

The Benefits of Public Transportation

The Route to Better Personal Health



Today, more than ever before, the way Americans travel impacts our health. As more and more vehicles crowd onto the nation's roadways, they threaten our physical and mental well-being in a variety of ways, as well as the ability of healthcare providers to deliver critical services.

America's public transportation systems can play a vital role in creating a healthier nation. Increased investment in and use of public transportation can directly:

- Improve and protect the personal health of all Americans
- Assure better access to essential medical services
- Create opportunities for substantial cost savings in healthcare delivery

Personal health and well-being, a goal shared by all Americans, has become an issue of major national concern. Public transportation improves personal health and access to healthcare, and thus:

- Protects personal freedom, choice and mobility
- Enhances access to opportunity
- Enables economic prosperity
- Protects our communities and the natural environment

Public Transportation Protects Personal Health

Current trends in personal travel threaten Americans' health, but more and better use of public transportation can reduce these threats.

The Health Threat: Air Pollution

Over 140 million Americans, 25 percent of whom are children, live, work and play in areas where air quality does not meet national standards.^{1,2} Harmful motor vehicle emissions account for between 25 and 51 percent of the air pollutants in these non-attainment areas. From 2000 to 2002, the number of recorded high-ozone days increased 18.5 percent.²

The health effects of mobile source pollution can be severe and even life threatening, particularly to children, older adults and adults with respiratory illnesses.

- Air pollution claims 70,000 lives a year, nearly twice the number killed in traffic accidents.³
- The American Lung Association estimated that, as far back as 1993-94, high levels of ozone in 13 cities resulted in 10,000 to 15,000 additional hospital admissions and 30,000 to 50,000 additional emergency room visits.⁴
- Older residents in cities with the worst air pollution are 20 percent more likely to seek hospital care for respiratory illnesses.⁵
- The annual cost of health damage from motor vehicle pollution is estimated to be between \$29 billion and \$530 billion.⁶
- From 1980 through 1995, the asthma rate among children doubled from 2.3 million to 5.5 million, reaching epidemic proportions in the U.S. Air pollution is a primary cause.^{7,8}

✓ Public Transportation Responds

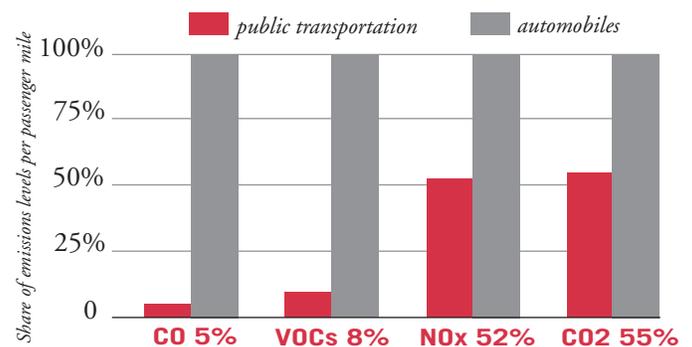
Increased availability and use of public transportation dramatically reduces motor vehicle emissions.

- Compared with private vehicles, public transportation produces, on average, per passenger mile, 95 percent less carbon

monoxide, 92 percent fewer volatile organic compounds, 45 percent less carbon dioxide and 48 percent less nitrogen oxide.⁹

- During the 1996 Atlanta Olympic Games, expanded transportation services reduced morning peak auto use by 22.5 percent and reduced mobile source emissions. There was a 44.1 percent reduction in asthma-related medical visits among HMO enrollees.^{10, 11}

Emissions Reductions from Public Transportation Use



Source: Shapiro, Robert J. et al, Conserving Energy and Preserving the Environment: The Role of Public Transportation, July 2002

The Health Threat: Obesity, Inactivity and Suburban Sprawl

Nearly 65 percent of U.S. adults are overweight; 30 percent are obese.¹² Obesity makes people susceptible to illnesses and chronic health conditions, leading to less productive and less enjoyable lifestyles and increased healthcare costs.¹⁴ Obesity leads to 300,000 deaths a year,¹³ and direct healthcare costs of obesity and physical inactivity were estimated to exceed \$117 billion in 2000.¹³ The U.S. Surgeon General, Dr. David Satcher, has warned that obesity may soon result in as much preventable disease and death in the U.S. as smoking.^{12, 13}

Obesity and declining physical fitness can be associated with inactive, sedentary, auto-dependent lifestyles. In sprawling urban and suburban areas where few travel options are available, cars are now used for 80 percent of trips less than one mile in length.¹⁵

✓ Public Transportation Responds

Transit-friendly, walkable communities reduce reliance on motor vehicles and promote higher levels of physical activity. These more traditional urban settings may generate half the automobile trips of similarly sized modern-day suburbs.¹⁵ Studies show that a single mile of transit travel can substitute for five to seven miles of auto travel in such settings.¹⁶

As a result, the role of community design in promoting more active lifestyles and alternatives to motor vehicle use has become much more significant in the effort to improve the health of all Americans.

The Health Threat: Accidents and Injuries

In 2000, nearly 42,000 people died in vehicle crashes and another 3.2 million were injured.¹⁷ Taken as a whole, the pain, suffering, cost of care, lost income and lost productivity from vehicle accidents remains one of the nation's most severe and persistent public health problems, costing the nation \$200 billion annually.¹⁸ Exposure to roadway accidents and injury is linked directly to continuing increases in vehicle-miles traveled, which, between 1980 and 2000, grew more than three times faster than the population.¹⁹

✓ *Public Transportation Responds*

All modes of public transportation are far safer than personal vehicles.

■ Public transportation trips result in 190,000 fewer deaths, injuries and accidents annually than trips by car, providing \$2 billion to \$5 billion in safety benefits, based on 1994 data.²⁰

■ Riding the bus is 170 times safer than automobile travel, according to National Safety Council data.²¹

The Health Threat: Road Stress

The average American driver may spend over 450 hours each year—equal to nearly 11 workweeks—behind the wheel.²² The result: a mounting level of frustration, stress, anger and hostility that causes illness, reduces productivity in the workplace and degrades the quality of life at home.²³ The stress of driving in congested conditions is linked directly to a long list of health problems, including cardiovascular disease, suppressed immune system functioning and strokes,^{23, 24, 25} as well as more headaches, colds and flu.²⁶

✓ *Public Transportation Responds*

Studies indicate that less travel time, more predictability, enhanced control and less effort required to make a trip reduces the stress levels and negative health effects associated with driving.²³ Public transportation provides obvious advantages in all of these dimensions, as well as opportunities to read and relax that are not available to drivers stranded in traffic. Expanding and enhancing public transportation provides an opportunity to decrease stress and its negative impacts on our health.

Public Transportation Provides Access to Healthcare Services

For many Americans, inadequate transportation severely limits access to essential medical care.

Limited access is a particular problem among low-income and minority households.²⁸ As many as four million children in families with incomes under \$50,000 a year miss essential doctor appointments because of inadequate transportation.²⁷

The role of public transportation and transit agencies in providing access to essential healthcare is growing.

■ In Cincinnati, 60 percent of the patients using Good Samaritan Hospital's clinics use public transportation to access the clinics.²⁹ Tri-Met in Portland, OR, carries 65 percent of non-emergency Medicaid trips.³⁰

■ The Metropolitan Tulsa Transit Authority (MTTA) coordinates Medicaid transportation statewide, handling 400 calls a day.³¹ The Rhode Island Public Transit Authority (RIPTA) also coordinates Medicaid transportation statewide, using existing bus routes for 98 percent of the trips.³²

"It seems imperative that new transportation options be developed and implemented in order to help alleviate the public health problems related to worsening air quality in the United States."

Richard J. Jackson, MD, Director
National Center for Environmental Health, Centers for Disease Control and Prevention¹⁰

Public Transportation Lowers Healthcare Costs

The cost of transportation to and from medical treatment is staggering, and growing each year. Medicaid and Medicare services pay nearly \$3.5 billion a year to provide transportation to non-emergency medical treatment.³⁴ In 2000, over 100 million Medicaid trips were funded at an average cost of \$16 per trip.³⁴ More than half of Medicare ambulance trips (as many as 90 percent in rural areas) may be for non-emergencies at a cost that can exceed \$500 per trip.^{35, 36}

Increased reliance on public transportation for travel to medical treatment is saving the nation's healthcare system millions of dollars and can save millions more—if transit services are enhanced and expanded.

■ The Oklahoma Healthcare Authority pays Tulsa's MTTA an average of only \$2.19 per client per month to operate all non-emergency Medicaid transportation in the state.³¹

■ In Rhode Island, RIPTA's bus and paratransit service provides non-emergency transportation to all Medicaid recipients with an average cost of 45 cents per trip, the lowest in the country.³²

■ In Florida, the Metro-Dade Transit Agency provides Medicaid recipients with a monthly pass that provides unlimited rides to clients, including trips for medical care. The pass saves the Medicaid program over \$600,000 a month, provides added revenue to Metro-Dade Transit, and saves \$10 million a year in Metro-Dade paratransit costs.³⁶

As concern over the availability and cost of healthcare mounts, the benefits of enhanced and expanded public transportation must be considered. Increased investment in public transportation is a key strategy for improving the health and well-being of all Americans, and in attaining the greatest benefit from the nation's healthcare network.

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For more information on public transportation and its many benefits, visit www.publictransportation.org.
