

Establishing a Baseline: The Relationship between Active Transportation and Health



What is Active Transportation?

Any form of human-powered transportation, such as walking, running, cycling, using a wheelchair, and skateboarding.

Physical Health Benefits

Did You Know?

Currently, only 18% of adults and 8% of children in Canada meet the recommended daily levels of physical activity. Incorporating Active Transportation (AT) into daily routes is an effective strategy to combat this trend. AT commuters are 69% more likely to achieve recommended physical activity levels compared to car users.

Engaging in AT provides many physical health benefits, including increased fitness and a reduced risk of chronic disease and obesity. Research shows:

- Adults who commute by car have a 33% higher probability of having overweight or obesity compared to AT commuters.
- The risk of obesity increases by 6% for every hour spent in a car each day, and decreases by 5% for every kilometer walked each day
- Sedentary behaviours (e.g. prolonged sitting, watching TV, playing passive video games, and driving) are associated with weight gain, obesity, and poor metabolic health.
- By reducing time sitting, AT can improve health outcomes.



Mental Health Benefits

Regular physical activity is also associated with improved mental health indicators, including increased self-esteem and self-reported happiness. Physical activity is also associated with a reduced risk of depression, anxiety, and cognitive decline, as well as lower levels of sadness and loneliness. AT in particular has been found to promote more social interaction with other people, which can reduce feelings of isolation and strengthen community cohesion.

What is the Role of Public Health?

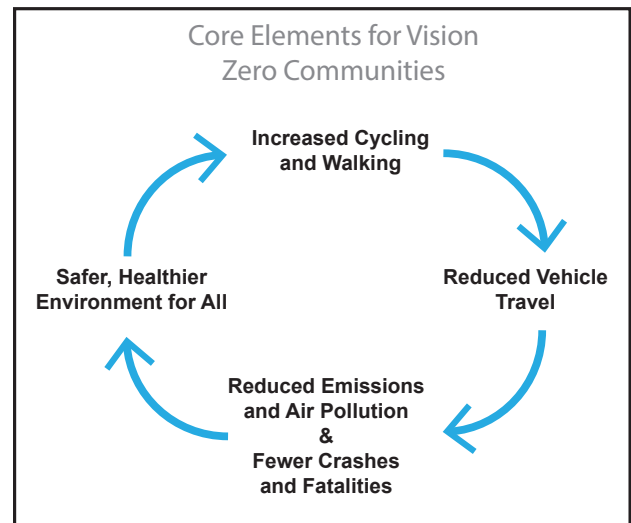
Public Health advocates for supportive policies to create communities where default decisions for people are healthy decisions. Increasingly, public health practitioners focus on population-level interventions that change the context in which individuals live, to make healthy decisions accessible and convenient for everyone. One part of this work is advocating for planning policies and design that prioritize AT to make engaging in physical activity the easy choice.

Health-Related Environmental and Economic Benefits

AT also has health-related environmental and economic benefits. Increasing AT use reduces traffic-related air pollution which in turn improves air quality and reduces harmful respiratory exposure to pollutants. Less traffic also decreases greenhouse gas emissions which helps mitigate climate change. Climate change has a number of health impacts on populations including the effects of severe heat waves and changing disease distribution (e.g. Lyme disease). In terms of economic benefits, regular AT use can improve employee health which reduces work absenteeism and increases productivity. Also, physical inactivity has economic costs on the health care system; one study estimated the direct and indirect costs at 3.7% of overall system costs.

Reduced Risk of Traffic Injuries

Collisions involving a motor vehicle resulted in approximately 1,700 deaths and 150,000 injuries in 2014, and are one of the leading causes of death in people aged 15 to 24. Reducing total automobile kilometers traveled lowers the risk of injury, and the “safety in numbers” theory applies to AT safety: the percentage of people killed or injured walking and cycling is lower in cities with a higher use of AT. In cities with lower rates of people using AT, drivers are less likely to see those walking and cycling. Supporting research shows that per capita traffic fatality rates for people who walk and cycle tend to be higher in sprawling communities than in compact communities more conducive to AT.



Source: VisionZeroNetwork.org.



Supports Transit

Transit use encourages physical activity, as people tend to walk or cycle to their transit stop. For example, the average transit commuter in Montreal achieved ~25% of their daily recommended physical activity by using AT at the beginning and end of their trip. Research also indicates that transit use promotes physical activity in general; people who use transit are found to make more walking trips than people who do not. A Canadian study showed that on average each week, transit commuters obtained 80 minutes of commute related physical activity, and 50 minutes more total physical activity than non-transit users.

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