

Exploring the impact of nutrition guidelines for publically funded recreation and sport facilities in Canada: an overview of the Eat, Play, Live study design

Submission date	Recruitment status	<input type="checkbox"/> Prospectively registered
28/05/2016	No longer recruiting	<input type="checkbox"/> Protocol
Registration date	Overall study status	<input type="checkbox"/> Statistical analysis plan
03/07/2018	Completed	<input checked="" type="checkbox"/> Results
Last Edited	Condition category	<input type="checkbox"/> Individual participant data
18/08/2023	Nutritional, Metabolic, Endocrine	

Plain English summary of protocol

Background and study aims

Recreation and sports facilities are community health promotion resources that have been found to have unhealthy food environments. The British Columbia, Alberta and Nova Scotia governments have introduced guidelines to improve food environments in these facilities. The aims of this study are to explore the impact of these guidelines on the food environments in these facilities across different provinces, and to test the impact of providing active support to facility management and staff. The study will also identify factors that influence implementation.

Who can participate?

Publicly funded municipal recreation and sport facilities

What does the study involve?

Facilities in provinces with nutrition guidelines are randomly allocated to either receive support or to not receive support. Support includes providing facility staff with a profile of their food environment, an online resource toolkit, seed grants, training, technical support and cross-site sharing. Staff at each facility look at their food environment profile, create a localized plan of action and implement these actions over 18 months. For instance they may create a new policy, working with their vending company or work with the concession provider to increase healthy food offerings. These facilities are compared with facilities in a province with no guidelines or support. Organizational capacity, policy development, vending and concession foods and environment, and patron purchasing patterns are compared at the start of the study and after 18 months.

What are the possible benefits and risks of participating?

Visitors and staff in the facilities may benefit because of the improved health profile of the food products provided. Facilities may become more aware of their food environment and adopt healthier policies and practices. Re-engineering food environments in publicly funded recreation and sport facilities is important to obesity prevention. The study findings will help to improve

nutrition policies and support and may influence standard practice in recreation and sport facilities and other publicly funded institutions. As organizations are enrolled and not individuals there are no known risks to participation. However, loss of revenue is a typical perceived risk at the facility level.

Where is the study run from?

1. University of Victoria (Canada)
2. University of Alberta (Canada)
3. Dalhousie University (Canada)
4. University of Waterloo (Canada)

When is the study starting and how long is it expected to run for?

September 2015 to July 2018

Who is funding the study?

Heart and Stroke Foundation of Canada

Who is the main contact?

Dr Patti-Jean Naylor

pjnaylor@uvic.ca

Contact information

Type(s)

Public

Contact name

Dr Patti-Jean Naylor

ORCID ID

<https://orcid.org/0000-0002-4799-2751>

Contact details

University of Victoria

Victoria

Canada

V8W 3P1

+1 (0)250 721 7844

pjnaylor@uvic.ca

Additional identifiers

Protocol serial number

N/A

Study information

Scientific Title

Eat, Play, Live (EPL): a population intervention to promote nutrition guideline implementation in recreation facilities across three Canadian provinces

Study objectives

1. Recreation facilities in provinces that have developed nutrition guidelines for foods sold in municipal recreation will have significantly better facility capacity, policy development, vending and concession product health profiles and healthier patron purchasing patterns when compared with those in provinces without guidelines
2. Recreation facilities that receive additional support in the form of a capacity building intervention (CBI) will have significantly better facility capacity, policy development, vending and concession product health profiles and healthier patron purchasing patterns when compared to those that are exposed to guidelines only or that are not exposed to any guidelines

Ethics approval required

Old ethics approval format

Ethics approval(s)

1. University of Victoria Human Research Ethics Board and University of British Columbia Behavioral Research Ethics Board, 07/28/2015, ref: BC15-196
2. University of Alberta Research Ethics Board 2, 8/21/2015, ref: Pro00058906
3. Dalhousie University Health Sciences Research Ethics Board, 10/05/2015, ref: 2015-3637
4. University of Waterloo Office of Research Ethics, 10/25/2015, ref: 20913

Study design

Multicentre interventional experimental design with randomization that uses a mixed-method concurrent triangulation design with quantitative and qualitative data analysis

Primary study design

Interventional

Study type(s)

Prevention

Health condition(s) or problem(s) studied

Dietary behavior

Interventions

This study evaluates the impact of two levels of intervention. The first level is provincial policy in the form of voluntary nutrition guidelines (including passive supports and resources released by government) and the second is provincial policy plus an 18-month CBI. Recreational facilities in provinces with nutrition guidelines will be randomized to either: guidelines plus CBI intervention ($n = 18/6$ per province BC, AB, NS), or guidelines only (with associated passive supports) comparison ($n = 18/6$ per province BC, AB, NS). A third comparison group ($n = 18$) will be randomly selected from a list of recreation facilities in a province that does not have nutrition guidelines for the recreation sector (Ontario).

Recreational facilities in provinces with nutrition guidelines will be randomized to one of two groups:

Group 1: Guidelines plus capacity building intervention (CBI). The CBI will link researchers, nutrition stakeholders and the development team ('the resource group') with recreation facility staff in each province (the 'user group'). A provincial coordinator will act as the 'linking agent /knowledge broker' and provide training and technical support for communities as they assess

their needs and create localized plans of action. The provincial coordinator will also link communities with the resources that are available to support their work: a toolkit -available in print or via a website (www.stayactiveeathealthy.ca), seed funding grants, suggested plans and processes for changing the recreation food environment and the information needed to take action (e.g. information about healthier food products, guidelines, 'community stories/real world practices', evaluation findings and templates for contracts, request for proposals, policies, etc.). Finally, the provincial coordinator will facilitate the knowledge to action cycle by providing rapid feedback of baseline results and ready access to published evaluations and evidence from practice-based research. In turn, lessons learned by the 'user group' will influence further actions within and across sites because of opportunities for cross-site sharing (e.g. teleconferences within and between jurisdictions).

Group 2: Guidelines only

Facilities in this arm of the trial are situated in provinces with voluntary provincial enacted but receive no active supports (although passive supports associated with the release and implementation guidelines or other initiatives are available through the internet if they are motivated to search for these).

Group 3: Comparison

This group has no provincial guideline or capacity-building efforts however they could access supports from other jurisdictions through the internet or other means.

Intervention Type

Mixed

Primary outcome(s)

All of the following outcome measures will be assessed at baseline (Nov 2015-June 2016) and follow-up (Sept 2017-Feb 2018):

1. Facility Organizational Capacity is measured by an audit tool specifically designed for recreation facilities (a self-assessment of the current environment and level of capacity to address healthy eating within recreation facilities)
2. Policy Development is measured by the policy question on the above capacity audit tool along with a purpose built questionnaire that requests information about:
 - 2.1. The status of facility level policy for the provision of healthy food
 - 2.2. How provincial nutrition guidelines are addressed in the policy
 - 2.3. The key food environment issues addressed in the policy
3. Food Environment - a reliable (test-retest and inter-rater reliability ≥ 0.88) four-step process will be used to audit the contents of two randomly selected snack and two randomly selected beverage vending machines per facility (Naylor et al, 2010). For each item present, a Research Assistant will record information on product brand, variety/type, size, flavour and price. This information will be used to calculate the proportion of products classified as: Sell Most (nutrient-dense; lower in sodium, sugar and fat), Sell Sometimes (source of essential nutrients; higher in sodium, sugar, and/or fat), and Do Not Sell (energy-dense and nutrient-poor; high in sodium, sugar, and/or fat) (BC Ministry of Health, 2014), using an online automated classification tool called the Brand Name Foodlist (<https://bnfl.healthlinkbc.ca/>) which uses BC's food classification scheme to provide a consistent basis for cross-province comparisons
4. Food Environment - the concession food environment will be measured objectively using the Nutrition Environment Measures Survey–Restaurant (NEMS-R; fast casual version) (Lesser, Hunnes et al. 2012). The marketing questions will be enhanced with a valid and reliable checklist developed in Alberta that identifies food/beverage ad location (e.g. jerseys, scoreboards) and content (e.g. logos, appealing images) (Prowse et al 2018)

5. Patron Purchasing Patterns are measured using sales records for the products sold in vending machines and concession(s) will be collected for two weeks during baseline and follow-up

Key secondary outcome(s)

1. Meeting Minutes from Regional Teleconferences: During the 18-month intervention, meetings will be held quarterly with researchers, the Provincial Coordinator and representatives from CBI facilities; each will include a short verbal report from participating facilities that addresses activities to date, spin-off activities, issues and facilitators or barriers. Meeting minutes will be recorded and a facility events and activities list created
2. Facility Plans and 6 Month Reports: Each facility will submit their plan for activities they intend to complete along with a short report summarizing activities and events they actually did complete every 6 months. The research team will review these documents and summarize key activities on the facility events and activities list
3. Semi-Structured Interviews and Focus Groups with Recreation Administrators and Staff: These will explore elements of the context and CBI that facilitate and/or inhibit implementation. At each intervention facility, we will invite administrators ($n = 18$) and the staff identified by the administrator as 'most involved' in the nutrition policy change strategy to participate in individual semi-structured interviews. Interviews will be taped and transcribed verbatim

Completion date

01/07/2018

Eligibility

Key inclusion criteria

Publicly funded municipal recreation and sport facilities (not individuals) were eligible to participate if they: 1. Had not been involved in an intervention to improve their food environment since 2010

2. Offered food/beverages through vending machines and/or a concession

3. Had the ability to change their food environment

4. Offered recreational programming, preferably to children

Participant type(s)

Other

Healthy volunteers allowed

No

Age group

Other

Sex

All

Total final enrolment

32

Key exclusion criteria

Municipal recreation and sport facilities in each province that have recently taken action (within 5 years of study initiation) to change their facility food environment or participated in programs targeting change in the food environment

Date of first enrolment

01/09/2015

Date of final enrolment

01/07/2016

Locations

Countries of recruitment

Canada

Study participating centre

University of Victoria

School of Exercise Science, Physical and Health Education

PO Box 3015 STN CSC

Victoria

Canada

V8P 5C2

Study participating centre

University of Alberta

4-077 Edmonton Clinic Health Academy

11405 – 87 Ave.

Edmonton

Canada

B3H 4R2

Study participating centre

Dalhousie University

1318 Robie Street

PO Box 15000

Halifax

Canada

B3H 4R2

Study participating centre

University of Waterloo

200 University Avenue

Waterloo
Canada
N2L 3G1

Sponsor information

Organisation
University of Victoria

ROR
<https://ror.org/04s5mat29>

Funder(s)

Funder type
Charity

Funder Name
Heart and Stroke Foundation of Canada

Alternative Name(s)
Heart and Stroke Foundation, Heart & Stroke Foundation of Canada, Heart & Stroke, Fondation des maladies du cœur et de l'AVC, Fondation des Maladies du Cœur du Canada, Fondation des maladies du cœur et de l'AVC du Canada, HSFC, HSF

Funding Body Type
Government organisation

Funding Body Subtype
Trusts, charities, foundations (both public and private)

Location
Canada

Results and Publications

Individual participant data (IPD) sharing plan

The data sharing plans for the current study are unknown and will be made available at a later date.

IPD sharing plan summary

Data sharing statement to be made available at a later date

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	25/06/2019	18/07/2019	Yes	No
Results article		02/08/2021	18/08/2023	Yes	No
Participant information sheet	Participant information sheet	11/11/2025	11/11/2025	No	Yes