



# Improving Public Health with Healthy Food Environments

Tina Chen, MPH, CPHI(C)

Environmental Health and Knowledge Translation Scientist

Project Collaborator: Ellen Gregg, Public Health Nutritionist,  
Region of Waterloo Public Health

TOPHC

March 22, 2018

# Non-Conflict Disclosures

The presenter and project collaborator did not receive external financial or in-kind support and do not have any conflicts of interest to declare



# WHAT MAKES CANADIANS SICK

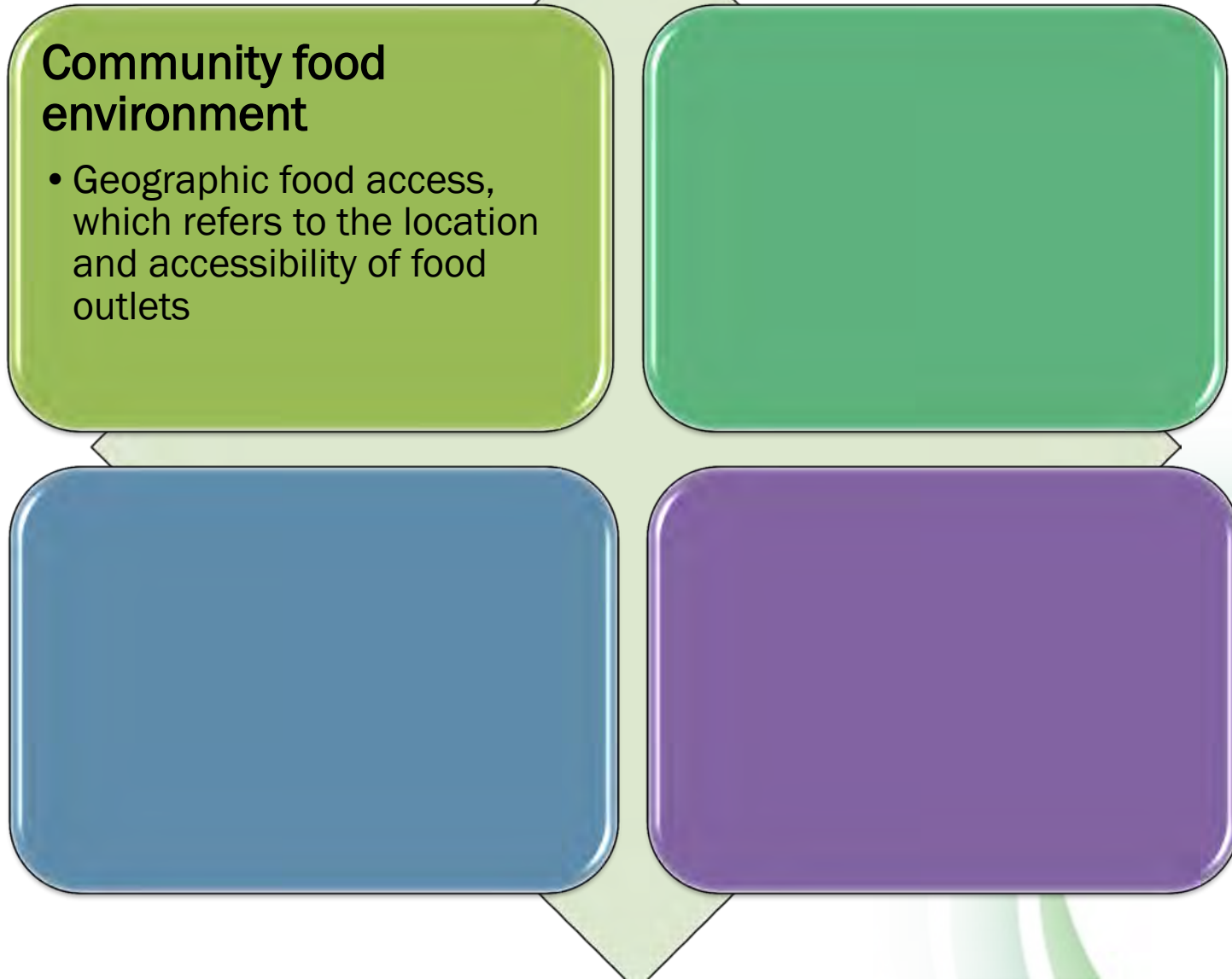
<b>50%</b>	<b>YOUR LIFE</b>	<b>INCOME</b> <b>EARLY CHILDHOOD DEVELOPMENT</b> <b>DISABILITY</b> <b>EDUCATION</b> <b>SOCIAL EXCLUSION</b> <b>SOCIAL SAFETY NET</b> <b>GENDER</b> <b>EMPLOYMENT/WORKING CONDITIONS</b> <b>RACE</b> <b>ABORIGINAL STATUS</b> <b>SAFE AND NUTRITIOUS FOOD</b> <b>HOUSING/HOMELESSNESS</b> <b>COMMUNITY BELONGING</b>
<b>25%</b>	<b>YOUR HEALTH CARE</b>	<b>ACCESS TO HEALTH CARE</b> <b>HEALTH CARE SYSTEM</b> <b>WAIT TIMES</b>
<b>15%</b>	<b>YOUR BIOLOGY</b>	<b>BIOLOGY</b> <b>GENETICS</b>
<b>10%</b>	<b>YOUR ENVIRONMENT</b>	<b>AIR QUALITY</b> <b>COMMUNITY INFRASTRUCTURE</b>

# What is a healthy food environment?

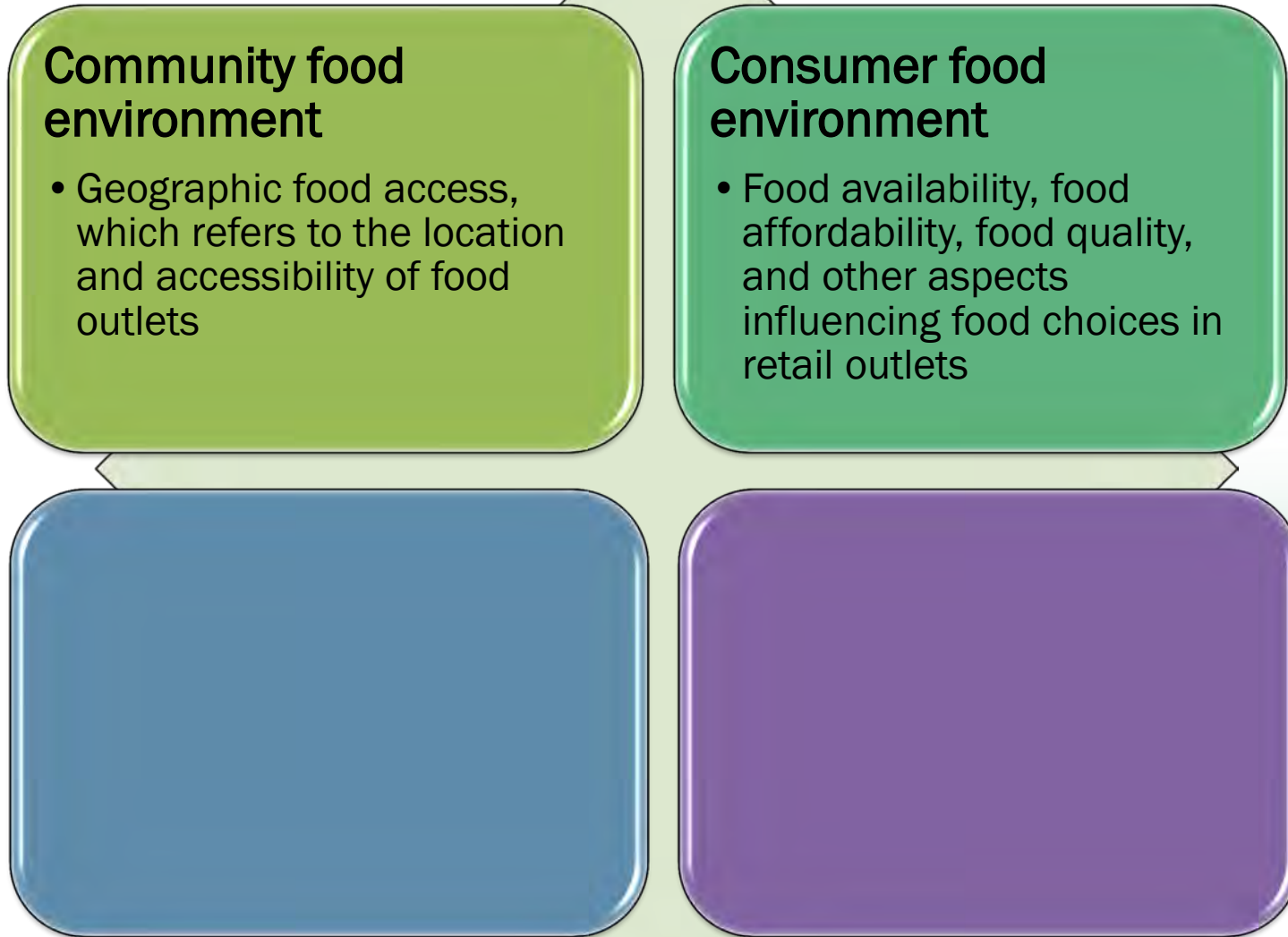


Equitable access to healthy foods such as fruits, vegetables, whole grains, and healthy snack options

# Types of food environments



# Types of food environments



# Types of food environments

## Community food environment

- Geographic food access, which refers to the location and accessibility of food outlets

## Consumer food environment

- Food availability, food affordability, food quality, and other aspects influencing food choices in retail outlets

## Organizational food environment

- Access to food in settings such as workplaces and schools



# Types of food environments

## Community food environment

- Geographic food access, which refers to the location and accessibility of food outlets

## Consumer food environment

- Food availability, food affordability, food quality, and other aspects influencing food choices in retail outlets

## Organizational food environment

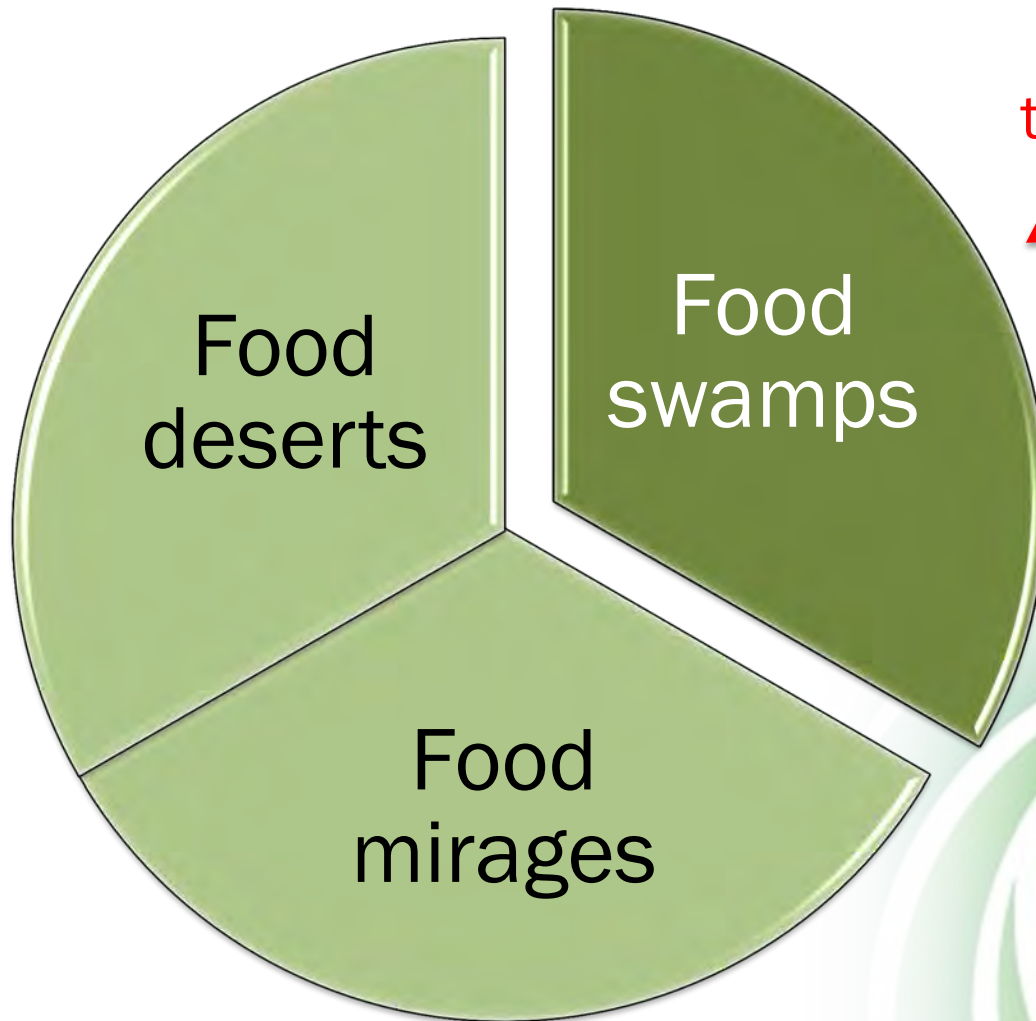
- Access to food in settings such as workplaces and schools

## Information environment

- Food marketing, media, advertising



# Within community food environments:



Most common  
type in Canada



# Current diet quality in Canada

**Less than 1%** of the Canadian population follow nutrition recommendations

Low intakes of vegetables, fruits, and whole grains  
Relatively large amount of ultra-processed food and beverages



Higher risk of developing diet-related chronic diseases and conditions




# Burden of poor diet and diet-related chronic diseases

- Poor diet is linked to the risk of developing diet-related chronic diseases and conditions
  - Cancer, coronary heart disease, stroke
  - Hypertension, diabetes, obesity
  - Symptoms of depression and anxiety



# Burden of poor diet and diet-related chronic diseases

- Poor diet is linked to the risk of developing diet-related chronic diseases and conditions
    - Cancer, coronary heart disease, stroke
    - Hypertension, diabetes, obesity
    - Symptoms of depression and anxiety
  - Reduced productivity and life expectancy
  - Unsustainable increase in healthcare expenditure
- 

# Burden of poor diet and diet-related chronic diseases

- Poor diet is linked to the risk of developing diet-related chronic diseases and conditions
  - Cancer, coronary heart disease, stroke
  - Hypertension, diabetes, obesity
  - Symptoms of depression and anxiety
- Reduced productivity and life expectancy
- Unsustainable increase in healthcare expenditure
- Chronic diseases represent **89%** of all deaths in Canada
- Direct healthcare costs of treating diabetes, cardiovascular disease, and cancer = **\$19.8 BILLION** (2015 data)

# Factors that influence food choices

## Income

- Primary determinant of diet quality
- 2012 data shows almost **13%** of Canadian households experienced food insecurity
- Impacts ability to maintain adequate consumption of healthy foods and beverages



# Factors that influence food choices

## Food Deserts

Difficult to access healthy foods and beverages due to:

- Lack of nearby healthy food outlets
- Lack of easily accessible public transit
- Lack of vehicle to drive to food stores



<http://www.seattlemag.com/article/seattles-unhealthiest-neighborhoods-dubbed-food-deserts>

# Factors that influence food choices

## Food swamps


- Overabundance of opportunities to access less healthy food options
- Relies on personal willpower to make healthy choices
- Willpower is impaired due to mental states such as stress or negative moods
- Making too many choices may lead to “willpower or decision fatigue”
- Hunger impacts willpower





# Factors that influence food choices

## Personal perceptions

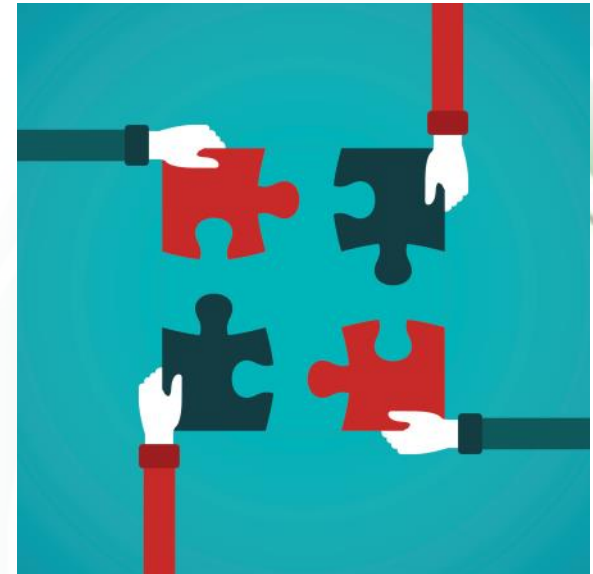
- “I’m not eating too much unhealthy food. I don’t need to improve my diet quality.”
  - “I believe my unhealthy food intake is moderate. I don’t need to improve my diet.”
  - “I exercised for an hour today. I can indulge in some less healthy food!”
- 

# **We know that improvements to food environments require multi-pronged and multi-sectoral action...**



# ...but we need to first start within Public Health

- Health promotion and health protection within provincial or regional health agencies often work in “silos”
- Public health can be optimized by identifying opportunities for collaboration

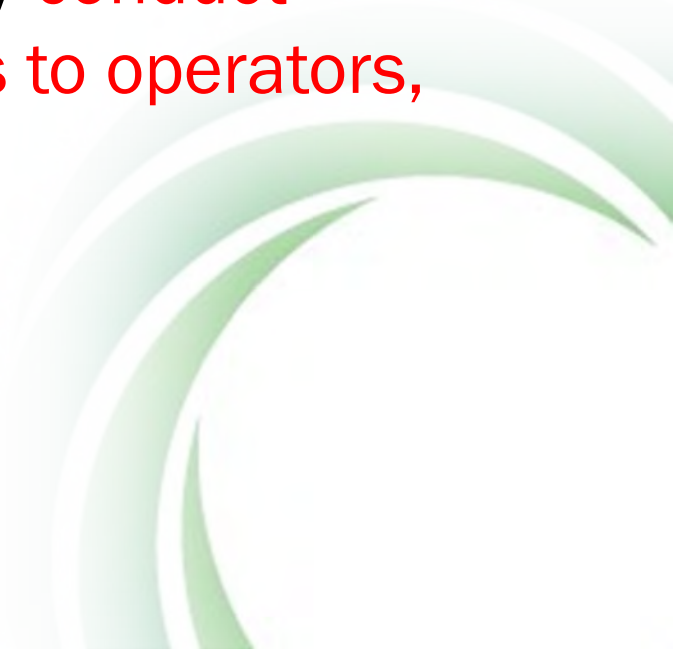


# Working with environmental health practitioners

- Environmental health practitioners (EHPs) may be the **first point of contact** for municipal officials, land-use planners, or food service operators



# Working with environmental health practitioners

- Environmental health practitioners (EHPs) may be the **first point of contact** for municipal officials, land-use planners, or food service operators
  - EHPs are well situated to raise awareness about healthy food environments as they **conduct inspections, provide consultations to operators, and engage community partners**
- 

# Working with environmental health practitioners

- Environmental health practitioners (EHPs) may be the **first point of contact** for municipal officials, land-use planners, or food service operators
- EHPs are well situated to raise awareness about healthy food environments as they **conduct inspections, provide consultations to operators, and engage community partners**
- In some regions, a small subset of public health inspectors within health authorities are increasingly involved in **promoting healthy built environments**

# Potential interventions and initiatives

## *FOOD DESERTS*

Policies & legislation	Financial incentives	Advocacy	Support food environments
Permit temporary farmers' markets	Reduce licensing fees for designated "healthy food outlets"	Advocate for changes to land-use zoning to allow community and school gardens	Provide staff support to implement healthy corner stores programs
Permit mobile healthy food vending (i.e., vegetables and fruit)	Advocate for tax incentives for greengrocers or full-service grocery stores	Promote public transit improvements to improve access to full-service grocery stores, especially for those with low income or mobility limitations	Provide staff support to start and maintain community and school gardens
		Educate local government officials about the need for equitable access to healthy food	


# Potential interventions and initiatives

## *FOOD SWAMPS*

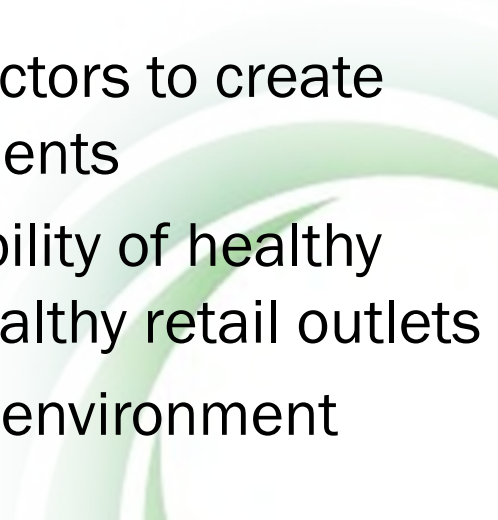
Policies & legislation	Advocacy	Support retail food environments	Consumer education
Support new zoning regulations or by-laws for minimum distances of fast food and unhealthy food outlets	Raise awareness of the importance of the density and location of less healthy food retail within communities	Provide nutrition support to help restaurant and food retail operators create and promote healthier choices	Provide food literacy education and resources to enable consumers to make healthier choices in retail food settings
Advocate for the inclusion of public health professionals in policy and legislation consultations	Provide recommendations to provincial and local governments to support healthy food environment interventions	Encourage healthy grocery and convenience store check-out lanes in retail food settings	
		Support restaurant menu calorie labeling legislation	



# Practice Gaps

- Need for additional training in built environment and food environment concepts
  - Lack of legislation to put “health” in new developments, city/community plans, and other policy decisions that may impact health
  - Identify and refine zoning policies to reduce exposure to less healthy foods
- 

# Conclusion

- Educating individuals on healthy eating habits is only part of the solution
  - Ensure adequate access to healthy and affordable food while reducing exposure to tempting food
  - The role of public health:
    - Collaborate with public and private sectors to create supportive and healthy food environments
    - Advocate for policy to increase availability of healthy vendors and reduce access to less healthy retail outlets
    - Provide staff support for healthy food environment programs and activities
- 



**THANK YOU!**

**Questions?**

[tina.chen@bccdc.ca](mailto:tina.chen@bccdc.ca)



## **NCCEH Resources:**

[NCCEH Food Environments Topic Page](#)

[Food Deserts and Food Swamps: A Primer](#)

[Food Environments: An Introduction for Public Health Practice](#)