

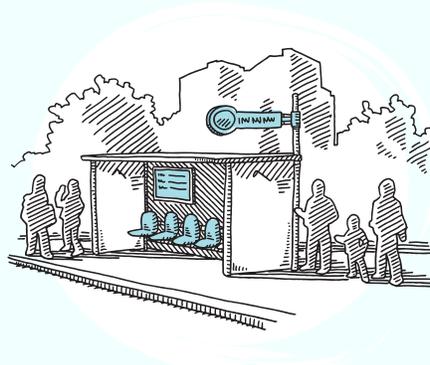


Invest in public transit to create healthy, green and just communities

Many transit systems across Canada are currently struggling financially due to a drop in ridership as a result of the COVID-19 pandemic. This has resulted in service cuts and job losses.

Preliminary analysis of US and Canadian cities has found that, in many cases, lower-income neighbourhoods that depend more heavily on public transit, have been

harder hit by service cuts than higher-income neighbourhoods.¹



It is time to recognize public transit as an essential service that provides many health, social and environmental benefits that should receive permanent funding for operating costs from Canadian governments.

TRANSIT IS MORE AFFORDABLE

Public transit costs people less money. In Canada, it typically costs between \$6,000 and \$13,000 per year to own and operate a car.² An efficient public transit system can eliminate the need for people to own and operate their own vehicles. Households can save, on average, \$10,000 per year by using public transit.³

TRANSIT INCREASES SOCIAL EQUITY

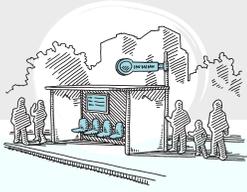
Public transit can increase social equity in our society. About 20-40% of the people in our communities do not drive because of their age, income or ability, or choose not to drive.⁴ In Canada, data show that newcomers and women who commute to work rely more heavily on public transit.⁵ An efficient and reliable public transit system can provide these populations with a more affordable and independent

way to access jobs, schools, essential services and recreational opportunities.⁶

By eliminating the need to own a car, public transit also allows people living on lower incomes to direct more of their earnings to essentials such as food, clothing and rent.⁷ About 5% of Canada's population in its eight largest cities – nearly one million people – are living in lower-income households that are located in neighbourhoods with poor access

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to public transit, putting them at even greater disadvantage.⁸ Public transit can also be designed to meet the needs of rural or remote communities, senior populations, and those who are physically or mentally unable to drive.⁹

AIR POLLUTION REMAINS A SIGNIFICANT HEALTH CONCERN IN CANADA

Air pollution continues to be a significant health risk in Canada. Approximately 14,600 premature deaths each year from heart disease, strokes, lung cancer and chronic obstructive pulmonary disease (COPD) can be attributed to outdoor air pollution.¹⁰

Vehicle emissions are a principal cause of air pollution across Canada and a major cause for variation in the levels of air pollution within urban centres. Many studies have demonstrated that those living within 50-1,500 metres of highways or major roads are exposed to significantly higher levels of air pollution.¹¹

Traffic-related air pollution is strongly associated with increases in the severity of asthma, the incidence of asthma in children, reduced lung function,¹² and morbidity and deaths from cardiovascular disease and lung cancer.¹³ It is a serious concern in

Canada because nearly one third of all residents – about 10 million people – live in close proximity to high volume traffic corridors that have elevated levels of air pollution (i.e., within 500 metres of a highway or 100 metres of a major urban road).¹⁴ In the Greater Toronto and Hamilton Area (GTHA) alone, traffic-related air pollution is responsible for approximately 700 premature deaths and \$4.6 billion in health-related costs each year.¹⁵

While air pollution is unhealthy for everyone, it presents a greater risk for some. For example, young children, older people, and those with pre-existing health conditions, are more sensitive to the adverse effects of air pollution.¹⁶ In addition, a number of groups within Canada – such as lower-income populations, newcomers, racial minorities, Indigenous Peoples, and people with other health challenges – are more vulnerable to air pollution because they already experience higher rates of illness, chronic diseases, and premature deaths because of social disadvantages.¹⁷ A few Canadian studies suggest that lower-income neighbourhoods are more likely to experience higher levels of air pollution which would put people in these neighbourhoods at increased risk as well.¹⁸

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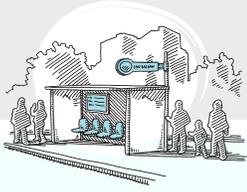
PUBLIC TRANSIT REDUCES AIR POLLUTION

Public transit improves air quality in a few ways. Residents who live in communities with high-quality, well-integrated public transit own half as many vehicles, drive half as many kilometres, walk and cycle four times more frequently, and use public transit ten times more often than residents of more car-dependent communities.¹⁹ Public transit also produces less air pollution per passenger-kilometre travelled than private vehicles.²⁰ In the GTHA, it is estimated that the transit-focused regional plan could prevent 154 premature deaths and reduce health-related costs by \$1 billion per year by reducing traffic-related air pollution in the region.²¹

The health benefits provided by public transit are even greater when transit vehicles are electric-powered and emit no air pollutants.

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Estimates suggest that an additional 143 premature deaths could be avoided and \$1.1 billion in social benefits (i.e., the value of the reduced risk of premature deaths) gained, each year, in the GTHA alone if all diesel-fuelled transit buses were replaced with electric vehicles.²² In addition, it is estimated that nearly \$18 million per year in health-related costs could be avoided by electrifying the GO Transit train service on seven rail corridors in the GTHA.²³

PUBLIC TRANSIT INCREASES ROAD SAFETY

Public transit makes our roads safer for all users. Nearly 2,000 people died in Canada from motor-vehicle collisions – nearly 60% were vehicle drivers, 18% were passengers, 17% were pedestrians and 2.3% were cyclists.²⁴ Transit travel has a passenger fatality rate 20 times less than that of automobile travel.²⁵ In addition, traffic fatalities for pedestrians, cyclists and automobile occupants, as well as transit users, decline significantly as transit ridership increases in a community. This is because people who live or work in communities that are designed to support transit tend to drive fewer kilometres, drive at lower speeds, and have travel options that allow them to avoid high-risk driving, such as driving after drinking.²⁶

PUBLIC TRANSIT INCREASES PHYSICAL ACTIVITY

Transit use increases physical activity because most transit trips begin and end with some form of active travel. A study in Montreal found that a round trip on public transit required an average of about 2,500 steps and could provide 25% of the daily physical activity recommended for good health.²⁷ These findings are consistent with a US study that found that adults who use public transit walk, on average, 19 minutes a day in the process of taking public transit, with nearly one third of them achieving the 30 minutes of daily physical activity recommended for good health.²⁸

The health benefits of physical activity are well known; it can reduce the risk of over 25 chronic conditions including coronary heart disease, breast cancer, colon cancer, Type 2 diabetes and osteoporosis.²⁹ It is estimated that each hour of moderate or vigorous activity per week can reduce the risk of premature deaths from all causes by 4–9%.³⁰

The health benefits of transit-related physical activity can add up, particularly when combined with investments in active travel. In the GTHA, for example, it is estimated that the implementation of a transit-

Public transit makes our roads safer for all users.

focused transportation plan could avoid 184 premature deaths and \$1.2 billion in health-related costs per year by increasing physical activity.³¹

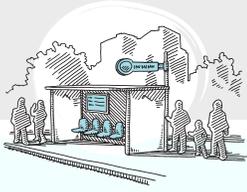
Public transit also improves mental health because physical activity can improve self-esteem, sleep patterns and cognitive functioning; relieve depression, anxiety, and stress; and reduce dependence on drugs and alcohol.³² Transit can also improve mental health by increasing access to education, employment activities, and recreational activities.³³

CLIMATE CHANGE IS ALREADY HARMING CANADIANS

On a global scale, climate change is already having a catastrophic impact on human health. In 2018, nearly 300,000 people around the world died prematurely because of hotter temperatures resulting from climate change.³⁴ And yet, increasing temperatures is only one

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of the many risk factors presented by climate change.

In different parts of Canada, climate change has increased the frequency and intensity of floods, wildfires, hurricanes, ice storms, and heat waves, over the last several decades.³⁵ These events have exposed millions to extremely high levels of toxic air pollution,³⁶ forced hundreds of thousands of Canadians to evacuate their homes, and left hundreds of thousands without power for extended periods. Climate change is also melting permafrost in the far North, increasing sea levels on three coast lines, and extending the range of vector-borne diseases such as Lyme disease.³⁷

While climate change can harm the health of everyone, it has a greater impact on some. Young children, older people, and people with pre-existing health conditions are more sensitive to heat waves and wildfire smoke. Indigenous Peoples in Northern communities can experience increased food insecurity as melting permafrost and changing plant and animal populations disrupt access to traditional food sources. In addition, people who live on lower incomes may not have the resources to protect themselves, or recover from, extreme weather events.³⁸

The costs of weather-related disasters fuelled by global warming are considerable. The number of catastrophic events has more than tripled since the 1980s. Over the last nine years, these events have resulted in \$14 billion in insurance costs in Canada, an increase of 1,250% since the 1970s.³⁹

PUBLIC TRANSIT REDUCES GREENHOUSE GAS EMISSIONS

To avoid catastrophic levels of global warming, the Intergovernmental Panel on Climate Change (IPCC) has concluded that all countries must reduce climate emissions by 45% by 2030 and to net zero by 2050.⁴⁰ The transportation sector is the second leading source of climate emissions, responsible for 26% of all of Canada's greenhouse gas (GHG) emissions.⁴¹

Modelling studies have found that improved transit, when combined with road pricing (i.e., direct charges levied for the use of roads) and improvements to the built environment, can reduce total vehicle-kilometres travelled (VKT) and GHG emissions by 7-23% over 10 years and 15-26% over 30 years.⁴² For example, modelling conducted for Vancouver found that the city could hold VKT constant until 2030 by investing in transit, increased density, cycling infrastructure and road

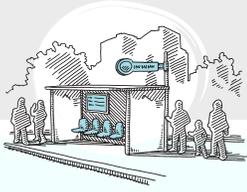
The transportation sector is the second leading source of climate emissions.

networks, despite a rapidly growing population. By 2050, these actions could cut GHG emissions from the transportation sector by 15% relative to the emissions expected without them.⁴²

Transit lanes can be created quickly and economically by re-allocating road space on existing roads and widening highway shoulders. Reallocating road space to transit and active travel has been shown to reduce traffic volumes and GHG emissions without substantially changing traffic speeds.⁴³ Extensive experience in Europe has demonstrated that the reallocation of road space to public transit, cyclists and pedestrians can reduce VKT without the use of road pricing as drivers gradually shift into other modes of travel over time.⁴⁴ In the US, transit lanes have been found to increase the reliability and speed of transit vehicles, which encourages

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greater ridership, which ultimately improves traffic flow on the street for all vehicles.⁴⁵

BUILT ENVIRONMENT MUST SUPPORT TRANSIT

Research has demonstrated that ridership on public transit is influenced by the built environment. Several factors are particularly important:

- *the distance to transit stops* – more people will take transit if it is short walk or bike ride to a transit stop (i.e., 10 minutes);
- *the density of neighbourhoods* – in order for transit service to be frequent and reliable, there must be a sufficient number of people living or working near a transit stop;
- *access to destinations* – the transit system must deliver people to popular destinations; and
- *comfort and convenience* – people who have the option of driving will only choose transit if it is as comfortable and convenient as driving so frequent service and transit shelters are essential.⁴⁶

HEALTHY, GREEN AND JUST RECOVERY

For the duration of the pandemic, it is essential to ensure that transit travel is as safe as possible. The National Association of City Transportation Officials has collected a list of emerging

practices that have been adopted by transit agencies across the USA to protect commuters from COVID-19. Key elements include increasing service for transit-dependent neighbourhoods and installing dedicated bus lanes to improve service and reduce overcrowding.⁴⁷

The Government of Canada has committed \$1.5 billion through the Canada Infrastructure Bank to accelerate the electrification of transit and school buses across the country. This is an investment that can create jobs and cultivate new green technologies, while also reducing air pollution, healthcare costs, and GHG emissions.⁴⁸

In 2016, the Government of Canada committed \$28.5 billion to public transit over 10 years; something that was welcomed by municipalities across the country.⁴⁹ This funding, which has helped municipalities update and build out their transit services, ends in 2027. Municipalities are looking for a renewed commitment for funding; for \$3.4 billion per year for 2027-2036 to provide them with the guarantees they need to make long-term investments in public transit.⁵⁰

Canada's updated climate action plan includes a commitment to work with the provinces and territories to provide permanent funding for

It is time to recognize public transit as an essential service.

transit services.⁵¹ It is important that this commitment is realized. Permanent funding from the higher orders of governments is needed to foster increased ridership and realize all of the health, social and environmental benefits that public transit can deliver.

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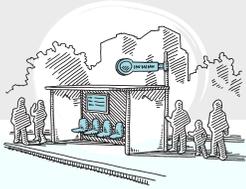
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Part of a series on improving public health, decreasing health inequities and addressing climate change.

