

ABSTRACT

Schools have the potential to contribute to obesity prevention by promoting healthy eating and physical activity. Since 2004, ten Canadian provinces have created policies regarding foods and beverages that can be offered in schools, yet little is known about what Canadian children eat and drink at school, the sources of the foods and beverages consumed, and how children's dietary quality has changed, if at all, over the last decade.

Drawing from nationally representative dietary surveys, this thesis includes three studies aimed at filling knowledge gaps regarding Canadian children's dietary quality on school days. The first study characterised the dietary contributions of foods consumed during school hours relative to the overall diet, and sociodemographic factors associated with school hour dietary quality. In 2004, children age 6-17 years consumed approximately one-third of their daily calories during school hours, but energy-adjusted intake of milk products and key nutrients (for example, calcium and vitamin D) was relatively lower during school hours compared to non-school hours. Meanwhile, the school hour contribution from minimally nutritious foods was higher than the average school hour energy contribution. Differences in diet quality scores were poorly explained by sociodemographic factors, although school hour dietary quality differed by age group and province of residence.

The second study evaluated associations between lunch-time food source and children's dietary quality. In 2004, 72% of children reported bringing lunch from home, with few students obtaining lunch off-campus or at school. Children consuming foods from home had more favourable nutrient intake profiles compared to children obtaining foods off-campus. However, regardless of lunch-time food source, the quality of foods consumed was, on average, sub-optimal in relation to national dietary guidance.

The third study assessed changes in dietary quality of Canadian children from 2004 to 2015. Average self-reported dietary quality of Canadian children during school hours and on school days improved modestly but remained below national dietary standards.

More effective efforts are needed to improve Canadian children's dietary quality. Initiatives that focus on increasing the consumption of vegetables, whole fruit, whole grains and dairy products have the potential to improve Canadian children's dietary quality.

BIOGRAPHICAL NOTES

Place of Birth: Montreal, Canada

Academic Studies: B. A. McGill University, 2005
M. A. McGill University, 2007
B. Sc. McGill University, 2010

Current Position: Ph.D. candidate, UBC
Clinical instructor, UBC
Clinical Dietitian, BC Children's & Women's Hospital

GRADUATE STUDIES

Field of Study: Nutritional epidemiology

Courses

HUNU 500	Research Methods in Human Nutrition
SPPH 400	Statistics for Health Research
SPPH 500	Analytical Methods in Epidemiological Research
SPPH 510	Survey Methods in Health Measurement
HUNU 505	Current Issues in Applied Nutrition
HUNU 631	Graduate Seminar

Instructors

Dr. Gwen Chapman
Michael Marin
Michael Marin
Dr. Louise Masse
Dr. Susan Barr
Various

AWARDS

Faculty of Land and Food Systems Graduate Award
Graduate Student Travel Award
Leonard S Klinck Memorial Fellowship
Ursula Knight Abbott Travel Scholarship in Agricultural Sciences
Nutritional Research Fellowship
Danone Institute of Canada Communication Award

SELECTED PUBLICATIONS

Tugault-Lafleur C. N., Black J. L., Barr, S. I. (2017) A systematic review of methods to assess children's diets in the school context. *Advances in Nutrition*, 8(1), 63-79.

Tugault-Lafleur C. N., Black J. L., Barr, S. I. (2017) Reply to MM Graziose. *Advances in Nutrition*, 8(4):636-637.

Tugault-Lafleur, C. N., Black, J. L., & Barr, S. I. (2017). Examining school day dietary intake among Canadian children. *Applied Physiology Nutrition & Metabolism*, 42(10), 1064–1072.

Tugault-Lafleur, C. N., Black, J. L., & Barr, S. I. (2018). Lunch-time food source is associated with school hour and school day dietary quality. *Journal of Human Nutrition and Dietetics*, 31(1), 81-107.

SELECTED PRESENTATIONS

Tugault-Lafleur C.N., Black, J.L., Barr, S.I. Examining school hour dietary quality: An analysis of national dietary data from the 2004 Canadian Community Health Survey. International Society of Behavioural Nutrition and Physical Activity (ISBNPA) Annual Conference. June 7-10, 2017, Victoria (BC).

Tugault-Lafleur C.N. , Black, J.L., Barr, S.I. Lunch-time food source is associated with school hour and school day dietary intakes among Canadian children. Canadian Nutrition Society Annual Conference, May 25-27, 2017, Montreal.

Tugault-Lafleur, C.N. Examining school day dietary intakes in Canadian children. Canadian Nutrition Society Annual Meeting, Ottawa-Gatineau. May 2-5, 2016. Ottawa-Gatineau.

Tugault-Lafleur, C.N., Black, J.L., Barr, S.I. Evaluation of Methods to Assess Children's Diets in the School Context: A Systematic Review. Poster presentation at Experimental Biology annual Meeting. San Diego, CA. April 2-6, 2016. FASEB Journal (2016) 30 (1 Supp.), 1153.5.

Tugault-Lafleur, C.N., Black, J., Velazquez, C. Should Canada adopt a national school-lunch program? Examining the impact of school meal programs on children's dietary quality. Land and Food Systems graduate student conference. UBC, Vancouver, March 9, 2015.

SUPERVISORY COMMITTEE

Jennifer Black, PhD, RD
Susan I Barr, PhD, Professor Emeritus
Sharon Kirkpatrick, PhD, RD
Louise Masse, PhD



a place of mind

THE UNIVERSITY OF BRITISH COLUMBIA

Graduate and Postdoctoral Studies

PROGRAMME

The Final Oral Examination
For the Degree of

DOCTOR OF PHILOSOPHY
(Human Nutrition)

CLAIRE TUGAULT-LAFLEUR

B.Sc. McGill University, 2010
M.A. McGill University, 2007
B. A. McGill University, 2005

Thursday, May 17th, 2018, 12:30 pm
Room 203, Graduate Student Centre (6371 Crescent Road)
Latecomers will not be admitted

“Examining School Day Dietary Quality: An Analysis of National Dietary Data from the 2004 and 2015 Canadian Community Health Surveys”

EXAMINING COMMITTEE

Chair:
Prof Jason Murray Sutherland (Population and Public Health)

Supervisory Committee:
Prof Jennifer Black, Research Supervisor (Human Nutrition)
Prof Louise Masse (Population and Public Health)

University Examiners:
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Prof Jennifer Hutcheon (Reproductive and Developmental Sciences)

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