

# Why Complexity Matters: An Assessment of the NL School Food Environment

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Canada

# Presentation Overview

- Provide context on current school food in Canada
- Explain how the school food environment (SFE) is a complex concept
- Review the emergence of complexity in school food environment research
- Demonstrate how a complex understanding of the SFE factors into my research
- Thoughts on how this connects to 'cost and value' in health care



# Context on current school food practices in Canada



# School food policy/ programs or lack thereof are a perpetual source of debate:

CBCnews

Home

Opinion

Health

Rate My Hospital

September 5th, 2017

## Why Canada could benefit from a national school food program

Food Secure Canada is lobbying Ottawa to consider a cohesive school program as part of a national food policy

CBC News Posted: Sep 05, 2017 1:46 PM ET | Last Updated: Sep 05, 2017 1:53 PM ET



Canada is the only industrialized country without a national school meal program, so advocates want Ottawa to put one in

- In a [UNICEF report](#) published this summer, Canada [ranked](#) 37th out of 41 countries on access to nutritious food for children
- Food Secure Canada is [seeking](#) an investment by the federal government in a cost-shared universal healthy school food program, so students can have daily access to healthy meals at school.
- <http://www.cbc.ca/news/health/what-s-the-secret-to-japan-s-slender-population-serious-eating-education-1.2894221>

## Quality of Canadian kids' school lunches reveals room to improve

New study launches a long-term look at the quality of food eaten by Canadian children during school hours

The Canadian Press Posted: Aug 24, 2017 6:51 AM NT | Last Updated: Aug 24, 2017 6:32 PM NT

## Lunchbox letdown: parents grapple with long list of banned foods at schools

Peanut butter alternative Wowbutter too close to the real thing for some lunch monitors in local schools

By Mario Carlucci, CBC News Posted: Sep 10, 2017 5:00 AM ET | Last Updated: Sep 10, 2017 5:00 AM ET



# Schools struggle to clean up food

By David Moores

If you are what you eat, our kids are in trouble. Newfoundland school children eat more high calorie, low-nutrition food than any in Canada. One of the offenders is the schools themselves.

You can get two very different messages, depending on which room of some schools you visit. In the classrooms, you're in the land of granola and ripe apples. The Canada Food Guide reigns supreme here, teachers tell the virtues of grains, proteins and vitamins.

For a different view of the world, go down to the canteen or the cafeteria. In far too many of Newfoundland's schools, this is the stronghold of garbage food: slivers of potato drenched in oil and covered with salt, sugary glue dipped

in what passes for chocolate, and of course, everybody's favourite, fizzy sugar water in a can.

Translation: it's easier to find a bag of potato chips in a Newfoundland school than a bag of nuts; easier to find soft drinks than apples. Given the fact that those same schools teach nutrition, they obviously know better.

It's a problem that Annette Staphenurst knows quite a bit about. As the provincial nutrition consultant with the Department of Health, she has been trying to get the junk out of our schools and out of our

kids' diets — for some time. We have been talking about this for the past 15 years because what there is a basic contradiction between teaching nutrition in the classroom and selling junk in the canteen," she says. "I'm saying that whatever the home ec. or phys. ed. teacher says about nutrition is not important because the principal or whoever runs the cafeteria sells junk."

## Bad food, bad health

Certainly there is a need for improvement in our eating habits, especially among young people. A recent study of eating habits in Newfoundland Health Attitudes and Behaviour Survey, confirmed what many people suspected all along: the worst junk food addicts

The Newfoundland Herald, 1986

# SCHOOL HEALTH WORK on the LABRADOR

By  
Elizabeth  
Criswell



The firs and spruces of Labrador supply fuel for the long winter. To the right are shown stacks of wood ready for use.

THE little motor boat pulled up to the temporary wharf. The man stopped the engine and hurried forward to hold



We use the many varieties of dried fruits and vegetables, with a plentiful supply of potatoes, turnips, carrots, parsnips, onions and beets, ...Cod and salmon are used fresh during the summer months and salted and dried for winter use....

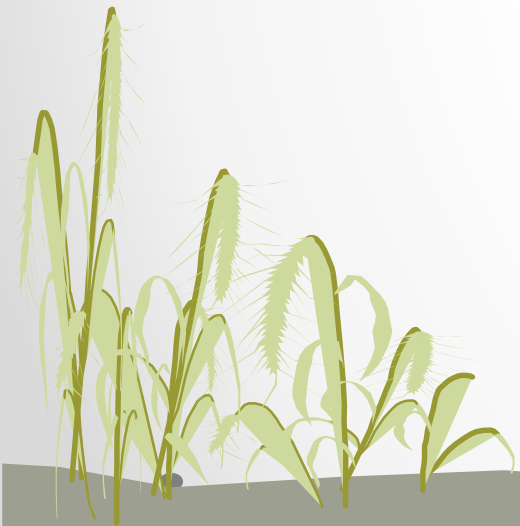
Venison, partridge, rabbits, an occasional seal and often a black bear provide fresh meat...we feast on wild duck and wild geese...Gardens have been built around each school, and enough vegetables can be grown to supply the needs for the summer and early fall”

*(1933 Article published in 'Hygeia': A journal of individual and community health)*

# Explain school food as a complex concept

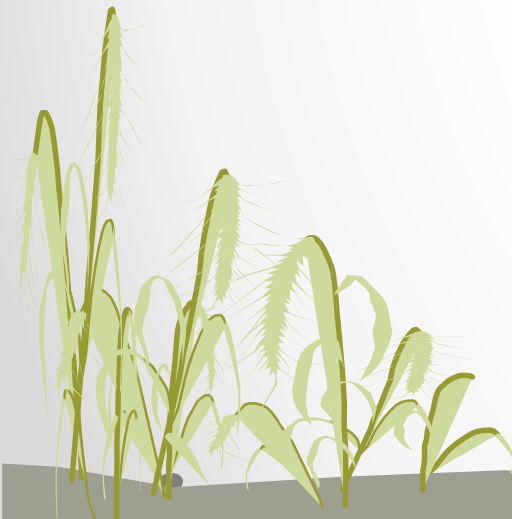
“Who feeds whom what, how, and for what purpose?” (Jen Sandler, School Food Politics, 2011)

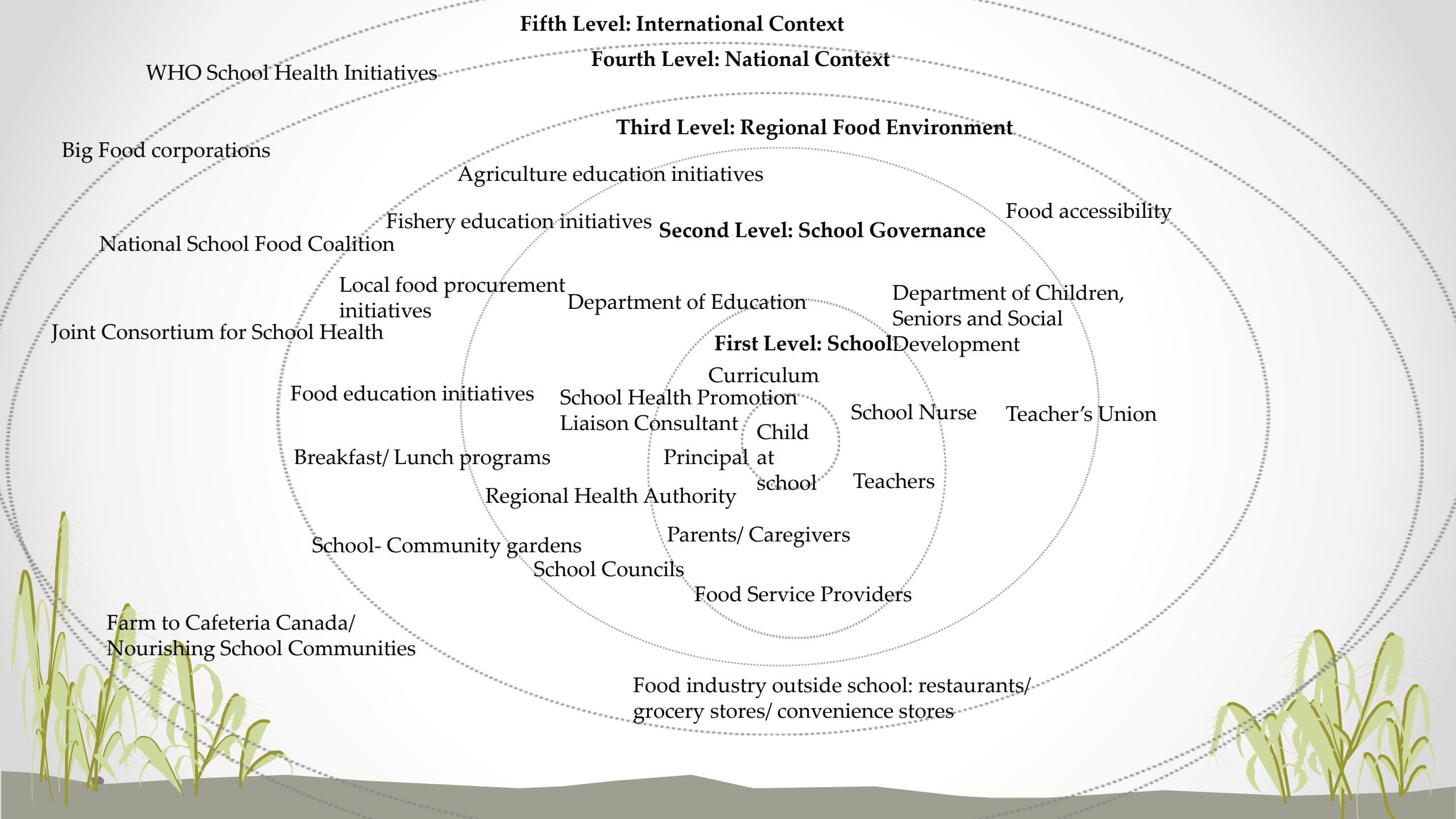
- multiple actors
- competing interests
- connected to broader education/ societal norms/ conditions





# Map of NL School Food Environment Stakeholders





**Fifth Level: International Context**

WHO School Health Initiatives

**Fourth Level: National Context**

Big Food corporations

National School Food Coalition

Joint Consortium for School Health

**Third Level: Regional Food Environment**

Agriculture education initiatives

Fishery education initiatives

Local food procurement initiatives

Department of Education

Department of Children, Seniors and Social Development

Food accessibility

**Second Level: School Governance**

Food education initiatives

Breakfast/ Lunch programs

School- Community gardens

School Health Promotion Liaison Consultant

Regional Health Authority

School Councillors

Department of Education

Department of Children, Seniors and Social Development

School Nurse

Teacher's Union

Teachers

Principal at school

Parents/ Caregivers

Food Service Providers

Curriculum

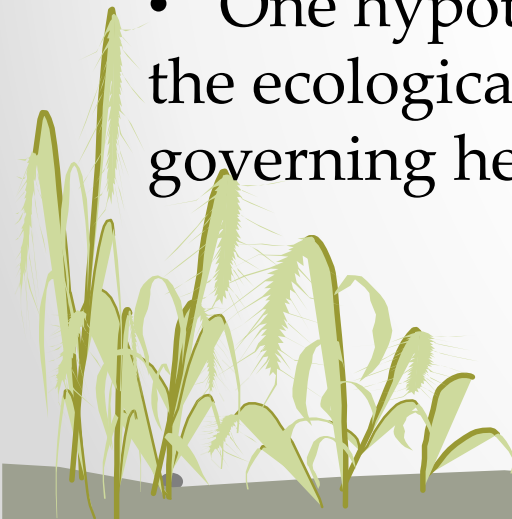
Food industry outside school: restaurants/ grocery stores/ convenience stores

Farm to Cafeteria Canada/  
Nourishing School Communities

Child at school

# School food is complex

- Critique of Canadian School Food Policy
- Critique shared by broader field of public health promotion (and efforts to implement the Ottawa Charter)
- One hypothesis for this slow uptake of systems level action is that the ecological approach at odds with the dominant model governing health care system



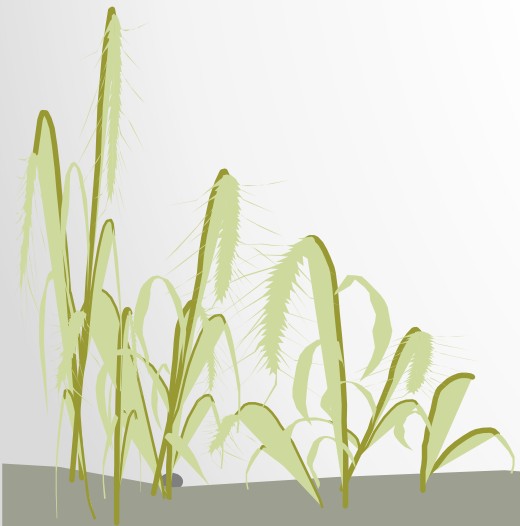
# One Challenge of Researching, Understanding and Planning for Complexity

“ we must recognize...that ultimately all social life is *interdependent* and, as a result, that it is artificial to isolate any set of social relations from the whole for special attention...since everything is related to everything else, the task of pursuing the determinants of any given relation would be so vast and ramifying that it would defy any tools of investigation available to either the social or physical sciences”  
(p.97, Easton in Weaver-Hightower)



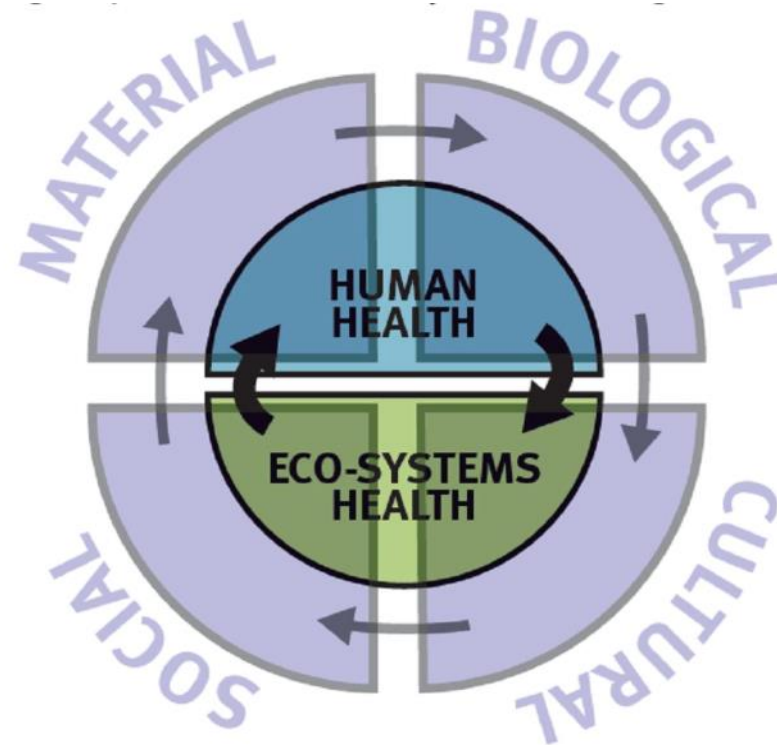
# Review the emergence of complexity in school food research

- Complexity in health promotion
  - Settings-based health promotion
  - Place based health promotion
  - Ecological health promotion



# An Ecological/ complex model of health

The ecological model of public health sees public health as a social-ecological set of relationships over time.



Rayner and  
Lang, 2012

# Ecological Model of School Health

- Comprehensive School Health (Comprehensive School Health/ Health Promoting Schools)
- Whole school approach to school health grounded in ecological/ complex principles



Joint Consortium for School Health,  
2013

# The use of complexity theory in school health promotion literature



Social Science & Medicine

journal homepage: [www.elsevier.com/locate/socscimed](http://www.elsevier.com/locate/socscimed)



tion and

Schools as social complex adaptive systems: A new way to understand the challenges of introducing the health promotion

HEALTH EDUCATION RESEARCH  
Theory & Practice

Advance Access published

**Capturing complexity: integrating health research to inform health-promoting policy and practice**



Contents lists available at [ScienceDirect](http://ScienceDirect)

Social Science & Medicine

journal homepage: [www.elsevier.com/locate/socscimed](http://www.elsevier.com/locate/socscimed)

Approaching complexity: A commentary on Keshavarz, Nutbeam, Rowling and Khavarpour

(Dooris)



Emerald Insight

## Health Education

Theoretical and empirical base for implementation components of health-promoting schools

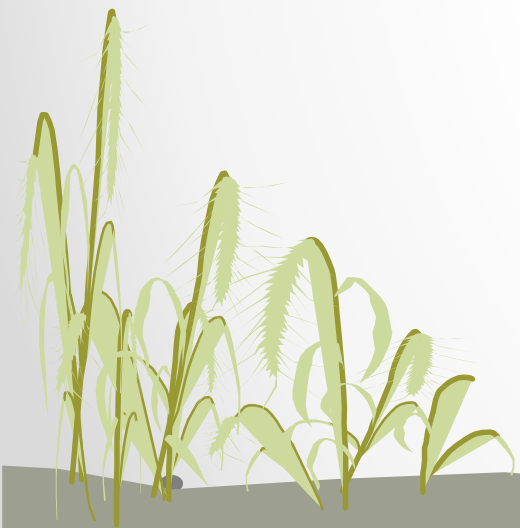
Oddrun Samdal Louise Rowling





# Two Canadian examples of complex understandings of the (School) Food Environment:

- The Alberta Food Environment Report Card
- Think and Eat Green at School School Food Environment Assessment Tool



# Alberta Food Environment Report

## Physical Categories

- Food availability within settings
- Neighbourhood availability of restaurants and food stores
- Food composition

## Economic Categories

- Financial incentives for consumers
- Financial incentives for industry
- Government nutrition assistance programs

## Communication Categories

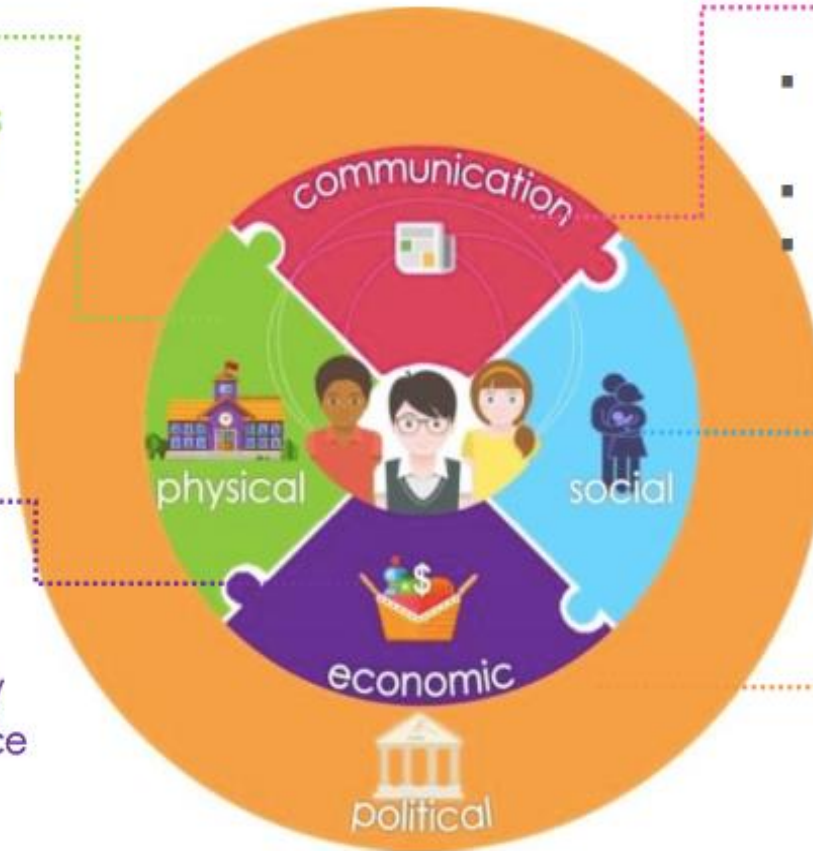
- Nutrition information at the point-of-purchase
- Food marketing
- Nutrition education

## Social Categories

- Weight bias
- Corporate responsibility
- Breastfeeding support

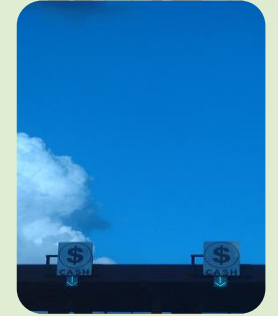
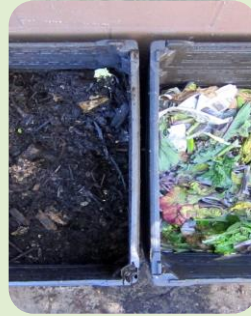
## Political Categories

- Leadership and coordination
- Funding
- Monitoring and evaluation
- Capacity building



The Food Environment as depicted in the Alberta Food Environment Report Card (POWER UP!, 2015)

# School Food Environment Assessment Tool (SFEAT)



Availability of  
healthy food

Food teaching and  
learning

Engagement with  
community

Food preparation

Gardens/  
Composting/  
Harvesting

Availability of env.  
sust. food

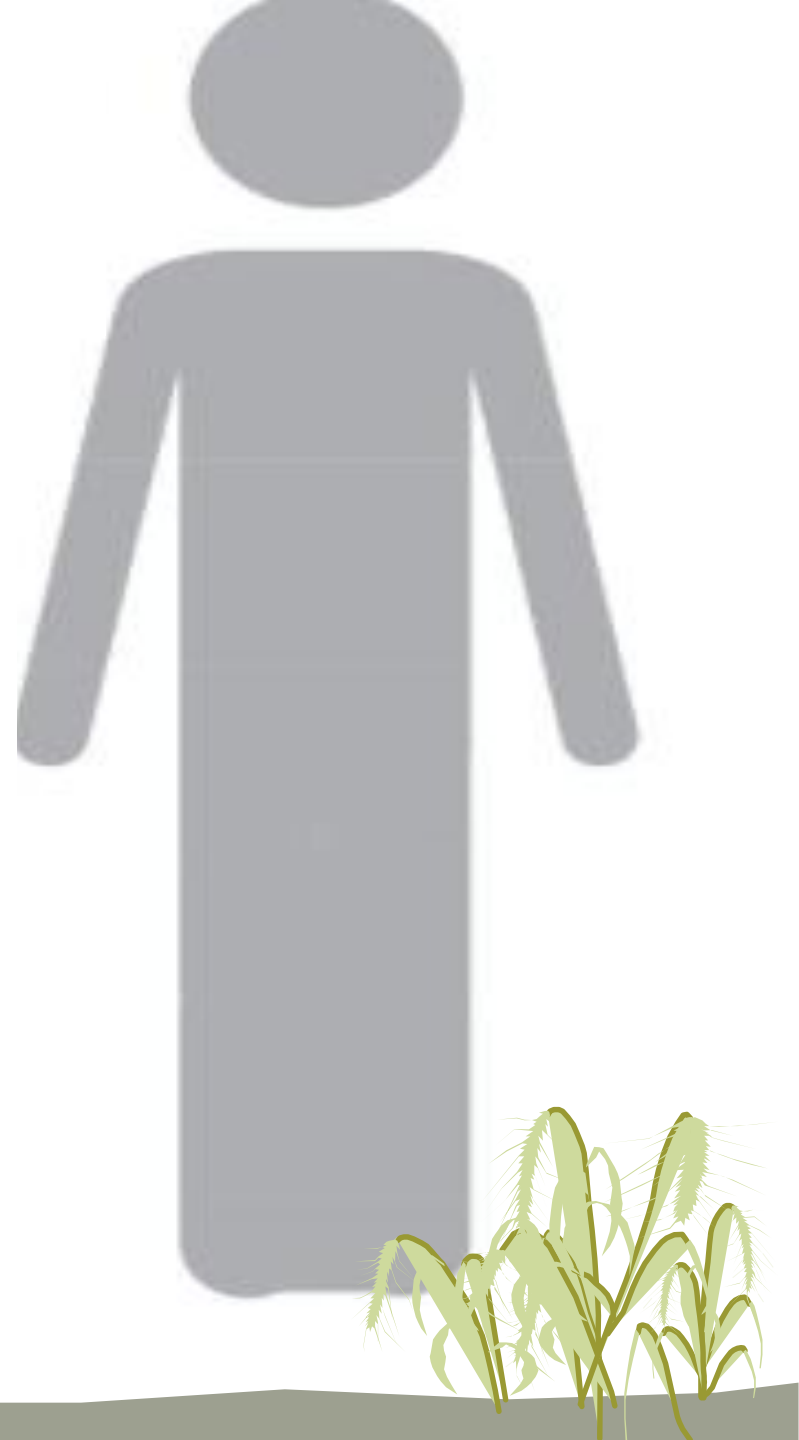
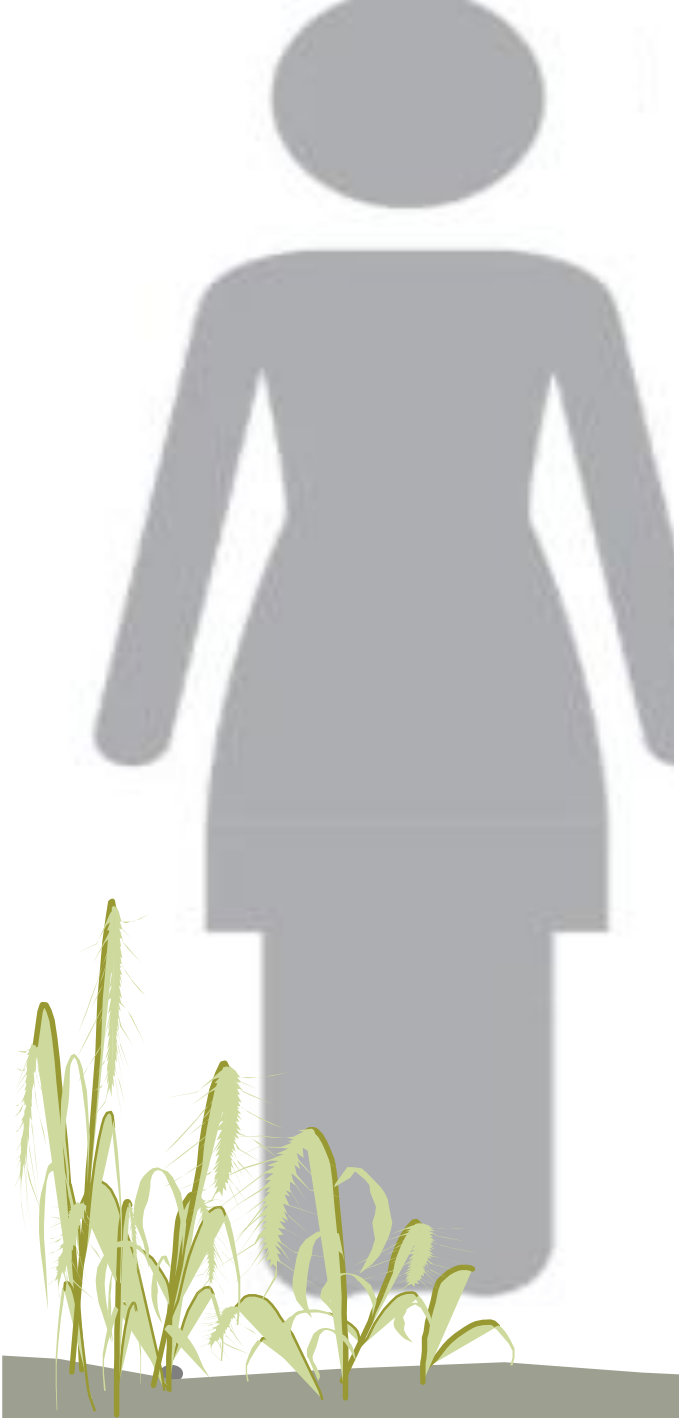
Integration along  
food system

Resources and  
institutional support

Components of an adapted version of the School Food Environment Assessment Tool (SFEAT) (Developed by Black et al., 2014)

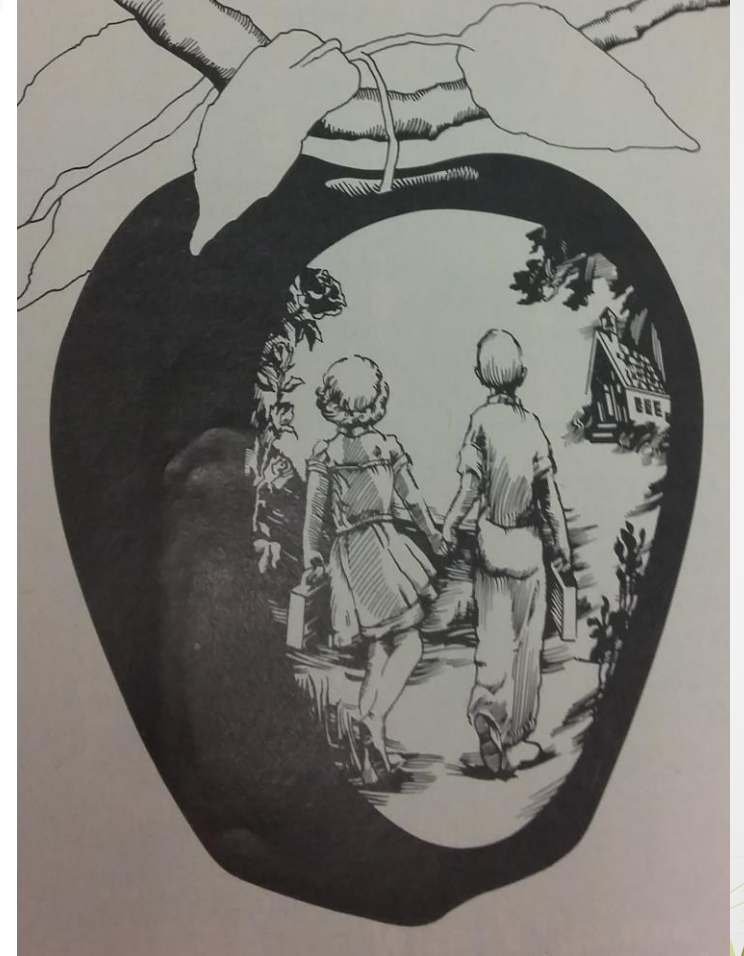
# The Nutrition Transition

- Societal Transitions can be understood from an ecological framework
- New broader and systematic considerations emerge which public health officials need to address



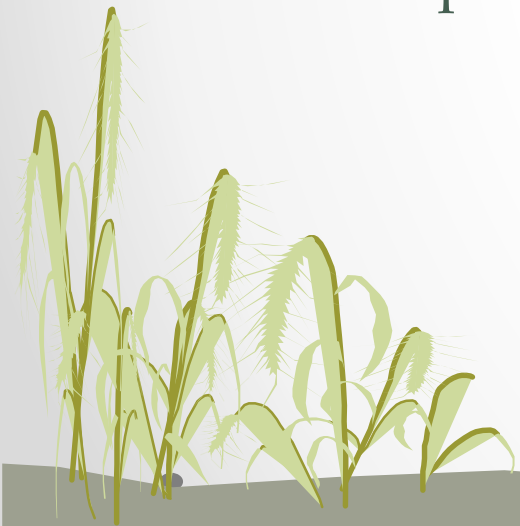
# Why complexity matters in the food environment

- These more broad environmental or ecological conceptualizations of the school food environment have not traditionally been incorporated into school food research in NL
- Avoiding the danger of practice silos

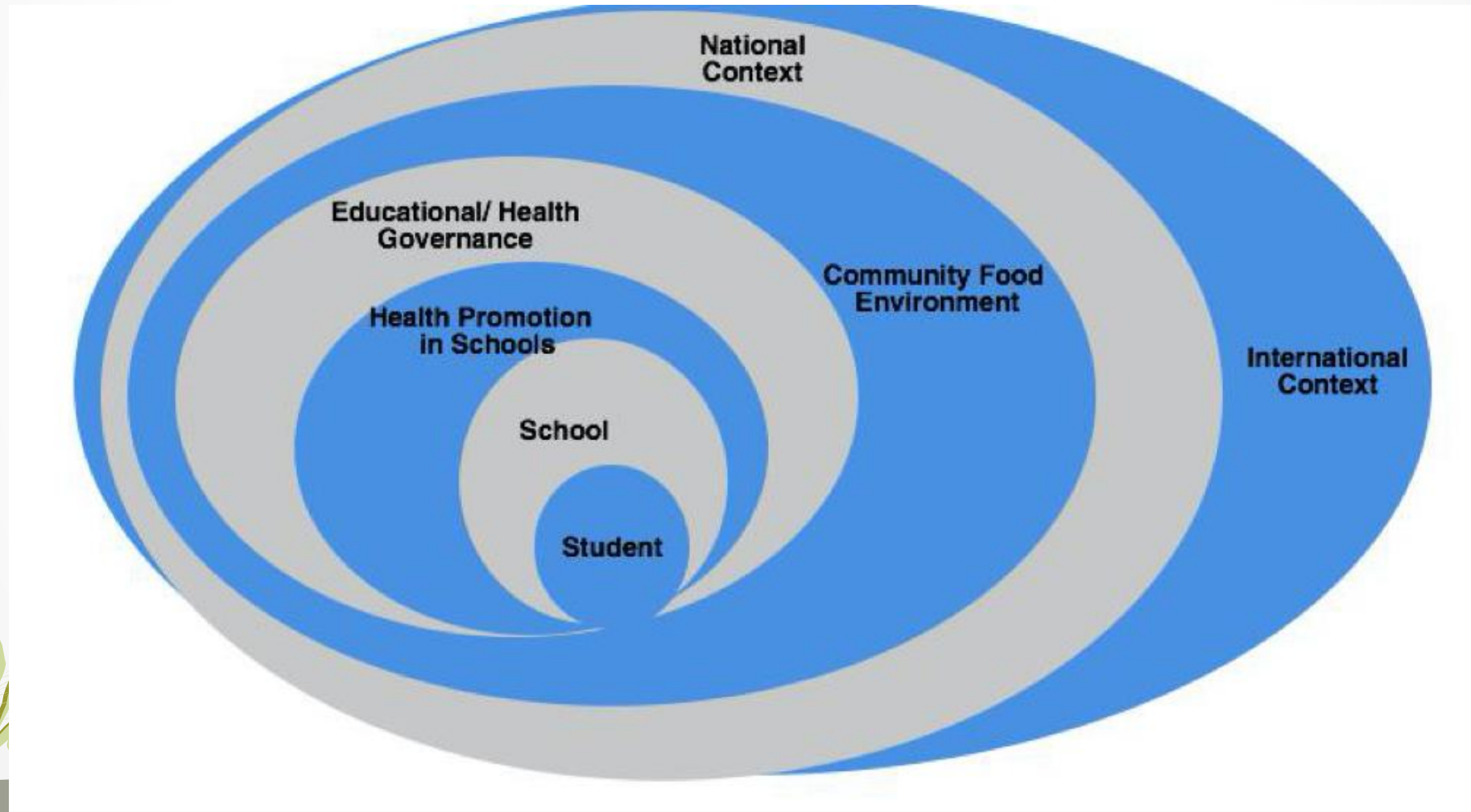


# Why complexity matters in the food environment

- A complex situation calls for feedback (research/ evaluation/ assessment) that can feedback to the broadening focus of concern/ broad societal changes
- Changing understanding of food and nutrition (connecting previously siloed disciplines helps to bridge concepts and approaches)



# Systems factors in school food



# Demonstrate how a complex understanding of school food factors into my research





# Unpacking the use of a systems/ complex approach in my research

- Multi-method
- Interdisciplinary
- Systems framework and feedback

## Components of complexity- framed research:

Focus on process

Relational understanding  
within a specific context

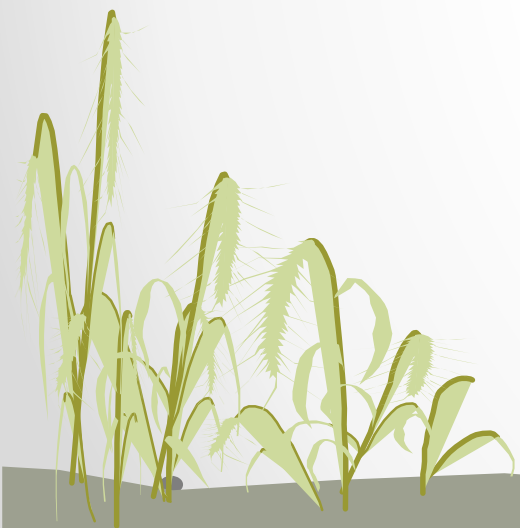
Active role of researcher

Feedback into complex system  
being investigated



# Unpacking the use of a systems/ complex approach in my research

- Development of Research Questions
- Literature Review/ environmental scan/ case study
- School food environment survey- analysis- incorporating the dimension of time and context
- Stakeholder interviews- ecological public health as frame in analysis



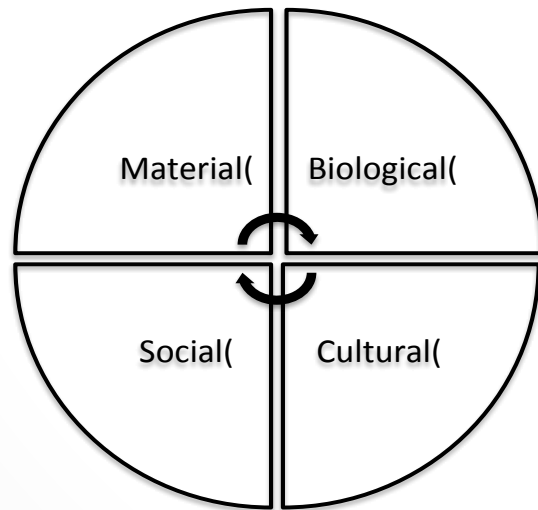
# Thoughts on how this connects to 'cost and value' in health care

- Who is accountable in a systems response to school food?
- How do we conduct sensitive research and evaluation that can inform effective systems' responses'?
- For ex: Fish for lunch



# Concluding remarks

- Transferable lessons from this research on the school food environment
  - Barriers to cross-sector collaboration for health promotion purposes
  - Ways to ameliorate the relationship between the four dimensions of existence



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