

# Food for Talk

February 24, 2006

## Realities & Lessons Learned: Making Food Policy Change from the Perspective of Public Health

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# An Opportunity for Food Policy Making:

The development of a comprehensive  
“**Regional Growth Management Strategy**”  
in Waterloo Region

2003 - 2007

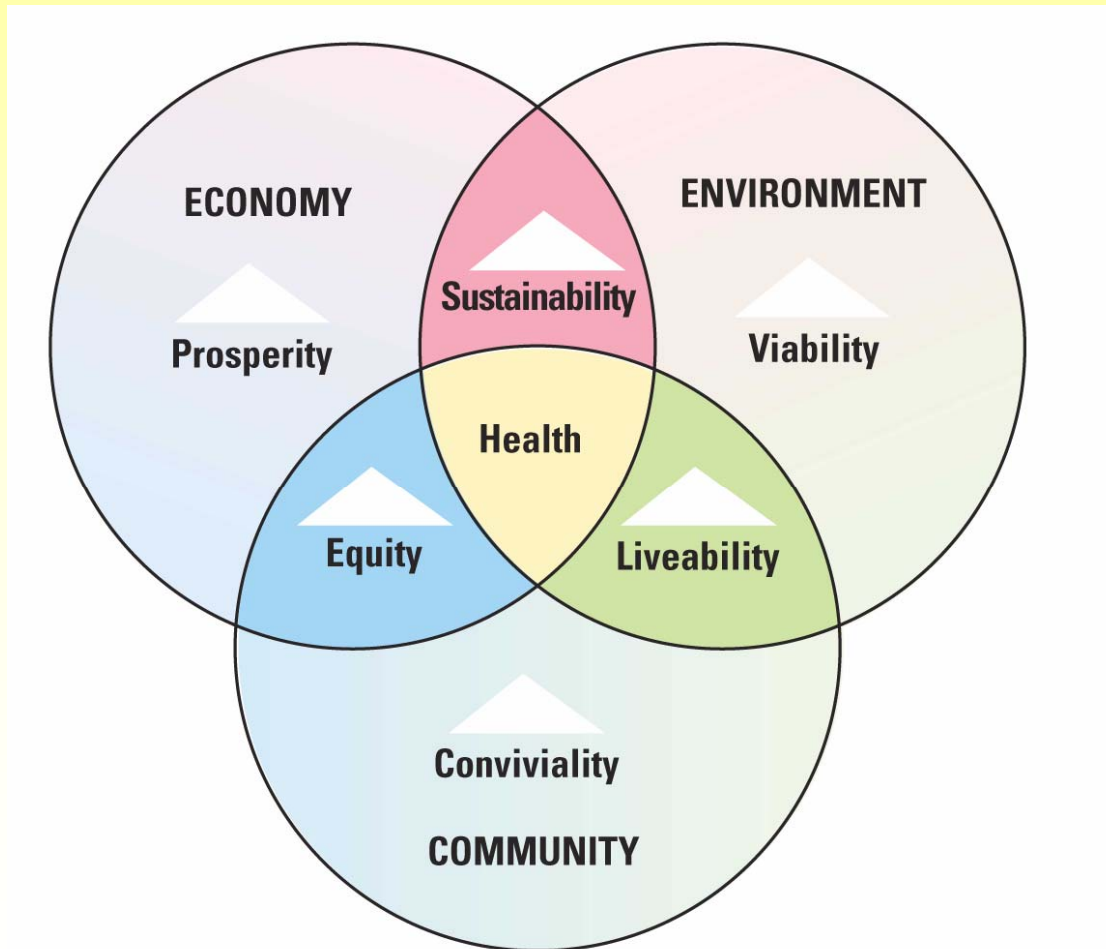
# Public health project:

## “Towards a Healthy Food System in Waterloo Region”

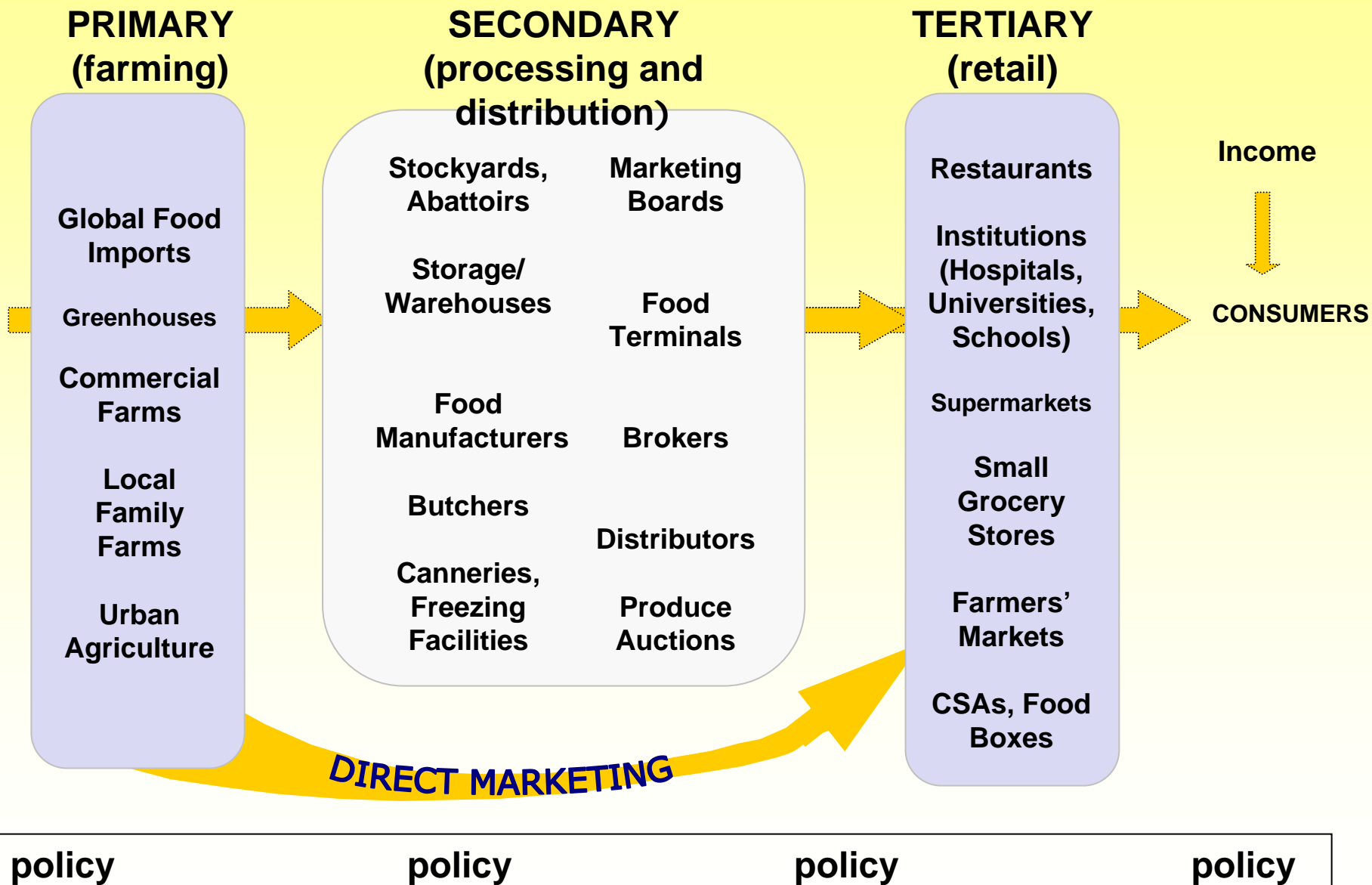
- (a) to inform public health and policy-makers about facts and issues
- (b) to bring in community stakeholders
- (c) to identify and prioritize policy directions

# Conditions that Affect Health

Hancock, T. , Labonte, R., Edwards, R., (1999). Indicators that Count!-Measuring Population Health at the Community Level



# A Food System Model



## **Region of Waterloo Public Health research studies undertaken for *Community Food System Plan***

<b>Growing Food and Economy Study</b>	<b>2003</b>
<b>Rural Health Study</b>	<b>2003</b>
<b>Diet, Weight and Diabetes</b>	<b>2004</b>
<b>Food Access Study</b>	<b>2004</b>
<b>Local Food Buying in Waterloo Region</b>	<b>2004</b>
<b>Optimal Nutrition Environment Study</b>	<b>2005</b>
<b>Marketing &amp; Branding of “Buy Local Buy Fresh”</b>	<b>2005</b>
<b>Urban Agriculture report</b>	<b>2005</b>
<b>Food Flow Analysis Study</b>	<b>2005</b>
<b>Food Miles Study</b>	<b>2006</b>
<b>Redundant Trade Study</b>	<b>2006</b>

# ***1. A Glance at Diet, Weight and Diabetes, Oct.2004***

Waterloo Region Public Health

**Our population does not eat  
enough healthy foods,  
which affects their health**

- ◆ **58%** of residents consume insufficient fruits and vegetables.
- ◆ Whole grains and legumes are under-consumed
- ◆ Refined carbohydrates, fats and oils and animal proteins are over-consumed
- ◆ Coupled with inactivity, this has contributed to **50%** of residents being either overweight or obese in 2003.

## **2. A Glance at Access to Food report, 2004**

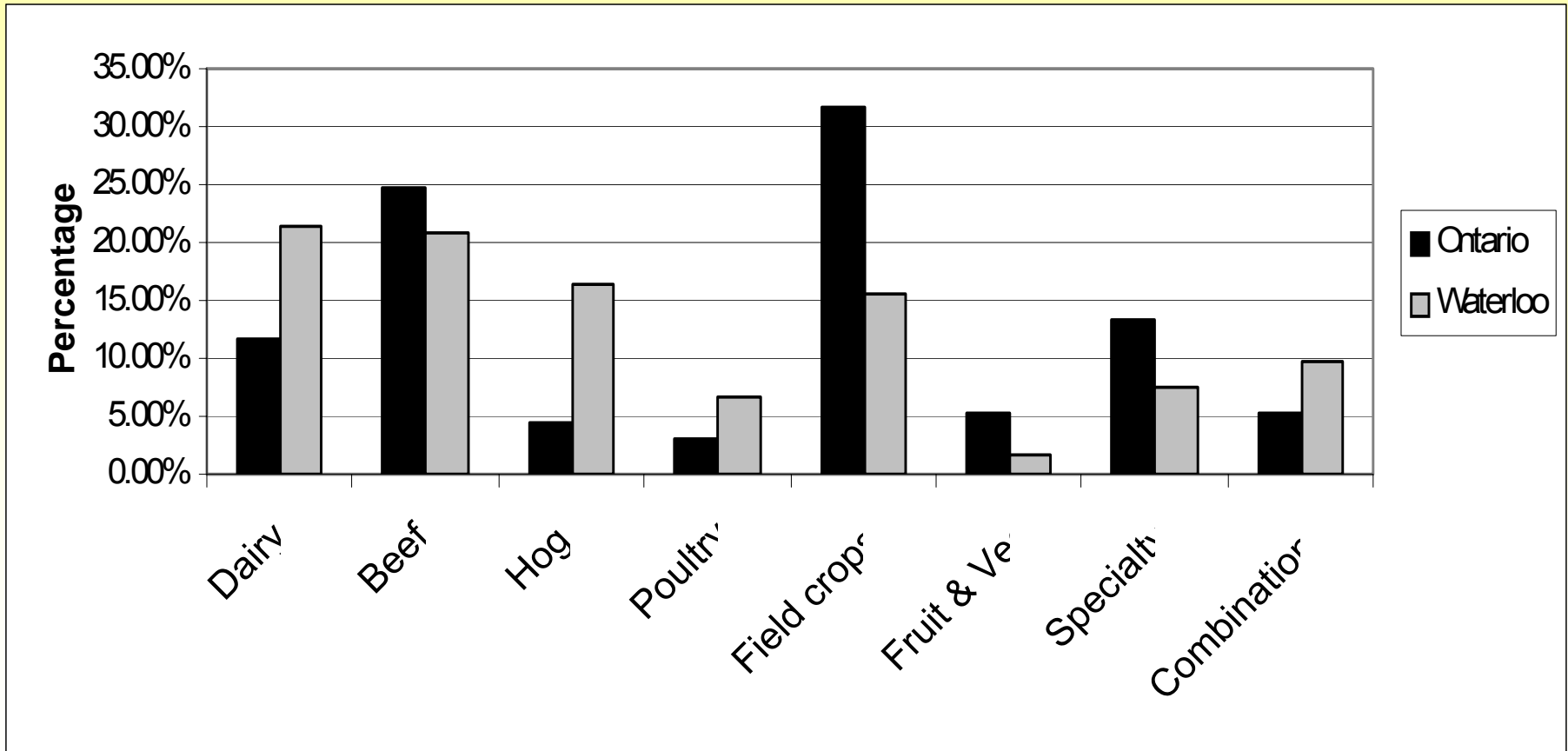
*“Healthy food must be available, accessible and affordable to support healthy eating choices, including people who do not own cars, have reduced mobility and/or have a low income.”*

- Waterloo Region’s transit system does allow access to food
- There are areas in the Region where large grocery stores do not exist (mapping)
- Walking to grocery stores is more prevalent in the inner city
- Food at convenience stores costs more than in larger grocery stores



### 3. Growing Food and Economy Study, 2003

#### Farm Types in Ontario and Waterloo Region, 2001



# *Growing Food and Economy, 2003*

*“We have a prosperous agricultural region...”*

- Waterloo Region is third in the province in gross receipts per farm in 2001
- Net revenue per farm - ave \$39,000  
= almost twice the provincial average  
(but still very low)

## ***4. Redundant Trade Report, 2006***

Even during the peak  
season, produce grown in  
Waterloo Region is not readily  
available to residents

**Origins of 7 products at randomly selected Waterloo Region grocery stores and farmers' markets during their peak local season**

<b>Peak season produce:</b>	<b>% displays Waterloo</b>	<b>% displays Ontario</b>	<b>% displays Imported</b>
Asparagus	4%	96%	--
Strawberries	5%	73%	22%
leaf lettuce	--	67%	33%
sweet corn	11%	89%	--
field tomatoes	6%	94%	--
Carrots	5%	90%	5%
Potatoes	8%	92%	--
Total displays for both selected <u>and similar</u> products (n=682)	<b>6%</b>	<b>68%</b>	<b>26%</b>

***5. Region of Waterloo Food Flow Analysis Study, Harry Cummings & Assoc. (2005)***

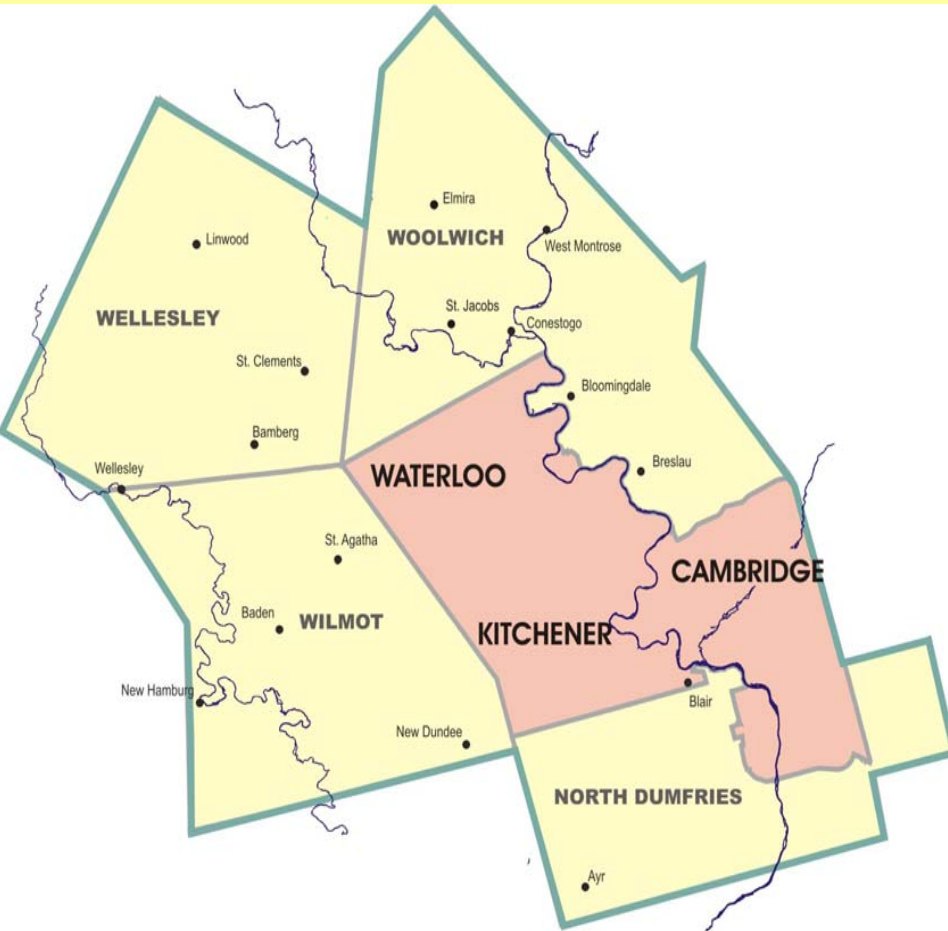
As well... audits of supermarkets and convenience stores found the number of food items grown or raised in Waterloo Region to be low.

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# Waterloo Region Food Flow Study

## Store Survey & Processor Survey

September 8, 2005



Harry Cummings & Associates Inc.

96 Kathleen St. Guelph, ON

[www.hcaconsulting.ca](http://www.hcaconsulting.ca)

(519) 823-1647



# Waterloo Region Food Flow Study

## Research question...

What percentage of food that is consumed in the Region of Waterloo has been grown, raised and/or processed in the Region?

# Research Approach

- Review of agricultural production in Waterloo Region
- Survey of commodity group representatives to confirm/update agri-sector profile
- Develop Waterloo Region Food Basket – identify key food items to trace from field to fork
- Survey supermarkets and convenience stores – identify availability of food basket items and the major brands on store shelves
- Survey food processors – attempt to identify which processors are sourcing agricultural products from Waterloo Region and how much is being sourced



# Supermarket/Convenience Store Survey

- Methodology
  - 16 supermarkets selected at random  
(e.g. Zehrs, Sobeys, Price Chopper, Food Basics, Foodland, etc.)
  - 25 convenience stores selected at random  
(e.g. Little Short Stop, Winks, Mac's, etc.)

# Processor survey

- Over 20 processors/packers identified in the store survey including:
  - Cargill, Better Beef, Schneider Foods, Maple Leaf Foods, Maple Lodge Farms
  - Parmalat, Neilson, Pine River Cheese, Kraft
  - Gray Ridge Eggs, Burnbrae Eggs, OK Eggs
  - Canada Bread, Weston Bakeries, Dare Foods Ltd.
  - Quaker Oats, Kellogg's
  - Martin's Family Fruit Farm, Golden Town Apple Products
- Follow-up survey with major processors to identify the extent to which processors use agricultural products produced in the Region of Waterloo

## Degree of Ontario and Waterloo Region Sourcing of Selected Foods in Waterloo Region Retail Outlets

<10% very low  
 10-29% low  
 30-59% moderate  
 60-79% high  
 ≥80% very high

	Ontario content	Waterloo content		Ontario content	Waterloo content
<b>Ground beef</b>	Low - mod	Very low	<b>Multi-grain bread</b>	Very high	Very low
<b>Pork chops</b>	Low - mod	Very low	<b>Quick oatmeal</b>	mod	Very low
<b>Chicken breasts</b>	Mod - high	low	<b>Apples</b>	Very high	mod
<b>Yoghurt</b>	Very high	low	<b>Apple juice</b>	mod	Very low
<b>Cheddar cheese</b>	high	Very low	<b>Carrots</b>	mod	none
<b>eggs</b>	high	Very low	<b>Tomatoes</b>	Mod - high	none

***Our food system is concentrated in the hands of fewer and fewer players.***

- Total number of farms declining, size increasing, though not as dramatically as in rest of province
- Five employers in the food processing and distribution sector account for over 55% of all jobs
- Four food chains operate 71% of the 35 supermarkets in the Region

## ***Growing Food and Economy Study, 2003***

	<b>Percent change from 1996 - 2001</b>	
	<b>Total number of farms</b>	<b>Total acres in production</b>
Ontario	- 12%	-3%
Waterloo Region	-9%	-4%

***The structure of our food  
system has social and  
environmental consequences***

## 6. *The Rural Health Study, 2003*

Waterloo Region Public Health

### **Socially... the health of rural communities is declining**

- ◆ Rural residents have a strong sense of connection to the land and history, and a sense of community
- ◆ Smaller farms are disappearing, and those left are finding it increasingly difficult to compete with larger farms and global trade
- ◆ Farmers are facing a great deal of stress and financial concerns, resulting in many pursuing off-farm incomes
- ◆ "Young people end up leaving – they see no future in farming."

## *7. Food Miles Study, 2006 [Waterloo Region Public Health]*

### *Environmentally...*

- Imports of 58 commonly-eaten foods travel an average of almost **4,500 km** to Waterloo Region, and generate an average of 1.3 kg of greenhouse gases for every kg of food imported.
- Imports of studied foods generate over 51,000 tonnes of GHG emissions annually, equal to 17,000 cars on roads



# Food Miles

- The distance that food items travel from the location where they are grown or raised to where they are consumed
- Term popularized in UK in mid-nineties
- Often-cited 1,500 miles (2,500km) figure from 2001 Iowa study by Leopold Center
- Two other Canadian studies by *Foodshare* (Toronto) and *Lifecycles Project* (Victoria)

# Food Miles: Methodology

## Weighted Average Source Distance (WASD)

$$\text{WASD} = \frac{\sum(v * d)}{\sum v}$$

where:

$\sum$  = sum of

$v$  = **value** of imports from each location of production origin

$d$  = **distance** from each location of production origin  
to the point of consumption

# Product Selection

*[Waterloo Region Public Health]*

- Studied 58 foods
- All can be grown locally and are commonly consumed
- mixture of fresh and preserved (e.g. canned tomatoes) or store-able (e.g. potatoes) foods

# Findings

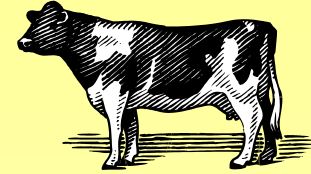
*[Waterloo Region Public Health]*

- Average for all 58 food items: 4,497 km
- Median: 3,651 km
- Average GHG emissions per kg of food items imported: 1.3 kg (1.0 kg median)
- Imports of 58 food items generate 51,709 tonnes of GHGs annually in WR
- This equals 16,918 cars driven on our roads and 5.9% of all household GHG emissions

# Comparison to Local

- If same food items were sourced in Waterloo Region: 30 km, and **0.008 kg of GHG emissions** per kg consumed
- If same food items were sourced in SW Ontario: 250 km, and **0.067 kg of GHG emissions** per kg consumed
- Imports travel 150 (or 18) times further than locally-sourced food items, and create 161 (or 19) times more GHG emissions

# Example: Beef



WASD: 5,770 km

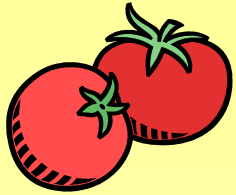
WAER: 5.403:1

Overseas transport assumption: air

Imported beef travels 5,770 km on average to Waterloo Region, and its transport produces more than five times its own weight in GHG emissions.

<u>Major Source Locations</u>	<u>Proportion of All Imports</u>
Colorado (2,321km)	21%
Kansas (1,649 km)	16%
Australia (15,935 km)	15%
New Zealand (14,254km)	12%
Nebraska (1,545 km)	9%

Beef sourced from Waterloo Region produces 667 fewer GHG emissions than imported beef.



# Example: Canned Tomatoes

WASD: 5,244 km

WAER: 1.067:1

Overseas transport assumption: marine

Imported tomatoes travel 5,244 km on average to Waterloo Region, and their transport produces slightly more than their own weight in GHG emissions.

<u>Major Source Locations</u>	<u>Proportion of All Imports</u>
California (3,994 km)	58%
Italy (9,445 km)	27%
Ohio (600 km)	4%
Indiana (781 km)	3%

Tomatoes from Leamington produce 14 times fewer GHG emissions than imported tomatoes. Tomatoes from Waterloo Region produce 132 times fewer GHG emissions.

# Top Ten Imported Food Item Contributors to Greenhouse Gas (GHG) Emissions, Waterloo Region

Food Item	Annual GHG Emissions from WR Imports (tonnes)
<b>1. Beef</b>	<b>15,729</b>
<b>2. Pears - fresh</b>	<b>5,016</b>
<b>3. Lettuce (incl. head and leaf)</b>	<b>4,709</b>
<b>4. Tomatoes - fresh</b>	<b>2,806</b>
<b>5. Potatoes - fresh</b>	<b>2,504</b>
<b>6. Peppers - bell, fresh</b>	<b>2,381</b>
<b>7. Apples - fresh</b>	<b>1,924</b>
<b>8. Onions</b>	<b>1,771</b>
<b>9. Cheese</b>	<b>1,665</b>
<b>10. Carrots</b>	<b>1,489</b>



# What is local?

- GHG emissions savings not much different when compare SW-Ontario to Waterloo
- Some products grow better elsewhere (e.g. tomatoes in Leamington, cherries in Niagara)

## What can be done?

- WR consumers say they want to buy local food, but barriers exist
- Import replacement will require policy changes to make local food a more convenient option

***Good news:  
Emerging trends are increasing consumer  
food options in Waterloo Region***

- Growing number of farmers selling directly, some earning up to 50% of income
- Farmers' markets strong part of urban and rural culture in Region
- 87% of residents believe it is important to buy local food.
- Waterloo Region has more than 25 community gardens

## *8. Optimal Nutrition Environment for Waterloo Region study, 2005*

*[The Future of Waterloo Region's Food System]*

The optimal nutritional needs of Waterloo Region's population could be met from local production, with a 10% shift in agricultural production by 2026 or a 12% shift by 2046

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# How to attain an “Optimal Nutrition Environment”?

## 1. Increase local processing capacity:

Program for start-up financial and educational support for small to medium enterprises, e.g.

- zoning laws
- eco-industrial park
- business incubator
- food training in prep & safety

# To attain an “Optimal Nutrition Environment”:

## 2. Build a major local market infrastructure, including food services in:

- Universities, colleges
- Schools
- Workplaces, daycares, retirement homes
- Restaurants
- Co-ops, farmers markets & other retail
- Other ideas?

# How to attain an “Optimal Nutrition Environment”?

3. Expansion of vegetable and fruit storage facilities
4. Advocacy for agricultural extension programs (provincial)
5. Laws to protect the agricultural land base and prevent “urban sprawl”
6. On-going promotion of nutrition knowledge and value of local food

# **Goal for Food Policy**

**All residents have access to, and can afford to buy safe, nutritious, and culturally acceptable food that has been produced in an environmentally sustainable way that sustains our rural communities.**

# Objectives of a Healthy Food System:

1. Ensure that all residents can afford to buy the type of food they need to sustain health.
2. Preserve and protect Waterloo Region's agricultural lands.
3. Strengthen food-related knowledge and skills among consumers.
- 4. Increase the availability of healthy food so that healthy choices are easier to make.**
- 5. Increase the viability of ROW farms to preserve rural communities and culture.**
- 6. Strengthen the local food economy.**
- 7. Forge a partnership to implement the plan.**



**Objective 4: To increase the availability of healthy food, so that the healthy choices are easier to make.**

**Strategy 4.1 Ensure healthy food is available in every neighbourhood**

**e.g. More farmers markets  
in highly populated areas**

**Objective 4: To increase the availability of healthy food, so that the healthy choices are easier to make.**

## **Strategy 4.2 Increase urban agriculture programs**

e.g. Enhance opportunities for urban gardens, and provide public education

**Objective 4: To increase the availability of healthy food, so that the healthy choices are easier to make.**

### **Strategy 4.3**

**(a) Restrict unhealthy foods in identified neighbourhoods**

**...e.g public schools**

**(b) Expand CSAs and Food Box Programs**

**Objective 5: To increase the viability of farms that sell food to local markets in order to preserve rural communities and culture.**

**Strategy 5.1 Increase farm-gate sales**

**Strategy 5.2 Expand local farmers' markets**

**Strategy 5.4 Enable on-farm processing**

**Strategy 5.3 Establish farm-to-school  
& farm-to-university programs**

**Objective 6: To strengthen the local food economy.**

**Strategy 6.1 Encourage a local food processing/preserving industry**

- freezing**
- canning**
- drying**
- milling**
- meat processing**
- dairy processing**

**Objective 6: To strengthen the local food economy.**

**Strategy 6.2 Establish incubator kitchens for food retail operations**

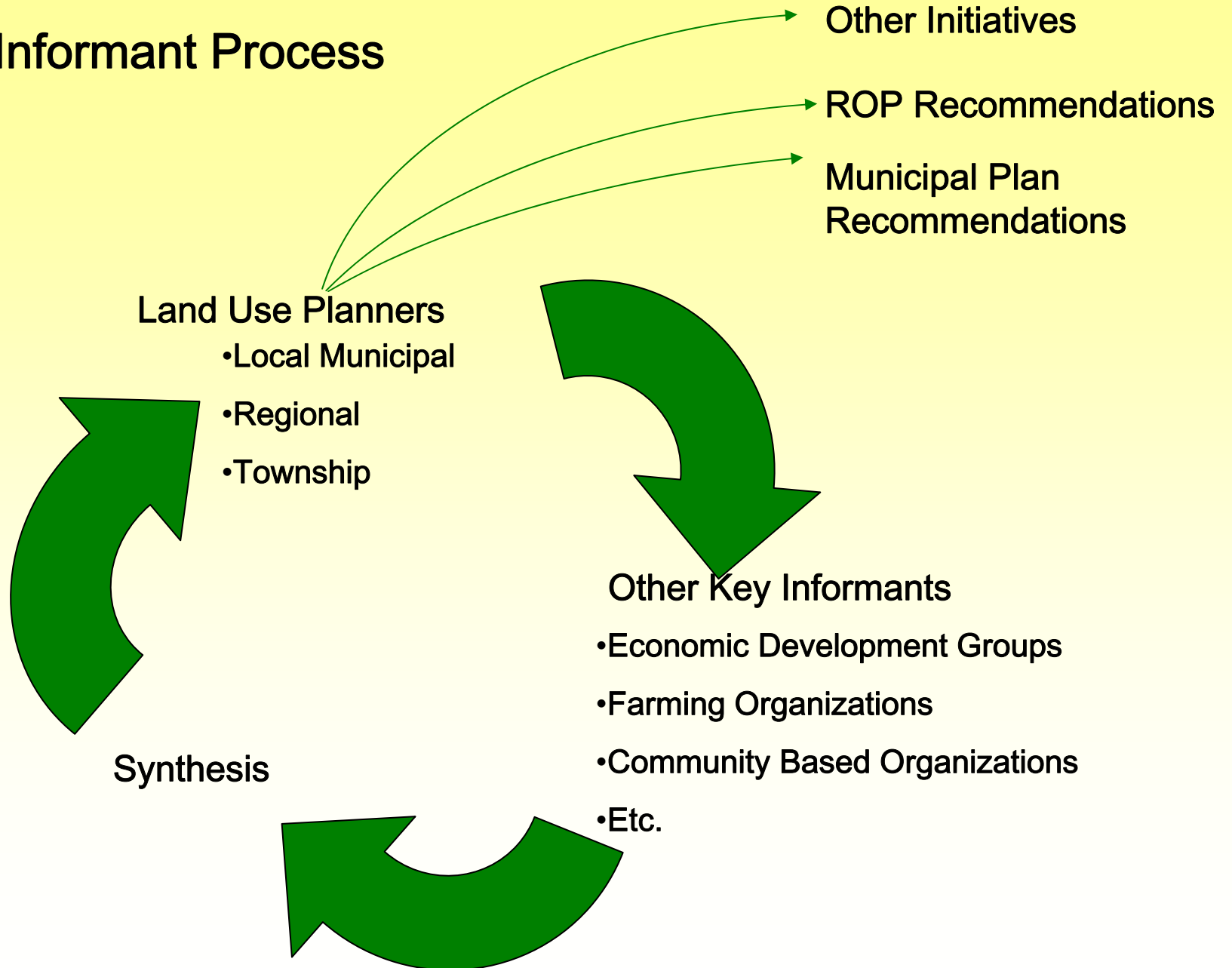
**Strategy 6.3 Encourage a local food distribution sector**

**Strategy 6.4 Establish a local food label**



**Objective 7: To forge a dynamic partnership to implement the Community Food System plan.**

# Key Informant Process





# Towards a Healthy Food System in Waterloo Region

Key Informant  
Stakeholder  
FOCUS GROUPS  
February, 2006

1. Regional & township planners
2. Technical advisory group
3. Old Order Mennonites
4. Food Manufacturers & Distributors
5. Restaurants
6. Farmers
7. Interested individuals 1 (Kitchener)
8. City planners
9. Retailers
10. Institutional Purchasers
11. Interested Individuals 2 (Cambridge)

# 11 Food System Stakeholder Focus Groups in Feb, 2006

Ellen Desjardins and Marc Xuereb

- Sent copies of report and invitation letters
- Advertised in 7 local newspapers
- Set, and achieved, maximum participation between 10 – 12 people/ grp
- Presented all 11 potential strategies
- Asked participants to select a few priorities
- Asked participants “how we can make it happen”

# Next steps:

- Prepare report on stakeholder focus group
- Suggest food policy directions for Regional Growth Management Strategy that have stakeholder support
- Discuss implications for food policies:
  - e.g. zoning or taxation by-laws, resources, consultations, regional guidelines, etc.
- Work towards policies with political support from Regional, City and Township Councils, as well as stakeholder partnerships