



UNIVERSITY OF ALBERTA
SCHOOL OF PUBLIC HEALTH



A Reliable Observational Tool to Measure Food and Beverage Marketing in Sport Settings

Rachel Prowse, RD, PhD Candidate
School of Public Health
University of Alberta
Alberta, Canada

Conflict of Interest

The COI disclosure statement was made and it is available on the abstract book.

No conflicts of interest to declare.



Outline

- Rationale
- Objective
- Tool Development
- Reliability Results
- Conclusions & Implications

Why study food marketing in sport settings?

Risk factor for childhood obesity²

Restrict food marketing where children gather²

Affects children's food preferences and practices¹

Food + physical activity = healthy halo³



Objective

To develop a **reliable** and **valid** environmental **assessment tool** to measure the nature and extent of **food and beverage marketing** in municipal recreation facilities



brampton.ca



brampton.ca



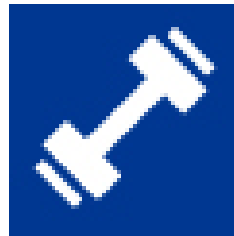
brampton.ca



wordans.ca



brampton.ca



brampton.ca



brampton.ca

Tool Development

Business
(Marketing)⁴

Public
Health⁵



Marketing of food and non-alcoholic
beverages to children



Impact on:

- Food preferences
- Purchase requests
- Consumption patterns



Tool Development

The MAT measures:

- Number of promotions
- Food-related products/brands/retailers promoted
- Whether the promotion was directed to children
- Whether the promotion was related to sports
- Physical size of the promotion

Assesses marketing in:

1. Food Service areas
2. Sports areas
3. Other areas

The Marketing Assessment Tool

Section 2 - Entrance, Reception Area & Hallways

Location	Product(s) or brand(s) advertised	Child-directed?		Sports-related?		Size of advertising ²		
Facility pamphlets or brochures <input type="checkbox"/> No food/bev ads <input type="checkbox"/> Not applicable	1.	Yes	No	Yes	No	S	M	L
	2.	Yes	No	Yes	No	S	M	L
Facility televisions <input type="checkbox"/> No food/bev ads <input type="checkbox"/> Not applicable	1.	Yes	No	Yes	No	S	M	L
	2.	Yes	No	Yes	No	S	M	L
Welcome desk <input type="checkbox"/> No food/bev ads <input type="checkbox"/> Not applicable	1.	Yes	No	Yes	No	S	M	L
	2.	Yes	No	Yes	No	S	M	L
	3.	Yes	No	Yes	No	S	M	L
Walls/ floors	1.	Yes	No	Yes	No	S	M	L

WHERE?

WHAT?

HOW?

Inter-Rater Reliability Testing

- 2 independent raters
- 5 facilities
- Photos taken and used to verify answers
- Inter-rater reliability tested:
 - Percent perfect agreement
 - Categorical variables: Unweighted Cohen's Kappa coefficient^{6,7}
 - Continuous variables: Intra-class Correlations^{6,8}

Inter-Rater Reliability Results

	Percent Agreement	Kappa / Intra-class Correlations
ID marketing	92%	Kappa=0.88*
# of marketing instances	61%	ICC = 0.95*
Product marketed	100%	Kappa=1.00*
Child-directed	100%	Kappa=1.00*
Sports-related	99%	Kappa=0.94*
Size	92%	Kappa=0.85*

Conclusions & Implications

The Marketing Assessment Tool:

1. is **reliable**
2. is **adaptable**
3. can **inform effective policy interventions** to restrict children's exposure to powerful unhealthy food and beverage marketing



Funding

Funding provided by:



References

1. Cairns G, Angus K, Hastings G, Caraher M. Systematic reviews of the evidence on the nature, extent and effects of food marketing to children. A retrospective summary. *Appetite*. 2013;62:209-15.
2. World Health Organization. Marketing of foods high in fat, salt and sugar to children: update 2012-2013. Copenhagen, Denmark: WHO Regional Office for Europe. 2013.
3. Castonguay J. Sugar and Sports Age Differences in Children's Responses to a High Sugar Cereal Advertisement Portraying Physical Activities. *Communication Research*. 2015:0093650215587357.
4. Perreault Jr WD, McCarthy EJ, Cannon JP. Basic marketing: A marketing strategy planning approach: McGraw-Hill/Irwin; 2006.
5. World Health Organization. A framework for implementing the set of recommendations on the marketing of foods and non-alcoholic beverages to children. 2012.
6. Scholtes VA, Terwee CB, Poolman RW. What makes a measurement instrument valid and reliable? *Injury*. 2011;42(3):236-40.
7. Landis JR, Koch GG. The measurement of observer agreement for categorical data. *biometrics*. 1977:159-74.
8. Cicchetti DV. Guidelines, criteria, and rules of thumb for evaluating normed and standardized assessment instruments in psychology. *Psychological assessment*. 1994;6(4):284.