## Appendix B

## **Bicycle Helmet Legislation in Ontario and Canada**

Safe Kids Canada. (2010). Bike Helmet Legislation Chart. Retrieved from http://www.safekidscanada.ca/Professionals/Advocacy/Helmet/Index.aspx	<ul> <li>Current helmet legislation in Ontario requires only children under the age of 18 to wear an approved bicycle helmet</li> <li>Four provinces within Canada have enacted all-ages bicycle helmet legislation which include New Brunswick, Nova Scotia, Prince Edward Island, and British Columbia</li> </ul>

Bicycle Helmet Use in Ontario and Canada	
Statistics Canada. (2009). Bicycle Helmet Use. Retrieved from http://www.statcan.gc.ca/pub/82-625-x/2010002/article/11274-eng.htm	<ul> <li>In 2009, more than 11.4 million people aged 12 and older reported bicycling (according to the Canadian Community Health Survey)</li> <li>Of the 11.4 million people, only 36.5% reported wearing a bicycle helmet all the time</li> <li>Ontario ranks below the national average at 34.3%</li> <li>Provinces with all-ages helmet legislation had the following bicycle helmet use in 2009:         <ul> <li>Nova Scotia (66.4%)</li> <li>British Columbia (58.8%)</li> </ul> </li> </ul>
	o New Brunswick( 51.4%)
	o Prince Edward Island (51.1%)

Cycling Injury Statistics in Canada, Ontario, and Middlesex-London

Sydning injury Statistics in Sanada, Sintario, a	ma maaiooox zonaon
Canadian Institute for Health Information. (2011).  Summer is peak season for wheel- and water-related injuries. Retrieved from http://www.cihi.ca/CIHI-ext-portal/internet/en/Document/types+of+care/RELEASE 2  1JULY11	<ul> <li>CIHI data shows that cycling injuries are by far the most common injury from summer sports and recreational activity, accounting for half of all hospital admissions in this category</li> <li>In 2009–2010, 4,324 Canadians were hospitalized as a result of a cycling injury, with close to half of these injuries occurring in June, July and August</li> <li>Among the most serve cycling injury, 78 per cent were not wearing a helmet</li> </ul>
SMARTRISK. (2009). Cycling Injuries. Retrieved from http://www.oninjuryresources.ca/home/august compass cycling injurie.html	<ul> <li>More than 1,200 injured cyclists are admitted to hospital in Ontario each year</li> <li>During the 2003/03 fiscal year, more than 13,000 people visited an emergency department in Ontario with a cycling injury</li> </ul>

Middlesex-London Health Unit. (2009) Leading Causes of Unintentional Injury: A Statistical Profile of Middlesex-London. Retrieved from <a href="http://www.healthunit.com/article.aspx?ID=15210">http://www.healthunit.com/article.aspx?ID=15210</a>	<ul> <li>Pedal cycle injuries is the fourth leading cause of unintentional injuries for emergency room visits estimated annually at 1147, fifth for hospitalizations (55), and eighth for deaths in Middlesex London.</li> <li>Middlesex London children and adults (ages 1-64): generally higher Emergency Room visit rates than Ontario</li> <li>Middlesex London males ages 20-44: higher hospitalization rates than Ontario.</li> </ul>
Ontario Medical Association. (2011) Enhancing Cycling Safety in Ontario. Retrieved from <a href="https://www.oma.org/HealthPromotion/bikesafe/Pages/default.aspx">https://www.oma.org/HealthPromotion/bikesafe/Pages/default.aspx</a>	<ul> <li>Approximately 20% of emergency department visits and hospital admissions related to cycling are for head injuries</li> </ul>

**Economic Burden of Head Injuries** 

SMARTRISK. (1999) Economic Burden of Injury in	Head injuries represent a significant
Ontario. Retrieved from	burden to society
http://www.smartrisk.ca/index.php/burden	<ul> <li>Costs associated with injuries to cyclists include hospital related costs, ongoing costs for rehabilitation, support services for brain damaged individuals</li> <li>Each dollar invested in a helmet saves approximately \$30 in societal costs which amount to about \$400,000 dollars in medical costs for the first year of a head injury alone</li> </ul>

**Evidence to Support All-Ages Helmet Legislation** 

Thomson DV, Rivara FP, and Thompson, R. Helmets for preventing head and facial injuries in bicyclists (Cochrane Review) In the Cochrane Library, Issue 2, 2004. John Wiley & Snos Ltd. Chichester, UK.	A properly fitted helmet helps protect the brain from absorbing the force from a crash or fall, decreasing the risk of serious head injury by as much as 85 % and brain injury by as much as 88%
Macpherson, A. and A. Spinks. 2008. "Bicycle helmet legislation for the uptake of helmet use and prevention of head injuries." <i>The Cochrane Database of Systematic Reviews</i>	Bicycle Helmet legislation appears to be effective in increasing helmet use and decreasing head injury rates in the populations for which it is implemented
Safe Kids Canada. (2010) Safe Kids Canada Supports All-Ages Bike Helmet Legislation-2010. Retrieved from <a href="http://www.safekidscanada.ca/Professionals/Advocacy/Helmet/Index.aspx">http://www.safekidscanada.ca/Professionals/Advocacy/Helmet/Index.aspx</a>	<ul> <li>National public opinion research in 2010 found that 81 % of parents support helmet legislation for both adults and children</li> <li>Universal helmet legislation is supported by studies that draw attention to the positive association between adult helmet use and child helmet use</li> </ul>

Dennis, J., Potter, B, Ramsay, T., and Zarychanski, R. (2010). The effects of provincial bicycle helmet legislation on helmet use and bicycle ridership in canada Retrieved from <a href="https://www.injuryprevention.bmj.com">www.injuryprevention.bmj.com</a> .	<ul> <li>Self-reported bicycle helmet use was greater in both youth and adults residing in provinces with increasing comprehensiveness of helmet legislation</li> <li>Canadian youth are less likely to wear helmets when provincial legislation was differentially applied to those less than 18 years of age</li> <li>Implementation of helmet legislation was not associated with changes in recreational or commuting bicycle use among youth or adults</li> </ul>
Safe Kids Canada. (201) Child Safety Good Practice Guide:. Retrieved from http://www.safekidscanada.ca/professionals/tools-and-resources/guide/good-practice-guide.aspx	<ul> <li>Legislation of bicycle helmets leads to increased use</li> <li>Effect of legislation is smaller when helmet law is not inclusive of all ages</li> <li>Research from Canada suggests that helmet legislation is not associated with a reduction in cycling</li> </ul>

Organizations in Support of All-Ages Bicycle Helmet Legislation

Safe Kids Canada. (2010) Safe Kids Canada Supports All-Ages Bike Helmet Legislation-2010. Retrieved from http://www.safekidscanada.ca/Professionals/Advocacy/H elmet/Index.aspx	<ul> <li>Safe Kids Canada supports bicycle helmet legislation as a proven strategy, in conjunction with sustained education and enforcement programs, to prevent head injuries and deaths</li> <li>Legislation should apply to all cyclists because both adult and children cyclists</li> </ul>
Canadian Paediatric Society. (2012) Are We Doing Enough? A status report on Canadian public policy and child and youth health Retrieved from <a href="http://www.cps.ca/english/advocacy/statusreport.htm">http://www.cps.ca/english/advocacy/statusreport.htm</a>	<ul> <li>The Canadian Paediatric Society recommends that everyone riding a bicycle be required to wear a CSA approved helmet</li> <li>Laws should be accompanied by enforcement and public education, which have been shown to increase helmet use</li> </ul>
Ontario Medical Association. (2011) Enhancing Cycling Safety in Ontario. Retrieved from <a href="https://www.oma.org/HealthPromotion/bikesafe/Pages/default.aspx">https://www.oma.org/HealthPromotion/bikesafe/Pages/default.aspx</a>	The Ontario Medical Association recommends the use of bicycle helmets is recommended, on and off road, for children and adult alike