

End Notes

Indicated Web sites were valid and active in February or March 2010.

- ¹ The quotation is from Page 14 of Manitoba's *Healthy Kids, Health Futures Task Force Report* (June 2005), at the URL below:
1. <http://www.gov.mb.ca/healthykids/docs/finalreport.pdf>.
- ² The second epigraph is from 'The Politics of Happiness' by Susan Ives based on a conversation with Enrique Peñalosa, in *Land & People*, Fall 2002, available at the URL below (see also Box 2 on Page 29).
1. http://www.tpl.org/tier3_cd.cfm?content_item_id=10710&folder_id=2225.
- ³ The quotation is from Pages 116-117 of Duany A, Plater-Zyberk E, Speck J, *Suburban Nation: The Rise of Sprawl and the Decline of the American Dream*. New York: North Point Press, 2000.
- ⁴ The quotation is from Olshansky, SJ, Passaro, DJ, Hershow, RC, Layden, J, Carnes, BA, Brody, J, Hayflick, L, Butler, RN, Allison, DB, & Ludwig, DS (2005). A potential decline in life expectancy in the United States in the 21st Century, *New England Journal of Medicine*, Mar;352(11):1138-1145.
- ⁵ For a discussion of active transport see 'What is Active Transportation?' at the Web site of the Public Health Agency of Canada, at the URL below.
1. http://www.phac-aspc.gc.ca/pau-uap/fitness/active_trans.htm.
- ⁶ See Herold M, Kaye K, *Rural youth and mobility: An emerging rural transportation issue*. Rural Transportation Series No. 2, Sustainable Rural communities Research Program, 2001, at <http://www.everykid.on.ca/RESEARCH%20AND%20DOCUMENTS/research-data-files/Transportation/rural%20youth%20and%20mobility.pdf>.
- ⁷ See Robertson-Wilson J, Leatherdale S, Wong S. Social-Ecological correlates of active commuting to school among high school students. *Journal of Adolescent Health* 2008;42(5):486-495; and Papayo R, Gauvin L. Proportions of students who use various modes of transportation to school in a representative population-based sample of children and adolescents, 1999. *Preventive Medicine* 2008;46:63-33.
- ⁸ See Loucaides C, Plotnikoff R, Bercovitz K. Differences in the correlates of physical activity between urban and rural Canadian youth. *Journal of School Health* 2007;77(4):164-170.
- ⁹ See, for example, Kmet L, Macarthur C. Urban-rural differences in motor vehicle crash fatalities and hospitalization rates among children and youth. *Accident Analysis and Prevention* 2006;38:122-127.
- ¹⁰ The *District of Sparwood Active Transportation Plan* is at the first URL below. The *Active Transportation Plan for Minden* is available at the second URL below.
1. http://www.physicalactivitystrategy.ca/pdfs/Sparwood_AT_Plan.pdf.
2. <http://www.lin.ca/resource-details/12342>.
- ¹¹ Two useful sources on age-friendly communities planning are *Global Age-Friendly Cities: A Guide*, World Health Organization, Geneva, Switzerland, 2007, at the first URL below, and *Age-friendly Rural and Remote Communities: A Guide*, Federal/Provincial/Territorial Ministers Responsible for Seniors through the Public Health Agency of Canada, Ottawa, 2007, at

the second URL below. Information about Age Friendly Manitoba is at the third URL below.

1. <http://bibpurl.oclc.org/web/21329>.
2. http://www.phac-aspc.gc.ca/seniors-aines/publications/public/healthy-sante/age_friendly_rural/index-eng.php.
3. <http://www.gov.mb.ca/shas/agefriendly/>.

- ¹² In only two provinces (Alberta and Quebec) did the number of students per school did not increase between 1989-1990 and 1999-2000. These data are from *Education Indicators in Canada*. Canadian Education Statistics Council, 2003, available at the URL below. Subsequent editions of this document in 2005, 2007, and 2009 do not provide information about average school enrolments. Thus, more recent data are not readily available
1. <http://www.statcan.gc.ca/bsolc/olc-cel/olc-cel?catno=81-582-X&CHROPG=1&lang=eng>.
- ¹³ Kerr, J, Rosenberg, D, Sallis, J, Saelens, B, Frank, L, & Conway, T (2005). Active commuting to school: Associations with environment and parental concerns. *Official Journal of the American College of Sports Medicine*, 787-794.
- ¹⁴ The quotation is from Page 284 of *The Health of Canada's Children*, 3rd edition, Ottawa: Canadian Institute of Child Health (2000), available at the URL below.
1. http://www.cich.ca/Publications_monitoring.html#Profile3.
- ¹⁵ See, for example, Evans G, Kantrowitz E, Socioeconomic status and health: the potential role of environmental risk exposure. *Annual Review of Public Health* 2002;23:303-331. But also see Laurent O, Bard D, Filleul L, Segala C. Effect of socioeconomic status on the relationship between atmospheric pollution and mortality. *Journal of Epidemiology and Community Health* 2007;61:665-675.
- ¹⁶ See, for example, Yantzi N, Rosenberg MW, Burke SO, Harrison MB, The impacts of distance to hospital on families with a child with a chronic condition. *Social Science and Medicine* 2001;52:1777-1791.
- ¹⁷ See Biddle S, Marshall S, Murdey S, Physical activity and sedentary behaviour in youth: issues and controversies, *Journal of the Royal Society for the Promotion of Health* 2003;124:29-33. See also Nelson MC, Neumark-Stzainer D, Hannan PJ, Sirard JR, Story M. *Pediatrics* 2006;118(6):1627-1634.
- ¹⁸ See Pages 28-29 and Page 54 of Raine RD, *Overweight and obesity in Canada: A population health perspective*. Canadian Institute for Health Information, Ottawa, August 2004, available at the URL below. See also Pabayo R, Gauvin L. Proportions of students who use various modes of transportation to and from school in a representative population-based sample of children and adolescents, 1999. *Preventive Medicine* 2008;46(1):63-66.
1. http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=GR_1130_E.
- ¹⁹ See Evenson KR, Huston SL, McMillen BJ, Bore P, Ward DS. Statewide prevalence and correlates of walking and bicycling to school. *Archives of Pediatrics & Adolescent Medicine* 2003;157:887-892. See also Grow HM, Saelens BE, Kerr J, Durant NH, Norman GJ, Sallis JF. Where are youth active? Roles of proximity, active transport, and built environment. *Medicine and Science in Sports and Exercise* 2008;40(12):2071-2079. And also, Sirard JR, Alhassan S, Spencer TR, Robinson TN. Changes in physical activity from walking to school. *Journal of Nutrition Education and Behavior* 2008;40:324-326.

- 20 See Fox K, Childhood obesity and the role of physical activity. *Journal of the Royal Society for the Promotion of Health* 2003;124:34-39. See also, Baslington, H. School Travel Plans: Overcoming Barriers to Implementation. *Transport Reviews* 2008;28(2):239-258.
- 21 The quotation is from Page 15 of *Physical activity of Canadian youth — An analysis of 2002 health behaviour in school-aged children data*. Ottawa, Ontario: Canadian Fitness and Lifestyle Research Institute, 2006, available at the URL below. In that document, the source of this information was given as Craig, CL, Cameron, C, Russell, SJ, & Beaulieu, A. *Increasing physical activity: Supporting children's participation*. Ottawa, Ontario: Canadian Fitness and Lifestyle Research Institute, 2001.
1. <http://www.cflri.ca/eng/statistics/surveys/2006HBSC.php>.
- 22 The quotation is from Page 28 of the first source cited in Note 18.
- 23 See Page 14 of Cameron C, Wolfe R, Craig C, *Physical activity and sport: Encouraging children to be active*. Ottawa, Ontario: Canadian Fitness and Lifestyle Research Institute, 2007. 218 pp, available at the first URL below. See also *The Active Healthy Kids Canada Report Card on Physical Activity for Children and Youth, 2010*, at the second URL below.
1. <http://www.cflri.ca/eng/statistics/surveys/documents/PAM2005.pdf>.
2. <http://www.activehealthykids.ca/ecms.ashx/2010ActiveHealthyKidsCanadaReportCard-longform.pdf>.
- 24 See Map 2 associated with *Battling obesity more than simply telling Canadians to “eat right and exercise.”* Ottawa, Ontario: Canadian Institute for Health Information, 2006, available at the URL below Available at the first URL below. Also see Shields M, *Measured Obesity: Overweight Canadian children and adolescents*. Ottawa, Ontario: Statistics Canada, 2008, available at the second URL below. See also, Belanger-Ducharme F, & Tremblay A. Prevalence of obesity in Canada. *Obesity Reviews* 2005;6:183-186.
1. http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=media_15feb2006_e.
2. <http://www.statcan.ca/english/research/82-620-MIE/2005001/articles/child/cobesity.htm>.
- 25 See Ewing,R,Brownson,R & Berrigan, D. Relationship between urban sprawl and weight of United States youth. *American Journal of Preventive Medicine* 2006;31(6):464-474.
- 26 See Mackett RL, Paskins J. Children's physical activity: The contribution of playing and walking. *Children & Society* 2008;22:345-357. See also, Dollman J, Lewis NR. Active transport to school as part of a broader habit of walking-and cycling among south Australian youth. *Pediatric Exercise Science* 2007;19(4):436-443.
- 27 The rating in respect of prevent of cancer is on Page 47 of Policy andAction for Cancer Prevention: Food, Nutrition, and, Physical Activity: a Global Perspective, World Cancer Research Fund / American Institute for Cancer Research, Washing DC, February 2009, available at the URL below.
1. http://www.dietandcancerreport.org/downloads/Policy_Report.pdf.
- 28 The quotation is from Page 9 of Davis A (ed.), *A physically active life through everyday transport with a special focus on children and older people and examples and approaches from Europe*. World Health Organization, 2002, available at the URL below.
1. http://www.euro.who.int/eprise/main/WHO/Progs/TRT/modes/20030121_1.
- 29 The quotation is from Page 100 of Sallis, JF, & Glanz, K (2006). The role of built environments in physical activity, eating, and obesity in childhood. *Future of Children*, 16(1), 89-108.

- 30 The statement is a quotation from *Measuring Up: A health surveillance update on Canadian children and youth*. Ottawa, Ontario: Public Health Agency of Canada, 1999, available at the first URL below. See also the source detailed in Note 14 and also *Canadian Motor Vehicle Traffic Collision Statistics:2006*. Ottawa, Ontario: Transport Canada, 2009, available at the second URL below. See also, Ramage-Morin P. *Motor-vehicle accident deaths, 1979-2004*. Ottawa, Ontario: Statistics Canada, Catalogue no. 82-003-X, 2008, available at the third URL below. And also, Public Health Agency of Canada. *Leading causes of injury death in Canada, 2004*. Ottawa, Ontario: Public Health Agency of Canada, 2008, available at the fourth URL below. Also see Snowdon AW, Hussein A, Slater M, Kolga C, Boase P, Howard A. *A national study of Canadian children's safety in vehicles*. Paper presented at the Canadian Multidisciplinary Road Safety Conference. Montreal: June 3-6, 2007, available at the fifth URL below. See also Injury Prevention Committee. Transportation of infants and children in motor vehicles. *Paediatrics & Child Health (Journal of the Canadian Paediatric Society)* 2008;13(4):313-318, available at the sixth URL below.
1. http://www.phac-aspc.gc.ca/publicat/meas-haut/mu_x_e.html.
 2. <http://www.tc.gc.ca/roadsafety/tp/tp3322/2006/menu.htm>.
 3. <http://www.statcan.gc.ca/pub/82-003-x/2008003/article/10648-eng.pdf>.
 4. http://dsol-smed.phac-aspc.gc.ca/dsol-smed/is-sb/c_mort_matrix_e.html.
 5. http://auto21.ca/uploads/publications/mediareleases/Canadian_Children_In_Vehicle_Safety_Study.pdf.
 6. <http://www.cps.ca/english/statements/IP/IP08-01.htm>.
- 31 A report prepared for the Royal Canadian Mounted Police (Dalley ML, Ruscoe J, *The abduction of children by strangers in Canada: Nature and scope*. RCMP, Ottawa, 2003, available at the URL below), stated that only five cases of abduction of children by strangers could be identified for 2001 and 2002. In three cases, the abduction was from the child's home; in none was it while walking or cycling to another place. The sources detailed in Note 30 reported 282 traffic-related fatalities of children and youth aged 0-14 years in 2000-2001 and 21,827 traffic-related injuries. See also Howard AW. Injury in childhood: a vexingly simple problem. *Canadian Medical Association Journal* 2006;175(8):899-900. And also Birken CS, Parkin PC, To T, Macarthur C. Trends in rates of death from unintentional injury among Canadian children in urban areas: influence of socioeconomic status. *Canadian Medical Association Journal* 2006;175(8):867-868.
1. <http://www.rcmp-grc.gc.ca/pubs/omc-ned/abd-rapt-eng.htm>.
- 32 See Stallard P, Velleman R, Baldwin S, Prospective study of post-traumatic stress disorder in children involved in road traffic accidents. *British Medical Journal* 1998;317:1619-1623. See also, Stallard P, Salter E, Velleman R. Posttraumatic stress disorder following road traffic accidents - A second prospective study. *European Child & Adolescent Psychiatry* 2004;13(3):172-178. And also, Hardy E, Stallard P. A pilot study to explore the effect of symptom monitoring in children and adolescents with posttraumatic stress reactions following road traffic accidents. *Behavioural and Cognitive Psychotherapy* 2008;36(4):431-435.
- 33 The data to this point in this paragraph are summarized in *Literature review: Vehicle travel speeds and pedestrian injuries*. U.S. Department of Transportation, National Highway Traffic Safety Administration, October 1999, available at the first URL below. See also *Health Impact Assessment of Transport Initiatives: A Guide*, Health Scotland, Edinburgh, 2007, 110 pp, available at the second URL below.
1. <http://www.nhtsa.dot.gov/people/injury/research/pub/HS809012.html>.
 2. <http://www.healthscotland.com/documents/2124.aspx>.

- 34 Figure 1 is a reproduction of Graph 2.2 on Page 25 of European Commission, Directorate-General for the Environment, *Kids on the Move*, Office for Official Publications of the European Communities, Luxembourg, 2002, available at the URL below.
1. http://ec.europa.eu/environment/youth/original/air/kids_on_the_move_en.pdf.
- 35 See Organisation for Economic Co-operation and Development, *Keeping Children Safe in Traffic*. OECD, Paris, France, 2004. Available for a fee at the URL below.
1. <http://www.oecdbookshop.org>.
- 36 The recommendations concerning speed limits are on Page 42 of *World Report on Child Injury Prevention*, ed. Peden M and seven others, WHO and UNICEF, Geneva, Switzerland, 2008, available at the URL below.
1. http://whqlibdoc.who.int/publications/2008/9789241563574_eng.pdf.
- 37 Canadian Paediatric Society position statement “Preventing injuring from all-terrain vehicles” in *Paediatric and Child Health*, (2004) Vol 9 No 5, 337-341.
- 38 See *All-Terrain Vehicle Legislation Chart*, Safe Kids Canada, Toronto, Ontario, May 2008, at the URL below.
1. <http://www.safekidscanada.ca/SKCPublicPolicyAdvocacy/section.asp?s=All+Terrain+Vehicles+%28ATVs%29&sID=22252>.
- 39 See Pynn L, ‘Federal funding exposes tension over public use of recreational trails,’ *Vancouver Sun*, March 6, 2009.
- 40 The quotation is from Page 94 of the source detailed in Note 29.
- 41 See *Health aspects of air pollution: Results from the WHO project ‘Systematic review of health aspects of air pollution in Europe’*. Copenhagen, Denmark: World Health Organization Regional Office for Europe, June 2004, available at the first URL below. Also see more specific information about the WHO project at the second URL below. See also Makri A, Stilianakis NI. Vulnerability to air pollution health effects, *Int. J. Hyg Environ Health*, 2008; 211(3-4), 326-336. And also Ashmore, MR, Dimitroulopoulou C, Personal exposure of children to air pollution. *Atmospheric Environment* 2009;43(1):128-141.
1. <http://www.euro.who.int/document/E83080.pdf>.
2. http://www.euro.who.int/air/activities/20050512_1.
- 42 See the sources detailed in Note 41.
- 43 The work on appearance of respiratory symptoms is summarized in Table 1 of Transport, Health and Environment, Pan-European Programme. *Transport-related health impacts with a particular focus on children*. Geneva, Switzerland: World Health Organization, Europe and United Nations Economic commission for Europe, 2004, available at the URL below. Ten studies concerned children with asthma or other chronic respiratory disease. Of these, six reported a significant association between occurrence of respiratory symptoms and exposure to particulate matter, and three reported no significant association. (One had no data on this matter.) Three of the ten studies reported a significant association with exposure to nitrogen dioxide, and five reported no significant association. (Two had no data on this matter.) The work on hospital attendance is summarized in Table 2 of the same source. Six studies concerned hospitalization for asthma. Three of these reported a significant association with exposure to particulate matter; three reported no significant association. Three reported a significant association with exposure to nitrogen dioxide; one reported no significant association; two had no data on this matter. Also see Table 5 of the same source, which summa-

rizes work using traffic intensity indices to estimate health effects in children.

1. <http://www.euro.who.int/Document/trt/PEPSynthesis.pdf>.

- 44 See Tables 3 and 4 of the source detailed in Note 43. Significant associations in children have been reported between exposure to particulate matter or nitrogen dioxide, or both, and cancer, immune response effects, eye irritation, growth rate effects, intrauterine mortality, and low birth weight, among others. In several cases there have also been reports of non-significant associations.
- 45 See Pearson R, Wachtel H, Ebi K, Distance-weighted traffic density in proximity to a home is a risk factor for leukemia and other childhood cancers, *Journal of the Air & Waste Management Association* 2000;50:175-180. Also, Knox EG. Roads, railways, and childhood cancers. *J Epidemiol Community Health* 2006;60:136-141.
- 46 See the sources detailed in Note 41. See also Peters J and 19 others, *Epidemiologic investigation to identify chronic effects of ambient air pollutants in Southern California*. California Air Resources Board and the California Environmental Protection Agency, Contract No. 94-331, May 2004, available at the URL below. Also O'Connor GT, Neas L, Vaughn B, Kattan M, Mitchell H, Crain EF, Evans R, Gruchalla R, Morgan W, Stout J, Adams GK, Lippmann M. Acute respiratory health effects of air pollution on children with asthma in US inner cities. *Journal of Allergy and Clinical Immunology* 2008;121(5):1133-1139.
1. <http://www.arb.ca.gov/research/abstracts/94-331.htm#Executive>.
- 47 See Schweitzer L, Valenzuela A. Environmental injustice and transportation: The claims and the evidence. *Journal of Planning Literature* 2004;8(4):383-398.
- 48 See Strickland MJ and 8 others, Short-term Associations between Ambient Air Pollutants and Pediatric Asthma Emergency. *American Journal of Respiratory and Critical Care Medicine*, 2010, in press, doi:10.1164/rccm.200908-1201OC
- 49 See Alm S, Mukala K, Jantunen MJ. Personal carbon monoxide exposures of preschool children in Helsinki, Finland: levels and determinants. *Atmospheric Environment* 2000;34:277-285.
- 50 This quotation is from International Centre for Technology Assessment (2000). *In-Car Air Pollution: The Hidden Threat to Automobile Drivers*. International Centre for Technology Assessment, Washington DC, 2000, available at the URL below.
1. <http://www.icta.org/doc/In-car%20pollution%20report.pdf>.
- 51 See Wargo, J, *Children's exposure to diesel exhaust on school buses, environment and human health, report*, 2002, available at the URL below. See also, Adar SD, Davey M, Sullivan JR, Compher M, Szpiro A, Liu LJS, Predicting airborne particle levels aboard Washington State school buses. *Atmospheric Environment* 2008;42(33):7590-7599.
1. <http://www.ehhi.org/reports/diesel>.
- 52 The quotation is from Page 1 of Solomon G, Campbell T, Rudeman Fener G, et al, *No breathing in the aisles, diesel exhaust inside school buses*. Washington DC: National Resources Defense Council, 2001, available at the URL below.
1. <http://www.nrdc.org/air/transportation/schoolbus/schoolbus.pdf>.
- 53 The quotation is from Page 44 of Elsom D, *Smog alert: Managing urban air quality*. London, UK: Earthscan Publications Ltd., 1996.

- 54 See Leung P-L, Harrison RM, Traffic-related exposure to benzene and toluene. *International Journal of Vehicle Design* 1998;20:55-59. See also Violante FS, Barbieri G, Graziosi F, Mattioli S. Urban atmospheric pollution: Personal exposure versus fixed monitoring station measurements. *Chemosphere* 2006;64(10): 1722-1729.
- 55 The study in question is *Review of Vertical Exhausts*. Austroads (Association of Australian and New Zealand road transport and traffic authorities), Sydney, Australia, January 1993, available at the URL below. It noted that a vertical location reduced pollution in the pedestrian breathing zone to about 50% of that caused by an offside location. As a preliminary test of the prevalence of each tailpipe position, one author noted the distribution among the first 280 road vehicles encountered one Sunday morning parked or moving in an area close to downtown Toronto. Of these one was a heavy duty truck; it had a vertical tailpipe, eight were medium-duty trucks; all had curbside tailpipes, and 271 were light-duty vehicle, i.e., regular automobiles, light trucks, vans or sport-utility vehicles. Of the light-duty vehicles 191 had their tailpipe on the curb side and 80 had it on the other side. (Note that ‘curb side’ here means positioned closer to the curbside rear wheel than to the offside rear wheel. Several cars with twin exhausts were counted among the curbside group.) Thus it appears that more than two thirds of the vehicles on the road may have their tailpipes located on the side that produces the greater exposure of pedestrians to their pollution.
1. <http://www.onlinepublications.austroads.com.au/script/home.asp>.
- 56 Tranter PJ, Malone K, *Out of bounds: Insights from children to support a cultural shift towards sustainable and child-friendly cities*. State of Australian Cities National Conference, University of Western Sydney, Urban Frontiers Program, 2003, available at the URL below. See also, Lorenc T, Brunton G, Oliver S, Oliver K, Oakley A. Attitudes to walking and cycling among children, young people and parents: a systematic review. *Journal of Epidemiology and Community Health* 2008;62(10):852-857.
1. <http://www.childfriendlyasiapacific.net/tranter&maloneoutofbounds.pdf>.
- 57 See Hillman M, Adams J, Whitelegg J, *One false move: A study of children’s independent mobility*. London, UK: Policy Studies Institute, 1990, available through the first URL below. See also Hillman M (ed.), *Children, transport and the quality of life*. London, UK: Policy Studies Institute, 1993, available at the second URL below. See too Hillman M, Adams J, Children’s freedom and safety. *Children’s Environments* 1990;9(2):10-22. See also, Farley TA, Meriwether RA, Baker ET, Watkins LT, Johnson CC, Webber LS. Safe play spaces to promote physical activity in inner-city children: Results from a pilot study of an environmental intervention. *American Journal of Public Health* 2007;97(9):1625-1631.
1. <http://www.psi.org.uk/publications/ENVIRON/onefm.htm>.
2. http://www.psi.org.uk/publications/publication.asp?publication_id=26.
- 58 See Evans G, Lercher P, Meis M, Ising H, Kofler WW, Community noise exposure and stress in children. *Journal of the Acoustical Society of America* 2001;109:1023-1027. (The results of this study could be interpreted to suggest that children should not live in high-density development; but it could be equally interpreted to suggest that steps be taken to reduce traffic intensities.) See also, Belojevic G, Jakovjevic B, Stojanov V, Paunovic K, Ilic J. Urban road-traffic noise and blood pressure and heart rate in preschool children. *Environment International* 2008; 34(2):226-231.
- 59 See van Kempen E, Van Kamp I, Fischer P, Davies H, Houthuijs D, Stellato R, Clark C, Stansfeld S. Noise exposure and children’s blood pressure and heart rate: the RANCH project. *Occupational and Environmental Medicine* 2006;63(9):632-639.

- ⁶⁰ See Hygge S, Evans GW, Bullinger M, A prospective study of some effects of aircraft noise on cognitive performance in schoolchildren. *Psychological Science* 2002;13:469-474. See also, Stansfeld SA, Berglund B, Clark C, Lopez-Barrio I, Fischer P, Ohrstrom E, Haines MM, Head J, Hygge S, van Kamp I, Berry BF. Aircraft and road traffic noise and children's cognition and health: a cross-national study. *Lancet* 2005;365(9475):1942-1949.
- ⁶¹ The evidence is reported in the source detailed in Note 43. Of 244 young people aged 9-16 years, those who always walked showed lower scores concerning depression, aggression/hostility, anxiety, and psychosomatic symptoms compared with children who never or seldom walked. But, were the children healthy because they walked, or did they walk because they were healthy?
- ⁶² See Nelson MC, Gordon-Larsen P, Physical Activity and Sedentary Behavior Patterns Are Associated With Selected Adolescent Health Risk Behaviors. *Pediatrics* 2006;117:1281-1290. See also, Schneider M, Dunton GF, Cooper DM, Physical activity and physical self-concept among sedentary adolescent females: An intervention study. *Psychology of Sport and Exercise* 2008;9(1):1-14.
- ⁶³ See Craig, CL., Cameron, C, Russell, S, Beauileiu, A. *Increasing physical activity: Supporting children's participation*. Ottawa, Ontario: Canadian Fitness and Lifestyle Research Institute, 2001. Available the URL below.
1. <http://www.cflri.ca/pdf/e/2000pam.pdf>.
- ⁶⁴ See Page 18 of the source detailed in Note 34.
- ⁶⁵ Freeman L, The effects of sprawl on neighborhood social ties: An explanatory analysis. *Journal of the American Planning Association* 2001:67:69-77.
- ⁶⁶ The report is discussed in some detail in a California Department of Education press release entitled *State Study Proves Physically Fit Kids Perform Better Academically* (December 10, 2002), available at the URL below. See also, Chomitz VR, Slining MM, MCGowan RJ, Mitchell SE, Dawson GF, Hacker KA. Is There a Relationship Between Physical Fitness and Academic Achievement? Positive Results From Public School Children in the Northeastern United States. *Journal of School Health* 2009;79(1):30-36.
1. <http://www.actionbasedlearning.com/article02.shtml>.
- ⁶⁷ From the testimony of Professor Leon James, University of Hawaii, before the Committee on Transportation and Infrastructure, U.S. House of Representatives, July 17, 1997, available at the URL below.
1. http://commdocs.house.gov/committees/Trans/hpw105-34.000/hpw105-34_of.htm.
- ⁶⁸ See McDonald, NC, Travel and the social environment: Evidence from Alameda County, California. *Transportation Research Part D-Transport and Environment*, 2007;12(1);53-63.
- ⁶⁹ See for example Moore RC, Marcus CC, Healthy planet, healthy children: Designing nature into the daily spaces of childhood. In Kellert SR, Heerwagen J, Mador M (eds.) *Biophilic design: the theory, science, and practice of bringing buildings to life*. Hoboken, NJ, Wiley, 2008, at the URL below. 1. <http://www.naturalearning.org/publications/publications.htm>.
- ⁷⁰ This quotation is from Page 258 of Louv R, *Last child in the woods: Saving our children from nature-deficit disorder*. North Carolina: Algonquin Books of Chapel Hill, 2005.

- 71 Information about the review of Manitoba's Provincial Land Use Policies (PLUPs) is at the URL below.
1. <http://www.gov.mb.ca/ia/plups/>.
- 72 Box 2 contains Section 7B of the Government of Manitoba's draft Provincial Land Use Policies. The whole document is available at the URL below.
1. <http://www.gov.mb.ca/ia/plups/pdf/draft.pdf>.
- 73 There are no good data on this point, although there are hints of it in the analysis of relevant data for Halton and Peel Regions and the City of Toronto in the report on the *Kids on the Move in Halton and Peel* project, available at the first URL below. Also relevant may be the finding (for Stockholm, Sweden) that a car in the family made essentially no difference to the local travel activities of inner-city youth aged 12-16 because of their independence through their ability to walk or take transit. Youth in families with a car (34 of the 71 surveyed) said a car provides valuable experiences for young people; youth in families with no car disagreed. See Sandqvist K, How does a family car matter? Leisure, travel & attitudes of adolescents in inner city Stockholm. *World Transport Policy & Practice* 2002;8:11-18, at the second URL below.
1. <http://kidsonthemove.ca/uploads/Kids%20on%20the%20Move%20in%20Halton%20and%20Peel,%20final%20report.pdf>.
2. <http://www.eco-logica.co.uk/pdf/wtpp08.1.pdf>.
- 74 The statement is on Page 58 and again on Page 98 of *Mobility 2030: Meeting the challenges of sustainability*. World Business Council for Sustainable Development, Geneva, Switzerland, May 2004, available at the URL below.
1. <http://www.wbcsd.org/web/publications/mobility/mobility-full.pdf>.
- 75 Box 2 contains several consecutive paragraphs from the source detailed in Note 2.
- 76 Figure 2 reproduces Page 2 of the brochure of the Burlington Mayor's Youth Advisory Committee, at the URL below.
1. <http://cms.burlington.ca/AssetFactory.aspx?did=6083>.
- 77 For information about the Rural Municipality of Gimli, see the first URL below. For information about the Gimli Youth Community Partnership see the second URL below.
1. <http://www.gimli.ca/govt/counci.asp>.
2. <http://www.gimliyouth.com/aboutus.htm>.
- 78 For the Village of Breton, Alberta, see the URL below:
1. <http://www.village.breton.ab.ca/council.html>.
- 79 For information about Vestfold County Council's 'children's tracks' program, see Almhjell E, Registering Children's Tracks, paper presented at a forum held in Tromsø, Norway, June 2001, at the first URL below. (This file is difficult to access: save it before opening it.) See also the WHO-Europe summary of the project at the second URL below.
1. http://www.ks.no/upload/4340/EvaAlmhjell_paper.doc.
2. <http://test.cp.euro.who.int/document/che/34NORweb.pdf>.
- 80 The quotation is from Page 469 of Berglund U, Nordin K, Using GIS to make young people's voices heard in urban planning, *Built Environment*, 2007;33(4):469-481.
- 81 For information about the 'Neighbourhood Walkabout' process, see Section 4.3 of the *Active and Safe Routes to School Program Resource Guide*, at the first URL below. For information about Manitoba's Active & Safe Routes to School program, see the second URL be-

low.

1. <http://www.saferoutestoschool.ca/asrtsrg.asp>.
2. <http://www.resourceconservation.mb.ca/gci/ASRTS/1main.html>.

82 For discussion of this point, see Note 55 above.

83 For the full list of citations as “America’s best walking communities,” see the URL below.

1. http://www.active.com/story.cfm?story_id=96.

84 Section 43.1 of Manitoba’s *Public Schools Act* sets 1.6 kilometres as distance between home and school less than which school boards are not required to provide busing or other transport (see the first URL below). Also, a student must be picked up or conveyed to within 0.8 km of his or her home, or parents are entitled to compensation. In other jurisdictions, the eligibility criteria for provided transport vary with grade. For example, Ontario’s Halton District School sets 1.6 km as the limit for rural areas and for students up to Grade 8 in urban areas, and 4.8 km for students in Grade 9 and above in urban areas. See the second URL below. What are reasonable distances to walk or bike is a matter of judgement. One report suggests that 1.6 km is a reasonable maximum walking distance and 3.2 km is a reasonable maximum biking distance (both for students up to Grade 8). See Watson M, Dannenberg AL, ‘Investment in Safe Routes to School projects: Public health benefits for the larger community, *Preventing Chronic Disease* 2008;5(3), at the third URL below. Another report—from The Netherlands—suggests that a reasonable biking distance to or from school is 15 kilometres (age not specified), or about an hour’s travel each way. (See Page 16 of the source at the fourth URL below).

1. <http://web2.gov.mb.ca/laws/statutes/ccsm/p250e.php>.
2. <http://www.hdsb.ca/Policy/Transportation2008.pdf>.
3. http://www.cdc.gov/pcd/issues/2008/jul/07_0087.htm.
4. <http://trb.org/publications/trnews/trnews237.pdf>.

85 The photo in Figure 3 is from the URL below.

1. <http://www.precisiontandems.com/art16moolddiary.htm>.

86 Information about Toronto’s ‘Sidewalks are for Pedestrians’ campaign is at the first URL below. In 2008 and 2009, in response to citizens’ concerns about pedestrian amenity, Toronto City Council established a Public Realm Office bringing together most municipal responsibilities for sidewalks. The new Director, Public Realm, echoes Toronto’s first municipal official, the Pathmaster, responsible in the 18th century for the condition of sidewalks and other paths in what was then known as Muddy York. See Brown G, Gilbert R, Putting the walk back into sidewalk. *Toronto Star*, June 14, 2006, at the second URL below.

1. <http://www.city.toronto.on.ca/cycling/sidewalk.htm>.
2. [http://www.richardgilbert.ca/Files/2006/Putting%20the%20walk%20back%20into%20sidewalk%20\(Web\).pdf](http://www.richardgilbert.ca/Files/2006/Putting%20the%20walk%20back%20into%20sidewalk%20(Web).pdf).

87 The photo in Figure 4 is from the URL below.

1. <http://www.flickr.com/photos/luton/504930307/in/set-72157605151322650/>.

88 For more information about bike boxes in Portland, Oregon, see the first URL below. Bike boxes are in use in Vancouver and Victoria, BC; see the second and third URLs below. For an informative discussion of bike boxes see John S. Allen’s Web site at the fourth URL.

1. <http://www.portlandonline.com/transportation/index.cfm?c=46717>.
2. <http://www.trek.ubc.ca/programs/other/bike.html>.

3. <http://www.worldchanging.com/archives/007753.html>.

4. <http://www.bikexpert.com/bikepol/facil/stopline.htm#recom>.

⁸⁹ The quotation is from an article in the *Herald Sun* newspaper (Melbourne, Australia): Clark B, Bicycle sheds peddled. October 18, 2006, at the URL below.

1. <http://www.heraldsun.com.au/news/victoria/bicycle-sheds-peddled/story-e6frf7kx-111112377147>.

⁹⁰ Box 6 is from the URL below.

1. <http://www.edmonton.ca/transportation/ets/school-service.aspx>.

⁹¹ The quotation is from written comments on an earlier version of the Alberta Guidelines document provided by the Transportation Subcommittee of the City of Edmonton Youth Council via Lyndia Peter, City of Edmonton Youth Council Coordinator, February 22, 2010. The document also included the following: “It is also important to educate children and youth about bus manners! The rowdiness drives adults (and the elderly) insane-- this could potentially discourage citizens of other age groups from using the public transit system (for persons travelling with young children as well!). Recognizing that many efforts have already been put into ensuring comfort for everyone when taking the bus (such as the Behaviour on Bus campaign in Edmonton), more needs to be done.”

⁹² Trends in crimes against persons in Winnipeg appear complex and not necessarily related to indications of fear of crime. See Weinrath M, Clarke K, Forde DR, Trends in fear of crime in a western Canadian city, 1984, 1994, and 2004. *Canadian Journal of Criminology and Criminal Justice* 49:617-646, 2008.

⁹³ Leonore Skenazy explored the matter more, wrote a book about it, and started a movement to reduce parental ‘helicoptering.’ The book is *Free Range Kids: Giving our children the freedom we had without going nuts with worry*, New York, Jossey-Bass, 2009. Skenazy’s blog is at the URL below.

1. <http://freerangekids.wordpress.com/>.

⁹⁴ Henry Orsini can be reached at lowertransitfaresarewhereits@yahoo.ca.

⁹⁵ These examples are from (i) Toronto (Toronto Transit Commission, at the first URL below), where in February 2010 the child’s cash fare was 75¢, or 10 tickets for \$5.50, compared with the adult rates of \$3 and \$25, and (ii) the Region of York just north of Toronto (York Region Transit, at the second URL below), where the children’s cash fare is \$3.25 for one zone and \$4.25 for two zones, the same as the adult fares, or 10 tickets for \$15 or \$25, lower than the adult 10-ticket rates, which are \$26 and \$36. In Toronto, all children under two years of age ride free. In York Region, children under one year of age ride free as does one child between one and four years of age per person paying an adult fare. (Thus, a child riding in York Region with a student – see below – or a senior may have to pay the full adult fare.) In Toronto, a young people under 12 years qualify for the child rate. In York Region, young people under 14 do, subject to the above restrictions. Both systems offer student fares, in Toronto for young people aged 13 to 19 years, and in York Region for high-school students (and, with a special process, for elementary school students aged over 13 years). Toronto student fares are \$2 or 10 for \$16.50. In York Region, student cash fares are the same as adult fares, but 10 tickets cost \$19 or \$29 rather than the adult rates of \$26 and \$36.

1. http://www3.ttc.ca/Fares_and_passes/Prices/index.jsp.

2. <http://www.yrt.ca/fares/index.asp>.

- ⁹⁶ The kind of U-pass referred to in the text is such as is provided to all full-time students of Saint Mary's University in Halifax, Nova Scotia. All students pay for and receive a pass whether they use it or not, as explained at the first URL below. This kind of U-pass can be contrasted with what is available in the Toronto area, where university students benefit from bulk purchase contracts, as explained at the second URL below. At the time of writing the matter appeared to be still under discussion for University of Winnipeg and University of Manitoba students.
1. <http://www.halifax.ca/metrotransit/upass.html>.
 2. http://www.u-pass.ca/index.php?section_id=8.
- ⁹⁷ The opportunity to increase adult transit use through encouraging use by young people, in this case teenagers, was emphasized in a US study: Cain A, Sibley-Perone J, *Teenage attitudes and perceptions regarding transit use*. State of Florida Department of Transportation, National Center for Transit Research, Center for Urban Transportation Research and University of South Florida, August 2005, 76 pages, available at the URL below. The report made five recommendations to transit agencies interested in targetting teenage riders: (i) track teenage ridership, (ii) explore external funding options, (iii) form partnerships with school systems and other local organizations, (iv) use a strategic approach to developing marketing messages, and (v) consider teenage mobility needs in transit service provision.
1. www.nctr.usf.edu/pdf/576-14.pdf.
- ⁹⁸ For Winnipeg Transit, see the first URL below (from where Figure 6 was taken). For New Flyer Industries, see the second URL below.
1. <http://myride.winnipegtransit.com/en/inside-transit/interestingtransitfacts>.
 2. <http://www.newflyer.com/>.
- ⁹⁹ Information about School Travel Planning (STP) across Canada is available at the first URL below. Resource Conservation Manitoba, at the second URL below, is the provincial partner in the Canada-wide STP program.
1. <http://saferoutestoschool.ca/schooltravel.asp>.
 2. <http://www.resourceconservation.mb.ca>.
- ¹⁰⁰ According to the Comprehensive Energy Use Database maintained by the Office of Energy Efficiency, Natural Resources Canada at the URL below, school buses accounted for 24.4 billion passenger-kilometres in Canada in 2007 (Table 48), while urban transit accounted for 17.1 billion pkm (Table 50).
1. http://oee.nrcan.gc.ca/corporate/statistics/neud/dpa/trends_tran_ca.cfm.
- ¹⁰¹ McDonald, NC, Children's mode choice for the trip to school: the role of distance and school location in walking to school, *Transportation*, 2008:35;23-35.
- ¹⁰² The school-bus trip-length data are from the 2006 *Transportation Tomorrow Survey*. Information about the TTS is available at the URL below. The data in this paragraph refer to the whole area surveyed in 2006.
1. <http://www.jpint.utoronto.ca/dmg/tts.html>.
- ¹⁰³ See Nick Martin, It's a long trip for students in immersion. *Winnipeg Free Press*, August, 12, 2008.
- ¹⁰⁴ For the policies of the Interlake School Division, see the URL below.
1. http://www.isd21.mb.ca/policy_manual.htm.
- ¹⁰⁵ For Manitoba's *Public Schools Act*, see Note 84.

- ¹⁰⁶ See, for example, Zars B, *Long rides, tough hides; Enduring long school bus rides*. Randolph, Vermont: Rural Challenge Policy Program, 1998, available at the first URL below. See also Howley CB, Howley AA, Shamblen S. Riding the school bus: A comparison of the rural and suburban experience in five states. *Journal of Research in Rural Education* 2001;17(1):41-63, available at the second URL below.
 1. <http://eric.ed.gov/ERICWebPortal/recordDetail?accno=ED432419>.
 2. <http://www.umaine.edu/jrre/JournalSearch/journal.aspx?id=357>.
- ¹⁰⁷ For the *Public Schools Act*, see Note 84
- ¹⁰⁸ The Clean School Bus USA program is an initiative of the United States Environmental Protection Agency. Details are at the URL below.
 1. <http://www.epa.gov/otaq/schoolbus/index.htm>.
- ¹⁰⁹ Figure 7 is a photo of a walking school bus organized in connection with Maurice Cody School in Toronto, supplied by Jacky Kennedy.
- ¹¹⁰ For Westvale School's program, see the URL below.
 1. http://www.saferoutestoschool.ca/downloads/guide/wsb_westvale_trailblazers.pdf.
- ¹¹¹ Figure 8 is from the URL below.
 1. <http://www.saferoutestoschool.ca/gallery/default.asp?action=viewimage&categoryid=26&text=&imageid=357&box=&shownew=>.
- ¹¹² For the statement by Traffic Safety Education & Consulting Manitoba, see the URL below.
 1. http://www.tsecmb.com/SPEED_LIMITS.html.
- ¹¹³ For the statement by the City of Winnipeg, see the URL below.
 1.
- ¹¹⁴ Box 9 is based on Table 1 in Draskóczy M, Mocsári T, *Present Speeds and Speed Management Methods in Europe*, VTT, Finland, November 1997, available at the URL below. This somewhat old but useful table still seems accurate. A more up-to-date source is Appendix B of *Speed Management*, Paris, France, European Conference of Ministers of Transport, 2006.
 1. <http://virtual.vtt.fi/virtual/proj6/master/rep211.pdf>.
- ¹¹⁵ See Neesdale-Tucker R, *Advocating for Child Pedestrian Safety: The case for speed reduction*. Toronto, Ontario: Safe Kids Canada, May 2008. Available at the URL below.
 1. <http://www.sickkids.ca/SKCPublicPolicyAdvocacy/custom/AdvocatingForPedestrianSafety.pdf>.
- ¹¹⁶ See Traffic Advisory Committee. 30 km/h Speed Limits. *Airdrie Today* (City of Airdrie eNewsletter), October 2008. Available at the URL below.
 1. <http://www.industrymailout.com/Industry/LandingPage.aspx?id=290954&p=1>.
- ¹¹⁷ Figure 9 – the photo of a Calgary light-rail train – was kindly provide by Professor Judith Patterson of Concordia University, Montreal. There is more about Calgary Transit's 'Ride the Wind' program at he URL below.
 1. http://www.calgarytransit.com/environment/ride_the_wind.html.
- ¹¹⁸ For Manitoba's former streetcar systems, see the first URL below. For trolleybus systems see the second URL below.
 1. http://en.wikipedia.org/wiki/List_of_town_tramway_systems_in_Canada.
 2. http://en.wikipedia.org/wiki/List_of_trolleybus_systems_in_Canada.

- ¹¹⁹ The document *A Kid's Guide to Building Great Communities: A Manual for Planners and Educators* (undated) is available from the Canadian Institute of Planners at the URL below.
 1. http://www.cip-icu.ca/web/la/en/fi/03BF4704CF634C3A949E1FB0F72ECA24/get_file.asp.
- ¹²⁰ The text in Box 10 is based on the 'Sponsor's Statement' found in the CD-ROM of *You Can Clear the Air*. Further information about the CD-ROM is available from JoAnn Woodhall at wjoann@region.waterloo.on.ca.
- ¹²¹ YWALK is a collaborative concerned to adapt the Active and Safe Routes to School program (see the first URL below) for use in high schools. YWALK's Web site is at the second URL below.
 1. <http://www.saferoutestoschool.ca/partners.asp>.
 2. <http://www.ywalk.ca>.
- ¹²² These data are actually for south-central Ontario, from the results of the 2006 *Transportation Tomorrow Survey*. Information about the TTS is available at the URL below. The data are mentioned here because there is reason to believe that in general terms they apply across much of Canada, including much of Manitoba, specifically that young people make a large share—perhaps the majority—of all walking and bicycling trips, and, where there is transit service, a significant proportion of transit trips.
 1. <http://www.dmg.utoronto.ca/transportationtomorrowsurvey/index.html>.
- ¹²³ The definition of a child-friendly city is taken from material at the URL below.
 1. <http://www.childfriendlycities.org/>.
- ¹²⁴ For information about the Provincial Land Use Policies Review and links to the draft policies, see the URL below. 1. <http://www.gov.mb.ca/ia/plups/index.html>.
- ¹²⁵ The Web site of the MPPI is at the first URL below. The Web site of the Canadian Institute of Planners is at the second URL below. The Call to Action by the Ontario Professional Planners Institute entitled *Plan for the Needs of Children and Youth* is available at the third URL below. OPPI's 'Call to Action' is based on a version of the guidelines document produced when there were 21 rather than the present 19 guidelines (see Section 1.2 of this document).
 1. <http://www.mppi.mb.ca>.
 2. <http://www.cip-icu.ca>.
 3. <http://www.ontarioplanners.on.ca>.
- ¹²⁶ For the Web site of Resource Conservation Manitoba see Note 99.
- ¹²⁷ The Web sites for these four organizations are respectively at the URLs below.
 1. http://www.pacm.ca/default.asp?ID=13&Sub_ID=155&Sub2_ID=0.
 2. <http://biketothefuture.org>.
 3. <http://www.mrta.mb.ca>.
 4. <http://www.prairiepathfinders.mb.ca>.