PROJECT 1

Department of Health Sciences
CARLETON UNIVERSITY

CARLETON UNIVERSITY
HEALTH SCIENCES

Proposed Research Project
Master of Science in Health: Science, Technology and Policy
Carleton University, Ottawa, ON, Canada

Project Title

Beyond the Court: Access to Recreation, Mental Health, and Well-Being Among Youth Living in Social Housing

Supervisor / Organization

Academic supervisor: Dr. Francine Darroch, Department of Health Sciences, Carleton University
Community lead: Manock Lual, Founder, Prezdential Basketball; partner: Ottawa Community Housing Foundation (OCHF)

Project Objective

This project will explore how trauma- and violence-informed community-based recreation, including basketball, can improve access to meaningful participation and support the mental health, well-being, and sense of belonging of youth living in Ottawa's social housing communities. Centring youth perspectives, including those of racialized youth, it will: (1) examine how practical barriers, such as cost and transportation, intersect with racism, gender, disability, and other experiences to shape participation; (2) understand how youth experience recreation and its relationship to stress, confidence, and community connection; and (3) work with youth and community partners to make programs more culturally responsive, safe, and sustainable.

Background

Research links youth sport participation with mental health and social outcomes, including self-esteem, social support, and belonging. However, understanding young people's experiences, including what supports or undermines these outcomes, is essential to developing inclusive programs. Prezdential is a non-profit that supports youth in Ottawa, particularly racialized youth living in low-income communities, through sports, arts, and mentorship. Using community-based participatory research and mixed methods (e.g., interviews, brief surveys, youth-led photography or storytelling, participation records), the study will include participating and non-participating youth, alongside coaches, caregivers, and staff.

Research Project Components

- Contribute to research planning with youth and community partners
- Collect and analyze data
- Prepare manuscripts and youth-centred knowledge mobilization (e.g., a youth-informed guide to inclusive program delivery, a community report or youth-created media product)

Proposed Team

1–2 MSc HSTP students, with opportunities to work alongside youth research collaborators.

Duration

20 months, subject to partner priorities, research scope, and ethics approval.

Logistics

Research will be conducted with Prezdential Basketball, OCHF, and youth in Ottawa social housing communities.

PROJECT 2

Department of Health Sciences
CARLETON UNIVERSITY

CARLETON UNIVERSITY
HEALTH SCIENCES

Proposed Research Project
Master of Science in Health: Science, Technology and Policy
Carleton University, Ottawa, ON, Canada

Project Title

Spirituality in an Ageing Society: Mapping Contradictions for Health

Supervisor / Organization

Supervisor: Dr. Renate Ysseldyk, Department of Health Sciences, Carleton University
Collaborators/Co-supervisors: Dr. Albert Banerjee (St. Thomas University, NB); Dr. Susan Braedley (School of Social Work, Carleton University). Supported by SSHRC.

Project Objective

This project will examine the tension between religion (and spirituality) and health among older adults in an increasingly secular society. Objectives are to: (1) examine whether older adults from a broad array of (non)religious backgrounds vary in health, well-being, and participation in religious and non-religious social life; (2) determine which forms of social inclusion help maintain well-being (e.g., life satisfaction, fewer symptoms of depression) and shape healthcare choices (e.g., vaccinations, end-of-life care); and (3) determine whether these associations are gendered.

Background

Canada is ageing, with far-reaching social, cultural, and economic implications (WHO, 2022), while large-scale surveys show a steady generational decline in religiosity (Idler, 2022). Research on secularization has largely ignored age and ageing, and the WHO age-friendly framework does not directly address gender and (non)religion, even though older adults, and older women in particular, tend to be more religious. Religiosity is linked to better health in general, yet religious beliefs are also tied to suboptimal health behaviours (e.g., vaccine hesitancy) and skepticism of healthcare. Findings will inform age-friendly policy from community to international levels.

Research Project Components

- Review the research literature on the topic
- Recruit participants, collect and analyze quantitative and/or qualitative data
- Assist with manuscript preparation and other knowledge mobilization outputs

Proposed Team

1–2 MSc HSTP students. Experience with quantitative and/or qualitative data collection and analysis is ideal; interest in gerontology, psychology, and/or the social determinants of health is an asset.

Duration

20 months (September 2027 – April 2029).

Logistics

Data collection is being conducted both online and in person.

PROJECT 3

Department of Health Sciences
CARLETON UNIVERSITY

CARLETON UNIVERSITY
HEALTH SCIENCES

Proposed Research Project
Master of Science in Health: Science, Technology and Policy
Carleton University, Ottawa, ON, Canada

Project Title

Effect of Increasing Sleep Duration on Health Outcomes in Short-Sleeping Adolescents

Supervisor / Organization

Supervisor: Dr. Jean-Philippe Chaput, Children's Hospital of Eastern Ontario (CHEO) Research Institute

Project Objective

To determine if extending sleep duration improves health-related outcomes (e.g., insulin sensitivity, mental health, mood, cognition, appetite) in adolescents with short sleep duration.

Background

Insufficient sleep is associated with a wide range of adverse health outcomes, yet the effects of sleep extension in adolescents remain largely unknown, despite the high prevalence of sleep deprivation in this population. More than 40 adolescents with obesity (aged 13–18) completed a randomized, counterbalanced, two-condition crossover study, increasing or decreasing time in bed by 1.5 hours per night for one week each, with sleep measured by actigraphy. The primary outcome is insulin sensitivity (HOMA-IR and Matsuda index); secondary outcomes include mood, mental health, reaction time, cognition, and energy balance (food intake and energy expenditure).

Research Project Components

- Review the literature on a topic chosen by the student (in collaboration with Dr. Chaput)
- Analyze data (data collection is complete)
- Write a manuscript with Dr. Chaput and submit it to a peer-reviewed journal
- Present research findings orally

Proposed Team

1 MSc HSTP student, working in close collaboration with Dr. Chaput and learning from his expertise in the field.

Duration

20 months (September 2027 – April 2029).

Logistics

Most work will be conducted remotely, and the student may contribute to other studies. Experience in academic writing and statistical analysis is preferred. The ability to work independently is essential, as Dr. Chaput works from home full time.

PROJECT 4

Department of Health Sciences
CARLETON UNIVERSITY

CARLETON UNIVERSITY
HEALTH SCIENCES

Proposed Research Project
Master of Science in Health: Science, Technology and Policy
Carleton University, Ottawa, ON, Canada

Project Title

Effects of Application-Based Eating Awareness Training on Disordered Eating in Youth with Obesity: The EAT SMART Teen Study

Supervisor / Organization

Supervisor: Dr. Gary Goldfield, Department of Psychology, Carleton University
Organization: Children's Hospital of Eastern Ontario (CHEO)

Project Objective

This project will evaluate whether smartphone app-based Mindfulness-Based Eating Awareness Training (MB-EAT Smart Teen) reduces disinhibited eating and improves mental health outcomes in adolescents with obesity, compared to an app-based psychoeducation control. Phase 1 is a pilot with 10 participants from the CHAL Program assessing the feasibility and usability of the app. Phase 2 will evaluate feasibility and examine trends in efficacy among 160 youth aged 12–17 living with obesity.

Background

About 25% of Canadian youth aged 12–17 live with overweight or obesity, which is linked to cardiometabolic disease, psychological comorbidities, and reduced quality of life. Standard family-based diet and physical activity interventions have limited long-term effectiveness, are costly and hard to scale, and restrictive approaches may contribute to binge, emotional, and external eating. MB-EAT promotes mindful eating, self-regulation, and awareness of hunger and satiety cues, with benefits shown in adults. Delivering it by app may improve accessibility and scalability, but its feasibility and effectiveness in youth have not been established.

Research Project Components

- Contribute to intervention refinement and feasibility testing
- Support participant recruitment and data collection
- Conduct quantitative and/or qualitative analysis of pilot outcomes
- Disseminate findings through manuscripts and educational materials

Proposed Team

1–2 MSc HSTP students. Ideal candidates will have experience in quantitative and/or qualitative data collection and analysis and a keen interest in improving healthcare outcomes.

Duration

Flexible; research activities will be coordinated around the 20-month MSc program and the needs of the study.

Logistics

Dr. Goldfield will provide mentorship on intervention design, evaluation methodology, and academic writing, with regular individual and group meetings. The study will be conducted at CHEO, which will provide clinical expertise, participant access, and research infrastructure. Training in motivational interviewing and REDCap data management is available.

PROJECT 5

Department of Health Sciences
CARLETON UNIVERSITY

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HEALTH SCIENCES

Proposed Research Project
Master of Science in Health: Science, Technology and Policy
Carleton University, Ottawa, ON, Canada

Project Title

PRISM Project: Promoting Relationships in Social Media

Supervisor / Organization

Supervisor: Dr. Gary Goldfield, Department of Psychology, Carleton University
Organization: Children's Hospital of Eastern Ontario (CHEO)

Project Objective

This project will develop and pilot-test PRISM Lite, a brief three-module digital intervention that promotes intentional, health-protective social media use among adolescents. The research question is whether PRISM Lite is feasible, acceptable, and effective in reducing problematic social media use and improving mental health outcomes in youth, using a pilot randomized or single-arm pre-post design.

Background

Heavy and habitual social media use among adolescents is linked to anxiety, depression, social comparison, and sleep disruption, yet few brief, scalable, evidence-based interventions exist. PRISM Lite addresses three patterns of problematic use: (1) habitual, unreflective use ("zombie scrolling"); (2) emotion-driven use and social comparison; and (3) passive consumption ("Ghost Mode") versus active, relationship-building use ("Real Mode"). Each ~10-minute module uses relatable youth characters, quiz-based self-reflection, psychoeducation, and weekly goal setting, delivered via PowerPoint or Qualtrics for use in clinical or community settings.

Research Project Components

- Contribute to intervention refinement and feasibility testing
- Support participant recruitment and data collection
- Conduct quantitative and/or qualitative analysis of pilot outcomes
- Disseminate findings through manuscripts and educational materials

Proposed Team

1–2 MSc HSTP students. Ideal candidates will have experience in quantitative and/or qualitative data collection and analysis and a keen interest in improving healthcare outcomes.

Duration

Flexible; research activities will be coordinated around the 20-month MSc program and the needs of the study.

Logistics

Dr. Goldfield will provide mentorship on intervention design, evaluation methodology, and academic writing, with regular individual and group meetings. The study will be conducted at CHEO, with access to research infrastructure, clinical collaborators, and youth networks. Training in digital intervention design, Qualtrics, REDCap, and evaluation methods is available.

PROJECT 6

Department of Health Sciences
CARLETON UNIVERSITY

CARLETON UNIVERSITY
HEALTH SCIENCES

Proposed Research Project
Master of Science in Health: Science, Technology and Policy
Carleton University, Ottawa, ON, Canada

Project Title

Move, Make, Discover: Co-designing Active STEM Programs for Children and Youth in Ottawa Social Housing Communities

Supervisor / Organization

Supervisors: Drs. Edana Cassol, Joerg Overhage, and Francine Darroch, Department of Health Sciences, Carleton University
Community partner: Ottawa Community Housing Foundation (OCHF)

Project Objective

This project will co-design, deliver, and evaluate two age-tailored programs that combine hands-on learning about microbiology, immunology, and infectious disease (Microbe Patrol) with physical activity for children (ages 5–11) and youth (ages 12–18) in Ottawa Community Housing communities. Using a community-based participatory, trauma- and violence-informed approach and a mixed-methods feasibility design, it asks: (1) What do children, youth, caregivers, and staff want from public health and physical activity programming, and what shapes participation? (2) Are the programs feasible and acceptable, and how do they relate to interest and confidence in science and public health and enjoyment of physical activity?

Background

Children and youth from low-income households have fewer chances to take part in both STEM enrichment and physical activity; cost and transportation are common barriers. Offering free programs where families already live removes barriers and builds on existing relationships with community staff. Combining movement with learning improves time on task and enjoyment (Bedard et al., 2019), but little evidence comes from low-income community settings or older youth. The junior program uses play-based movement games; the youth program uses hands-on health science projects, university student mentorship, and peer leadership roles.

Research Project Components

- Conduct consultations (focus groups, brief interviews) with youth, caregivers, and OCHF staff
- Co-design and pilot both programs at community sites
- Evaluate feasibility and acceptability (attendance, field notes, pre/post surveys, focus groups)
- Produce program manuals, a community report, a policy brief, and a conference abstract or manuscript

Proposed Team

2–4 MSc HSTP students. Each student will lead one workstream (e.g., children's or youth program, evaluation, or knowledge translation and policy), with shared facilitation and data collection.

Duration

20 months (September 2027 – April 2029).

Logistics

Work will take place at Carleton University and OCH community sites in Ottawa. Drs. Cassol and Overhage will support STEM content; Dr. Darroch will lead community-engaged, physical activity, and trauma- and violence-informed elements and evaluation.

PROJECT 7

Department of Health Sciences
CARLETON UNIVERSITY

CARLETON UNIVERSITY
HEALTH SCIENCES

Proposed Research Project
Master of Science in Health: Science, Technology and Policy
Carleton University, Ottawa, ON, Canada

Project Title

A Framework for Wellbeing: Evaluating Clinical Learning Environments in Healthcare Settings

Supervisor / Organization

Supervisors: Dr. Jerry Maniate, Equity in Health Systems (EqHS) Lab, Bruyère Health Research Institute; Dr. Victor Do, University of Alberta and Bruyère Health Research Institute; Dr. Renate Ysseldyk, Carleton University

Project Objective

This project will evaluate the real-world impact, validity, and effectiveness of a newly prototyped tool for assessing health-promoting clinical learning and working environments. Objectives are to: (1) assess the feasibility, acceptability, and perceived utility of the tool among healthcare learners, staff, and leadership; (2) measure organizational impact by tracking how tool outputs inform institutional action plans and policy decisions; and (3) identify contextual factors that influence how site leaders interpret and act on the tool's data.

Background

Healthcare organizations across Canada recognize the urgent need to foster supportive, equitable environments for clinicians and learners. Grounded in the Okanagan Charter and equity-oriented approaches (Do et al., 2023), the team has developed a framework and prototype wellbeing evaluation tool. The next challenge is rigorous evaluation: Does it accurately capture environmental wellbeing? Is it user-friendly and actionable without adding administrative burden? Does it lead to tangible improvements in organizational culture and wellbeing? This evidence is needed to scale the tool nationally.

Research Project Components

- Design and carry out a mixed-methods evaluation (e.g., RE-AIM or Kirkpatrick's model) across clinical and academic sites
- Collect and analyze survey, usability, and interview data to assess the tool's psychometric properties, clarity, and relevance
- Co-author manuscripts, present at national conferences, and produce evaluation summaries and policy briefs

Proposed Team

1 MSc HSTP student with an interest in program evaluation, health systems research, or health promotion; skills or interest in mixed methods; strong communication and stakeholder engagement skills; and a commitment to health equity.

Duration

20 months (September 2027 – April 2029).

Logistics

Research will be based in the EqHS Lab at Bruyère Health Research Institute, with data collection across participating clinical and academic sites.

PROJECT 8

Department of Health Sciences
CARLETON UNIVERSITY

CARLETON UNIVERSITY
HEALTH SCIENCES

Proposed Research Project
Master of Science in Health: Science, Technology and Policy
Carleton University, Ottawa, ON, Canada

Project Title

Health Equity and Disability Benefits for People Living with Sickle Cell Disease in Canada

Supervisor / Organization

Supervisor: Dr. Jennie Haw, Canadian Blood Services
Collaborator: Biba Tinga, President, Sickle Cell Disease Association of Canada (SCDAC)

Project Objective

To generate evidence to support people living with sickle cell disease (SCD) in Canada and work towards greater health equity. This project focuses on access to federal disability benefits, including the Disability Tax Credit and Canada Disability Benefit, for people living with SCD. Results will directly support the advocacy work of SCDAC and contribute to a larger NFRF-T funded interdisciplinary study, An equitable, resilient blood supply system for all Canadians.

Background

Approximately 6,500 people in Canada live with SCD, a genetic condition that causes sickling of red blood cells and is more prevalent in people from Africa, the Caribbean, the Mediterranean, the Middle East, South East Asia, the Western Pacific Region, and South and Central America. Social scientists and health equity experts have considered how race and ethnicity, politics, and public perception are implicated in the under-funding of research, resources, and supports for people with SCD, who in turn develop strategies and expertise to manage their conditions and advocate for services. While there is no cure, regular blood transfusions are an effective treatment for many, so people with SCD will be among the first to benefit from the larger study's work on a more robust and diverse blood donor base and modified blood products.

Research Project Components

- Conduct a literature review on living with SCD and experiences with and access to disability benefits
- Complete a policy analysis of Canada's federal Disability Tax Credit and related benefits such as the Canada Disability Benefit
- Contribute to participant recruitment and data collection for an exploratory qualitative study on barriers and enablers to accessing disability benefits
- Assist with manuscript preparation

Proposed Team

1–2 MSc HSTP students. Ideally, students will have training (i.e., course work) and some experience with qualitative methodologies; interest in and course work on social science approaches to health and illness, policy analysis, and health equity is a strong asset. Students will have opportunities to learn with members of the broader research team.

Duration

20 months (September 2027 – April 2029).

Logistics

Dr. Jennie Haw will be the primary supervisor, and students will meet regularly with Biba Tinga. Most work can be done remotely, with some in-person meetings at Canadian Blood Services Head Office.

PROJECT 9

Department of Health Sciences
CARLETON UNIVERSITY

CARLETON UNIVERSITY
HEALTH SCIENCES

Proposed Research Project
Master of Science in Health: Science, Technology and Policy
Carleton University, Ottawa, ON, Canada

Project Title

Using Signal Detection and Pattern Analysis to Derive Intelligence Insights for Canada's Food Landscape

Supervisor / Organization

Organization: Risk Intelligence and Outreach Team, Food Safety and Science Branch, Canadian Food Inspection Agency (CFIA)
Supervision: Students will report to the National Manager, Risk Intelligence and Outreach Team, with direct supervision from intelligence analysts.

Project Objective

This project will use existing and new information sources, tools, and processes to develop a pattern analysis framework for various risk areas that provides early warning of potential vulnerabilities or emerging issues and translates these into intelligence insights. The goal is to increase the resiliency and robustness of Canada's food landscape through an early warning system. This may include assessing initiatives such as HOLiFOOD, FoodSafeR, and ERIS, and engaging with CFIA divisions and risk model teams, other governments responsible for food, and international partners, as appropriate.

Background

Today's global food risk landscape is shaped by many drivers that may require regulatory response. Regulators need to identify potential vulnerabilities and emerging issues early enough to develop risk mitigation strategies that proactively safeguard the Canadian food marketplace. One solution is regular environmental scanning to identify patterns that signal shifts in the known risk landscape or new emerging risks, which can then inform intelligence insights. In addition to traditional food-hazard risks, public trust, reputational, trade, and integrity risks are increasingly important to consider.

Research Project Components

- Establish a pattern analysis methodology, with processes and procedures to move from identifying an emerging issue to intelligence insights
- Develop methodologies to measure the influence of specific drivers on the risk landscape or established indicators
- Build interactive dashboards or data visualizations to support analysis, intelligence generation, risk communication, and reporting
- Present findings to federal, provincial, and territorial government stakeholders

Proposed Team

1–2 MSc HSTP students, working part-time or full-time in a hybrid setting directly with the Risk Intelligence and Outreach Team at CFIA.

Duration

Suited to either HLTH 5507 Research Project (IHRP) or HLTH 5506/5508 Practicum Pathway/Field Research and Placement, depending on the flexibility needed by the candidate(s).

Logistics

The project will be conducted at CFIA using Agency equipment. Reliability security status will need to be established, which may require each student to become a part-time paid student in addition to work hours completed as part of the HSTP program.