Continuing our commitment to improve the health and well-being of children and youth across Canada, and around the world.
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The Healthy Active Living and Obesity Research Group (HALO) at the Children’s Hospital of Eastern Ontario (CHEO) Research Institute is proud to present its 12th annual report. HALO had another successful and productive year in 2018, continuing our commitment to improve the health and well-being of children and youth in Ottawa, Ontario, across Canada, and around the world. In 2018 we said good-bye to Kevin Belanger, Casey Gray, Clara Moore, Jeremy Walsh and Eun-Young Lee. We welcomed several others as you will see in this report. Of note, Eun-Young Lee began a tenure-track position as Assistant Professor at Queen’s University and Christine Delisle Nyström obtained a position at the Karolinska Institute in Stockholm, Sweden. We had 6 graduate students complete their degrees (see page 12 for the full list) furthering the reach and impact of the HALO extended family, and we welcomed several new graduate students to the group. The group continues to HALOize the workplace and “walk the talk” through a variety of healthy active work initiatives - all evidence of our commitment to healthy active living. HALO is proud to be the repeat winner of the Alex Munter Cup for road hockey dominance at CHEO and maintains the right to boast about this for at least another year!

In 2018, HALO researchers published the greatest number (112) and greatest quality (15 papers published in journals with impact factor >5) of manuscripts in the Group’s history! As summarized in the “Highlights” section of the Annual Report, HALO had several notable achievements in 2018. These included the launch of the Canadian Assessment of Physical Literacy Second Edition (along with 14 peer-reviewed manuscripts in a special issue of BMC Public Health), the release and promotion of the 2018 ParticipACTION Report Card on the Physical Activity of Children and Youth, the release of the Active Healthy Kids Global Alliance “Global Matrix 3.0” in Adelaide Australia and Canada’s first “State of the Nation” report on physical literacy. With the 2018 legalization of marijuana in Canada, Dr. Chaput and Hughes Sampasa-Kanyinga published an important paper on cannabis use among adolescents in Ontario. Dr. Goldfield continued his work with his RUN study (Ramping up Neurocognition), studying the impact of a teacher-led active play intervention on kindergarten children’s cognitive, social and emotional development. Dr. Longmuir is examining how congenital heart disease impacts child physical and mental health outcomes with a randomized control trial of enhanced physical activity support in clinical care (PA TOOLKIT). Please also read the extensive list of awards HALOites received in 2018 (page 41).

In 2018 HALO signed inter-institutional Memoranda of Understanding with 3 organizations (for a total of 9) and hosted visiting scholars and students from Brazil, Sweden and the United States. In addition to Stephanie Carson’s and Jackie Lee’s weddings, HALO staff, students and alumni welcomed TEN babies to the extended HALO family in 2018 – see the special spread on this in the HALO Photo Gallery section of the Report.

Through research, leadership, knowledge translation, partnerships, training and education, and advocacy HALO works diligently to promote and preserve healthy active lifestyles while managing and treating childhood inactivity and obesity. This Annual Report provides a catalogue of the activities and accomplishments of HALO in 2018 and is intended to inform partners, stakeholders, funders, potential students and staff, and other interested parties about our group. It is available in print form upon request and also on our website at www.haloresearch.ca. HALO remains indebted to the donors, contributors, researchers, stakeholders, alumni and partners, who fund, facilitate, support and synergize our efforts. To all of you, please accept our most sincere thanks and our pledge to continue to work together for the health of our children.

Best wishes for a healthy, active 2019!

Mark Tremblay, Ph.D., D.Litt. (hons), F-CSEP, FACSM, CSEP-CEP
Director, Healthy Active Living and Obesity Research Group (HALO), CHEO Research Institute
Professor/Scientist, Department of Pediatrics, University of Ottawa
President, Active Healthy Kids Global Alliance
ABOUT HALO

Our History and Impact

The Healthy Active Living and Obesity Research Group (HALO) was established in 2007 in response to the escalating obesity crisis and the increasing complexity of related co-morbidities. Today the HALO team consists of 16 staff (including 4 research scientists), a childhood obesity clinical team (Centre for Healthy Active Living), 19 graduate students, trainees, undergraduate students, and many community volunteers.

Some of our practice-changing contributions include:

- Development of the Kenyan International Development Study – Canadian Activity Needs Research Alliance (KIDS-CAN)
- Creation of the Centre for Healthy Active Living (CHAL)
- Development of the Canadian Assessment of Physical Literacy (CAPL) and CAPL-2
- Development of the Canadian Physical Activity Guidelines and Canadian Sedentary Behaviour Guidelines
- Development of the Canadian 24-Hour Movement Guidelines for Children and Youth: An Integration of Physical Activity, Sedentary Behaviour, and Sleep - a world first
- Creation of the Sedentary Behaviour Research Network (SBRN)
- Development of Canadian 24-Hour Movement Guidelines for the Early Years
- Contribution to the development of the Canadian Obesity Network's (CON) 5 As of Healthy Pregnancy Weight Gain
- Development of an "Obesity in Preconception and Pregnancy" resource for maternity care providers
- Creation of the Active Healthy Kids Global Alliance (AHKGA)
- Leadership/contribution to Ottawa Public Health’s Childcare Healthy Eating and Active Living Guidelines
- Position Statement on Active Outdoor Play
- Co-creation of the Active Healthy Kids Canada Report Card on Physical Activity for Children and Youth which is now the ParticipACTION Report Card
- Development of the Edmonton Obesity Staging System for Pediatrics
- Co-founders of Outdoor Play Canada
- Co-developers of Expert Statement on Physical Activity and Brain Health in Children and Youth
- Development and publication of SBRN Terminology Consensus Project

Since its inception in 2007, HALO has received over $17 million in research funding; produced more than 775 peer-reviewed publications; has given more than 1300 scholarly presentations locally, nationally and internationally; and secured more than 2 billion media impressions!
Our Vision

HALO will...

Provide international leadership and research excellence as it relates to healthy active living and obesity in children and youth.

Our Mission

HALO will...

Be a multidisciplinary centre of excellence in healthy active living and obesity research for children and youth that will:

- Advance the understanding and promotion of health and wellness where children live, play and learn.
- Develop, evaluate, and mobilize innovative strategies to prevent, manage, and treat obesity and lifestyle-related diseases.

Our Lines of Business

Research

Promote and assess healthy active living among children and youth.

Identify, examine and address environmental, behavioural, psychosocial, and biological factors related to healthy active living and obesity in children and youth.

Develop, implement, and evaluate strategies to prevent, manage, and treat obesity and lifestyle-related diseases in children and youth.

Leadership

Be a credible, innovative, and authoritative source for child-focused healthy active living and obesity research, information and planning.

Training and Education

Be an internationally recognized centre for trainees, researchers and professionals interested in healthy active living and obesity research, leadership and advocacy for children and youth.

Knowledge Translation

Show leadership and innovation in translating, disseminating, and mobilizing child-focused healthy active living and obesity research.

Partnership

Use municipal, provincial, national, and international partnerships to create, promote, and evaluate healthy active living initiatives for children and youth.

Advocacy

Serve as a professional, informed, and authoritative voice to promote healthy active living and prevent obesity in children and youth.

Good Governance

Be effective, efficient, and transparent in all aspects of our work.
Biography

Dr. Chaput’s research focuses on obesity prevention and the adoption of a healthy lifestyle. He is also interested in new determinants of obesity such as lack of sleep and mental stress. Dr. Chaput has published more than 280 peer-reviewed scientific articles, has an h-index of 45 and >6,000 citations according to Scopus. He serves on many journal editorial boards and advisory committees, and has contributed to a large number of conferences around the world (>150 lectures). He received several awards for his research, including the Canadian Society for Exercise Physiology (CSEP) Young Investigator Award (2016), the Roger Broughton Young Investigator Award from the Canadian Sleep Society (2015), the International Journal of Obesity New Faculty Award from the World Obesity Federation (2014), the New Investigator Award from the Canadian Obesity Network (2010), and the New Investigator Award (2010).

Research, Clinical, Professional and Scholarly Focus and Service

Current research interests include: i) childhood obesity; ii) sleep; iii) physical activity, sedentary behaviour and health; and iv) the promotion of a healthy lifestyle.

- Academic Editor, PLOS ONE
- Editorial Board Member, Nutrition and Diabetes
- Editorial Board Member, Obesity Science and Practice
- President of the Chapter Executive Committee, Obesity Canada Gatineau-Ottawa Chapter
- Faculty Representative – Obesity Canada Students and New Professionals University of Ottawa Chapter
- Leadership Committee Member for the development of the Canadian 24-Hour Movement Guidelines for the Early Years
- Steering Committee Member for the revision of the Canadian Society for Exercise Physiology–Physical Activity for Health (CSEP-PATH) Resource Manual
- Advisory Member for the Public Health Ontario’s Healthy Kids Community Challenge Scientific Reference Committee
- Advisory Member for the Public Health Agency of Canada’s Physical Activity, Sedentary Behaviour, and Sleep Surveillance Framework
- Co-Chair of the Pediatric Committee, Canadian Sleep and Circadian Network
- Report Card Research Committee Member, ParticipACTION Report Card on Physical Activity for Children and Youth
- Spokesperson for the release of the ParticipACTION Report Card on Physical Activity for Children and Youth
- Reviewer for many scholarly journals and granting agencies
- Senior Management Committee Member, CHEO Research Institute

Graduate Students, Supervision and Training

- Hugues Sampasa-Kanyinga (University of Ottawa) – Ph.D. Supervisor (2017- )
- Caroline Dutil (University of Ottawa) – Ph.D. Supervisor (2017- )
- Ryan Featherstone (University of Ottawa) – M.Sc. Supervisor (2017- )
- Claire Johnson (University of Ottawa) – Ph.D. Co-supervisor (2015- )
- Catherine Pouliot (University of Ottawa) – M.Sc. Committee (2017-2018)
- Lyra Hallili (University of Ottawa) – M.Sc. Committee (2017-2018)
- Salomé Aubert (University of Ottawa) – Ph.D. Committee (2017- )
- Taru Manyanga (University of Ottawa) – Ph.D. Committee (2016- )
- Michael Borghese (Queen’s University) – Ph.D. Committee (2016-2018)

Memberships

- Obesity Canada
- The Obesity Society
- World Obesity Federation
- Canadian Society for Exercise Physiology
- Canadian Sleep Society
- World Association of Sleep Medicine
- Canadian Sleep and Circadian Network
- Sedentary Behaviour Research Network
Dr. Gary Goldfield is a Senior Scientist with HALO and an Associate Professor of Pediatrics, Human Kinetics, Psychology and Population Health at the University of Ottawa. He is also a registered clinical psychologist practicing in the community and sees children, adolescents and adults. Dr. Goldfield began the childhood obesity research program at the CHEO Research Institute 17 years ago and is a founding member of HALO. He has held an Endowed Scholar Award from the CHEO Volunteer Association Board, a New Investigator Award from the Canadian Institutes of Health Research, and won an Award of Excellence as Outstanding Research Mentor from the CHEO Research Institute. Dr. Goldfield’s main research interests involve evaluating novel behavioural and pharmacological interventions for the treatment and prevention of childhood obesity and related complications. He has published over 112 peer reviewed papers, has an h-index of 29 and >3,347 citations according to Scopus. Dr. Goldfield has over 150 scholarly conference presentations and published abstracts.

### Education, Credentials, Academic Appointments

- MA and PhD, Department of Psychology, Carleton University
- Post-Doctoral Fellow, Behavioural Medicine, State University of New York at Buffalo
- Registered Clinical Psychologist – College of Psychologists of Ontario
- Associate Professor, Department of Pediatrics, Faculty of Medicine, University of Ottawa
- Cross-Appointment, School of Psychology, University of Ottawa
- Cross-Appointment, School of Human Kinetics, University of Ottawa
- Cross-Appointment, Department of Population Health, University of Ottawa
- Adjunct Research Professor, Department of Psychology, Carleton University
- Senior Scientist, Children’s Hospital of Eastern Ontario Research Institute

### Biography

Dr. Goldfield is a Senior Scientist with HALO and an Associate Professor of Pediatrics, Human Kinetics, Psychology and Population Health at the University of Ottawa. He is also a registered clinical psychologist practicing in the community and sees children, adolescents and adults. Dr. Goldfield began the childhood obesity research program at the CHEO Research Institute 17 years ago and is a founding member of HALO. He has held an Endowed Scholar Award from the CHEO Volunteer Association Board, a New Investigator Award from the Canadian Institutes of Health Research, and won an Award of Excellence as Outstanding Research Mentor from the CHEO Research Institute. Dr. Goldfield’s main research interests involve evaluating novel behavioural and pharmacological interventions for the treatment and prevention of childhood obesity and related complications. He has published over 112 peer reviewed papers, has an h-index of 29 and >3,347 citations according to Scopus. Dr. Goldfield has over 150 scholarly conference presentations and published abstracts.

### Research, Clinical, Professional and Scholarly Focus and Service

Current research interests include: i) childhood obesity treatment and prevention ii) psychological determinants and consequences of childhood obesity iii) effects of physical activity and sedentary behavior on body composition and mental health; iv) determinants of the rewarding value of food and eating behavior.

- Member, Canadian 24-hour Movement Guidelines Development Committee for the Early Years.
- Member, International Network on Eating Behaviour in Children
- Member Treatment and Research of Obesity in Pediatrics in Canada (TROPIC)
- Member, Advisory Board and Program Evaluation Committee, Centre for Healthy Active Living (CHAL) at CHEO
- Member of numerous graduate student thesis Committees and external examiner, University of Ottawa and Carleton University
- Reviewer for many granting agencies and academic organizations (CIHR, Canadian Diabetes Association, CHEO Research Growth Awards, CHAMO)
- Reviewer for many scholarly journals
- Registered clinical psychologist, College of Psychologists of Ontario

### Graduate Students, Supervision and Training

- Kaamel Hafizi (University of Ottawa), M.Sc. Supervisor (2016-2018)
- Shakiba Bani Fatemi (University of Ottawa), M.Sc. Supervisor (2016-2018)
- Kent Bastell (University of Calgary), M.Sc Co-Supervisor (2016-2018)
- Angela Wilson (University of Ottawa) – Ph.D. Supervisor (2010-2017)
- Marisa Murray (University of Ottawa) – Ph.D. Supervisor (2011-2018)
- Fatima Mougharbel (University of Ottawa)-Ph.D. Supervisor (2017-2021)
- Luzia Jaeger Hintze (University of Ottawa)-Ph.D. Co-Supervisor (2012-2018)
- Fatme El Amine (University of Ottawa)-Ph.D. Co-Supervisor (2017-2020)
- Stephanie Leon (University of Ottawa), Ph.D. Committee (2012-2018)
- Jaime-Lee Yabsley (university of Ottawa), M.Sc Committee (2016-2018)
- Salma Mahmoodianfard (University of Ottawa)-Ph.D. Committee (2017-2021)
- Hugues Sampasa-Kanyinga (University of Ottawa)-Ph.D. Committee (2017-2021)
- Ryan Featherstone (University of Ottawa) – M.Sc. Committee (2017-2021)

### Memberships

- College of Psychologists of Ontario
- Canadian Psychological Association
- American Psychological Association
- Obesity Canada
- The Obesity Society
- Sedentary Behaviour Research Network
**Graduate and Undergraduate Student Clinical Supervision and Training**

- Nicholas Moroz (U. of Toronto) – Masters of Health Promotion

**Graduate Student Research Supervision and Training**

- Angelica Blais (University of Ottawa) – Ph.D. candidate (2018-2022)
  Active lifestyles via community sport for children with medical conditions
- Joel Blanchard (University of Ottawa) – Ph.D. candidate (2018-2022)
  Motor skill assessment of children/adolescents with(out) medical conditions
  Physical activity and exercise in paediatric cardiomyopathy
  Exercise capacity and physical activity in cyanotic congenital heart disease
- Jacqueline Lee (University of Ottawa) – M.Sc candidate (2017-2019)
  Exercise and executive function in adolescents with mental health problems

**Research, Clinical, Professional and Scholarly Focus and Service**

Current research interests include: i) pediatric exercise medicine, ii) role of physical activity in the physical and mental health of children with cardiac conditions, iii) physical literacy and health, iv) physical activity among children with medical conditions and disabilities, v) motivation for physical activity in paediatric clinical populations, vi) patient and family engagement, and vii) knowledge translation and mobilization.

- Invited member of the Canadian Society for Exercise Physiology Physical Activity and Lifestyle Appraisal Strategic Planning Committee
- Member of the Writing Committee on the Promotion of Physical Activity Participation in Children and Adults with Congenital Heart Disease of the American Heart Association
- Invited member of the Ontario Trails Coordinating Committee
- Member of the City of Toronto Department of Parks, Forestry and Recreation Disability Advisory Committee
- Reviewer for many scholarly journals, including Circulation, Heart, Paediatrics and Child Health, BMC Public Health, American Journal of Cardiology, and PLOS ONE
- Faculty and course development for undergraduate, graduate and post-graduate education courses related to recreation and fitness access, inclusion of people with disabilities, accessibility of natural environments, and accessibility of public rights of way

**Education, Credentials, Academic Appointments**

- MSc (1985), Department of Community Health, University of Toronto
- PhD (2010), Institute of Medical Sciences, University of Toronto
- Post-Doctoral Fellowship (2011), Labatt Family Heart Centre, SickKids, Toronto
- Senior Scientist, Children’s Hospital of Eastern Ontario Research Institute
- Associate Professor, Dept. of Pediatrics, Faculty of Medicine, University of Ottawa
- Cross-appointed, Dept of Human Kinetics, University of Ottawa
- Cross-appointed, School of Graduate and Post-graduate Studies, University of Ottawa
- College of Kinesiology of Ontario – Registered Kinesiologist
- Canadian Society for Exercise Physiology – Certified Exercise Physiologist

**Memberships**

- North American Society for Paediatric Exercise Medicine
- Canadian Society for Exercise Physiology
- American Heart Association
- American College of Sports Medicine

**Publications**

### Biography

Professor Tremblay is the Director of Healthy Active Living and Obesity Research (HALO) at the CHEO Research Institute and Professor of Pediatrics in the Faculty of Medicine, University of Ottawa. He is a Fellow of the Canadian Society for Exercise Physiology, Fellow of the American College of Sports Medicine and Adjunct/Visiting Professor at five other universities on four continents. Dr. Tremblay has published more than 450 scientific papers and book chapters and his published research has been cited >17,000 times according to Scopus. Dr. Tremblay received an honorary doctorate from Nipissing University, the Queen Elizabeth II Diamond Jubilee Medal, the Lawson Foundation 60th Anniversary Award, the Canadian Society for Exercise Physiology Honour Award, the Victor Marchessault Advocacy Award (Canadian Pediatric Society), and the Vic Neufeld Mentorship Award in Global Health Research (Canadian Coalition for Global Health). Current research interests include: i) pediatric exercise science ii) childhood obesity iii) physical literacy and health iv) physical activity, fitness and health measurement v) sedentary physiology vi) health surveillance vii) knowledge translation and mobilization.

### Education, Credentials, Academic Appointments

- MSc and PhD, Department of Community Health, University of Toronto
- Canadian Society for Exercise Physiology – Certified Exercise Physiologist
- Full Professor, Department of Pediatrics, Faculty of Medicine, University of Ottawa
- Faculty appointment in Ph.D. Program in Population Health, University of Ottawa
- Senior Research Scientist, Children’s Hospital of Eastern Ontario Research Institute
- Adjunct Professor, School of Public Health, University of Ottawa
- Adjunct Research Professor in the Department of Health Sciences, Carleton University
- Visiting Professor, Kenyatta University, Nairobi, Kenya
- Visiting Professor, University of Strathclyde, Glasgow, Scotland
- Visiting Professor, Southwest University, Chong Qing, China
- Chief Scientific Officer, ParticipACTION
- Fellow of the American College of Sports Medicine
- Fellow of the Canadian Society for Exercise Physiology

### Research, Clinical, Professional and Scholarly Focus and Service

- President of the Active Healthy Kids Global Alliance
- Founder of the Sedentary Behaviour Research Network (SBRN)
- Chair and Cofounder of Outdoor Play Canada
- Chief Scientific Officer and spokesperson for the ParticipACTION Report Card on Physical Activity for Children and Youth
- Chair, Scientific Advisory Committee and Steering Committee for the Canadian Assessment of Physical Literacy Project
- Member, ParticipACTION Research Advisory Group
- Member, Expert Advisory Committee of the Canadian Health Measures Survey, Statistics Canada
- Invited member of the World Health Organization’s 24-Hour Movement Guidelines for the Early Years Guideline Development Group
- Invited member of the Australian 24-Hour Movement Guidelines for Children and Young People and the Early Years Guideline Development Groups
- Member of the CIHR College of Reviewers
- Reviewer for many scholarly journals, granting agencies, and tenure and promotion applications

### Graduate Students, Supervision and Training

- Taru Manyanga (University of Ottawa) – Ph.D. Supervisor (2015-2019)
- Salomé Aubert (University of Ottawa) – Ph.D. Supervisor (2015-2019)
- Silvia Gonzalez (University of Ottawa) – Ph.D. Supervisor (2017-2020)
- Jeremy Walsh (University of Ottawa) – PDF Supervisor (2017-2018)
- EunYoung Lee (University of Ottawa) – PDF Supervisor (2017-2018)
- Christine Delisle Nyström – PDF Supervisor (2017-2018)
- Michelle Guerrero (University of Ottawa) – PDF Supervisor (2018-2020)
- Evan Turner (Carleton University) – M.Sc. Supervisor (2018-2020)

### Memberships

- NASPEM
- CSEP
- ACSM
- Obesity Canada
- CPHA
- PHE Canada
- ISPAH
- ISBNPA
- SBRN (Founder)
- African Physical Activity Network
- International Physical Literacy Association
- Outdoor Play Canada (Cofounder)
- Kids Brain Health Network
Kheana Barbeau completed her Honours Bachelor with a specialization in Psychology at the University of Ottawa in 2016. She is currently a second year Ph. D student in Experimental Psychology at the University of Ottawa, where she conducts research on body image, stress, and eating behaviors at the Human Motivation Laboratory. In 2016, she joined HALO as a Research Assistant where she worked on systematic reviews examining the influence of physical activity and sedentary behavior on child and youth brain health indicators. In 2018, she returned as a Research Assistant to help conduct a scoping review on family indicators and movement behaviors (e.g., physical activity, sedentary behavior, sleep) among children and youth. During her spare time, Kheana facilitates group therapy at the Hopewell Eating Disorder Center in Ottawa and plays an active role in updating and adjusting their group therapy curriculum manuals. Outside of work, she enjoys traveling, hiking, kayaking, and spending time with friends and family.

Joel Barnes completed a B.Sc. in 2001 from the University of New Brunswick and a M.Sc. in 2003 from the University of Saskatchewan. In 2010, Joel joined HALO as Knowledge Synthesis and Analysis Manager. His main responsibilities include managing the ParticipACTION Report Card on Physical Activity for Children and Youth (www.participaction.com/reportcard) and providing web programming and data management services for the HALO suite of websites (www.haloresearch.ca, www.capl-eclp.ca, www.sedentarybehaviour.org, www.activehealthykids.org). Outside of work, Joel enjoys running, whitewater canoeing, fingerstyle guitar, home renovations and reading.

Kevin Belanger has a BSc and MSc in Human Kinetics from the University of Ottawa. Kevin’s Master’s work, completed at HALO under the supervision of Dr. Kristi Adamo, involved measuring cardiorespiratory fitness levels of children with obesity, and evaluating their risk profiles after the children were stratified by a newly developed pediatric obesity screening tool. Kevin re-joined HALO in the summer of 2014 as a Research Coordinator for the CAPL-RBC Learn to Play project. Kevin enjoys several active pursuits outside of HALO which include hockey, soccer, tennis, golf, football and more!

Dr. Jameason Cameron is a research coordinator with the HALO group, working under Dr. Gary Goldfield. Dr. Cameron attained his M.Sc. while at Montfort Hospital in the Behavioural and Metabolic Research Unit, and in 2013 completed his doctorate looking at the role of appetite-related hormones, food reward, and olfaction in predicting appetite and food intake in normal weight and obese adults. Currently he is coordinating a project titled “Ramping up Neurocognition (RUN): A Randomized Controlled Pilot Trial Examining the Effects of Physical Activity Promotion on Neurocognitive Development in Young Children”. Dr. Cameron has also coordinated a now completed regulated drug trial examining the off-label use of the ADHD medication methylphenidate and its role in appetite and weight loss. Dr. Cameron’s main interests are explored using randomized controlled trials, often in paradigms of energy depletion, with the intention of identifying how physiological and behavioural changes are inter-related in the context of weight loss and body weight regulation. New topics of interest include genetic association studies examining the role of dopamine and BDNF in responses to various exercise and clinical interventions.
**Stephanie Carson** developed a true interest in preventative health after learning about the science of human health and the role lifestyle plays on health outcomes while completing her Bachelor of Health Science at the University of Ottawa. She began to look at physical activity, nutrition and healthy living as an investment, a proactive solution that can help reduce the burden of chronic lifestyle-related diseases and ultimately help improve quality of life. She moved on to pursue a Master of Science in Human Health and Nutritional Science at the University of Guelph. After completing her graduate degree she began working as a Clinical Researcher with the Ottawa Hospital Research Institute where she gained experience over the years as a Research Assistant, a Research Coordinator and a Research Manager. Stephanie is now working under Mark Tremblay as a Research Coordinator working on various projects including the SUNRISE Pilot Study and the Forest and Nature School Study. She is also working with the Outdoor Play Canada Leadership Group, the Child and Nature Alliance of Canada, and ParticipACTION. Stephanie loves to be active, warm weather, farmers markets and a fresh day planner. She is a very passionate health and wellness advocate who aims to inspire others in the community to live a healthy lifestyle.

**Natasha Cinanni** graduated from University of Ottawa with a Bachelor of Science with honours in Human Kinetics. Since then she has been an active member of rehab and physical activity in her community. As a certified Kinesiologist, she enjoys creating personalized programs for injured individuals based on their rehabilitation needs, as well as providing education on muscles surrounding injured areas and their functional purpose. With her growing interest in physical activity promotion, Natasha now enjoys completing assessments and working to find healthy lifestyles for children with heart defects. With her love for children and physical activity, Natasha passionately works on the Toddler Study here at CHEO. Working under the supervision of Pat Longmuir, she helps with an array of projects: Access ON, CHEO Physically Literacy, Fearless, Putting PL, Exercise Counselling, ReACH, CSEP GAQ, Teen Cardiac, etc. Through the British Association of Teachers of Dancing, Natasha has completed her Associate Teachers Certification in tap, jazz, modern, stage and hip hop. Natasha continues to be an active member of the British Association of Teachers of Dancing by attending dance classes and teaching at Cumbrae School of Dance. She has been able to use all these acquired skills for several years to continuously aid in her extensive experience in community health, raising awareness to increase physical activity, and active rehabilitation.

**Megan Forse** completed her Bachelor in Science with a specialization in Life Sciences at Queen’s University in 2018. In 2016 she joined the HALO team as a summer student and returned in 2018 as a Research Assistant where worked on projects including the SUNRISE Study and the Forest and Nature School Study. Megan is returning to school in 2019 to complete her MBA at Dalhousie University with a specific interest in consulting and finance. Outside of work, Megan enjoys hiking, yoga, going to the gym and traveling with friends and family.
**Dr. Casey Gray** joined the HALO team in March 2013 as Project Manager. Her main research areas are risky active outdoor play, systematic reviews, and guideline development. Casey moved to Ottawa in 2011 after completing her Ph.D. in Kinesiology at Western University where she examined psycho-social determinants of children’s physical activity. Prior to this, she earned an MA in Applied Health Sciences from Brock University and a BHK in Leisure and Sport Management from the University of Windsor. Outside of work Casey enjoys being Ruby’s mom and spending time at “the cottage”.

**Hélène Larocque** obtained her Certification as an Administrative Professional – with additional certifications in Organizational Management (November 2009), Microsoft Office Specialist (May 2013) and Technology Applications (September 2014) through the International Association of Administrative Professionals. She provides administrative, human resource and financial services assistance to the Director and the HALO team (since November 2010). Originally from Northern Ontario (Sudbury), she brings over 30 years of experience in office administration. She is an active volunteer within CHEO as the Staff Forum Co-Chair. Beyond her role with HALO, Hélène’s passion and interest for walking the HALO talk is evident as she launched the Staff Forum Fit & Well Group (formerly Fit Club) organizing weekly walking group meetings and monthly Lunch and Learn sessions focused on healthy living. She most recently obtained her Certification as a Wellness Coach with the International Association of Wellness Professionals and is a Registered Health Coach with the Canadian Health Coach Alliance. She is also a long time active member (> 12 years) as a Community Team Member, Team Leader and Coach with reputable online fitness and healthy living programs. Other areas of interest include walking/hiking, swimming, dancing, traveling to sunny destinations, continuous personal development, teaching and writing.

**Clara Moore** completed her BSc in Human Kinetics in 2015 and MSc in Human Kinetics in 2017, both from the University of Ottawa. During her Masters Clara investigated different methods through which people can learn novel motor skills. Clara joined the HALO team in 2017 as a Research Assistant coordinating the Access ON project focusing on assessing and supporting the physical literacy of children with medical conditions and disabilities. Outside her work at HALO Clara enjoys running, biking, playing hockey and spending time with family and friends.

**Sophia Roubos** completed her BSc. in Kinesiology in 2016 at Queen’s University. She then moved to Ottawa and completed her MSc. in Human Kinetics in 2018, where her thesis focused on the influence of exercise during weight loss on muscle remodeling. In June of 2018, Sophia joined the HALO team as a research assistant, coordinating the Access ON project. Outside of her work at HALO Sophia enjoys being active through Olympic weightlifting and CrossFit.
JENNA YARASKAVITCH completed a Bachelor of Science in Kinesiology at Queen’s University in 2015. She continued on to pursue a Master of Human Kinetics (MHK) in Intervention and Consultation at the University of Ottawa. Jenna is a Registered Kinesiologist with the College of Kinesiologists of Ontario. She joined the HALO team as a Research Assistant in 2016. Jenna is responsible for the coordination of the Physical Activity ToolKit study which examines the impact of enhanced physical activity support in clinical care for youth living with congenital heart defects. Outside of her work at HALO, Jenna keeps busy as a competitive volleyball coach, participating in recreational sports, and being active outdoors with friends and family.

Figure 1: Trends in number of Full Time Equivalent (FTE) positions with the HALO Research Group over the years.
HALO proudly displays the names of students who have completed their degree on a plaque in the main office. In 2018, the following 6 students were added to the plaque (for a total of 28 to date):

- Angelica Zoe Blais – M.Sc.
- Holly Livock – M.Sc.
- Kevin Moncion – M.Sc.
- Marisa A. Murray – Ph.D.
- Shakibasadat Bani Fatemi – M.Sc.

**SALOMÉ AUBERT**

**Supervisor:** Dr. Mark Tremblay

**Research Program:** Ph.D. Population Health, University of Ottawa

**Dissertation Topic:** Active Healthy Kids Global Alliance “Global Matrix” Initiative: Process, Results, Impact and Evaluation

**SHAKIBASADAT BANI FATEMI**

**Supervisor:** Dr. Gary Goldfield and Dr. Eric Doucet

**Research Program:** M.Sc. Human Kinetics, University of Ottawa

**Thesis Topic:** The effect of MPH on Energy Intake and Body composition.

**ANGELICA BLAIS**

**Supervisor:** Dr. Pat Longmuir

**Research Program:** Ph.D. Human Kinetics, University of Ottawa

**Thesis Topic:** Developing Physical Literacy while living with a Chronic Medical Condition: The Pediatric Perspective.
JOËL BLANCHARD
Ph.D. Student
Supervisor: Dr. Pat Longmuir
Research Program: Ph.D. Human Kinetics, University of Ottawa
Thesis Topic: Moderate to Severe Congenital heart diseases and Canadian Agility and Movement Skill Assessment (CAMSA): the impact of physical activity and deep hypothermic circulatory arrest on motor skills development

CAROLINE DUTIL
Ph.D. Candidate
Supervisor: Dr. Jean-Philippe Chaput and Dr. Anthony Carlsen
Research Program: Ph.D. Human Kinetics, University of Ottawa
Thesis Topic: Sleep Manipulation in Adolescents at Risk of Type 2 Diabetes (SMART2D) study

RYAN FEATHERSTONE
M.Sc. Candidate
Supervisor: Dr. Jean-Philippe Chaput
Research Program: M.Sc. Human Kinetics, University of Ottawa
Thesis Topic: Effect of a sleep intervention on mental health problems of adolescents who are at risk for type 2 diabetes mellitus.

SILVIA GONZÁLEZ
Ph.D. Candidate
Supervisor: Dr. Mark Tremblay
Research Program: Ph.D. Epidemiology, University of Ottawa

KAAMEL HAFIZI
M.Sc. Candidate
Supervisor: Dr. Gary Goldfield
Research Program: M.Sc. Human Kinetics, University of Ottawa
**TYLER KUNG**  
**M.Sc. Candidate**  
**Supervisor:** Dr. Pat Longmuir and Dr. Kristi Adamo  
**Research Program:** M.Sc. Human Kinetics, University of Ottawa  
**Thesis Topic:** The relationship between submaximal exercise capacity and physical activity behaviours in children with complex congenital heart disease.

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**JACKIE LEE**  
**M.Sc. Candidate**  
**Supervisor:** Dr. Pat Longmuir  
**Research Program:** M.Sc. Human Kinetics, University of Ottawa  
**Thesis Topic:** The effect of exercise on executive control: Improving the effectiveness of therapy for youth with mental illness.

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**HOLLY LIVOCK**  
**M.Sc. Candidate**  
**Supervisor:** Dr. Jean-Philippe Chaput  
**Research Program:** M.Sc. Human Kinetics, University of Ottawa  
**Thesis Topic:** Does exercising with a screen or music lead to post-exercise energy compensation in adolescent boys?

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**TARU MANYANGA**  
**Ph.D. Candidate**  
**Supervisor:** Dr. Mark Tremblay  
**Research Program:** Ph.D. Epidemiology, University of Ottawa  
**Dissertation Topic:** Relationships between lifestyle behaviours and weight status in Mozambican children: a search to understand lifestyle transitions in a developing country.

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**KEVIN MONCION**  
**M.Sc. Candidate**  
**Supervisor:** Dr. Pat Longmuir and Dr. Kristi Adamo  
**Research Program:** M.Sc. Human Kinetics, University of Ottawa  
**Dissertation Topic:** Investigating the exercise capacities and physical activity behaviours in children with cardiomyopathy.
<table>
<thead>
<tr>
<th>Name</th>
<th>Status</th>
<th>Supervisor</th>
<th>Research Program</th>
<th>Dissertation Topic</th>
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<tr>
<td>Fatima Mougharbel</td>
<td>Ph.D. Student</td>
<td>Dr. Gary Goldfield</td>
<td>Ph.D. Population Health, University of Ottawa</td>
<td>Investigating the longitudinal impact of weight-based teasing in overweight and obese children and adolescents on mental health, disordered eating behaviour and eating disorders, and BMI longitudinally, and identifying the moderating effect of gender, weight status, social support and attachment on this relationship.</td>
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<tr>
<td>Marisa Murray</td>
<td>Ph.D. Candidate</td>
<td>Dr. Gary Goldfield</td>
<td>Ph.D. Clinical Psychology, University of Ottawa</td>
<td>Screen Time Activities and Depressive Symptomatology Among Adolescents: A Longitudinal Investigation of Cognitive, Behavioural, Affective, and Interpersonal Factors.</td>
</tr>
<tr>
<td>Hughes Sampasa-Kanyinga</td>
<td>Ph.D. Candidate</td>
<td>Dr. Jean-Philippe Chaput and DR. Ian Colman</td>
<td>Ph.D. in Epidemiology and Public Health</td>
<td>Movement behaviours and mental health in children and adolescents.</td>
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<tr>
<td>Evan Turner</td>
<td>M.Sc. Student</td>
<td>Dr. Mark Tremblay</td>
<td>M.Sc. Health Sciences, Carleton University</td>
<td>SUNRISE Pilot Study: Canadian Surveillance Study of Movement Behaviours in the Early Years</td>
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<tr>
<td>Angela Wilson</td>
<td>Ph.D. Student</td>
<td>Dr. Gary Goldfield</td>
<td>Ph.D. Clinical Psychology, University of Ottawa</td>
<td>Identifying mediators and moderators of the obesity-depression link in children and adolescents.</td>
</tr>
</tbody>
</table>
**JAMIE-LEE YABSLEY**  
**M.Sc. Candidate**

**Supervisor:** Dr. Jean-Philippe Chaput and Dr. Kristi Adamo

**Research Program:** M.Sc. Human Kinetics, University of Ottawa

**Dissertation Topic:** Validation of a child version of the three-factor eating questionnaire.

**Figure 2:** Trend in number of Full Time Equivalent (FTE) graduate students in the HALO Research Group over the years.
**POST-DOCTORAL FELLOWS**

**Dr. Christine Delisle Nyström** joined the HALO Research Group in January of 2018 after completing her PhD degree at Karolinska Institutet in Stockholm, Sweden, where her thesis focused on obesity prevention in pre-school aged children. Her main research interests are early-life factors such as physical activity, sedentary behaviour, screen time, and diet that may be important for the establishment of childhood overweight and obesity. She also has an interest with how smartphones can be used to deliver interventions to promote a healthy lifestyle and prevent overweight and obesity in young children. Christine’s main research at HALO is secondary data analysis within the Canadian Assessment of Physical Literacy project. Outside of research, Christine has an avid interest in sports and played bandy in the elite league in Sweden as well as with the Canadian team up until 2017.

**Dr. Michelle Guerrero** is a postdoctoral fellow with the HALO group. Her main research interests include: (a) children’s outdoor play and learning, (b) disability sport and exercise, and (c) the promotion of healthy living via psychological techniques. To date, she has published 25 peer-reviewed journal articles and book chapters and delivered 38 scholarly presentations. Dr. Guerrero was one of two winners of the 2017-18 Governor General’s Gold Medals at the University of Windsor in recognition of her academic excellence at the graduate level. Dr. Guerrero’s primary research project at HALO focuses on the examination of the Forest and Nature School early childhood education program and its effect on physical, psychosocial, and cognitive outcomes. Outside of work, Michelle enjoys standup paddle boarding, yoga, boating, hiking, and travelling. She is an enthusiast of podcasts, music, coffee, and Netflix documentaries. She thinks she can sing and dance, and aspires to be Beyoncé.

**Dr. Eun-Young Lee** is a postdoctoral fellow with the HALO group. Her main research interests include studying the correlates and determinants of physical activity and sedentary behavior, and how these behaviors impact health and well-being among young people (0-17 years) within a culture and across cultures. To date, she has published 34 peer-reviewed articles and delivered 54 scholarly presentations. Dr. Lee’s main research projects at HALO include 1) a pilot assessment of the impact of the Forest and Nature School early childhood education program among children in the early years, and 2) the development of a self-report measure of active play for children aged 2-13 years. Outside of research Dr. Lee enjoys watching TV (in a reclined position), cuddling with her dogs, and tasting craft beer with friends. She is also a 3rd degree black belt in Taekwondo, avid skier, and amateur rock climber.

**Dr. Shikha Saxena** is a postdoctoral fellow with the HALO group. She is a physiotherapist by training and completed her PhD in Rehabilitation Science at McGill University, Montreal, QC. Her main research interests are to improve physical functioning in children with disabilities by using a combination of clinical and knowledge translation approaches. Her current project aims at exploring the perspectives of health and community professionals towards using physical literacy programs for children with disabilities across Canada. While at HALO, she also worked on another project that measured the physical literacy levels of children with medical conditions using the Canadian Assessment of Physical Literacy. Outside of research, she enjoys listening music, hiking, playing with her dog and spending time with family and friends.
**Dr. Jeremy Walsh** joined the HALO team in September of 2017 after completing his PhD in exercise physiology at Queen’s University in Kingston, ON. Broadly speaking, Jeremy’s research has focused on understanding how a single session of exercise (aerobic or resistance) impacts brain health. Specifically, this research has focused on investigating the mechanisms by which exercise transiently boosts cognitive function and brain physiology in order to strategically use exercise to enhance brain function prior to a mentally challenging activity (i.e., in the classroom). During his graduate studies, Jeremy explored these questions in healthy young and older adults. While at HALO, Jeremy’s research will focus on extending these investigations in children, and to examine brain function in children within the broader context of 24-hour movement behaviours. Outside of research, Jeremy has a keen interest in outdoor activities including trekking, camping, and cycling.

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**HALO CLINICAL ASSOCIATES**

**Dr. Annick Buchholz** is a clinical psychologist, and lead in outcomes management and research at the Centre for Healthy Active Living (CHAL). Dr. Buchholz was previously involved in the development of the eating disorder day treatment and inpatient programs at CHEO; and, along with her colleagues in eating disorders, implemented outcomes measurement for both these programs. Dr. Buchholz has also been involved in the development and evaluation of the prevention program ‘BodySense’; a program aimed at promoting healthy body image in athletes. She is a co-investigator on the REAL study, ‘Research on Eating and Adolescent Lifestyles, an Ottawa-based longitudinal study examining shared risk factors between eating disorders and obesity in youth. Her research interests include psychosocial risk factors related to body image, stigma, disordered eating, and weight regulation in children and youth, as well as treatment outcomes.

**Dr. Stasia Hadjiyannakis** is a pediatric endocrinologist and the Medical Director of CHEO’s Center for Healthy Active Living. She is an Associate Professor of Pediatrics at the University of Ottawa and has been an active member of the Department of Pediatrics at CHEO in the division of endocrinology since November 2001. Her clinical, advocacy and research interests are in the area of pediatric obesity and related co-morbidities. Her research interests are in examining the interplay between behavioural/psychosocial, genetic and intrauterine factors in predicting risk for obesity related co-morbidities.

**Jane Rutherford** graduated from the University of Guelph with a Masters in Nutrition, Exercise & Metabolism, and then worked in cardiac rehabilitation and sports medicine at the Ontario Aerobics Centre and was a Fitness Consultant at Guelph’s Health and Performance Centre. Since its inception in 2010, Jane has been the Exercise Specialist for CHEO’s Centre for Healthy Active Living where she works with families to create a balance between physical activity, sleep and screen time, helping them to achieve their best possible health – both mental and physical.
AFFILIATE INVESTIGATORS

**DR. KRISTI ADAMO**
Associate Professor & CIHR New Investigator
Associate Professor with Faculty of Medicine, Pediatrics
School of Human Kinetics, Faculty of Health Sciences
University of Ottawa
Ottawa, ON

**DR. VALERIE CARSON**
Associate Professor
Faculty of Kinesiology, Sport, and Recreation
University of Alberta
Edmonton, AB

**DR. RACHEL COLLEY**
Senior Research Analyst, Health Analysis Division
Statistics Canada, Government of Canada
Ottawa, ON

**DR. KATIE GUNNELL**
Assistant Professor
Department of Psychology, Faculty of Arts and Social Sciences
Carleton University
Ottawa ON

**DR. AMY LATIMER-CHEUNG**
Associate Professor
School of Kinesiology and Health Studies
Queen’s University
Ottawa, ON
RICHARD LAROCHE, PhD
Assistant Professor, Public Health
Faculty of Health Sciences
University of Lethbridge
Lethbridge, AB

DR. MARGARET SAMPSON
Librarian
Children’s Hospital of Eastern Ontario
Ottawa ON

DR. BRIAN TIMMONS
Associate Professor of Pediatrics
Canada Research Chair in Child Health & Exercise Medicine
McMaster University
Hamilton, ON
**WHERE ARE THEY NOW – 2018 UPDATES FROM FORMER HALO’ITES**

**Stacey Alpous** (2012-2016) is a Junior Policy Analyst in Policy and Government Relations at the Canadian Institutes of Health Research (CIHR). She is very thankful for the wonderful friendships and experiences that stemmed from her time at HALO.

**Kevin Belanger** (2011-2018) joined the Natural Sciences and Engineering Research Council of Canada (NSERC) as a Program Officer in May 2018. Kevin, along with four other Program Officers, oversees the Research Tools and Instruments Grant program which fosters the discovery, innovation and training capability of university researchers in the natural sciences and engineering by supporting the purchase of research equipment.

**Priscilla Belanger** (2012-2014) is an Outreach Facilitator for the Ottawa Model for Smoking Cessation (OMSC) program at the University of Ottawa Heart Institute, Department of Prevention and Rehabilitation. She facilitates the implementation, evaluation and quality improvement of the OMSC in hospitals and clinics across Ontario and Quebec. She’s also a mom to 2 wonderful kiddos!

**Michael Borghese** (2010-2015) completed a PhD in Physical Activity Epidemiology at Queen’s University. He now works at Health Canada as an Epidemiologist and studies the effects of prenatal exposure to environmental chemicals on the health of pregnant women and children.

**Charles Boyer** (2011-2014) is a Senior Researcher and Executive Network Manager at The Conference Board of Canada. He manages a professional network of employers from across Canada who lead health, wellness, and safety initiatives within their respective organizations. Charles still exercises with fellow HALO’ites at lunch time as his office is right beside CHEO.

**Peter Breithaupt** (2009-2011) is a Sessional Professor for the Fitness and Health Promotion program in Algonquin College’s department of Wellness, Research, and Innovation. When not teaching, he runs Certified Personal Trainer workshops and certification courses for CSEP, does exercise stress testing for a local medical clinic, and spends any additional free time coaching competitive minor hockey or trying to keep up with his own fitness through a variety of sports.

**Kendra Brett** (2010-2015) is a Clinical Research Officer in medical devices at CADTH in Ottawa. CADTH is an independent, not-for-profit that provides objective evidence to health care decision-makers. In her free time, Kendra is the Director of the Environment Committee for her community association, and volunteers with a musical theatre company.

**Cynthia K. Colapinto** (2008-2013) is a Senior Scientific Advisor with Health Canada’s Office of Nutrition Policy and Promotion. In this role, Dr. Colapinto leads the Evidence Review Team. Her team examines the scientific evidence that underpins the federal Healthy Eating Strategy, including the revised Canada’s Food Guide policy, which was released in January 2019. Dr. Colapinto was also a principal writer on the 2019 Canada’s Food Guide policy report. Dr. Colapinto analyses Canadian Community Health Survey - Nutrition data to describe dietary intakes in the Canadian population. Dr. Colapinto recently accepted a one-year assignment as a Senior Advisor to the Director General of the Policy, Planning and Integration Directorate in the Healthy Environments and Consumer Safety Branch at Health Canada.

**Rachel Colley** (2008-2014) is now working as a Senior Research Analyst in the Health Analysis Division at Statistics Canada. Her work is still focused on health, physical activity and obesity research. While she is not at HALO anymore, Rachel continues to collaborate with HALO on a few projects.

**Zach Ferraro** (2008-2012) is a resident obstetrical & gynecological surgeon (Ob/Gyn) at the University of Toronto. After completing his PhD with HALO, he completed his postdoctoral fellowship at the Ottawa Hospital Research Institute and his MD at the University of Ottawa. He continues to work as a clinician-investigator in reproductive sciences with a focus on nutrition, physical activity, and weight management in pregnancy. In his spare time he loves cycling, working out, and socializing with friends and family.

**Amélie Fournier** (2013-2015) moved to Montréal, QC, in August 2015. She is now completing her fourth year of Dental School at McGill University.
Kimberly Grattan (2011-2016) is an Outreach Facilitator in the Department of Cardiac Prevention and Rehabilitation at the University of Ottawa Heart Institute. She helps facilitate the Ottawa Model for Smoking Cessation (OMSC) program in Primary Care settings throughout Ontario. Kimberly continues to stay connected to HALO through her deep-seated friendships and is grateful for the time she spent at HALO.

Casey Gray (2013-2018) is a Clinical Research Officer at CADTH (the Canadian Agency for Drugs and Technologies in Health). Casey continues to promote outdoor play at every opportunity and is looking forward to welcoming a new little-HALO’ite in August.

Nina Hedayati (2017) is a PhD student in Psychology (Cognitive Neuroscience field) at Wilfrid Laurier University.

Sonia Jean-Philippe (2012-2013) is a registered dietitian working for Ottawa Public Health. Her work includes content development for social media platforms, nutrition support to parents in the community through Parenting in Ottawa Facebook and website, addressing public health issues such as the unhealthy food environment, marketing of food and beverages to children, food literacy and more. Sonia and Peter welcomed their first little one in the past year (Léala Breithaupt - March 13, 2018).

Justin Lang (2013-2018) is a Research Analyst at the Public Health Agency of Canada in the Applied Research Division. He helps conduct applied research to help inform policy decision making in the areas of mental health, substance misuse, and healthy living.

Allana LeBlanc (2010-2015) is an Epidemiologist with the Centre for Surveillance and Applied Research at the Public Health Agency of Canada. Allana is enjoying being in Ottawa with her family and has taken advantage of being so close to Gatineau Park and the Rideau Canal.

Geneviève Leduc (2012-2018) is Programs and Evaluation Advisor for the FitSpirit Foundation whose mission is to help teenage girls discover the benefits and the fun of being physically active. She is enjoying living in Québec City and taking advantage with her family of the extraordinary amount of snow that covers the city every winter!

Eun-Young Lee (2017-2018) is an Assistant Professor at Queen’s University. Lee’s research focuses on physical activity and population health in cross-cultural and global contexts, with specific interests in the levels and determinants of 24-hour movement behaviour in young people (0-17 years).

Holly Livock can still be seen around the halls of the CHEO Research Institute. She has joined the Division of Orthopedic Surgery research team at CHEO. She enjoys her continuing friendships with the HALO group through lunches and the occasional road hockey game!

Danijela Maras (2010-2013) is completing her PhD in Clinical Psychology at the University of Ottawa. Her doctoral research is supported by Mental Health Research Canada and examines group psychotherapy outcomes among adults living with chronic medical conditions at The Ottawa Hospital Rehabilitation Centre. Danijela and her husband are enjoying life with their daughter, Eliana, who is excited to become a big sister this summer.

Kevin Moncion (2015-2018) is a Dual Degree Physiotherapy and PhD Student in Rehabilitation Sciences at McMaster University. Kevin enjoyed his time at HALO and remains in touch with many HALO’ites.

Clara Moore (2017-2018) is a Clinical Research Project Manager for the Complex Care Program at the Hospital for Sick Children. She is grateful for the experience she gained at HALO while having the opportunity to work with many individuals who share similar passions and interests for physical activity promotion.

Nicholas Moroz (2018) is currently completing a Master’s of Public Health degree at the University of Toronto. He enjoyed his summer practicum at HALO and continues to be inspired by the work that is being done there. He especially enjoyed the summer road hockey tournaments and the engaging atmosphere that promotes healthy living at HALO!
Stella K. Muthuri (2010-2014) now lives in Nairobi, Kenya, and works as a Research Specialist at the East Africa Research Hub of the Research and Evidence Division in the Department of International Development, UK. Stella continues to contribute towards improved options for healthy active living among school-aged children in the country and region. She is thrilled to be living close to her family and friends.

Veronica Poitras (2014-2017) is a Clinical Research Officer at CADTH (the Canadian Agency for Drugs and Technologies in Health). She remains passionate about healthy active living in both her personal and professional life, and continues to collaborate with HALO!

Stefanie Prince Ware (2008-2011) is a CIHR Health System Impact Fellow working with the Centre for Surveillance and Applied Research at the Public Health Agency of Canada and the Division of Cardiac Prevention and Rehabilitation at the University of Ottawa Heart Institute. Her research focuses on the measurement of sedentary behaviours and associations with cardiometabolic health, interventions to reduce sedentary behaviour in at-risk populations, and the influence of the built and social environments on physical activity and sedentary behaviour.

Travis Saunders (2009-2013) is an Assistant Professor and the Jeanne and J.-Louis Lévesque Research Professor in Nutrisciences and Health at the University of Prince Edward Island. His research focuses on the health impact of sedentary behaviour in children and adults.

Kylie Schibli (2017-2018) is currently completing a Masters in Social Work at Carleton, and when not studying she is busy running around chasing after her daughter Eva!! Once she started walking there was no stopping her!

Diego Silva (2017-2018) is an Associate Professor at Federal University of Santa Catarina, Brazil. His research focuses on epidemiology of physical activity, health related physical fitness and body composition in global contexts. He loves beer and soccer!
**VISITORS AND INVITED SPEAKERS**

**DR. DIEGO AUGUSTO SANTOS SILVA**  
*Visiting Scholar from Brazil – August 2017 to July 2018*

Dr. Silva is a Brazilian Scientist with a multidisciplinary background. He completed his undergraduate studies (in Kinesiology) in 2007 by the Federal University of Sergipe, Brazil. During the Master’s course in Kinesiology at the Federal University of Santa Catarina (UFSC), Brazil, he investigated the effect of high intensity physical exercise on obese children. In PhD studies in Kinesiology (UFSC), Dr. Silva investigated the relationship between obesity and hypertension in adults. Dr. Silva is interested in epidemiological studies and is part of different projects with researchers from Brazil, Canada, the United States and Portugal. He is an Associate Professor at the Federal University of Santa Catarina, Brazil, and has research projects in the areas of physical activity and health, body composition, sedentary behavior, and health-related Physical fitness. He is the leader of the Research Center in Kinanthropometry and Human Performance, Editor-in-Chief of the Brazilian Journal of Kinanthropometry and Human Performance, and he is anthropometrist level 3 of International Society for the Advancement of Kinanthropometry (ISAK).

**DR. BRIAN TIMMONS**  
*Visiting Scholar from McMaster University – November 2017 to April 2018*

Dr. Brian Timmons is Canada Research Chair (Tier 2) in Child Health & Exercise Medicine, and Associate Professor of Pediatrics at McMaster University. He is Research Director and Clinical Development Lead of the Child Health & Exercise Medicine Program, Associate Member in the Department of Kinesiology, and Investigator with CANChild Centre for Childhood Disability Research. Brian’s research program examines 3 inter-related themes: translational science, clinical innovation, and public health, using a lab bench to park bench approach.

Dr. Timmons also presented at CHEO Grand Rounds in February 2018 “Physical activity recommendations for children with a chronic medical condition or disability: What is the evidence?”

**DR. LEONARD EPSTEIN**  
*SUNY Distinguished Professor, Department of Pediatrics, Community Health and Health Behavior and Social and Preventative Medicine, Chief, Division of Behavioural Medicine, University of Buffalo*

presented at CHEO Grand Rounds in January 2018 “Leadfoot and worn brakes: Reinforcement Pathology and Obesity”.

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**HALO ANNUAL REPORT 2018**  
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**CHEO – RESEARCH INSTITUTE**
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<thead>
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<th>NAME</th>
<th>ROLE</th>
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<tr>
<td>Emma Avon</td>
<td>Student</td>
<td>Physical activity and the brain</td>
<td>Dr. Mark Tremblay</td>
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<td>Dr. Jeremy Walsh</td>
</tr>
<tr>
<td>David Burbidge</td>
<td>Volunteer</td>
<td>Sleep extension and neurocognition in adolescents</td>
<td>Dr. Jean-Philippe Chaput</td>
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<tr>
<td>Brandon Heidinger</td>
<td>Volunteer</td>
<td>Ramping up neurocognition (RUN): effects of physical activity on cognitive development in kindergarten children</td>
<td>Dr. Gary Goldfield</td>
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<td>Connor O’Reilly</td>
<td>Volunteer</td>
<td>Effects of prenatal smoking on adiposity and metabolism in young children</td>
<td>Dr. Gary Goldfield</td>
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<td>Robert Pap</td>
<td>Student</td>
<td>SMART2D</td>
<td>Dr. Jean-Philippe Chaput</td>
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<td>Catherine Pouliot</td>
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<td>Exercising with a screen or music and post-exercise energy compensation: a RCT in male adolescents</td>
<td>Dr. Jean-Philippe Chaput</td>
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<td>Sean Selbie</td>
<td>Undergraduate Thesis</td>
<td>Ramping Up Neurocognition (RUN): Effects of physical activity on cognitive development in children</td>
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<td>Alex Taranowski</td>
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<td>Elizabeth Thibault</td>
<td>Student</td>
<td>Can Play</td>
<td>Dr. Pat Longmuir</td>
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<td>Evan Turner</td>
<td>Summer Research Student</td>
<td>Global Matrix 3.0 and SUNRISE projects</td>
<td>Dr. Mark Tremblay</td>
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<td>Dipika Wadhera</td>
<td>Student</td>
<td>Sleep manipulation and learning memory consolidation in adolescents</td>
<td>Dr. Jean-Philippe Chaput</td>
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<tr>
<td>Veronica Zuccala</td>
<td>Summer Research Student</td>
<td>Active transportation and independent mobility in children</td>
<td>Dr. Mark Tremblay</td>
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HALO'S TRUE PRODUCTIVITY
H A L O  B A B I E S
2 0 1 8
The HALO Family 2018
Rockstar Presenters
Movement to Move Conference
Adelaide, Australia
Annual HALO BBQ
CHEO Holiday Fun

Road Hockey

CHEO RI Awards

HALO Weddings
CANNABIS USE AMONG ADULTS IN ONTARIO

Principal Investigator: Dr. Jean-Philippe Chaput
Graduate student assigned to this project: Hugues Sampasa-Kanyinga

Background: Cannabis use can have serious detrimental effects in children and adolescents. It is therefore important to continually assess the use of cannabis among young people in order to inform prevention efforts. Given the legalization of recreational cannabis in Canada in 2018, it is crucial to gain more understanding on sociodemographic characteristics and behavioural factors associated with cannabis use among adolescents because (1) cannabis is the most commonly used illegal drug among youth in Canada, (2) such knowledge could constitute baseline data necessary for surveillance and evaluation of the effects of legalization on patterns of cannabis use and related factors and (3) adolescents are more vulnerable to the adverse effects of cannabis than adults.

Objective: To assess the prevalence of cannabis use among middle and high school students in Ontario and to examine the association with demographic and behavioural factors.

Methods: Data were obtained from the Ontario Student Drug Use and Health Survey, a province-wide school-based survey of students in grades 7 through 12. Analyses included a representative sample of 9920 middle and high school students. Bivariate cross-tabulations and logistic regression analyses were used to examine the factors associated with cannabis use.

Results: Overall, 21.5% and 13.9% of students reported using cannabis in the previous year and previous month, respectively. The conditional probability that an adolescent who reported cannabis use in the previous year would report daily use was 12.5%. There was a significant dose-response gradient with age, with older students being more likely to use cannabis than younger students. In multivariable analyses, being in grades 10 through 12 (odds ratios [ORs] ranged from 3.71 to 3.85), being black (OR: 2.67), using tobacco cigarettes (OR: 10.10) and being an occasional (OR: 5.35) or regular (OR: 14.6) alcohol user were associated with greater odds of cannabis use. Being an immigrant was associated with lower odds of cannabis use (OR: 0.55).

Conclusion: The findings suggest that cannabis use is prevalent among middle and high school students in Ontario and is strongly associated with tobacco cigarette smoking and alcohol consumption. Future research should document trends in cannabis use over time, including its risks, to determine the impact of recreational cannabis legalization in Canada.

**RAMPING UP NEUROCOGNITION (RUN): THE IMPACT OF A TEACHER-LED ACTIVE PLAY INTERVENTION ON KINDERGARTEN CHILDREN’S COGNITIVE, SOCIAL AND EMOTIONAL DEVELOPMENT**

**Principal Investigator:** Dr. Gary Goldfield


**Funding Source:** Social Sciences and Humanities Research Council ($271,280)

**Background:** Only 15% of children aged 3-5 years meet the Canadian physical activity (PA) and sedentary behavior (SB) guidelines. This is alarming given PA and SB habits start young and track over time, and are associated with many health outcomes. Indeed, early childhood represents a critical period of brain development that lays the foundation for future cognitive growth and academic achievement. Our team has conducted several provider-teacher led interventions demonstrating increased PA and reduced SB in children aged 3-5 years, but very few intervention studies have examined neurocognitive outcomes in this population.

**Primary Objective:** To evaluate the feasibility and efficacy of a kindergarten-based and teacher-led PA (Ramping up neurocognition; RUN) intervention on children’s neurocognitive development assessed by a composite score.

**Secondary Objectives:** To evaluate the efficacy of the RUN intervention on 1) Individual cognitive indicators such as cognitive flexibility, inhibitory control and attention, episodic memory, and receptive vocabulary; 2) social, emotional and academic development; and 3) To examine the association between changes in all neurocognitive and social-emotional functioning indicators, PA (duration and intensity), and SB to gain insight into which indicators best predict neurocognitive and social-emotional development in children. We predict that children in the RUN intervention will exhibit greater improvements in cognitive, social-emotional development, and PA, most notably time spent in moderate-to-vigorous PA will be the best predictor of all developmental indicators.

**Design:** This study uses a two-arm, cluster randomized controlled trial design. We plan to randomly assign 12 schools from the Ottawa Carleton District School Board of Eastern Ontario to either the RUN intervention delivered in Kindergarten classes (6 schools, n=120 children) or to the Control condition (6 schools, n=120 children) that will implement their standard Kindergarten curriculum. The 3-month intervention will include two, 3-hour training workshops to Kindergarten teachers along with bi-weekly booster sessions from a master trainer, and the RUN resource manual and training kit developed from our previous PA promotion trials in this population.

**Measures/Data Analysis:** Neurocognitive development will be assessed by the widely used National Institutes of Health (NIH) toolbox battery validated in children aged 3-6 years. This computer-administered battery consists of a composite score and individual scores measuring cognitive flexibility (Dimensional Change Card Sort Test), inhibitory control and attention (Flanker test), episodic memory (Picture Memory Sequence Tests), and receptive vocabulary (The Picture Vocabulary Test). PA (duration and intensity) and SB will be assessed over 1-week by accelerometry. Social-emotional development will be assessed by the teacher-rated Strengths and Difficulties Questionnaire (SDQ) and the Devereaux Students Strengths Assessment (DESSA). Adherence, fidelity, and attrition will be assessed using descriptive statistics, chi-square and t-tests. Changes between groups from baseline to 3-months in primary and secondary outcomes will be examined by linear mixed-effects model regression analyses.

**Anticipated results and Impact on Child Health:** This study will be among the first of RCTs to provide data on the feasibility and efficacy of a teacher-led intervention aimed at increasing PA and reducing SB to enhance neurocognitive and social-emotional development in early childhood. If efficacious, the data will inform a larger, clustered RCT designed to assess whether promoting PA is critical for establishing a trajectory for optimal cognitive, social and emotional health in young children. Such a trial would carry important public health implications for informing Kindergarten curricula during this critical period of brain development.
The results from a large national research project led by HALO shows that about two-thirds of Canadian children have not achieved an acceptable level of physical literacy. Physical literacy is more than just fitness or motor skill; it includes the motivation, confidence, physical competence, knowledge and understanding to value and take responsibility for engagement in physical activities for life.

Fourteen published papers that looked at different aspects of physical literacy and the Canadian Assessment of Physical Literacy (CAPL) were published on October 2, 2018 as a special supplement in the journal *BMC Public Health*:

- Tremblay et al. 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.

More than 10,000 children, aged 8 to 12, from 11 cities across the country participated in the study from 2014 to 2017 through the CHEO Research Institute and research partners. The HALO Research Group has been developing and refining the CAPL for the past 10 years. It’s a robust tool that is valid, reliable and feasible and is being used across the country and internationally. The results of this research provide the first comprehensive assessment of the physical literacy of Canadian children. Findings from this project have led to further refinements of the CAPL and the release of the second edition of this tool, or CAPL-2 ([www.capl-eclp.ca](http://www.capl-eclp.ca)), which is available in English, French and, most recently, in traditional/simplified Chinese. Visit [bmcpublichealth.biomedcentral.com/articles/supplements/volume-18-supplement-2](http://bmcpublichealth.biomedcentral.com/articles/supplements/volume-18-supplement-2) to freely download the *BMC Public Health* special supplement.
More than 15 HALOites wrote content for the 2018 ParticipACTION Report Card that was released on June 19, 2018. The Report Card gave Canadian kids a D+ for Overall Physical Activity. Only 35 per cent of 5- to 17-year-olds and 62 per cent of 3- to 4-year-olds are getting the recommended physical activity levels for their age group.

The 2018 ParticipACTION Report Card was released in concert with an evidence-informed Expert Statement on Physical Activity and Brain Health in Children and Youth. The Expert Statement was developed by a team of pediatric neuroscientists, exercise scientists, clinicians and practitioners. It found that for better brain health – including cognition, brain function and mental health – all children and youth should be physically active on a regular basis.

The lowest grades in this year’s Report Card were a D+ for Overall Physical Activity, D for Sedentary Behaviours and F for the 24-Hour Movement Behaviours. Despite common knowledge of the health benefits of kids moving more, turning away from screens, getting off the couch and breaking a sweat, most of them aren’t, but now they have another pressing reason to do so – for their brain health.

Other grades assigned in the Report Card include:

- “D” for Active Play & Leisure Activities
- “D-” for Active Transportation
- “B” for Organized Sport Participation
- “C-” for Physical Education
- “B+” for Sleep
- “D+” for Physical Literacy
- “D” for Physical Fitness
- “C+” for Family & Peers
- “B-” for School
- “B+” for Community & Environment
- “C+” for Government

The 2018 Report Card garnered more than 750 media hits and nearly 200 million media impressions! To download the Report Card, including the Expert Statement, please visit www.participACTION.com/reportcard.
Congenital Heart Disease (CHD) is the most common congenital condition affecting children in Canada, approximately 1 in every 100. 90% of children with CHD live 4 to 8 decades with a 3-5 times higher risk for atherosclerosis, anxiety or depression. Physical activity is known to decrease these important health risks. However, very few Canadian children are active enough for optimal health and, regardless of severity, CHD children are even less active. Children with CHD are thought to be inactive due to fear or uncertainty about physical activity. This study is evaluating enhanced physical activity support and resources as a part of clinical care in order to encourage and promote physical activity amongst this population.

Individualized kinesiology support can improve physical activity (PA) skill, confidence and participation among CHD children but exceeds current clinical care resources. In response, our team of patients, parents, and clinicians developed a “tool kit” of 12 child/family-friendly PA resources to enable clinicians to better address the most important PA issues for these patients. The resources are designed so that cardiac clinic personnel, nurses or cardiologists, can introduce and explain PA information to the patient and their family. We have also developed a searchable website of physical activity plans that children can do at home with their family and friends. A Registered Kinesiologist is also available for individualized physical activity counselling.

The purpose of this study is to evaluate the impact of enhanced physical activity resources on children (5 to 17 years) with moderate or severe CHD and their clinical care. Study participants will be given a pedometer that will measure the steps they take each day. They wear the pedometer for one week each month, for a total of six months. At the beginning and end of the study we measure their motivation for PA, their PA skills and their quality of life. Half of the children in the study are given the extra PA resources (12 PA tools, web site, Registered Kinesiologist) right away. The other half of the participants do not get the extra resources until after they finish the 6 months of study assessments. Comparing the data from the two groups of children evaluate whether PA counselling and resources can enhance PA capacity and participation among children living with CHD. We also evaluate the impact of the extra PA counselling on the healthcare/clinical system.
HALO director Mark Tremblay and a number of HALO researchers and students attended the Movement to Move Conference in Adelaide, Australia, on November 26th, for the release of the Global Matrix 3.0 on Physical Activity for Children and Youth. Report Cards evaluating 10 physical activity indicators were concurrently developed under the leadership of the Active Healthy Kids Global Alliance (AHKGA) following a harmonized process in 49 countries from 6 continents.

AHKGA is a not-for-profit organization that was established in 2014 following the success of the first Global Matrix, and was incorporated in Ottawa with Dr. Mark Tremblay as a president in 2018. The AHKGA website (www.activehealthykids.org) was relaunched by HALO on same day of the Global Matrix 3.0 release. It presents a comprehensive archive of the Report Card documents released around the world, news, and other Global Matrix related documents.

The Journal of Physical Activity and health published a free, open access, special issue (journals.humankinetics.com/toc/jpah/15/S2) including four peer-reviewed integrated articles presenting comparisons of the participating countries and 49 two page articles summarising findings from the national Report Cards on Physical Activity of Children and Youth.

A total of 490 grades, including 369 letter grades and 121 “incomplete (INC)” grades, were assigned by the 49 Report Card work groups. The key global findings of Global Matrix 3.0 are presented in the infographic posted here to the right. Please visit www.activehealthykids.org for more details.
HALO’S WEB PRESENCE

Web Statistics

The current size of the HALO website (www.haloresearch.ca) is 1,533 web pages (10% above 2017). The statistics presented below are based on web activity across these web pages in the last year.

Overall Statistics

In 2018, there were approximately 7,000 unique visitors to www.haloresearch.ca every month (34% below 2017). These visitors viewed HALO web pages 233,300 times per month (4% below 2017). 278,100 items were sent from www.haloresearch.ca to web users (7% below 2017). Figure 3 shows overall statistics from 2011 to 2018.

Figure 3: Average Monthly Totals for Select Web Statistics for www.haloresearch.ca, 2011-18.

Dictionary for Figure 3

**Hits:** the total number of items on all web pages (e.g., images, audio clips) that are requested. For example, a web page with 3 graphics and some text will usually result in 4 hits when the web page is requested.

**Files:** the total number of hits (requests) that actually result in something being sent back to the user. This is useful since not all hits will send data.

**Web Pages:** the actual web pages requested and not all of the individual items that make up the web pages (e.g., images, audio clips).

**Visits:** the total number of websites making requests within a given timeout period (default is 30 minutes). Remote websites that link to images and other non-web page addresses are not counted.

**Visitors:** the total number of unique IP address that makes requests to www.haloresearch.ca.
Most Popular Web Pages

In 2018, the most popular web pages as measured by Google Analytics pageviews were:

1. Cost of formatting in scientific research (2785 views)
2. Position Statement on Active Outdoor Play (1162 views)
3. HALO grants (526 views)
4. HALO publications (496 views)
5. Canada’s first “state of the nation” report on children’s physical literacy (408 views)
6. Director’s message (390 views)
7. HALO history (387 views)
8. The development of the Canadian 24 Hour Movement Behaviour Guidelines for Children and Youth (357 views)
9. Major initiatives related to childhood obesity and physical inactivity in Canada: 2014 year in review (340 views)
10. HALO publication garners global media coverage (298 views)

ACTIVE HEALTHY KIDS GLOBAL ALLIANCE WEBSITE

In August 2018, the Active Healthy Kids Global Alliance (AHKGA) incorporated as a not-for-profit organization in Canada. The Board of Directors includes 9 active members of the Alliance from all inhabited continents. AHKGA is a network of researchers, health professionals and stakeholders who are working together to advance physical activity in children and youth from around the world. AHKGA was established in 2014, following the success of the world’s first Global Summit on the Physical Activity of Children in Toronto.

On November 27, 2018, the AHKGA website was re-launched with the release of the Global Matrix 3.0 in Adelaide, Australia and includes an interactive matrix of 490 physical activity grades from 49 countries (www.activehealthykids.org/global-matrix).
The Sedentary Behaviour Research Network (SBRN) is the only organization for researchers and health professionals that focuses specifically on the health impact of sedentary behaviour. SBRN’s mission is to connect sedentary behaviour researchers and health professionals working in all fields of study, and to disseminate this research to the academic community and to the public at large.

The Network has grown to include over 1650 members, including prominent researchers in the areas of physiology, epidemiology, psychology, and ergonomics. In October 2018, the Sedentary Behaviour Research Network disseminated a survey to determine member satisfaction, receive feedback on how to improve the SBRN website and membership communication, and explore initiatives for SBRN to focus on. Members provided a number of helpful responses. For example, when asked their level of satisfaction with SBRN, 50% of members reported being very satisfied, while 30% of members reported being somewhat satisfied. To improve the level of satisfaction, nearly one third of members suggested more active communication in the form of a monthly newsletter or regular emails to update members on opportunities to collaborate, sedentary behaviours related conferences, and ways to get involved in projects. An increase in network collaboration was also mentioned, suggesting SBRN offer a way for local researchers to connect. To view a summary of the survey, visit www.sedentarybehaviour.org/2019/01/17/sbrn-membership-survey-results.

The Healthy Active Living and Obesity Research Group created SBRN and launched the SBRN website in 2011 and actively maintains the website, its content, a rapidly expanding list-serve for sedentary behaviour researchers, and the world’s largest online database of sedentary behaviour research. Approximately 7,400 unique visitors view the SBRN website every month.
STAFF AWARDS

<table>
<thead>
<tr>
<th>NAME</th>
<th>ORGANIZATION/AGENCY</th>
<th>GRANT/AWARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joel Barnes</td>
<td>CHEO Research Institute</td>
<td>Outstanding Research Coordinator</td>
</tr>
<tr>
<td>Casey Gray</td>
<td>HALO</td>
<td>Spirit Award is given to a HALO staff or student who best exemplifies our vision, mission, and lines of business. This person embodies HALO’s core values and is essential to the success and spirit of HALO</td>
</tr>
<tr>
<td>Hélène Larocque</td>
<td>CHEO Research Institute</td>
<td>Spirit of the Research Institute</td>
</tr>
<tr>
<td>Mark Tremblay</td>
<td>CSEP</td>
<td>Named Fellow of the Canadian Society for Exercise Physiology (F-CSEP) - one of eight inaugural recipients of the distinction</td>
</tr>
<tr>
<td>Mark Tremblay</td>
<td>Canadian Coalition for Global Health Research</td>
<td>Vic Neufeld Mentorship Award in Global Health Research</td>
</tr>
<tr>
<td>Mark Tremblay</td>
<td>Canadian Paediatric Society</td>
<td>Victor Marchessault Advocacy Award</td>
</tr>
<tr>
<td>Mark Tremblay</td>
<td>Clarivate</td>
<td>Highly Cited Researchers 2018 (Top 1%)</td>
</tr>
<tr>
<td>Mark Tremblay et al</td>
<td>Springer Nature Publishers</td>
<td>Change the World, One Article at a Time</td>
</tr>
</tbody>
</table>

HALO Clinical Associate Scientist Dr. Annick Buchholz was awarded the 2018 Shining Star Award for Discovery and Learning at CHEO! This award recognizes an individual or team who encourages dynamic learning and discovery to improve the health of children, youth and families. The recipient always strives to expand their knowledge base, recognize the value of research, teach and transfer knowledge. The recipient seeks out and identifies opportunities for learning and discovery that result in positive outcomes.

POST-DOCTORAL FELLOW, STUDENT FUNDING, SCHOLARSHIPS AND AWARDS

<table>
<thead>
<tr>
<th>STUDENT NAME</th>
<th>ORGANIZATION/AGENCY</th>
<th>GRANT/AWARD</th>
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<tbody>
<tr>
<td>Salomé Aubert</td>
<td>Mitacs</td>
<td>Accelerate Grant</td>
</tr>
<tr>
<td>Angelica Blais</td>
<td>University of Ottawa</td>
<td>PhD Admission Graduate Scholarship</td>
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<tr>
<td>Angelica Blais</td>
<td>Mitacs</td>
<td>Accelerate Grant</td>
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<tr>
<td>Joel Blanchard</td>
<td>University of Ottawa</td>
<td>PhD Admission Graduate Scholarship</td>
</tr>
<tr>
<td>Caroline Dutil</td>
<td>University of Ottawa</td>
<td>PhD Admission Graduate Scholarship</td>
</tr>
<tr>
<td>Ryan Featherstone</td>
<td>Government of Ontario</td>
<td>Ontario Graduate Scholarship</td>
</tr>
<tr>
<td>Ryan Featherstone</td>
<td>University of Ottawa</td>
<td>Excellence Scholarship</td>
</tr>
<tr>
<td>Silvia González</td>
<td>University of Ottawa and Ontario Government</td>
<td>Ontario Trillium Scholarship</td>
</tr>
<tr>
<td>Michelle Guerrero</td>
<td>University of Windsor</td>
<td>Governor General’s Gold Medal</td>
</tr>
<tr>
<td>Jackie Lee</td>
<td>Ontario Ministry of Training, Colleges and Universities</td>
<td>Queen Elizabeth II Graduate Scholarship</td>
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<tr>
<td>Jackie Lee</td>
<td>University of Ottawa</td>
<td>Excellence Scholarship</td>
</tr>
<tr>
<td>Taru Manyanga</td>
<td>CIHR</td>
<td>Fellowship</td>
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<td>Taru Manyanga</td>
<td>University of Ottawa</td>
<td>School of Epidemiology Travel Award</td>
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<tr>
<td>Taru Manyanga</td>
<td>University of Ottawa</td>
<td>Excellence Scholarship</td>
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<td>Taru Manyanga</td>
<td>University of Ottawa</td>
<td>Faculty of Medicine, Epidemiology Program, Award of Excellence</td>
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<tr>
<td>Kevin Moncion</td>
<td>University of Ottawa</td>
<td>MSc Admission Graduate Scholarship</td>
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<tr>
<td>Shikha Saxena</td>
<td>McGill University</td>
<td>Edith Strauss Knowledge Translation Grant</td>
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<td>Shikha Saxena</td>
<td>Inclusive Society, Quebec</td>
<td>Partnership Research Grant</td>
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<tr>
<td>Jeremy Walsh</td>
<td>Michael Smith Foundation</td>
<td>Health Research Postdoctoral Award</td>
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<tr>
<td>Jeremy Walsh</td>
<td>Physiological Society</td>
<td>Visiting Scholar Bursary</td>
</tr>
</tbody>
</table>

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CHEO – Research Institute
### SUMMARY OF RESEARCH FUNDING AND GRANTS

This table represents the grants for which HALO Investigators are assigned Principal Investigators or directly receive funding. This does not include all other projects that our investigators are involved with in the capacity of Co-Principal Investigators or Co-Investigators or participants.

<table>
<thead>
<tr>
<th>NAME OF THE PI(s)</th>
<th>ORGANIZATION/AGENCY</th>
<th>TITLE OF PROJECT</th>
<th>AMOUNT (YEAR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chaput/King</td>
<td>Institute of Health and Biomedical Innovation</td>
<td>Manipulating light wavelength to improve sleep</td>
<td>$10,000 (2017-2018)</td>
</tr>
<tr>
<td>Chaput/Katz</td>
<td>Canadian Institutes of Health Research</td>
<td>Mobilizing the healthcare community towards an integrated approach to improving outcomes of patients with sleep disorders – Canadian Sleep and Circadian Network (CSCN)</td>
<td>$200,000 (2015-2020)</td>
</tr>
<tr>
<td>Chaput</td>
<td>CHEO Research Institute (Research Growth Award)</td>
<td>Effects of increasing sleep duration on insulin sensitivity in adolescents having risk factors for type 2 diabetes</td>
<td>$30,000 (2016-2018)</td>
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<tr>
<td>Chaput</td>
<td>Ministry of Research and Innovation (Early Researcher Awards program)</td>
<td>A good night’s sleep to prevent type 2 diabetes in adolescents</td>
<td>$150,000 (2016-2021)</td>
</tr>
<tr>
<td>Goldfield</td>
<td>Social Sciences &amp; Humanities Research Council (SSHRC)</td>
<td>Ramping Up Neurcognition (RUN): the impact of a teacher-led active play intervention on kindergarten children’s cognitive, social and emotional development</td>
<td>$271,280 (2017-2022)</td>
</tr>
<tr>
<td>Goldfield</td>
<td>CHEO Research Institute and University of Ottawa</td>
<td>Effects of methylphenidate on weight loss and energy balance in obese youth</td>
<td>$15,000 (2016-2018)</td>
</tr>
<tr>
<td>Goldfield</td>
<td>Shire Pharmaceuticals</td>
<td>The effects of dopamine-related genes no binge eating in women with binge-eating disorder: can a multilocus dopamine score predict treatment response?</td>
<td>$30,280 (2017-2018)</td>
</tr>
<tr>
<td>Goldfield</td>
<td>Public Health Agency of Canada</td>
<td>Ramping Up Neurcognition (RUN): the impact of a teacher-led active play intervention on kindergarten children’s cognitive, social and emotional development</td>
<td>$36,000 (2018-2020)</td>
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<tr>
<td>Longmuir/Sawdon</td>
<td>Ontario Trillium Foundation</td>
<td>Physical activity in the lives of children with failing hearts</td>
<td>$71,700 (2017-2018)</td>
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<tr>
<td>Longmuir</td>
<td>2018 Xinhua-uOttawa Joint Clinical Research Project Grant</td>
<td>The benefits of physical activity training for young children with cerebral palsy</td>
<td>149,750 RMB (2018)</td>
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<tr>
<td>NAME OF THE PI(s)</td>
<td>ORGANIZATION / AGENCY</td>
<td>TITLE OF PROJECT</td>
<td>AMOUNT (YEAR)</td>
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</tr>
<tr>
<td>Longmuir</td>
<td>Canadian Institutes of Health Research</td>
<td>Impacting child physical and mental health outcomes in congenital heart disease: a randomized, controlled, multi-centre trial of enhanced physical activity support in clinical care to decrease the burden of disease and treatment-related morbidity</td>
<td>$424,575 (2017-2020)</td>
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<td>Longmuir</td>
<td>Ontario Sport and Recreation Communities Fund</td>
<td>Access ON childhood physical literacy: assessing and supporting the physical literacy of Ontario children with medical conditions and disabilities</td>
<td>$253,205 (2017-2019)</td>
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<tr>
<td>Longmuir</td>
<td>Ontario Ministry of Research and Innovation Early Researcher Award</td>
<td>LIFFE for cardiac kids through physical activity</td>
<td>$150,000 (2017-2022)</td>
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<td>Longmuir</td>
<td>Canadian Institutes of Health Research</td>
<td>New Investigator Salary Award</td>
<td>$300,000 (2016-2021)</td>
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<td>Longmuir/Graham</td>
<td>Ontario Sport and Recreation Communities Fund</td>
<td>Fearless physical activity: building physical literacy among Ontarians with congenital heart disease</td>
<td>$186,934 (2016-2018)</td>
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<td>Longmuir</td>
<td>Mitacs Accelerate Grant</td>
<td>Fearless Physical Activity</td>
<td>$15,000 (2018)</td>
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<td>Longmuir</td>
<td>Mitacs Accelerate Grant</td>
<td>I Can Play</td>
<td>$15,000 (2018)</td>
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<tr>
<td>Longmuir</td>
<td>Human Resources Development Canada</td>
<td>Canada Summer Jobs Grant</td>
<td>$3500 (2018)</td>
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<tr>
<td>Tremblay</td>
<td>Mitacs Accelerate Grant</td>
<td>From the ParticipACTION Physical Activity Report Card for Children and Youth and the Global Matrix 3.0: Evaluation and Strategic Harmonization</td>
<td>$15,000 (2018)</td>
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<td>Tremblay</td>
<td>The Lawson Foundation</td>
<td>Development of an assessment of the Forest and Nature School early childhood education and development program in Canada</td>
<td>$50,000 (2018)</td>
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<tr>
<td>Tremblay</td>
<td>Public Health Agency of Canada (Healthy Living Fund)</td>
<td>Canadian 24-Hour Movement Guidelines for Children and Youth: Phase2 – integration and activation</td>
<td>$1,165,000 (2016-2019)</td>
</tr>
<tr>
<td>Tremblay</td>
<td>CIHR Meeting Grant</td>
<td>International Surveillance Study of 24-Hour Movement Guidelines for the Early Years (SUNRISE)</td>
<td>$20,000 (2018)</td>
</tr>
<tr>
<td>NAME OF THE PI(s)</td>
<td>ORGANIZATION / AGENCY</td>
<td>TITLE OF PROJECT</td>
<td>AMOUNT (YEAR)</td>
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<tr>
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</tr>
</tbody>
</table>

Figure 4: Number of grants held and amount of funds held as principal or co-principal investigator (attributed to 2018) by HALO Research Group and trends since 2007.
In recognition of all the great work done by all HALO students and staff (some of which may have occurred outside of HALO) this report includes all publications from 2018.


Figure 5: Number of peer-reviewed, refereed publications by HALO Research Group from 2006 to 2018 – for a total of 781 to date.

NON-PEER REVIEWED PUBLICATIONS


**BOOK CHAPTERS**


**CONFERENCES AND INVITED PRESENTATIONS**


9. **Chaput JP.** Integration of pediatric sleep health into public health in Canada. *School of Epidemiology and Public Health Seminar Series, University of Ottawa* (Ottawa, Canada), 2018.


12. **Chaput JP.** How to get a good night’s sleep. *Courts Administration Service* (Ottawa, Canada), 2018.

13. **Chaput JP.** How to write a good scientific paper. *Healthy Active Living and Obesity Research Group, CHEO Research Institute* (Ottawa, Canada), 2018.


15. **Chaput JP.** Le continuum du mouvement sur 24 heures. *Laboratory of the Metabolic Adaptations to Exercise under Physiological and Pathological Conditions, Université de Clermont Auvergne* (Clermont-Ferrand, France), 2018.


17. **Chaput JP.** The whole day matters for health and wellness! *Colonel By Secondary School* (Ottawa, Canada), 2018.

18. **Chaput JP.** Inadequate sleep as a cause of obesity in children. *Arnold School of Public Health, University of South Carolina* (Columbia, USA), 2018.


20. **Chaput JP.** Directives canadiennes en matière de mouvement sur 24 heures pour les enfants de 0 à 4 ans: une approche intégrée regroupant l’activité physique, le comportement sédentaire et le sommeil. *Département de kinésiologie, Université de Montréal* (Montreal, Canada), 2018.

21. **Chaput JP.** Interactions entre le sommeil, le comportement sédentaire et l’activité physique pour influencer la santé. *Faculté des sciences de l’activité physique, Université de Sherbrooke* (Sherbrooke, Canada), 2018.

22. **Chaput JP.** Bouger davantage n’est pas équivalent à passer moins de temps assis. *School of Public Health, University of Montreal* (Montreal, Canada), 2018.

23. **Chaput, JP.** Interactions among sleep, sedentary behaviour, physical activity and overall health. *Canadian Forces Health Services Group Headquarters, Department of National Defence* (Ottawa, Canada), 2018.

24. **Chaput JP.** How to write a good scientific paper. *School of Epidemiology and Public Health, University of Ottawa* (Ottawa, Canada), 2018.


27. Dutil C, De Pieri J, Maslovat D, Smith V, Carlsen AN. In a sample of adequate sleepers learning a serial key-press task, online and offline gains are not impaired by sleep characteristics or movement inhibition. *Canadian Society for Psychomotor Learning and Sport Psychology* (Toronto, Canada), 2018.


42. Hintze LJ, **Goldfield G, Doucet E.** The rate of weight-loss does not affect appetite sensations differently in women living with obesity. *25th European Congress on Obesity* (Vienna, Austria), 2018.


52. **Lee E-Y, Gray CE, Tremblay MS.** A pilot assessment of the forest and nature school early childhood education and development program in Canada: Rationale and study protocol for a randomized controlled trial. *Existing Evidence about the Effects if Udeskole – an International Perspective Conference* (Fredensborg, Denmark), 2018.

54. **Lee E-Y.** Sedentary Living to Healthy Active Living: One PhD and two post-doc training that shaped my research career path. *Healthy Active Living and Obesity (HALO) Research Group, Children’s Hospital of Eastern Ontario Research Institute* (Ottawa, Canada), 2018.

55. **Lee E-Y.** HALO research 1.0. *Carleton University - HLTH3401 Childhood Diseases* (Ottawa, Canada), 2018.

56. **Lee E-Y.** Research Program. *School of Kinesiology and Health Studies, Queen’s University* (Kingston, Canada), 2018.


60. **Longmuir PE, Moore C.** Physical literacy: Enabling the capacity to live an active life. *The Hospital for Sick Children* (Toronto, Canada), 2018.


78. Riazi N, Ramanathan S, O’Neill M, Tremblay MS, Faulkner G. Canadian 24-Hour Movement Guidelines for the Early Years (Ages 0-4): Exploring the perceptions of stakeholders regarding their acceptability, barriers to uptake, and dissemination. Active Living Research Conference (Banff, Canada), 2018.


89. Tremblay MS. Innovation, technology and childhood healthy active living: moving forward by looking back. Invited keynote address at the *Conference on the Recent Advances in the Prevention and Treatment of Childhood and Adolescent Obesity* (Calgary, Canada), 2018.


95. Tremblay MS. Setting the context and the need for less screen time and more green time. Invited keynote address at the *Healthy Kids Community Challenge Ottawa Community Learning Forum “From Screen Time to Green Time” Connecting Back to the Outdoors* (Ottawa, Canada), 2018.


99. Tremblay MS. Canadian 24-Hour Movement Guidelines for the Early Years (0-4 years): An Integration of Physical Activity, Sedentary Behaviour, and Sleep. Mount St. Vincent University (Halifax, Canada), 2018.

100. Tremblay MS. Canadian 24-Hour Movement Guidelines for the Early Years (0-4 years): An Integration of Physical Activity, Sedentary Behaviour, and Sleep. Université de Moncton (Moncton, Canada), 2018.

101. Tremblay MS. Canadian 24-Hour Movement Guidelines for the Early Years (0-4 years): An Integration of Physical Activity, Sedentary Behaviour, and Sleep. University of New Brunswick (Fredericton, Canada), 2018.

102. Tremblay MS. Canadian 24-Hour Movement Guidelines for the Early Years (0-4 years): An Integration of Physical Activity, Sedentary Behaviour, and Sleep. Lecture to students at the University of Prince Edward Island (Charlottetown, Canada), 2018.

103. Tremblay MS. Canadian 24-Hour Movement Guidelines for the Early Years (0-4 years): An Integration of Physical Activity, Sedentary Behaviour, and Sleep. Public lecture at the University of Prince Edward Island (Charlottetown, Canada), 2018.

104. Tremblay MS. Canadian 24-Hour Movement Guidelines for the Early Years (0-4 years): An Integration of Physical Activity, Sedentary Behaviour, and Sleep. Public lecture at Memorial University of Newfoundland (St. Johns, Canada), 2018.


108. Tremblay MS. Background and overview of Canadian 24-Hour Movement Guidelines for the Early Years development. Symposium presentation at the Early Years Conference (Vancouver, Canada), 2018.

109. Tremblay MS. How to be a good mentor to your students. CHEO Research Institute Seminar Series (Ottawa Canada), 2018.


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**Figure 6: Number of scholarly presentations by HALO Research Group from 2006 to 2018 for a total of 1324 to date.**
MEMORANDA OF UNDERSTANDING

To facilitate research and collaboration, HALO has developed a memoranda of understanding with the following organizations/institutions:

- HALO-CHEO RI and University Bernardo O’Higgins (Santiago, Chile)
- HALO-CHEO RI and Department of Pediatrics, McMaster University (Hamilton, Canada)
- HALO-CHEO RI and Child and Nature Alliance of Canada (Ottawa, Canada)
- University of Ottawa and the State University of Maringá (Maringá, Brazil)
- HALO-CHEO RI and Pennington Biomedical Research Centre (Baton Rouge, USA)
- HALO-CHEO RI and Kenyatta University (Nairobi, Kenya)
- HALO-CHEO RI and University of Copenhagen (Copenhagen, Denmark)
- HALO-CHEO RI and University of Wollongong (Wollongong, Australia)
- HALO-CHEO RI and Research Center of Sports and Physical Activity - Pedagogic University Mozambique (Maputo, Mozambique)
The Healthy Active Living and Obesity Research Group is honoured to have the following organizations as strategic partners:

- Active Healthy Kids Global Alliance
- Alberta Centre for Active Living
- Canadian Fitness and Lifestyle Research Institute
- Canadian Society for Exercise Physiology
- Carleton University
- Champlain Cardiovascular Disease Prevention Network
- CHEO Foundation
- CHEO Research Institute
- Child and Nature Alliance of Canada
- Health Analysis Division, Statistics Canada
- Health Nexus: Best Start Resource Centre
- Kenyatta University
- KidActive
- Kids Brain Health Network
- McMaster University
- Nature Canada
- Obesity Canada
- Ottawa Public Health
- Outdoor Play Canada
- ParticipACTION
- Pennington Biomedical Research Centre
- Sedentary Behaviour Research Network
- State University of Maringá
- The Lawson Foundation
- “The Moblees”
- The Ottawa Hospital
- University Bernardo O’Higgins
- University of Copenhagen
- University of Ottawa
- University of Ottawa Institute of Mental Health Research
- University of Wollongong
- YMCA/YWCA of the National Capital Region
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