

# Joel Barnes

[j@barnzilla.ca](mailto:j@barnzilla.ca)

Ottawa, Ontario, K1T 4C1

## WORK EXPERIENCE

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### Microsimulation Analyst

Feb 2020 - current

Statistics Canada • Ottawa, Ontario

- Position is within the [Healthy Analysis Division](#).

### Knowledge and Data Analyst

Sep 2010 - Dec 2019

CHEO Research Institute • Ottawa, Ontario

- Position was within the [Healthy Active Living and Obesity Research Group](#).
- Cleaned, wrangled and modeled small- and large-scale datasets for refereed publications and reports.
- Provided data analysis consultations for research investigators, staff and students.
- Research manager and lead author for the annual [ParticipACTION Report Card on Physical Activity for Children and Youth](#) (after 2016, a biennial knowledge product).
- Carried out all aspects of the web design/development/maintenance and virtual private server deployment/maintenance for multiple websites:
  - [Active Healthy Kids Global Alliance](#)
  - [Canadian Assessment of Physical Literacy](#) (5+ million data records collected)
  - [Healthy Active Living and Obesity Research Group](#)
  - [Outdoor Play Canada](#)
  - [Sedentary Behaviour Research Network](#)

## SKILLS

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### 10+ years' experience

- CSS
- HTML
- JavaScript
- JSON
- MySQL
- PHP
- SPSS
- SQL
- WordPress
- XML

### 5+ years' experience

- DigitalOcean
- R
- RStudio

### <5 years' experience

- C++
- GitHub
- Python
- R Markdown
- Shiny

## EDUCATION

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### Master of Science

Sep 2001 - Nov 2003

University of Saskatchewan • Saskatoon, Saskatchewan

- Thesis: "[Comparing health-related physical fitness and activity between old order Mennonite children in Ontario and rural children in Saskatchewan](#)".
- Thesis nominated for the Governor General's Gold Medal.
- Supervisor: [Dr. Mark Tremblay](#)

### Bachelor of Science in Kinesiology

Sep 1997 - Apr 2001

University of New Brunswick • Fredericton, New Brunswick

- Dean's List recipient in all four years of the program.
- Graduated with the second highest grade point average in the program.

## REFEREED PUBLICATIONS

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1. Larouche R, **Barnes JD**, Blanchette S, Faulkner G, Riazi NA, Trudeau F, Tremblay MS. [Relationships among children's independent mobility, active transportation, and physical activity: a multisite cross-sectional study](#). *Pediatr Exerc Sci*. 2020. In press.
2. Gonzalez SA, Aubert S, **Barnes JD**, Larouche R, Tremblay MS. [Profiles of active transportation among children and adolescents in the Global Matrix 3.0 initiative: a 49-country comparison](#). *Int J Environ Res Public Health*. 2020;17:5997.
3. Aubert S, **Barnes JD**, Tremblay MS. [Evaluation of the process and outcomes of the Global Matrix 3.0 of physical activity grades for children and youth](#). *J Exerc Sci Fit*. 2020;18(2):80-88.
4. Lee EY, **Barnes J**, Lang J, Silva D, Tomkinson G, Tremblay M. [Testing validity of FitnessGram in two samples of US adolescents \(12-15 years\)](#). *J Exerc Sci Fit*. 2020;18(3):129-135.
5. Walsh JJ, **Barnes JD**, Chaput JP, Tremblay MS. [Associations between duration and type of electronic screen use and cognition in US children](#). *Comput Human Behav*. 2020;108:106312.
6. Manyanga T, **Barnes JD**, Chaput JP, Dubois L, Katzmarzyk PT, Mire EF, Prista A, Tremblay MS. [Prevalence and correlates of objectively measured weight status among urban and rural Mozambican primary schoolchildren: a cross-sectional study](#). *PLoS ONE*. 2020;15(2):e0228592.
7. Guerrero MD, **Barnes JD**, Tremblay MS. [Caution with conclusions required: A response to the paper "Objectively measured aerobic fitness is not related to vascular health outcomes and cardiovascular disease risk in 9-10 year old children"](#). *J Sports Sci Med*. 2019;18(4):830-833.
8. Guerrero MD, **Barnes JD**, Chaput JP, Tremblay MS. [Screen time and problem behaviors in children: exploring the mediating role of sleep duration](#). *Int J Behav Nutr Phys Act*. 2019;16(1):105.
9. Manyanga T, **Barnes JD**, Chaput JP, Katzmarzyk PT, Prista A, Tremblay MS. [Prevalence and correlates of adherence to movement guidelines among urban and rural children in Mozambique: a cross-sectional study](#). *Int J Behav Nutr Phys Act*. 2019;16(1):94.
10. Manyanga T, **Barnes JD**, Chaput JP, Guerrero M, Katzmarzyk PT, Mire E, Prista A, Tremblay MS. [Body mass index and movement behaviors among schoolchildren from 13](#)

[countries across a continuum of human development indices: a multinational cross-sectional study](#). Am J Hum Biol. 2019;e23341.

11. LeBlanc AG, **Barnes JD**, Saunders TJ, Tremblay MS, Chaput JP. [Scientific sinkhole: the pernicious price of formatting](#). PLoS ONE. 2019;14(9):e0223116.
12. Aubert S, **Barnes JD**, Forse ML, Turner E, González SA, Kalinowski J, Katzmarzyk PT, Lee EY, Ocansey R, Reilly JJ, Schranz N, Vanderloo LM, Tremblay MS. [The International Impact of the Active Healthy Kids Global Alliance Physical Activity Report Cards for Children and Youth](#). J Phys Act Health. 2019;16:679-697.
13. Guerrero MD, **Barnes JD**, Walsh JJ, Chaput JP, Tremblay MS, Goldfield GS. [24-Hour Movement Behaviors and Impulsivity](#). Pediatr. 2019;144(3):e20190187.
14. Delisle Nyström C, **Barnes JD**, Blanchette S, Faulkner G, Leduc G, Riazi NA, Tremblay MS, Trudeau F, Larouche R. [Relationships between area-level socioeconomic status and urbanization with active transportation, independent mobility, outdoor time, and physical activity among Canadian children](#). BMC Public Health. 2019;19(1):1082.
15. Aubert S, **Barnes JD**, Abdeta C, Nader PA, Adeniyi AF, Aguilar-Farias N, Tenesaca DSA, Bhawra J, Brazo-Sayavera J, Cardon G, Chang CK, Delisle Nyström C, Demetriou Y, Draper CE, Edwards L, Emeljanovas A, Gába A, Galaviz KI, González SA, Herrera-Cuenca M, Huang WY, Ibrahim IAE, Jürimäe J, Kääppli K, Katapally TR, Katewongsa P, Katzmarzyk PT, Khan A, Korcz A, Kim YS, Lambert E, Lee EY, Löf M, Loney T, López-Taylor J, Liu Y, Makaza D, Manyanga T, Mileva B, Morrison SA, Mota J, Nyawornota VK, Ocansey R, Reilly JJ, Roman-Viñas B, Silva DAS, Saonuam P, Scriven J, Seghers J, Schranz N, Skovgaard T, Smith M, Standage M, Starc G, Stratton G, Subedi N, Takken T, Tammelin T, Tanaka C, Thivel D, Tladi D, Tyler R, Uddin R, Williams A, Wong SHS, Wu CL, Zembura P, Tremblay MS. [Global Matrix 3.0 Physical Activity Report Card grades for children and youth: results and analysis from 49 countries](#). J Phys Act Health. 2018;15(S2):S251-S273.
16. Aubert S, **Barnes JD**, Aguilar-Farias N, Cardon G, Chang CK, Delisle Nyström C, Demetriou Y, Edwards L, Emeljanovas A, Gába A, Huang WY, Ibrahim IAE, Jürimäe J, Katzmarzyk PT, Korcz A, Kim YS, Lee EY, Löf M, Loney T, Morrison SA, Mota J, Reilly JJ, Roman-Viñas B, Schranz N, Scriven J, Seghers J, Skovgaard T, Smith M, Standage M, Starc G, Stratton G, Takken T, Tammelin T, Tanaka C, Thivel D, Tyler R, Williams A, Wong SHS, Zembura P, Tremblay MS. [Report Card grades on the physical activity of children and youth comparing 30 Very High Human Development Index countries](#). J Phys Act Health. 2018;15(S2):S298-S314.
17. **Barnes JD**, Cameron C, Carson V, Chaput JP, Colley RC, Faulkner GEJ, Janssen I, Kramers R, Saunders TJ, Spence JC, Tucker P, Vanderloo LM, Tremblay MS. [Results from Canada's 2018 Report Card on Physical Activity for Children and Youth](#). J Phys Act Health. 2018;15(S2):S328-S330.
18. González SA, **Barnes JD**, Nader PA, Andrade DST, Brazo-Sayavera J, Galaviz KI, Herrera-Cuenca M, Katewongsa P, López-Taylor J, Liu Y, Mileva B, Avilés AMO, Silva DAS, Saonuam P, Tremblay MS. [Report Card grades on the physical activity of children and youth from 10 countries with High Human Development Index – Global Matrix 3.0](#). J Phys Act Health. 2018;15(S2):S284-S297.
19. Manyanga T, **Barnes JD**, Adeniyi AF, Bhawra J, Draper CE, Katapally TR, Khan A, Lambert E, Makaza D, Nyawornota VK, Ocansey R, Subedi N, Uddin R, Tladi D, Tremblay MS. [Indicators of physical activity among children and youth in nine countries with Low-to-Medium Human Development Indices: A Global Matrix 3.0 paper](#). J Phys Act Health. 2018;15(S2):S274-S283.

20. Belanger K, **Barnes JD**, Longmuir PE, Anderson KD, Bruner B, Copeland JL, Gregg MJ, Hall N, Kolen AM, Lane KN, Law B, MacDonald DJ, Martin LJ, Saunders TJ, Sheehan D, Stone M, Woodruff SJ, Tremblay MS. [The relationship between physical literacy scores and adherence to Canadian physical activity and sedentary behaviour guidelines](#). BMC Public Health. 2018;18(Suppl 2):1042.
21. Delisle Nyström C, **Barnes JD**, Tremblay MS. [An exploratory analysis of missing data from the Royal Bank of Canada \(RBC\) Learn to Play – Canadian Assessment of Physical Literacy \(CAPL\) project](#). BMC Public Health. 2018;18(Suppl 2):1046.
22. Delisle Nyström C, Traversy G, **Barnes JD**, Chaput JP, Longmuir PE, Tremblay MS. [Associations between domains of physical literacy by weight status in 8- to 12-year-old Canadian children](#). BMC Public Health. 2018;18(Suppl 2):1043.
23. Dutil C, Tremblay MS, Longmuir PE, **Barnes JD**, Belanger K, Chaput JP. [Influence of the relative age effect on children's scores obtained from the Canadian Assessment of Physical Literacy](#). BMC Public Health. 2018;18(Suppl 2):1040.
24. Gunnell KE, Longmuir PE, **Barnes JD**, Belanger K, Tremblay MS. [Refining the Canadian Assessment of Physical Literacy based on theory and factor analyses](#). BMC Public Health. 2018;18(Suppl 2):1044.
25. Gunnell KE, Longmuir PE, Woodruff SJ, **Barnes JD**, Belanger K, Tremblay MS. [Revising the motivation and confidence domain of the Canadian Assessment of Physical Literacy](#). BMC Public Health. 2018;18(Suppl 2):1045.
26. Lang JJ, Chaput JP, Longmuir PE, **Barnes JD**, Belanger K, Tomkinson GR, Anderson KD, Bruner B, Copeland JL, Gregg MJ, Hall N, Kolen AM, Lane KN, Law B, MacDonald DJ, Martin LJ, Saunders TJ, Sheehan D, Stone MR, Woodruff SJ, Tremblay MS. [Cardiorespiratory fitness is associated with physical literacy in a large sample of Canadian children aged 8 to 12 years](#). BMC Public Health. 2018;18(Suppl 2):1041.
27. Law B, Bruner B, Scharoun SM, Anderson K, Gregg M, Hall N, Lane K, MacDonald DJ, Saunders TJ, Sheehan D, Stone MR, Woodruff SJ, Belanger K, **Barnes JD**, Longmuir PE, Tremblay MS. [Associations between teacher training and measures of physical literacy among Canadian 8- to 12-year-old students](#). BMC Public Health. 2018;18(Suppl 2):1039.
28. Longmuir PE, Gunnell KE, **Barnes JD**, Belanger K, Leduc G, Woodruff SJ, Tremblay MS. [Canadian Assessment of Physical Literacy Second Edition: a streamlined assessment of the capacity for physical activity among children 8 to 12 years of age](#). BMC Public Health. 2018;18(Suppl 2):1047.
29. MacDonald DJ, Saunders TJ, Longmuir PE, **Barnes JD**, Belanger K, Bruner B, Copeland JL, Gregg MJ, Hall N, Kolen AM, Law B, Martin LJ, Sheehan D, Woodruff SJ, Tremblay MS. [A cross-sectional study exploring the relationship between age, gender, and physical measures with adequacy in and predilection for physical activity](#). BMC Public Health. 2018;18(Suppl 2):1038.
30. Saunders TJ, MacDonald DJ, Copeland JL, Longmuir PE, **Barnes JD**, Belanger K, Bruner B, Gregg MJ, Hall N, Kolen AM, Law B, Martin LJ, Sheehan D, Stone MR, Woodruff SJ, Tremblay MS. [The relationship between sedentary behaviour and physical literacy in Canadian children: a cross-sectional analysis from the RBC-CAPL Learn to Play study](#). BMC Public Health. 2018;18(Suppl 2):1037.
31. Tremblay MS, Costas-Bradstreet C, **Barnes JD**, Bartlett B, Dampier D, Lalonde C, Leidl R, Longmuir P, McKee M, Patton R, Way R, Yessis J. [Canada's Physical Literacy Consensus Statement: process and outcome](#). BMC Public Health. 2018;18(Suppl 2):1034.
32. Tremblay MS, Longmuir PE, **Barnes JD**, Belanger K, Anderson KD, Bruner B, Copeland JL, Delisle Nyström C, Gregg MJ, Hall N, Kolen AM, Lane KN, Law B, MacDonald DJ, Martin LJ,

- Saunders TJ, Sheehan D, Stone MR, Woodruff SJ. [Physical literacy levels of Canadian children aged 8-12 years: descriptive and normative results from the RBC Learn to Play-CAPL project](#). BMC Public Health. 2018;18(Suppl 2):1036.
33. Walsh JJ, **Barnes JD**, Cameron JD, Goldfield GS, Chaput JP, Gunnell KE, Ledoux AA, Zemek RL, Tremblay MS. [Associations between 24 hour movement behaviours and global cognition in US children: a cross-sectional observational study](#). Lancet Child Adolesc Health. 2018;2(11):783-791.
  34. Silva DAS, Lang JJ, **Barnes JD**, Tomkinson GR, Tremblay MS. [Cardiorespiratory fitness in children: evidence for criterion-referenced cut-points](#). PLoS ONE. 2018;13(8):e0201048.
  35. Cameron JD, Doucet É, Adamo KB, Walker M, Tirelli A, **Barnes JD**, Hafizi K, Murray M, Goldfield GS. [Effects of prenatal exposure to cigarettes on anthropometrics, energy intake, energy expenditure, and screen time in children](#). Physiol Behav. 2018;194:394-400.
  36. Livock H, **Barnes JD**, Pouliot C, LeBlanc AG, Saunders TJ, Tremblay MS, Prud'homme D, Chaput JP. [Watching television or listening to music while exercising failed to affect post-exercise food intake or energy expenditure in male adolescents](#). Appetite. 2018;127:266-273.
  37. Chaput JP, **Barnes JD**, Tremblay MS, Fogelholm M, Hu G, Lambert EV, Maher C, Maia J, Olds T, Onywera V, Sarmiento OL, Standage M, Tudor-Locke C, Katzmarzyk PT. [Inequality in physical activity, sedentary behavior, sleep duration, and risk of obesity in children: a 12-country study](#). Obes Sci Pract. 2018;4:229-237.
  38. Chaput JP, **Barnes JD**, Tremblay MS, Fogelholm M, Hu G, Lambert EV, Maher C, Maia J, Olds T, Onywera V, Sarmiento OL, Standage M, Tudor-Locke C, Katzmarzyk PT. [Thresholds of physical activity associated with obesity by level of sedentary behavior in children](#). Pediatr Obes. 2018;13:450-457.
  39. Manyanga T, **Barnes JD**, Tremblay MS, Katzmarzyk PT, Broyles ST, Barreira TV, Fogelholm M, Hu G, Maher C, Maia J, Olds T, Sarmiento OL, Standage M, Tudor-Locke C, Chaput JP. [No evidence for an epidemiological transition in sleep patterns among children: a 12-country study](#). Sleep Health. 2018;4:87-95.
  40. Tremblay MS, Chaput JP, Adamo KB, Aubert S, **Barnes JD**, Choquette L, Duggan M, Faulkner G, Goldfield GS, Gray CE, Gruber R, Janson K, Janssen I, Janssen X, Jaramillo Garcia A, Kuzik N, LeBlanc C, MacLean J, Okely AD, Poitras VJ, Rayner ME, Reilly JJ, Sampson M, Spence JC, Timmons BW, Carson V. [Canadian 24-Hour Movement Guidelines for the Early Years \(0–4 years\): An Integration of Physical Activity, Sedentary Behaviour, and Sleep](#). BMC Pub Health. 2017;17(Suppl 5):874.
  41. LeBlanc AG, Gunnell KE, Prince SA, Saunders TJ, **Barnes JD**, Chaput JP. [The ubiquity of the screen: an overview of the risks and benefits of screen time in our modern world](#). Transl J Am Coll Sports Med. 2017;2(17):104-113.
  42. Tremblay MS, Aubert S, **Barnes JD**, Saunders TJ, Carson V, Latimer-Cheung AE, Chastin SFM, Altenburg TM, Chinapaw MJM, SBRN Terminology Consensus Project Participants. [Sedentary Behavior Research Network \(SBRN\) – Terminology Consensus Project process and outcome](#). Int J Behav Nutr Phys Act. 2017;14(1):75.
  43. Carson V, **Barnes J**, LeBlanc CMA, Moreau E, Tremblay MS. [Increasing Canadian paediatricians' awareness and use of the new Canadian Physical Activity and Sedentary Behaviour Guidelines for ages 0 to 17 years](#). Paediatr Child Health. 2017;22(1):17-22.
  44. **Barnes JD**, Cameron C, Carson V, Chaput JP, Faulkner G, Janssen I, Janson K, Kramers R, LeBlanc AG, Spence JC, Tremblay MS. [Results from the Canadian 2016 ParticipACTION Report Card on Physical Activity for Children and Youth](#). J Phys Act Health. 2016;13 Suppl 2:S110-S116.



45. **Barnes JD**, Tremblay MS. [Changes in indicators of child and youth physical activity in Canada, 2005-2016](#). Can J Pub Health. 2016;107(6):e586-e589.
46. Chaput JP, Katzmarzyk PT, **Barnes JD**, Fogelholm M, Hu G, Kuriyan R, Kurpad A, Lambert EV, Maher C, Maia J, Matsudo V, Olds T, Onywera V, Sarmiento OL, Standage M, Tudor-Locke C, Zhao P, Tremblay MS; ISCOLE Research Group. [Mid-upper arm circumference as a screening tool for identifying children with obesity: a 12-country study](#). Pediatr Obes. 2016;12:439-445.
47. Francis CE, Longmuir PE, Boyer C, Andersen LB, **Barnes JD**, Boiarskaia E, Cairney J, Faigenbaum AD, Faulkner G, Hands BP, Hay JA, Janssen I, Katzmarzyk PT, Kemper HC, Knudson D, Lloyd M, McKenzie TL, Olds TS, Sacheck JM, Shephard RJ, Zhu W, Tremblay MS. [The Canadian Assessment of Physical Literacy: development of a model of children's capacity for a healthy, active lifestyle through a Delphi process](#). J Phys Act Health. 2016;13(2):214-222.
48. Tremblay MS, **Barnes JD**, González SA, Katzmarzyk PT, Onywera VO, Reilly JJ, Tomkinson GR, the Global Matrix 2.0 Research Team. [Global Matrix 2.0: Report Card grades on the physical activity of children and youth comparing 38 countries](#). J Phys Act Health. 2016;13 Suppl 2:S343-S366.
49. Tremblay MS, Gray C, Babcock S, **Barnes J**, Costas Bradstreet C, Carr D, Chabot G, Choquette L, Chorney D, Collyer C, Herrington S, Janson K, Janssen I, Larouche R, Pickett W, Power M, Beate Hansen Sandseter E, Simon B, Brussoni M. [Position Statement on Active Outdoor Play](#). Int J Environ Res Public Health. 2015;12(6):6475-6505.
50. Gray CE, Larouche R, **Barnes JD**, Colley RC, Cowie Bonne J, Arthur M, Cameron C, Chaput JP, Faulkner G, Janssen I, Kolen AM, Manske SR, Salmon A, Spence JC, Timmons BW, Tremblay MS. [Are we driving our kids to unhealthy habits? Results of the Active Healthy Kids Canada 2013 Report Card on Physical Activity for Children and Youth](#). Int J Environ Res Public Health. 2014;11:6009-6020.
51. Gray CE, **Barnes JD**, Cowie Bonne J, Cameron C, Chaput JP, Faulkner G, Janssen I, Katzmarzyk PT, Kolen AM, Manske SR, Salmon A, Spence JC, Timmons BW, Tremblay MS. [Results From Canada's 2014 Report Card on Physical Activity for Children and Youth](#). J Phys Act Health. 2014;11(Suppl 1):S26-S32.
52. Tremblay MS, **Barnes JD**, Cowie Bonne J. [Impact of the Active Healthy Kids Canada Report Card: A 10-year analysis](#). J Phys Act Health. 2014;11(Suppl 1):S3-S20.
53. Larouche R, **Barnes J**, Tremblay MS. [Too far to walk or bike?](#) Can J Public Health. 2013;104(7):e487-e489.
54. **Barnes JD**, Colley RC, Borghese M, Janson K, Fink A, Tremblay MS. [Results from the Active Healthy Kids Canada 2012 Report Card on Physical Activity for Children and Youth](#). Paediatr Child Health. 2013;18(6):301-304.
55. Colley RC, **Barnes JD**, LeBlanc AG, Borghese M, Boyer C, Tremblay MS. [Validity of the SC-StepMX pedometer during treadmill walking and running](#). Appl Physiol Nutr Metab. 2013;38(5):520-524.
56. **Barnes JD**, Colley RC, Tremblay MS. [Results from the active healthy kids Canada 2011 report card on physical activity for children and youth](#). Appl Physiol Nutr Metab. 2012;37(4):793-797.
57. **Sedentary Behaviour Research Network**. [Letter to the editor: standardized use of the terms "sedentary" and "sedentary behaviours"](#). Appl Physiol Nutr Metab. 2012;37(3):540-2.
58. Eslinger DW, Tremblay MS, Copeland JL, **Barnes JD**, Huntington GE, Bassett DR Jr. [Physical activity profile of Old Order Amish, Mennonite, and contemporary children](#). Med Sci Sports Exerc. 2010;42(2):296-303.

59. Tremblay MS, Esliger DW, Copeland JL, **Barnes JD**, Bassett DR. [Moving forward by looking back: lessons learned from long-lost lifestyles](#). Appl Physiol Nutr Metab. 2008;33(4):836-842.
60. Bassett DR Jr, Tremblay MS, Esliger DW, Copeland JL, **Barnes JD**, Huntington GE. [Physical activity and body mass index of children in an old order Amish community](#). Med Sci Sports Exerc. 2007;39(3):410-415.
61. Esliger DE, Copeland JL, **Barnes JD**, Tremblay MS. [Standardizing and optimizing the use of accelerometer data for free-living physical activity monitoring](#). J Phys Act Health. 2005;2(3):366-383.
62. Tremblay MS, **Barnes JD**, Copeland JL, Esliger DW. [Conquering childhood inactivity: is the answer in the past?](#) Med Sci Sports Exerc. 2005;37(7):1187-1194.

## NON REFEREED PUBLICATIONS

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1. Active Healthy Kids Canada. Don't let this be the most physical activity our kids get after school. [The Active Healthy Kids Canada 2011 Report Card on Physical Activity for Children and Youth](#). Toronto: Active Healthy Kids Canada. 2011.
2. Active Healthy Kids Canada. Is active play extinct? [The Active Healthy Kids Canada 2012 Report Card on Physical Activity for Children and Youth](#). Toronto: Active Healthy Kids Canada. 2012.
3. Active Healthy Kids Canada. Are we driving our kids to unhealthy habits? [The Active Healthy Kids Canada 2013 Report Card on Physical Activity for Children and Youth](#). Toronto: Active Healthy Kids Canada. 2013.
4. Active Healthy Kids Canada. Is Canada in the running? How Canada stacks up against 14 other countries on physical activity for children and youth. [The Active Healthy Kids Canada 2014 Report Card on Physical Activity for Children and Youth](#). Toronto: Active Healthy Kids Canada. 2014.
5. ParticipACTION. The biggest risk is keeping kids indoors. [The ParticipACTION 2015 Report Card on Physical Activity for Children and Youth](#). Toronto: ParticipACTION. 2015.
6. ParticipACTION. Are Canadian kids too tired to move? [The ParticipACTION 2016 Report Card on Physical Activity for Children and Youth](#). Toronto: ParticipACTION. 2016.
7. ParticipACTION. Canadian kids need to move more to boost their brain health. [The ParticipACTION 2018 Report Card on Physical Activity for Children and Youth](#). Toronto: ParticipACTION. 2018.
8. ParticipACTION. The role of the family in the physical activity, sedentary and sleep behaviours of children and youth. [The ParticipACTION 2020 Report Card on Physical Activity for Children and Youth](#). Toronto: ParticipACTION. 2020.

## REFERENCES

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### **Mark Tremblay, Ph.D.**

Director, Healthy Active Living and Obesity Research Group • CHEO Research Institute  
[mtremblay@cheo.on.ca](mailto:mtremblay@cheo.on.ca)

### **Jean-Philippe Chaput, Ph.D.**

Research Scientist, Healthy Active Living and Obesity Research Group • CHEO Research Institute  
[jpchaput@cheo.on.ca](mailto:jpchaput@cheo.on.ca)

### **Nick Barrowman, Ph.D.**

Senior Statistician, Clinical Research Unit • CHEO Research Institute  
[nbarrowman@cheo.on.ca](mailto:nbarrowman@cheo.on.ca)