Creating Food Environments that Support Healthy Eating: Moving Beyond Schools to Communities

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Key Messages

• Food environments provide the context for behaviour. Improving environments can support healthy choices and better health.

• School food environments are leading change, but challenges remain.

• Moving beyond schools to communities can strengthen school efforts and contribute to much needed culture change.
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Food Environment: Conceptual Model

Policy Variables

Environmental Variables
- Community Nutrition Environment
  - Type & Location of Food Outlets (stores, restaurants)
  - Accessibility: hours of operation, drive-through

- Organizational Nutrition Environment
  - Home
  - School
  - Work
  - Other

Individual Variables

Behavior

Sociodemographics

Psychosocial Factors

Perceived Nutrition Environment

Eating Patterns

Information Environment
- Media, Advertising
Traffic prompts Saskatoon to mull drive-thru ban

SASKATOON - Canadians lining up in their cars for a Tim Hortons fix are causing traffic snarls and headaches in cities across the country.

The problem has become so bad in Saskatoon that one city councillor has proposed a ban on all future drive-thrus.

A report is looking into whether such a plan would work.

Comox Addresses Drive-Through GHG-emissions

The Town of Comox Council passed a Zoning bylaw that will limit pollution from cars idling in drive-throughs.

The Town of Comox has agreed to monitor its impact on greenhouse gas emissions and to work to create more sustainable development through agreements such as the BC Climate Action Charter and the Sustainable Development Strategy for the Comox Valley.

Taking Climate Action

One solution they decided on for their town was to implement a Greenhouse Gas (GHG)
NEWPATH:
Neighbourhood Environments in Waterloo: Physical Activity Transportation and Health

Team: Larry Frank, Kim Raine, Mary Thompson, Pat Fisher, Roy Cameron, and Josh VanLoon.

• Food environment data collected and analyzed by: Leia Minaker, PhD
Average distance to different outlet types

- 521m
- 1001m
- 582m
5.6 times as many convenience stores and fast food outlets as grocery stores and specialty stores within 1km
Measured linear shelf-space of:
1) Fruits and Vegetables
2) Energy-dense snack foods in all food stores
Average shelf-space of fruits and vegetables vs. junk food within 1km
Food Environments and Behaviour

• Healthy environmental defaults support healthy dietary behaviours with little awareness or involvement from individuals

• i.e. healthy foods readily available, competitively priced, promoted, convenient
Interventions to Prevent Obesity in Children: Evidence

http://www.health-evidence.ca

• Obesity prevention works in school settings for children aged 6-12 (no evidence for <5 or 13-18)

• Combined physical activity and nutrition best

• Weak effect of physical activity only

• No effect of nutrition-alone interventions

• Recommend “focus on creating environments and culture that support children to eat healthier and to engage in more PA” (comprehensive school health)
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Access and Availability: Pouring-rights contracts
Canadian Teachers’ Federation (2006)

• Survey of > 3100 schools (23% response rate)
• 27% of schools (5% in Quebec; 40% Prairies) had exclusive marketing arrangements with Coke or Pepsi (16% Coke, 11% Pepsi)
• Schools generated $15,705/year on average
• 26% of AHSCWF Projects surveyed in 2012 had marketing contracts
Socio-cultural Environment: Commercialization and Marketing

- Marketing *strongly influences* children’s food preferences, requests *and* consumption

- Food and drink advertising on TV is associated with obesity of children (strong evidence) and youth (weaker evidence)

Institute of Medicine (USA) 2005:
Advertising Venues for Food and Beverage Companies

Observations in AHSCWF Schools

• Scoreboards – 29%
• Clocks – 14%
• Beverage machines (selling a range of products, including juice and water) – 55%
• Banners and school signs – 14%
• Incentive programs – 48%
Policy is viewed as a powerful tool for behaviour change

• “the public policy environment is frequently cited as a critical location for solutions to the obesity epidemic” (WHO, 2000)

• Policies that create environments where healthy choices are the ‘easy’ choices create opportunities for everyone including the most vulnerable to improve their health.
School Policy Decisions

• **Curricular**
  - E.g. Mandatory health/ physical education and/ or home economics

• **Fiscal**
  - What is the financial impact of removing vending machines?

• **Cultural**
  - Does the school environment promote a culture of health or a culture of consumption?
SCHOOL FOOD POLICIES MAY HELP TO CREATE HEALTHIER ENVIRONMENTS

Title

School Sale of Home Prepared Foods to the Public Policy
The policy regulates food-safe measures that observe hygienic practices in the preparation of foods for sale in schools and respects First Nations commitment to promoting culturally relevant foods...

Manitoba School Nutrition Handbook: Getting Started with Guidelines and Policies
This handbook is designed to help school communities develop nutrition policies and implement changes to promote healthier eating options. Its goal is to provide practical guidelines that can be...

Guidelines for Food and Beverage Sales in BC Schools
The guidelines apply to foods and beverages sold to students in all school locations, including vending machines, school stores and cafeterias, and at fundraisers and other special events.

ON Bill 8 - Healthy Food for Healthy Schools Act, 2008
The bill amends the Education Act to add provisions regulating the trans fat content of...
Policy Demystified

• Policy: a plan of action agreed to by a group of people with the power to carry it out and enforce it
Are Guidelines Policy?

Alberta Nutrition Guidelines for Children and Youth

In June 2008 Alberta launched the Alberta Nutrition Guidelines for Children and Youth to encourage the creation of healthy food environments wherever children gather to be cared for, learn and play. Since the release of the guidelines, feedback has been used to develop three easy-to-read implementation resources, as well as the addition of the Healthy U Food Checker to enhance the use of the nutrition guidelines. The new implementation resources explain how to use the guidelines and provide detailed explanations on how to read a Nutrition Facts Table. The
Good public policy must be:

( PHAC )

• Socially acceptable: reflects important values, e.g., fairness and equity, consistency, justice.

• Politically viable: sufficient consensus support that elected officials are comfortable with the decision.

• Technically correct: meets any scientific or technical criteria that have been established to guide or support the decision.

• Implementable (Doable)

• Enforceable
Welcome!

The Alberta Policy Coalition for Cancer Prevention (APCCP) represents a broad range of practitioners, policy-makers, researchers and community organizations who have come together to coordinate efforts, generate evidence, and advocate for policy change in order to reduce cancer and other chronic diseases in Alberta.

The APCCP promotes and facilitates evidence-based policies to address healthy eating, physical activity, tobacco reduction and the misuse of alcohol in Alberta communities, schools, and workplaces.

Do you want to take a stand against cancer and chronic disease in Alberta? Any individual, group or organization can become an APCCP member and make a public commitment to supporting policies and activities which promote a healthier Alberta. Click on the Join Us tab to start!
APCCP Surveys to assess:

Socially acceptability:

• Alberta Survey of Knowledge, Attitudes and Beliefs
  • Administered in the May-July 2010
  • Response rate = 21.2 % (1203 responses)

Politically viability:

• Decision-Maker Survey of Knowledge, Attitudes and Beliefs
  • Administered in Nov 2009-Jan 2010 (repeated 2012)
  • Response rate = 13.4 % (236 responses)
Do you support mandating policies for school nutrition programs?

Albertans: 94%

Decision Makers: 89%
Restricting Access to Unhealthy Foods & Beverages

Views on the level of current regulations for...enforcement of junk food bans in schools?

Decision-Makers:
Too much: 7%
Too little: 46%
About right: 34%
Restricting Access to Unhealthy Foods & Beverages

Do you support restricting sugar-sweetened drinks and other unhealthy foods from vending machines in schools and all public buildings?

Albertans: 82%

Decision Makers: 80%
Restrict SSB and Other Unhealthy Foods from Vending Machines…

Alberta

Workplace

School

Government

0 10 20 30 40 50 60 70 80 90 100

- Strongly Support
- Somewhat Support
“Healthy Schools Now” Survey of School Trustee candidates

• All Edmonton, Calgary and Lethbridge candidates contacted during the October 2011 municipal elections
• 105/106 candidates were successfully contacted and invited to participate. Sixty-three candidates responded to the survey (63/105=60%).

• SURVEY QUESTION: Will you support a ban on the advertisement of unhealthy foods and beverages (in accordance with the Alberta Nutrition Guidelines for Children and Youth) in all schools in Alberta?
  – 92% of trustees support
Prohibiting Advertising of Unhealthy Foods & Beverages to Children

Do you support prohibiting advertising and promotion of unhealthy food and beverages to children under the age of 16?

Albertans: 82% support

Decision Makers: 71% support
Prohibit Advertising of Unhealthy Food and Beverages to Children

Alberta

Workplace

School

Government

0 10 20 30 40 50 60 70 80 90 100

- Strongly Support
- Somewhat Support
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Not just schools!
The role of the public and private sectors in improving recreational facility food environments
Alberta Nutrition Guidelines for Children and Youth (ANGCY)

- Released in 2008
- Facilitate children’s access to healthy beverages and foods in schools, childcare and recreation facilities

Olstad et al, 2011
ANGCY IMPLEMENTATION

- Implementation was evaluated by assessing the quality of the food environment:
  - ANGCY implementation score: 74%
  - Very limited availability of healthy items
  - Poor nutritional profile of vending machine items
# FOOD AVAILABILITY

<table>
<thead>
<tr>
<th></th>
<th>CMO</th>
<th>CS</th>
<th>CLO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beverage vending machines</td>
<td>31%</td>
<td>4%</td>
<td>65%</td>
</tr>
<tr>
<td>Food vending machines</td>
<td>2%</td>
<td>8%</td>
<td>90%</td>
</tr>
<tr>
<td>Concession beverages</td>
<td>16%</td>
<td>2%</td>
<td>81%</td>
</tr>
<tr>
<td>Concession food</td>
<td>16%</td>
<td>14%</td>
<td>70%</td>
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</table>
# AVERAGE NUTRITIONAL PROFILE OF VENDING MACHINE ITEMS

<table>
<thead>
<tr>
<th></th>
<th>Beverage vending (n=8)</th>
<th>Food vending (n=4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories</td>
<td>126</td>
<td>216</td>
</tr>
<tr>
<td>Fat (g, % kcal)</td>
<td>0,0</td>
<td>10, 42</td>
</tr>
<tr>
<td>CHO (g, % kcal)</td>
<td>31, 98</td>
<td>29, 54</td>
</tr>
<tr>
<td>Pro (g, % kcal)</td>
<td>1,3</td>
<td>3,6</td>
</tr>
<tr>
<td>TFA (g)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>SFA (g)</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Cholesterol (mg)</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Sugars (g)</td>
<td>28</td>
<td>13</td>
</tr>
<tr>
<td>Fibre (g)</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Na (mg)</td>
<td>77</td>
<td>198</td>
</tr>
<tr>
<td>Ca (% DV)</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Fe (% DV)</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Vit A (% DV)</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Vit C (% DV)</td>
<td>14</td>
<td>7</td>
</tr>
</tbody>
</table>
Do the ANGCY Go Far Enough?

• Scores indicate the ANGCY were implemented to a high degree and there was a healthy food environment

• Yet…
  – There was a very low availability of healthy items (< 20% for the facility overall)
  – Sales of healthy items were low
  – Students came to the facility specifically to purchase unhealthy items
Food Services in Recreation Facilities

- Often privately delivered
- Contracts may be up to 20 years
- A portion of revenues returned to recreation facilities
- Primary goal is profit
  - Therefore most foods available for sale tend to be energy-dense and nutrient-poor
U of A study suggests healthier food choices at recreation centres

Community recreation centres are a place to promote health — but a researcher said most of them are failing with their healthy food options.
Financial constraints

• Facilities depended on revenues from sales of unhealthy food

• Managers believed healthier items were not as profitable as unhealthy items
  – Adopters willing to make changes with small financial implications
  – Non-adopter unwilling to make any changes that might adversely impact revenues
READINESS TO IMPLEMENT

• Assessment of implications of the format of the nutrition policy
  – Positive aspects of choice-based policy:
    • More conducive to profitability
    • Support of management and most stakeholders
  – Negative aspects of choice-based policy:
    • Barrier to meaningful change
    • Continued pressure from School Boards
    • High school students purchased unhealthy foods
Barriers

- Lack of resources and training
- Complexity of the ANGCY
- Difficulties locating ANGCY-compliant products
- Limited customer demand for healthier items
- Competitive pressures
- Substantial revenue losses
Incentives and mandates

“It has to mandated... It can’t be voluntary. There’s no way it’ll work.”

• Voluntary adoption not in financial interests
• Government mandated adherence essential
• Levels the playing field
Intersectoral collaboration

• Managers could not accomplish ANGCY implementation alone
  – Linkages with schools
  – Health promoting partnerships with industry
Linkages with schools

• Efforts to improve school food environments provided capacity and a supportive context
  – Adopters heard how others were using the ANGCY in schools and were encouraged to do the same
  – Industry’s willingness to partner with recreational facilities was partially determined by their use of the ANGCY in schools
Partnership with industry

• Recreation facilities had no experience with nutrition guidelines
• Adoption occurred when industry partnered
  – Industry partners were using the ANGCY in schools
• No adoption occurred when industry would not partner
  – Non-partners had no school-based operations or were not using the ANGCY in their school-based operations
Community Partnerships

• Schools invest a great deal of time, effort and financial resources to creating healthy school food environments through education, programs and policy development - yet these efforts are undermined by the sales, promotion and marketing of these products on or around school campus such as at school athletic events.

• Govt action to tax or to restrict the sales, marketing and promotion of unhealthy foods would be a pro-parent and pro-school approach to creating healthy environments for students.
Leduc Backyard Hockey Rink Looks Just Like What The Pros Use

The Huffington Post Alberta  |  Posted: 01/08/2013
Restricting Access to Unhealthy Foods & Beverages

Do you support zoning to restrict the supply of junk food near schools?

Albertans: 74% support
“Healthy Schools Now” Survey of School Trustee candidates

• All Edmonton, Calgary and Lethbridge candidates contacted during the October 2011 municipal elections
• 105/106 candidates were successfully contacted and invited to participate. Sixty-three candidates responded to the survey (63/105=60%).

• **SURVEY QUESTION: Will you support a bylaw to restrict access to unhealthy food within 500 metres of schools in Alberta?**
  • Only 51% of trustees would support
What are next steps for creating healthy, school communities?

• What do these results tell us about the stage of readiness for policy change?

• What does the evidence tell us about what should be done to address barriers to healthy eating within school communities?
Quebec leading the way

THE SCHOOL ZONE AND NUTRITION: COURSES OF ACTION FOR THE MUNICIPAL SECTOR
Don’t get Caught in a “Toxic” Environment …think out of the box!
Funding Support
For More Information…

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