 and \$80 billion.
- Most often, these potential health costs are not included in the transportation decision-making process and policy framework. These "hidden" health costs of transportation decisions are stacking up to a level that can no longer be ignored. If they are not factored into the decision-making process, these costs will continue to grow and undermine the country's economic health and our quality of life.