Making the Case for Active Transportation

Fact Sheet #1

Fall 2000

HEALTH BENEFITS:

Did you know:

- 2/3 of Canadian children and youth are not active enough to lay a solid foundation for future health and well-being;
  (Canadian Fitness & Lifestyle Research Institute, 1997)
- Currently, 63% of Canadians aren't active enough to achieve the health benefits associated with daily physical activity;
  (Health Canada and Canadian Society for Exercise Physiology, 1998)
- 1/4 of Canadian children are overweight, and that proportion has been increasing. Maintaining appropriate body weight is one benefit of regular physical activity;
- Improved vigour, self-esteem and a sense of well-being come from physical health and in turn contribute to healthier and happier personal relationships and improved productivity in work situations and at school;
- Active transportation is easily integrated into daily life by combining it with travel time.
- Active living leads to a reduction of health care costs because people are in better shape;
- Research shows that moderate physical activity reduces the risk of premature death, heart disease, obesity, high blood pressure, adult-onset diabetes, osteoporosis, stroke, depression and colon cancer;
- The Conference Board of Canada estimates that a 10% increase in the proportion of Canadians who are physically active could save $102 million annually from the treatment of ischemic heart disease.

Active Living and Active Transportation lead to better health for everyone.

- Active Transportation (walking and cycling) can help to reduce the number of daily vehicle trips and thereby reduce the amount of emissions into the atmosphere.
- The effects of automobile emissions on health include increased susceptibility to respiratory infections in young children and the elderly;
- A Health Canada study found a strong association between premature mortality due to respiratory disease and airborne particulates, (i.e. motor vehicle emissions).

For more information please contact us at:

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The Active Living & Environment Program

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Making the Case for Active Transportation

Fact Sheet #2

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ENVIRONMENTAL BENEFITS:

Did you know:

- Active transportation can contribute to national and global commitments for pollution prevention and reduction of greenhouse gas emissions responsible for climate change/global warming;
- In Canada, the number of cars per 1,000 persons has doubled since 1960. *(Transport Canada, 1997)*
- The number of cars on the road has increased steadily, and the distances driven and the frequency of trips are also steadily increasing. As a result, while carbon dioxide emissions have decreased on a per-vehicle basis, overall they are rising;

Active Living and Active Transportation helps protect, enhance, or restore the environment.

- If the total working population across Canada shifted from the current average of 8% walking or cycling to and from work, to levels in the range of those in Halifax and Ottawa-Hull (average 10%), then the total number of vehicle-dependent passenger-trips in Canada would drop by about 100 million annually;
- Each motor trip that is switched to cycling or walking avoids releasing 2.6 grams of hydrocarbon, 367 grams of carbon dioxide, and 1.6 grams of nitrogen oxides per passenger mile;
- Epidemiological analyses indicate that as many as 8% of all non-accidental deaths in the country are related to air pollution;
- By definition, since they have zero emissions, active modes such as walking, cycling and in-line skating are entirely non-polluting modes of travel;
- Bicycling and walking can help to alleviate some of the negative effects of intense motorization, including traffic congestion, air pollution excessive noise, and destruction of the environment;
- Active modes do not cause disruptions to the local community environment, such as raising of dust and ground vibrations.

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Making the Case for Active Transportation

Fact Sheet #3

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SAFETY AND ACTIVE TRANSPORTATION:

Did you know:

- Active transportation leads to a reduction of crime and fostering of a greater sense of personal and family security in a community, through increased presence of "eyes" on the street with walkers, cyclists and the like being active in the neighbourhood;
- More "eyes on the street" help deter crime and also provide neighbours and citizens with the sense and assurance that they are not alone, and that help is readily available when needed;
- A shift from personal vehicle use to an active mode may help reduce the incidence of motor vehicle crashes. In 1995, motor vehicle crashes in Canada killed 3,347 people (average of 10 people a day or annual equivalent of 10 jumbo jet crashes) and injured 241,800 (roughly equivalent to all the people of greater Victoria). From 1986 to 1995, a total of 5,179 pedestrians were killed by motor vehicles and 157,703 were injured; *(Transport Canada, 1995)*

Active Living and Active Transportation depend on infrastructure that promotes safety.

- American data suggest that active modes may be safer than those involving motor vehicles:
- American data suggest that active modes may be safer than those involving motor vehicles. For example, in 1995 the rate of death per 100, 000 was
  - 16.16 for motor vehicle traffic-related deaths, or 42,452 total deaths, compared to,
  - 0.30 for pedal cyclist traffic-related deaths, or 783 total deaths, and
  - 2.26 pedestrian traffic-related deaths, or 5,935 total deaths;

  (National Center for Injury Prevention, U.S.A.)
- Eight out of ten (82%) Canadians either strongly (58%) or somewhat (24%) support spending government money on more dedicated bicycle lanes and paths in their community to make streets safer for cyclists, cars and pedestrians. Smaller communities tended to be less supportive. (*Environics, 1998)*

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Fact Sheet #4

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BUILT INFRASTRUCTURE:

Did you know:

- Neighbourhoods of traditional design with compact land use mixing homes, business, and retail stimulate higher levels of cycling and walking;
- A shift to more active modes is conducive to more compact urban land use, and requires less land for roadways and parking;
- A shift to active transportation leads to a reduction in public expenditures on costly transportation infrastructure for motor-dependent modes;
- A roadway can carry 7 to 12 times as many people per hour by bicycle compared to an automobile at similar speeds in urban areas;

Proper infrastructure will encourage everyone to participate in Active Transportation and lead to active lifestyles.

- Paths for pedestrians are even more efficient, handling 20 times the volume per hour compared to cars in mixed traffic. The more trips that can be accommodated via cycling or walking, the greater the efficiency of traffic flow and the less demand for costly investment in road infrastructure and maintenance for private cars and public transit;
- Congestion costs in Ontario are projected to reach $6.4 billion annually by 2001. Modal shifts away from motor vehicles can curtail or reduce demand for new transportation infrastructure;
- A clear majority of Canadians would ideally like to walk (82%) and/or cycle (66%) more than they do at present. In fact, 70% of Canadians strongly (46%) or somewhat (24%) agree that if there was a dedicated bike lane taking them to their workplace in less than 30 minutes at a comfortable pace, they would definitely use it; *(Environics, 1998)*
- Across Canada, metropolian area communters' median distance to work in 1996 was 7.4 km;
- Active transportation infrastructure, such as walking and cycling paths in residential neighbourhoods, are appreciated by residents. Walking and cycling-friendly environments are also good marketing tools for developers.

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Fact Sheet #5

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BARRIERS TO ACTIVE TRANSPORTATION:

Did you know:

- A Canadian study of barriers to physical activity shows a range of significant factors. There are nine barriers that are clearly more important for inactive Canadians: 1. lack of motivation, 2. lack of skill, 3. lack of energy, 4. fear of injury, 5. problems with child care, 6. long-term illness, 7. feeling uncomfortable, 8. lack of safe places, 9. lack of support; *(Environics, 1998)*
- The type and layout of the community people live in can be a barrier in the suburbs; for example, distances between activities are longer, the roads are more intimidating because of higher traffic speeds, and the layout of streets creates physical barriers to walking and cycling;
- Weather is more of a barrier to cyclists than to pedestrians, however, the three countries of the world with most bicycling participation are northern Holland, Denmark, and Finland. Finland delivers mail by bicycle except when the temperature is below minus 20 degrees Celsius;
- Factors that may influence the relative attractiveness and practicality of active modes of transportation include:
  - Age, health status and any physical limitations of the individual;
  - local topography and geophysical conditions;
  - local traffic patterns (volume, speed, timing);
  - urban form (barriers, obstacles).

A continued reliance on vehicles has created an unwillingness to use active modes of travel.

- While cars are becoming lighter, more fuel-efficient and less polluting; the ever increasing number of vehicles on the roads reduces the benefits of improved technologies and increases the perception of reduced road safety for cyclists and pedestrians;
- Lack of driver education and acceptance of active modes of transportation system has a significant effect on the comfort level of cyclists and pedestrians.

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ECONOMIC BENEFITS:

Did you know:

- The most energy-efficient and least costly mode of transportation is muscle power;
- The annual cost of urban personal motor vehicle accidents, pollution, congestion, parking, roads and land not paid by users is $26.5 billion; *(Victoria Transport Policy Institute, 1996)*
- In Canada, the environmental costs of transportation are estimated at $14-36 billion per year. *(Transport Canada, 1997)*
- A reduction in personal and family transportation costs (capital and operating) for daily travel is a result of a shift to active modes of transportation, whether for commuting to and from work, travel to and from school, daily errands or recreational and leisure activities;

Active Transportation is more cost-efficient than motorized modes of transportation.

- At the workplace, active transportation leads to reduced costs associated with on-site parking facilities for employees and visitors, and motor-dependent modes of workplace travel;
- A shift to active transportation will assist in reducing public expenditures and related socio-economic costs associated with injuries and deaths from motor vehicle accidents;
- Active transportation improves the efficiency of the transportation system. Congestion can be reduced by providing paved shoulders for cyclists at a cost of $50,000 to $100,000 per kilometre or paved pathways cost of $250,000 *(Ministry of Transportation Ontario, 1992)* rather than by widening a two lane urban arterial road to four car lanes which costs approximately $1.3 million per kilometre; *(Public Transit Benefits in the Victoria Region, 1996)*
- Reducing noise increases property values in residential areas, particularly if the noise of the morning commute is lessened;
- Investing and supporting a modal shift to active transportation can stimulate economic development in several ways including downtown revitalization, rural and urban trails, tourism, and job creation in businesses which service active modes like cycling.

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