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## **INVESTING IN CYCLING INFRASTRUCTURE: GOOD FOR OUR HEALTH AND GOOD FOR OUR ECONOMY**

*Submission by Canada Bikes to the Federal Long-Term Infrastructure Plan Roundtables*

Canada Bikes is the national voice for commuter, touring and recreational cycling. We work with organizations and individuals across Canada as well as governments of all levels to improve conditions for those who choose to take their next trip by bicycle.

We recognize that Canada is facing a growing health crisis due to the sedentary lifestyle of much of the population.<sup>1</sup> Inactivity is a cause of numerous chronic health issues such as diabetes,<sup>2</sup> heart disease and stroke,<sup>3</sup> obesity<sup>4</sup> and mental illness.<sup>5</sup> These diseases represent a significant portion of the Canadian health care system's cost, which is escalating annually and demanding a greater portion of federal and provincial taxes.<sup>6</sup> The adverse financial impacts of these diseases are already staggering,<sup>7</sup> and growing inactivity among children will likely lead to a lifetime of poor health.<sup>8</sup> Cycling has a preventive effect on many of these illnesses, as well as on cardiovascular diseases, colon cancer, osteoporosis and depression. In fact, half an hour of cycling daily increases an individual's mean life expectancy by 1-2 years, meaning that motorists who switch to cycling can expect to live longer.<sup>9</sup>

However, cycling rates are tied directly to the level of government investment in [marketing programs to encourage cycling, including](#) cycling education and above all, **dedicated cycling infrastructure**. A broad range of research shows that the primary requirement for the vast majority of Canadians to cycle for commuting and recreational purposes is the provision of safe cycling infrastructure. For example, if they can get to work in less than half an hour on dedicated infrastructure, a wide majority of Canadians are interested and willing to bicycle commute.<sup>10</sup> This means that a lack of safe, dedicated infrastructure is the main barrier to high cycling mode share. Given that the vast majority of children would already prefer to walk or bike to school,<sup>11</sup> and given that most trips to work by their parents are less than 10 km in length,<sup>12</sup> it makes sense to use federal infrastructure dollars to encourage many Canadians to make some trips by bicycle instead of by car. Not surprisingly, the public's strong desire to ride more often is matched by their desire to see governments spend more of their tax dollars to make it easier and safer to do so.<sup>13</sup>

Projects that connect dedicated cycling infrastructure directly to major destinations always attract the highest levels of ridership. Since today's cyclists and those willing to shift to cycling seek safety for every trip, all new cycling infrastructure and all new roads should be designed to attract cyclists of "All Ages and Abilities" (AAA). Another way of stating this is that our road infrastructure should be of such a quality that we would feel comfortable seeing our 8-year-old children and our 80-year-old grandparents riding bicycles on that facility.

Investment in cycling infrastructure is relatively inexpensive and offers rapid payback. Importantly, bicycle infrastructure projects create significantly more local, provincial, and national jobs per million dollars invested than any other type of road infrastructure project.<sup>14</sup> In rural communities where quality

transit service is not practical and distances are often too far to walk, cycling provides those who cannot drive with improved basic mobility and access to employment. Cycling infrastructure increases public safety,<sup>15</sup> reduces GHG emissions,<sup>16</sup> improves property values<sup>17</sup> and represents a lasting investment in long-term sustainability. Other major economic benefits include increased worker productivity,<sup>18</sup> decreased overall infrastructure costs,<sup>19</sup> reduced traffic congestion,<sup>20</sup> direct health benefits arising from better air quality<sup>21</sup> and far lower travel costs for Canadian families.<sup>22</sup>

Research from Denmark found that the health benefit of people cycling amounted to DKK 5.5 (or \$0.90 CDN) per km ridden.<sup>23</sup> Research from Great Britain suggests that individuals who make half of their trips by bike offer a benefit to society of \$1000 per year.<sup>24</sup> Research from Scotland (with a population of 5 million) shows that if 12% of car trips were converted to cycling trips, £2 billion per year would be saved through improved health and reduced mortality.<sup>25</sup> Based on a conservative estimate of savings to the Canadian healthcare system and the resulting increases in workforce productivity, an annual federal cycling infrastructure investment of \$167 Million would easily pay for itself while returning many other benefits to businesses, governments and the public.<sup>26</sup>

For the above reasons and more, we respectfully submit the following recommendations:

- Give funding priority to cycling infrastructure projects on the basis that the long term employment and health improvements will benefit all Canadians.
- Develop national transportation infrastructure strategies and policies that include cycling as a key sustainable mode.
- Make “Complete Streets”<sup>27</sup> an integral part of national infrastructure policy.
- Use federal infrastructure dollars to support the expansion of “Active and Safe Routes to School”<sup>28</sup> programs across Canada.
- Build for inter-modal connectivity and roll-on access (for trains, planes, buses, ferries, etc.) in all projects funded by the federal government. This includes funding for cycling feeder networks to transit stations and public transportation terminals.
- Encourage and fund trails along *existing* rail lines.
- Encourage and fund the conversion of *abandoned* rail lines into hiking/biking trails.
- Determine and mandate the percentage of federal financial support for roads that should go toward active transportation.
- Add cycling end-of-trip facilities to all new and existing federal workplaces and buildings. This would include sufficient secure long-term bike parking as well as showers, lockers and drying facilities.
- Make all ports-of-call cycle-friendly: Ensure that all upgrades to public roads associated with airport and port projects should provide AAA (All Ages and Abilities) cycling infrastructure, including parking.
- Provide high quality cycling infrastructure in all national parks with lower park fees and dedicated camping for cyclists,<sup>29</sup> who have a smaller transportation and land-use footprint.
- Create a Canada Velo network: a network of dedicated bicycle routes which would connect communities across the country and attract tourists from around the world (like La Route Verte in Quebec and Euro Velo Routes in Europe).<sup>30</sup>
- Create national cycling infrastructure guidelines which include the latest cycling infrastructure design standards to AAA levels. Canada Bikes is able to provide high level expertise to help upgrade Transportation Association of Canada (TAC) guidelines and/or work with federal government agencies on the publication of a high quality cycling infrastructure design manual for use in federal infrastructure projects.<sup>31</sup>

- 1 91% of Canadian children and youth are not getting the recommended levels of daily physical activity. (Statistics Canada);
- 2 The prediction is that 1 in 3 Canadian children born in the year 2000 will develop type 2 diabetes. (Canadian Diabetes Association)
- 3 49.5% of Canadians ages 12 and over report being physically inactive (Tracking Heart Disease and Stroke in Canada, 2009)
- 4 Obesity rates have tripled in Canadian youth over the past 25 years. (Annals of Internal Medicine)
- 5 (Fact Sheet: The Connection Between Mental and Physical Health, Canadian Mental Health Association)
- 6 According to the Canadian Institute for Health Information (CIHI), in 1975, total Canadian health care costs consumed 7% of the Gross Domestic Product (GDP). Canada's total health care expenditures as a percentage of GDP grew to an estimated 11.7% in 2010 (or \$5,614 CDN per person). (Canadian Institute for Health Information. *National Health Expenditure Trends, 1975 - 2010*. Ottawa: the Institute, 2010, p. xi.)
- 7 Obesity costs the Canadian economy somewhere between \$4.6-billion and \$7.1-billion a year. Those costs are split pretty evenly between direct health-care costs and indirect costs such as lost productivity of people unable to work either because of disability or because they are unable to find employment due to discrimination. (Canadian Institute for Health Information and the Public Health Agency of Canada, 2011)
- 8 In just one generation, the number of Canadian children regularly walking or biking to school has fallen by more than half to just 1 in 3 while the number being driven to school has increased dramatically. (EnviroCentre)
- 9 Half an hour cycling daily increases your mean life expectancy by 1-2 years. Cycling has a preventive effect on e.g. cardiovascular diseases, non-insulin-dependent diabetes, colon cancer, osteoporosis and depression. Motorists who switch to the bicycle can thus expect to live longer! (pg.20, <http://greengrowthleaders.org/wp-content/uploads/2011/11/CPH-Beyond-Green.pdf>)
- 10 70% of Canadians would cycle to work if there "were a dedicated bike lane which would take me to my workplace in less than 30 minutes at a comfortable pace. ([Environics, 1998](#)). See also: J Dill. Bicycle commuting and facilities in major U.S. cities: if you build them, commuters will use them. *Transp Res Rec.* 2003;1828:116–123.
- 11 If given the choice, a vast majority of children would choose to walk (49.1%) or cycle (41.2%) to school. ([University of Toronto, 2012](#))
- 12 Working and Commuting in Census Metropolitan Areas, 1996-2011. ([Statistics Canada, 2005](#))
- 13 82% of Canadians support additional government spending on bicycling facilities. ([Environics, 1998](#)); Most respondents (90%) said they support governments investing more money in active transportation projects." (Manitoba Medical Association, 2007); According to a survey of 1024 Manitoba parents, the vast majority (95%) are supportive of school travel planning." (Green Action Centre, 2012)
- 14 "The data for this study were gathered from departments of transportation and public works departments from 11 cities in the United States....In this study we estimate the employment impacts of building and refurbishing transportation infrastructure for cyclists and pedestrians. We analyze various transportation projects and use state-specific data to estimate the number of jobs created within each state where the project is located....Overall we find that bicycling infrastructure creates the most jobs for a given level of spending: For each \$1 million, the cycling projects in this study create a total of 11.4 jobs within the state where the project is located. "[\(Pedestrian and Bicycle Infrastructure: A National Study of Employment Impacts, PERI, 2011\)](#)
- 15 Improves safety for all road users (by reducing automobile use) and all citizens (by adding "eyes on the street"). Federation of Canadian Municipalities – Communities in Motion)
- 16 Transportation Benchmarks: % of non-recreational cyclists who would have driven, if they were not cycling (GHG Assessment Guidebook for British Columbia Local Governments)
- 17 After investing \$191,893 in Maryland's Northern Central Rail Trail, state revenues increased by \$303,750 that same year as a direct result to the local economy through increased sales, property and income taxes. (Analysis of Economic Impacts of the Northern Central Rail-Trail, Maryland Department of Transportation, 1994.)
- 18 The Business Case for Active Living (Health Canada, 2004) [http://www.hc-sc.gc.ca/hppb/fitness/work/impact\\_e.html](http://www.hc-sc.gc.ca/hppb/fitness/work/impact_e.html)
- 19 pg.32 Evaluating Non-Motorized Transportation Benefits and Costs (Victoria Transportation Policy Institute)

20 pg.28, Ibid

21 “[T]here is good evidence that pollution causes the symptoms of many people with asthma to get worse on days when the [Air Quality Health Index](#) is high. (Asthma Society of Canada) “Asthma is a significant cause of absenteeism from school and the workplace. In Ontario, it is the leading cause of hospital admission for children.” (Province of Ontario – Taking Action on Asthma) Depending on assumptions, the total cost of asthma was estimated to be between \$504 million and \$648 million. Direct costs were \$306 million. The single largest component of direct costs was the cost of drugs (\$124 million). The largest component of indirect costs was illness-related disability (\$76 million). (Direct and Indirect Costs of Asthma M.D. - Krahn, C Berka, P Langlois, A.S. Detsky)

22 The number of cyclists is tied directly to the level of investment into cycling education, encouragement and, above all, safe cycling infrastructure. (Driven to spend: Pumping Dollars out of Our Households and Communities, 2005)

23 Besides these incentives, the health benefits of cycling also include fewer sick days, fewer medical expenses and treatments. Talled up, the total health benefit of Copenhageners cycling is 5.5 DKK per kilometer – making the benefit per year a total of DKK 2 billion or \$ 380 million. <http://greengrowthleaders.org/wp-content/uploads/2011/11/CPH-Beyond-Green.pdf>

24 <http://webarchive.nationalarchives.gov.uk/20110407094607/>

25 This would amount to CDN\$20 billion per year savings for Canada - population of 33.5 million (2011 census), conversion rate of £1 = \$1.56 (Aug, 2012). <http://www.transformscotland.org.uk/towards-a-healthier-economy.aspx> (Page 17)

26 The direct health care costs of treating conditions associated with physical inactivity in Canada are estimated to be more than \$2.4 billion per year. The economic costs including the loss of personal and financial productivity due to poor health are estimated to around \$4.3 billion per year. <http://www.nrcresearchpress.com/doi/pdf/10.1139/h2012-061> Research from the Netherlands indicates that 25% of cycling commuters met physical activity guideline due to cycling to work. <http://www.ijbnpa.org/content/pdf/1479-5868-7-89.pdf> Thus the reduction of direct health care costs by increasing cycling commuting to 11% from the current 1%, would be \$60 million per year while the increase in personal and financial productivity would amount to around \$107 million per year. Note that typical cycling improvements such as multi-use paths, bicycle-pedestrian bridges and traffic calming will also encourage other forms of physical activity including walking, jogging and in-line skating resulting in even greater returns that just those associated with cycling. (Canada Bikes)

27 <http://completestreetsforcanada.ca/>

28 <http://www.saferoutestoschool.ca/>

29 As is available in all Virginia State Parks. See: <http://www.vabike.org/guaranteed-camping-touring-cyclists-virginia-state-parks/>

30 Cycling tourism has the potential to be important economically in both rural and urban communities across Canada. It is estimated that in 2006, that the amount spent annually by Quebec's Route Verte users was \$134 million and generated over \$38 million in government revenues and helped support 2,861 jobs (person years). [http://www.routeverte.com/rv/index\\_e.php?page=retombees\\_e](http://www.routeverte.com/rv/index_e.php?page=retombees_e)

31 For example, see: [http://www.crd.bc.ca/transportation/public/documents/PCMP\\_Design\\_Guidelines\\_lowRes.pdf](http://www.crd.bc.ca/transportation/public/documents/PCMP_Design_Guidelines_lowRes.pdf)