School nutrition

How do we know if we are making a difference?

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Issues & Concerns

Obesity & chronic disease

Hungry children

Family economics

Food allergies

School facilities & capacity

A CALL TO ACTION
The key findings show that, the prevalence of childhood overweight/obesity in Manitoba (31 per cent) in 2004 was significantly higher than the national average (26 per cent) of the same year.
41,500 [9.4%] Manitoba households reported some degree of food insecurity; 11,700 of these were classified as severe.

Food insecurity is significantly associated with

- Low household SES,
- Low income – especially social assistance
- Off-reserve aboriginal ethnicity,
- Female lone parent households
- Northern residency and core areas of Winnipeg,
- Overweight/obesity.
- Younger children in household

Food insecurity in Manitoba 2004
• Healthy Eating helps children grow, develop and do well in school

• Healthy Eating helps prevent health problems such as obesity, diabetes and dental cavities

• A healthy diet helps children be more settled, attentive and ready to learn

• Poor nutrition is associated with poorer learning outcomes in some subjects
• Grade 4
Students use the food guide to evaluate their intake, write goals for healthy eating

• Grade 12
Our emphasis is on the importance at this age in being active regularly, eating healthy food and moderate intake of fat added in food processing

This is what we say....
We’re selling over-priced hydrogenated trans fats, high-fructose corn syrup, and various additives and preservatives to raise money to buy insulin injection kits for school.

This is what we do...
• Reported to the Legislature in June 2005

• Adopted by government Fall 2005

• Key recommendation

  – Increase access to nutritious foods in schools

Trigger for change
“The provincial government require all schools to have a written school food and nutrition policy as part of their school plan.”
Recommended Policy Approach

- Mandatory / legislation
- Education/awareness

- Enabling ✓

😊 proactive without being over-directive

Recommended Policy Approach
School nutrition policy implementation

- Consultation
- Guidelines for foods served at school
- Model policies and tools
- Healthy Vending demonstration
- Survey / audit
- Evaluation
- Practical support
How do we know if we are making a difference?
INSIDE: Should Schools Ban Junk Food?

CONTEST! MAKE YOUR OWN COMIC

FOOD FIGHT

A REAL NEWS STORY IN COMIC FORM!

Should schools sell junk food?

OH, HELLO. MY NAME IS CRAIG BATTLE. YOU MIGHT REMEMBER ME FROM PAGE 3.

BUT ENOUGH ABOUT ME...

KIDS’ HEALTH IS BIG NEWS THESE DAYS. ONE QUESTION ON EVERYONE’S MIND IS, “ARE KIDS EATING TOO MUCH JUNK FOOD?”

LET’S GO FIND OUT!

PHREW! THAT WAS FAST. LET ME CATCH MY BREATH...

IN AN EFFORT TO CLEAN UP THEIR ACT, SCHOOLS ACROSS THE PROVINCE HAVE STARTED USING THE MANITOBA SCHOOL NUTRITION HANDBOOK, THE GOAL IS TO GET KIDS TO MAKE HEALTHIER FOOD CHOICES.

PHew! That was fast. Let me catch my breath…

Manitoba is just one Canadian province trying to improve kids’ eating habits.

In an effort to clean up their act, schools across the province have started using the Manitoba School Nutrition Handbook, the goal is to get kids to make healthier food choices.

Lots of schools have stopped selling pop and potato chips in vending machines, they’re also not serving as much fried food and pizza in the cafeteria.
1. **Policy Evaluation Studies.**
   - Monitor components of policy implementation
   - Assess level of policy implementation
   - Understand implementation process including perceptions of success, challenges and impact.

2. **Surveillance tracking of individual and environmental outcomes over time to assess nature and degree of change.**
   - Changes in school environments
   - Activities undertaken
   - Financial impact tracking

3. **Student health and education outcomes**
   - Food and beverage consumption of individuals
   - Knowledge / attitude changes
   - Health indicators e.g. BMI
   - Education indicators: academic achievement; student behaviour
• Simple annual reporting system beginning 2007-08 school year

• Series of school environment surveys

• Policy implementation & impact research
  – Case studies
  – Communications analysis
  – Content Analysis
• Schools required to report annually to Dept. Education, as part of school plan.

• High level – to demonstrate how schools are moving forward
Overall, the data suggests that compliance with the development of school nutrition policies has been high and that most schools are utilising the support materials provided.

Cautions:
1. The number of schools responding each year was different
2. It is not known to what degree the two sample sets overlap. i.e. the responses may be coming from a different set of schools in each year
3. The no-response rate is different in each year
Have you utilized the Manitoba School Nutrition Handbook?

Of the schools responding to this question:

- **2007**
  - Yes: 95%
  - No: 5%

- **2008**
  - Yes: 93%
  - No: 7%

N = 554

N = 612

38 = schools not responding to this question = 87
Have you adopted the Manitoba Guidelines for Foods Available at schools?

Of the schools responding to this question:

**2007**
- Yes: 77%
- No: 23%

**2008**
- Yes: 89%
- No: 11%

N = 571
N = 531

38 = schools not responding to this question = 87

Have you adopted the Manitoba Guidelines for Foods Available at schools?
Does your school have a representative committee or group that addresses school nutrition issues?

Of the schools responding to this question:

**2007**
- Yes: 81%
- No: 19%

**2008**
- Yes: 82%
- No: 18%

N = 564

39 = schools not responding to this question

N = 531

= 87
Do you have a written school nutrition policy at the school level?

Of the schools responding to this question:

2007:
- Fully in place: 34%
- Partially in place: 23%
- Under development: 3%
- N/A: 3%

2008:
- Fully in place: 53%
- Partially in place: 20%
- Under development: 12%
- N/A: 15%

N = 571

N = 612

48 = schools not responding to this question = 73

Do you have a written school nutrition policy at the school level?
Of the schools responding to this question

2007

- Fully in place: 59%
- Partially in place: 16%
- Under development: 16%
- N/A: 9%

N = 571

2008

- Fully in place: 74%
- Partially in place: 7%
- Under development: 6%
- N/A: 13%

N = 581

136 = schools not responding to this question
81 =

Do you have a written school nutrition policy at the Division level?
• Simple annual reporting system beginning 2007-08 school year

• Series of school environment surveys

• Policy implementation & impact research
  – Case studies
  – Communications analysis
  – Content Analysis
School Environment Surveys

- Food available in schools
- Food and nutrition programs
- Existing guidelines and policies

2001 historical data            2006 baseline                2009 repeat

School Environment Surveys
<table>
<thead>
<tr>
<th>School Level</th>
<th>Number of Schools</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary (k-6)</td>
<td>171 (32)</td>
<td></td>
</tr>
<tr>
<td>Middle School (7-8)</td>
<td>31 (6)</td>
<td></td>
</tr>
<tr>
<td>High School (9-12)</td>
<td>60 (11)</td>
<td></td>
</tr>
<tr>
<td>Elementary/Middle (k-8)</td>
<td>136 (25)</td>
<td></td>
</tr>
<tr>
<td>Middle/High (7-12)</td>
<td>33 (6)</td>
<td></td>
</tr>
<tr>
<td>All Grades (k-12)</td>
<td>108 (20)</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>539</strong></td>
<td><strong>79</strong></td>
</tr>
</tbody>
</table>
Figure 2: Percentage of schools that operate a cafeteria or a canteen/tuck shop

- Cafeteria
- Canteen/tuck shop

<table>
<thead>
<tr>
<th>Category</th>
<th>Cafeteria</th>
<th>Canteen/tuck shop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary (n=171)</td>
<td>2%</td>
<td>20%</td>
</tr>
<tr>
<td>Elementary/Middle School (n=136)</td>
<td>13%</td>
<td>45%</td>
</tr>
<tr>
<td>Middle/High School (n=124)</td>
<td>62%</td>
<td>50%</td>
</tr>
<tr>
<td>Kindergarten - Gr. 12 (n=108)</td>
<td>20%</td>
<td>30%</td>
</tr>
<tr>
<td>All Schools (n=540)</td>
<td>22%</td>
<td>35%</td>
</tr>
</tbody>
</table>
Manitoba School Nutrition Survey 2006

Top ten foods sold in schools

CAFETERIA

- Chocolate milk
- Sandwiches.wraps
- Cookies
- Pizza
- French fries
- Soft drinks
- Soup
- 100% fruit juice
- Water
- White milk

CANTEEN

- Chocolate milk
- Candy
- Pizza
- Chips
- Hotdogs
- Chocolate bars
- Soft drinks
- Ice cream
- 100% fruit juice
- Water

Manitoba School Nutrition Survey 2006
Top ten foods sold in schools
Figure 8: Food items sold for fundraising

- pizza days: 47%
- hotdogs days: 42%
- chocolate bars: 36%
- mom's pantry: 25%
- other items: 21%
- frozen pizza: 19%
- chocolate milk: 17%
- white milk: 16%
- cheese: 12%
- candy: 8%
- fruit: 6%
- nuts: 1%
- other items: 21%
- mom's pantry: 25%
- other items: 21%
- frozen pizza: 19%
- chocolate milk: 17%
- white milk: 16%
- cheese: 12%
- candy: 8%
- fruit: 6%
- nuts: 1%
- mice: 21%
• 55% of schools had vending machines

• 650 beverage machines
• 88 snack machines

• Water 57%
• Iced tea; sports drinks; energy drinks 56%
• 100% fruit or vegetable juice 55%
• Soft drinks 38%
• Milk 1.8%
Figure 10: Health committee representation

- 89% of schools have teachers
- 82% have school administrators
- 44% have parent council representatives
- 26% have student representatives
- 13% have dietitians/nutritionists
- 5% have public health nurses

health committee members
Figure 5  Top Ten Foods Sold in Cafeterias 2009 - 2006 Comparison

- Chocolate milk
- 100% juice
- Sandwiches wraps
- White milk
- Water
- Soup
- Muffins
- Fresh Fruit
- Yogurt
- Raw Veggies
- Cookies
- Pizza
- French Fries
- Soft Drinks

2006- 2009 comparison
Top Ten Foods Sold in Canteens 2009 - 2006 Comparison

- Chocolate milk
- 100% Juice
- White Milk
- Hot Rods
- Yoghurt
- Water
- Cheese
- Cheese and crackers
- Soup
- Fresh Fruit
- Candy
- Pizza
- Chips
- Hot dogs
- Chocolate bars
- Soft Drinks
- Ice Cream

2006 – 2009 comparison
Health Advisory Committee in Place

2006 – 2009 comparison

2006: 32.80%
2009: 65.40%
• Copies of the 2006 report were provided to every school in Manitoba as well as to education stakeholders such as superintendents, trustees, parent councils…

• A two-page summary comparing key findings for each school division to the overall sample was developed for each division and provided confidentially to that division for its own use.
• Simple annual reporting system beginning 2007-08 school year

• Series of school environment surveys

• Policy implementation & impact research
  – Case studies
  – Communications analysis
  – Content Analysis
• Case Study in one school division to understand the policy implementation process – enabling factors and barriers…

... from the point of view of administrators, teachers, students and parents...
• Embedded multiple case study within 1 school division in Winnipeg:
  1 elementary school - “inner-city”
  1 elementary school- “suburban”
  1 secondary school

• Within each school:
  i. Conduct interviews and/or focus groups with: Administrators, teachers, parents, volunteers, food service staff, nutrition program coordinators, students and janitors.
  ii. Document observations of school environment.
  iii. Map the school to assist with field notes.
  iv. Collect supporting documentation: Divisional and school policies, newsletters, menus, bulletins, and websites.
• Allows for incorporation of multiple perspectives; Administrators, teachers, parents, custodians, food service staff, education assistants, and students.

• Semi-structured interviews allow the informant to provided detailed accounts of his or her own experiences.
• Provides insight into the way groups interact around food.
  – **Student eating habits.**
  – **Adults as role-models for students.**
  – **Group interactions at meal time.**

• Assist with interpretation of information provided by participants.

• Provides insight into the influence of the physical environment.

(Bonner & Tolhurst, 2002; Mulhall, 2003)
• Findings from this study will inform future Manitoba School Nutrition Policy initiatives.

• A report of findings will be provided for Manitoba School Divisions to make schools aware of issues that may need to be addressed.
• Simple annual reporting system beginning 2007-08 school year

• Series of school environment surveys

• Policy implementation & impact research
  – Case studies
  – Communications analysis
  – Content Analysis
Objective: To assess if and how schools are communicating their nutrition policies to the school community and public.

Method: A systematic search of all school division [40] and individual school websites [688].

Data Collected:
• If and where policies are located on websites.
• If and where policies are being communicated on websites.
Results:

• Schools are not widely using websites to communicate existence and content of SNP.

• School Plans, school reports to the community, newsletters were often located on school websites, however SNPs were not broadly communicated in these documents.
Recommendations:

• School divisions should be encouraged to require all school, as a minimum, provide links to divisional nutrition policy on website.

• The Manitoba government could assist schools in publicizing SNP by providing material and links for schools to include in newsletters and on websites.
• Simple annual reporting system beginning 2007-08 school year

• Series of school environment surveys

• Policy implementation & impact research
  – Case studies
  – Communications analysis
  – Content Analysis
Objective: To assess what are the most common and least common components of Divisional SNPs.

Method:
• Summation and evaluation of discreet components of Divisional SNP including: mission statement, purpose, scope, plan for communication, accountability, procedure/protocol.
  – Have they been incorporated?
  – Is the language weak or strong?
  – What is the level of detail?
Implications:

- Inform Manitoba Government which components have been widely incorporated into SNP.
- Enable Manitoba Government to provide support and advocacy to help strengthen weak components of SNPs (e.g. Plan for Communication).
Evaluation involves a systematic collection of data that allows:

- Judgement about the policy
- Reflection of what has happened
- Assessment of achievement of goals.
- Document changes due to policy
- Enhance support
- Allocate resources
- Provide accountability
- Inform decision-making
- Contribute to evidence base

Summary